OPEN FILE 729

Compiled by K.D. Card

LEGEND

Central Superior Province Compilation

Preliminary Maps NTS 41K (Sault Ste. Marie), NTS 41N (Michipicoten), NTS 42B (Foleyet), NTS 42C (White River), 42D (Schreiber), NTS 42E (Longlac), 42F (Hornpayne), NTS 42G (Kapuskasing) Scale 1:250 000

PHANEROZOIC

52 Mesozoic

51 Paleozoic

Unconformity

PRECAMBRIAN

PROTEROZOIC

HADRYNIAN

50 Jacobsville Formation

(Grenvillian Orogeny - 1000 Ma)

HELIKIAN

49 Mafic Intrusions
- a) diabase and lamprophyre dykes
- b) gabbro and gabbro-anorthosite-pyroxenite complexes
- c) gabbro, diorite

Keweenawan (Osler Group)

48 Clastic Sediments

47 Felsic Volcanics and Related Intrusions
- a) felsic flows and pyroclastics
- b) felsic intrusions
- c) breccia pipes and lamprophyric breccia

46 Mafic Volcanics
- Basaltic flows, sills

45 Alkalic Intrusions
- a) alkalic rock-carbonatite complexes
- b) syenite-diorite-gabbro complexes
- c) lamprophyre dykes, fenite breccia

44 Olivine Diabase Dykes
- a) Abitibi swarm
- b) Sudbury swarm
- c) unclassified

43 Logan Diabase Intrusions

42 Sibley Group; red clastic sediments

41 Diabase dykes; pyroxene and pyroxene-quartz diabase and metadiabase

40 Felsic Plutonic Rocks
- a) granite, granodiorite
- b) trondhjemite, quartz diorite
- c) granite-quartz diorite-gabbro complexes

39 Alkalic Rock-Carbonatite Complexes
- a) fenite, fenite breccia

38 Mafic and Ultramafic Intrusions

APHEBIAN

37 Felsic Plutonic Rocks; granite (Cutler Pluton)

36 Sudbury Nickel Irruptive
- a) norite
- b) granophyre
- c) offset dykes

35 Whitewater Group
- a) Chelmsford Formation - wacke
- b) Onwatin Formation - black slate
- c) Onaping Formation - tuff, breccia

(PenoKean Orogeny - 1850-1900 Ma)

34 Animikie Group
- a) Rove Formation
- b) Gunflint Formation

33 Nipissing Diabase

32 Quartz Diabase Dykes (Preissac Swarm)

31 Felsic Plutonic Rocks; granite (Creighton, Murray Plutons)

Huronian Supergroup

Cobalt Group

30 Gordon Lake and Bar River Formations (siltstone, orthoquartzite)

29 Lorrain Formation (arkose, orthoquartzite)

28 Gowganda Formation (conglomerate, siltstone, sandstone)

27 Quirke Lake Group; Bruce, Espanola, Serpent Formations (conglomerate, limestone, siltstone, sandstone)

26 Hough Lake Group; Ramsay Lake, Pecors, Mississagi Formations (conglomerate, siltstone, sandstone)

25 Elliot Lake Group; Matinenda, McKim Formations (conglomerate, arkose, wacke)

24 Volcanics and sediments; Thessalon, Salmay, Elsie Mountain, Stobie, Copper Cliff Formations (basalt, wacke, rhyolite)

23 Gabbro-anorthosite Complexes
- a) gabbro, gabbroic anorthosite, anorthosite
- b) syenite

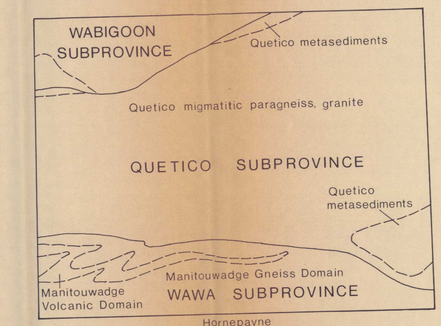
ARCHEAN

22 Mafic Dykes
- a) Matachewan swarm
- b) unclassified

21 Unsubdivided felsic plutonic, gneissic, and migmatitic rocs

Massive and Foliated Felsic Plutonic Rocks (a)

20 Syenitic Pluton and Complexes
- a) syenite, quartz syenite
- b) nepheline syenite
- c) syenite-syenite-diorite complexes



Hornepayne

19 Granite
- a) potassic granite
- b) sodic granite

18 Granodiorite

17 Trondhjemite, quartz diorite

Orthogneiss and Migmatite (a)

16 Granodiorite and quartz diorite gneiss (b)

15 Tonalite gneiss (b)

14 Xenolithic, agmatitic granite and granodiorite

13 Xenolithic and layered mafic-felsic gneiss
- a) amphibolite facies
- b) upper amphibolite-granulite facies

12 Mafic gneiss and amphibolite
- a) amphibolite facies
- b) upper amphibolite-granulite facies

Paragneiss and Associated Migmatitic Rocks (a)

11 Paragneiss and migmatitic paragneiss
- a) amphibolite facies
- b) upper amphibolite-granulite facies

10 Anatectic granite and pegmatite, migmatitic and xenolithic granite and gneiss

9 Mafic Intrusions (a)
- a) gabbro
- b) gabbro-peridotite-anorthosite complexes
- c) gabbro-diorite-syenite complexes

8 Anorthosite; (a) gabbroic anorthosite, gabbro

7 Ultramafic Intrusions (a)

Metavolcanics and Metasediments (a)

IF Iron Formation
- a) oxide facies
- b) sulphide facies
- c) carbonate facies
- d) silicate facies

6 Conglomerate and sandstone (fluviatile facies; Temiskaming-type)

5 Wacke, siltstone, conglomerate (turbidite facies; Keewatin-type)

4 Alkalic volcanics

3 Felsic and intermediate volcanics
- a) flows, pyroclastics
- b) felsic intrusions, porphyry

2 Mafic and intermediate volcanics

1 Ultramafic volcanics

Geological boundary

Fault

Axial trace of syncline

Axial trace of anticline

Synform

Antiform

Foliation

Gneissosity

NOTES

The legend accompanying this map applies to a series of preliminary compilation maps. Not all of the rock units listed will appear on any one map of the series.

