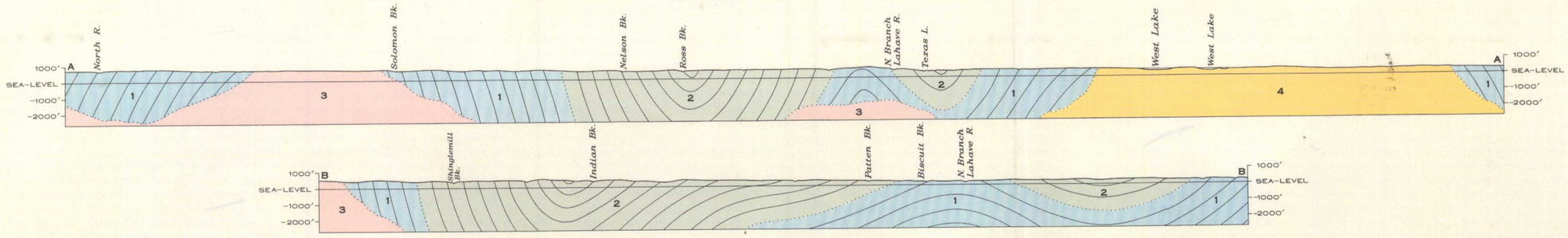
CANADA

DEPARTMENT OF MINES AND RESOURCES

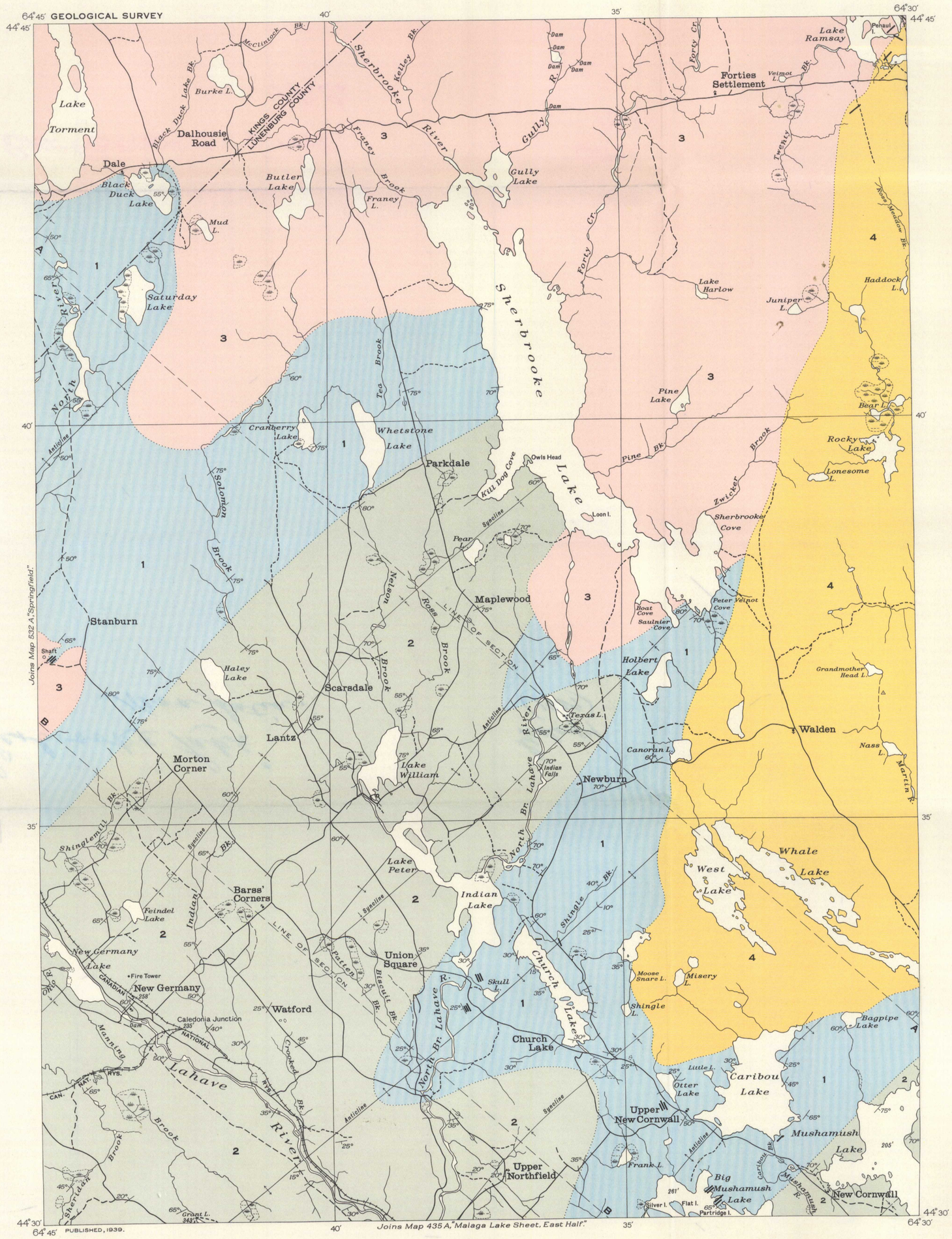
MINES AND GEOLOGY BRANCH

BUREAU OF GEOLOGY AND TOPOGRAPHY



Structure sections along lines A-A and B-B

64°45′ GEOLOGICAL SURVEY



LEGEND

PALAEOZOIC

DEVONIAN

4 — *Muscovite granite*

3 — *Biotite granite*

PRECAMBRIAN(?)

MEGUMA (GOLD-BEARING) SERIES

2 — *HALIFAX FORMATION: grey, green and black slates*

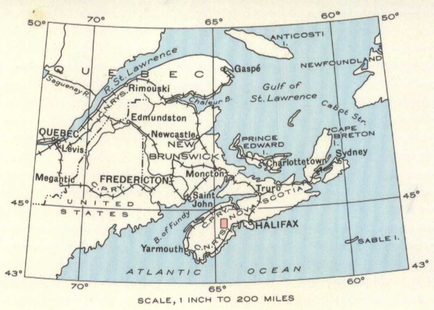
1 — *GOLDENVILLE FORMATION: quartzite (whin) and slate*

Quartz veins
Bedding (inclined)
Anticlinal axis
Synclinal axis
Glacial striæ

Road well travelled
Road not well travelled
Bush road or trail
Post Office
Triangulation station
County boundary (position approximate)
Stream (position approximate)
Marsh
Height in feet above Mean sea-level ..... 205′

Geology by E.R. Faribault, P. Armstrong (1935), and J.T. Wilson (1936).

Base-map compiled by the Topographical Survey, 1938, from information supplied by the Geological Survey. Cartography by the Drafting and Reproducing Division, 1939.



SCALE, 1 INCH TO 200 MILES

PHYSICAL FEATURES

The area is a plain of low relief sloping to the southeast. Over the southern half of the area are scattered many symmetrical hills composed of drift deposited beneath the ice sheet, which 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. 10° W. and N. 35° W. The drumlins make good farms and it is their presence that gives rise to the agricultural district of Lunenburg and Queens counties, of which this area is the most northern part.

GENERAL GEOLOGY

The area is underlain by sedimentary rocks belonging to the Meguma or Gold-bearing series and by granites invading these rocks. The Meguma series 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 grey-white. 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. 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.

