Site Inspection Report for the Abandoned and Inactive Mines in Idaho on U.S. Bureau of Land Management Property in the Hailey Bellevue Area: Minnie Moore Group, Blaine County, Idaho

Virginia S. Gillerman
Forrest S. Griggs
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Field Inspection conducted by Virginia S. Gillerman and Forrest S. Griggs
CONTENTS

GEOLOGY ................................................................................................................. 6

HAZARD ASSESSMENT .......................................................................................... 9
SUMMARY .................................................................................................................. 9
SITE ID-0054-00019: MINNIE MOORE (HA-383) .................................................... 9
SITE ID-0054-00020: SILVER STAR/QUEEN (HA-373) ......................................... 10
SITE ID-0054-00025: HEINE/GOLDEN BELL (HA-378) ......................................... 11

REFERENCES .......................................................................................................... 12

SITE INSPECTION REPORTS FOR THE MINNIE MOORE GROUP .................. 13

Minnie Moore (Site 19) ............................................................................................ 14
Silver Star/Queen (Site 20) ...................................................................................... 43
Heine/Golden Bell (Site 25) .................................................................................... 66

ILLUSTRATIONS
Figure 1. Location map of Minnie Moore Gulch and mine sites, Blaine County, Idaho. .... 8

Figure 19-1: Sketch map of the Minnie Moore Mine site. ......................................... 20
Figure 19-2: Topographic map of the Minnie Moore Mine, Blaine County, Idaho (U.S.
Geological Survey Bellevue 7.5 minute topographic map). ....................................... 21
Figure 19-3: Fresh road cut, Minnie Moore site. ....................................................... 26
Figure 19-4: Dump 1 with dock .............................................................. 26
Figure 19-5: Adit 1, open .............................................................................. 27
Figure 19-6: Adit 2, closed ............................................................................. 28
Figure 19-7: Tails dump 1, from Adit 3 .............................................................. 29
Figure 19-8: Decline 1 ............................................................................... 29
Figure 19-9: Shaft 1, closed .......................................................................... 30
Figure 19-10: Adit 4, open ........................................................................ 30
Figure 19-11: Shaft 2, dozed in, possible Minnie Moore decline? ......................... 31
Figure 19-12: Dump 2, Minnie Moore. Note open Silver Star adits on opposite hill. 31
Figure 19-13: Minnie Moore Gulch dumps, shaft foundation in foreground. .......... 32
Figure 19-14: Shaft 3, open, looking down .................................................................... 32
Figure 19-15: Shaft 4, Relief Shaft Decline, open .............................................. 33
Figure 19-16: Dump 3, Relief Shaft Dump, showing oxidation and stratigraphy. ... 33
Figure 19-17: Shaft 4 with 30' high wall in back and gossan .................................. 34
Figure 19-18: Shaft 4, east side of wall, oxidized “vein” and gossan. ..................... 34
Figure 19-19: Tails, east side of Dump 3 ...................................................................... 35
Figure 19-20: Shaft 5, Allen Shaft, and Dump 5, looking down from uphill. ....... 35
Figure 19-21: Shaft 5, open, looking down. Extremely dangerous. ....................... 36
Figure 19-22: Dump 6, close up. ......................................................... 36
Figure 19-23: Dump 6, with dump high on hill to south in back. .................. 37
Figure 19-24: Stope 1, coned and caved. .............................................. 37
Figure 19-25: Adit 5, caved. ................................................................. 38
Figure 19-26: North side Minnie Moore Gulch, Silver Star workings. 8 dumps,
all closed/caved adits. Note dump on top of ridge with fence. ..................... 38
Figure 19-27: Minnie Moore Tailings pile. River area with buildings, equipment,
town to northeast. .......................................................... 39
Figure 19-28: Open adits and ore bin, north side of gulch across from Minnie Moore dump 39
Figure 19-29: Shaft 6, near house, east of dump. ..................................... 40
Figure 19-30: Hoist house interior, south end. ....................................... 40
Figure 19-31: Hoist house interior, north end. ....................................... 41
Figure 19-32: Pit 1. Active gravel crushing operation in pit at south end of tailings. 41
Figure 19-33: Concrete foundations, old Minnie Moore Mill. With misc. equipment, mill
building dismantled. .................................................................... 42

Figure 20-1: Sketch map of the Silver Star/Queen Mine site. ....................... 49
Figure 20-2: Topographic map of the Silver Star/Queen Mine, Blaine County, Idaho (U.S.
Geological Survey Bellevue 7.5 minute topographic map). .......................... 50
Figure 20-3: Dump 1 with loading dock .................................................. 54
Figure 20-4: Dock with tracks. ............................................................... 54
Figure 20-5: Adit 1, caved. ............................................................... 55
Figure 20-6: Adit 2. ........................................................................... 55
Figure 20-7: Dump 2. ........................................................................... 56
Figure 20-8: Shaft 1. ........................................................................... 56
Figure 20-9: Shaft 1. ........................................................................... 57
Figure 20-10: Shaft 2. ......................................................................... 57
Figure 20-11: Dump 4, Minnie Moore in background. ............................... 58
Figure 20-12: Dump 6, one of several dumps without a source. .................. 58
Figure 20-13: Adit 4 interior. .................................................................. 59
Figure 20-14: Adit 4. .......................................................................... 59
Figure 20-15: Adit 4 with Dump 7 and un-GPS’d prospects. ....................... 60
Figure 20-16: Adit 5. .......................................................................... 61
Figure 20-17: Dump 8 and mill. Note wood pile below and Minnie Moore
building and tailings in background. ....................................................... 61
Figure 20-18: Shaft 3. .......................................................................... 62
Figure 20-19: Mill building (?), building on Dump 10, from Queen of the Hills workings. 62
Figure 20-20: Mill. .............................................................................. 63
Figure 20-21: Mill. .............................................................................. 63
Figure 20-22: Adit 6. ........................................................................... 64
Figure 20-23: Work shop, from Dump 10. See frame 11. .......................... 65
GEOLOGY

The Minnie Moore mine, discovered in 1880, is one of the most famous and productive mines in the Mineral Hill District of the Wood River area. Anderson (1950) summarizes the geology and also refers to earlier reports on the history of the area in U.S. Geological Survey Bulletin 814 (pp. 219-234) and in unpublished reports by R.T. and W.J. Walker. More recent geologic work by Link et al. (1995) has redefined the regional stratigraphy and remapped the regional geology. The sediment-hosted mines, silver-lead-zinc producers, are located in the east-west-trending Minnie Moore Gulch (formerly known as Galena Gulch), a short distance west of the towns of Bellevue and Broadford (now gone) (Figure 1). A north-northwest-trending Tertiary (?) fault, concealed under Quaternary deposits, bounds the west margin of the Wood River Valley and forms the linear range front at the east edge of sites #00019 and #00020. A Cretaceous-age granodioritic to dioritic stock outcrops south and west of the mines and is the country rock at the Heine or Golden Bell mine (Site ID-0054-00025, HA-378), which is approximately 1.5 miles west of the Minnie Moore mine. Historic production of the Minnie Moore (Site ID-0054-00019, HA-383) is estimated at $ 9 million and that of the Queen of the Hills mine (Site ID-0054-00020, now named the Silver Star/Queen mine, HA-373), at $ 2.5 million worth. More detailed histories of the mine, its production, and workings can be found in Anderson (1950), USGS Bulletin 814, and Mitchell (IGS Staff Report 00-12, 2000). Mitchell tabulated some 2.5 million ounces of silver and 30.7 million pounds of lead produced in the period 1881-1926.

A badger, digging up pieces of galena for its den, is credited with the discovery of the otherwise concealed ore of the Minnie Moore mine. Within three years, the Minnie Moore shaft had been started and full-scale mining began. The Minnie Moore and adjoining Queen mine went through periods of activity and closure. Several times, the vein was mined up to where the ore pinched out or terminated against a fault. Eventually a new operator would finance exploration, discover the faulted off portion, and mining would recommence. By 1949, only the vertical Rockwell Shaft was operating, as part of an exploration project at the Queen mine. Later exploration and drilling by Exxon took place at the Minnie Moore, but little work has been done since the 1980's. Mitchell (2000) provides a thorough history of the two mines.

The original Minnie Moore shaft is a decline following the Minnie Moore vein which strikes northwest and dips approximately 30 degrees southwest. Black argillite and limestone of the Devonian Milligen Formation host the ore. A sill-like body of diorite overlies the Milligen and both the diorite and the subsequent vein may be along a major zone of thrust(?) faulting (Anderson, 1950). The ores are typically along fissure and fracture zones with minor replacement. Origin of the deposits is problematic, having been ascribed both to hydrothermal veins and replacements and stratabound (syngenic?) lead-zinc-silver deposits. Structure is complex and the ore pinches out or is faulted off in several places in the mine. At least one flat fault, the Rockwell fault, is noted in the literature. The ore and workings extend downwards at least to the 1,000-foot level of the Minnie Moore shaft; ore lenses were up to 400 feet wide and 18 feet thick. The ore consisted of argentiferous galena, pyrite, sphalerite, tetrahedrite,
chalcopyrite, and arsenopyrite in a gangue of siderite, quartz, calcite, and crushed country rock. The amount of limestone and carbonate gangue seen on the waste dumps and associated with the ore can be expected to neutralize any acidic waters generated. Three major inclined shafts, the Minnie Moore, Relief, and Allen, and one vertical shaft, the Rockwell, operated on the Minnie Moore vein.

