INFORMATION SHEET

Shasta Gold Corporation and it subsidiary, French Gulch (Nevada) Mining Corporation, submitted a Report of Waste Discharge dated 20 September 2009 for a revision of waste discharge requirements for the land disposal of solid waste from the Washington Mine. The facility is an existing underground gold mine which has been in sporadic operation since 1852.

The Washington Mine complex is comprised of patented and unpatented claims covering 1825 acres, located approximately 2 miles west of the community of French Gulch, in Shasta County. The unpatented land is administered by the Department of Interior, Bureau of Land Management.

Ore and waste rock are removed from the underground mine with waste rock being placed in a designated disposal area. Ore is processed through a mill where the particle size is reduced and gold is separated with gravity jigs and finally through flotation cells. In the flotation cells, chemical reagents are added to allow the gold-bearing particles to adhere or "float" on bubbles and are skimmed from the processing solution, which is recycled through the mineral recovery system. The spent material is dried through a filter screen and the resulting tailings are stockpiled adjacent to the mill until they can be transported to the tailings disposal facility. Reagents used in the mill include copper sulfate, methyl isobutyl carbinol, and potassium xanthate.

Waste Characterization

The mill tailings are fine-grained, dense, cohesive, and of low permeability. Analyses of the tailings have shown that they contain significant arsenic, on occasion exceeding the hazardous waste criteria of 500 mg/kg. However, data show that the tailings have little or no acid-generating potential with a neutralization potential to acid generation potential ratio well above 3. Analyses of the tailings, using distilled water as the extractant (simulating rainfall), show arsenic in the leachate below 1 mg/l. Based on this information, the mill tailings are classified as a Group B mining waste.

Waste rock from the mine, i.e. rock which does not contain economic concentrations of minerals, can still be highly mineralized and contain concentrations of waste constituents, mainly arsenic, that exceed the hazardous waste criteria of 500 mg/kg. The waste rock is commonly larger-grained that the tailings. Most of the waste rock is non-mineralized. Mineralized waste rock with arsenic concentrations exceeding 10 mg/kg is classified as a Group B mine waste. Title 27 defines Group B mine waste as *"wastes that consist of or contain*

hazardous wastes that qualify for a variance under Title 22 CCR, provided Regional Water Board staff finds that such mining wastes pose a low threat to water quality; or mining wastes that consist of or contain non-hazardous soluble pollutants of concentrations that exceed water quality objectives (WQOs) for, or could cause, degradation of waters of the state."

Non-mineralized waste rock, i.e. waste rock with that contains low, non-soluble concentrations of heavy metals, is classified as a Group C mining waste. Title 27 defines Group C mine waste as *"wastes from any discharge that would be in compliance with the applicable water quality control plan, including WQOs other than turbidity."*

To distinguish between Group B and Group C waste rock, monitoring of the waste rock is required as part of the Monitoring and Reporting Program attached to this Order.

Background Water Quality

Since 2006, Central Valley Water Board staff have collected data on water discharging from 7 mine portals in the area and from two adjacent streams: Scorpion Gulch and French Gulch. The mine portal discharges contain elevated concentrations of naturally-occurring heavy metals, including concentrations of arsenic up to 7,750 µg/l. The streams contain arsenic concentrations up to 34 µg/l and 20 µg/l in Scorpion Gulch and French Gulch, respectively, downstream of the mine. The USEPA and California Department of Health Services Primary Maximum Contaminate Limit for drinking water is 10 µg/L for arsenic. Since the beneficial uses for French Gulch and Scorpion Gulch include domestic drinking water supply, these watercourses do not currently meet the assigned beneficial uses.

The disposal of tailings at the mine was previously regulated by Order R5-96-289, which allowed for the disposal of mine tailings into unlined ponds on an unpatented claim administered by the BLM and subsequently to a designated unlined disposal area where they are subject to infiltration of precipitation. Runoff and/or seepage from the tailings is collected in an unlined pond and is periodically collected and returned to the mill for use in the mineral recovery circuit. Order R5-96-289 and the current operations are inconsistent with regulations and policies for regulation of mining waste, do not reflect actual operations and discharges, and are not adequately protective of water quality and the assigned beneficial uses.

Waste Discharge Requirements Order R5-2010-0052 (NPDES Permit No. CA0085294), adopted on 27 May 2010, includes requirements to collect and treat drainage from the mine portals prior to discharge to surface waters. Order R5-2010-0052, along with these revised Waste Discharge Requirements for the disposal of tailings and waste rock, will help reduce the metal loading, including arsenic, to surface waters.

Waste Containment

This Order requires the Discharge to construct a disposal facility to contain the mine tailings which are classified as Group B mine wastes. The prescriptive liner for a Group B mining waste described in Title 27 consists of a single 12-inch compacted clay liner with a maximum permeability of $1X10^{-6}$ cm/sec. The Discharger proposes an engineered alternative liner system for the Group B mining waste that meets or exceeds the performance standards and provides equivalent or better protection against water quality degradation. The liner design, from the bottom up, is as follows: a base layer comprised of compacted and conditioned native soil, a 60-mil, textured on both sides, high density polyethylene (HDPE) flexible membrane liner, a 270-mil geo-composite drainage layer (base only), and a 2-foot lift of selected mill tailings free of rigid objects. A leachate trench running the length of the WMU will accommodate a 3-inch HDPE perforated pipe, surrounding leach rock, and an 8-ounce non-woven geo-textile, in turn overlain by a blanket leachate collection and recovery system ("LCRS") comprised of the geo-composite drainage layer. The LCRS will drain to a collection sump where the leachate can be removed and processed through the mill and water treatment system. The LCRS sump will have an underlying leak detection sump. During operations a temporary cover over the tailings during the winter period will reduce the volume of leachate generated.

The existing unlined tailings disposal facility will be closed and the existing tailings will be placed in the Group B disposal facility.

Waste rock that does not contain chemical or mineral constituents that may impact water quality will be placed in a Group C mine waste disposal area. The wastes currently placed in the Group C disposal area may contain highly mineralized wastes that have the potential to leach soluble constituents, including heavy metals into ground or surface waters. This Order requires the Discharger to sample and segregate Group B wastes from Group C wastes and place the Group B wastes into the Group B disposal facility.

Water Quality Protection Standards

Water quality protection standards per Title 27 have not been established for either of the waste management units. This Order requires water quality protection standards be established within two years after adoption of this Order and will consist of the list of constituents of concern (under Title 27 section 20395), the concentration limits (under Title 27 section 20400), and the Point of Compliance and all Monitoring Points (under section 20405). This Water Standard will apply during the active life of the Units, the closure period, the post closure maintenance period, and during any compliance period (under Title 27 section 20410). Furthermore, these values will represent background water quality for groundwater.

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