



TANGIER IID/15E

SURFICIAL GEOLOGY

SCALE 1:50,000 1.25 inches to 1 mile approximately EHHHH 1000 500 0

NOVA SCOTIA RESEARCH FOUNDATION CORPORATION

The Tangier map area forms part of the Southern Upland of Nova Scotta. The land rises gently from sea level along the coast, reaching a maximum elevation of 400 feet in the north.

DESCRIPTIVE NOTES

Lakes are numerous through-out the area, drainage is patternless and haphazard as streams are dependent on the strike and position of the underlying bedrock. Several of the streams such as the East River Sheet Harbour, are entrenched in deeply eroded faults or joints.

The bedrock in the map area is typical of the Southern Upland area, being underlain by slates and quartzites of the Meguma Group. These rocks have been steeply folded. The slates, being softer, have eroded more rapidly and consequently broad areas of quartzite enclose narrow bands of slate. This east striking folded belt of the Meguma has been intruded by the Devonian granite in the area west of Grank Lake and extending westward of the map area.

BEDROCK GEOLOGY

GLACIAL DEPOSITS Till and Drumlins The ice sheet moving over the area scoured out basins, created many lakes and deposited a thin patchy till cover. The areas underlain by granite are generally barren with granite boulders strewn over the sur-face. An average depth to bedrock is two to three feet, however, depths of 15 feet were observed in borrow pits on the flanks of hills.

The dominant surficial material of the area is a grey to brownish-grey sandy till. It is usually very stony and bouldery, derived from the granite and quartzite of the area. The rocks in the matrix are angular, consisting predominantly of granite in the areas underlain by granite and of quartzite in the areas underlain by quartzite bedrock.

The second till type occuring in the north and northwest sections of the map area is a light brown silty clay type derived from the slates.

Drumlins Drumlins occur sparingly throughout the area and are composed of a hard-packed reddish-brown to brown silty clay to sandy silty matrix. Rock fragments are predominantly of locally derived quartzite, with smaller quantities of slate, granite, diorite, mafic and felsic volcanics. These rocks have been subject to greater wear than the rocks of the surroundnng till. Glaciofluvials

Deglaciation is recorded by glaciofluvial deposits, as kames, kame deltas, and eskers, along the East and West branches of the Sheet Harbour River. These glaciofluvial deposits are small, having been formed as melt-water flowed across the bedrock from stagnant ice masses and dropped over the edge forming kames and kame deltas. The resulting deposits of washed gravel

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LEGEND

DRUMLIN & MORAINE

KAME

and sand, as exposed in borrow pits, are thin and heavily iron stained. Bedrock is generally exposed in the excavations. Several eskers are associated with the kames. The largest of which attains a height of 35 feet and runs for several hundred feet. The material ranges from stratified grey sand to coarse gravel containing four-foot quartzite boulders.

Glacial striae are well defined throughout the area on the Goldenville quartzites. Several sets of striae ranging between 330° - 150° to 340° - 160° were found in the area south of Third Lake and along the main highway north of East Mushaboom. A third set trending 345° - 165° occurs along the West River Sheet Harbour Road approximately 1.5 miles north of the Killag Road junction.