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Property File

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Office of the Provincial Mineralogist  
DEC 27 1927  
1927

Dec. 24th 1928.

Hugh S. Spence, Esq.,  
Mining Engineer,  
Division of Mineral Resources,  
Mines Branch,  
Department of Mines,  
OTTAWA, ONTARIO.

Dear Sir,

I am directed by Mr Galloway, Provincial Mineralogist, to reply to your recent query in a letter to him:

"Has anything more happened with the mica deposits "up in the Fort Grahame district".

I beg to reply as follows:-

The important mica showings on Mica mountain, near Fort Grahame are those owned respectively by

- (1) General Holding Company of Edmonton.
- (2) H. Ravensl, Fort Grahame.

As to (1) the fullest and latest information available is that contained in the Annual Reports for 1926 and 1927, copies of which I feel sure you have. See pages 153, 154, and 155 of the 1926 Annual Report, and page 161 of the 1927 Annual Report. I was on Mica mountain this year, but no work was done this year by General Holding Company.

As to (2) you will note from the map in the 1926 Annual Report that these claims are distant about 6 miles south of the General Holding Company' camp. I examined them this year. On these claims are the largest crystals of muscovite mica that I have seen in this Mineral Survey District. I brought away as specimens some crystals that would average 70 square inches in size, and it is said that still larger ones have been found. Practically no development work has been done, and much depends upon such. These

claims are situated at the head of the east fork of Mica creek, at an elevation of 4370 feet above Fort Grahame.

The chief exposure is that of a pegmatite dyke, 3 feet in width, striking N 75° W (mag.), and dipping south-west.

This dyke appears to approximately coincide in strike and dip with the planes of schistosity of the enclosing mica schist country rock. Books of crystals are well developed and some large crystals, of the size mentioned, are in evidence. The topography is favourable and this pegmatite dyke could be developed by adit drift. The distance by the present route via General Holding Co.'s camp, from Fort Grahame is about 12 miles - a somewhat arduous climb - but a shorter and more convenient trail could be built to this property by following upward an un-named creek flowing into the Finlay river about 1 mile below Fort Grahame.

This property well merits development.

Reverting to the question of prices obtainable for mica at Fort Grahame, it would be interesting to learn what the General Holding Company received for the mica shipped in 1927, mentioned in the Annual Report for that year. As to this I have no information.

A short time ago I sent to the Director of your Division, a sample of mica from Tete Jaune for report as to commercial values, and await your report with much interest. I might say that this mica is classified by James McEvoy of the Geological Survey, and by the Provincial Mineralogist as muscovite mica with greenish cast. The former describes it as of "excellent quality". The Company operating this property, known as "mica Mines, Ltd", also claims to have ascertained from buyers (prospective) that it is of good commercial grade. On the other hand, Professor J.A. Allen in the second Annual Report of the Mineral Resources of Alberta, 1920, page 78 refers to this mica as phlogopite, and states that it is not commercially important. I also inspected this property this year, and while I saw in the case of one pegmatite dyke large crystals of biotite I did not see any phlogopite. The predominant large mica on this mountain is the greenish muscovite, which without exception appears to show the "A" structure due to twinning, and of which the specimen sent to your Department is a very representative sample. I look forward to getting your report

Yours very truly,

(sgd) K. Lay

Resident Engineer.

File 50-2

Canadian National Railways, Department of Natural Resources,  
Winnipeg

Mica near Fort Grahame, B.C. on the Finlay River

Development work was reported as being carried on in November 1927 by the General Holding Company of Edmonton. The original discoverer of this mica was Mr. William McIntosh.

A letter dated December 6th, 1928, by Mr. Lett to Mr. Phillips is attached.

A letter dated February 7th, 1928 by Mr. Gordon F. Dickson to Dr. Victor Dolmage together with copy of report on mica is attached.

## MICA

Mr. Wm. Phillips,  
Manager, Industrial Dept.,  
Montreal, Que.

Dear Mr. Phillips:

Referring to your letter of December 1st in connection with a mica deposit situated in British Columbia, I can give you a brief history of what I know about this deposit.

