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Baker Mine
094E/6

PROPERTY SHOWINGS

Several quartz veins in the general area of the Baker Mine have been drill tested in recent years (see 1988 Exploration Program, Chappelle Gold Property by N.C. Carter). 50,000 tone grading 0.587 oz/t gold and 5.16 oz/t silver was outlined on the B Vein. Other veins tested include the North Quartz Zone, New Zone, C vein, D Vein and West Chappelle Veins. Results were largely inconclusive; addition work is recommended for the North Quartz Zone and New Zone.
Several new showings or mineralized zones were discovered during the 1989 prospecting program. Anomalous areas indicated by previous surveys were examined and evaluated. The most prospective showings, or zones of mineralization, are discussed below.

PETER'S GULCH SHOWING

The showing is located in the northeast portion of the Chappelle property, about 1 km. south of the Price Zone and close to the southeast corner of the Barry Price claim. The main showing was discovered in a small creek draining from the east flank of Black Mt. into the upper reaches of Canyon Creek.
Rocks exposed in the gully are gently dipping Toodoggone porphyritic flows (Unit 16, Marsden). These are overlain by well bedded tuffs which are in turn overlain by massive dacitic flows (Unit 24-Saunders grey dacite?). The porphyry flows contain disseminated magnetite, except where the rocks are oxidized. Blasting and hand trenching on the main showing exposed the vein structure over a length of 6 m.. The vein structure is 2 m. wide and composed of 1 m. of quartz/ pyrite and 1 m. of pyritic fault gouge. The structure is steeply dipping and strikes Az 145° to 160°. Approximately 30 m. below the main vein is a parallel quartz /pyrite vein about 20 cm. wide. Several parallel fault and branching structures and narrow veins are exposed in the gully. Alteration of the host rock is common. Feldspars are generally altered to clay minerals and are frequently pink to salmon colour. Veinlets of quartz/calcite are common; an unidentified pink to salmon coloured mineral is also present.
Grab samples from the main vein assayed 0.047 and 0.079 oz/t gold; samples from the lower vein assayed 0.106 and 0.198 oz/t gold. Two chip samples across the 1 m. main vein assayed 0.029 and 0.035 oz/t gold. Samples of narrow veins and fault gouge, above and below the showing, gave anomalous results up to 771 ppb gold. Gold mineralization shows a general correlation with the amount of pyrite present. Prospecting several hundred meters along strike showed several localities of pyritic quartz vein/ breccia float and sub-outcrop. The findings indicate that zones of quartz/pyrite occur along parallel and branching structures to the main Peter's Gulch fault. All samples showed anomalous gold values up to 1000 ppb. A small area of high-grade copper mineralization associated with calcite-epidote veining, was discovered stratigraphically above the main showing. A sample of the bornite/chalcocite/covelite mineralization ran 12% copper and 14 oz/t silver.

PRICE ZONE

This broad gossanous area straddles the boundary between the Barry Price claim and the northeast Chappelle claims. Previous work by Western Horizon Resources outlined an area of alteration with local siliceous breccias. A soil survey over the area indicated several gold anomalies; the highest value of 1525 ppb gold is on the Chappelle claims. The soil survey was extended to the southeast as part of the 1989 program; results showed only a few low order anomalous values. Analyses of quartz samples generally shows low gold values. This is possibly due to the leaching of the gold-bearing sulphides from the quartz/breccia veins exposed at surface. The west side of the Price zone is marked by a major fault which is an extension of Peter's Gulch fault structure.

NORTHEAST ZONE

This zone of mineralization lies along a southeasterly extension of the Golden Neighbour showing, drilled by Lacana in 1986. The holes tested a 150 m. strike length within a 1200 m. long soil anomaly. No high-grade mineralization was encountered; values ranged up to 1000 ppb gold. The strong soil anomaly extends onto the northeast Chappelle claims. Sampling of rock talus and trenches confirmed the presence of anomalous gold values associated with minor pyrite/chalcopyrite in quartz-epidote filled fractures in a feldspar porphyry. The mineralized zone lies along the northwest striking Saunders Fault.

