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Lincoln
Item 24 Co.
General

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Respondent The Standard Slag Company

Address P.O. Box 10477

Reno, NV 89510

Phone: 702/358-8110

Property Name Atlanta Mine

Location S 15 T 7N R 68E

Published Reserves: Oxide Ore N/A

Carbonaceous Ore None

Annual Production: Mill (TPY) 180,000

Leach (TPY) None

41. Regional Geology (10 mile radius)

- A. Structure; faulting, folding, age: Basin and Range faulting: (1) north-westerly and northeasterly and (2) east-west; regional folding
- B. Intrusives; age, composition, geometry, alterations, mineralization: Mid to late Tertiary rhyodocites and andesites; hypabyssal bodies intruded along Atlanta fault (N 40°W, dipping 40°-50°SW; fault zone exhibits strong jasperoid with variable amounts of clay, limonite, manganese oxides and related minerals.
- C. Volcanics; age, composition, type (flow, tuff, etc.), proximity, depth of mineralization relative to pre-volcanic surface: In addition to the Tertiary volcanic hypabyssal rocks, volcanic tuffs and breccias with and/or without intravolcanic sediments crop out chiefly to the west and south of the mine area. Gold-silver mineralization in the altered jasperoid and oxides occur above and to unknown depths below the pre-volcanic surface.

- D. Basement lithology; stratigraphic section - thickness and lithology, known or inferred basement lithology: No stratigraphic sections have been measured but Ordovician (Pogonip Group, Eureka Quartzite and Ely Springs Dolomite with relative regional thickness are respectively: 3,400±, 520± and 530±) rocks and Devonian (Laketown Dolomite and Laketown Dolomite with regional thickness of 800'± and 1400'±) sedimentary rocks are exposed.
2. Local Geology (1 mile radius)
- A. Host rock(s); age, lithology, porosity, permeability, pyrite (syngenitic) and organic content: chiefly Ordovician-Devonian sedimentary rocks intruded by Tertiary hypabyssal rhyolites-andesites which have been hydrothermally altered by gold-bearing (?) solutions. Except for the quartzite, the host rocks at the Atlanta Mine are dolomites with little porosity or permeability. Pyrite appears to be restricted to rhyolites and andesite rocks or proximity.
- B. Structure; folding, faulting, control on mineralization, age(s): the major structural feature at the mine is the Atlanta fault zone (N40°-50°W, dipping 40°-50° SW) which is intersected by a number of cross faults. Except for small drag folds along or in the Atlanta Mine folding is gentle. The Atlanta fault zone controlled the intrusion of the hypabyssal bodies.
- C. Igneous rocks; type, chemistry, geometry, age and relationship to mineralization: The only igneous rocks in the district that appear to be related to mineralization are the Tertiary rhyolite-andesite plutons which occur as pods, lenses and related bodies along the Atlanta fault. There are no quantitative chemical rock analysis available.

3. Geochemistry/Alteration

A. Major elements; % addition/depletion MgO , K_2O , Al_2O_3 , SiO_2 , minerals, spatial/temporal relationship to gold

mineralization: The highest MgO % obtained from jasperoidal material has been about 0.0007% which suggest a very high depletion of Mg from the dolomites. No data available on K_2O but the Al_2O_3 in the samples analyzed ranged from 0.0002% to 0.00015%. In most jasperoid samples SiO_2 ranges from 90%-99%. The jasperoid has spatial relationship to gold-silver metallization.

B. Minor elements; value range in ppm Hg, As, Sb, W, Ba, Ag, Cu, Pb, Zn or other, mineralogy, zoning with ore: Hg-ppm range: .035 to 48.0; As ppm range: .07 to 0.3; Sb-ppm range: .015 to 0.5; W-no data; Ba-ppm range: .003 to 7.0; Ag-ppm range: 2 to 170; Cu-ppm range: .00015 to .003; Pb-ppm range: .001 to .01; and Zn-ppm range: no data. With the exception of barite, all of minor elements occur as or in secondary minerals.

C. Principal alteration characterists: Alteration characteristics associated with the Atlanta ore are as follows; Silicified and/or argillized brecciated fragments of limestone, quartzite and rhyolite (rhyodacite) with accompanying manganese and iron oxides and limited but variable amounts of barite.

D. Organic carbon; evidence of remobilization, carbon and gold relationships, nature of carbon oxidation, carbon compounds, metallurgical problems: No organic carbon has been identified in association with the gold-silver ore .

(Cont.)

E. Silicification; spatial/temporal relation to ore, % jasperoid and % ore in main mineralized area, geochemistry of jasperoid (trace elements) Widespread silicification occurs in the Atlanta district.
About 50% of the jasperoid material clearly is spatially related to precious metals. Nearly 70% of jasperoid in the main mineralized area appears to be related to ore and/or protore. Significant trace elements appear to be Ba, Hg, Te and possibly As and U_3O_8 .

4. Mineralization

A. Nature of gold; size, distribution, associated carbon, pyrite or clay, types of ore: Native gold occurs in the ores, ranging commonly 125 to 50 , appears to be randomly distributed in the jasperoid and associated with MnO_x and FeO_x along fissures. Carbon is not associated with the ores. Pyrite and clay has been found associated with lower grade ores and/or protores.

B. Speculation as to composition; temperature and pressure of hydrothermal fluid

and mechanism of gold precipitation: No data

regarding composition temperature and pressure of hydrothermal fluids

available. No doubt the gold was originally crystallized in the

sulfides during the cooling phase(s) of the hydrothermal fluids.

C. Fluid inclusion data: No data available

D. Possible sources of gold: The probable source of the gold is
postulated to be from hydrothermal solutions which accompanied
and/or followed the emplacement of the Tertiary hypabyssal plutons.

Subsequently the sulfide minerals which were deposited during the
hydrothermal phase were severely altered and the gold in part re-
distributed by supergene solutions following the oxidation of the
hydrothermal sulfides.

5. History of Discovery

The Atlanta district, formerly known as the Silver Park or Silver Springs district, was discovered in 1869. In 1872, two mills were operating on rich silver ore at Silver Park. Little ore was produced until the current century. Small shipments were made from 1913-1920, 1935 and 1938-1939. Gold bearing fluxing ores were shipped during 1948 and between 1953 and 1955. In addition some uranium ores were mined between 1954 and 1956. During the early part of the 1970's, The Standard Slag Company put the Atlanta Mine into production. Low-grade gold-silver ores have been mined by open pit methods from that time to the current date.