103I/16W
103I-48

FIDDLER GROUP (near Dorreen).

Property: The exact number of claims now in good standing is not known to Lay, but originally the property consisted of the Boulder, Intrusive, and Indicator claims. The present ownership is not known to Lay, but it is believed that L.W. Patmore of Prince Rupert is interested in the property.

Location: The property is situated on Knauss creek a tributary of Fiddler creek, and is distant about 4½ miles from Dorreen station. Originally a wagon-road extended from Doreen to Knauss creek a distance of 4 miles, and from this point a pack-trail, or rough tractor-trail followed the left bank of Knauss creek to the property. It is understood that the road is now much out of repair. Mineral showings and workings are situated on the left bank of Knauss creek, and lie at elevations of between 1758 feet and 2700 feet. The character of the ground is that of steep well-timbered mountain-slopes.

Type of deposit:- The mineral deposit is a quartz vein, a bed vein which conforms in strike and dip with the enclosing argillites(The latter are fossiliferous, and at some points were found to be calcareous by Galloway). The strike of the vein is north 80 degrees west, and the dip in the workings is at 28 degrees to the north-east. The dip increases to the south-west to about 40 degrees. The width of the vein varies from a few inches to a maximum of 4 feet. The vein is well mineralized with galena, pyrite, sphalerite, and a small amount of chalcopyrite contained in a quartz gangue. The values are chiefly in gold, and are indicated by the assays of shipments given below under

"History". Mineralization in the vicinity of the workings is persistent throughout the quartz. Continuity of the vein is interrupted in the immediate vicinity of No.1 level by a large dyke-like granitic intrusive, about 150 feet in width, which strikes north 45 degrees west , and dips south-west at about 58 degrees , that is in the opposite direction to the vein. The vein continues on the footwall-side of the dyke however. Although this dyke may appear to cut the vein , underground workings revealed that there is much to suggest that the vein does not ante-date the dyke, but that the latter at the time of its intrusion caused fissuring of the sediment on both sides of the dyke, with subsequent mineralization of the fissure. It was demonstrated by No.1 level workings that the quartz vein and mineralization therein narrowed markedly as the distance from the dyke increased.

The direction of Knauss creek valley closely coinciding with that of the dip of the vein, and the gradient of the valley being about the same as the vein-dip, incision of this valley has exposed the vein for a total length of about 1000 feet, mainly above the dyke. Save in the vicinity of the workings mineralization is exposed at widely-separated intervals.

History: The property was originally discovered by Louis Knauss and development was commenced by Martin Welsh in 1914. After the adit, known as No.1 level had been advanced 150 feet, the option on the property was relinquished. In 1916 the property was acquired by Fiddler Creek Gold Mining Co. of Edmonton, and

this company that year commenced the construction of a waggon-road to the property from Dorreen, and in 1917 advanced an adit-crosscut, known as No.3 level a distance of 100 feet, and in 1922 carried out some further work. In 1923, an option was acquired by J.F. Duthie, and No.3 level was continued. In 1924, No.1 level was continued and 72 tons of hand-selected ore was stoped above No.1 level, when the option was relinquished. Smelter returns of this ore showed assay contents as follows: Gold, 1.4 oz. per ton, silver, 5.3 oz. per ton; lead, 4.95 per cent; zinc, 3.1 per cent; copper, 1.2 per cent. In 1925 the property was operated by D, Tredway and associates of Edmonton, and a total footage of 250 feet of development work was carried out, mainly on No.1 level and raises therefrom. A small amount of work was done on No.2 level an adit-drift following the vein on the footwall-side of the dyke. In 1926 J.W. Tredway, with a small crew confined operations to stoping near the surface above No.1 level, where the ore is widest. He shipped 97 tons of ore which as shown by smelter returns contained a total of 81 ounces of gold; 446 ounces of silver; 7,259 lbs. of lead. No material amount of work has been subsequently carried out at this property, so far as the Resident Engineer has knowledge. In 1928 a company , the Fiddler Tredway Mines Ltd. was incorporated for the operation of this property, but the Department drew the attention of this company to the fact that its prospectus contained statements not in accord with the facts known concerning the property, whereupon the company apparently decided

not to proceed further.

(Refer to Annual Reports for the years 1914, 1916, 1917, 1918 1919, 1922 to 1926 (both years inclusive), also to pages 41 to 43 of "Mineral Resources along the Canadian National Railway, between Prince Rupert and Prince George, British Columbia" by F.A. Kerr, Paper 36-20, of the Bureau of Economic Geology, Geological Survey, Department of Mines Canada, 1936.)

