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PRELIMINARY REPORT

TRU MINERAL CLAIMS

# NICOLA MINING DIVISION

# BRITISH COLUMBIA

A.D. Tidsbury, P. Eng.

August 24, 1967

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# PRELIMINARY REPORT TRU MINERAL CLAIMS NICOLA MINING DIVISION BRITISH COLUMBIA INTRODUCTION The following 'Preliminary Report' has been prepared at the request of Mr. C.E. Carlson, President, Sultana Silver Mines Ltd. The report is based upon personal observations made during examinations of the TRU mineral claims on August 16 and 20, 1967, as well as published information having reference to previous exploratory effort in the vicinity of Stump Lake and Geological Survey of Canada Memoir 249 which presents a geological summation for the Nicola Map Area. The TRU mineral claims are a relocation of claims which have covered the known mineral occurrences for a number of years. As far as is known. work on this area has been confined to several trenches of shallow nature which have been blasted in exposures of the underlying rocks. Largely sloughed and caved, these trenches are of little value at this time. It is the purpose of this report to set out the known geological and mineralogical features evident within the claim group, and in the light of present day metal demand, to make recommendations for the evaluation of mineral potential of the property. LOCATION AND ACCESS The TRU mineral claims are located at the northeast end of Stump Lake, and form a continuous block of claims to the east of the end of the lake. being essentially parallel with the trend of the lake. The property is approximately one-half mile northeast of the large group of Crown Grants and located mineral claims which cover the workings and mineral occurrences existing at Mineral Hill on Stump Lake, and which are now owned by Copper Hill Mines Ltd. Access to the TRU group is by means of the Kamloops - Merritt Highway to the Stump Lake Ranch, approximately twenty-three miles southerly from Kamloops. The ranch access road passes by the ranch buildings and crosses the claim group approximately one-half mile from the Highway. PHYSICAL FEATURES, FACILITIES All but the southern portion of the claim group is underlain by open and rolling rangeland. The mineral occurrences are adjacent to the access road and are contained within the open terrain. It is estimated that underlying rock types are exposed in less than 10% of the open range. The southern portion of the property is wooded, particularly along the sloping lakeshore. The property is traversed by the old Kamloops - Merritt highway, now abandoned. A rural power line follows Highway #5, and the new high voltage dine serving the Brenda and Peachland areas crosses Highway 5 some 8 miles south of the property. -1-

The adjacent lake provides ample water for exploratory use, and springs located on the claims should be adequate for drilling.

#### PROPERTY

The TRU group presently consist of twenty newly located mineral claims, pertinent details for which are on record in the office of the Mining Recorder at Merritt. In the Nicola Mining Division. Particulars are as follows:

•	Claim Nama	Record Number	Expiry Date
	TRU #1 to TRU #6	35477 to 35482	Aug. 4, 1968
• •	and the second of the second o	Service of the service of the service of the service of	And the second of the second
٠.	TRU #7 to TRU #20	35595 to 35608	Aug. 17, 1968

The majority of the claim posts and location lines were checked in the field and appear to be in accordance with regulations as set out in the Mineral Act for the Province of British Columbia. The property has not as yet been mapped or surveyed.

## GEOLOGY

The property is located a few miles southeast from the general center of the Nicola Map Area, regional geology for which is presented in G.S.C. Memoir 249 and on G.S.C. Map 886A.

The mineral claims are thought to be underlain in part by volcanic rocks of the Nicola Group of Upper Triassic Age. These Nicola rocks are in contact with Paleozoic rocks of the Cache Creek Group which outcrop in the area of known mineralization, though the contact has not as yet been observed in the field.

No intrusive rock is known to outcrop in the claimed area, though the eastern flank of the Central Nicola Batholith is located some 4 miles west of the property, while the western border of the Wildhorse Mountain Batholith is a similar distance to the north and the east of the claim group.

The largest known structural feature in the immediate area is the Quilchena Creek Fault Zone which trends northerly along the east side of the Central Nicola Batholith near Moore Creek. At Mineral Hill on Stump Lake, the locale of the vein system there is thought to occupy a syncline in Nicola Group rocks. Trend of the syncline is along the lakeshore and the northwestern side of the TRU group.

The presently known mineralized area is located in andesite, quartzite, and conglomerate, all more or less intensely altered. Mineral content is greatest in a white quartz which fills fractures and brecciation in these rocks, and where the rocks are most siliceous and altered.

A similar occurrence, evidencing somewhat greater silicification, is exposed at the southwest end of Stump Lake on the western slope of the valley. Continuity of the altered rock type is suspected between these localities, but is masked by overburden and the lake. Mariposite is common to both areas of alteration and mineralization, and is also noted in the alteration zone adjacent to the vein structures at Mineral Hill.

The alteration and mineralization is exposed in outcrops located on the TRU 1, 2, 3, and 4 mineral claims. Shearing and shattering are evident, the broken rock being healed with white quartz and carbonates. Dominant fracturing and schistosity has strikes of 20, 340 and 355 degrees azimuth; dips being 55 degrees westerly and vertical respectively.

