GM 24338

INFORMATION REPORT ON RICHMOND GULF AREA

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INFORMATIONAL REPORT - NOT FOR PUBLICATION

GULF LEAD MINES, LIMITED

New Quebec REC. 1949

References:

Que. Bur. Mines, Extracts from Reports on the District of Ungava or New Quebec, 1929, pp.157-176; pp.203-205.
Lead Zinc Deposits of Richmond Gulf, T.H. Harewood, Unpublished thesis for B.Sc. degree, University of Toronto.
Geology of the Nastopoka Group of Sedimentary Rocks, Thurne Park, Unpublished thesis for B.Sc. degree, University of Toronto.

Gulf Lead Mines, Limited, have mining exploration concessions along the east coast of Hudson Bay near Richmond Gulf at approximate latitude of 56° north. The original concession, number 16864, was obtained from the Quebec Department of Mines and includes the coastal area from a point ten miles north of the " Hazard " (the opening to Richmond Gulf) to a point about 24 miles south of that opening. A second concession obtained from the Quebec Department of Mines extends along the coast for 17 miles south of the original concession. A third concession, obtained from the Federal Government includes the area covered by coastal waters for three miles from the shore between the "Hazard" and a point 17 miles south.

The concessions can be reached by boat from Montreal or Moosonee from about July 15th to September 15th and the cost of transporting freight from these points is approximately $80.00 and $70.00 a ton respectively. At other times of the year the area can best be reached by aircraft which can land on Little Whale River in summer and winter. Air freight charges from Moosonee to Little Whale river are about 22 cents a pound.

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The company built a base camp at the mouth of Little River, about six miles south of Little Whale river and an operating camp was established along the coast mid way between these two rivers. The transportation within the concessions, was affected with a 34 foot launch, a powered barge, large sponson canoes, and a caterpillar tractor and wagon.

Occurances of lead along the east coast of Hudson Bay have long been known and have been referred to in the communications of the Hudson's Bay Company over a period of 200 years. Small amounts have been extracted at various times from near Little Whale River.

Old mining claims may have been staked in this area in the 19th century as the writer examined an old post on which the date, August 3, 79, was still discernable. Consolidated Mining and Smelting Company are reported to have done some surface exploration in this area.

Gulf Lead Mines was formed in 1942 to acquire groups of claims, held by Mr. Holtzman, near Richmond Guld and Little Whale River. Subsequentally the company acquired the three special concessions previously described. During 1944,1945,1946 and 1947 the company had parties of prospectors exploring the concessions and showings of sphalerite and galena were discovered at a number of places. During 1948, six localities were explored by a total of 238 diamond drill holes totalling 40,705 feet. During 1949 another 32 drill holes were completed. Also during 1949, F.R. Joubin made a study of the geology of the concessions for the company, and Dr. Roy Clark conducted geophysical surveys using electro-magnetic and resistivity methods. Exploration was suspended in August,1949.

Most of the geological mapping along the east coast of Hudson Bay was done by A.P.Low in 1898 and 1899. His maps show that for a length of 250 miles, the coastal islands and part of the coastal area comprise gently dipping sedimentary and volcanic formations. These formations were classified by Low as Cambrian but they have been found to be unfossiliferous and are now regarded as late precambrian in age. In the Richmond Gulf area, the general sequence of formation is two to three hundred feet of lavas underlain by limestones, dolomites, sandstones and arkoses. These formations dip gently towards the sea. The lavas act as a resistant capping so that the surface topography reflects the attitude of the underlying formations. Gently sloping hills rise gradually from the coast and terminate with abrupt scarps a few miles inland at the eastern extremities of the younger formations. The formations appear to overlie granites, but their relationship with these intrusives is still conjectural.

Low's maps indicate that the area underlain by these younger formations is narrow and attains a maximum width at 20 miles at Richmond Gulf. However hills with gently dipping slopes that can be seen ten to fifteen miles inland may be outliers of the younger formations.

The valleys of the streams and rivers that have eroded through the lava capping and underlying formations are filled with sand and gravel. Numerous raised beaches can be seen on the hillsides up to 700 feet above sea level indicating a gradual uplift of the area in post glacial times. Vegetation is sparse and the few trees are confined to the valleys. Most of the area can easily be traversed on foot.

All of the important discoveries of lead and zinc in this area have been made in a limestone horizon that is from 100 to 200 feet below the bottom of the basaltic flows. This horizon is from 10 to 30 feet thick and has round algal concretions that are from a few inches to 9 feet in diameter. Many of these concretions have been silicified and stand out prominently on the weathered surfaces. Vugs with well developed crystals of quartz and calcite are common in this horizon. The sphalerite and galena occur in small irregularly shaped replacement bodies in the limestone and are commonly associated with pyrite, quartz and calcite. In places the sulphides replace the centres of concretions. This favorable horizon is best exposed along the inland scarp edge of the younger formations, where it commonly forms a prominent ledge. Discoveries of sphalerite and galena have been made in this horizon from Richmond Gulf to Manitcunuk Sound.

