GM 07222

GEOLOGICAL REPORT, MONT LAURIER GROUP

Documents complémentaires

Additional Files

Licence

License

Énergie et Ressources naturelles
Québec

PUBLIC

GEOLOGICAL REPORT

MONT LAURIER GROUP

CANORAMA EXPLORATIONS LTD.

ROBERTSON TWP., LABELLE COUNTY

PROVINCE OF QUEBEC

Observations and Report
by
FRED S. DUNN
P. Eng., Ont.

Toronto, Canada,
23 June, 1958.

GEOLOGICAL REPORT ON BERYL PROSPECT

ROBERTSON TWP., LABELLE COUNTY, P. QUEBEC

CANORAMA EXPLORATIONS LTD.

INTRODUCTION:

The object of this geological survey was to map and prospect the pegmatites for beryl or any other valuable minerals.

Interest in the area commenced in 1940 when some beryl prospecting was done. In 1951 some large beryl crystals were discovered in a very coarse pegmatite, referred to in this report as a jumbo pegmatite. It is located near the Yale farm house on the north end of Lac des Iles. The beryl here is the greenish blue or aquamarine variety and is scarce. Only a few crystals were found as the result of considerable stripping and blasting. A trace of beryllium was the best assay obtained from the core of thirteen short diamond drill holes put down to investigate the dyke at that time. This poor response to development work suggests that the beryl deposition here follows its usual habit of isolationism. Even in a good beryl area such as around Amos, Quebec, the crystals are too widely scattered for economic mining.

The current interest in the area was aroused by the large size of the beryl crystals, - much larger than the Amos ones; and by the intensity of garnet deposition in some of the rocks. In fact, the present survey has shown that the jumbo pegmatites are an anomalous condition and as such should be investigated. Only one other similar pegmatite was found on the 1,200 acres surveyed. It was traced down from a few fragments of float and had to be stripped with a grub hoe.

PROPERTY:

The property consists of twelve mining claims comprising 1,200 acres in Robertson twp., Labelle county, Quebec, as follows:-

License No.	Claim No.	Lot	Range
C-130501	1	24	V
C-130501	2	25	V
C-131324	1	~~24~~	IV
C-131324	2	~~25~~	IV
C-131338	1	~~22~~	IV
C-131338	2	~~23~~	IV
C-131449	1	26	V
C-131449	2	27	V
C-131450	1	~~28~~	IV
C-131450	2	~~29~~	IV
C-131451	1	~~25~~	IV
C-131451	2	~~26~~	IV

LOCATION AND ACCESS:

The group straddles the north end of Lac des Iles and is easily reached by motor on gravel highway no. 35 from the town of Mont Laurier, by driving west across the bridge, thence south four miles, and thence west on a side road one mile.

Electric power, water and timber are all available if needed for mining purposes.

GENERAL GEOLOGY

The geology of the Mont Laurier area is described in Geological Report 23, Nominingue and Sicotte Map Areas, Labelle and Gatineau Counties, by E. Aubert de La Rue., Quebec Department of Mines.

The maps accompanying this report show the major areas to be underlain by rocks of the Grenville series; or one of the oldest known Canadian rock formations. Of the rocks intruding the Grenville, the granitic types are the most prevalent and are responsible for the introduction of the pegmatites. Basic intrusive material in the form of gabbro and norite is less common and the smaller basic dykes are very scarce.

Apart from being very interesting and informative, the government report gives the writer's impressions as to the mineral possibilities of the areas. He concludes: "Although no large deposits of metallic or industrial minerals have been found in the map-area, there are numerous interesting occurrences of such minerals as magnetite, molybdenite, graphite, phlogopite, and feldspar, and in past years there has been a small production from deposits of some of these." On page 47 in his report he states: "Although beryl has not as yet been found in the area."