There has been insufficient work completed to date to establish continuity of the siliceous mineralized trends from outcrop to outcrop, but at least some of the zones may be traced for up to 1,000 feet along indicated strike. The oxidized zone in which the mineralization has been noted has dimensions in the order 2,000° by 1,200° and is exposed on a rounded hill, presumably more resistant to erosion because of it's siliceous nature.

#### **MINERALIZATION**

The quartz and more highly silicified adjacent wall rock contains chalcopyrite, bornite, tetrahedrite, pyrite, and an unknown shiphide with a dark silvery-grey lustre. Occasional galena and sphalerite has also been noted. Character samples have indicated appreciable silver content, approximating 2.5 ounces of silver for each percent of copper contained in samples assayed.

The much broken and oxidized surface does not permit collection of representative samples, but the presence of malachite and azurite indicates the mineralized area to be of considerable extent.

Historical record of production from the quartz veins at the nearby Mineral Hill vein system show gold, silver, zinc, lead, copper, and tungsten minerals to be present. Apparently metallurgical problems attendant with the complex ore caused recovery problems at the time of operation since commercial values are obtained in assays from the tailings below the mill site.

The writer is of the opinion that current silver prices justify considerable effort in the vicinity of Stump Lake, and that this area should be considered a separate and distinct mining camp which has not yet received the attention it deserves.

### CONCLUSIONS

The TRU mineral claims contain an area of alteration and associated mineralization which is of sufficient size to host an economic ore deposit. The nature and location of the mineralized area is such as to suggest the possibility of an open-pit type of operation.

The widespread occurrence of silver values in the vicinity of Stump Lake indicate an area with mineralization peculiar to the region, and suggest a mining camp which has not yet been sufficiently exploited. Workings at Mineral Hill demonstrate that the structures containing the vein system are remarkably persistent both as to length and depth.

Favorable geological environment, together with established mineral associations and occurrences, suggest that the TRU mineral claims and the surrounding area warrant detailed investigation and exploratory effort.

## RECOMMENDATIONS

The TRU mineral claims cover a known area of alteration and mineralization.

It is known that other nearby occurrences exist and are available for acquisition by location. In consequence it is suggested that an appropriation be set aside for the investigation of the surrounding area and other mineral occurrences in particular.

To this end, the following works program is proposed:

1.	Prospec	t in detai	1 the	TRU m	ineral c	claims	and the	surrounding
	area.	<b>Facilitate</b>	this	work t	y means	of a	photo s	tudy.

	area. Facilitate this work by means of a photo study.	
2.	Est. Cost	\$ 3,000.00
	Est. Cost	1,200.00
3.	Gonduct test Induced Polarization and Magnetometer Surveys over selected areas to determine the most applicable method of localizing areas of mineral concentration. Subsequently grid areas of interest and complete the geophysical survey.	
	Est. Cost	6,000.00
4.	Complete a chain and compass survey of the claim group and prepare a base map.	
•	Est. Gost	1,000.00
5.	Contact the landowner and obtain consent for a limited program of trenching by blasting and stripping by dozer.	to a substitution of the s
	Est, Cost	2,000.00
6.	Geologically map the claimed area, together with other areas of interest.	
3 · ·	Est. Costamanana	1,200.00
7.	Test target areas by diamond drilling. An initial 1,000 of coring is proposed.	and the second second
	Est. Cost	8,000.00
8.	Supervision, Assays, Transportation, Sustenance.	
	Est. Cost	3,000.00
9.	Overhead and Administration.	
	Est. Cost	1,000.00
10.	Contingencies, Geological and Engineering Reporting.	

Est. Cost----- 3,600.00

\$ 30,000.00

The above outlined program is of necessity a type proposal, since it is not at this time possible to forecast the nature and amount of work to be required by results of the prospecting program.

The total of \$ 30,000.00 is, however, considered to be adequate to indicate the potential of the property and surrounding area.

It is estimated that various phases of the work can be undertaken simultaneously, and that the program can be completed in approximately three months.

Respectfully submitted,

(signed)
A.D. Tidsbury, P. Eng.

July 28, 1967.

## CERTIFICATE

I, Albert Daniel Tidsbury, of the City of Calgary, in the Province of Alberta, hereby declare:

That I am a Consulting Mining Engineer, resident at 3704 Beaver Road, Calgary N.W., Alberta.

That I am a registered Professional Engineer in the Provinces of Alberta and British Columbia. (Consultant)

That I am a graduate of the University of Alberta with a degree of B.Sc. (1950) in Mining Engineering.

That I have practised my profession as an engineer in various North American localities since 1950.

That I have personally examined the holdings of Sultana Silver Mines Ltd., (N.P.L.), the work completed to report date, the manner and method of claim location, and find them to be as stated in the foregoing report.

That I have no interest, direct or indirect, in the Silver Tip mineral claims.

That I have no interest, direct or indirect, in the properties or securities of Sultana Silver Mines Ltd., (N.P.L.), nor do I enticipate acquiring any such interest.

Dated this 28th day of July, 1967, at Calgary, Alberta.

(signed)
A.D. Tidsbury, P. Eng.