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BARYTHIN COMPANY LIMITED

ELECTRUM LAKE, EWART TOWNSHIP, ONTARIO.

LOCATION & ACCESS

The group of twelve unpatented claim K16765 to K16776 inclusive is located on and to the south east of Electrum Lake, Ewart Township, Ontario, approximately three miles east of the Ontario-Manitoba boundary and one and one half miles south of the Trans Canada Highway.

The claims are most easily reached by highway, twenty-nine miles west of Kenora, then south one and one-half miles to Electrum Lake on the High Lake road, a winter logging road, then by canoe to the group. The cabin is located on claim K16768 on the east shore of the long bay to the south of the lake, approximately one mile from the High Lake road.

GENERAL GEOLOGY

The group is underlain by volcanics and sediments which have been intruded by a granite porphyry. There has been a variable amount of alteration of the older rock by the porphyry, more especially in the sediments in the north east portion of the area. Numerous sills of porphyry intrude the volcanics and sediments along schistosity and bedding planes. The general strike of the rocks in the area is slightly south of east and the dip is generally vertical to very steep either north or south.

Volcanics.

The volcanics consist chiefly of a hornblendized andesite with minor amounts of pillows lavas. The alteration in the volcanics is generally not intense but in isolated locatities moderate to heavy porphyritization has

taken place resulting in a diorite to quartz diorite porphyry. The contact between the volcanics and porphyry in these cases is merging.

There is a moderate amount of pillow lava especially in the south central part of the area. The pillows are well shaped and indicate tops south.

Sediments.

A large part of the area is underlain by sediments varying from argillite, greywacke and arkose to an unsorted and unstratified boulder conglomerate.

One distinct band of sediments ranging up to eighty feet in thickness occurs the north central portion of the group. These sediments consist of a basal conglomerate on the south varying to an argillite on the north. The conglomerate is composed of small cherty pebbles up to $\frac{3}{4}$ inch in size embedded in a fine grained cherty matrix. The argillite is finely bedded, well sheared and somewhat cherty.

The predominant sediment is a fine grained greywacke. The greywacke in the north east portion of the area is only slightly altered and finely bedded. The contact with the porphyry is sharp.

The greywacke on the 48+ 00,SE is highly altered and appears as a sericite schist. The bedding in this area is generally fine but in very localized sections is broader which, together with different colored beds, gives the appearance of a pseudo iron formation. The contact with the porphyry here is merging over a narrow width.

The unstratified and unsorted conglomerate in the east central portion is the most unusual of the rock types present. This conglomerate closely resembles a tillite in that the included boulders range from sediment to porphyry in composition and from $\frac{1}{2}$ inch to several feet in size. The matrix is a greywacke in composition but is highly variable in grain size.

Although only one exposure of arkose was found, this rock type was possibly the greatest in extent of the sediments. The large masses of porphyritized sediments were probably arkose originally since that type would lend itself more readily to porphyritization than would the greywacke or conglomerates. The matrix of the porphyitized conglomerates such as seen the south west corner of claim K16773 probably was arkosic in composition.

A very fine grained, dense quartzite is found in several parts of the group, chiefly in the north central portion where it is interbedded with the greywacke. Occassional narrow bands up to two to three inches are found well within the porphritized sediments but they have not been altered.

The porphyry which at present undlerlies most of the area is a fine to medium grained quartz, orthoclase, boitite granite in composition. Saml1 rounded phenocrysts of bluish quartz are most common but the occassional angular feldspar phenocryst was noted. The porphyry becomes more basic in composition - diorite to quartz diorite - where volcanics have been incorporated. Generally the porphyry is quite massive but local shearing is not uncommon. Relic bedding was seen in several places in the porphyritized sediments. Quartz filled cross factures occur in the massive porphyry at line 20/00 SE, 10/00 NE.

STRUCTURAL GEOLOGY

The regional structure in the area consists of an anticline with the axis striking slightly worth of east across the south central part of the area and plunging to the east. The volcanics form the central part of this anticline with the sediments overlying them. The porphyry has intruded subparrallel to the axis of the feld.