The Silver Star/Queen mine (Site #00020), formerly known as the Queen of the Hills mine, is located on the north side of Minnie Moore Gulch, across from the Minnie Moore property (Site #00019). Mining there also started in the 1880's. Two tunnels, the Moulton and the lower Lusk Tunnel (probably Adit 6) were the major workings. An inclined shaft connected the Lusk with at least five levels of lower drifts. Two northwest-striking veins, the Queen or Hanging Wall, and the Footwall vein dip 40-65 degrees southwest. The fracture-filling veins cut black siliceous argillite of the Milligen Formation. Mineralogy consisted of sphalerite, galena, and lesser tetrahedrite and pyrite/marcasite in a gangue of quartz, siderite, and calcite (Anderson, 1950).

The much smaller Heine or Golden Bell mine, located near the head of Minnie Moore Gulch, was principally a gold producer. The main workings were two tunnels with an intermediate level. The mineralized fracture zone had a southwesterly dip of 35-60 degrees and traversed fractured and altered diorite. The ore was oxidized above the upper level, as is evident in the field. Unoxidized ore consisted of pyrite with lesser arsenopyrite and chalcopyrite. Gold was associated with the sulfides. Minor pyrite was seen on the dump for Adit 2.
Figure 1. Location map of Minnie Moore Gulch and mine sites, Blaine County, Idaho.
HAZARD ASSESSMENT

SUMMARY

Sites # 00019 and # 00020 both have significant physical safety hazards as summarized in Table 1. In addition, the Minnie Moore mill tailings are located in the floodplain of the Big Wood River and constitute a significant potential environmental hazard. While the tailings are apparently stable if undisturbed, a major flood event could mobilize them into the Big Wood River. The tailings can be expected to be high in base metals and possibly arsenic. The tails are probably from a flotation mill in the 1960's which reprocessed earlier gravity concentrated tailings of the Minnie Moore. While sites # 00019 and # 00020 are dominantly on private property and a caretaker is present most of the time, the mines are adjacent to the city of Bellevue and there is significant potential for public access. No action is needed at the Heine mine (Site #00025), as there are no open workings and no apparent environmental problem associated with the mine.

Open shafts constitute the major physical hazards at the Minnie Moore mine and Silver Star/Queen mine. In particular, Shaft 1 and possibly Adit 2, both open, at the Silver Star (Site # 00020) are very close to BLM property. Shaft 1, 2, and 3 are unmarked and very dangerous; they are prominently located on a ridge line where recreationists might hike or snowmobile. It should be closed or grated. Adit 4 is also open and easily reached from the road.

Even though on private property, the open declines at the Minnie Moore are quite hazardous. The Allen Shaft (Shaft 5) is a huge hole, which someone hiking on the BLM property uphill could fall or slide into. It would be virtually impossible to get out of and is extremely dangerous. The Relief Shaft (Shaft 3) is a very accessible, inviting open decline with good geological exposures at the portal. Perhaps the BLM, State, and private owner could cooperate to install safety features at the portal.

SITE ID-0054-00019: MINNIE MOORE (HA-383)

The patented Minnie Moore claims appear to cover the actual shafts and adits, although some of the caved workings and drill roads higher on the hill may be on BLM ground or close to it (see Figure 19-2). The mill tailings are on private ground on the western edge of the floodplain of the Big Wood River a short distance from residences in Bellevue. Ownership of the land on which the tailings and the various shop buildings and mill foundations are located was not investigated. The owner of the mining claims, Carl Johnston, of Bellevue said that he sold the tailings area to a Mick Halverson a few years ago as a potential real estate development. There did not appear to be a very serious wind erosion problem, but excavation or flooding would release a major amount of the tails into the Big Wood River drainage. Reportedly the tails are wet slimes some 20 feet down. Perhaps some way to stabilize the tails or isolate them from any flood event can be devised.
The water upstream in Minnie Moore Gulch showed minimal effect from the waste dumps. Most of the dumps are partially vegetated. Just below Dump 4, the water had a pH of 7.7 and specific conductivity of 190, but by the time the creek flowed past the Minnie Moore dump the pH had risen to 8.4 and conductivity was only 180. Vegetation along the stream looked healthy. More serious sedimentation may occur seasonally as the road crosses the creek and some dirtwork was noted in the lower portion of the gulch near to the shop buildings.

Several serious physical safety hazards exist on the Minnie Moore property. Although the area is posted, a good road goes up Minnie Moore Gulch, providing access to most of the area on sites # 00019 and # 00020. While a caretaker may be there some of the time, one can easily drive onto the property without being challenged much of the time. In addition, recreation users could access the property by hiking or snowmobiling from adjacent ridges. The Allen Shaft (Shaft 5) is the most serious hazard; it is an enormous hole some 50 feet across and goes down at a steep angle. The south side of the shaft excavation is undercut and the slope above it is very steep. It is also very difficult to see the danger when walking across that sage-covered steep slope. If one slipped and slid into the shaft, it would impossible to get out without assistance and ropes. Shaft 5 is so large that it will be difficult to close or grate. A tall fence and sign around the shaft area may be more practical and economical. Shaft 4, the Relief Shaft is more easily accessible and goes in at a gentle (-20 degrees) decline. It too is wide open and very tempting to an explorer. A gate could be installed that would preserve the excellent geological exposures at the portal. Shaft 6, the more modern, Rockwell Shaft, is at the top of the dump, a short way from the houses. Although timbers and a rundown fence partially cover the opening and would prevent most accidental falls, a more robust covering is suggested. Other openings are Adit 4 and Shaft 3, just east of the closed Minnie Moore shaft, and Adit 1, higher on the hill.

SITE ID-0054-00020: SILVER STAR/QUEEN (HA-373)

Several locals had warned us to look out for deep open shafts on the ridge above the Silver Star mine, and they were right. Shafts 1, 2, and 3 are all open and deep. They lie along the ridge crest above the main Silver Star mine workings. The small dumps are not particularly noticeable and someone not familiar with mining or topography could be caught unaware. If the shafts were partially bridged and covered with snow, they would be impossible for a skier or snowmobiler to spot in time. Shaft 2 was partially caved and had a broken fence, but that was all. Shaft 1 is probably on private land but sits near the BLM property (see Figure 20-2). The shaft openings are 10-20 feet on a side, so some type of closure is feasible and recommended. A sturdy metal fence and warning sign would be minimal.

Adit 4 on the Silver Star site is also open at least 100 feet. It appeared to be in good shape and is easily visible from the road a short distance away. It would be perfect for a party. The other significant hazard at Site # 00020 is the 50-foot tall concrete mill tower and the pile of collapsed timbers and scrap on the prominent dump at Adit 6. Some cleanup of the dump and building would help prevent visitors from injury.
SITE ID-0054-00025: HEINE/GOLDEN BELL (HA-378)

Although the yellow brown dump is easily visible high on the ridge at the head of Minnie Moore Gulch, the road is washed out and the area appeared to be little visited. Water discharging from the collapsed adit was clear and had a pH of 8.3 with a specific conductivity of 160. Nearby riparian vegetation was healthy and abundant. No significant environmental or physical hazards were noted. No action is recommended.

Table 1. Summary of the Minnie Moore Group sites in the Hailey-Bellevue area, Blaine County Idaho. Site name in bold indicates property has significant potential environmental or physical hazards. Under “Environmental Hazards”: T= a mill tailings problem, D= dump material in or near waterway, WQ= potentially poor water quality. Under “Physical Hazards”: Features: A= adit, P= prospect pit, S= shaft, St= stope; Condition: O= open, C=Caved, ?=Unknown (condition or number).

<table>
<thead>
<tr>
<th>BLM/Site Number</th>
<th>GPS Property Number</th>
<th>Mine Name</th>
<th>Environmental Hazard</th>
<th>Physical Hazard</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>ID-0054-00019</td>
<td>HA-383</td>
<td>Minnie Moore</td>
<td>T</td>
<td>4SO 2AO 2SC 3AC 1STO</td>
<td>Tailings in flood plain; open shafts very dangerous. Need fence at least.</td>
</tr>
<tr>
<td>ID-0054-00020</td>
<td>HA-373</td>
<td>Silver Star/Queen</td>
<td></td>
<td>3SO 2AO 4AC</td>
<td>Open shafts are hazardous. Shaft 1 on BLM?</td>
</tr>
<tr>
<td>ID-0054-00025</td>
<td>HA-378</td>
<td>Heine/Golden Bell</td>
<td></td>
<td>4AC</td>
<td>No action needed.</td>
</tr>
</tbody>
</table>
REFERENCES


SITE INSPECTION REPORTS FOR THE MINNIE MOORE GROUP
A. SITE IDENTIFICATION
ID Number: ID 0054-0000019
Site/Mine Name: Minnie Moore, Primary Commodity: 341-Pb, 540-Ag
IGS Number: HA-383

B. LOCATION DATA
USGS Quad: Bellevue LAT: _____ LONG: _____ OR
UTM Coord: 4816092 N 719769 E Zone 11 AND
Township: 2N Range: 18E Section: 34 & 35 Subdivision: NE/4 (34)
Meridian: 08 County: 013 NW/4 (35)

C. ACCESS
Visible from: Nearest road 3 / Trail ___ / Population center 3 ___
Access by: 2wd X / 4wd ___ / Hike ___ / Other ___
Access disturbance in need of reclamation: Length ___ / Width ___ / Acres ___
Road Log: Broadford Road west from Bellevue.

Recent human use: X Describe: Occupied.

