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GEOLOGICAL REPORT

BATCH RIVER GOLD MINES LIMITED

GROUP OF CLAIMS

PICKEREL TOWNSHIP

NORTH-WESTERN ONTARIO.

LOCATION OF PROPERTY:

The property covered by report is owned by Batch River Gold Mines Limited, 330 Bay Street, Toronto, and comprises 17 unsurveyed mining claims registered as Pa 9972 - 9988 inclusive. Nime claims of group are located in N.E. corner of Pickerel Township (Lot 1, Concession VI) and the remainder (8) adjoin to the East in unsurveyed territory, in the Patricia Mining Division, District of Kenora, Ontario.

MEANS OF ACCESS:

Pròvincial Highway No. 72 cuts across the southern portion of the Group about $15\frac{1}{2}$ miles south-west of Sioux Lookout. Ontario.

A direct water route from Sioux Lookout via Abram Lake could be utilized for transporting heavy mine machinery.

ACKNOWLEDGMENTS:

The writer wishes to thank A. W. Johnston, Consulting Geologist, and J. Lundmark, prospector, for able assistance in the field. Reference has been made to M.E. Hurst's Report on the Sioux Lookout area (1933).

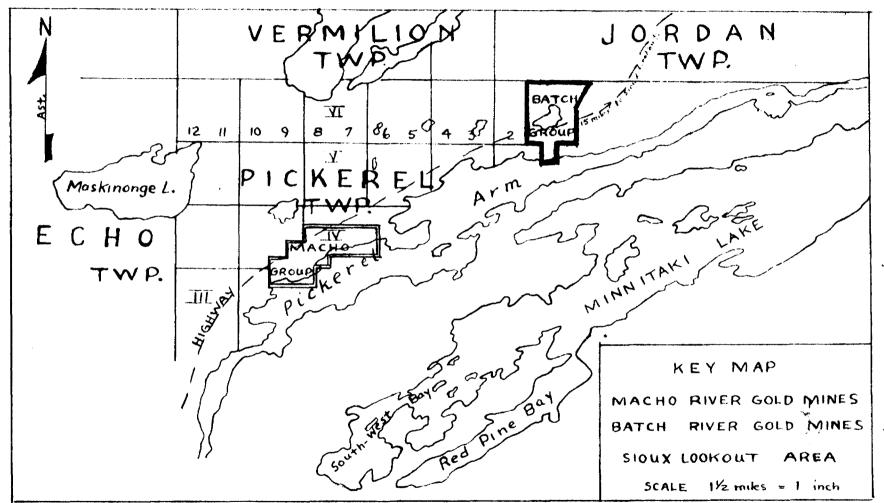
PRELIMINARY SURVEY NOTES:

East-West base lines were established. The North surveyed boundary of Pickerel Township was cut out and extended easterly to north-east corner of property and used as base line.

The second Base line was cut due East from the south-west corner of the property, and tied in with surveyed morth boundary of mining claims K.R.L. 24529 and K.R.L. 24530.

Picket lines at 330 ft. intervals were turned off with North or South bearings from the base lines. These lines were cut out and chained.

⁽a) Line cutting:



(b) Mapping:

Actual mapping commenced August 20th, and was completed by the end of September, 1950.

Most of rock outcroppings are located along eastern boundary of property, where a good cross-section of property was exposed.

(c) Topography: Misfit Lake occupies the centre of the property.

Rock ridges in morth-easterly corner, rise steeply to about 150 feet above normal level.

The western half of group is mostly low lying sand ridges, muskeg, and clay covered terrain.

TABLE OF FORMATIONS:

LENOZOIC:

Recent and Pleistocene:

Boulder clay, sand and gravel.

PRECAMBRIAN:

Intrusives:

Quartz porphyry.

Sediments:

Greywacke?

Keewatin:

Andesite, basalt, pillow lava, rhyolite, diorite, volcanic tuff and agglomerate, feldspar, basalt porphyry, gabbro.

Undetermined zones of altered material:

Sericitic, chloritic and carbonated schists.

INTRUSIVES:

Quartz porphyry:

A quartz porphyry dike about 30' in width and striking N. 70° E. was found near south-east corner of Pa 9983. It is massive with light yellowish weathered surface, and very coarse-grained. It contained

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many bluish quartz phenocrysts. No mineralization was noted or quartz filled cross-flacturing.

SEDIMENTS:

A granular, dark sedimentary rock was found near south-west corner of Pa 9979, probably greywacke.

KEEWATIN:

Greater part of andesite and lavas were fine to medium grained and quite massive. Intensive shearing was rare with exception along south boundary at lake shore. Very few quartz stringers or veins were found, and mineralized zones were not common.

Dioritic textured rocks were flow type and were gradational. They are likely a phase of the greenstone and not a true diorite.

Volcanic tuff were dark basic types, and inter-bedded with agglomerates, with exception of band of acid tuff near south-west corner of Pa 9979.

