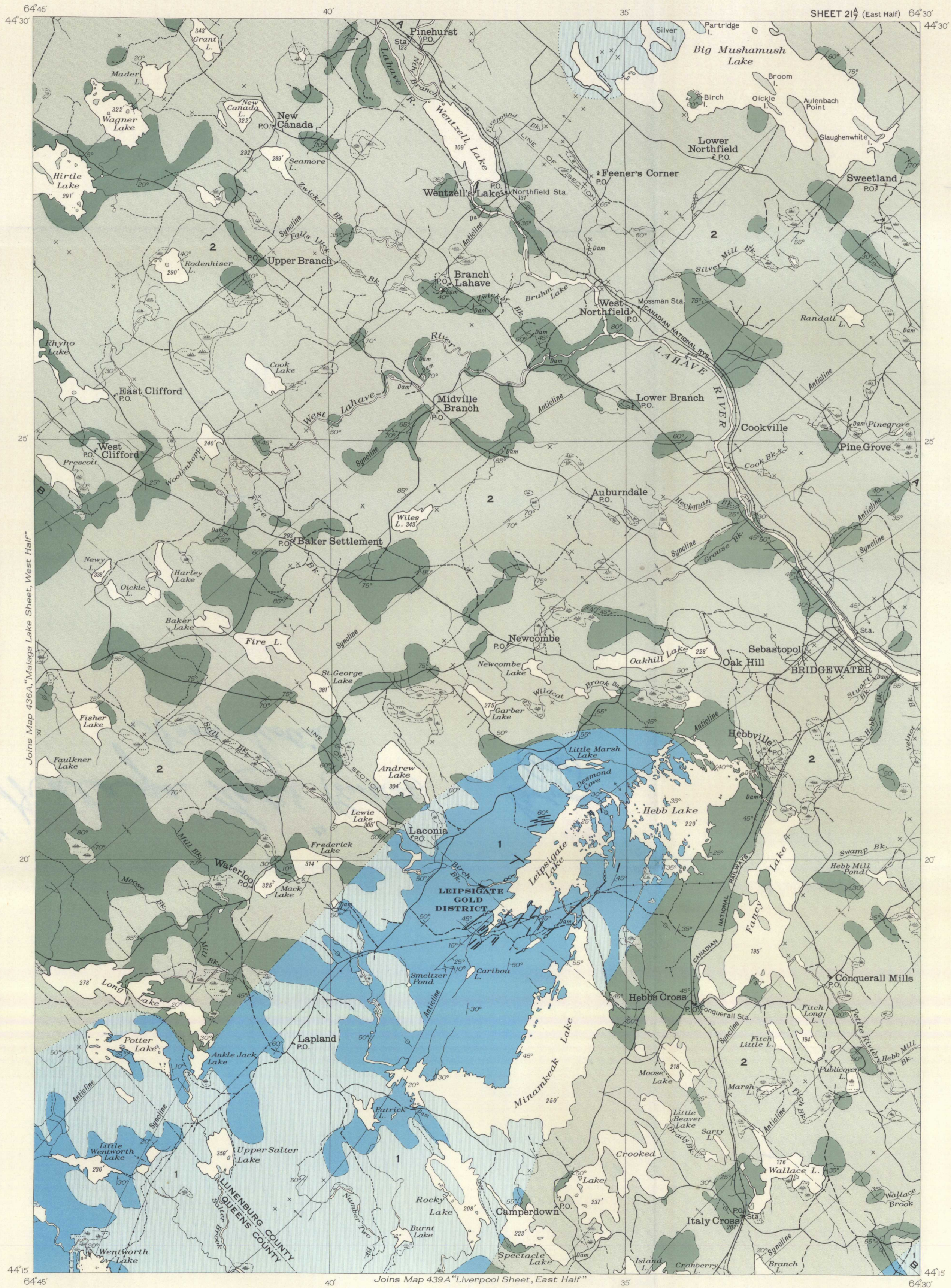


Structure sections along lines A-A and B-B



PHYSICAL FEATURES

The area is a plain of low relief sloping to the southeast over which are scattered about 600 symmetrical hills composed of debris deposited beneath the ice sheet that at one time occupied the region. These hills, known as drumlins, are elliptical in plan, from one quarter to one mile long, and up to 200 feet high. Their longer axes follow directions varying between N. 20°W. and N. 60°W. Usually the highest point is near the northwest end and frequently the southwest side of the hill is the steeper. The drumlins make good farms and it is their presence that give rise to the agricultural district of Lunenburg and Queens counties. They are most common in areas where the bedrock is slate. The shapes of many of the lakes are due in part to drumlins.

