PUBNICO 20 P/12 E

SURFICIAL GEOLOGY

SCALE 1:50,000

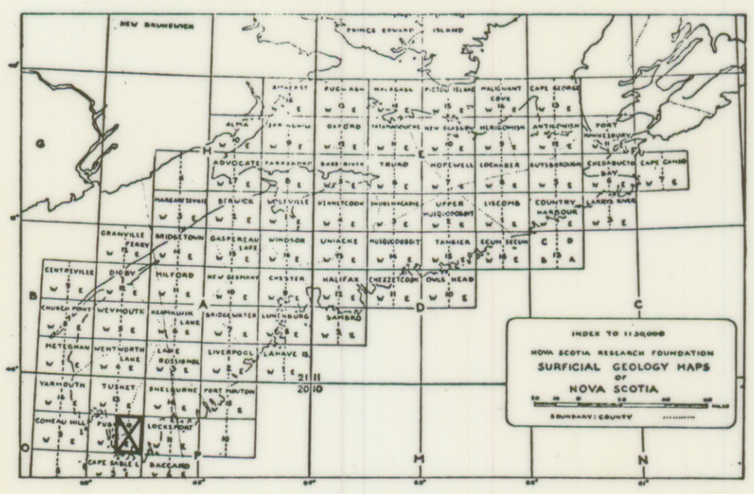
1.25 inches to 1 mile approximately

1 0 1 2 3 Miles

1000 500 0 1000 2000 3000 4000 Metres

NOVA SCOTIA RESEARCH FOUNDATION CORPORATION

Geology by R.H. Mac Neill, 1956



LEGEND

- DRUMLIN & MORAINE
- KAME
- ESKER
- DELTA
- TILL AREAS (undiff.)
- SWAMP
- ROADS & TRAILS
- STREAMS
- GLACIAL STRIAE

DESCRIPTIVE NOTES

BEDROCK AND TOPOGRAPHY

Much of the Pubnico East Map Sheet area is underlain by Devonian granites with Goldenville formation metasediments of the Meguma Group appearing northwest, west, and southwest of Great Pubnico Lake. A band of these Meguma rocks also extends from the southeast section of the map area northward, passing through Wabi Lake and then spreading east toward Clyde River and westward to pass between Cranberry Pond and Little Madashack Lake.

The surface is part of the peneplane surface of the Southern Upland of the province and rises from sea level in the south to 60 m in the north. Most of the surface is below 30 m in elevation and contains numerous bogs. The coastline is one of submergence.

DRUMLINS AND TILL

There are relatively few drumlins except where the Meguma rocks have contributed to the drift somewhat more freely than did the Devonian granites. The drumlins are generally quite small and often do not exhibit the typical drumlin form very well. The area has a thin till cover which mantles the rocks while still revealing their topographic form. The till is light grey in colour and contains abundant rock flour and sand as a matrix surrounding the metasediments and granite rocks of the drift.

GLACIOFLUVIALS

Kames

There are numerous kames in this area and are to be found in a band running south-southeast across much of the area with clusters also appearing north of East and West Lakes and along the Clyde River. Others can be found in the southeast on Baccaro peninsula.

Eskers

Numerous eskers, some segmented, are to be found in connection with the kame fields and with the outwash plains.

The proliferation of eskers and small kames indicates deposition in a stagnant, thin, and rapidly disintegrating ice sheet. This ice sheet is the one which formed the local ice cap during the dying stages of the Wisconsin and is thought to be equivalent in time to the Mankato.

OUTWASH AND DELTAS

During the deglaciation the melting of the thin stagnant ice afforded opportunity for the meltwater to spread the glacial debris over much of the area in the form of thin outwashed sands and silts with some lesser amounts of coarser granular or gravelly materials. There is no great thickness of this debris, sometimes barely providing a covering mantle for the bedrock. Occasionally the sediments were deposited in deltaic form. Outwashed sediments are quite extensive in the northeast of the map area.