FELDSPAR BASALT PORPHYRY:

A zone similar to that described by M.E. Hurst in his report, and known locally as "leopard rock", was found near north-west corner of Pa 9986. The prominent "spots" are rounded phenocrysts of feldspar, usually grey to white in colour, and range in size from $\frac{2}{3}$ inch to 2 inches in diameter in dark green matrix. Zones grade into coarse grained greenstones.

ALTERED SHEAR ZONES:

Shear zones were typed in the field, and classified according to form of alteration, as it was impossible to determine origin.

FAULTING:

A north-south major transverse fault is indicated by prominent escarpment about centre of north boundary of Pa 9977. No evidence of faulting was found south of Misfit Lake. Area east of escarpment is drift covered.

STRUCTURE:

Strike of formation is quite constant, and does not vary appreciably from N. 60° E. and dips steeply to north-west between 70° and 85° .

Other than stringer zone described later, very few quartz occurrences were found.

SUMMARY OF EXPLORATION - 1950:

Prospecting was carried on in conjunction with mapping program, as well as a thousand feet of diamond drilling on the property during the summer of 1950. This represents all of the work done on the property to date. A minor amount of stripping and cross trenching was done to expose and extend discovery near north-west corner of Pa 9979.

ECONOMIC GEOLOGY:

North-west corner of Pa 9979:

An interesting quartz stringer zone was found near northwest corner of Claim Pa 9979. It is conveniently located about forty feet south of highway, and about one hundred and thirty feet south of Misfit Lake. It is on Picket Line #10 at 0 plus 1400; This line is 330 feet east of Township Line.

At discovery point, the zone has a known width of fifteen feet. Irregular quartz veins and stringers from 1^n to 6^n in width angle across a bed of acid tuff, bounded on each side by a dark basic cherty rock which may be a rhyolite.

West face of zone outcrop is about 50% quartz with inclusions of ankerite, altered tuff, and a porphyritic material. The inclusions are angular giving it a brecciated appearance. There may be a cross fault at this point, but outcrop dips steeply, and overburden is deep. Some fine specks of pyrite was noted in alteration and quartz.

Nine sections were channel sampled at discovery point across a width of 22.0 feet. A three foot section assayed 0.10 oz/au/ton; other sections yielded low gold values from trace to 0.04 oz.

Following examination of surface showing, Mr. A. W. Johnston, Consulting Geologist, recommended 1,000 feet of diamond drilling.

Subsequently, four shallow holes (1,014 feet) were drilled along strike to south-west of discovery point. Zone was intersected at two horizons (B-1, B-4) below surface exposure, and two holes (B-2, B-3) were drilled at 100 foot intervals to the south-west.

D.D.H. #B-1: Stringer zone intersected at vertical depth of 65 feet for core length of 25.7 feet. It consisted of numerous quartz stringers in a highly altered tuff. Mineralization was fairly well distributed, mostly pyrite and a little tourmaline. Assay returns were negligible. Depth of hole - 224.5 feet.

D.D.H. #B-4: Intersection of zone at vertical depth of 165 feet. A six foot section gave gold assay of 0.10 oz/ton. Other assay returns were 0.05 and 0.04 oz/au/ton across widths of 1.8' and 2.0' respectively. Depth of hole - 274.0 feet.

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Zone intersected for core length of 9.8 feet. D.D.H. #B-2: This hole located 100 feet south-west of B-1 and B-4. Assay returns were low. The best being 0.04 from two sections of 1.0' and 2.0'. Depth of hole - 261.0 feet.

D.D.H. #B-3: Located 100 feet south-west of B-2. Zone was not cut in this hole. It had likely terminated between B-2 and B-3. Depth of hole - 254.0 feet.

RECOMMENDATIONS:

Cross-sectional diamond drilling in northern half of group to cover drift covered sections, is suggested as assessment work.

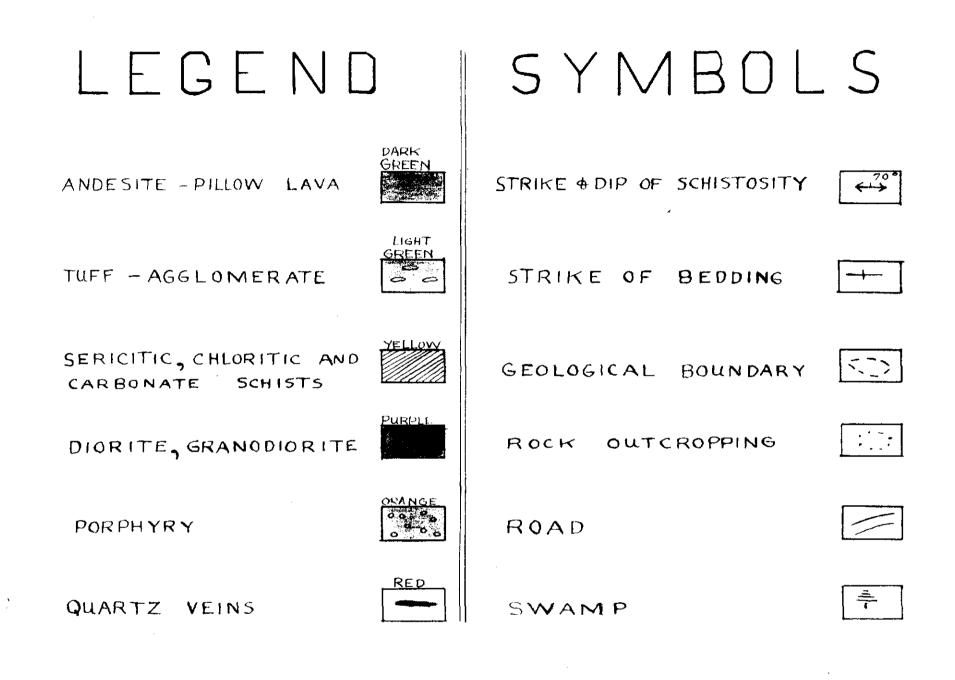
Two deep holes on reverse bearings from south-east corner of Pa 9985, each drilled to depth of 1.250 feet at dip of -45°. The bearing of these holes should be N. 300 West, and S. 300 East, to cut formation at right angles. This drilling would cover a horizontal distance of approximately 2,000 feet. Interesting geological data would be compiled, and possibilities of intersecting a gold bearing zone are excellent. This area is on strike of major shear zone known to exist on adjoining Realmont property, and persistent grano-diorite dike extending through from Newlund and extended last season by drilling on the Villbona and Eaglelund properties.

