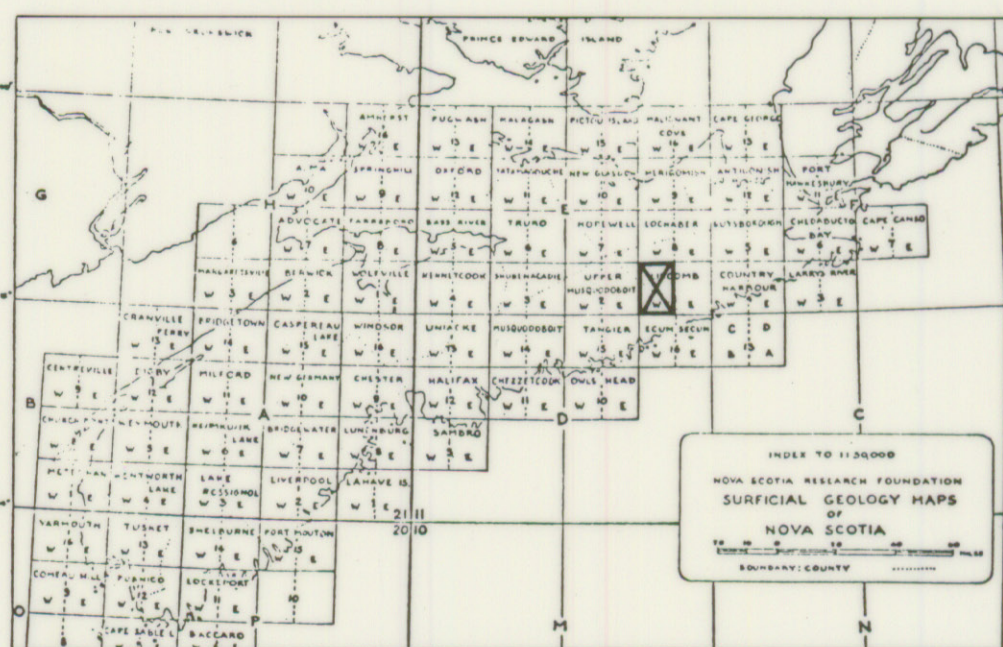


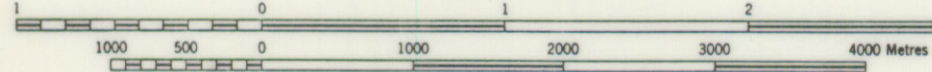


Geology by R.H. Mac Neill, 1956



LISCOMB II E/IW SURFICIAL GEOLOGY

SCALE 1:50,000
1.25 inches to 1 mile approximately



NOVA SCOTIA RESEARCH FOUNDATION
CORPORATION

LEGEND

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

DESCRIPTIVE NOTES

GENERAL

The Liscomb map area forms part of the Southern Upland of Nova Scotia. The land slopes gently from elevations of over 650 ft in the northwest to less than 200 ft in the southeast. Lakes are numerous throughout the area, drainage is poor as streams are dependent on the strike and position of the underlying bedrock. Several of these streams, such as the Moser River are entrenched in deeply eroded faults. As a result of the poor drainage, bogs have formed throughout the map area on level-to-depressional topography.

Drainage

The map area has been drained southward by the East River

Sheet Harbour and Moser River. The northern area generally has been drained eastward down the Liscomb River, although some meltwater probably flowed northward into the West River St. Mary's during the later stages of deglaciation.

BEDROCK GEOLOGY

Rocks of greatest areal extent are those of the Meguma Group, quartzites and slates. This east-striking folded belt of the Meguma was intruded by the Devonian granites in the area west of Rush Lake.

QUATERNARY GEOLOGY

Till and Drumlins
As the ice sheet moved

over the area, it smoothed off the topography and partially re-covered it with drift, but much of the surface in the Hunting Lake-Denis Lakes area remains bare bedrock. Approximately 40 per cent of the map area is covered by bedrock, lakes and peat bog, while the granite area is barren.

The northwestern area is covered by 2 ft. of a light brown stony sandy silty till. The surface is strewn with 3-8 ft boulders of granite and quartzite. Till in the southern area range from a stony grey sandy matrix type containing angular quartzite fragments at East River Sheet Harbour to brown and dark reddish brown silty clay tills along the Moser River with an average depth of 3-4 ft. to bedrock. Drumlins appear sparingly in the north central and southern areas. Those in the north are

smaller and not as well formed as those of the south. These northern drumlins are similar in texture and lithology to the surrounding till. Drumlins in the Moser River area are brown to dark reddish brown, moderately stony with a clay-rich matrix. Rocks in the matrix are generally quartzite and granite with lesser amounts of slate, brown siltstone, conglomerate, volcanic porphyries and dike rock.

Glaciofluvials

Glaciofluvials have been deposited along the East River St. Mary's at Lochaber Mines. The thickness of this moderately coarse iron-stained gravel varies from 2-20 ft due to the uneven surface of the underlying bedrock. Meltwater flowing off the thinning ice sheet filled the low areas with gravel, giving the topography a smooth, even appearance. Rocks in the matrix are

slates, quartzites, granites, sandstones and siltstones.

As the higher elevations became ice free and thinning of the ice sheet occurred, meltwater flowed under the ice in sub-glacial streams forming eskers throughout the map area. The longest of these eskers runs discontinuously northeast-southwest for 1.2 miles, across the Liscomb River, at right angles to both the direction of ice movement and the present drainage, into Head Lakes. The esker however does not cross the brook at the lowest point on the Liscomb River, east of Hunting Lake, although at right angles to the direction of ice movement, parallels the present drainage. The remaining eskers at Francis Cut Lake, along the Moser River's east and west branches all run in the direction of ice

movement and parallel the present drainage.

A borrow pit in one of these eskers at Round Lake, exposes stratified coarse silty gravel and sand containing sub-rounded fragments of quartzite, granite, slate, siltstone and sandstone.

Direction of Ice Movement

The general trend of striae, drumlins and eskers indicate a southward movement of ice across the map area. Striae trending 345° are exposed on the quartzites between the Liscomb Game Sanctuary road and the Nova Scotia Power Commission Dam on Fifteen Mile Stream.