From Aubert de La Rue's remarks it is obvious that he encountered only minor amounts of industrial minerals and no beryl in the map area. However, he does mention that beryl occurs immediately south of the southern margin of the map area. This refers to the beryl of our so-called Yale jumbo. Aubert de La Rue's remarks are as follows:

"Beryl occurs immediately south of the southern margin of the map-area, on the east part of lot 25, range IV of Robertson township at the north end of lac des Isles, and it was this occurrence that led H. Lamarche, of Mont Laurier, to seek the mineral farther to the north. The beryl on lot 25 is in large, faintly greenish-white crystals which are slightly translucent and have a dull lustre. It occurs with tourmaline and white mica in a wide pegmatite dyke which cuts garnetiferous gneiss. Some years ago, some development work was done on this dyke, first for muscovite, and later for feldspar. Recently, work has been resumed in an endeavour to find a greater concentration of beryl."

PROPERTY GEOLOGY:

Although the property has never been officially mapped by a government geologist, the rocks underlying the 1,200 acres of the Mont Laurier Group all appear to be of the Grenville series. This assumption is based on a detailed examination of the rock outcrops which comprise less than 15 per cent of the total area. The rocks are all more or less gneissic and pegmatitic. The pegmatitic material is, of course, post Grenville in age, since it represents late phases of the granitic intrusions. Garnets are present in varying quantitites in most of the gneisses and often in the pegmatites as well. They are, for the most part, a small dark red variety. Those in the pegmatites are sometimes larger and lighter in colour. Many of the gneisses are highly metamorphosed, twisted, buckled and drag-folded. This is especially noticeable in the western part of the property where parts of the gneisses have been altered to mica schists. Of all the sedimentary gneisses examined, the quartzites have withstood the metamorphic processes the best. They are usually white, massive to gneissic and less pegmatitic. These highly resistant rocks seem to form the back bones of the big hills and serve to reinforce the softer rocks against erosion.

ECONOMIC GEOLOGY:

The rock outcrops on the property were thoroughly searched for pegmatites containing beryl or other industrial minerals, and the rusty zones for base metals. Good specimens of the most interesting findswere moiled out and brought to Toronto for finer analysis. The close picket-line interval of only 200 feet apart facilitated the survey and was appreciated.

As a starting point, an effort was made to find another jumbo pegmatite similar to the Yale one in which beryl was known to occur. Surprisingly enough, in spite of all thepegmatitic material visible, good pegmatites were scarce and hard to find. It was only near the completion of the survey that another similar jumbo was discovered.

Apparently the conditions for beryl deposition in this area are very exacting, since none was found in any other finer-grained pegmatites. Of course, it was also realized that a scarcity of the beryllium element in the original pegmatitic juices might be blamed for the absence of beryl crystals.

The Yale jumbo had feldspar crystals up to 18 inches long intergrown with large smoky quartz crystals and tourmaline crystals up to 1½ inches in diameter. Muscovite mica books were plentiful in places and the immediate host material was a biotite gneiss occurring in a general garnetiferous gneiss country rock. A little colour also appears in some of the feldspars and could be considered as a favourable condition.

In evaluating the pegmatites, another factor must be considered, namely, the many phases that can be encountered in the

same dyke. To prove this point, several speciments of variable texture and mineral combinations were selected and brought to Toronto from the Yale jumbo.

It is for this reason that pegmatite showings need to be drilled and blasted before a fair evaluation is possible. The prospector usually sees only a mere corner of the dyke upon which to base his judgment.

In the case of the new jumbo discovery, for instance, this was traced from float, while mapping the outcrops on the side of the big hill. Only a small corner of the find was outcropping and was composed of coarse light feldspar and smoky quartz. Later stripping over a length of 20 feet revealed a dyke about 8 feet wide, striking east-west and dipping to the north. This contained some tourmaline crystals up to 6 inches long by 1 inch in diameter. Muscovite mica was not conspicuous, in this portion of the dyke but the wall rock was a biotite gneiss similar to that of the Yale jumbo. It is probable that other pegmatitic phases and possibly some beryl crystals could be found on further development by drilling and blasting.

In consideration of other industrial minerals, some persistent rusty zones were noted for base metal possibilities, the swarms of dark red garnets seen in places were found impressive and the pegmatites were combed for some of the rare elements now in demand.