D. SITE DESCRIPTION
Acreage: _____ Elevation: _____
General slope (degrees): 0-10 ___ / 11-35 X ___ / >35 ___
Floodplain: Disturbance in X ___ / Adjacent to X ___ / NA ___

E. MINING/EXPLORATION FEATURES (Provide numbers of features)
Open adits 2 / Closed adits 3 / Open inclines 0 / Closed inclines 0 ___
Open shafts 4 / Closed shafts 2 / Stopes 1-Decline
Other openings ___ Type Open shaft and other are decline.
Trenches ____ Length ____ / Prospects 2 / Open drill holes ___
Pits >30 ft. deep 1 / Pits <30 ft. deep ___ / Pit highwall length 200'
Waste dumps: <0.1 ac 5 / 0.1 - 5 ac 4 / >5 ac ___
Tailings: <0.1 ac 2 / 0.1 - 5 ac 1 / >5 ac 1 - Thick 25', interior
Heaps ___ / Dredge ___ Ponds ___ / Dams ___ reported to be slime.
Mills 1 Type 3, 2, ___ - Not sure which mill type, all tails from several mills, including gravity, flotation.
Explosives ___ Describe: None seen, not examined.
Equipment/Machinery +10/lots / Headframes ___ / Trestles/tramways ___
Powerlines 1 / Ore Chutes ___
Structures 5 Type Various business buildings, still used: occupied. NOT EXAMINED.
Condition: Good X / Fair ___ / Poor ___ / Number Locked 2(?) not examined
Homesties 1
F. ENVIRONMENTAL FEATURES

VEGETATION
Vegetation: Healthy __X__/ Stressed ____/ Dead ____/ Nonexistent ____
Evidence of natural revegetation: Yes / Describe: Some cheat grass, dumps well vegetated with sage, steppe riparian.

ANIMALS
Evidence: __X__/ Presence: __N__/ Describe: Deer and elk, tracks and droppings.

GEOLOGY
Staining of soils: No Describe: Local, some dumps.
Sulfide minerals: Trace. Type(s): galena, pyrite seen on Relief Shaft dump. Calcite, siderite and limestone on dump.
Tailings: Confined ____/ Unconfined __X__/ Unknown ____

HYDROLOGY
Water flowing from workings: ___/ pH _____ Conductivity _____ Flow (GPM) _____ Sketch #
Standing water in workings: ___/ ____ _____ _____ _____
Water through/over tailings: ___/ ____ _____ _____ _____
Adjacent to: waste rock: __X__/ 8.4 180 20 100' below Minnie Moore dump
Near: ore: __X__/ 7.7 190 20 Below Dump 4

Adjacent water sources:
Ground water: ___/ Type __ PH _____ Conductivity _____ Flow (GPM) _____ Distance _____
Surface water: Creek _____ _____ _____ _____
Surface H2O above site: _____ _____ _____ _____
Surface H2O below site: _____ _____ _____ _____
Evidence of aquatic life: __X__/ Location: Minnie Moore Creek Describe: Bugs, Riparian vegetation healthy.

Water bed color: White ____/ Yellow ____/ Yellow-Orange ____/ Orange __
Brown __X__/ Green ____/ Grey-Black __X__/ Other _______

Samples collected: _1_ Sketch #s: Sample of Minnie Moore tails, no water samples.

G. POTENTIAL HAZARDOUS MATERIALS (Provide numbers of features)

Chemical piles or spills _____ / Acid or Chemical odor _____ / Asbestos _____
Petrochemical Products _____ / Dump sites _____
Power Substations _____ / Transformers 1 seen
Evidence of Underground Storage Tanks: ____ Describe: ____________________________

Other: NOTE: Active site, not examined in detail. Considerable power lines, equipment on site.
H. RECLAMATION

SITE CONDITIONS
Erosion: Rills _____ / Gullies _____ / Sheetwash _____ Nothing major.
Unstable Rock _____ / Slope instability _____ / Wind erosion _____

MITIGATION STATUS
None _____ / Fencing N / Signs 1 / Safety hazards mitigated 1, main shaft _____
Other: dozed in. Private property sign; no trespassing. Caretaker on site. Access limited.

Mitigation condition: Good _____ / Fair X / Poor _____
Site ID tags: _____ / Locations: __________

OPTIONAL: Identify the critical reclamation measures needed:

X Cable nets, grates
X Permanent seal
_____ Gates
? Backfill openings, pit
_____ Recontour
X Fences
? Warning signs
_____ Plug open drill holes
_____ Other: Active site.

Topsoil, soil amendments
Revegetation
Stabilize/destroy structures
Drainage control
Water treatment
Wildlife closure
No action
Trash / clean up

I. SITE SKETCH
Show orientation, approximate scale, access route, adjacent drainages, and locations of features on attached sketch map. Use the feature symbols provided in the map legend on page 6.

J. GLOBAL POSITIONING SYSTEM DATA X Rover File name: HA-383

K. PHOTOGRAPHS
Number of photographs taken: 31 total, Roll 98-4 (Neg #2848) frames 1-31

L. ACTION
Site requires immediate investigation No by: Law Enforcement _____ / BLM _____
HAZMAT _____ / Other _____

Reason: Owner on site is good protection.
### M. FEATURES - PROVIDE DIMENSIONS IN FEET.

<table>
<thead>
<tr>
<th>Feature</th>
<th>Length</th>
<th>Width</th>
<th>Height or Depth</th>
<th>mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tails 1</td>
<td>@ 2 acres</td>
<td></td>
<td>25'</td>
<td>Perimeter 1. ? Needs cap?</td>
</tr>
<tr>
<td>Adit 1</td>
<td>20'</td>
<td>8'</td>
<td>5'</td>
<td>OPEN, frame in good shape.</td>
</tr>
<tr>
<td>Dump 1</td>
<td>50'</td>
<td>20'</td>
<td>10'</td>
<td>Dock collapsed.</td>
</tr>
<tr>
<td>Adit 2</td>
<td></td>
<td></td>
<td></td>
<td>Closed, vegetated. No dump.</td>
</tr>
<tr>
<td>Adit 3</td>
<td></td>
<td></td>
<td></td>
<td>Closed, no dump, no photo.</td>
</tr>
<tr>
<td>Decline 1</td>
<td>6'</td>
<td>4'</td>
<td>15'</td>
<td>Rough hewn, 45° oval 6 x 4 ft..</td>
</tr>
<tr>
<td>Shaft 1</td>
<td>10'</td>
<td>10'</td>
<td>4'</td>
<td>Closed, very shallow, no dump.</td>
</tr>
<tr>
<td>Adit 4</td>
<td>60'+</td>
<td>4'</td>
<td>6'+</td>
<td>OPEN, good shape, argillite.</td>
</tr>
<tr>
<td>Shaft 2 (Minnie Moore?)</td>
<td></td>
<td></td>
<td></td>
<td>Closed. Dozed over since 1994 (??).</td>
</tr>
<tr>
<td>Dump 2</td>
<td>200'</td>
<td>60'</td>
<td>40'</td>
<td>OK. Lots of limestone.</td>
</tr>
<tr>
<td>Shaft 3</td>
<td>8'</td>
<td>8'</td>
<td>200'</td>
<td>OPEN, 15' high wall. 100-150' east of Minnie Moore dump.</td>
</tr>
<tr>
<td>Shaft 4 (Relief Shaft)</td>
<td>200'+</td>
<td>8'</td>
<td>4'</td>
<td>OPEN, Relief Shaft, -25° decline. Good geology.</td>
</tr>
<tr>
<td>Dump 3</td>
<td>50'</td>
<td>100'</td>
<td>30'</td>
<td>Oxidized, brown/orange.</td>
</tr>
<tr>
<td>Dump 4</td>
<td>15'</td>
<td>50'</td>
<td>20'</td>
<td>Orange- sulfide/SO4 rich. Old dump on east side of Dump 3 (Relief Shaft).</td>
</tr>
<tr>
<td>Shaft 5 Allen Shaft</td>
<td>~50'</td>
<td>50'</td>
<td>40+</td>
<td>OPEN, very dangerous! -35° decline</td>
</tr>
<tr>
<td>Dump 5</td>
<td>100'</td>
<td>150'</td>
<td>40'</td>
<td>3 lobed, vegetated.</td>
</tr>
</tbody>
</table>
### M. FEATURES (Continued) - PROVIDE DIMENSIONS IN FEET.

<table>
<thead>
<tr>
<th>Feature</th>
<th>Length</th>
<th>Width</th>
<th>Height or Depth</th>
<th>mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dump 6</td>
<td>30'</td>
<td>30'</td>
<td>15'</td>
<td>Mix of sediments and diorite, source?</td>
</tr>
<tr>
<td>Prospect 1</td>
<td>10'</td>
<td>10'</td>
<td>5'</td>
<td>Ok. On road SE of Minnie Moore dump. Laminated limestone and argillite.</td>
</tr>
<tr>
<td>Stope 1</td>
<td>50'</td>
<td>30'</td>
<td>20'</td>
<td>Caved and coned. Level below Prospect 1.</td>
</tr>
<tr>
<td>Adit 5</td>
<td></td>
<td></td>
<td></td>
<td>Caved. In drainage, below Stope 1, photo 23.</td>
</tr>
<tr>
<td>Dump 7</td>
<td>20'</td>
<td>40'</td>
<td>20'</td>
<td>Filling in gully. For Adit 5.</td>
</tr>
<tr>
<td>Prospect 2</td>
<td>10'</td>
<td>5'</td>
<td>5'</td>
<td>Caved (?) pit.</td>
</tr>
<tr>
<td>Dump 8</td>
<td>20'</td>
<td>10'</td>
<td>1'</td>
<td>From Prospect 2.</td>
</tr>
<tr>
<td>Shaft 6</td>
<td>10'</td>
<td>10'</td>
<td>~80'</td>
<td>OPEN. Vertical, cement-lined, two compartment, some timbers over top. Hoist house and hoists nearby.</td>
</tr>
<tr>
<td>Rockwell</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shaft.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dump 9</td>
<td>100'</td>
<td>200'</td>
<td>50'</td>
<td>For Shaft 6. Trailer house and stable on it.</td>
</tr>
<tr>
<td>Pit 1</td>
<td></td>
<td></td>
<td></td>
<td>Operating quarry. Crushing for gravel, pit at south end of tailings pile.</td>
</tr>
<tr>
<td>Mill 1</td>
<td></td>
<td></td>
<td></td>
<td>Several mills were at this site, all gone except tails and concrete foundations.</td>
</tr>
</tbody>
</table>
**Minnie Moore dump and Shaft 2:** Dozed in. Shaft site hard to spot exactly. GPS point at our best guess. Limestone and argillite on dump. Dump has grey color. 2-3 dangerous open adits and shafts just east of Minnie Moore Dump.

