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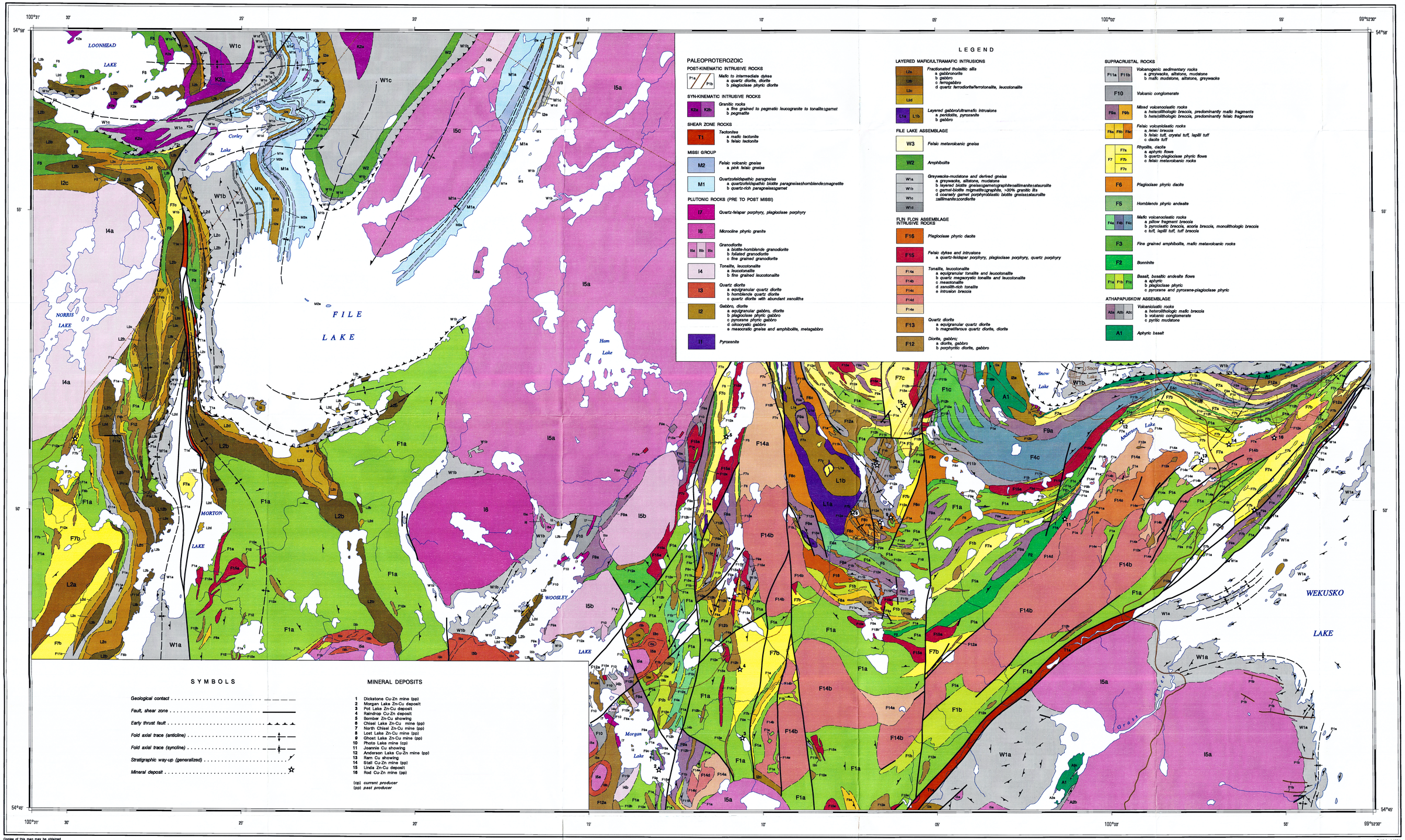
EXTECH

NATMAP
CARTNAT
Canada's National Geoscience Mapping Program
Le Programme national de cartographie géoscientifique du Canada

