

REPORT on the RED BLUFF group of mineral claims, Alice Arm,
Naas River Mining Division, Cassiar District, British Columbia. —

MR. J. N. McPHEE,
BUTEDALE, B.C.

DEAR SIR,—

In accordance with your instructions by letter to me of Sept. 7th, 1928, I beg to present my report on the Red Bluff group of mineral claims. The report is the result of my examination of the property made during the month of September, 1928. It is accompanied by a map showing location and route of present trail and the group of mineral claims known as the "Red Bluff."

SUMMARY

The Red Bluff group of mineral claims is situated in the Naas River Mining Division of Skeena District, about 7 miles north-east from head of Alice Arm.

The property can be reached by pack trail for horses from the town of Alice Arm, as follows: The first 3 miles is traversed by auto-truck, the next 3 miles can be traversed by pack horses, or by team and single bob-sleigh or godevil, the remaining mile is only a foot trail, but with little work could be made suitable for horses.

TOPOGRAPHY

The Topography of the country around the claims is very rough and steep slopes on the south-west side of the mountain merging into sheer bluffs and where cut by streams form deep and rugged canyons. On the north-east and south slopes the mountain slopes more gently and even and is free from canyons or bluffs. The elevation within the claims varies from 1000 to 2700 feet above sea level. The country is covered with a thick growth of spruce, hemlock, balsam and dense underbrush. The entire mountain is covered by a heavy deposit of soil composed of decayed vegetable matter and earth forming swamp land commonly called muskeg on the summit of the mountain.

The Red Bluff group consists of 5 claims, viz.,

"RED BLUFF," "DEVILS CLUB," "ALBION," "SUNBEAM,"
all crown granted and the "SUBCOLLECTOR," not crown-granted.

GEOLOGY of rock formation in which the claims are located. The rocks exposed on the south-west side of the mountain consist of sedimentary formation and tuffs, the sedimentary consists of sandstone and argillities, the larger bands of sandstone appear to be of tufaceous character and consist of feldspar, quartz and some volcanic rock material of a greenish color, the argillites occur in some narrow bands, which in some places appear to intermix or merge into sandstone of a finer grain and much darker than the massive coarse-grained rock. Along the west contact of the sandstone a band of argillites of unknown width occurs, the outcrops being covered with wash. The eastern contact is covered with earth and swamp and the width of the sandstones cannot at present be determined. On the east slope of the mountain, about 1500 feet from the highest cropping of sandstone on Red Bluff, a small outcrop of sandstone carrying copper is exposed in a small creek, but may not be connected with the large sandstone area, it is in fact quite unlikely as a large dyke of massive rock of addesitic character appears to parallel the main body of sandstone and about 1000 feet east of the larger body, thus separating the two. The Red Bluff or main body of sandstone is cut by numerous dykes, some having the same general strike as the sandstone (north-westerly), others having varying strikes from that to north-east and dipping at angles varying from 30 to 70 degrees to north and east. This

large area of sandstone appears to have been heavily mineralized with sulphide ores evenly distributed through the mass, some movement has caused numerous cross fractures at right angles to the strike of the main body of sandstone, later a number of intrusive dykes, invariably paralleling the orebody, cut these fractures at right angles and caused several shears paralleling the dykes, these shears also cuts the cross fractures. These three causes in my opinion are responsible for the great oxidization that has occurred on the surface throughout the entire mineralized surface; these three causes facilitated the circulation of surface waters in the fractures so opened to some depth below the surface, with the disintegration of the sulphides the mineral content was carried down to a lower level by the descending waters, leaving on the surface a heavy deposit of iron oxide and leached material that originally contained the minerals of copper, iron, silver and gold, assays of this surface material shows that all these minerals are present. Small veinlets of quartz near some of the dykes show a dark mineral carrying a large content of silver as shown by tests made with hydrochloric acid, there is also copper sulphides, bornite and galena to be found in small quantities throughout the ore zone.

The small amount of work done does not furnish sufficient data to form an authentic estimate of the quantity or quality of ore. It is quite probable that the leached and oxidized zone will extend to some depth. Below this zone an enriched zone may be expected where secondary enrichment occurs, which should continue down until it encounters primary ores. These primary ores may constitute a large body of sulphides of commercial value. Copper gold ores may be expected, also silver lead and zinc may be expected at depth.

On some claims to the south in this sandstone formation a large body of galena, zinc and iron carrying silver values has been exposed where cut by a small creek, this ore is approximately 800 feet lower altitude than the croppings on Red Bluff, and apparently on the same mineral zone, owing to the covered nature of the ground the area of this ore zone cannot be determined at present. It is exposed on the slope of the mountain for approximately 1000 feet wide and can be traced along the strike about three quarters of a mile and in my opinion will justify the expenditure of money in development.

I would recommend:—

- 1st. That diamond drilling be undertaken to determine if secondary enrichment has taken place beneath the surface and also to locate the primary ore to determine its value.
- 2nd. That some surface trenching be done to discover the east contact of the sandstone and adjoining rocks and to ascertain the character and extent of mineralization along that contact.