**Relief Shaft/Decline:** Shaft 4, next to large dump west of Minnie Moore. Dump 3/4 only one with major orange/brown color. Sulferous smell walking up east side of Dump 3. One or two caved shafts/adits or deep gullies. Both this dump and Minnie Moore dump strongly eroded with big gullies cutting through them. Pyrite and minor galena and gossan on dump.

Spectacular example of shallow decline - wide open, eight feet across, four feet high, goes in over 100 feet (several hundred feet in literature). Decline at ~20 °, oxidized ore exposed. Shaft should be gated and fenced, but leave cut with rocks exposed.

**Dump 4:** Old part of Dump 3. East side of Dump 3 just above creek, ferricrete like. Bright orange-yellow-brown. Pyrite abundant, some galena, much gossan after Fe carbonate. Strong sulfur smell walking up road over dump. Could be some old (very) gravity tails mixed in with coarse chunks.

**Shaft 5, Allen Shaft:** OPEN! Underhang, NEEDS MAJOR CLOSURE. Decline -35 °, six feet high, ten feet wide, narrowing to six feet. Coned excavation rectangular 40 feet by 30 feet with overhang on south side. Minor scrap metal on large flat topped dump. Had to walk, access road is luckily washed out.

**Dump 6:** Looks out of place. No shaft or adit seen. Dozer scrapes on hill to north in sanded diorite. Dump is fresh diorite and argillite, a few bricks.

**Shaft 6, Rockwell Shaft:** Open, with timbers partially over two compartment, concrete-lined, vertical shaft.

**Gravel Pit/Crusher/Quarry Operation:** mining argillite and limestone and crushing. ACTIVE.
Figure 19-1: Sketch map of the Minnie Moore Mine site.
Minnie Moore Mine Site
BLM#: ID-0054-00019
IGS#: HA-383

Problems:
4 open shafts.
2 open adits.
Shaft 5 extremely dangerous.
Tailings in flood plain.

Figure 19-2: Topographic map of the Minnie Moore Mine, Blaine County, Idaho (U.S. Geological Survey Bellevue 7.5 minute topographic map).
<table>
<thead>
<tr>
<th>Roll Number</th>
<th>Frame Number</th>
<th>Direction</th>
<th>Location/Feature</th>
</tr>
</thead>
<tbody>
<tr>
<td>98-4 (Neg#2848)</td>
<td>1a</td>
<td>245</td>
<td>Fresh roadcut.</td>
</tr>
<tr>
<td></td>
<td>2a</td>
<td>165</td>
<td>Dump #1 w/dock.</td>
</tr>
<tr>
<td></td>
<td>3a</td>
<td>170</td>
<td>Adit #1, open.</td>
</tr>
<tr>
<td></td>
<td>4a</td>
<td></td>
<td>Adit 2, closed.</td>
</tr>
<tr>
<td></td>
<td>5a</td>
<td>030</td>
<td>Tails, Dump #1, from Adit #3.</td>
</tr>
<tr>
<td></td>
<td>6a</td>
<td>180</td>
<td>Decline #1.</td>
</tr>
<tr>
<td></td>
<td>7a</td>
<td>210</td>
<td>Shaft #1, closed.</td>
</tr>
<tr>
<td></td>
<td>8a</td>
<td>210</td>
<td>Adit #4, open.</td>
</tr>
<tr>
<td></td>
<td>9a</td>
<td>260</td>
<td>Shaft #2, dozed in. Minnie Moore decline?</td>
</tr>
<tr>
<td></td>
<td>10a</td>
<td>010</td>
<td>Dump #2, Minnie Moore, large. Note Silver Star open</td>
</tr>
<tr>
<td></td>
<td>11a</td>
<td>280</td>
<td>Adit #5 on opposite hill.</td>
</tr>
<tr>
<td></td>
<td>12a</td>
<td>210</td>
<td>View west up Minnie Moore Gulch at dumps, shaft foundation in foreground.</td>
</tr>
<tr>
<td></td>
<td>13a</td>
<td>180</td>
<td>Shaft #3, open, view looking down.</td>
</tr>
<tr>
<td></td>
<td>14a</td>
<td>015</td>
<td>Shaft #4, Relief Shaft Decline, open.</td>
</tr>
<tr>
<td></td>
<td>15a</td>
<td>200</td>
<td>Dump #3, decline, showing oxidation and stratigraphy.</td>
</tr>
<tr>
<td></td>
<td>16a</td>
<td>100</td>
<td>Shaft #4 with 30’ highwall in back and gossan cut.</td>
</tr>
<tr>
<td></td>
<td>17a</td>
<td>300</td>
<td>Shaft #4 east side of wall, oxidized “vein” and gossan.</td>
</tr>
<tr>
<td></td>
<td>18a</td>
<td>340</td>
<td>Tails (?) in east side of Dump #3.</td>
</tr>
<tr>
<td></td>
<td>19a</td>
<td>250</td>
<td>Shaft #5, Allen Shaft and Dump #5, view looking downhill.</td>
</tr>
<tr>
<td></td>
<td>20a</td>
<td>150</td>
<td>Shaft #5, looking down. Open, extremely dangerous.</td>
</tr>
<tr>
<td></td>
<td>21a</td>
<td>180</td>
<td>Dump #6, close up.</td>
</tr>
<tr>
<td></td>
<td>22a</td>
<td>160</td>
<td>Dump #6, with dump high on hill to south in background.</td>
</tr>
<tr>
<td></td>
<td>23a</td>
<td>230</td>
<td>Stope #1, coned and caved.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Adits, caved.</td>
</tr>
</tbody>
</table>
Fill out the following for each photo:

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<tr>
<th>Roll Number</th>
<th>Frame Number</th>
<th>Direction</th>
<th>Location/Feature</th>
</tr>
</thead>
<tbody>
<tr>
<td>98-4 (Neg#2848)</td>
<td>24a</td>
<td>010</td>
<td>North side of Minnie Moore Gulch, Silver Star- 8 dumps. all closed adits. Note dump on top of ridge with fence-shaft site?.</td>
</tr>
<tr>
<td>“</td>
<td>25a</td>
<td>080</td>
<td>Minnie Moore tailings pile. River area, with buildings. equipment, town to east.</td>
</tr>
<tr>
<td>“</td>
<td>26a</td>
<td>010</td>
<td>Open adits. ore bin on north side of Gulch across from Minnie Moore Dump (Silver Star).</td>
</tr>
<tr>
<td>“</td>
<td>27a</td>
<td>030</td>
<td>Shaft #6, near house, east of dump.</td>
</tr>
<tr>
<td>“</td>
<td>28a</td>
<td>180</td>
<td>Hoist house interior.</td>
</tr>
<tr>
<td>“</td>
<td>29a</td>
<td>360</td>
<td>Hoist house interior.</td>
</tr>
<tr>
<td>“</td>
<td>30a</td>
<td>100</td>
<td>Pit #1. Active gravel crushing operation in Pit 1 in south end of tailings area.</td>
</tr>
</tbody>
</table>
A. SITE IDENTIFICATION
Other BLM ID Number: ____________________________
Locatable _____ / Leasable _____ / Salable _____
Operator (last known): ____________________________
Commodities: Primary _____________ / Secondary ____________
Other Agency ID Number: ____________________________ Agency: ____________

B. LOCATION DATA
Site is in _____ or within a mile _____ of:
ACEC _____ / WSA _____ / Wilderness Area _____ / Riparian Area _____
Nominated for Designation to National Wild & Scenic River System _____

C. ACCESS
Distance in Miles to Closest Public:
Road ________ Dwelling ________ School ________
Potable Water ________ Water Source ________ Trail ________
Campground/Picnic Area ________ Other Public Use ________

D. SITE DESCRIPTION
Nearest named drainage: ____________________________ Distance: ____________

G. POTENTIAL HAZARDOUS MATERIALS
Site is under regulatory action _____
CERCLIS Number ____________________________ OR
Federal Docket Number ____________________________

H. RECLAMATION: Closure Information
Clearances: Threatened & Endangered Species ____________________________
Cultural Resources ____________________________
Historic ____________________________
Other ____________________________

Date reclamation completed: ____________
Type of closure: ____________________________ Cost: ____________
Comments: ____________________________________________________________________________
________________________________________________________________________________________
________________________________________________________________________________________
Monitoring frequency: ________ Dates of monitoring visits: ____________________________
________________________________________________________________________________________
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<th>Carl Johnston</th>
</tr>
</thead>
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<td>Address</td>
<td>Broadford Road, Bellevue</td>
</tr>
<tr>
<td>Phone</td>
<td></td>
</tr>
<tr>
<td>Affiliation</td>
<td>Owner of mining area.</td>
</tr>
<tr>
<td>Comments</td>
<td>Does not own tailings. Sold them to Mick Halverson a few years ago. He wanted to put houses on them. Johnston is in Las Vegas trying to raise money to mine new galena vein showing in outcrop near gravel pit on south end of tailings.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Name</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
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<tr>
<td>Phone</td>
<td></td>
</tr>
<tr>
<td>Affiliation</td>
<td></td>
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<td>Comments</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Name</th>
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<tr>
<td>Address</td>
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<tr>
<td>Phone</td>
<td></td>
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<tr>
<td>Affiliation</td>
<td></td>
</tr>
<tr>
<td>Comments</td>
<td></td>
</tr>
</tbody>
</table>
Figure 19-3: Fresh road cut, Minnie Moore site. View looking 245°. (Roll 98-4, neg. #2848, frame 1a; photographed by V.S. Gillerman; June 23, 1998).