(a) Rocks in these groups are subdivided lithologically and the order does not imply age relationships within or among groups.

(b) These map units contain variable amounts of massive to foliated felsic plutonic rocks, mafic gneiss, and migmatite.

Sources of Information: Compilation by K.D. Card, Geological Survey of Canada, 1980.

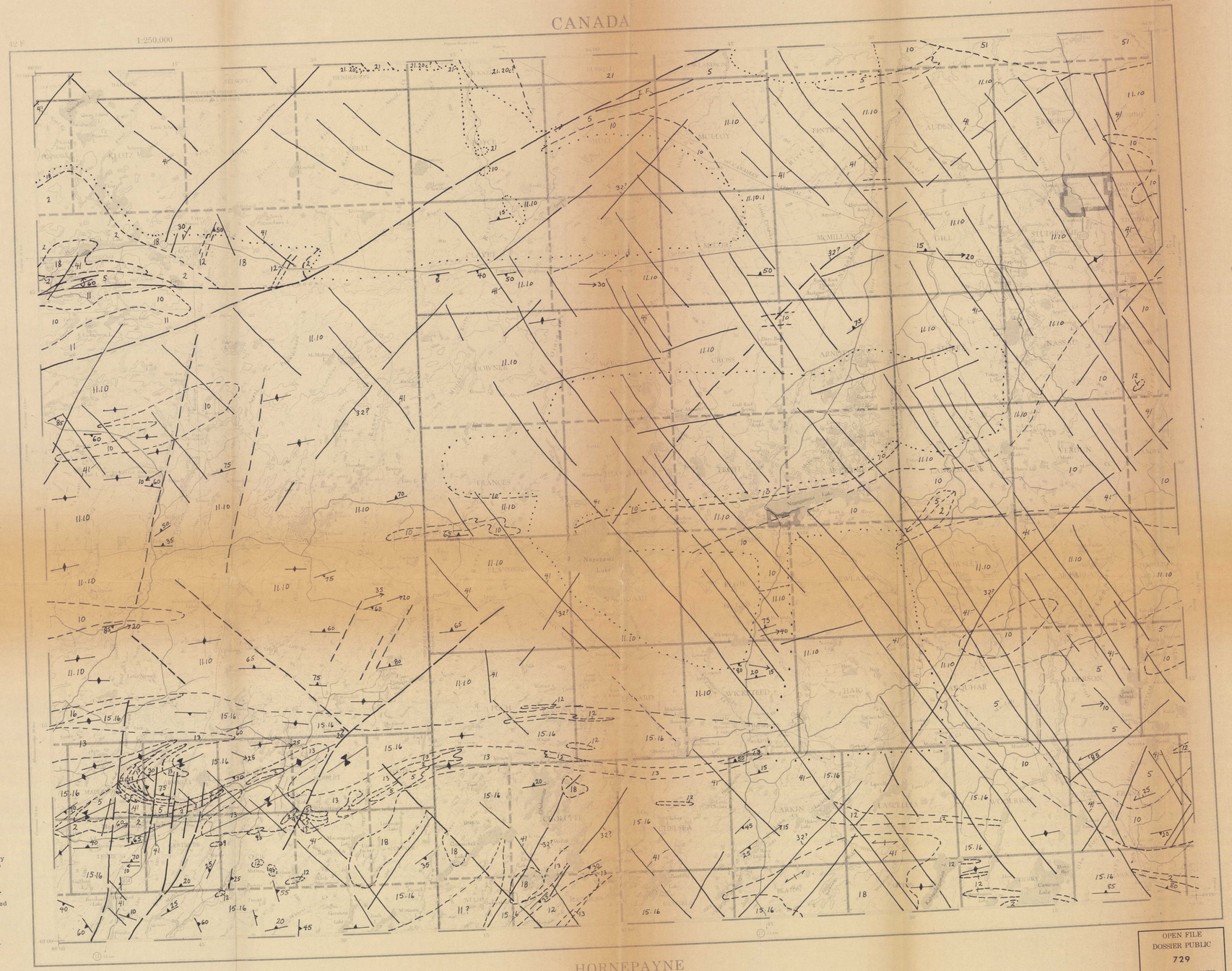
Geology from published and unpublished data of the Geological Survey of Canada and the Ontario Geological Survey.

Information from this publication may be quoted if reference is given as follows:

Card, K.D.

1981: Central Superior Province Compilation; Geological Survey of Canada, Open File 729 ; Preliminary Maps NTS 41K (Sault Ste Marie), NTS 41N (Michipicoten), NTS 42B (Foleyet), NTS 42C (White River) NTS 42D (Schreiber), NTS 42E (Longlac), NTS 42F (Hornpayne), NTS 42G (Kapuskasing).

Comments regarding corrections, revisions and additional information would be welcomed by the compiler.



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