

The Kettle Rapids map area (NTS 54D) is underlain by the Precambrian Shield and the Paleozoic Hudson Bay Basin in the northwest... Precambrian Churchill - Superior Boundary Zone... The Churchill - Superior Boundary Zone comprises the Split Lake block, the western termination of the Proterozoic Fox River supracrustal belt and catclastic zones at the southern and northern ends of the Split Lake block.

The Split Lake block is composed predominantly of Archaean gneisses and intrusive rocks representing reworked Archaean granulite gneiss assemblages... The Assen Lake cataclastic zone extends from NTS 64A into NTS 54D. It follows the 60° trend of the Assen River and is interpreted to continue along the northern margin of the Split Lake block to the Gulf Rapids cataclastic zone...

The Kisseynew domain is a metasedimentary gneiss belt that flanks the Leaf Rapids domain to the west and is truncated by the Churchill - Superior boundary zone in the southeast. It is composed of paragneisses, amphibolites and migmatite derived from Lower Proterozoic sedimentary and subvolcanic strata... The Assen Lake fault zone in the Burnwood River (NTS 64A), west of Split Lake, extends southwest across the southern margin of the map area.

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The Assen Lake fault zone in the Burnwood River (NTS 64A), west of Split Lake, extends southwest across the southern margin of the map area. This cataclastic zone is similar in character to the Assen Lake cataclastic zone... The Leaf Rapids domain, north of the Kisseynew domain, is predominantly an intrusive terrane that dominates the 1874-1875 Mud Rusty Lake metamorphic belt...

The Leaf Rapids domain, north of the Kisseynew domain, is predominantly an intrusive terrane that dominates the 1874-1875 Mud Rusty Lake metamorphic belt... The Chipewyan domain batholith complex, underlying the predominantly drift covered northwest margin of the map area in the Red Lake area, comprises three major components:

1) porphyritic pink granite-quartz monzonite (cGp); 2) seriate to porphyritic pink granite with pegmatite and apfite (Gp); and 3) magnesian syenogranite-hornblende-gyenite bearing (cZp).

The rocks in the granitic rocks are sections of supracrustal rocks interpreted to be Waskewau Group amphibolites (A) and Campbell-Waskawakwa metasedimentary rocks... A northeast-trending strong geophysical anomaly that parallels the Little Churchill River in the northwest corner of the map sheet is interpreted to be an extension of the Owl River shear zone (NTS 64A).

