

LEGEND

- CARBONIFEROUS PENNSYLVANIAN**
PICTOU GROUP (?) (14, 15)
- 15** Grey conglomerate, sandstone
- 14** Red conglomerate, sandstone, shale
- DEVONIAN (?)**
- 13*** Diabase sills and dykes
- 12** Granophyre, porphyritic rhyolite, quartz-feldspar porphyry
- 11** Granite, granodiorite
- 10** Gabbro, diorite, diabase, quartz diorite; 10a, extrusive equivalents
- 9** Basalt, andesite; 9a, intrusive equivalents
- DEVONIAN**
- 8** Grey to green sandy slate, sandstone, conglomerate
- SILURIAN AND DEVONIAN (undivided)**
- 7** Grey to green slate, greywacke; minor conglomerate
- SILURIAN**
- 6** Grey to green slate, greywacke, conglomerate
- 5** Grey, green, and red slate, greywacke; manganese iron formation
- 4** Dark grey calcareous slate
- 3** Grey to green slate, sandstone, limestone, conglomerate
- PRE-SILURIAN**
- 2** Grey to green slate, argillite, greywacke; 2a, includes basic lava
- 1** Mica schist, gneiss, hornfels; in part metamorphosed equivalents of 2

- Rock outcrop x
- Geological boundary (approximate, assumed)
- Bedding (horizontal, inclined, vertical, dip unknown)
- Bedding (direction of dip known, top unknown)
- Cleavage (inclined, vertical, dip unknown)
- Fault (defined, approximate, assumed)
- Glacial striae
- Esker
- Fossil locality
- Quarry
- Mineral occurrence x

MINERAL OCCURRENCES

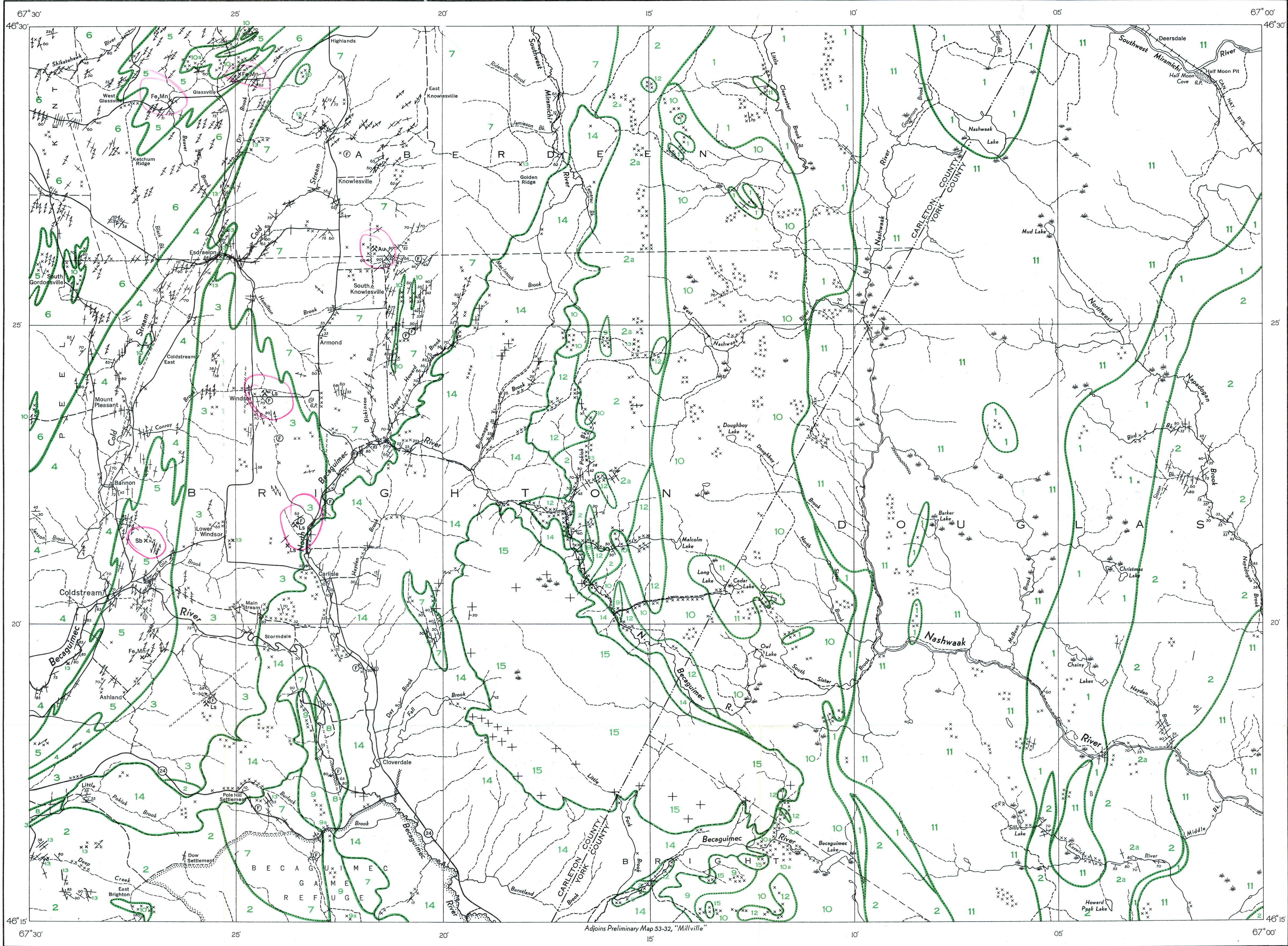
Antimony Sb Iron Fe
Gold Au Limestone Ls
Manganese Mn

