Cowichan Project
92B13
827280

UNION MINIERE EXPLORATIONS AND MINING CORPORATION LIMITED

DRILL RECORD

AREA: VIVA VENTURES OPTION
ANOMALY:
CLAIM: KLONDYKE

Hole No.: CH 1
Bearing and Dip: -45° South
Local Coord. X=18E Y=0+50S Z=Charity Grid

Depth: 804 feet
Started: June 1, 1979
Completed: June 5, 1979

Drilled By: Phil's Drilling
Machine: Longyear-24
Diam.Drill: BQ

Described By: R. Turna

Depth (feet) From	To	% Core	Description & Lithology	Mineralization	Dip	No. o Sampl
0	28		Overburden.			
28	108		Chlorite schist. Mostly fine grained with low fracture density. Very little disseminated pyrite and associated with 1/4 cm or smaller quartz veins. Veins are strung out parallel to schistosity.			
108	118		Highly fractured.			
118	181		Chlorite schist as above.			
181	190		Chlorite schist with quartz veins. Coarse crystalline pyrite associated with veining makes up 25% of rock. Minor chalcopyrite in quartz vein.	cpy at 185 and py		CH1 181-19
190	202		Chlorite schist. Fine grained.			
202	205		Coarse crystalline pyrite associated with quartz veining makes up 20% of rock. This and 181-190 are certainly the geophysical conductors. Chalcopyrite occurs in quartz vein at 203 and 203.5.	py cpy at 203 and 203.5		CH1 202-20
205	275		Medium grained chlorite schist. Low fracture density. Small amount of disseminated pyrite. Medium porosity.	minor cpy at 255		
275	286		Chlorite schist brecciated by quartz veining. Some pyrite associated with veining.			
286	305		Fine grained chlorite schist. No pyrite.			
305	310		Highly fractured and porous chlorite schist. Some disseminated pyrite.			
310	316		Fine grained chlorite schist.			
316	320		Fractured and porous chlorite schist. Some disseminated pyrite.			

Depth		%	Description & Lithology	Mineralization	Dip	No. of
om	To	Core				Sample
20	345		Fine grained, medium porosity chlorite schist. Some pyrite with small quartz veins and disseminated.	py		CH1 332
45	350		Highly fractured chlorite schist. Some disseminated pyrite.			
50	410		Fine grained chlorite schist. Low fracture density and porosity. Small amount of disseminated pyrite. Pyritiferous veinlet at 401.			
0	473		Coarse grained chlorite schist. Low fracture density and porosity. Small amount of pyrite disseminated and associated with many small quartz veinlets. Quartz veins are strung out parallel to schistosity. Some chalcopyrite occurs with quartz veining at 423.5 and 439.	cpy at 423.5 and 439		
73	476		Pyrite disseminated in chlorite schist. Fine grained.	py		CH1 474-476
76	480		Fine grained chlorite schist. Minor pyrite. Small amount of disseminated chalcopyrite at 480.	cpy at 480		
0	551		Coarse grained chlorite schist. Low fracture density. Pyroclasticy granular appearance. Many small epidote clasts. Minor pyrite disseminated and in quartz veinlets.	py py py		CH 519.5 -522.5 CH1 524-526 CH1 530-532
1	570		Highly fractured. Pyrite concentrated in small quartz veinlets. Pyrite also occurs disseminated.	py py		CH1 552-555 CH1 556-558
0	580		Medium grained chlorite schist.			
0	583		Many small quartz veins in medium grained chlorite schist. Small bit of chalcopyrite at 583 in quartz veinlet.	cpy at 583		
3	606		Medium grained chlorite schist with occasional small quartz veins.			
6	609		Brecciation by quartz veins with pyrite. Some epidote alteration and clasts.			
9	677		Coarse grained chlorite schist. Small clasts of epidote. Brecciation occurs at many small quartz veins. Minor disseminated pyrite. Low porosity.			

Depth		%	Description & Lithology	Mineralization	Dip	No. of
om	To	Core				Sample
77	683		Highly fractured. Some disseminated pyrite.			
83	696		Coarse grained chlorite schist. Minor pyrite.			
96	702		Disseminated pyrite in chlorite schist. Pyrite occurs as "eyes" strung out parallel to schistosity. No veining. Chalcopyrite disseminated in small amounts at 699 and 700.	py cpy at 699 and 700		CHI 696-702
02	747		Fine grained chlorite schist. Very little disseminated pyrite. Low to medium porosity.			
47	774		Greyish green chlorite schist. Very porous. Medium grained. Appears more siliceous. Occasional minor disseminated pyrite.			
74	780		Brecciation by quartz veins. Minor pyrite in veins.			
80	792		Coarse grained porous chlorite schist. Appears somewhat siliceous. Some small quartz veinlets. Silicified. Disseminated pyrite at 784-786.5 and 788-789.	py		CHI 784 786.5 and 788-789
2	804		Grey very porous, medium to coarse grained chlorite schist. No pyrite.			

