GEOLOGICAL SURVEY OF CANADA
DEPARTMENT OF MINES AND TECHNICAL SURVEYS

PRELIMINARY SERIES

SHEET 53D (East Half)

DESCRIPTIVE NOTES

The Deer Lake map-area is a relatively uneven rocky plain that lies 950 to 1,150 feet above sea-level. Southeasterly trending rock ridges rise 10 to 100 feet above the intervening low depressions which contain lakes and muskegs. The south, west and northwest parts drain westward to Lake Winnipeg. The central and northeastern parts drain northward through the Severn River. Glacial deposits are thin and rock outcrops are abundant.

The oldest unit (1) mapped within the area is composed of rocks included under the general term "greenstone". These rocks occur only in one small structure on the west side of Cherrington Lake. They are commonly fine grained. The ferromagnesian minerals are generally altered to chlorite, although megascopic examination of a few hand specimens suggests that they are of andesitic or basaltic composition.

The most widespread rock-unit (2) is a granodiorite grading to quartz diorite and quartz monzonite. Such rocks weather white to grey, are medium to coarse grained, and generally foliated. They are composed mainly of plagioclase, with about 25 per cent hornblende and biotite, and 20 to 30 per cent quartz and orthoclase. Numerous bands and lenses of fine-grained quartz-biotite-feldspar gneiss occur parallel to the foliation. These may be of sedimentary origin.

Map-unit 3 consists of massive granite, gneissic granite and minor amounts of granitic gneiss. The massive granite is composed largely of orthoclase with about 10 to 20 per cent quartz and 10 per cent ferromagnesian minerals, commonly biotite. It is of fine to medium grain and is pink to white on a weathered surface. The gneissic granite is commonly porphyritic with phenocrysts of orthoclase up to an inch in length. The phenocrysts commonly occur in bands in the plane of foliation and may constitute as much as 50 per cent of the rock. The finer-grained material between the phenocrysts is composed of plagioclase, orthoclase and mafic minerals. The gneissic granite grades into massive granite and granodiorite. The granite gneiss is banded and comprises fine grains of quartz, feldspar and ferromagnesian minerals. It is of limited occurrence, in bands within the granites.

Narrow dykes of orthoclase quartz pegmatite are common throughout the area. They are most abundant and largest around Cobham Lake.

Over fairly wide parts of the area it was not possible with the map-scale used, to differentiate between rocks of unit 2 and those of unit 3. In such cases both units have been grouped together under map-unit 4.

No economic mineral occurrences were found in the course of the mapping and none is known to exist within the area. A few grains of molybdenite were observed in pegmatite stringers.

LEGEND

PRECAMBRIAN

- 3 — Granite, porphyritic granite, minor granite gneiss
- 4 — Undifferentiated 2 and 3
- 2 — Granodiorite, quartz diorite, quartz monzonite, foliated; gneiss
- 1 — Greenstone; minor andesite and basalt

Rock outcrop . . . . . ×

Geological boundary (defined, approximate, assumed) . . . . .

Limit of geological mapping . . . . .

Gneissosity, foliation (horizontal, inclined, vertical, dip uncertain) . . . . .

Glacial striae . . . . .

Geology by L.D. Kirwan, 1958

Portage . . . . . P

Interprovincial boundary . . . . .

Lake and stream (position approximate) . . . . .

Fall and rapid . . . . . F. R.

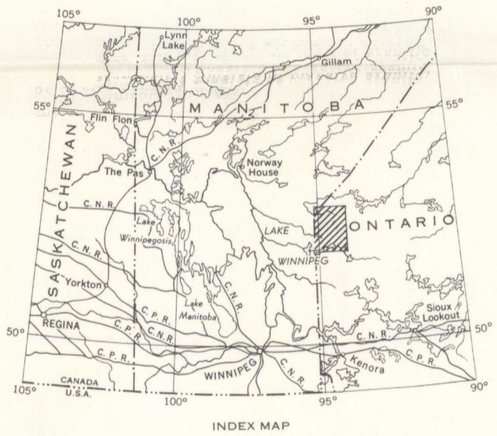
Marsh . . . . .

Height in feet above mean sea-level 936

Cartography by the Geological Cartography Unit, 1959

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

In response to public demand for earlier publication, Preliminary Series maps are now being issued in this simplified form, thereby effecting a substantial saving in time. There is no loss of information, but the maps will be clearer to read if all or some of the map-units are hand-coloured.



INDEX MAP

Adjoins Map 425A, "Deer Lake (West Half)"

Adjoins Preliminary Map 25-1958, "Carroll Lake (East Half)"

PUBLISHED, 1959
COPIES OF THIS MAP MAY BE OBTAINED FROM THE DIRECTOR, GEOLOGICAL SURVEY OF CANADA, OTTAWA

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MAP 26-1958
DEER LAKE
(EAST HALF)
KENORA DISTRICT
ONTARIO

Scale: One Inch to Four Miles = 1/253,440

Miles 4 2 0 4 8 12

Approximate magnetic declination, 6° 24' East

MAP 26-1958
DEER LAKE
ONTARIO
SHEET 53D (East Half)