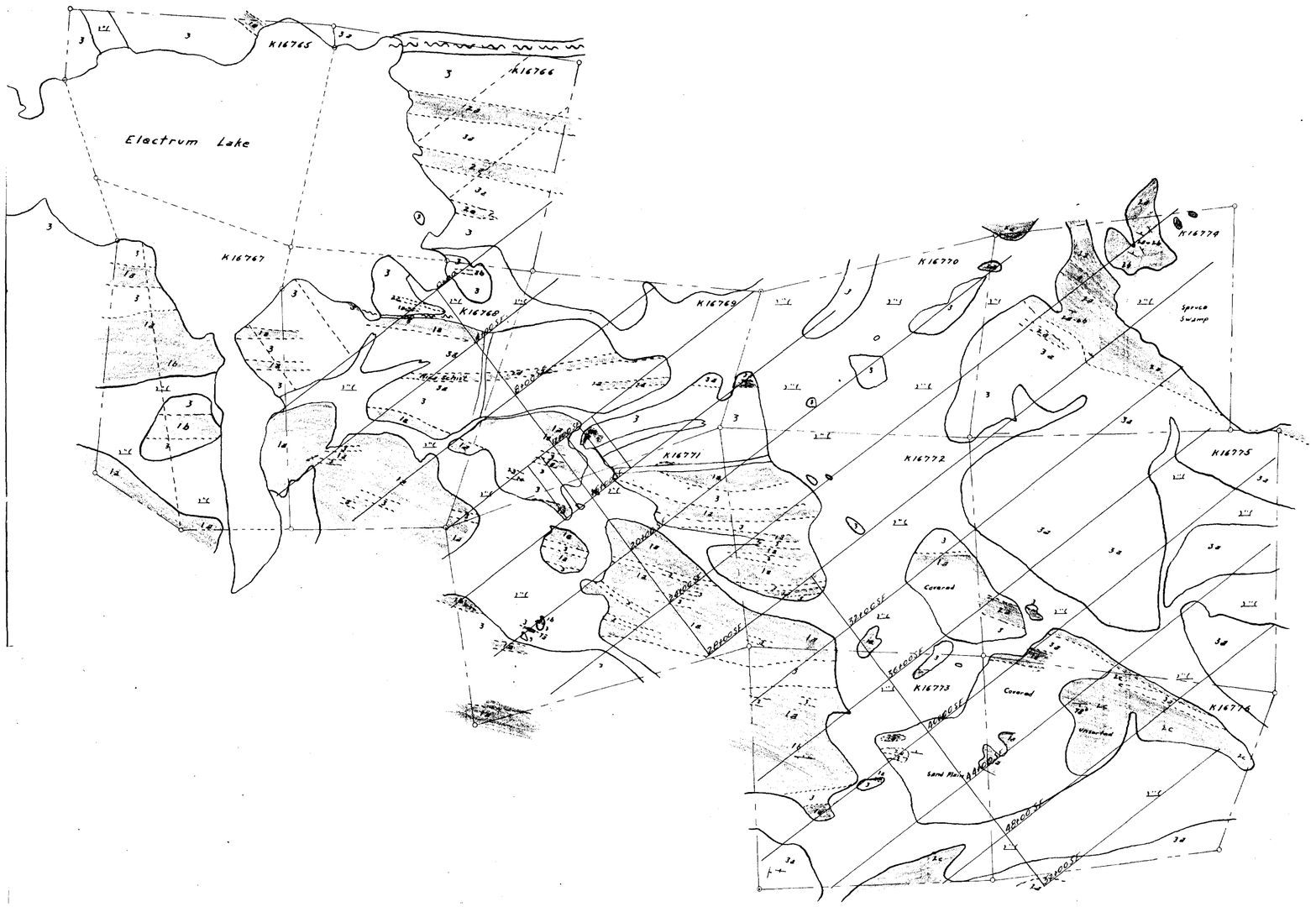
Two faults were found in the mapping. There is a strike fault running out into the south east corner of Electrum Lake which is characterized by an abrupt draw with a steep south side along which is found a garnet hornfels.

The second fault strikes east west through the north east corner of Electrum Lake: this fault is also characterized by an abrupt draw with hornfels is also found along the sides of this draw. This fault is particularly noticeable pn the aerial photographs.

August 24th, 1953.

K.F. O'Flaherty,

P. Eng.

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## LEGEND

- Andesite
- Pillow Lava
- Greywacke
- Quartzite
- Conglomerate
- Argillite
- Arkose
- 3 Porphyry
- 3a Porphyritized Sediments
- 3b " Volcanics
- Felsite
- Hornfels
- Strike and Dip of Schistosity
- " " Bedding
- Fault - Inferred
- Picket Line
- Traverse Line

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BARYMIN COMPANY LIMITED

ELECTRUM LAKE - EWART TWP ONT

GEOLOGICAL PLAN

Plan 400-1 Scale: 1in = 400ft.

July 23, 1953 K.O'F.

REGISTERED PROFESSIONAL ENGINEER
MINING
K. F. O'FLAHERTY
PROVINCE OF ONTARIO