Geology by F.D. Anderson, 1933-1934

Approximate magnetic declination, 22° 07' West

Cartography by the Geological Cartography Unit, 1956

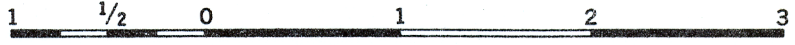
Air photographs covering this map-area may be obtained through the National Air Photographic Library, Topographical Survey, Ottawa, Ontario



PRELIMINARY MAP 55-29

COLDSTREAM
CARLETON AND YORK COUNTIES
NEW BRUNSWICK

Scale: One Inch to One Mile = $\frac{1}{63,360}$
Miles



Printed by the Surveys and Mapping Branch

LEGEND

- Main highway
- Other roads
- Trail
- County boundary
- Parish boundary
- Game refuge boundary
- Intermittent stream
- Marsh

DESCRIPTIVE NOTES

The western part of the area is rolling farmland with an average elevation of about 600 feet and a local relief of about 250 feet. The central part of the area along the watersheds of Becaguimic, Nashwaak, and Miramichi Rivers has the greatest relief and highest elevation. Many narrow V-shaped valleys of the tributaries of the Becaguimic are over 300 feet deep and maximum relief is about 1,400 feet. The eastern part of the area is highland with fairly gentle slopes and an average elevation of about 1,100 feet. The average local relief is about 250 feet and the maximum relief is as much as 600 feet. Nashwaak River drains the largest part of this section.

Glaciation has disrupted the drainage of the area. This is most noticeable in the central and eastern parts, where rock exposures are few, lakes and swamps are numerous, and falls and deadwaters are common along the courses of the streams.

The oldest rocks in the area are pre-Silurian, and have been divided into two map-units on the basis of their relative metamorphism. The more metamorphosed division (1) comprises mica schists, commonly garnetiferous, gneiss, and hornfels. The origin of most of this group is uncertain, but a small part of it is the metamorphosed equivalent of rocks of map-unit 2. Rocks of these two map-units north of Nashwaak River in the eastern part of the area differ from similarly mapped rocks elsewhere in that they do not appear to be as highly indurated and contain dark grey slates and grit beds with a calcareous cement. They may be younger than the other similarly mapped rocks.