Manitoba
Energy and Mines
Geological Services

GEOLOGICAL SURVEY OF CANADA
COMMISSION GÉOLOGIQUE DU CANADA



LEGEND

PALEOPROTEROZOIC

POST-KINEMATIC INTRUSIVE ROCKS

P1a / P1b — *Mafic to intermediate dykes*
a quartz diorite, diorite
b plagioclase phyric diorite

SYN-KINEMATIC INTRUSIVE ROCKS

K2a / K2b — *Granitic rocks*
a fine grained to pegmatic leucogranite to tonalite±garnet
b pegmatite

SHEAR ZONE ROCKS

T1 — *Tectonites*
a mafic tectonite
b felsic tectonite

MISSI GROUP

M2 — *Felsic volcanic gneiss*
a pink felsic gneiss

M1 — *Quartzofeldspathic paragneiss*
a quartzofeldspathic biotite paragneiss±hornblende±magnetite
b quartz-rich paragneiss±garnet

PLUTONIC ROCKS (PRE TO POST MISSI)

I7 — *Quartz-feldspar porphyry, plagioclase porphyry*

I6 — *Microcline phyric granite*

I5a / I5b / I5c — *Granodiorite*
a biotite-hornblende granodiorite
b foliated granodiorite
c fine grained granodiorite

I4 — *Tonalite, leucotonalite*
a leucotonalite
b fine grained leucotonalite

I3 — *Quartz diorite*
a equigranular quartz diorite
b hornblende quartz diorite
c quartz diorite with abundant xenoliths

I2 — *Gabbro, diorite*
a equigranular gabbro, diorite
b plagioclase phyric gabbro
c pyroxene phyric gabbro
d ollocryatic gabbro
e mesocratic gneiss and amphibolite, metagabbro

I1 — *Pyroxenite*

LAYERED MAFIC/ULTRAMAFIC INTRUSIONS

L2a / L2b / L2c / L2d — *Fractionated tholeiitic sills*
a gabbronorite
b gabbro
c ferrogabbro
d quartz ferrodiorite/ferrotonalite, leucotonalite

L1a / L1b — *Layered gabbro/ultramafic intrusions*
a peridotite, pyroxenite
b gabbro

FILE LAKE ASSEMBLAGE

W3 — *Felsic metavolcanic gneiss*

W2 — *Amphibolite*

W1a / W1b / W1c / W1d — *Greywacke-mudstone and derived gneiss*
a greywacke, siltstone, mudstone
b layered biotite gneiss±garnet±graphite±sillimanite±staurolite
c garnet-biotite migmatite±graphite, >30% granitic ilts
d coarsely garnet porphyroblastic biotite gneiss±staurolite ±sillimanite±cordierite

FLIN FLON ASSEMBLAGE
INTRUSIVE ROCKS

F16 — *Plagioclase phyric dacite*

F15 — *Felsic dykes and intrusions*
a quartz-feldspar porphyry, plagioclase porphyry, quartz porphyry

F14a / F14b / F14c / F14d / F14e — *Tonalite, leucotonalite*
a equigranular tonalite and leucotonalite
b quartz megacrystic tonalite and leucotonalite
c mesotonalite
d xenolith-rich tonalite
e intrusion breccia

F13 — *Quartz diorite*
a equigranular quartz diorite
b magnetiferous quartz diorite, diorite

F12 — *Diorite, gabbro;*
a diorite, gabbro
b porphyritic diorite, gabbro

SUPRACRUSTAL ROCKS

F11a / F11b — *Volcanogenic sedimentary rocks*
a greywacke, siltstone, mudstone
b mafic mudstone, siltstone, greywacke

F10 — *Volcanic conglomerate*

F9a / F9b — *Mixed volcanoclastic rocks*
a felsic/lithologic breccia, predominantly mafic fragments
b felsic/lithologic breccia, predominantly felsic fragments

F8a / F8b / F8c — *Felsic volcaniclastic rocks*
a felsic breccia
b felsic tuff, crystal tuff, lapilli tuff
c dacite tuff

