

NAME OF PROPERTY

POLARIS-TAKU (WHITEWATER)

OBJECT LOCATED - 'A' vein.

UNCERTAINTY IN METRES 400. Lat. 58°42'05" Long. 133°38'10"

Mining Division Atlin

District

County

Township or Parish

Lot

Concession or Range

Sec

Tp.

R.

OWNER OR OPERATOR

DESCRIPTION OF DEPOSIT

The Polaris-Taku deposits lie in a wedge-shaped zone of Upper Triassic volcanics trending southeast and apexing to the northwest. It is bounded on the southwest by a band of limestone and on the northeast by a narrow belt of amphibolite and serpentine extending along Whitewater creek. The wedge is thought to be a syncline plunging gently to the southeast. It is composed mainly of thin-bedded tuffs and more massive pyroclastics. The south margin of the belt of amphibolite and serpentine dips 65°S.

Strong shearing occurs along both the margins of the limestone belt and in the ultrabasic intrusion. The wedge of volcanics (greenstones) between has been closely folded along northwest-southeast axes. These third order folds have variable plunges that in many places seem to increase upward. Small bodies of ultrabasic rocks, intruded after the area had been close folded, occur within the mine area and to the north.

see Card 2

Associated minerals or products - Silver, copper, antimony.

HISTORY OF EXPLORATION AND DEVELOPMENT

The property is located between elevations of 100 and 1,000 feet on the southwest side of Whitewater Creek, which enters the Tulsequah River about 6 miles above its junction with the Taku River.

The mineral-showings on the Silver King No. 4 claim of the Whitewater group were originally discovered and staked in 1929 by Art Hedman, Ray Walker, Ray Race, and associates, of Juneau. The Silver King 1-7 claims were subsequently Crown-granted (Lots 5489-5495). The group and several adjoining claims were optioned by the N.A. Timmins Corporation, which carried out surface-trenching, open-cutting, and 5,297 feet of diamond-drilling in nineteen holes during the seasons of 1931 and 1932 and then relinquished the option in August 1932. The Alaska Juneau Gold Mining Company optioned the group and adjoining claims towards the end of 1932, did some underground exploration during 1933, and then relinquished the option. The property was further investigated during the season of 1934 by H. Townsend, of Seattle, and D.C. Sharpstone, of Duluth, with the result that it was bonded by Edward C. Congdon and associates. Further underground exploration and development begun by these interests in 1935 met with considerable success.

Polaris-Taku Mining Company, Ltd was incorporated in October 1936 to acquire the property, comprising some 75 Crown-granted claims. A 200 ton per day concentrator was put into operation in October 1937 and continued to operate until the end of April 1942 when the mine closed due to war-time restrictions.

Taku River Gold Mines, Ltd was incorporated in 1945, with Transcontinental Resources Limited holding a controlling interest, to acquire all the shares of Polaris-Taku. The mine was reopened in April 1946 and operations continued until March 18, 1951 when the mine closed. At that time reserves were estimated at 85,000 tons grading 0.42 oz gold per ton allowing for 17% dilution (Transcontinental Res L, 13th AR, 1953). Development work to 1951 had been carried out on 12 levels from 4 adits and a 1,100 foot shaft.

The Consolidated Mining and Smelting Company of Canada Limited leased the concentrator in 1951 to mill ore from the Big Bull and Tulsequah Chief properties. Expansion of the concentrator capacity to 500 tons per day was completed in January 1953.

see Card 2

HISTORY OF PRODUCTION

From 1938 to 1951, 753,255 tons of ore were milled. From this ore 231,604 ounces of gold, 11,760 ounces of silver, and 176,277 pounds of copper were recovered.

REFERENCES

Reports of Minister of Mines, British Columbia:

1929, p. 142; 1930, p. 112; 1931, p. 61;
1932, p. 64; 1933, p. 72; 1935, p. B 27;
1936, pp. B 21-B 28⁺; 1937, p. B 40;
1938, p. B 24; 1939, p. 64; 1940, p. 51;
1941, p. 53; 1942, p. 53; 1946, p. 61; 1947,
pp. 62-68⁺⁺; 1948, p. 61; 1949, p. 72; 1950,
p. 73; 1951, p. 74.

Kerr, F.A.; Some of the Mineral Properties of Taku District, British Columbia; Summary Report 1930, Pt. A., p. 35 A, Geol. Surv. of Canada.

Kerr, F.A.; Whitewater Gold Belt, Taku River District, British Columbia; Summary Report 1932, Pt. A II, pp. 15-24, Geol. Surv. of Canada.