MAPS:

Two sets of geological plans (100 scale) accompany this

Report.

J. D. Williamson.



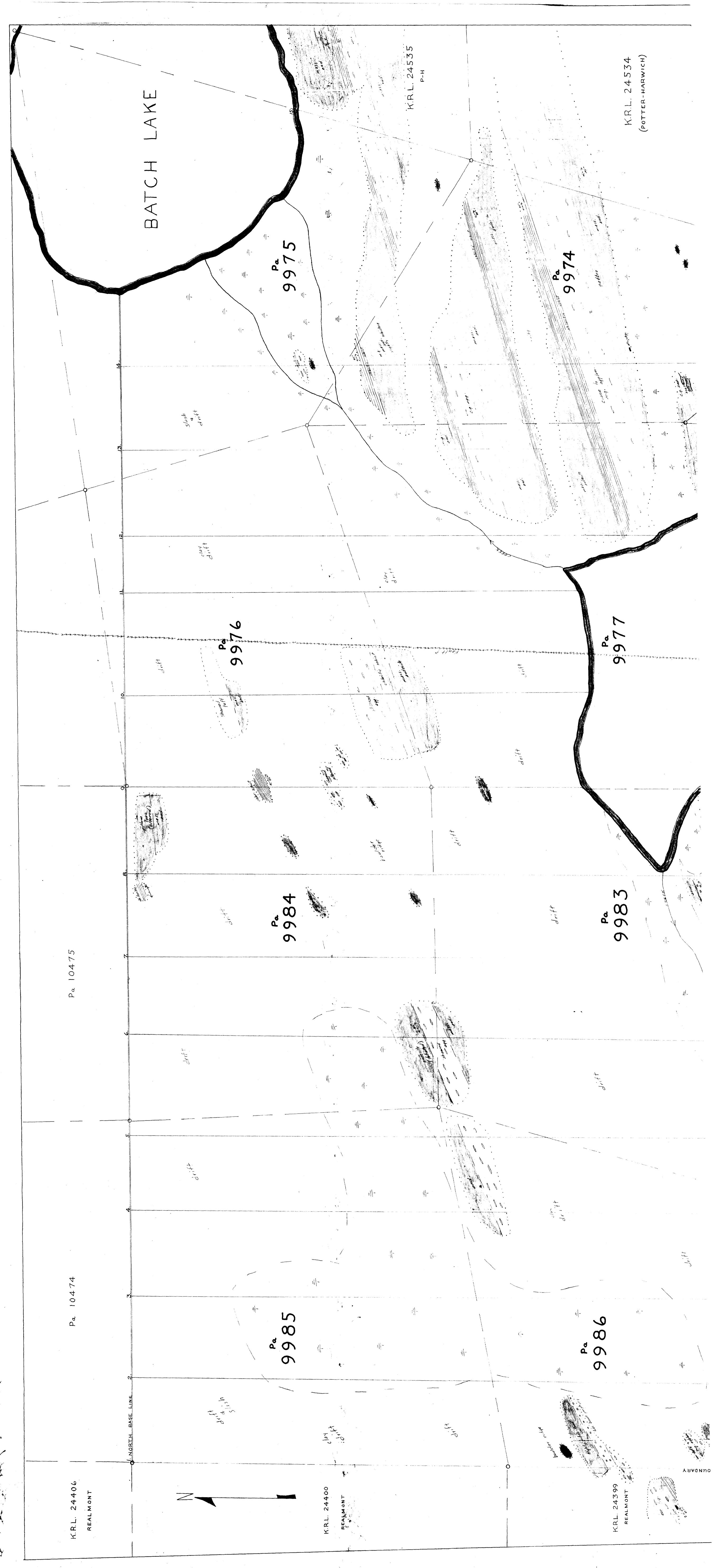
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GEOLOGICAL PLANS



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