Figure 19-4: Dump 1 with dock. View looking 165° (Roll 98-4, neg. #2848, frame 2a; photographed by V.S. Gillerman; June 23, 1998).
Figure 19-5: Adit 1, open. View looking 170° (Roll 98-4, neg. #2848, frame 3a; photographed by V.S. Gillerman; June 23, 1998).
Figure 19-6: Adit 2, closed. (Roll 98-4, neg. #2848, frame 4a; photographed by V.S. Gillerman; June 23, 1998).
Figure 19-7: Tails dump 1, from Adit 3. View looking 030 ° (Roll 98-4, neg. #2848, frame 5a; photographed by V.S. Gillerman; June 23, 1998).

Figure 19-8: Decline 1. View looking 180 ° (Roll 98-4, neg. #2848, frame 6a; photographed by V.S. Gillerman; June 23, 1998).
Figure 19-9: Shaft 1, closed. View looking 210° (Roll 98-34 neg. #2848, frame 7a; photographed by V.S. Gillerman; June 23, 1998).

Figure 19-10: Adit 4, open. View looking 210° (Roll 98-4, neg. #2848, frame 8a; photographed by V.S. Gillerman; June 23, 1998).
Figure 19-11: Shaft 2, dozed in, possible Minnie Moore decline? View looking 260° (Roll 98-4, neg. #2848, frame 9a; photographed by V.S. Gillerman; June 23, 1998).

Figure 19-12: Dump 2, Minnie Moore. Note open Silver Star adits on opposite hill. View looking 010° (Roll 98-4, neg. #2848, frame 10a; photographed by V.S. Gillerman; June 23, 1998).
Figure 19-13: Minnie Moore Gulch dumps, shaft foundation in foreground. View looking 280° (Roll 98-4, neg. #2848, frame 11a; photographed by V.S. Gillerman; June 23, 1998).

Figure 19-14: Shaft 3, open, looking down. View looking 210° (Roll 98-4, neg. #2848, frame 12a; photographed by V.S. Gillerman; June 23, 1998).
Figure 19-15: Shaft 4, Relief Shaft Decline, open. View looking 180° (Roll 98-34 neg. #2848, frame 13a; photographed by V.S. Gillerman; June 23, 1998).

Figure 19-16: Dump 3, Relief Shaft Dump, showing oxidation and stratigraphy. View looking 180° (Roll 98-4, neg. #2848, frame 14a; photographed by V.S. Gillerman; June 23, 1998).
Figure 19-17: Shaft 4 with 30' high wall in back and gossan. View looking 200° (Roll 98-4, neg. #2848, frame 15a; photographed by V.S. Gillerman; June 23, 1998).

Figure 19-18: Shaft 4, east side of wall, oxidized "vein" and gossan. View looking 100° (Roll 98-4, neg. #2848, frame 16a; photographed by V.S. Gillerman; June 23, 1998).
Figure 19-19: Tails, east side of Dump 3. View looking 300° (Roll 98-4, neg. #2848, frame 17a; photographed by V.S. Gillerman; June 23, 1998).

Figure 19-20: Shaft 5, Allen Shaft, and Dump 5, looking down from uphill. View looking 340° (Roll 98-4, neg. #2848, frame 18a; photographed by V.S. Gillerman; June 23, 1998).
Figure 19-21: Shaft 5, open, looking down. Extremely dangerous. View looking 250° (Roll 98-34 neg. #2848, frame 19a; photographed by V.S. Gillerman; June 23, 1998).

Figure 19-22: Dump 6, close up. View looking 150° (Roll 98-4, neg. #2848, frame 20a; photographed by V.S. Gillerman; June 23, 1998).
Figure 19-23: Dump 6, with dump high on hill to south in back. View looking 180° (Roll 98-4, neg. #2848, frame 21a; photographed by V.S. Gillerman; June 23, 1998).

Figure 19-24: Stope 1, coned and caved. View looking 160° (Roll 98-4, neg. #2848, frame 22a; photographed by V.S. Gillerman; June 23, 1998).
Figure 19-25: Adit 5, caved. View looking 230° (Roll 98-4, neg. #2848, frame 23a; photographed by V.S. Gillerman, June 23, 1998).

Figure 19-26: North side Minnie Moore Gulch, Silver Star workings. 8 dumps, all closed/caved adits. Note dump on top of ridge with fence. View looking 010° (Roll 98-4, neg. #2848, frame 24a; photographed by V.S. Gillerman, June 23, 1998).
Figure 19-27: Minnie Moore Tailings pile. River area with buildings, equipment, town to northeast. View looking 080° (Roll 98-4 neg. #2848, frame 25a; photographed by V.S. Gillerman; June 23, 1998).

Figure 19-28: Open adits and ore bin, north side of gulch across from Minnie Moore dump. View looking 010° (Roll 98-4, neg. #2848, frame 26a; photographed by V.S. Gillerman; June 23, 1998).
Figure 19-29: Shaft 6, near house, east of dump. View looking 070° (Roll 98-4, neg. #2848, frame 27a; photographed by V.S. Gillerman; June 23, 1998).

Figure 19-30: Hoist house interior, south end. View looking 180° (Roll 98-4, neg. #2848, frame 28a; photographed by V.S. Gillerman; June 23, 1998).
Figure 19-31: Hoist house interior, north end. View looking 360° (Roll 98-4, neg. #2848, frame 29a; photographed by V.S. Gillerman; June 23, 1998).

Figure 19-32: Pit 1. Active gravel crushing operation in pit at south end of tailings area. View looking 100° (Roll 98-4, neg. #2848, frame 30a; photographed by V.S. Gillerman; June 24, 1998).
Figure 19-33: Concrete foundations, old Minnie Moore Mill. With misc. equipment, mill building dismantled. View looking 090° (Roll 98-4 neg. #2848, frame 31a; photographed by V.S. Gillerman; June 24, 1998).
A. SITE IDENTIFICATION
ID Number: 1 D - 0 0 5 4 - 0 0 0 2 0
Site/Mine Name: Silver Star/Queen Primary Commodity: 340-Pb, 540-Ag
IGS Number: Ha-373

B. LOCATION DATA
USGS Quad: Bellevue LAT: 43°28' LONG: 114°16' OR
UTM Coord: 4816189 N 719638 E Zone 11 AND
Township: 2N Range: 18E Section: 34 & 35 Subdivision: NE/NE (34)
Meridian: 08 County: 013 NW/NW (35 & 27)
Surface: BLM X / Non-BLM X Mineral Estate: BLM X / Non-BLM X

C. ACCESS
Visible from: Nearest road 3 / Trail ___ / Population center 3
Access by: 2wd X / 4wd ___ / Hike ___ / Other ___
Access disturbance in need of reclamation: Length ___ / Width ___ / Acres ___
Road Log:

Recent human use: X Describe: Occupied.

D. SITE DESCRIPTION
Acreage: _________ Elevation: _________
General slope (degrees): 0-10 ___ / 11-35 X / >35 ___
Floodplain: Disturbance in ___ / Adjacent to X / NA ___
Recent mineral activity X Describe: Worked in 1950's.

E. MINING/EXPLORATION FEATURES (Provide numbers of features)
Open adits 2 / Closed adits 4 / Open inclines 0 / Closed inclines 0
Open shafts 3 / Closed shafts 0 / Stopes 0
Other openings ___ Type ___
Trenches ___ Length ___ / Prospects 4 / Open drill holes 1
Pits >30 ft. deep ___ / Pits <30 ft. deep ___ / Pit highwall length ________
Waste dumps: <0.1 ac 9 / 0.1 - 5 ac 1 / >5 ac ______
Tailings: <0.1 ac ___ / 0.1 - 5 ac ___ / >5 ac ___
Heaps ___ / Dredge ___
Ponds ___ / Dams ___
Mills 1 Type ___ / Type ___ / _____
Explosives _____ Describe: _____
Equipment/Machinery ___ / Headframes ___ / Trestles/tramways ___
Powerlines ___ / Ore Chutes ___
Structures 2 Type Work shop, mill building.
Condition: Good X / Fair ___ / Poor ___ / Number Locked 0
Homesites ___
Other: ___
F. ENVIRONMENTAL FEATURES

VEGETATION
Vegetation: Healthy _X_/ Stressed ___/ Dead ___/ Nonexistent ___
Evidence of natural revegetation: _Yes_/ Describe: _Steppe/sage and cheat grass_.

ANIMALS
Evidence: _X_/ Presence: _N_/ Describe: _Deer and elk, tracks and droppings_.

