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THE AURORA MINING DISTRICT

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SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS

Siskon Corporation owns a total of 87 patented and unpatented mining claims in the Aurora mining district of Mineral County, Nevada.

Many veins occur in the Aurora volcanic rocks which underlie most of the district. The veins crop out within an area 1-1/4 miles wide by 2 miles long. Ten mines in the district had major gold and silver production and several others had lesser production. Ore was mined only to shallow depths; mostly less than 200 feet. Essentially, all mining in the district was done prior to 1870.

The district is easily accessible by roads and a power line passes within one mile of the claims.

No systematic economic evaluation has been made of the district. All work in the past was directed toward mining bonanza ore in underground mines.

A systematic exploration program should be initiated and should be directed toward the discovery of a large body of low grade ore which could be mined by open pit methods. A geochemical survey followed by bulldozer trenching are recommended as the first steps in this exploration program. Estimated costs of the program are \$40,000.00.

PROPERTY

Mines in the Aurora mining district (Figs. 1-3, and Plate III), Mineral County, Nevada, were important producers of gold and silver during the years 1860 to 1870. The greatest production came from the following mines: the Humboldt, Last Chance, Prospectus, Pond, Del Monte, Juniata, Chihuahua, Garibaldi, Durant, and Wide West. Siskon Corporation owns most of the mines in the Aurora district.

OWNERSHIP AND HISTORY

Siskon owns 58 patented mining claims, 28 unpatented mining claims, and one unpatented placer claim in the Aurora district (Plates I and II, and Appendix of this report). Taxes are paid on the patented claims through the year 1967. Proof of labor was recorded on the unpatented claims for the assessment year ending September, 1967 (see Appendix).

Production from mines in the Aurora district through 1918 was about \$30,000,000.00 (Hill, 1915, and Green, 1964) or about \$64,000,000.00 at current metal prices.

Most production was from the upper portions of quartz veins. The veins are up to 60 feet wide and some veins were traced for more than 7,000 feet along strike and 500 feet down dip.

LOCATION

The mining claims lie in sections 17, 18, 19, 20 and 30, T. 5 N.,

R. 28 E., Mount Diablo Base and Meridian, in Mineral County, Nevada (Plates
I and II). Aurora Crater, a prominent volcanic vent, lies just north of the district and the Brawley Peaks are just south of the district.

The property lies 17 miles northeast of Bridgeport, California, and 22 miles southwest of Hawthorne, Nevada, and is connected with Nevada State highway 3 C by a serviceable, unimproved road.

GEOLOGY General Geology

The mineralized veins in the Aurora district are in the Tertiary age

Aurora group of volcanic rocks (Green, 1964, and Plates III and IV of this report).

the northern edge of the mineralized district. These flows, and local remnants of volcanic ash deposits, are Quaternary in age (Green, 1964).

Structural Geology

Two principal fault systems are recognized in the district (Plate III). The faults comprising one of these systems strike northeast and dip between 30 degrees southeast and 75 degrees northwest. The faults of the second system strike northerly and are nearly vertical. These faults show shear development and are up to 100 feet wide. Most of the productive veins in the district occur along northeast trending fractures; however, the Esmeralda lode on Silver Hill lies within a northerly trending shear zone.

Mineralization

Gold and silver mineralization occurs in quartz veins which are from less than one inch to more than 60 feet wide. The veins are continuous along strike and down dip. Some were traced for more than 7,000 feet in length and 500 feet in depth. Veins tend to branch into the host rock and horsetail near their ends (Green, 1964).

Quartz is the principal gangue mineral. Dark grey or blue streaks occur

The quartz veins on outcrop stand in bold relief above the surface of the ground, and silicified zones around the veins are up to several hundred feet wide. Some of these quartz veins are mineralized across their entire widths and constituted low grade ore for the early mine operators. Other veins contain lenticular ore shoots encased in less strongly mineralized vein material.

The veins were emplaced as fracture fillings suring several successive periods of metallization. Refracturing of the rocks resulted in reopening of the veins, which thus permitted further entry of the mineralizing solutions. The bonanza ore had a limited vertical range, which may reflect a supergene enrichment of silver values in the upper portion of the Aurora rock group.

POTENTIAL AS AN EXPLORATION SUBJECT

The pattern of veins in the Aurora district (Plate III) suggests that some large section of the district may contain sufficient gold and silver values to be developed profitably by open pit mining methods. In considering this possibility, an exploration program should be directed towards the discovery of 20,000,000 or more tons of ore averaging \$4.00 to \$5.00 in recoverable values per ton (about 1 ounce of silver and 0.06 ounces of gold per ton). This is a reasonable target in the Aurora district. Limited, systematic testing may show whether an ore deposit of this volume and tenor exists.

Preliminary testing should include a geochemical survey of the area where the Aurora volcanic rocks crop out (Plate III). Bulldozer trenching should then be conducted over any significant geochemical anomalies that are found,

and then bedrock sampling trenches should be cut across the strike of the veins.

Approximately 20,000 feet of trenches may be required. Estimated cost of this first phase of the exploration of the Aurora district is \$40,000.00.

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