H. M. Walker M.E. 1221 Highland Dr. Reno, Nevada Mar. 10, 1969

Mr. J. M. Reynolds P.O. Box 125 Mina, Nevada

Dear Sir:

Pursuant to your request, I have examined the Blue Ribbon Mine, and conducted such other tests, and research as required.

I herewith submit my report.

Very truly yours

H. M. Walker Mining Engineer Blue Ribbon Mine Abstract

### Foreword

With the increasing need for copper, and the continueing problems in the copper producing countries in South America. The Major Mining firms in the U.S., and Canada are spending an estimated 3.7 million dollars per month exploring for the red metal in this country.

Copper being one of the oldest and most widely used metals known to man. The need for new production is evident.

#### Introduction

The author of this report has with all honesty and sincerity set forth to give an unbiased opinion and report on the Blue Ribbon Mine.

This report is done at the request of Mr. J. M. Reynolds, owner of the Blue Ribbon Mine.

#### Location

The Blue Ribbon Mine is located in T.7N., R34E., 3.5 miles west of U.S. highway #95, 8 miles No. of Mina, Mineral Co., Nevada. The nearest major point of supply is at Reno, Nev., 160 north. There is good railway facilities at Luning, Nev. 4 mi. east, and at Mina. Limited housing exists at these communities, with additional housing at Hawthorne 25 mi. No.

Access to the mine is fair. There are several unimproved roads criss crossing the property. Most are passable with two wheel drive.

## Description

The property consists of three patented mining claims, the Blue Jacket #1, & #2, and the Copper John. Along with eighteen possessorg claims, the Blue Ribbon #1 thru #9 inclusive, and the Blue Diamond #1 thru #9 inclusive, app. 420 acres.

In addition there are nine millsites, app.45 acres, located about 3 mi east. Between U.S. highway #95, and The Southern Pacific Railroad. A power line passes within 500 ft. of the property line. Sufficient water can be obtained by drilling to a depth of 200 ft.

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# History

The mine was originally located and worked for scheelite, which occurs in tactite layers in limestone that is intruded by a fine grained granitic rock.

Additional locations were later made to include almost all of the copper mineralized zone.

Mr. Reynolds upon viewing the property in July, 1966 realized the potential and aquired property. He has since spent a great deal of time and money, both in improving the mine and its reserves, and solving the metallurgy problems.

# Geolgy

The limestones, are Triassic, and of the Luning formation, and consists dominantly of dolomite with subordinate shale and argillite. They are locally altered and silicified, and and mineralized with WO3 and cu.

The limestones are intruded by a quartz monsonite prophyry. Thetexture of this rock is particulary distinctive on a stained sawed surface and shows a fine grained interstitial ground mass in which are set euhedral to subhedral metacrysts. The metacrysts are almost completly ironized at the surface. This indicates surface leaching, which will enrich the area at the water table of that time.

The lower exposure of the intrusive is 400 ft. wide and mineralized with cu in the form of oxides, as well as minor amounts pyrites. The samples taken at this point assay 1.70% cu, running as high as 27% in the carbonate zone near the contact. The carbonates are in the form of chrysocolla, azurite, and malachite and are generally with iron and manganese.

The intrusion is striking W 4 deg No. and dipping 15 deg. So.

There is some volcanic tuff overlay on the southwest edge of the intrusion, and locally some quartz addesite. It is reddish brown in color and consists of 25 to 30% of crystals in a ground mass that is partly glassey, and partly crystallized, and is generally mineralized.

All evidence indicates surface oxidation only, therefore the sulfide zone should be shallow, and highly productive.

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Ore Reserves

There are numerous shafts, pits, adits, and cuts present on the property, along with the shallow drilling done by a contractor in 1963 whom I personally know, it is with this knowledge that I estimate the oxide reserves in the silicified zone at 1.5 million tons, with an additional reserve of .75 million tons of carbonates. There is no way to estimate the tonnage in the sulfide zone with the information at hand. It could run in excess of 5 million tons.

Conclusion and Recommendations

There is sufficient reserves of oxide ore to warrent a 500 tpd leaching operation. This could be accomplished with a min. of development, and at the same time conduct an exploration program of deep drilling to prove the sulfide zone, whereas a flotation plant of adequate size will be needed to process that ore.

I am in no way interested in the Blue Ribbon Mine, or Mr. J. M. Reynolds.

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Respectfully submitted

H. M. Walker Mining Engineer