GEOLOGY
Staining of soils _N_/ Describe: __________________________
Sulfide minerals _N_/ Type(s): ___________________________
Tailings: Confined ____/ Unconfined ___/ Unknown ___

HYDROLOGY
Water flowing from workings: ___ ___ ___ ___ ___
Standing water in workings: ___ ___ ___ ___ ___
Water through/over tailings: ___ ___ ___ ___ ___
   waste rock: ___ ___ ___ ___ ___
   ore: ___ ___ ___ ___ ___
Adjacent water sources:
   Ground water: ___ ___ ___ ___ ___
   Surface water: ___ ___ ___ ___ ___
   Surface H2O above site: ___ ___ ___ ___ ___
   Surface H2O below site: ___ ___ ___ ___ ___
Evidence of aquatic life: ____ Location: ___ Describe: __________________________

Water bed color: White ___/ Yellow ___/ Yellow-Orange ___/ Orange ___
   Brown ___/ Green ___/ Grey-Black ___/ Other __________________
Samples collected: _____ Sketch # (s): ________________________

G. POTENTIAL HAZARDOUS MATERIALS (Provide numbers of features)

Chemical piles or spills ___/ Acid or Chemical odor ___/ Asbestos ___
Petrochemical Products ___/ Dump sites ___ Scrap wood
Power Substations ___/ Transformers ___
Barrels, Tanks, Containers 2 Leaking: ____ Contents: ?
Evidence of Underground Storage Tanks: ___ Describe: _________________________

Other: ________________________________________________________

______________________________________________________________

______________________________________________________________
H. RECLAMATION

SITE CONDITIONS
Erosion: Rills _____/ Gullies _____/ Sheetwash _____
Unstable Rock _____/ Slope instability _____/ Wind erosion _____

MITIGATION STATUS
None X / Fencing N / Signs 1 / Safety hazards mitigated 0
Other: ?

Mitigation condition: Good _____/ Fair _____/ Poor _____
Site ID tags: N / Locations: __________________________

OPTIONAL: Identify the critical reclamation measures needed:

_____ Cable nets, grates _____ Topsoil, soil amendments
_____ Permanent seal _____ Revegetation
_____ Gates _____ Stabilize/destroy structures
X Backfill openings, pit _____ Drainage control
_____ Recontour _____ Water treatment
X Fences _____ Wildlife closure
X Warning signs _____ No action
_____ Plug open drill holes _____ Trash / clean up
_____ Other: Several open and dangerous shafts. Open adit visible from road.

I. SITE SKETCH
Show orientation, approximate scale, access route, adjacent drainages, and locations of features on attached sketch map. Use the feature symbols provided in the map legend on page 6.

J. GLOBAL POSITIONING SYSTEM DATA X Rover File name: HA-373

K. PHOTOGRAPHS
Number of photographs taken: 20 total. Roll 98-2 (Neg #2848) frames 32-37a.
Roll 98-3 (Neg #2946) frames 1-15a.

L. ACTION
Site requires immediate investigation _____by: Law Enforcement _____/ BLM _____
HAZMAT _____/ Other_____

Reason: __________________________
______________________________
______________________________
<table>
<thead>
<tr>
<th>Feature</th>
<th>Length</th>
<th>Width</th>
<th>Height or Depth</th>
<th>mitigation</th>
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</thead>
<tbody>
<tr>
<td>Dump 1</td>
<td>40'</td>
<td>50'</td>
<td>10'</td>
<td>Dock in good shape.</td>
</tr>
<tr>
<td>Loading Dock</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adit 1</td>
<td></td>
<td></td>
<td></td>
<td>Caved. Air tank.</td>
</tr>
<tr>
<td>Adit 2</td>
<td></td>
<td></td>
<td></td>
<td>Open, 1 ft. Opening. Timbers collapsed.</td>
</tr>
<tr>
<td>Dump2</td>
<td>75'</td>
<td>30'</td>
<td>15'</td>
<td>Argillite, limestone.</td>
</tr>
<tr>
<td>Shaft 1</td>
<td>10'</td>
<td>20'</td>
<td>Bottomless</td>
<td>Very dangerous, unmarked.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dump 3</td>
<td>10'</td>
<td>15'</td>
<td>3'</td>
<td></td>
</tr>
<tr>
<td>Drill Hole 1</td>
<td></td>
<td></td>
<td></td>
<td>10 inch dia., ½ inch plastic casing. Could be vent shaft (?).</td>
</tr>
<tr>
<td>Prospect 1</td>
<td>5'</td>
<td>10'</td>
<td>2'</td>
<td>Small dump.</td>
</tr>
<tr>
<td>Shaft 2</td>
<td>12'</td>
<td>10'</td>
<td>100'</td>
<td>65° S, partially caved. Broken fence.</td>
</tr>
<tr>
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<td></td>
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<td></td>
</tr>
<tr>
<td>Dump 4</td>
<td>20'</td>
<td>50'</td>
<td>10'</td>
<td></td>
</tr>
<tr>
<td>Prospect 2</td>
<td>5'</td>
<td>10'</td>
<td>2'</td>
<td>Another slightly larger prospect is just west of Prospect 2.</td>
</tr>
<tr>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adit 3</td>
<td></td>
<td></td>
<td></td>
<td>Caved.</td>
</tr>
<tr>
<td>Dump 5</td>
<td>40'</td>
<td>50'</td>
<td>10'</td>
<td>Several old dumps combined at this point.</td>
</tr>
<tr>
<td>Dump 6</td>
<td>60'</td>
<td>20'</td>
<td>5'</td>
<td>One of several dumps w/o obvious source.</td>
</tr>
<tr>
<td>Feature</td>
<td>Length</td>
<td>Width</td>
<td>Height or Depth</td>
<td>mitigation</td>
</tr>
<tr>
<td>-----------</td>
<td>--------</td>
<td>-------</td>
<td>-----------------</td>
<td>------------------------------------------------</td>
</tr>
<tr>
<td>Prospect 4</td>
<td>5'</td>
<td>10'</td>
<td>2'</td>
<td>Open at least 100 ft., in very good shape.</td>
</tr>
<tr>
<td>Adit 4</td>
<td></td>
<td></td>
<td>100+</td>
<td>Caved.</td>
</tr>
<tr>
<td>Adit 5</td>
<td></td>
<td></td>
<td></td>
<td>By main road.</td>
</tr>
<tr>
<td>Dump 7</td>
<td>15'</td>
<td>30'</td>
<td>5'</td>
<td>50' concrete tower.</td>
</tr>
<tr>
<td>Dump 8</td>
<td>40'</td>
<td>30'</td>
<td>10'</td>
<td>Caved, collapsed timbers.</td>
</tr>
<tr>
<td>Dump 9</td>
<td>60'</td>
<td>10'</td>
<td>5'</td>
<td>Junk inside.</td>
</tr>
<tr>
<td>Shaft 3</td>
<td>20'</td>
<td>15'</td>
<td>200' (?)</td>
<td>Perimeter #1 (top).</td>
</tr>
<tr>
<td>Mill</td>
<td>50'</td>
<td>50'</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adit 6</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Building 1</td>
<td>50'</td>
<td>16'</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dump 10</td>
<td></td>
<td></td>
<td>100'</td>
<td></td>
</tr>
</tbody>
</table>
Scrap lumber dump on site below mill (photo #9), currently worked, but for unknown reasons.

Four prospects were GPS'd but at least 10-15 exist at this site.
Figure 20-1: Sketch map of the Silver Star/Queen Mine site.
Silver Star/Queens mine Site
BLM#: ID-0054-00020
IGS#: Ha-373

PROBLEMS:
Open shafts deep and dangerous
Open adits visible from road
Easy access

Figure 20-2: Topographic map of the Silver Star/Queen Mine, Blaine County, Idaho (U.S. Geological Survey Bellevue 7.5 minute topographic map).
<table>
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<tr>
<td>98-4 (Neg#2848)</td>
<td>32A</td>
<td>350</td>
<td>Dump 1 and loading dock.</td>
</tr>
<tr>
<td>“</td>
<td>33A</td>
<td>210</td>
<td>Dock and tracks.</td>
</tr>
<tr>
<td>“</td>
<td>34A</td>
<td>360</td>
<td>Adit 1, caved.</td>
</tr>
<tr>
<td>“</td>
<td>35A</td>
<td>350</td>
<td>Adit 2.</td>
</tr>
<tr>
<td>“</td>
<td>36A</td>
<td>170</td>
<td>Dump 2.</td>
</tr>
<tr>
<td>“</td>
<td>37A</td>
<td>165</td>
<td>Shaft 1.</td>
</tr>
<tr>
<td>98-5 (Neg#2946)</td>
<td>1A</td>
<td>165</td>
<td>Shaft 1.</td>
</tr>
<tr>
<td>“</td>
<td>2A</td>
<td>260</td>
<td>Shaft 2.</td>
</tr>
<tr>
<td>“</td>
<td>4A</td>
<td>150</td>
<td>Dump 6. One of several dumps with out a source.</td>
</tr>
<tr>
<td>“</td>
<td>5A</td>
<td>020</td>
<td>Adit 4 interior.</td>
</tr>
<tr>
<td>“</td>
<td>6A</td>
<td>020</td>
<td>Adit 4.</td>
</tr>
<tr>
<td>“</td>
<td>7A</td>
<td>050</td>
<td>Adit 4, Dump 7 and non-GPS'd prospects.</td>
</tr>
<tr>
<td>“</td>
<td>8A</td>
<td>280</td>
<td>Adit 5.</td>
</tr>
<tr>
<td>“</td>
<td>9A</td>
<td>090</td>
<td>Dump 8 and mill (part), with wood, at Minnie Moore.</td>
</tr>
<tr>
<td>“</td>
<td>10A</td>
<td>190</td>
<td>Shaft 3.</td>
</tr>
<tr>
<td>“</td>
<td>12A</td>
<td>340</td>
<td>Mill.</td>
</tr>
<tr>
<td>“</td>
<td>13A</td>
<td>340</td>
<td>Mill.</td>
</tr>
<tr>
<td>“</td>
<td>15A</td>
<td>180</td>
<td>Work shop. From Dump 10, see frame #11.</td>
</tr>
</tbody>
</table>
SITE IDENTIFICATION
Other BLM ID Number: ______________________________
Locatable _____ / Leasable _____ / Salable _____
Operator (last known): ______________________________
Commodities: Primary ____________________________ / Secondary ________________________________
Other Agency ID Number: __________________________ Agency: ________________________________