Surface showings: These consist of open-cuts and exposures by natural agencies on the left bank of Anauss Creek, which expose the vein along its dip between elevations of 2043 feet and 2700 feet for a distance of about 1000 feet, mainly on the hangingwall-side of the dyke-like granitic intrusive. Save in the more immediate vicinity of the dyke, mineralization is exposed at somewhat widely-separated intervals.

Underground workings: These consists of (1) An adit-drift, known as No.1 level, 290 feet in length, and the portal of which is in immediate proximity to the hanging-wall of the dyke, at elevation 2200 feet. Two raises in this working are of respective lengths 122 feet and 68 feet. (2) An adit-drift, 26 feet in length at elevation 2043 feet on the footwall-side of the dyke. (3) An adit-crosscut, at elevation 1758 feet which had caved and was inaccessible at the time of examination by the Resident Engineer in 1925, but which from the records apparently reached a length of 200 feet, of which the first 100 feet was driven in unconsolidated material. These workings are shown on the map in the Annual Report for 1925.

Two separate ore-shoots were disclosed by No.1 level. Of these

the first extended from the portal inwards for a distance of 65 feet, and obviously did not extend below this level , being cut off by the dyke. The second ore-shoot commenced at 95 feet from the portal and extends westwards for a length of about 100 feet This level cut through the fringe of the dyke between points 47 feet and 82 feet from the portal. The second ore-shoot gives promise of extension below No.1 level, especially in its western part.

In 1925 on the instructions of the Department , underground workings were sampled in detail by the Resident Engineer. The arithmetic means of 19 samples taken at intervals of approximately 10 feet on No.1 level, between points 42 feet and 232 feet west of the portal were: average width sampled, 13 inches. Average assay: Gold, 0.86 oz. per ton; silver, 2.0 oz. per ton; lead, 2.0 per cent; zinc, 1.9 per cent. Between points 240 feet and the face, the average width sampled was 6 inches, and the average assay: Gold, 0.72 oz. per ton; silver, 1.1 oz. per ton; lead, 0.9 per cent; zinc,1.4 per cent.

In No.1 raise between points 32 feet and 122 feet above the floor of the level, 10 samples were taken.The arithmetic mean of widths sampled was 7½ inches, and the average assay was: Gold, 0.97 oz. per ton; silver, 1.8 oz. per ton; lead, 1.0 per cent; zinc, 2.8 per cent.

In No.2 raise, 6 samples were taken between points 22 feet and 68 feet above the floor of the level, the arithmetic mean of widths

sampled was 4½ inches, and the average of assays was: Gold, 1.14 oz per ton; silver, 1.2 oz. per ton; lead, 1.0 per cent; zinc, 2.3 per cent.

In No.2 level a sample at the portal across a width of 12 inches assayed: Gold, 0.08 oz. per ton; silver, 1.0 oz. per ton; lead, trace; zinc, 1.0 per cent. Another sample at 11 feet from portal across a seam 4 inches in width assayed: Gold, 5.3 oz. per ton; silver, 2.2 oz. per ton; lead, 1.5 per cent; zinc, 2;0 per cent.

It was demonstrated by No. 1 level workings that the vein narrowed as the distance from the granitic dyke increased, but the persistence of mineralization and gold values therein in the narrowing vein was noteworthy. No indication was afforded of the existence of more than a limited tonnage in ore-shoots above this level in the more immediate vicinity of the latter. The yield of profitable ore in the first ore-shoot above the level was, in 1925 in a communication to the Department, estimated by the Resident Engineer as not exceeding 300 tons at the outside, and quite possibly much less than this. Such ore must have been heavily drawn upon by shipments made in 1926. On the other hand possibilities for ore in the second ore-shoot on this level below the latter appeared good, and therefore a prospect winze in this ore-shoot (never undertaken, so far as the Resident Engineer has knowledge) was strongly advised (Note: Prior to 1925, the wildest possible estimates of ore reserves at this property were in circulation. One such on file in this office gives 30,000 tons of probable ore and 185,000 tons of possible ore! There may of course be other

ore-shoots in the vein at points a considerable distance from this level, but such have not yet been discovered.

Conclusions: In view of the marked indications of the existence of ore near the dyke on the hangingwall-side of the latter, a prospect winze at the point indicated on No.1 level seems warranted. Whether the foot-wall-side of the dyke will prove as favourable for ore is problematical, but could be ascertained by advancing No.2 level, but a prospect winze on No.1 level should obviously be sunk first. Generally speaking it may be said that a close examination of this property is justified. It is understood that other veins exist on this property, but such have not been examined by the present Resident Engineer.

From the standpoint of practical mining, the comparatively narrow vein, dipping at such an angle that ore will not run in stopes, is a drawback, but the property is comparatively close to the railway, and no difficluty would be experienced in developing water-power from Fiddler creek, should developments justify such.

Hazelton, February 3rd, 1937.

D. Lay.
Resident Engineer.