Pyrite disseminations were apparently responsible for the rusty zones. Fresh pyrite was hard to find but by picking rocks where the iron stain was almost black, sulphides could be seen. In one place a trace of copper as chalcopyrite was recognized. A sample of the best sulphide material was brought to Toronto for further analysis. Contrary to expectations, it did contain three quarters of an ounce of silver per ton but nothing else of value.

The garnet deposition varied from barren rock to intense concentrations. At present this is of no economic significance since other better deposits occur elsewhere in the area. These are described in the government report. These garnets carry no beryllium.

A mineral lamp and a moil with detachable points in our field equipment proved useful for the pegmatites. The lamp was used to check rock samples for scheelite, a tungsten mineral. The moil was serviceable in digging out specimens containing rare minerals for later identification. Out of all the interesting pegmatite specimens taken, no minerals of industrial value were identified.

REFERENCES:

- R.C.A.F. aerial photo No. A12458 - 373
- Claim whiteprint of Robertson twp. by Quebec Department of Mines.
- Geological Report No. 23, "Nominigue and Sicotte Map Areas" by E. Aubert de la Rue, 1948.
- Topographical map "Parent-Three Rivers C'41" by Department of Mines, Ottawa.
- Topographical map "Maniwaki '49" by Department of Mines Ottawa.

SUMMARY AND CONCLUSIONS (see attached map in three parts)

Nothing of commercial interest was found on the Canorama group as a result of this geological survey. The Yale Jumbo contained a few large beryl crystals and if more work is done on the new jumbo discovery, the possiblity of finding some more beryl crystals is considered fair.

Apart from the satisfaction gained from finding some more beryl, it must be remembered that these pegmatites are only coarse granitic material. The jumbo types are believed to be the result of very slow cooling as opposed to the finer types which were chilled more quickly. The presence of tourmaline is an indication of high temperature of formation.

In view of the fact that the assays were disappointing and no interesting amounts of industrial minerals were found in the field, it is believed that this area is a poor one. The possibility of a good find being made in the area, which would enhance the value of your property, should be considered. From the government geologist's impressions and he must have examined a lot of local rocks, it is concluded that the chances of a major mineral deposit being turned up in the area are remote.

RECOMMENDATIONS:

The most important consideration now is to gain the greatest advantage from the assessment work already done. This is not nearly enough for one year's coverage. If some claims are allowed to lapse, the ones covered by overburden should be the first ones to be let go. These are the most difficult to prospect and drilling is only warranted in the event of some important find being made in the area.

In the beginning of this report it is stated that the jumbo pegmatites are an anomalous condition and as such should be investigated. It is true that these are a freak occurrence on the group and as a general rule should be given careful attention.

It is suggested, therefore, that any additional assessment work needed to hold certain claims, should be concentrated on the new jumbo discovery. The amount of this work recommended would depend upon the encouragement met with. Usually, the continuity of pegmatites cannot be relied upon. They have the habit of disappearing for no apparent reason. For this reason, any drilling done, in delineating them, should be closely spaced.

In the case of the new jumbo discovery, it is located high up on the big hill, specifically at 2500N - 425W. Water supply will be a problem here and so will transportation up this steep hill side. Probably, the most suitable tool for the job would be a packsack diamond drill. This does not require much water and the holes can be used as blast holes or for exploration work.

With the investigation of the jumbo completed, work could be continued on the next best showing and so on as desired. For instance, the pegmatite at 1150N - 4225W looks interesting and should be considered next of importance. The one at 1600S - 10300W might respond favourably to more work.

In fact, any desired amount of work could be done on the various pegmatites. The original rough map and field notes will be found useful if this is done, since they contain more detailed descriptions than was possible to be put on the final maps.

All of which is respectfully submitted.

Fred S. Dunn

Fred S. Dunn, B.A.Sc., P.Eng.
Consulting Engineer.

Toronto, Canada
23 June 1958.

D/id

COPY

DEPARTMENT OF MINES

Laboratories Branch A 4033

CERTIFICATE OF ANALYSIS

The following results have been obtained on Samples Submitted by: Hopkins Mining Consultants, % F.S. Dunn, Room 102, 33 Melinda St. Toronto, Ont.