Kerr, F.A.; Taku River Map-Area, British Columbia; Memoir 248, pp. 65-69, Geol. Surv. of Canada, 1948.

Mines Branch, Ottawa; Investigations in Ore Dressing and Metallurgy, 1932, No. 736 (Invest. #457, pp. 170-171; 1935, No. 763 (Invest. #632), pp. 207-213; 1936, No. 774 (Invest. #671), pp. 60-68.

Souther, J.G.; Geology and Mineral Deposits of Tulsequah Map-Area; Memoir 362, p. 54, Geol. Surv. of Canada, 1971.

Sharpstone, D.C.; The Polaris-Taku Mine, Tulsequah, B.C.; The Canadian Institute of Mining and Metallurgy, Transactions, Vol. 41, 1938, pp. 481-500.

+++Smith, Alexander; Tulsequah Area; Structural Geology of Canadian Ore Deposits, Canadian Institute of Mining and Metallurgy, Jubilee Volume, 1948, pp. 112-118.

Mineral Policy Sector; Corporation Files: "Polaris-Taku Mining Company, Ltd"; "Taku River Gold Mines, Ltd"; "Transcontinental Resources Limited"; "New Taku Mines Limited"; "Jason Holdings Limited"; "Suntac Minerals Corporation".

MAP REFERENCES

Map 1262 A, Tulsequah and Juneau, (Geol.), Sc. 1:250,000 - accomp. Memoir 362.

Map 931 A, Taku River, (Geol.), Sc. 1":2 miles - accomp. Memoir 248.

#Geological Map of vicinity of Polaris-Taku mine, Sc. 1":2,500', Fig. 2, Rept by Smith (1948), p 116.

*Preliminary Map 45-30, Taku River, (Geol.), Sc. 1":1 mile, Paper 45-30, Geol. Surv. of Canada.

Map 104 K, Tulsequah, (Topo.), Sc. 1:250,000.

REMARKS

Comp./Rev. By	DMacR	JL					
Date	4-79	01-91					

NAME OF PROPERTY

POLARIS-TAKU (WHITEWATER)

DESCRIPTION OF DEPOSIT (continued)

The fracture pattern in the greenstones of the mine area consists of:

(1) 'A' shear zone striking northwest and dipping southwest toward the limestone belt.

(2) Numerous north-south shear zones between 'A' shear zone and the band of ultrabasic rock along Whitewater creek.

(3) Several northeast-trending arcuate faults connecting certain of the north-south shear zones with 'A' shear zone.

(4) No. 1 fault, a late structure striking northwest and dipping northeast. 'A' shear has been found only west of this fault, and most of the north-south veins are east of it. The principal ore-bearing structures are: 1 - the 'A' shear zone, 2 - north-south shear zones in the footwall of 'A' vein, and 3 - connecting arcuate faults.

The ore in all shears is similar, and consists of white quartz and carbonate veins, and of lenses with fragments of wall-rock which are partly replaced by pyrite and arsenopyrite. The sulphide replacement extends into the walls, and because the arsenopyrite crystals are generally very small, it is difficult to determine the limits of mineralization. The only other sulphide seen in the ore-zones is stibnite, which usually occurs as coarse-bladed crystals in the quartz and carbonate veins. Most of the gold is associated with arsenopyrite, but although the presence of arsenopyrite is an indication of gold, the amount of gold is not proportional to that of arsenopyrite. In some instances the gold is associated with the stibnite, and a small proportion is free.

HISTORY OF EXPLORATION AND DEVELOPMENT (continued)

Numalake Mines Limited in 1953 purchased the assets of Taku River Gold Mines, Ltd and changed the company name (Numalake) to New Taku Mines Limited; Transcontinental Resources Limited still held a controlling interest. Intermittent surface exploration was carried out on various parts of the property in subsequent years.

The Consolidated Mining and Smelting Company continued to operate the mill until 1957; the lease agreement was cancelled in 1970.

Jason Holdings Limited in 1970 purchased control of New Taku Mines from Transcontinental Resources. The company (New Taku) was re-organized and the name changed in 1974 to Rembrandt Gold Mines Ltd.

In 1988, Suntac Minerals Corporation optioned the property and carried out a geochemical survey, underground rehabilitation and diamond drilled 8 surface holes for 3,372 feet. In 1989, there were done geophysical surveys and there were diamond drilled 18 surface holes for 13,377 feet. More drilling was done in 1990 and there were calculated probable and possible tons of 886,000 tons of 0.47 ounce per ton Au. (Northern Miner April 19, 1990).