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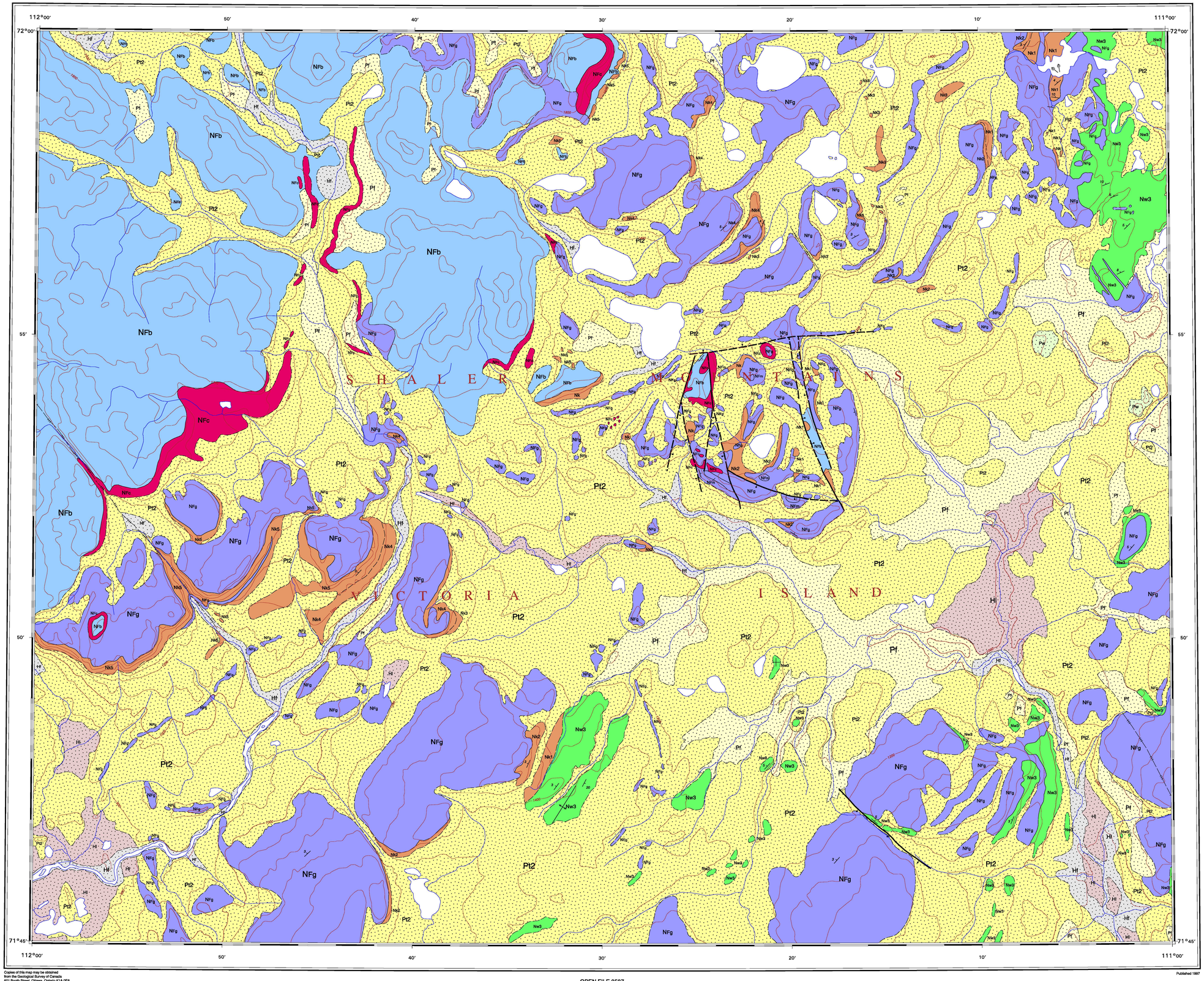
GEOLOGICAL SURVEY OF CANADA | COMMISSION GÉOLOGIQUE DU CANADA