Footage	ppm Cu	ppm Zn	ppm Ag	ppm Au
CHI 181-190	500	16	.2	.020
~~202-205~~	~~2200~~	~~40~~	~~1.3~~	~~.050~~
332	240	58	.1	.030
474-476	88	68	.1	.010
~~519.5-522.5~~	~~12~~	~~62~~	~~.1~~	~~.005~~
524-526	102	68	.1	.020
530-532	10	47	.1	.005
~~552-555~~	~~15~~	~~64~~	~~.1~~	~~.005~~
556-558	430	50	.1	.010
~~696-702~~	~~295~~	~~38~~	~~.2~~	~~.010~~
CHI 784-786.5 & 788-789	27	32	.1	.005

with the main AEM and magnetic survey over the Metal claim area to the south (see further).

(a) Charity Group (includes Viva ventures)

Geology

The area was mapped in detail (see Figure B2). Outcrops are lacking over most of the area. The few outcrops are concentrated along the Chemainus River, along a few creeks and on the higher parts of the property along the northern boundary. The northeastern half of the claim group is underlain by rocks belonging to the Paleozoic Sicker Group. Outcrops on the property typically consist of quartz-sericite schists and chlorite schists. Schistosity is well-developed and trends in a northwesterly direction. Dips are to the north and vary from 50° to 80°. These schists are probable metamorphic equivalents of rhyolitic to andesitic tuffs. Dark green, sometimes porphyritic diorites form large, erosionally resistive outcrops along the northern part of the Charity claim. These diorites are intrusive into Sicker schists. The age of these diorites could be from Paleozoic to Jurassic. They have been tentatively correlated to the main intrusive event of Vancouver Island, the Jurassic Island Intrusives.

In the southwestern half of the property a few outcrops are found of shales and sandstones. These rocks belong to the Nanaimo Group sediments and unconformably overlie the Sicker schists. The unconformity is trending in a northwesterly direction. In the southern part of the Hope claim the unconformity is possibly offset by a transversal fault since Sicker quartz-sericite schists occur due west of the outcropping unconformity.

Geochemistry

Most of the Hope claim and the western part of the Charity claim had been soil sampled in previous years by Mr. J. Deighton and by Cominco.[4]

The remainder of the area underlain by Sicker Group rocks was sampled in detail on a 100 x 50 metre grid in 1979. The samples were analyzed for copper, lead and zinc. The results are illustrated in Figures B3, B4, and B5. Statistical analysis of the copper, zinc and lead results indicate anomalous values over 90, 160 and 16 ppm, respectively. Anomalous copper and zinc results,

[4] J. Deighton's data on file. Cominco Assessment Report, 1967

ranging up to 3400 ppm and 1800 ppm, respectively, are largely coinciding. The highest values for copper and the largest extent of anomalous copper occurs from line 5W to line 0 from 0 to 5S. This large anomaly is situated over a break in slope. Steep hillsides to the west give way to overburden covered bottomlands to the east. Six testpits were dug along line 1W from 0 to 5S to a depth of ten feet. Analysis of the soil profiles shows average values of 200 to 300 ppm for copper and 100-200 ppm for zinc. Considerably higher values, similar to the highest soil sample values, were recorded on the top of the profiles in B-horizon soils. The testpit results do not exclude a possible local (residual) source for the anomalous values. The topographic situation of the anomaly nevertheless would suggest a probably source area upslope west of line 3W from lines 14 to 18E. In that area anomalous lead values partly coincide with higher zinc and copper values. Similar highly anomalous zinc and copper values occur north of the baseline in the northeastern corner of the Charity claim. The widest area of anomalous values also is situated at the break of slope. The probable source area for this anomaly would be upslope north of the Charity claim boundary. The Pauper (Sharon) Copper Prospect is located immediately north of the Charity claim boundary in the probable source area of the anomalous values.

Soil sampling was also done over a limited area of the Hope claim. A few scattered, partly coinciding anomalous zinc, copper and lead values are indicated from lines 7 to 11W at 2N. A small showing, consisting of chalcopyrite, sphalerite and pyrite is situated in that area.

Geophysical Surveys

Systematic ground VLF (EM-16) surveys were done over the Hope and Charity claims. Lines were spaced 100 metres apart; readings were taken every 12.5 metres. The results are presented in Figures B6 and B7.

The purpose of the surveys was to locate conductive horizons over geochemical anomalies. A conductor was indicated on line 18E, 0.75S in the probable source area of geochemical soil anomalies for copper and zinc.

Airborne geophysical surveys were also done over the Hope and Charity claims and are reported further. One short line of Crone JEM was done on line 8W on the Hope claim over an EM-16 conductor and an AEM conductor. The Crone profile shows variable conductivities which suggest a near bedrock source. Geochemical surveys on the area were negative.

Drilling

One hole was drilled on the Charity Group (Klondyke claim) on line 18E, 0+50N. The hole tested the VLF conductor and the source area of the main geochemical anomalies on the Charity claim group. The hole was drilled to a depth of 245 metres in chlorite schist (drill log, see Appendix). From 55.2 to 58 metres and from 61.6 to 62.5 metres, pyritic schists were intersected of which 1.5 metres assayed 0.1% Cu. Several thin quartz veins with sparse chalcopyrite also occurred further down the hole. The drilling clearly explained the cause of the geochemical soil values and the cause of the conductor.