

# SURFACE MINING

## STIBNITE TODAY

- Through over 100 years of mining activity at Stibnite, above-ground (open pit) and underground methods of mining have been utilized.
- Two open pits - Yellow Pine pit and West End pit, along with a smaller pit adjacent to West End pit, remain at Stibnite today and are the result of historical mining activity which occurred up until the mid-1990s. Historical features from underground mining including tunnels and shafts also occur in various locations around the site. *(See: Midas Gold Idaho, Plan of Restoration and Operation (PRO); Section 4)*

## RESPONSIBLE MINING

- Midas Gold's Stibnite Gold Project will include conventional open pit mining methods. The existing Yellow Pine and West End pits will be expanded, and a new third open pit – Hangar Flats pit, will be developed in the vicinity of the historical underground mine, smelter and heap leach operations in the Meadow Creek valley.
- Midas Gold evaluated alternative mining methods for Stibnite, considering environmental, technical and economic factors. Open pit mining was identified as the most viable option for the extraction of the ore at Stibnite based on site geology and the nature and location of the mineralization. *(PRO; Section 9)*
- In contrast to previous open pit mining at Stibnite, Midas Gold will backfill and reclaim the Yellow Pine pit and the East Fork of the South Fork of the Salmon River will be re-established across the Yellow Pine pit backfill at a gradient that allows upstream anadromous fish passage such as salmon.
- As proposed in Alternative 2 of the Draft Environmental Impact Statement, Midas Gold would eliminate the West End development rock storage facility and partially backfill the Hangar Flats pit, reducing the project footprint. *(See: U.S. Forest Service, Draft Environmental Impact Statement, (DEIS); Table 2.2-1; pg. 2-9)*
- The Project will produce development rock in conjunction with ore mining *(PRO; Section 9.1.3)*. Development rock is the material that does not contain economically recoverable concentrations of gold, antimony or silver but needs to be removed to access the ore. Midas Gold will use this material to backfill the pits and to construct features such as haul roads and the tailings storage facility embankment and its buttress.
- The general sequence of mining will be the Yellow Pine deposit first, Hangar Flats deposit second, and the West End deposit third, although there will also be some overlap in the sequence of open pit development and operations. For example, small tonnages of limestone will be mined at West End throughout the project life to support ore processing.
- This mining sequence is substantially influenced by:
  - The plan to restore the original gradient of the East Fork South Fork of the Salmon River using development rock from the West End pit to backfill the Yellow Pine pit;
  - The need to balance the process plant grade and different ore types; and
  - The desire to maintain a stable workforce and maintain optimal equipment utilization.
- During the initial three-year construction period, the primary project infrastructure such as the Burntlog Route access road, the Worker Housing Facility, the transmission line, and the on-site ore processing facility, will be developed. Reclamation activities will also be initiated during construction and will include removal and repurposing of more than 6 million tons of spent heap leach ore, placement of a French drain in Blowout Creek

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to reduce sedimentation, and installation of a diversion tunnel around Yellow Pine pit to facilitate fish passage. Following construction, mining activities are expected to occur for approximately 12-15 years.

- Targeted total daily ore production from the open pit operations is expected to average approximately 22,000 tons per day to the ore processing facility but will likely range from approximately 20,000 to 25,000 tons per day based on the deposits' geometry and grade. (*PRO; Section 9.1.2*)
- During the pre-stripping and pre-production period (the initial three years of activities), daily development rock production from the open pit operations is expected to range from 40,000 to 50,000 tons per day. As the mine reaches full production, the daily development rock production is expected to peak at approximately 90,000 to 100,000 tons per day, before declining in the later years. (*PRO; Section 9.1.3*)
- Ore and development rock will be extracted from approximately 40-foot-high benches that will be mined in one or two passes per bench. The mining sequence will include the following: (*PRO; Section 9.2*)
  - Site preparation;
  - Blast-hole drilling;
  - Loading blast holes with explosives;
  - Blasting;
  - Ore control; and,
  - Ore and development rock loading and haulage.