LEGEND

CENOZOIC (Hodgson, 1993)

HOLOCENE

Hf — *FLUVIAL DEPOSITS:* Gravel and silty sand; channel, floodplain, delta and terrace deposits; 1 to 10 m thick

Hl — *LACUSTRINE DEPOSITS:* Silt and sand, locally peat; 1 to 2 m thick; lacustrine, fluvial, colluvial, glaciolacustrine or organic deposits, in minor valleys or basins; commonly numerous ponds

PLEISTOCENE

Pw — *GLACIOMARINE DEPOSITS:* Silt or fine sand; massive to finely laminated deposits with scattered dropstones; commonly gullied; deposited adjacent to major glacial meltwater outlets; 1 to 20 m thick

Pf — *GLACIOFLUVIAL DEPOSITS:* Bouldery to gravelly sand; knolls of hummocks; may include massive to stratified sand or silt beds up to 20 m thick. Deposition on proglacial floodplains, marine deltas and fans

Pt2 — *"VICTORIA ISLAND" TILL:* Stony loam; commonly shows lineations on air photos, some fields of spindle drumlins; deposited by continental glacier, possibly late Wisconsinan maximum; < 1 to 10 m thick

---------- unconformity ----------

NEOPROTEROZOIC

Franklin igneous events, 723 Ma (Heaman et al., 1992)

NFg — *Gabbro sills and dykes*

NFm — *Granophyre and gabbro with pegmatitic segregations*

NFb — *NATKUSIAK FORMATION: Massive and amygdaloidal basalt flows with minor volcaniclastic interflow units*

NFc — *NATKUSIAK FORMATION: Green to maroon parallel-stratified volcanic arenite and conglomerate; framework composed of locally derived sedimentary rock fragments (mostly dolostone from the Kilian Formation). Basal pyroclastic member of Jefferson et al. (1985); same as unit* PFb(d) *on Open File 3111 (NTS 78 B/4)*

---------- intrusive contact ----------

SHALER SUPERGROUP (Rainbird et al., 1994)

Nk — *KILIAN FORMATION: Eight informal and intergradational members are recognized and can be correlated within Minto Inlier (Rainbird, 1991; Rainbird, 1993); six are present in the map area and are combined into five mappable subunits:*
Nk1, lower evaporite member: laminated red mudstone and dolomitic mudstone with interbedded nodular anhydrite and laminated gypsite and anhydrite, minor stromatolitic dolostone
Nk2, lower cyclic carbonate member-dolostone and minor limestone lutite/siltite rhythmite capped by arenite/rudite ± laterally linked stromatolites forming repetitive metre-scale cycles
Nk3, middle evaporite member-laminated red mudstone and dolomitic mudstone with interbedded nodular anhydrite and laminated gypsite and anhydrite, minor stromatolitic dolostone
Nk4, upper cyclic carbonate and clastic-carbonate members (combined)- base similar to Nk2, except cyclicity less evident, upper comprises laminated dark mudstone passing upward to variegated mudstone with tan dolosiltite/dolarenite interbeds prominent near top, minor quartzarenite and stromatolitic dolostone
Nk5, tan carbonate member-tan to green-grey, platy weathering dolostone/limestone lutite, siltite, and minor arenite and rudite, stromatolites ± chert alteration common throughout. Evaporite and carbonate members similar to Minto Inlet Formation except that bedded gypsum/anhydrite less common. Carbonate members display metre-scale cycles capped by stromatolites
Nk, Kilian Formation, unsubdivided

Nw — *WYNNIATT FORMATION: Divisible into three intergradational members (Rainbird et al., 1996). Only the uppermost member (Nw3) is exposed in the map area. It comprises a weakly coarsening upward sequence of dolomitic siltstone and sandstone overlain by a stromatolitic biostrome. Fine-grained microbial laminites and carbonaceous limestones occur at the top of the member*

Geological boundary (defined, approximate)

Glacial striae

Lineament (from air photo)

