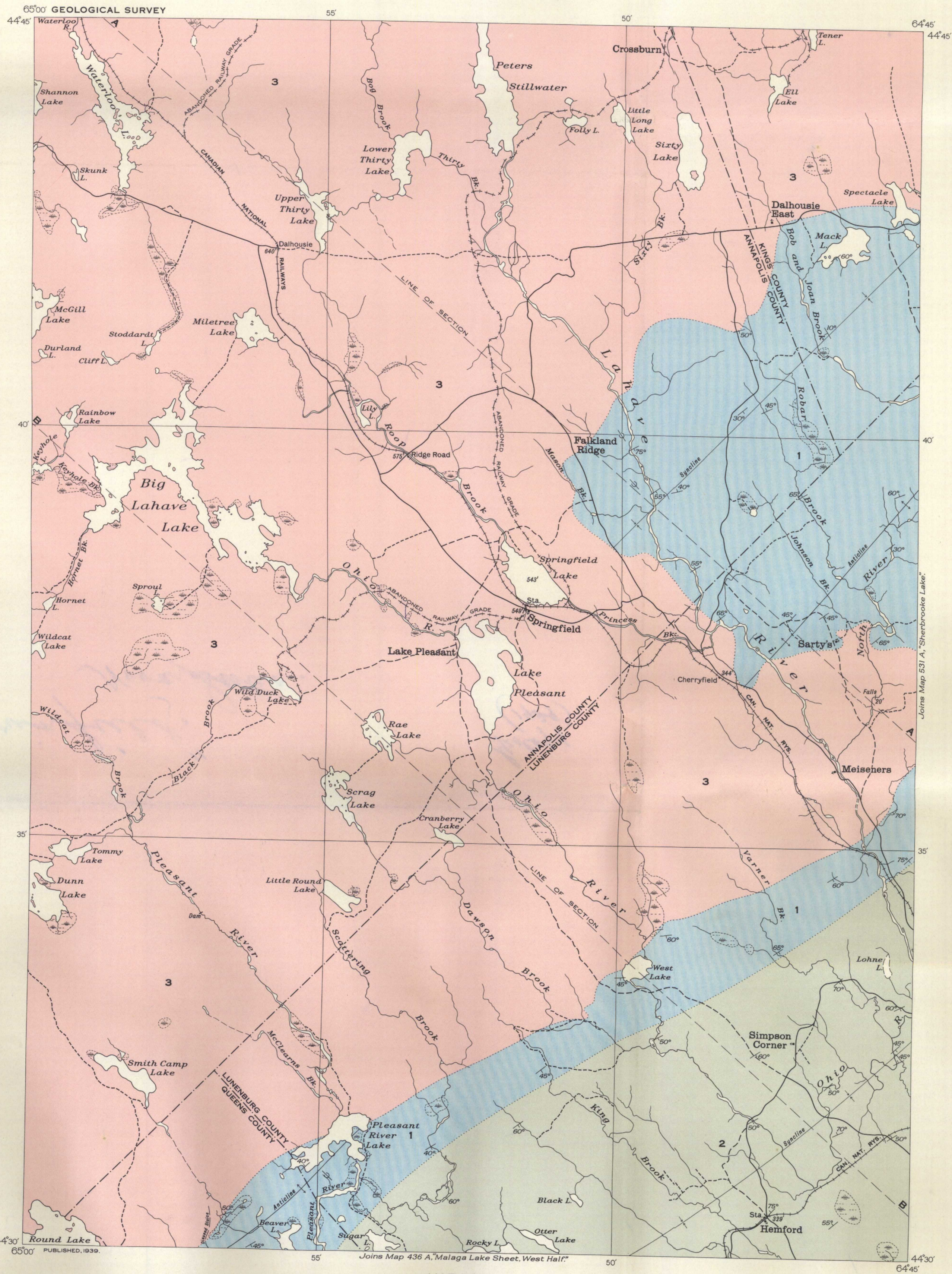


Structure sections along lines A-A and B-B



MAP 532 A
SPRINGFIELD
ANNAPOLIS, LUNENBURG, KINGS,
AND QUEENS COUNTIES
NOVA SCOTIA

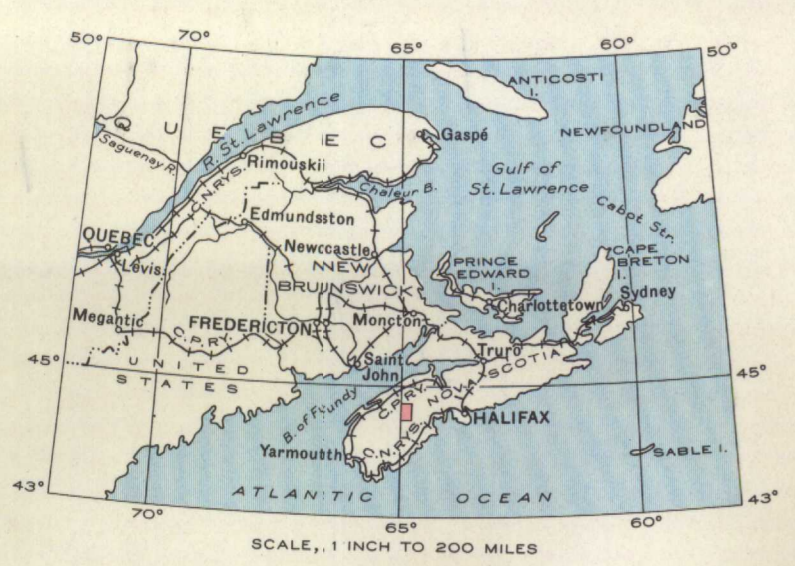
Scale, 63,366 or 1 inch to 1 Mile
Approximate magnetic declination, 22' West.

LEGEND

- PALAEOZOIC**
- DEVONIAN**
 - 3 Biotite granite
- PRECAMBRIAN (?)**
- MEGUMA (GOLD-BEARING) SERIES**
 - 2 HALIFAX FORMATION: grey, green and black slates
 - 1 GOLDENVILLE FORMATION: quartzite (whin) and slate

- Bedding (inclined)
- Anticlinal axis
- Synclinal axis
- Glacial striae
- Road well travelled
- Road not well travelled
- Bush road or trail
- Abandoned railway grade
- Post Office
- County boundary (position approximate)
- Lake and stream (position approximate)
- Marsh
- Height in feet above Mean sea-level

Geology by E.R. Fairbairn, 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.



PHYSICAL FEATURES

The area is a plain of low relief sloping to the southeast except in the northwest corner, which is drained to the north and west. The whole area has been mantled with glacial drift, furrowed in directions varying from N. 10° W. to N. 40° W. This is shown by the courses of many streams and by the shapes of some of the lakes. In the southeast corner and near the centre of the area the drift forms symmetrical hills known as drumlins. These hills are elliptical in plan, from one quarter to one mile long, and up to 200 feet high. The drumlins make good farms.

GENERAL GEOLOGY

The area is underlain by sedimentary rocks belonging to the Meguma or Gold-bearing series and by granite 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 such as are well exposed around the Pleasant River Barrens dome immediately south of this area. 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 granite (3) that underlies most of the area is part of a great body extending from Halifax into Digby county. It is a coarse, grey to grey-pink, biotite granite, in places holding large crystals of feldspar. Many inclusions of altered sediments lie in the marginal part of the granite body.

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 in the sediments has evidently not been caused or affected by the intrusion of the granite. For example, the anticline through Pleasant River lake continues at Cherryfield on the other side of the granite body. Neither does the location of the granite show whether its intrusion was influenced by the structure of the sediments.

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