GÉNÉRAL GEOLOGY

The Meguma or Gold-bearing series underlies the whole area and is presumably of late Precambrian age. It consists of two formations. The older formation is the Goldenville (1) and it consists mainly of grey or blue-grey quartzite (whin) that weathers light grey. Narrow beds of blue-grey to green-grey slate occur with the quartzite but form only a small part of the formation and are poorly exposed. Upwards in the formation the quartzite becomes more argillaceous, slate bands become commoner and wider, and at the summit of the formation in a zone a few hundred feet thick, the Goldenville quartzite grades into the overlying Halifax slate. The boundary between the two formations is placed at the highest exposed bed of quartzite.

The lower part of the younger member of the Meguma series, the Halifax formation (2) consists of green-grey and grey slates and argillites such as are well exposed around the Pleasant River Barrens dome. These pass upwards into purple, blue-grey, green-grey, grey and black slates that are softer and cleave more readily than the slates of the lower part of the formation. "Porphyry" has been reported to occur in old pits near the north shore of Wallace Lake.

STRUCTURAL GEOLOGY

The Meguma or Gold-bearing series lies in a succession of gentle folds without known overturning and without major faults. The quartzites are smoothly folded and are disturbed only by a few cross fractures. The slates exhibit many minor folds and fractures.

ECONOMIC GEOLOGY

The Leipsigate gold district is on the eastward plunging end of an anticlinal dome in Goldenville quartzites. Numerous quartz veins follow the bedding of the enclosing quartzites or intersect the bedding. Because of the gentle, symmetrical folding of the beds, the interbedded veins do not attain the size possessed by such veins in gold districts in the eastern part of the province. Most of the gold produced has come from the Leipsigate cross vein which has been traced in three sections south of Leipsigate lake. Since 1908 there has been little mining activity. A few quartz veins have been found in the Halifax slates but have not been reported to carry gold. Quartz veins may occur on the anticline passing through Rocky lake but most of the favourable area is covered with drift.

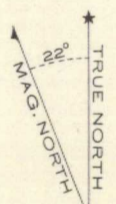
LEGEND

NOTE:— Outcrops or areas of outcrops of a formation are shown by deep colour; inferred extensions of a formation beneath drift are shown by a lighter tint of the same colour. Small outcrops are shown thus: x

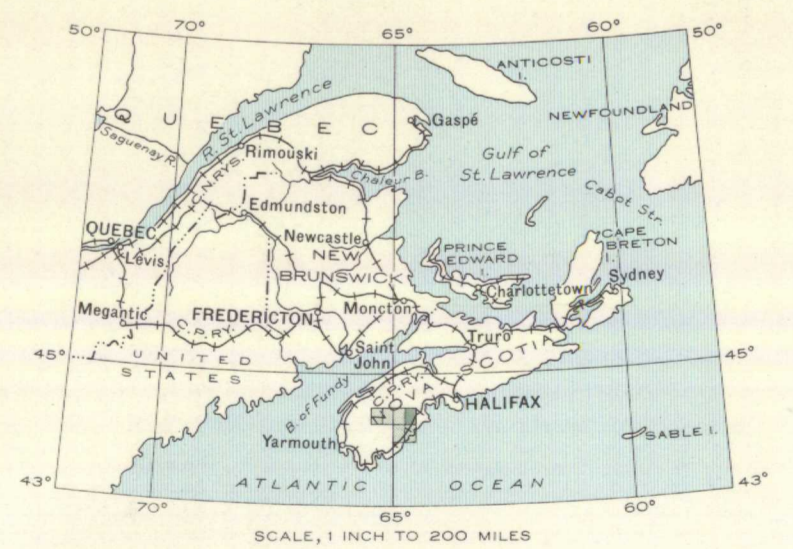
- PRECAMBRIAN (?)
- 2 MEGUMA (GOLD-BEARING) SERIES
 - HALIFAX FORMATION: black, grey and green slate and argillite
 - 1 GOLDENVILLE FORMATION: quartzite (whin) and slate

- Quartz veins
- Shaft deeper than 50 feet
- Bedding (inclined)
- Anticlinal axis
- Synclinal axis
- Glacial striae
- Road (well travelled)
- Road (not well travelled)
- Trail
- Railway
- Transmission line (not along road)
- Bridge
- Post Office
- County boundary (approximate)
- Dam
- Fall or rapid
- Marsh
- Height in feet

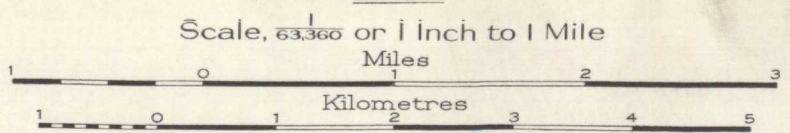
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Approximate magnetic declination, 22° West



MAP 435A
MALAGA LAKE SHEET
 (EAST HALF)
 QUEENS, AND LUNENBURG COUNTIES
 NOVA SCOTIA



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