Respectfully submitted,

JOHN E. STARK,
Box 12, Alice Arm, B.C.

I beg to submit the above Report for your consideration.

Yours truly,

J. N. McPHEE,

Butedale, B.C.

RE RED BLUFF GROUP OF MINERAL CLAIMS
By J. N. McPhee

Dear Sir:

I beg to submit the following report by R. G. McConnell, Memoir 32, Department of Mines, Page 92, on the Red Bluff Group of Mineral Claims.

Looking up the wide valley of the Kitsault River from the head of Alice Arm, a red patch shows prominently on the face of a mountain north of the river, distant about 4 1/2 miles. A number of claims have been staked on the red area and grouped together under the name of the Red Bluff Group.

A short visit to the showing was made in company with Mr. Young, one of the owners, but as little development work had been done, observation was limited to the general surface features. A rough trail leading up the valley of the Kitsault for some distance, then up a tributary stream from the north, has been brushed out to the foot of the Red Bluff.

The rocks in the neighborhood of the showing consist mostly of fine and medium-textured, greenish, tufaceous sandstones, alternating in places with bands of finer grained, dark argillaceous rocks. The tufaceous sandstones occur in wide, practically massive bands, showing little stratification. They are not much altered and consist mainly of rounded and angular feldspar grains, some quartz, and fragments of glass and volcanic rocks.

The mineralized area is very large, fully a thousand feet in width, and traceable for a long distance up the steep slopes of the mountain. The rocks are fractured and the pyrite oxidized to a greater depth than usual, and no large mass of sulphides is exposed on the surface. Copper carbonates in small quantities occur at a number of points, and a specimen consisting mostly of white pyrite in a siliceous gangue contained small specks of bornite. Some pyrargyrite in small grains was also found with pyrite in one exposure. This mineral does not occur, or at least has not been found, in the other large iron coppings of the district. A crust deposited by a spring bubbling up near the centre of the deposit was determined by Mr. R.A.A. Johnston as allophane, a hydrous silicate of aluminum.

The economic importance of this large pyritized area is uncertain. It contains some copper, and while the amount of surface work which has been done has not exposed it in commercial quantities, the prospects certainly warrant further exploration. The presence of the rich silver mineral pyrargyrite, even in small quantities, is important. (End of Report).

This Group is also covered by report of George A. Clothier, Resident Mining Engineer, Prince Rupert, B. C., in the Annual Report of the Minister of Mines, Page 61, for the year ending December 31, 1922, as follows:

This group consists of two Crown Granted claims - "Red Bluff" and "Devil's Club" - owned by J. McPhee, of Butedale, Customs Officer. The Claims are situated on Red Bluff Mountain, about 5 miles from Alice Arm, on the west side of the North-east fork of the Kitsault River, and reached by a brushed-out trail branching from the main trail up the fork, at about 500 feet elevation, opposite a small creek from the north. From an elevation of about 2,000 feet up, the hill is cut by several deep gulches. Rock is broken down from the sides and collected in big slides at the bottom, exposing a big oxide-covered area on the side-hill that can be seen for miles, and gives the name to the mountain.

R.G.M.
1922

The rock formation in this vicinity is a pyritized light grey feldspathic rock in great masses, alternating with bands of argillite and intruded by many dykes. Two tunnels have been driven in this formation, one at 2,300 feet and another at 2,900 feet elevation, neither showing any concentration of mineral, although along the oxidized seams there is some chalcopyrite in the upper tunnel.

Solid chalcopyrite float has been found on the property and specks of silver sulphides and bornite have been noted in the more siliceous seams in the rock carrying disseminated pyrite. I think the ground well worth close prospecting for enriched fissures within the pyritized rock-masses, and along its contacts with the argillites and dykes. (End of Report).

Referring to Mr. McConnell's report, you will note that this is a very large mineralized zone, but is undeveloped as yet, and Mr. Clothier, whose report you will find above, has the same ideas as Mr. McConnell and also recommends further development.

The assays taken from these claims have shown values of exceptional merit.

All monies received for the purpose of developing the property will be deposited in the Royal Bank of Canada, Prince Rupert, B.C., to whom you can apply for any further information.

Referring to photo at head of certificate enclosed you will notice that property is easily accessible to water transportation and in addition a good road has been constructed to within a short distance of properties.

Referring to Paragraph 12 in the certificate of Agreement, should the company to be incorporated offer its first shares to the public for 10 cents, each unit of this Syndicate will be worth 100 shares of a par value of \$1.00.

If you are interested in the above kindly fill out the enclosed Certificate of Agreement, giving the number of units you desire, the amount paid, the date, and sign your name in the proper place marked in lead pencil, and have same duly witnessed. If you are not interested, kindly return the enclosed to me.

J. N. McPHEE,
Butedale, B. C.