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ITEM 18

TONKIN SPRINGS—GOLD

Alternate names: Rob Claim Group

Commodities: Au

LOCATION-OWNERSHIP

County	Eureka.	General location	About 95 km northeast of Eureka.
Mining district	Antelope.	Meridian	Mount Diablo.
Elevation	2,130 m.	Tract	Sec. 3, T 23-1/2 N, R 49 E.
Topography	Hilly, mountainous.	Latitude	39°54'27" N.
Domain	BLM administered.	Longitude	116°26'54" W.
Owner-operator	Silver State Mine Corp., Denver, CO, 55% (1985).		
Owner	Precambrian Exploration, Inc., Lakewood, CO, 45% (1985).		

GEOLOGY

Type of ore body	Disseminated, replacement.	Host formation	Lower Vinini.
Origin	Hydrothermal.	Geologic age	Ordovician.
Shape of ore body	Stratiform; irregular in plan.	Rock relationships	Sandy dolomite limestone-jasperoid replacement, contains ore.
Ore controls	Northwest-trending fractures, volcanic capping, sill-like intrusive.		Black carbonaceous shale, near ore.
Strike and dip of mineralized zone.	Northwest: nearly horizontal.		Calcarene, jasperoid replacement contains ore (best host).
Age of mineralization	Tertiary.		Siltstones, near ore.
Mineralized zone average dimensions, m:			Chert, near ore.
Length	450.		Intrusives (syenite), near ore.
Width	300.	Alteration	Tertiary volcanics, above ore.
Thickness:			Silicification (jasperoid development), calcification, carbonization.
Zone	85.	Size	Small.
Bed	≈5 to ≈25.		
Depth	0 to 70.		
Mineral names	Pyrite (auriferous), arsenopyrite (auriferous), possible free gold, realgar, orpiment, stibnite, calcite, jasper. (About 75% of the gold is thought to occur in sulfides.)		

DEVELOPMENT

Current status	Active-exploration.	Distance to water supply. . .	Unknown.
Type of operation	Would be surface.	Road requirement	Unknown.
Mining method	Would be open pit.	Distance to power supply. . .	Unknown.
		Mill status	Feasibility.
Year of discovery	1981.	Milling method	Would require an autoclave system or some type of pressure chlorination-pressure acidation treatment.
Discovery method	Geochemical survey, geological mapping.		
Initial production	No production schedule established.		
Past production	None.		

PUBLISHED RESERVES-RESOURCES

Class	Quantity	Grade	Year	Reference
1..Not reported in reference	4,000,000 tons	0.05 tr oz/ton Au	1976	616
2..Indicated	2,500,000 tons	0.09 tr oz/ton Au; Upper Zone, stripping ratio = 2.4:1 (waste:ore).	1983	241
Indicated	500,000 tons	0.09 tr oz/ton Au; Lower Zone, stripping ratio = 14.7:1 (waste:ore).	1983	241

REFERENCES

27, 241, 486, 593, 616.

USGS quad maps	Millett, 1:250,000.
	Roberts Creek Mountains, 15'.
USBM sequence number	0320110229.

Comments: A northwest-trending set of high-angle normal faults, probably associated with basin and range rifting, is most important of two faulting patterns for mineralization. Gold distribution is homogeneous throughout microfractured rock along strike of mineral trend.

Information Circular 9035

Principal Deposits of Strategic and Critical Minerals in Nevada

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