

## CORDILLERAN ROUNDUP

## 1990 "SNAPSHOT" REVIEW

Property/Project

Name : Tulsequah Chief  
 NTS : 104K  
 Claims: 105 claim units

Authors

M. Casselman - Cominco Ltd.  
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Acreage: approx. 5,000  
 Commodities: Cu, Pb, Zn, Au, Ag

Agreements

Cominco Ltd. - Redfern Resources Ltd. 60%-40% joint venture began in 1987. Cominco Ltd. are operator.

History

Past Exploration	By Whom	Amount	Type	Cost
1923-1932	United Eastern Mining Co., Taku Mining Co.	1500 ft. 3 adits 7 drill holes	drifting surface	?
Past Development	By Whom	Amount	Type	Cost
1946-1951	Cominco Ltd.	4 adits 9 levels 1500 foot internal shaft		?
Past Production	By Whom	Tonnage	Method	Grade
1951-1957	Cominco Ltd.	650,000 tons	Shrinkage and open stoping	1.8% Cu 1.3% Pb 6.7% Zn 0.10 Au oz/t 3.16 Ag oz/t

Geology**Regional**

Area is on the west edge of the Intermountain Belt probably in the Alexander Terrane, encompassing Carboniferous-Permian volcanic and sedimentary rocks, Triassic intermediate volcanics, and Cretaceous-Tertiary felsic volcanics. Intrusives range from pre-Permian to Tertiary in age and include plugs, dikes and stocks of dioritic to rhyolitic composition.

## **Local**

Carboniferous-Permian intermediate to felsic volcanic flows and pyroclastic rocks form a footwall assemblage capped by a 'mineral horizon' of sericitized, pyritized dacite-rhyolite pyroclastics (lapilli tuffs, cherty tuffs, muds) which host all sulphide bodies. A thick, lenticular dacite-rhyolite pyroclastic unit overlies the mineral horizon and is itself overlain by a hangingwall sequence of mainly andesite pyroclastics. Contemporaneous diorite to rhyolite plugs, dikes and sills intrude these volcanic sequences.

## **Alteration**

Apart from the 'mineral horizon', a discordant footwall alteration pipe which terminates against the 'mineral horizon' and extends at least 1 Km into the footwall, displays a pyrite-sericite core zone, a biotite-pyrite transition zone moving to a chlorite-pyrite outer zone.

## **Ore Zones**

Massive sulphide bodies in the 'mineral horizon' are composed of varying proportions of pyrite, sphalerite, galena, chalcopyrite, tetrahedrite, barite and gypsum. Sulphides are fine to medium grained, massive to well-banded and bedded with local fragmental textures and some contorted banding from soft sediment deformation or slumping.

## **Current Exploration Results**

1987-1989

### **i) Geology**

Regional, local and underground mapping carried out to develop stratigraphic control.

### **ii) Geochemistry**

Some stream sediment and rock chip analysis for metal values and alteration patterns.

### **ii) Geophysics**

No response from airborne geophysics, no surface or down hole geophysics has been done.

### **iii) Sampling**

26 drill holes totalling 39,000 feet have been drilled to establish stratigraphy and test the 'mineral horizon' to a depth of 1600 feet below the lowest mine level. The deposit remains open in all directions.

## **Reserves**

Geological reserves as calculated by Redfern Resources are 5,822,000 tons grading 1.6% Cu, 1.3% Pb, 7.02% Zn, 0.08 oz/ton Au and 2.93 oz/ton Ag.

Reserves based upon existing 800,000 tons proven/probable at mine closure plus 19 recent drill intercepts. The deposit varies from 6 to 52 foot true thickness and averages 20 feet thick and has an average specific gravity of 3.8 g/cc.

## **Costs**

Recent exploration totals \$4,600,000.