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CANADA

DEPARTMENT OF MINES AND TECHNICAL SURVEYS

GEOLOGICAL SURVEY OF CANADA

PAPER 53-34

FINDLAY CREEK MAP-AREA, BRITISH COLUMBIA

(Map and Descriptive Notes)

By

J. E. Reesor

OTTAWA

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Price, 25 cents

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DESCRIPTIVE NOTES FOR FINDLAY CREEK MAP-AREA, BRITISH COLUMBIA

Sedimentary Rocks

Findlay Creek map-area is underlain by about 25,000 feet of Lower Purcell, fine-grained, clastic rocks. The oldest are those of the Lower Aldridge division (1)[1], consisting of thin-bedded,

[1]Numbers in parentheses correspond to those shown on the geological map.

light-coloured quartzites occurring south of Doctor Creek (1953)[2].

[2]Dates in parentheses refer to references given on page 3 of this report.

Overlying this is 11,000 feet of strata of the Middle and Upper Aldridge divisions (2), which consist, as in the Dewar Creek area to the south (1953), of a thick sequence of thin-bedded quartzites, separated by thin partings of argillite and phyllite. Toward the top of the formation the rocks are increasingly argillaceous with alternating beds of argillite and quartzite, but no distinct argillaceous division, Upper Aldridge, can be separated as it was in Dewar Creek area. The Creston formation (3), lying conformably with a gradational contact above the Aldridge formation, consists of 10,000 feet of green and grey, laminated and massive quartzite and argillaceous quartzite. The formation is thicker than in the Dewar Creek area, but the lithology is similar. The Kitchener formation (4), conformably overlying the Creston, consists of 5,000 feet of variable, thin-bedded, limy or dolomitic argillite, argillaceous quartzite, and quartzite. The upper part of the formation becomes increasingly quartzitic, and consists of thin beds of pinkish to whitish, and grey quartzite, with thin interbeds of grey and black argillite, and buff dolomitic argillite. North of the big bend of Findlay Creek, near the northern boundary of the map-area, a few hundred feet of Siyeh green and purple argillites (5) cap one of the higher mountains. It is partly gradational above, and partly in fault contact with, the underlying Kitchener formation.

Intrusive Rocks

Moyie Intrusions (6). Sills and dykes of altered diorite and quartz diorite occur throughout the area. The largest sills and sill swarms are in the Middle Aldridge division, but small sills and dykes are sparsely distributed throughout the upper formations as well.

Granitic Rocks (7, 8). Three small bodies of granitic rocks outcrop in the area. These are two bodies of porphyritic biotite and hornblende-biotite granodiorite (7), the White Creek batholith and the Frying Pan Stock in the southeast corner and centre of the area respectively, and medium, even-grained quartz monzonite (8) of the Fry Creek batholith in the southwest corner.

Structure

The Findlay Creek area straddles the crest of a major anticline in an area of low metamorphism and slight deformation, except for a small area in the west where metamorphism is greater and deformation intense. Folding is common, with the development of broad open folds in the competent Middle Aldridge division and tight folds, concentrated in zones, in the less competent Creston and Kitchener formations. Many of the folds in the Kitchener have steep to slightly overturned eastern limbs.

Faulting is probably more common than is indicated on the map, but small faults are difficult to recognize in such thick, homogeneous formations. Most faults noted, trend northward and are recognizable for only short distances.

Economic Geology

Few deposits of economic significance have been discovered in Findlay Creek area. Nevertheless, quartz veins, quartz pockets, and even minor, irregular bodies of quartz are common everywhere. Rarely, such quartz may contain a trace of chalcopyrite or galena. Favourable prospecting areas should occur, particularly in the Lower and Middle Aldridge divisions just north of White Creek batholith and in the Creston formation and Middle Aldridge division north and northeast of Fry Creek batholith.

Silver Key Group. The Silver Key group (1938) is south of the upper bend of Doctor Creek, near the edge of White Creek batholith.

The workings consist of an adit and various open pits in steeply dipping phyllite and phyllitic quartzite of the Lower Aldridge division. These occur in a narrow band between the White Creek batholith and a fault along a small creek about 1,000 feet west of the contact. Minerals found are galena, sphalerite, and tetrahedrite with generally high values in silver. In one open pit an assay of 278 ounces a ton is reported (1938).

References

Reesor, J. E. (1953): A Preliminary Report on the Geology of Dewar Creek Area; Geol. Surv., Canada, Paper 53-25.

Ann. Rept., B. C. Minister of Mines (1938): pp. 28-31E.