2. SITE DESCRIPTION, OPERATIONAL HISTORY, AND WASTE CHARACTERISTICS

2.1 DESCRIPTION AND LOCATION

The abandoned Idol City Mine site is located approximately 15 mi northeast of the city of Burns, in Harney County, Oregon. It occurs within the Harney Mining District, also known as the Idol City-Trout Creek District, in Malheur National Forest. The site extends from Trout Creek southward approximately 0.8 mi along the Gold Gulch drainage. The location descriptions for the north and south ends of the site are:

- North: Latitude 43.777930186° N, Longitude 118.891650107° W
- South: Latitude 43.767930440° N, Longitude 118.895279259° W
- Township 21 South, Range 32 East, Section 4 SW ¼ and Section 9 NW ¼.

The site is included on the Devine Ridge North, U.S. Geological Survey (USGS) 7.5-minute topographic map. It is situated between about 5,600 and 5,800 ft in elevation. The site location is indicated on Figure 1.

The Idol City Mine site lies along Forest Service (FS) Road 630. It is accessed from State Highway 395 by going east on FS Road 2820 for approximately 1 mi, continuing east on FS Road 3935 for a little over 3 mi, then heading south on FS Road 600 for approximately 2 1/3 mi. At the site, FS Road 630 turns off to the south next to several old wooden buildings. The main mining area occurs approximately 400 ft south of FS Road 600, and is located on a bypass road that runs between FS Road 630 and an unnamed stream and wetland area. The remaining site features extend approximately 0.8 mi to the south along FS Road 630 and within the Gold Gulch valley. The general boundaries of the study area were identified in the field by the OSC.

The site includes a disturbed area of approximately 15 acres on moderate to steep slopes. It is easily accessible to the public. A gate was being installed across FS Road 630, south of the intersection with FS Road 600 and north of the main mining area, during performance of the SI. Based on a conversation with Forest Service personnel at the site, the gate (and a planned cattle guard) was being installed to prevent access by cattle, not by the public.

The site is currently inactive. There are a number of old wooden structures onsite, all in poor condition. The primary mining area occupied approximately 3 acres near the north end of the site; existing features in this area are shown on Figure 2. Figure 3 includes features throughout the site area. Photographs of the site are provided in Appendix B. A General Information Form for the site is included in Appendix C.

Only the larger ponds and excavations are shown on the site figures. Waste piles are located throughout the gulch; most of these presumably are from placer mining and from surface excavations or trenching. In general, sampling activities were focused on areas of apparent or probable underground mining. Samples also were collected from a few piles which either appeared to be from placer mining (for comparison purposes) or which were of uncertain origin. In the following descriptions of site features, an attempt has been made to distinguish between waste pile materials, based on location and visual observations. Soil or waste rock piles may be referred to as resembling surrounding soil (probably from placer mining or trenching) or consisting of lighter-colored material (probably from underground mining).

Volumes of waste piles likely generated during underground mining activities were calculated by Anderson Perry & Associates, Inc., following performance of the site survey. The estimated total volume

of these materials is approximately 2,000 cubic yards. Information on the derivation of this number, and the waste piles included in the calculation, is provided in Appendix. H.

Many of the site features (structures and excavations) are collapsed or in generally poor condition; interpretation of the features is difficult. Information regarding site features was obtained from the following sources:

- Mine Operating Plans obtained from the Malheur National Forest Supervisor' s Office
- A Mineral Exam Report prepared in 1968 (Forest Service 1968)
- A report of inspections by Malheur National Forest Minerals Technicians during 2000 and 2001 (Forest Service 2001a and b)
- The APA performed in 2002 (CES 2002).

Numerous claims historically have been made within and adjacent to the Idol City Mine site. One active claim, the Jumping Jack placer claim, exists to the south of the site. Maps showing claim locations are provided in Appendix D.

Site features are listed generally in order of north to south. Features, or nearby groups of features, have been assigned letters; these correspond with the designations on Figures 2 (A through M) and 3 (N through S). The site generally consists of the following:

A. Bunkhouse (photos 1 and 2) – this is a small building at the north end of the site, located on the former Imperial claim.

B. Main house (photos 1 and 3) – this is a larger building or cabin near the entrance to the site, located on the former Imperial claim.

C. Collapsed log structure (photo 4) – this structure is located near the entrance to the site, on the former Imperial claim.

D. Apparent collapsed adit (photo 5) – this consists of an excavation with a small opening at the eastern end, located on the former Bullion claim.

E. Trash pit (photo 6) – this is a small excavation filled with old bottles, cans, and other debris. It is located on the former Bullion claim. The 1968 Mineral Exam map indicates the possible presence of a caved tunnel in this area.