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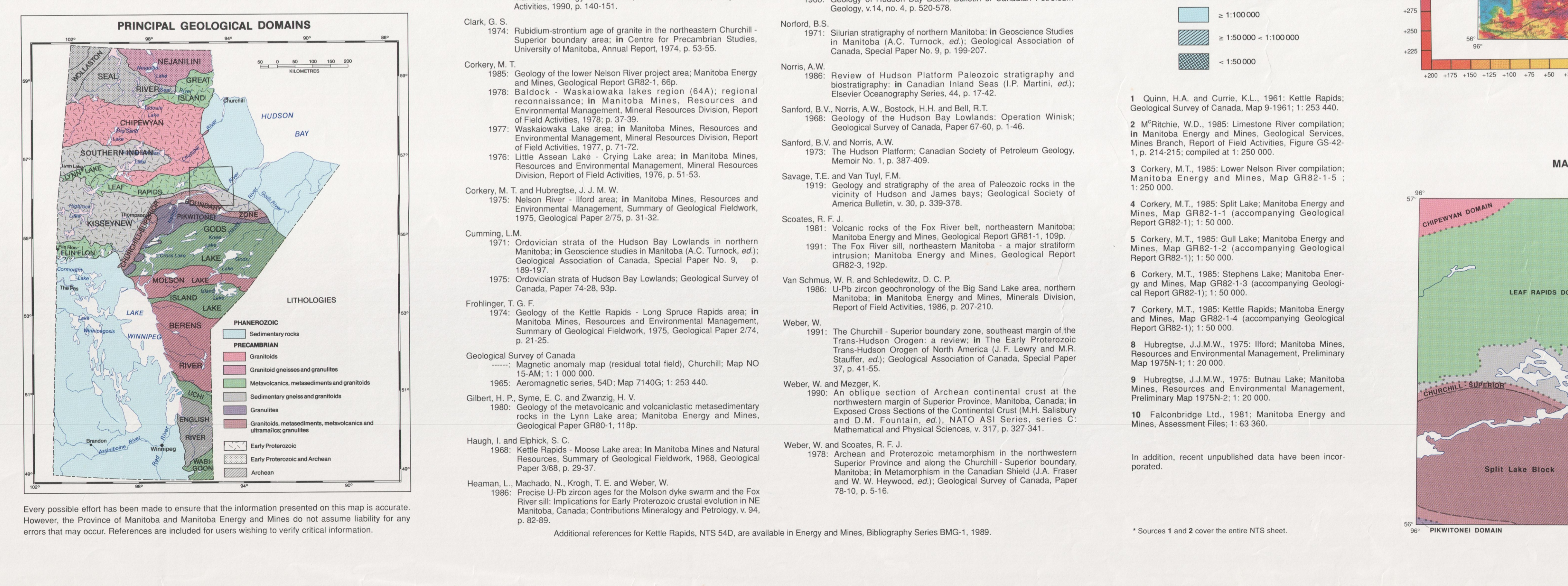
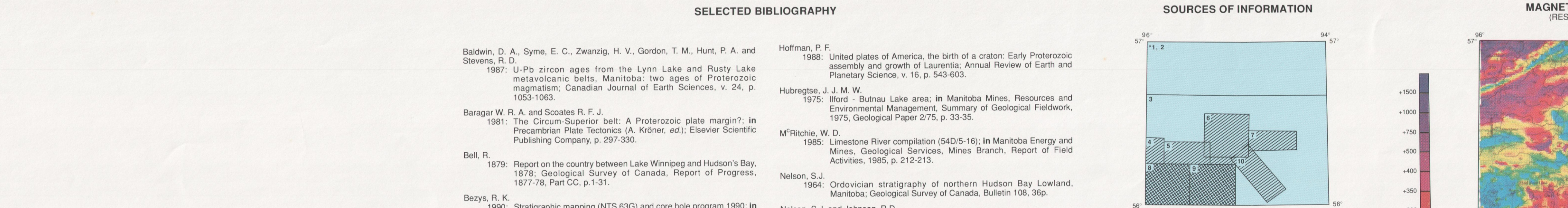
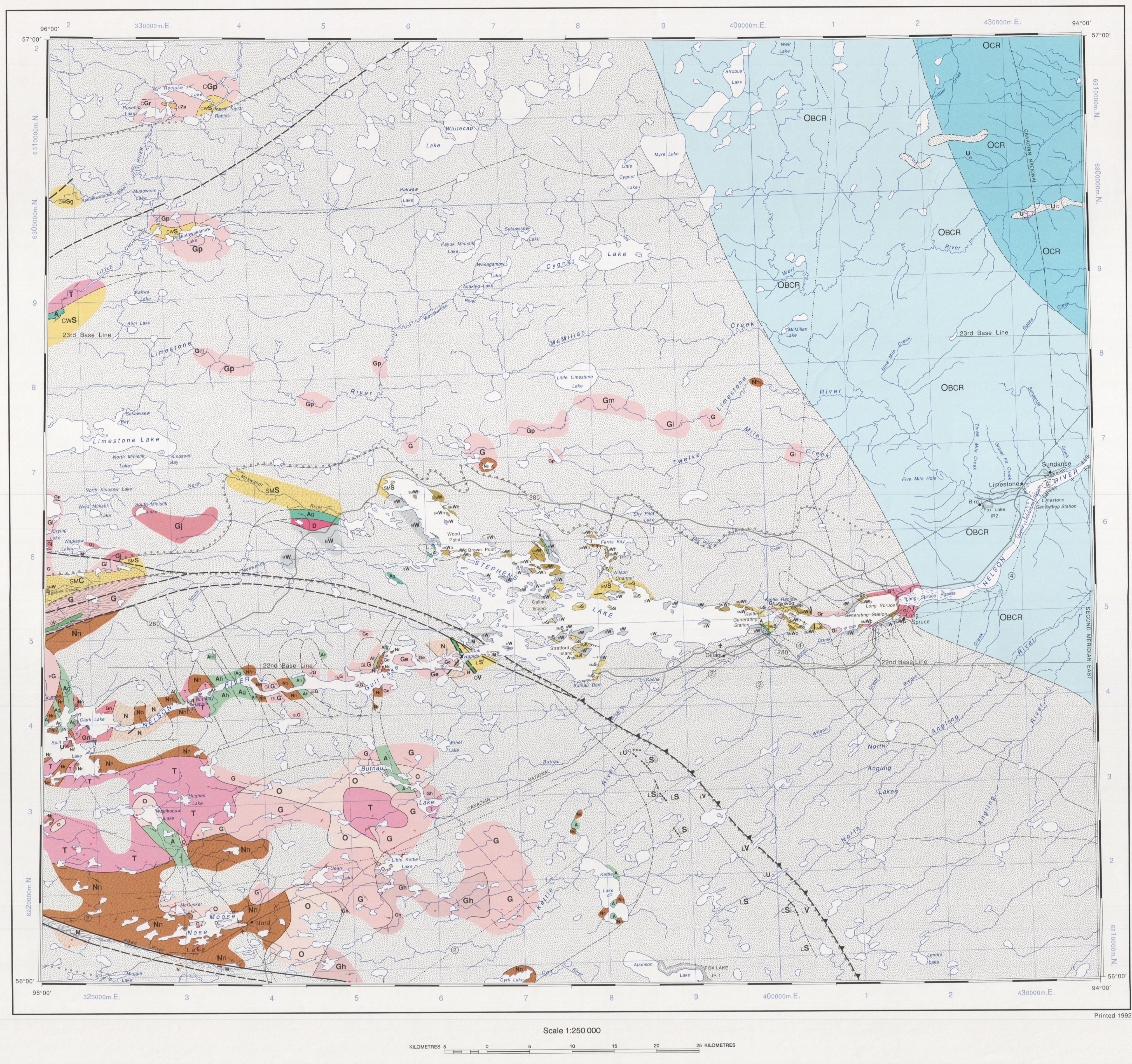
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LEGEND and Paleozoic section with various geological units and their descriptions.