Bedding, top known (horizontal, inclined)

Fault (defined, inferred), ball on downthrow side

Anticline, defined

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Other colour Open File maps in this series

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1995: Bedrock and surficial geology, Reynolds Point, District of Franklin, Northwest Territories, NTS 78 B/11; Geological Survey of Canada Open File 3121, scale 1:50 000
1997: Bedrock and surficial geology, Kimiksana Lake, District of Franklin, Northwest Territories, NTS 78 B/3; Geological Survey of Canada Open File 3508, scale 1:50 000
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1994: Bedrock and surficial geology, Glenelg Bay, District of Franklin, Northwest Territories, NTS 78 B/6; Geological Survey of Canada Open File 2921, scale 1:50 000
1995: Bedrock and surficial geology, Muskox Lake, District of Franklin, Northwest Territories, NTS 78 B/2; Geological Survey of Canada Open File 3035, scale 1:50 000
1995: Bedrock and surficial geology, Killan Lake, District of Franklin, Northwest Territories, NTS 78 B/4; Geological Survey of Canada Open File 3111, scale 1:50 000.
1997: Bedrock and surficial geology, Young Inlet, District of Franklin, Northwest Territories, NTS 78 B/10; Geological Survey of Canada Open File 3450, scale 1:50 000

CANADA-NWT MINERAL INITIATIVES 1991-1996

Canada — CANADA-GNWT ECONOMIC DEVELOPMENT AGREEMENT

Contribution to the Canada-Northwest Territories Minerals Initiatives 1991-1996, a subsidiary agreement under the Canada-Northwest Territories Economic Development Agreement. Project funded by the Geological Survey of Canada

Copies of this map may be obtained from the Geological Survey of Canada 601 Booth Street, Ottawa, Ontario K1A 0E8

Published 1997

LOCATION MAP

Bedrock geology mapped and compiled by R.H. Rainbird; surficial geology by D.A. Hodgson. Logistical support was provided by WMC International Ltd. of Nepean, Ontario, as part of a GSC-Industrial Partners Program Agreement. Additional mapping by R. Brozdowski, R. Carpenter, I. Lawyer, R. Osborne, A. Robitaille, J. Simmonds, and R. Williams and field assistance by W. Goose, J. Kimiksana and R. Momegana

Digital cartography by B. Chagnon, Geoscience Information Division

Electrostatic plot produced by Geoscience Information Division

Any revisions or additional geological information known to the user would be welcomed by Geological Survey of Canada

OPEN FILE 3507

BEDROCK AND SURFICIAL GEOLOGY

SHALER MOUNTAINS

DISTRICT OF FRANKLIN

NORTHWEST TERRITORIES

Scale 1:50 000/Échelle 1/50 000

kilometres 1 0 1 2 3 4 kilomètres

Universal Transverse Mercator Projection

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Projection transverse universelle de Mercator

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Digital base map from data compiled by Geomatics Canada, modified by Geoscience Information Division

Copies of topographic map for this area may be obtained from the Canada Map Office, Natural Resources Canada, Ottawa, Ontario, K1A 0E9

The proximity of the North Magnetic Pole causes the magnetic compass to be erratic in this area
Magnetic declination 1997, 36°26'E, decreasing 41.4' annually.

Elevation in feet above mean sea level

86 A/1	78 B/4 OF 3111	78 B/3 OF 3508
87 H/16	77 G/13 OF 3507	77 G/14 OF 3509
87 H/9	77 G/12	77 G/11

NATIONAL TOPOGRAPHIC SYSTEM REFERENCE AND INDEX TO ADJOINING GEOLOGICAL SURVEY OF CANADA MAPS

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3507
GEOLOGICAL SURVEY OF CANADA
COMMISSION GÉOLOGIQUE DU CANADA
OTTAWA
11/1997

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1997: Bedrock and surficial geology, Shaler Mountains, District of Franklin, Northwest Territories; Geological Survey of Canada Open File 3507, scale 1:50 000

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