Silurian rocks (3, 4, 5, 6) are mainly slates and have been subdivided largely on the basis of lithology. The order in which they are presented does not necessarily represent the stratigraphic succession. Bedding in map-unit 3 is generally well defined and with beds ranging in thickness from a fraction of an inch up to several feet. The strata forming group 4 are largely thin-bedded, ribboned, dark grey, calcareous slates and they are commonly highly contorted and cut by quartz-calcite veins.

The iron formation (5) has never been commercially exploited, although exploratory work has been carried out on small deposits to the east and west of Glassville. In the north and near the settlement of Ashland in the south. Manganese content of the iron formation commonly exceeds 10 per cent.

Many of the slates of unit 6 are calcareous, and most of the conglomerates consist of abundant slate pebbles in a calcareous matrix.

Map-unit 7 may be equivalent to unit 3, but a different facies, with infolded Devonian strata.

The volcanic rocks of map-unit 9a are medium to coarse grained and are probably of the same age as the finer grained volcanics (9).

Gabbro, diorite, diabase, and quartz diorite (10) intrude Silurian rocks, so that they are of late Silurian or younger age. In several localities extrusive phases (10a) are present but are too closely associated with 10 and are of too limited extent to be mapped as separate units.

Granite and granodiorite (11) have the greatest areal extent of the intrusive rocks of the area. They are medium- to coarse-grained rocks and are commonly porphyritic. They include muscovite, biotite, and hornblende varieties and their colour ranges from light grey to pink.

The intrusives of map-unit 12 may be genetically related. They are reddish tinted due largely to the presence of iron oxides.

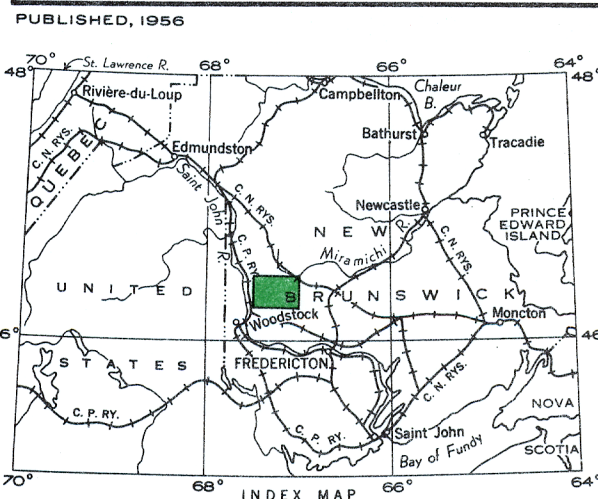
The diabase sills and dykes (13) are rarely over 50 feet wide.

Coarse clastic sediments (14, 15) of Carboniferous age lie unconformably on the older rocks in the south-central part of the area. They have been tentatively placed in the Pictou group of Pennsylvanian age. They consist of about 500 feet of red conglomerate, sandstone, and shale, overlain conformably by at least 400 feet of grey conglomerate and sandstone.

Locally the strike of the rocks varies considerably, but they generally trend northerly. Thrust faults with a westerly dip were found in several outcrops in the western part of the area. In the west and northwest, outcrops of calcareous slates (4) of Silurian age are highly contorted and cut by calcite veins, along a north-easterly trending zone that is indicated on the map by an assumed fault. An aeromagnetic map of the area shows a bend of the isogams in the vicinity of this disturbed zone.

There are few occurrences of metallic minerals in the area. Sphurite occurs in a gangue of quartz and calcite in a calcareous grit about 1 mile northeast of Coldstream. Gold is reported to have been found in the slates about 2 miles southeast of Knowlesville. The manganese-rich iron formation (5) may some time prove of economic importance.

Limestone of Silurian age (3) has been quarried in several places and crushed and used locally as fertilizer.



PRELIMINARY MAP 55-29
COLDSTREAM
NEW BRUNSWICK
SHEET 21 ^J/₆