F. Possible fruit cellar (photo 7) – the Forest Service referred to this small wood-framed pit as a fruit cellar because jars were seen on its roof (Forest Service 2001a). It is located on the former Bullion claim.

G. Head frame (photo 8) – this partially collapsed wooden structure is located on the edge of the wetland area, on and adjacent to several small light-colored waste rock piles. It is located on the former Bullion claim.

H. Collapsed inclined shaft (photo 8) – this feature was tentatively identified based on photographs and information in the 1968 Mineral Exam Report. At the time of the field work, this feature appeared as a small, water- and debris-filled depression immediately south of the head frame; it is located on the former Bullion claim.

I. Apparent collapsed adit/excavation (photo 9) – this feature is located on the west side of the gulch and consists of an excavation and several lighter-colored waste rock piles (photo 10) adjacent to and in the gulch. According to the 1968 Mineral Examination Report, this was an open cut at what was previously a short adit. It is located on the former Bullion claim.

J. Collapsed log structure with open shaft (photos 11 and 12) – this partially collapsed building surrounds a water-filled shaft. Several light-colored piles of waste rock merge into one large pile adjacent to and west of the building, and extending into the wetland area. This feature is located on the former Bullion claim.

K. Collapsed adit or prospect (photo 13) – this excavation is located immediately north of the log structure with open shaft, and was also on the former Bullion claim.

L. Old truck with mounted ball mill (photo 14) – the truck is located on the former Bullion claim at the southern end of the main mining area.

M. Small wooden building – the use of this building is unknown. It is located on the former Bullion claim, just west of the old truck.

N. Excavations – several excavations occur in this area along with piles that appear to consist of excavated soil. One of the excavations on the east side of the gulch has a small seep (as evidenced by green vegetation but no flow) on the western end. This area appears to occur near the dividing line of the former Bullion No. 2 and Trapper No. 2 claims.

O. Excavation adjacent to large pond (photo 15) – a small seep (wet but not flowing at the time of the field work) is present at the base of the excavation, flowing toward the large pond. This area appears to be located near the dividing line of the Jumbo No. 3 and No. 4 claims. The 1968 Mineral Exam map indicates the possible presence of a cut and a caved discovery tunnel on the east side of the gulch in this area, and of a caved discovery shaft immediately west of Road 630.

P. Excavation and possible collapsed adit (photo 16) – a pile of lighter-colored waste rock is present at the western end of the excavation. This excavation, or that designated as "O" may be the "caved discovery tunnel" identified on the 1968 Mineral Exam map. This area may occur within the former Jumbo No. 1 or Jumbo No. 3 claim.

Q. Excavation and waste rock piles – an excavation with evidence of a small seep was observed in this area. The 1968 Mineral Exam map indicates the possible presence of a caved discovery shaft in this area. Soil or waste rock piles west of the excavation almost completely block the gulch; only a thin cut is present, through which the stream flows (photo 17). The piles in this area appear similar to the surrounding soil; they may consist of overburden from trenching or excavating or may be a result of placer mining. This location appears to be within the former Jumbo No. 1 claim.

R. Open adit (photo 18) – this adit at the southern end of the study area is partially collapsed. A very low flow of water was observed draining from the adit at the time of the site visit. The adit may be located on the former Pardee claim.

S. Collapsed building and large waste pile (photo 19) – remnants of a collapsed building are present across Road 630 from the open adit. According to the Forest Service, the building may have been an ore-processing site or a residence (2001). The building appears to have been constructed on top of a large waste rock or tailings pile, which extends down the hillside into the gulch. Some

fine-grained, light tan-colored material was observed at depth in this pile during sampling (photo 20). This area may be located on the former Pardee claim.

In addition to the identified features, several trenches were observed on the hillside on the east side of Gold Gulch and many smaller excavations were observed along Road 630. Miscellaneous equipment and debris (logs, timber, metal, and rusted drums) were observed onsite, primarily in the northern or main working area.

According to the Forest Service (2001b), the State Historic Preservation Office has concurred that the site is eligible for the National Register of Historic Places.

2.2 OPERATIONAL HISTORY AND WASTE CHARACTERISTICS

According to Brooks and Ramp (1968), a small amount of underground mining has been done at Idol City, but most of the gold has come from placer mining in the valley fill. Placer mining in the area reportedly yielded about $50,000 worth of gold between the time of its discovery in 1891 and 1916 (Brooks and Ramp 1968). More recent activities at the site have included open pit mining in the form of trenches and excavations, as surface soil has been removed to access veins present along the surface of shallow bedrock for geological evaluation and testing (Noranda 1982).