The granites that occur around the edges of this area are parts of a large mass of granite that extends from Halifax to Digby county. Northeast of the area the contact has been found between a biotite and a younger muscovite granite and the distinction between them applies in this area also. The biotite granite (3) is medium-grained, pink to grey-pink and contains in places large crystals of feldspar. The muscovite granite (4) is coarser, lighter pink in colour, and also contains large feldspar crystals. There is a little biotite with the muscovite. The contact between the granites lies under a drift covered area and may be gradational.

STRUCTURAL GEOLOGY

The Meguma or Gold-bearing series lies in a series 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.

The folding of the sediments has evidently not been caused nor affected by the intrusion of the granites. Nor do the granite intrusives show whether their location was influenced by the folding in the sediments.

ECONOMIC GEOLOGY

Near Church lake and near Big Mushamush lake plunging anticlinal domes of quartzite are well exposed. Prospecting has uncovered several interbedded quartz veins.

At Stanburn attempts have been made to mine several interbedded quartz veins that carry free gold. The deposit is unusual for Nova Scotia as the veins, which carry silver as well as gold, are more closely associated with the granite contact than with any anticlinal axis.

MAP 531A

SHERBROOKE LAKE

LUNENBURG AND KINGS COUNTIES

NOVA SCOTIA

Scale, ~~63,360~~ or 1 Inch to 1 Mile

Miles 1 0 1 2 3

Approximate magnetic declination, 22° West.

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531A

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