About four years ago, Mr. William MacIntosh, an elderly gentleman who formerly was interested in mining operations in Eastern Canada, an uncle of my old friend John R. MacIntosh, Land Agent for the Hudson's Bay Co. in Edmonton, called in to see me and described his mica property, located near Fort Grahame on the Finlay River. His desire was to interest capital and develop the property, holding an interest himself or selling out entirely.

Major A.C.E. Anderson at that time was living in Edmonton and carried on a commission business in a small way. His office was that in our Macdonald Hotel which is now occupied by this Department. Major Anderson's wife was a Miss Fleischmann of New York, and I suggested that Mr. MacIntosh have an interview with Major Anderson and place his prospect before him. This was done, and after a considerable time Major Anderson formed a company known as the General Holding Company, of Edmonton. Engineers were sent up to the property, and as a result New York capital was brought in and the property was taken over. Mr. Dixon, who was formerly Manager of the Brule Mine, was employed by the company, and carried on considerable development work, but I regret to say for some reason or other the property has been closed down for more than a year. There have been many conflicting opinions as to the reason. I might mention that old Mr. MacIntosh passed away more than a year ago, and I do not know how his estate came out in the deal. The company's head office was 701 Tegler Building, but I doubt if you will find it under that address at present. Major Anderson, with his wife, moved to Paris, France, where I understand they have taken up their permanent abode.

The deposit of mica which we are dealing with is known as muscovite, and occurs on the west side of the Finlay River, which with the Parsnip forms the head of the Peace River west of the Rockies. It occurs on the slopes of a mountain locally known as Mica Mountain, about seven miles south-west of Fort Grahame, and 60 miles up the Finlay above the Forks. The lo-

cation may be reached by two routes, one being up the Peace River coming through from Alberta, and I may say a very difficult canoe trip as the stream is very rapid, and the other more favored route, being from Prince George, on our line, over to Summit Lake, about 18 miles, down the Crooked River past Fort McLeod, the Pack and Parsnip Rivers to Finlay Forks, and up the Finlay north to Fort Grahame.

Notwithstanding the difficulties of transportation, the company developing the property figured out that mica of extra fine quality could be shipped by boat down the Peace River out to the Alberta side, thence by steamboat to Peace River Landing and rail via Edmonton to destination. The mica has been classed as being perhaps the finest quality known in Canada. There are, I understand, 23 claims in the group, running over an area about 8 miles long and 5 to 6 miles wide. The altitude would be between 5 and 6,000 odd feet, considerably above timber line. A trail of 7 miles in length leads to the main camp, at an elevation of 5,400 feet.

You are perhaps aware there is a large deposit of silver-lead ore north of these mica claims, situated on the Ingenika River, now being developed by W. R. Wilson of the Crow's Nest Pass Coal Co., and associates. This deposit is described by some engineers as one of the possible coming big mines of British Columbia, somewhat similar to the well known Sullivan Mine near Kimberly. Still farther north is another deposit of silver-lead, which the Consolidated Mining & Smelting Company is engaged in developing. I mention these occurrences for the reason that if a railway with a western outlet from the Peace River District should be located through the Peace River Pass it will tap one of the largest mineralized areas in British Columbia.

I do not wish to go into any great details, but can assure you that if there is any further information you would like to have I will be glad to forward same to you promptly.

Under separate cover I am forwarding you two maps which I have marked showing the location of this mica deposit, one large scale in detail, the other showing the position with respect to distances, etc., from Vancouver, Prince George and other points.

Yours very truly,

Superintendent N.R. & I. D.

2001 Bloor St. West,  
Toronto 9.

7th February, 1928

Dr. V. Dolmage,  
508-512 Winch Building,  
Vancouver, B.C.

Dear Dr. Dolmage:

Many thanks for your letter of the 28th ultimo with copy of that part of your report referring to the Mica deposits.

I am pleased to note that you expect to be in Toronto some time early in April and will look forward to receiving a telephone call from you so that we can foregather.

