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PROJECTS UNIT

LORMAC EXPLORATIONS LIMITED  
SUITE 1609, 44 VICTORIA STREET

TORONTO, ONTARIO

GEOLOGICAL SURVEY  
OF THE TECK TOWNSHIP PROPERTY

KIRKLAND LAKE, ONTARIO

BY

MICHAEL OGDEN, B.A.Sc., P.Eng.

DECEMBER 12, 1974

## INTRODUCTION

The geological survey was started to compliment and help interpret a detail geochemical survey being conducted over the southern half of the property. Once underway, it was considered wise to complete the work, at lesser line interval, over the whole property. Thus fresh data as to the nature and distribution of rock types has been obtained plus an idea of the amount of trenching and prospecting that has been done on the ground over the years.

The field geological observations were made by Michael Ogden and Dr. R. Bruce Graham during the period September 21 to 23 and by Michael Ogden during October 23 to 26.

## PROPERTY, LOCATION AND ACCESS

The block of 8 contiguous claims numbered L373162 to L373169, inclusive, lies just north of the old Temiskaming and Northern Ontario tracks (O.N.R.), about half a mile northwest of the west edge of the Town of Kirkland Lake. Access is provided by the old Goldthorpe Road to a power line which is a quarter of a mile beyond the Macassa Mill. Then walk north on the power line for 2,000 feet to the property. An east-west base line extends along the south boundary of the property, with the 8W picket in the middle of the power line right-of-way.

## GEOLOGY

The base map and nomenclature for the survey have been taken directly from O.D.M. Map 1945-1, a compilation map by James Thomson in 1945, based on work by himself and others. This, an excellent map for a reconnaissance survey, even shows the old claims, which have been moved a bit by subsequent restakings.

The new survey is thus similar to the old, but with more outcrop detail, and the favourable fault contact zone between the syenite and the sediments has been mapped in detail along the southern portion of the property.

The oldest rocks on the property are probably the medium to basic fine-grained volcanics found only in the northern corner and mapped as Keewatin greenstones.

The series of intrusive rocks are believed to be Algoman, the north half of the property, being underlain by a great mass of medium to coarse grain, almost black, even textured gabbro which has some finer grain dioritic phases along some contact areas. Some serpentinization has occurred in the northeast corner.

Along the south edge of the property a mass of porphyritic basic syenite extends into the claim block for 200 to 400 feet. This is a dark red rock with considerable augite and distinctive fingernail size phenocryst of feldspar. Another phase of it, found only in the southeast claim is even darker with more augite and is an even textured, medium grain, basic syenite.

Lying between the gabbro to the north and the syenite on the south boundary, there is a series of Timiskaming sediments. Fist-sized cobbled conglomerate is the predominant rock extending through the centre of the gap between the two intrusive masses. There are minor amounts of tuff on both the north and south contact of the sedimentary series. The old shaft, at about 400 north and 150 feet west, is in sheared tuff with a little disseminated pyrite. The shearing is parallel to the common trend at about 60° true with steep dip to the south.

There is an interesting outcrop of flat lying limey sandstone a couple of hundred feet north of the property, on the power line right-of-way. It is composed of book thick beds of grey and yellow sediments with one rusty brown coloured band. It resembles a Paleozoic sediment.

#### HISTORY

The present property of 8 claims was the north part of 14 claims put together from various people to form the Casakirk Gold Mine Limited in 1936. The shaft had been sunk to 127 feet before that.

A crosscut was driven north on the 3,000-foot level of Macassa in 1940. It got to within 600 feet of the south boundary from where a 1500-foot long flat hole was continued on into the claim block. A small quartz vein was encountered about 50 feet north of the boundary but no assays are available.

Another drill hole probed the contact area from 2500 feet west and 50 feet south. It returned 0.07 ounces of gold and 1.45 ounces of silver from a broken 2-foot section of quartz-carbonate, amongst a 7-foot section of badly broken rock and lost core at the contact between syenite and tuffs.

Nothing else seems to have been done until now.

#### FAULTING

The North Break or Narrows Break fault of Kirkland Lake can be extrapolated to extend across the property, along the syenite/sediment contact. The above drill hole tends to confirm that concept or at least it shows that the contact area sometimes has fair gold values.

#### MINERALIZATION

No gold mineralization is known to the writer to be exposed at surface. The best assays are from the drill hole at half a mile west in the property, at about 200 feet north of the south boundary where 0.07 ounces of gold per

ton were found in a two-foot section of broken quartz-carbonate vein; 1.45 ounces of silver was also found here at the vertical depth of about 200 feet.

Some minor pyrite mineralization can be seen near the shaft but the best assay of four samples was 40 parts per billion or 0.0012 ounces per ton.

Respectfully submitted



Michael Ogden, B.A.Sc., P.Eng.

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ASSESSMENT WORK	
Rec'd from	<i>L. J. H. Eaton</i>
	<i>Cochrane</i>
Date	<i>Jan 26/75</i>
	<i>R. Foxell</i>
	Resident Geologist