LOCATION DATA
Site is in _____ or within a mile _____ of:
ACEC _____ / WSA _____ / Wilderness Area _____ / Riparian Area _____
Nominated for Designation to National Wild & Scenic River System _____

ACCESS
Distance in Miles to Closest Public:
Road _____ Dwelling _____ School _____
Potable Water _______ Water Source _____ Trail _____
Campground/Picnic Area _____ Other Public Use _____

SITE DESCRIPTION
Nearest named drainage: __________________________ Distance: ______________________________

POTENTIAL HAZARDOUS MATERIALS
Site is under regulatory action _____
CERCLIS Number ___________________________ OR
Federal Docket Number __________________________

RECLAMATION: Closure Information
Clearances: Threatened & Endangered Species ______________________________
Cultural Resources ____________________________
Historic ________________________________
Other ________________________________

Date reclamation completed: __________________________ Cost: ____________________________
Type of closure: ____________________________ Comments: ________________________________

Monitoring frequency: _______ Dates of monitoring visits: ________________________________

(Note: The letters for the items above correspond to those on pp. 1 - 3 of this Checklist)
II. INTERVIEWS

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Figure 20-3: Dump 1 with loading dock, view looking 350°. (Roll 98-4, neg. #2848, frame 32a; photographed by V.S. Gillerman; June 24, 1998).

Figure 20-4: Dock with tracks. View looking 210°. (Roll 98-4, neg. #2848, frame 33a; photographed by V.S. Gillerman; June 24, 1998).
Figure 20-5: Adit 1, caved. View looking 360° (Roll 98-4, neg. #2848, frame 34a; photographed by V.S. Gillerman; June 24, 1998).

Figure 20-6: Adit 2. View looking 350° (Roll 98-4, neg. #2848, frame 35a; photographed by V.S. Gillerman; June 24, 1998).
Figure 20-7: Dump 2. View looking 170° (Roll 98-4, neg. #2848, frame 36a; photographed by V.S. Gillerman; June 24, 1998).

Figure 20-8: Shaft 1. View looking 165° (Roll 98-4, neg. #2848, frame 37a; photographed by V.S. Gillerman; June 24, 1998).
Figure 20-9: Shaft 1. View looking 165° (Roll 98-5, neg. #2946, frame 1a; photographed by V.S. Gillerman; June 24, 1998).

Figure 20-10: Shaft 2. View looking 260° (Roll 98-5, neg. #2946, frame 2a; photographed by V.S. Gillerman; June 24, 1998).
Figure 20-11: Dump 4, Minnie Moore in background. View looking 110° (Roll 98-5, neg. #2946, frame 3a; photographed by V.S. Gillerman, June 24, 1998).

Figure 20-12: Dump 6, one of several dumps without a source. View looking 150° (Roll 98-5, neg. #2946, frame 4a; photographed by V.S. Gillerman; June 24, 1998).
Figure 20-13: Adit 4 interior. View looking 020 ° (Roll 98-5, neg. #2946, frame 5a; photographed by V.S. Gillerman; June 24, 1998).

Figure 20-14: Adit 4. View looking 020 ° (Roll 98-5, neg. #2946, frame 6a; photographed by V.S. Gillerman; June 24, 1998).
Figure 20-15: Adit 4 with Dump 7 and un-GPS'd prospects. View looking 050° (Roll 98-5, neg. #2946, frame 7a; photographed by V.S. Gillerman; June 24, 1998).
Figure 20-16: Adit 5. View looking 280° (Roll 98-5, neg. #2946, frame 8a; photographed by V.S. Gillerman; June 24, 1998).

Figure 20-17: Dump 8. Note wood pile below and Minnie Moore building and tailings in background. View looking 090° (Roll 98-5, neg. #2946, frame 9a; photographed by V.S. Gillerman; June 24, 1998).
Figure 20-18: Shaft 3. View looking 190° (Roll 98-5, neg. #2946, frame 10a; photographed by V.S. Gillerman; June 24, 1998).

Figure 20-19: Mill building (?), see frame 15, building on Dump 10 from Queen of the Hills workings. View looking 060° (Roll 98-5, neg. #2946, frame 11a; photographed by V.S. Gillerman; June 24, 1998).
Figure 20-20: Mill. View looking 340° (Roll 98-5, neg. #2946, frame 12a; photographed by V.S. Gillerman; June 24, 1998).

Figure 20-21: Mill. View looking 340° (Roll 98-5, neg. #2946, frame 13a; photographed by V.S. Gillerman; June 24, 1998).
Figure 20-22: Adit 6. View looking 270° (Roll 98-5, neg. #2946, frame 14a; photographed by V.S. Gillerman; June 24, 1998).
Figure 20-23: Work shop, from Dump 10. See frame 11. View looking 180° (Roll 98-5, neg. #2946, frame 15a; photographed by V.S. Gillerman; June 24, 1998).
BUREAU OF LAND MANAGEMENT
ABANDONED/INACTIVE MINE LAND INVENTORY
FIELD CHECKLIST

A. SITE IDENTIFICATION
ID Number: I D 0 0 5 4 0 0 2 5
Site/Mine Name: Heine/Golden Bell Primary Commodity: 261-Au
IGS Number: Ha-378

B. LOCATION DATA
USGS Quad: Bellevue LAT: _______ LONG: _______ OR
UTM Coord: 4016921 N 716904 E Zone 11 AND
Township: 2N Range: 18E Section: 33 Subdivision: NENW
Meridian: 08 County: 013
Surface: BLM X / Non-BLM __ Mineral Estate: BLM X / Non-BLM ___

C. ACCESS
Visible from: Nearest road 3 / Trail 3 / Population center 3
Access by: 2wd ___ / 4wd ___ / Hike X / Other ___
Access disturbance in need of reclamation: Length ___ / Width ___ / Acres ___
Road Log: Road washed out a mile below site. Hiking or dirt bike access only.

Recent human use: X Describe: Beer bottles, dirt bike tracks

D. SITE DESCRIPTION
Acreage: _______ Elevation: _______
General slope (degrees): 0-10 ___ / 11-35 X / >35 ___
Floodplain: Disturbance in ___ / Adjacent to ___ / NA X ___
Recent mineral activity No Describe: _______

E. MINING/EXPLORATION FEATURES (Provide numbers of features)
Open adits ___ / Closed adits 4 / Open inclines ___ / Closed inclines ___
Open shafts ___ / Closed shafts ___ / Stopes ___ Adit 4 may be separate property.
Other openings ___ Type ______
Trenches ___ Length ___ / Prospects 2 ___ / Open drill holes ___
Pits >30 ft. deep ___ / Pits <30 ft. deep ___ / Pit highwall length ___
Waste dumps: <0.1 ac 3 / 0.1 - 5 ac ___ / >5 ac ___
Tailings: <0.1 ac ___ / 0.1 - 5 ac ___ / >5 ac ___
Heaps ___ / Dredge ___
Ponds ___ / Dams ___
Mills ___ Type ___ / ___ / ___
Explosives Describe: _______
Equipment/Machinery X-Remnants/ Headframes ___ / Trestles/tramways ___
Powerlines ___ / Ore Chutes ___
Structures 1 Type Stone hut, wall, other #1 GPS point.
Condition: Good ___ / Fair X / Poor ___ / Number Locked ___
Homesites ___
Other: Conical iron boiler? Retort?

form: amiform99.blm
Vsg06/99
F. ENVIRONMENTAL FEATURES

VEGETATION
Vegetation: Healthy X / Stressed X / Dead ___ / Nonexistent ___
Evidence of natural revegetation: ___ / Moth/caterpillar infestation is killing brush. Adit water supports healthy trees, bushes, grass, some riparian plants.

ANIMALS

GEOLOGY
Staining of soils Yes Some Some FeOx by dumps.
Sulfide minerals Yes Type(s): Pyrite and quartz veins in gabbro/diorite host.
Tailings: Confined ___ / Unconfined ___ / Unknown ___ None

HYDROLOGY
Standing water in workings: ___ ___ ___ ___
Water through/over tailings: ___ ___ ___ ___
waste rock: ___ ___ ___ ___
ore: ___ ___ ___ ___
Adjacent water sources:
Ground water: Creek not tested, too much healthy, riparian brush downstream
Surface water: ___ ___ ___ ___
Surface H2O above site: ___ ___ ___ ___
Surface H2O below site: ___ ___ ___ ___
Evidence of aquatic life: ___ Location: ___ Describe: ___

Water bed color: White ___ / Yellow ___ / Yellow-Orange ___ / Orange ___
Brown X / Green ___ / Grey-Black ___ / Other ___

Samples collected: 0 Sketch # (s):

G. POTENTIAL HAZARDOUS MATERIALS (Provide numbers of features) No

Chemical piles or spills ___ / Acid or Chemical odor ___ / Asbestos ___
Petrochemical Products ___ / Dump sites ___
Power Substations ___ / Transformers ___
Barrels, Tanks, Containers ___ Leaking: ___ Contents: ___

Evidence of Underground Storage Tanks: ___ Describe: ___

Other: ___ ___ ___ ___ ___ ___ ___
H. RECLAMATION

SITE CONDITIONS
Erosion: Rills_____ / Gullies_____ / Sheetwash_____ 
Unstable Rock_____ / Slope instability_____ / Wind erosion_____

MITIGATION STATUS
None X_____ / Fencing_____ / Signs 0_____ / Safety hazards mitigated_____
Other: _______________________________________________________________

Mitigation condition: Good_____ / Fair_____ / Poor_____
Site ID tags: ____ / Locations: __________________________________________

OPTIONAL: Identify the critical reclamation measures needed:

____ Cable nets, grates
____ Permanent seal
____ Gates
____ Backfill openings, pit
____ Recontour
____ Fences
____ Warning signs
____ Plug open drill holes
____ Other: No measures needed.

