

1989 "SNAPSHOT" REVIEW FORM

887574

PROPERTY/PROJECT

Name : Silver Queen  
 NTS : 54° N 126° 45'W  
 Claims : 50  
 Acreage : APP 3200 acres  
 Commodities : Au-Ag-Cu-Pb-Zn

AUTHORS

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AGREEMENTS

Joint Venture Agreement between New Nadina (40%) and Houston Metals (60%) dated January 12, 1987; Houston Metals is entitled to recover 250% of exploration cost from 80% of production before New Nadina participates to its full 40%.

HISTORY

<u>Past Exploration Techniques</u>	<u>By Whom</u>	<u>Amount</u>	<u>Type</u>	<u>Cost</u>
I.P.	New Nadina			
Magnetometer	New Nadina			
D.D.	New Nadina			

<u>Past Development (if any)</u>	<u>By Whom</u>	<u>Amount</u>	<u>Type</u>	<u>Cost</u>
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Nadina Exploration placed mine in production 1972 at 500 tpd  
 Bradina Joint Venture

<u>Past Production (if any)</u>	<u>By Whom</u>	<u>Tonnage(s)</u>	<u>Method</u>	<u>Grade</u>
	Bradina J.V.	200,000	U.G. Mine	*

\*The Silver Queen Mine produced in 1978/73 : 3,257 oz gold, 438,797 oz silver, 11,132,704 lbs zinc, 1,547,181 lbs lead, 892,898 lbs copper, and 34,769 lbs cadmium from about 208,000 tons of ore and development muck.

Reasons for shut-down

Mine and metallurgical problems

GEOLOGY

Regional

Property underlain by late Mesozoic to early Tertiary volcanic flows and pyroclastics, near SW. rim of a caldera formed by the Francois Lake group (upper Cretaceous)

Local

Dacite flows and Tuffs, cut by a microdiorite sill or dyke, form the top of Mine Hill. Dykes are pulaskite, a syenite porphyry which are post-ore, and andesite. Rhyolite underlies the dacite.

### Alteration/Ore Forming Minerals

Regional alteration - pervasive pyrite - propylite is locally intense. Near veins - intense propylitization with or without shearing and small dykes, particularly in the hanging wall side.

Veins are epithermal - with Fe rich rhodocrosite chalcedonic quartz pyrite, sphalerite, minor chalcopyrite, tennantite, tetrahedrite. Au, Ag grades increase to the south-east.

### CURRENT EXPLORATION RESULTS

#### 1987 - 1988

i) Geology - Surface drilling located the Camp Zone - a series of veins with high Ag contained in silver minerals (argentite and ruby silver). 2590 decline cut No. 3 Vein 200' below main (2600) level - good Au-Ag-Zn ore and access for deep drilling - Development and drilling also located the NG3 Vein - a possible major extension of the No. 3 Vein which has been explored for over 4000 feet.

ii) Metallurgy:

Hydrometallurgical "scalping" approach along the following lines is being tested: bulk rougher concentrate will be oxidized and leached to yield a copper -zinc-iron-arsenic pregnant solution and a copper-lead-iron-silver-gold residue.

Zinc and copper will be put in solution and recovered in the form of precipitates, gold and silver will be recovered by cyanidation from solid residue.

#### Reserves

Geological, possible, probable and/or proven:	1,900,000 tons
Proven (No. 3 vein below 2,600' elevation):	200,000 tons
Number of zones:	17
Number of sample points:	4,000 feet of drift, +80 surface D.D.H. +70 U.G. D.D.H.
Average grade:	\$189.00 N.S.R.
Average thickness:	5 ft.
Cut-off grade:	\$130 N.S.R.

N.S.R. = Net Smelter Return to the Mine

#### Costs

Recent exploration costs, i.e. (relating to above)	\$10,000,000
Projected exploration costs of program to development (if any)	\$1,500,000 (subject to review)
Projected development costs given positive economics	\$30,000,000
Projected operating costs given positive economics	\$110 - 130/ton

SECTION 26000

SECTION 27000

SECTION 28000

SECTION 29000

LEGEND

DRILL HOLE INTERCEPT  
(1988 DRILL PROGRAM TO DATE)



DATE: NOV. 25, 1988

DRAWN BY S.H.

LONGITUDINAL SECTION  
HOUSTON METALS CORP.  
SILVER QUEEN MINE, OWEN LAKE, B.C.