F7 (F7a / F7b / F7c) — *Rhyolite, dacite*
a aphyric flows
b quartz-plagioclase phyric flows
c felsic metavolcanic rocks

F6 — *Plagioclase phyric dacite*

F5 — *Hornblende phyric andesite*

F4a / F4b / F4c — *Mafic volcanoclastic rocks*
a pillow fragment breccia
b pyroclastic breccia, scoria breccia, monolithologic breccia
c tuff, lapilli tuff, tuff breccia

F3 — *Fine grained amphibolite, mafic metavolcanic rocks*

F2 — *Bonninite*

F1a / F1b / F1c — *Basalt, basaltic andesite flows*
a aphyric
b plagioclase phyric
c pyroxene and pyroxene-plagioclase phyric

ATHAPAPUSKOW ASSEMBLAGE

A2a / A2b / A2c — *Volcaniclastic rocks*
a felsic/lithologic mafic breccia
b volcanic conglomerate
c pyritic mudstone

A1 — *Aphyric basalt*

SYMBOLS

- *Geological contact*
- *Fault, shear zone*
- *Early thrust fault*
- *Fold axial trace (anticline)*
- *Fold axial trace (syncline)*
- *Stratigraphic way-up (generalized)*
- *Mineral deposit*

MINERAL DEPOSITS

1 Dickstone Cu-Zn mine (pp)
2 Morgan Lake Zn-Cu deposit
3 Pot Lake Zn-Cu deposit
4 Raindrop Cu-Zn deposit
5 Bomber Zn-Cu showing
6 Chisel Lake Zn-Cu mine (pp)
7 North Chisel Zn-Cu mine (pp)
8 Lost Lake Zn-Cu mine (pp)
9 Ghost Lake Zn-Cu mine (pp)
10 Photo Lake mine (cp)
11 Joannie Cu showing
12 Anderson Lake Cu-Zn mine (pp)
13 Ram Cu showing
14 Stall Cu-Zn mine (pp)
15 Linda Zn-Cu deposit
16 Rod Cu-Zn mine (pp)

(cp) *current producer*
(pp) *past producer*

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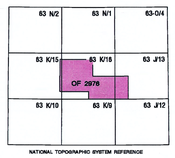
Copies of this map may be obtained
from the Geological Survey of Canada
601 Booth Street, Ottawa, Ontario K1A 0E8
3303-33rd Street, N.W., Calgary, Alberta T2L 2A7


LOCATION MAP



NATIONAL TOPOGRAPHIC SYSTEM REFERENCE

Geology by A.H. Bailes[1], A.G. Galley[2], and K.A. Connors[2]

Geology compiled by L.E. Chackowsky[1] and A.H. Bailes[1]

Digital cartography by L.E. Chackowsky[1] and the Geological Survey of Canada

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Coordinated through the auspices of the NATMAP Shield Margin Project by P.G.Lenton[1] and S.B. Lucas[2]

Contribution to the EXTECH Snow Lake Project and NATMAP Shield Margin Project

[1] Manitoba Energy and Mines
[2] Geological Survey of Canada

GSC OPEN FILE 2976

MEM OPEN FILE OF94-4

GEOLOGY OF THE SNOW LAKE-FILE LAKE AREA

MANITOBA

Scale 1:50 000 - Échelle 1/50 000

Kilometres 1 0 1 2 3 4 Kilomètres

Universal Transverse Mercator Projection
Projection transverse universelle de Mercator

Digital base map from Surveys, Mapping and Remote Sensing published at the same scale. Generalized and modified by the Geological Survey of Canada

Copies of the topographical editions covering this map area may be obtained from the Canada Map Office, Department of Natural Resources, Ottawa, Ontario, K1A 0E9

Mean magnetic declination, 1994, 9°04' E, decreasing 9.7' annually

Manitoba
PARTNERSHIP / ASSOCIATION
L'ENTENTE DU PARTENARIAT SUR L'EXPLORATION MINÉRALE 1990 – 1995
PARTNERSHIP AGREEMENT ON MINERAL DEVELOPMENT 1990 – 1995

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