I. SITE SKETCH
Show orientation, approximate scale, access route, adjacent drainages, and locations of features on
attached sketch map. Use the feature symbols provided in the map legend on page 6.

J. GLOBAL POSITIONING SYSTEM DATA Yes Rover File name: HA-378

K. PHOTOGRAPHS
Number of photographs taken: Roll 98-8, Neg # 6741, frames #1-6, six total photos.

L. ACTION
Site requires immediate investigation by: Law Enforcement / BLM / HAZMAT / Other

Reason: No action needed. No hazards or environmental problems.
### BLM AML INVENTORY FIELD CHECKLIST

**ID Number:** ID-0054-00025  
**IGS:** Ha-378

**M. FEATURES - PROVIDE DIMENSIONS IN FEET.**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Length</th>
<th>Width</th>
<th>Height or Depth</th>
<th>mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adit 2</td>
<td></td>
<td></td>
<td>&lt;1'open at most</td>
<td>Caved. Heavily vegetated, with $\text{H}_2\text{O}$ discharge.</td>
</tr>
<tr>
<td>Dump 2</td>
<td>50'</td>
<td>120'</td>
<td>30'</td>
<td>None needed. Visible from town. Yellow brown color from pyrite.</td>
</tr>
<tr>
<td>Main dump</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Road 1</td>
<td></td>
<td></td>
<td></td>
<td>Confusion with pause and vegetation caused beaks in coverage.</td>
</tr>
<tr>
<td>(on GPS)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prospect 1</td>
<td>10'</td>
<td>10'</td>
<td>2'</td>
<td>No dump.</td>
</tr>
<tr>
<td>Prospect 2</td>
<td>20'</td>
<td>10'</td>
<td>5'</td>
<td>No dump, no photos.</td>
</tr>
<tr>
<td>Adit 1</td>
<td></td>
<td></td>
<td></td>
<td>Caved. Upper adit.</td>
</tr>
<tr>
<td>Dump 1</td>
<td>10'</td>
<td>20'</td>
<td>5'</td>
<td>Small, brown/red Fe stained dump.</td>
</tr>
<tr>
<td>Adit 3</td>
<td></td>
<td></td>
<td></td>
<td>Caved. Partly covered by Dump 2. Rails extend out of ground.</td>
</tr>
<tr>
<td>Road 2</td>
<td></td>
<td></td>
<td></td>
<td>Lower road.</td>
</tr>
<tr>
<td>Adit 4</td>
<td></td>
<td></td>
<td></td>
<td>Caved. 500' lower elevation than other workings.</td>
</tr>
<tr>
<td>Dump 3 (A.4)</td>
<td>60'</td>
<td>40'</td>
<td>10'</td>
<td>Dilapidated ore car.</td>
</tr>
</tbody>
</table>

**Field Notes:** Entire site is heavily vegetated with grasses, bushes, willows. Trees were killed by fire seven years prior. Literature notes two adits. Adit 1 could be only a prospect. The upper adit is oxidized, the lower adit has sulfide mineralization. Pieces of scattered iron pipe, machinery, rails, etc. on Dump 2.

INSPECTED BY: **Virginia Gillerman**  
**TITLE:** IGS Geologist  
**DATE:** 7-14-98

INSPECTED BY: **Mike Dunn**  
**TITLE:** IGS Geologist  
**DATE:** 7-14-98
The Heine or Golden Bell mine is located at the far western end of Minnie Moore Gulch, west of Bellevue. Although the main dump is visible from the town and the Minnie Moore mine, the Heine is difficult to drive to, and it appears that visitors are few. The access road is washed out about a half mile below the workings. We hiked to the mine, though a dirt bike could make it up the road. The most serious environmental (?) problem is unrelated to the mine or its geology. Heavy caterpillar infestations appear to be killing many of the bushes near the mine. The host rock is diorite to gabbro.

The main adit, Adit 2, is on top of the yellow-brown dump visible from a distance. Thick brush obscured the portal, but it looked like the adit was partially caved with no more than a 1-2 foot high opening. A MODEST (10 gpm) discharge of water issued from the adit in mid-July, 1998. The topographic map plots a spring at the mine. The water was clear, cold, and had a low specific conductivity, and a pH measured at 8.3. Riparian grasses, bushes, and trees surrounded the adit discharge. The water continued down the road for a short distance and then down the gulch. Minor pyrite was noted on the dump, which is a high point above any stream (other than adit discharge). The creek downstream had healthy-looking vegetation along it. Smaller caved adits and dumps were located just above and below the main dump. The most notable features left at the mine were a large, conical, cast iron piece, possibly an old boiler, and the remains of a stone hut.

Adit 4 and its dump is located much further down the hill. One local said he was actively prospecting claims at the head of Minnie Moore Gulch. It may be the area near Adit 4 and some minor workings shown on the map in the northeast corner of Section 33.

No action is needed at the Heine Mine.
Figure 25-1: Sketch map of the Heinie/Golden Bell Mine site.
Figure 25-2: Topographic map of the Heinie/Golden Bell Mine, Blaine County, Idaho (U.S. Geological Survey Bellevue 7.5 minute topographic map).
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<th>Frame Number</th>
<th>Direction</th>
<th>Location/Feature</th>
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<td>1a</td>
<td>210</td>
<td>Adit 2: Vertical framed photo showing headwall and abundant nettles guarding adit. Looks caved or with small opening 1' high max.</td>
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<tr>
<td>“”</td>
<td>2a</td>
<td>170</td>
<td>Close up of Adit 2 with water, plants, looking downward.</td>
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<td>“”</td>
<td>3a</td>
<td>005</td>
<td>Dump 2, top of main dump, with water.</td>
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<td>“”</td>
<td>4a</td>
<td>060</td>
<td>Conical iron boiler? On flat area below dump.</td>
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<tr>
<td>“”</td>
<td>5a</td>
<td>225</td>
<td>Stone hut with Dump 2 in back. Also can see head wall of main portal.</td>
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<td>“”</td>
<td>6a</td>
<td>080</td>
<td>Adit 4, caved, with Dump 2 in back. Taken from top looking down.</td>
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A. SITE IDENTIFICATION
Other BLM ID Number: ____________________________________________
Locatable ____ / Leasable ____ / Salable ____
Operator (last known): ____________________________________________
Commodities: Primary ______________________ / Secondary ______________
Other Agency ID Number: ___________________________ Agency: __________

B. LOCATION DATA
Site is in ____ or within a mile ____ of:
ACEC ____ / WSA ____ / Wilderness Area ____ / Riparian Area ____
Nominated for Designation to National Wild & Scenic River System ____

C. ACCESS
Distance in Miles to Closest Public:
Road _______ Dwelling ____ School ____
Potable Water _______ Water Source ____ Trail ____
Campground/Picnic Area _____ Other Public Use _____

D. SITE DESCRIPTION
Nearest named drainage: _______________________________ Distance: ______

G. POTENTIAL HAZARDOUS MATERIALS
Site is under regulatory action ____
CERCLIS Number _____________________________ OR
Federal Docket Number ____________________________

H. RECLAMATION: Closure Information
Clearances: Threatened & Endangered Species ____________________________
Cultural Resources ____________________________________________
Historic ____________________________________________
Other ____________________________________________

Date reclamation completed: ____________________________ Cost: _________
Type of closure: ____________________________ Cost: _________
Comments: ____________________________________________

Monitoring frequency: _______ Dates of monitoring visits: ____________

(Note: The letters for the items above correspond to those on pp. 1 - 3 of this Checklist)
### INTERVIEWS

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Figure 25-3: Adit 2. Vertical framed photo showing headwall and abundant nettles guarding adit portal. Possibly caved, with a maximum 1' opening. View looking 210°. (Roll 98-8, neg. #6741, frame 1a; photographed by V.S. Gillerman; June 14, 1998).
Figure 25-4: Adit 2 close up, with water and plants, looking downward. View looking 170° (Roll 98-8, neg. #6741, frame 2a; photographed by V.S. Gillerman; June 14, 1998).

Figure 25-5: Dump 2, top of main dump, with water. View looking 005° (Roll 98-8, neg. #6741, frame 3a; photographed by V.S. Gillerman; June 14, 1998).
Figure 25-6: Conical iron boiler? On flat area below dump. View looking 060° (Roll 98-8, neg. #6741, frame 4a; photographed by V.S. Gillerman; June 14, 1998).

Figure 25-7: Stone hut with Dump 2 in background, with headwall of main portal. View looking 225° (Roll 98-8, neg. #6741, frame 5a; photographed by V.S. Gillerman; June 14, 1998).
Figure 25-8: Adit 4, caved, with dump in back. Taken from top looking down. View looking 080° (Roll 98-8, neg. #6741, frame 6a; photographed by V.S. Gillerman; June 14, 1998).