Canorama Explorations Ltd. Beryl Prospect, Robertson Twp., Labelle County, P.Q

QUALITATIVE SPECTROGRAPHIC ANALYSIS

Sample #	200W 2500N	#9925W 750S	#3375W 1725N		200W #2500N	#9925W 750S	#3375# 1752N
Antimony	-	-	-	Nickel	-	-	-
Arsenic	-	-	-	Niobium	-	-	-
Beryllium	T	-	-	Silver	-	-	-
Bismuth	-	-	-	Tantalum	-	-	-
Cadmium	-	-	-	Tellurium	-	-	-
Cerium	-	-	-	Thorium	-	-	-
Chromium	-	-	-	Tin	-	-	-
Cobalt	-	-	-	Titanium	T	-	L
Copper	T	-	-	Tungsten	-	-	-
Germanium	-	-	-	Uranium	-	-	-
Lead	T	-	-	Vanadium	T	T	T
Lithium	-	-	-	Yttrium	-	-	-
Manganese	T	-	-	Zinc	-	-	-
Mercury	-	-	-	Zirconium	-	-	T
Molybdenum	-	-	-				

Key to Symbols:
H - 10 to 100%
MH - 5 to 15%
M - 1 to 10%
LM - 0.5 to 5.0%
L - 0.1 to 1.0%
TL - 0.05 to 0.50%
T - 0.01 to 0.10%
-None detected or insignificant trace

Fees received for above $.....

Date June 19, 1958 Signed W.O. Taylor
Acting Provincial Assayer

COPY

DEPARTMENT OF MINES

Laboratories Branch A 4026

CERTIFICATE OF ANALYSIS

The following results have been obtained on samples submitted by: Hopkins Mining Consultants, Room 102, 33 Melinda St., Toronto, Ont.

Canorama Explorations Ltd. Beryl Prospect, Robertson Twp., Labelle County, P.Q.

QUALITATIVE SPECTROGRAPHIC ANALYSIS

Sample #00N-56-40W-

Antimony	-	Nickel	T
Arsenic	-	Niobium	-
Beryllium	-	Silver	-
Bismuth	-	Tantalum	-
Cadmium	-	Tellurium	-
Cerium	-	Thorium	-
Chromium	-	Tin -	-
Cobalt	T	Titanium	L
Copper	T	Tungsten	-
Germanium	-	Uranium	-
Lead -	-	Vanadium	-
Lithium	-	Yttrium	-
Manganese	-	Zinc	-
Mercury	-	Zirconoum	T
Molybdenum	-		

Fire Assay

Gold - oz. per ton - trace

Silver - oz. per ton - 0.72

Key to symbols:
H - 10 to 100%
MH - 5 to 15%
M - 1 to 10%
LM - 0.5 to 5.0%
L - 0.1 to 1.0%
TL - 0.05 to 0.50%
T - 0.01 to 0.10%
- None detected or insignificant trace.

Fees received for above $.....

Date June 17, 1958

Signed W.O. Taylor,
Acting Provincial Assayer

COPY

DEPARTMENT OF MINES

Laboratories Branch

C 6714

CERTIFICATE OF ASSAY

The following results have been obtained on samples submitted by: Hopkins Mining Consultants, % F.S. Dunn, Suite 102, 33 Melinda St. Toronto, Ont.

Canorama Explorations Ltd. Beryl Prospect, Robertson Twp., Labelle County, P.Q.

IDENTIFICATION

The minerals in the specimens described below were studied and identified by x-ray and optical methods.

Yale-Jumbo - The pale green mineral in this sample was identified as orthoclase feldspar. There is evidence of sericitization.

7258-9975W - This soft green mineral was found to be serpentine.

#10,000W-14008 - The elongated dark green crystals occuring in this granite specimen were identified as the diopside variety of pyroxene.

Fees received for above $ No charge

Date June 19, 1958

Signed W.O. Taylor
Acting Provincial Assayer