The Nancy Island sector of the concessions is near the coast about three miles south of Little Whale River. The exposed bedrocks are all of the capping of basaltic flows. Drill holes have indicated that the flows are up to 250 feet thick and are underlain successively by about 80 feet of sandstones and arkoses and 40 feet of cherty limestone, followed by the favorable ore horizon. During 1948, 54 diamond holes totalling 27,984 feet were drilled to probe the area from 700 to 4,000 feet east of the coast. All of the holes were collared in lavas and were directed steeply to cut the favorable horizon. From the intersections the management calculated two bodies of possible ore totalling 294,463 tons and having an average thickness of 11.2 feet and an average content of 0.72% lead and 2.15% zinc. A further five holes were drilled in this sector during 1949.

The results have not been released by the company but the core was examined by the writer and showed no appreciable amounts of sphalerite or galena.

Ruby Lake is along a prominent scarp about 3½ miles east of the Nancy Island area. A number of showings of sphalerite and galena were found along the favorable horizon which forms a ledge about half way down the scarp. During 1948, 64 holes were drilled through this ledge, mostly in groups of three holes from the same setup. Most of these setups were spaced at intervals of 150 to 300 feet, south along the ledge from Ruby Lake. From the intersections the management calculated an ore body of 578,690 tons having an average thickness of 16.43 feet and an average content of 1.07% lead and 1.26% zinc. During 1949, 27 additional holes were drilled in this area. Most of these were vertical holes located at intervals of 200 feet north and west along the ledge from Ruby Lake. The results of the 1949 drilling have not been released, but the drill core examined by the writer had only small amounts of sphalerite and galena.

In the Lake Monte and Margery area, about five miles southeast of the Hazard, the favorable horizon is exposed along the shores of two small lakes. During 1948, 35 holes totalling 1,855 feet were drilled with an X-ray drill along the shores of the lakes. From these intersections the management calculated two possible ore bodies containing a total of 132,560 tons and having an average width of about 10 feet and an average content of 1.75% lead. The drill core and surface showings in this area were not examined by the writer.

Other discoveries of lead and zinc were made in surface exposures of the favorable horizon on the east shore of Manitounuk Sound, about 2 miles southeast of the boat opening. During 1948,

This area was probed by 69 short drill holes totalling 2,350 feet. Individual intersections assayed as high as 3.4% zinc and 1.45% lead, but the drill failed to outline any possible ore bodies. The core and surface showings were not examined by the writer.

Two holes totalling 1,675 feet were drilled near Little River in 1948. No intersections of importance were reported by the company and the drill core was not examined by the writer.

The Doris Lake sector is about six miles northeast of the mouth of Little Whale river. In this area, 17 short holes were drilled near some old surface workings in through the favorable horizon. The intersections gave assays up to 1.18% copper across 1 foot but had no appreciable amounts of galena or sphalerite. The drill core and surface workings were not examined by the writer.

The operations report of the company places total tonnage of possible ore indicated by the 1948 drilling at 1,005,710 tons having an average content of 1.06% lead and 1.36% zinc. The exploration during 1948 was directed by Mr. Lloyd Almond as consultant and Mr. G.P.Thoday as resident engineer. The 1949 exploration was directed by Mr. C.E. Rodgers as consultant and Mr. Arthur Ashton as resident engineer.

W. G. Robinson

W.G. Robinson,
Resident.Geologist.

August 26, 1949.

RECORDS ACCOMPANYING THIS REPORT:

Plan showing location of 1948 exploration work. 1"= 3 miles.

Plan of diamond drilling near Lakes Monte and Margery. 1" - 200'

Plan of diamond drilling in Manitounuk Sound Area. 1" - 200'

Plan of X-ray drilling in Doris Lake Area. 1" - 200'

Plan of Diamond drilling in Ruby Lake Area. 1" - 400'

Plan of diamond drilling in Nancy Island Area. 1" - 300'

Copy of "Progress Report No. 2" Gulf Lead Mines.

Extracts from Annual Report. Gulf Lead Mines, 1946.

Extracts from Final Report on Field Operations - Gulf Lead Mines, 1948.

Copy of report by former resident engineer. G.P.Thoday, 1949.

Summary of the assays of diamond drill hole intersections in the Nancy Island, Ruby Lake, Doris Lake, Lakes Monte and Margery, and Manitounuk Sound areas.

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