MT. SHASTA AREA

This area is centered on the west flank of Mt. Shasta, which lies on strike with, and about half way between, Peter's Gulch showing and the Shasta deposit. Exploration in this area has been minimal. Outcrop is scarce and much of the rock exposure is Saunders grey dacite, which is supposedly post-mineralization. The little prospecting and sampling that was done, was very encouraging. Three rock samples collected on the west flank of the mountain ran 99, 411 and 1860 ppb gold. One sample of altered porphyry, with minor copper oxide, collected on the south flank, ran 1720 ppb gold and 543 ppm silver.

CLANCEY ZONE

A system of quartz veins and breccias was discovered along a creek valley immediately north of North Black Gossan. The open-spaced veins and veinlets strike northwest and cut basic Takla volcanic rocks. Initial sampling of float, containing minor sphalerite and galena gave anomalous gold values; one sample assayed 0.723 oz/t gold and 23 oz/t silver. Follow-up prospecting led to the discovery of a quartz vein with local galena and sphalerite; however results of sampling showed no anomalous results. Additional float was found nearby that assayed 0.339 oz/t gold and 19 oz/t silver. The source of this high-grade float has yet to be found. The vein system extends approximately .5 km. northwest; sampling of quartz veins in this area produced only background gold values.

NORTH BLACK GOSSAN

The Clancey quartz vein/breccia system strikes southeasterly across a large gossanous area known as the North Black Gossan. This large quartz-sericite-chlorite-pyrite alteration system is typical of several large gossanous areas in the Toodoggone. Alteration intensity varies from complete replacement by silica to minor alteration along fractures. Analyses of pyritic silicified rock from these gossanous areas generally show low gold values. Although previous soil and rock surveys over the North Black Gossan produced only background values, recent sampling at the north end of the gossan has shown anomalous soil values up to 3000 ppb gold and a few anomalous rock values from highly leached quartz vein/breccia samples. During the follow-up program a system of quartz veins and breccias was discovered along the west flank of the North Black Gossan. The veins appear to be a southeast strike extension of the Clancey veins. Sulphides have been leached from surface rocks and as a result the low gold values do not necessarily indicate the lack of gold mineralization.

WEST CIRQUE ZONE

The Cirque area is located east of the Baker Mine. Initial sampling of this area showed local zones of high-grade copper/silver skarn mineralization exposed on the ridge immediately above the cirque. Follow-up prospecting and sampling revealed a system of wide quartz veins and quartz breccias poorly exposed in a small drainage immediately southeast of the mined out Baker A Vein. Results from limited sampling gave anomalous gold values up to 1200 ppm and anomalous silver values up to 158 ppm. Some of the quartz veins are in contact with limestone.

VLF/MAG SURVEY

A VLF/Mag survey was carried out on the Clancey and Peter's Gulch grids by Quest Canada. A Syntrex model IGS-2 instrument was used; readings were taken every 12.5 m. Seattle was used as the source station for the VLF readings. VLF profiles and Fraser filtered maps are presented for each grid. The residual mag component was measured by filtering out the diurnal variations. Residual Mag profile and contour maps are presented for each grid.

PETER'S GULCH GRID

Results of the VLF survey confirm the presence of a linear conductive structure along the trace of Peter's Gulch fault. The Fraser-filtered linear contours are oriented Az.165 and show continuity the entire length of the grid. Other parallel and branching structures are indicated. The north portion of Peter's Gulch structure shows the best "intensity". This may indicate conductive fault gouge with little development of quartz/pyrite vein material. The VLF signature in the immediate Peter's Gulch is less intense and indicates branching or splay structures. The parallel "anomaly", 100 m. east of Peter's Gulch structure is coincident with anomalous quartz samples collected along a elongated "bench" and also with the Lower showing exposed in Peter's Gulch. Line 6300 N was extended 300 m. east to test a portion of the Price zone.

The residual mag "intensity" contours reflect disseminated magnetite noted in the host feldspar porphyry flow unit. The western boundary of the mag anomaly is coincident with Peter's Gulch fault. Mag lows in the immediate area of the main showing probably reflect alteration of magnetite to limonite adjacent to the mineralized zone. A moderate low is also co-incident with the lower showing and eastern VLF trend.