Since I came to Toronto I have joined the C.I.M.M. and have attended one or two very interesting meetings here. If at all possible I hope to be able to go to the Quebec meeting but am unable to decide upon this until my present plans are more fully developed.

There is very little scope for comment on your report which deals clearly and concisely with the subject furnishing the fullest amount of technical data, as well as useful and practical information. There are just one or two points, which, in view of the somewhat definite statement forming the concluding paragraph, might be amplified to avoid the possibility of unduly discouraging prosecution of further effort by any others who may be interested, besides the General Holding Company, in exploring the field.

The admittedly favorable features are the unquestionable quality of the mica and the fact that the pegmatites lie in mica schist which, latter, is in conformity with the best Indian occurrences.

The unfavorable features appear to be that several large and lengthy bodies of outcropping pegmatite show very little mica, as on the Birthday Claims; the presence of graphic granite in the dykes and the great crustal disturbance, which you mention as having taken place.

By adding to the favorable features the fact of the undoubted richness in Mica of the offshoots projecting from the pegmatite dykes as proved in several places, although the material in most instances is too much affected by surface weathering to be of any value, and discounting to some extent, through lack of

sufficient evidence, the damaging effects of crustal movement within the mica schist area there would, I think, be justification for somewhat modifying your remarks regarding the barrenness of the pegmatites and general lack of encouragement from results so far.

In the mica producing areas of North Carolina an appreciable proportion of the best mica is mined from the spurs running off the main pegmatite bodies, and it is not uncommon to find the pegmatites comparatively barren where this occurs. I found this to be the case also, to some slight extent, at South Dakota where I spent some time examining mica areas. The expert Grader I obtained from North Carolina and employed at Fort Grahame the first year we worked there, informed me that some of the highest grade mica and best patches were obtained from the projections in which there was generally a comparatively small proportion of feldspar. There are two of the protuberances rich in mica, although it is completely damaged by surface weathering, extending from the "Tunnel" vein on East Mica Mountain, which you may not have seen, and one from the big dyke on the Birthday claims from which some large sheets of very clear mica was obtained.

I consider that the greatest drawbacks to successful exploitation of the Finlay River Area are more through physical difficulties of which climatic effects in such Northern latitude and high altitude play a principal part. The deep surface weathering, penetration of which through the accumulated detritus is difficult and arduous, the shortness of the working season, extremely high cost of transportation inwards, under present conditions, difficulty and expense of labor, all combine to retard development, except at unduly high cost. Under more favorable conditions further exploration would be fully justified, as I believe that if the two bodies on which the most work has been done were penetrated to a point below the effect of surface weathering, mica of good even quality and in fair average quantity would be found.

In the bottom of the slope on West Mica Mountain there is showing a large proportion of weathered mica which occurs in a typical pegmatite of generally favorable composition over a continuous length of 70 feet. In the Drift on the vein from the Crosscut on East Mica Mountain we drove, after you saw it I think, for 15 feet with a very fair proportion of mica, in pegmatite entirely free from graphic granite.

As regards crustal disturbances, the indications of surface weathering are so tremendous that it seems to me rather difficult to state exactly what effect this has had on the situation in the immediate vicinity of the pegmatites. That there has been crustal disturbance is, of course, undoubted but their

practically no evidence of any serious effect of it upon the mica.

As you have kindly asked me to make any suggestions I have expressed my views in a general way. Without making any definite alteration I would suggest that you emphasize, a little less, the barrenness of the exposed pegmatites, as showing on the Birthday claim, and that you substitute for the words "by no means" in the last line but one of your report, the words "not yet." It strikes me as being a little premature to condemn the mica bearing qualities of the pegmatite of the district from what is showing on the Birthday claim in view of the fact that neither the "Tunnel" dyke on East Mica Mountain nor that on West Mica Mountain outcropped, but were opened by stripping, as the result of loose sheets of mica being found on the surface.

With very best regards and looking forward to seeing you soon.

Yours sincerely

(Sgnd.) Gordon F. Dickson