The following history of the site is based primarily on information from the Malheur National Forest Supervisor' s Office, File 2810 (Forest Service 2001b):

- 1891 – Placer deposits were discovered in Trout Creek in the Idol City area.

- 1914 – Trout Creek Mining and Milling Company was organized by O.J. Darst, one of the original locators of several claims at the site. The veins explored during this period were reported to contain valuable concentrations of gold, silver, lead, and zinc (Forest Service 1968).

- 1930s – A dredge was moved into the Trout Creek area and a small mill was erected by Trout Creek Mining and Milling Company. There is no known production from the property. The old mill building was reported to be present at the site as late as 1968 (Forest Service 1968); however, its location and current condition are not known.

- NA – The heirs of the estate deeded the property to Mary Riddell Martin, daughter of the late C.W. Riddell. Subsequent operating plans and correspondence were submitted by H.A. Martin, her husband.

- 1968 – Mineral examinations were performed for H.A. Martin at 10 claims and sampling was performed at 3 claims including cuts on Trapper No. 2 and Jumbo No. 3, and the 70-ft inclined shaft on Bullion. The inclined shaft was dewatered before sampling. Cuts or shafts on the other claims were caved, and sampling was not possible.

- 1972 – A Supplemental Mineral Examination was performed for the inclined shaft on the Bullion claim.

- 1975 through 1980, Operating Plans for the site were submitted by H.A. Martin. Planned activities included extending open cuts to expose lode (including a vein crossing the creek), excavating surface materials to reopen caved tunnels, tracing vein structures, opening up and

developing 2 springs near the north line of the Trapper No. 1 claim, testing gravel, performing test drilling on numerous veins and lodes, and prospecting and mill testing.

- 1980 – An Operating Plan was submitted by Lester Rhoads for claims formerly known as Pardee, apparently extending south of the study area. Planned activities included extending an excavation along the creek bed to expose bedrock, examining materials in open cuts and ditches, tunneling 10 ft into a vein, and installing a "gold machine" in the ditch.

- 1981 – An Exploration and Option Agreement was signed between Lester Rhoads, Arnold Dobson, and Donald C. Farley ("optioners") to Noranda Exploration, Inc. ("optionee") for 6 claims, apparently extending south of the study area.

- 1981 – An Exploration and Option Agreement was signed between H.A. Martin and Mary R. Martin ("optioners") to Noranda Exploration, Inc. ("optionee") for 10 claims including the Imperial, Bullion, Bullion No. 2, Bullion Extension, Trapper No. 1 and 2, Jumbo, and Jumbo No. 2, 3, and 4.

- 1982 – Noranda Explorations, Inc. submitted an Operating Plan describing their intent to excavate a trench (approximately 1,000 ft long) to the bedrock surface for evaluation purposes. The trench was to be backfilled on completion of the evaluation. (The intended area for trenching appears to be near the southern end of the site.)

- 1983 – $1,000 cash in lieu of bond paid by Noranda Explorations for reclamation of the Idol City project.

Based on Mineral Examination Reports and information from Operating Plans for claims at the site, there were many discovery cuts or shafts and some short adits at one time; most have since collapsed. Some of the older caved tunnels were later reopened by excavation. Veins occur near the bedrock surface in portions of the site, and extensive trenching and excavation of shallow soil has taken place to expose bedrock. Some of these excavations have taken place within the streambed, to expose shallow veins. Much of the trenching work done in more recent years was for evaluation purposes.

While extensive exploration and testing has taken place at the site, it appears that production from lode mining has been minimal. Mineral examination reports have indicated that what mineralization is present is spotty and that the presence of a valuable mineral deposit has not been conclusively shown (Forest Service 1968, 1971).

Wastes generated at the site include waste rock from the mining operations. It is uncertain if any materials were milled on the site. Additional wastes include the remains of former structures and equipment used onsite. No specific information was found regarding mining wastes generated at the site. No documentation was found of past removals or cleanups at the site.

Potential concerns identified by the Forest Service (2001a) in their Site Discovery Form for the Idol City Mine include:

- Drainage from the adit or waste rock
- Discharges to surface water
- Presence of waste rock
- Impacted area located in a floodplain
- Easily accessed by the public

- Potential or known impacts to Threatened and Endangered (T&E) species and/or sensitive environments such as wetlands and streams
- Physical hazards, such as open shafts, adits, and pits
- Dredging or other significant stream channel modifications.

No listings for the Idol City Mine were found by a search of state and federal databases of sites with known or suspected contamination.