CLANCEY GRID

The two northwest trending Fraser-filtered "intensity" anomalies reflect the Clancey vein system and a fault along the contact between Toodoggone and Takla volcanic rocks. The Clancey anomaly trends Az.160°; the contact fault anomaly trends Az.155°. The Clancey anomaly is relatively broad, possibly reflecting the parallel system of veins and veinlets running along the ridge immediately west of the creek. Although discontinuous, the Clancey anomaly trend continues along the west flank of the north end of North Black Gossan where a leached quartz vein/breccia system cuts intensly altered rocks.

The mag intensity shows a general co-incidence with the Takla rocks exposed along the ridge. This magnetic signature is destroyed south of line 6200 N by the intense alteration associated with the North Black Gossan. The mag highs along the east side of the grid probably reflect disseminated magnetite in a Tooodoggone feldspar porphyry flow, immediately east of the fault.

The following drilling proposal is preliminary and should be altered as the program progresses and new information becomes available.

B Vein Offset

High resistivity readings coincident with soil anomalies. 100 m northwest of the termination of B Vein. suggest a yet untested offset to the B Vein. Three, 100 m. holes would be the minimum drilling necessary to test this target. The B Vein drill roads would provide access and drill site locations. Discovery of an offset to the B Vein would be an important development in obtaining sufficient additional reserves to commence mining.

West Cirque Zone

A mineralized vein system was discovered immediately southeast of the mined-out A Vein, towards the end of the 1989 program. The limited results and logistics are so positive that this should be one of the first targets tested. Preliminary indications suggest that the West Cirque zone is part of a mineralized vein system parallel to the A and B Veins. Extending the B vein drill road, 400 m. south along contour (1775m.), would provide access to the vein exposures. Limited cat trenching would verify the geometry of the veins and "firm up" the best drill site locations. A minimum of 400 m. of drilling is recommended. Four, 50 m. holes would test the veins at a shallow depth and two, 100 m. holes would test the veins at a moderate depth. The development of significant new tonnage within the mining lease area, could quickly lead to renewed mining.

Peter's Gulch Showing

Since the Peter's Gulch mineralization extends onto the Barry Price claim, Multinational's drilling plans will, in part, be dependent upon optioning this claim. Assuming negotiations are successful, the following program is recommended. A 4 km. cat road should be constructed from the Baker road north to Peter's Gulch and the Price zone. Several drill targets occur along and parallel to the main Peter's Gulch structure. Cat trenching would better expose the zones of silicification, pyritization and quartz veining. Preliminary drill targets are: 1) Main and Lower showing - set up in gully below Lower showing drill -45° into hill. 2) Sample site PD-248 3) Sample site PD-217 3) Sample site PD-136 4) Sample site PD-210. Two, 50 m. holes per target should produce sufficient data to know where to concentrate further drill testing.

Price Zone

Geologically this large area of "high level" alteration offers considerable potential. Unfortunately the suspected leaching of gold from surface, makes it difficult to know where the most attractive targets are located. The coincidence of several siliceous breccias with anomalous soils located along the N-S claim boundary, suggests that this area is a prime area to test. Four, 50 m. holes would be minimum to evaluate this zone.

Northwest Zone

Further prospecting and sampling should be carried out along this structure to determine the best drill target locations. A minimum 200 m. of drilling is anticipated.

Mt. Shasta Area

Since there has been vertually no exploration in this area, and since most of the area is covered by talus and soil, sampling and cat trenching is recommended prior to drilling. Encouraging results from limited sampling in 1989, suggests that at least 200 m. of drilling will be warranted.

Clancey-North Black Gossan Zone

As mentioned previously, the source of the high-grade float has not yet been located. Detail prospecting should be carried out to locate the source of high-grade float. The results of this work will, in part, determine the amount of drilling warranted, however, a minimum 200 m. is anticipated.
At least 2, 50 m. holes should be drilled to test a poorly exposed quartz vein system along the west flank of North Black Gossan. Two anomalous soil samples were collected in the immediate area.

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