Table with 4 columns: CHIPÉWYAN DOMAIN, LEAF RAPIDS DOMAIN, KISSEYNEW DOMAIN, and CHURCHILL - SUPERIOR BOUNDARY ZONE.

Proterozoic section detailing various geological units like Mylonite, Migmatite, and various granites.

Campbell - Waskawakwa Sediments section detailing units like Arkosic gneiss and Metagreywacke.

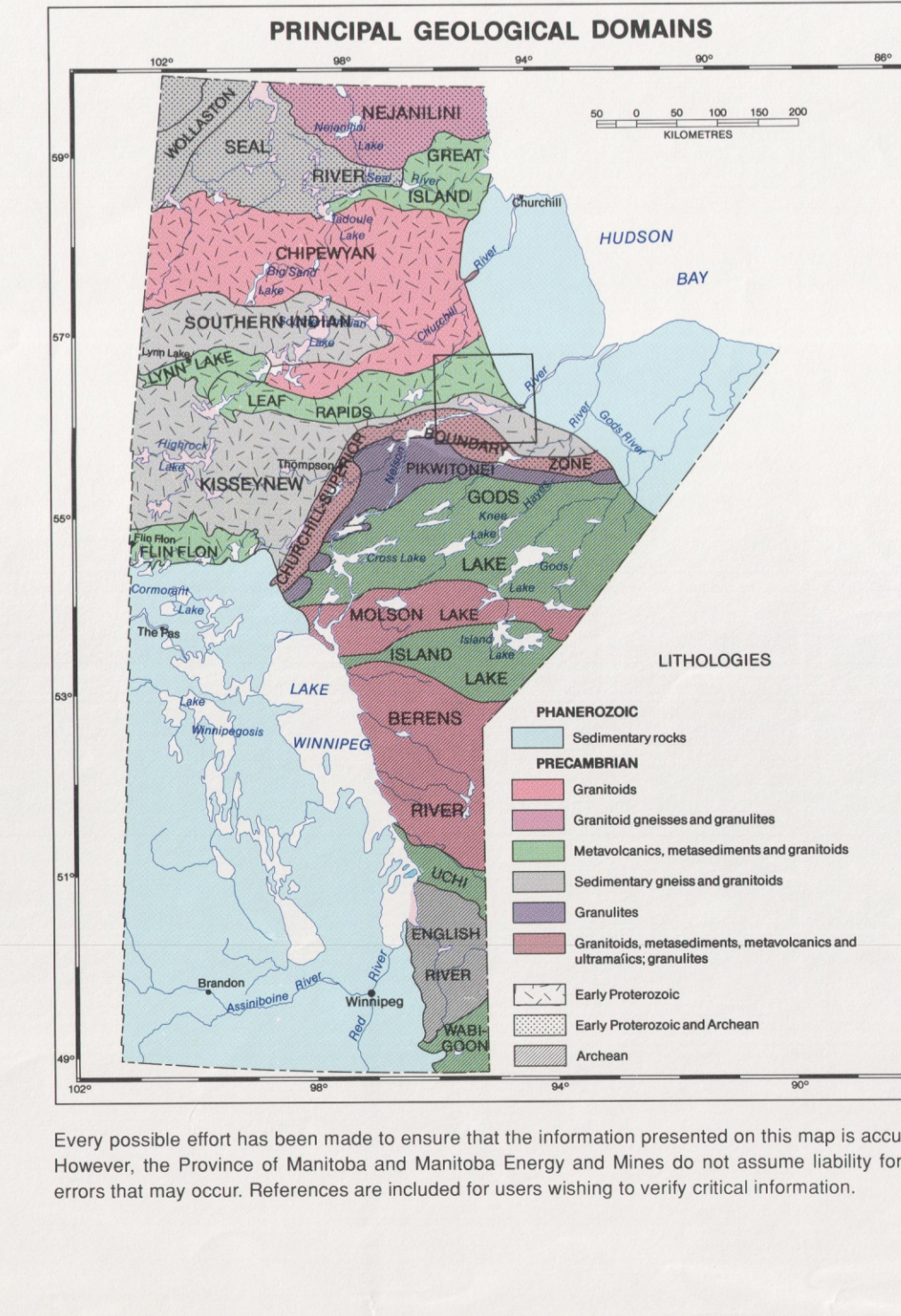
Burnwood River Metamorphic Suite section detailing units like Metagreywacke and various gneisses.

Ultramafic rocks intersected by drilling section with various symbols for different rock types.

STRATIGRAPHIC NOTES: 1. The map units within each domain are in approximate chronological order. However, some units in the Churchill - Superior Boundary Zone may not correlate with adjacent domains.

SYMBOLS section detailing various geological symbols like boundaries, faults, and domains.

INDEX MAP AND MAJOR TECTONIC DIVISIONS showing the location of the map area within the broader geotectonic context.



SELECTED BIBLIOGRAPHY listing various scientific publications related to the geology of the Kettle Rapids area.

Additional references for Kettle Rapids, NTS 54D, are available in Energy and Mines, Bibliography Series BMO-1, 1989.

Published 1992. Synoptic geology by M.T. Conkey, W.D. McFritche, R.K. Bezy and C.R. McChigler. Compiled by D. Lindell. Cartography by T. Panschet.