

CRETACEOUS

UPPER CRETACEOUS

Ku5 EDMONTON FORMATION: grey bentonitic sandstone and shale; grey, greenish, and carbonaceous shale; conglomerate; bentonite; coal

Ku4 BEARPAW FORMATION: grey, brown, and green shale, in part bentonitic; bentonite; limy concretions; grey glauconitic sandstone; coal

Ku3 OLDMAN FORMATION: sandstone, sand, white to light grey bentonitic sand; light to dark grey shale, carbonaceous shale; brown ironstone nodules; coal

Ku2 BIRCH LAKE FORMATION: brownish and yellowish weathering sand and sandstone
GRIZZLY BEAR FORMATION: dark grey shale
RIBSTONE CREEK FORMATION: grey and greenish grey sand and sandstone; dark grey shale, sandy shale; coal

Ku1 LEA PARK FORMATION: dark grey shale with ironstone nodules; fine-grained sand and sandy shale; bentonite

Mz2 Mainly shale. Age uncertain, possibly equivalent to Pavel Formation of the adjoining Carrot River map-area

Mz1 Sandstone; minor shale and lignite. Possibly equivalent to part of Swan River Group of the adjoining Carrot River map-area

DEVONIAN

D Dolomitic limestone, calcareous sandstone, conglomerate

CHIEFLY ACIDIC INTRUSIVE ROCKS

AE6 Granite, granodiorite, quartz diorite, quartz monzonite, syenite, pegmatite, and gneissic equivalents. Includes unseparated bodies of AE1, AE2, AE4, and AE5

BASIC INTRUSIVE ROCKS

AP4 Diorite, gabbro, anorthosite, peridotite, pyroxenite, and metamorphic equivalents

CHIEFLY SEDIMENTARY ROCKS

AE2 Quartzite, greywacke, arkose, argillite, conglomerate, and derived gneisses and schists; limestone, dolomite, marble, and calc-silicate gneiss; AE2a chiefly micaceous and garnetiferous schists and gneisses

CHIEFLY VOLCANIC ROCKS

AP1 Andesite, basalt, rhyolite, dacite, tuff, breccia, agglomerate, quartz porphyry, greenstone; derived schists and gneisses

AE5 COMPLEX OF SEDIMENTARY, VOLCANIC, AND INTRUSIVE ROCKS
Gneiss, schist, migmatite, granitized rocks, and unseparated bodies of AE1, AE2, AE4, and AE6

AE3 Undivided volcanic and sedimentary rocks and metamorphic equivalents

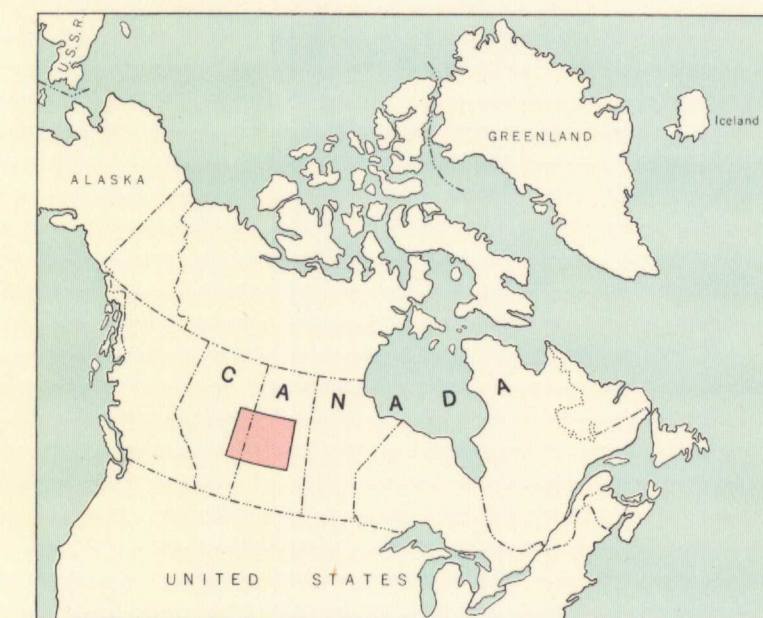
Geological boundary (defined or approximate)
Geological boundary (inferred or gradational) - - - - -
Fault (defined, approximate)
Oil and/or gas field
Industrial mineral operation

Geology compiled by A. H. Lang, 1962, from maps and reports published by the Geological Survey of Canada and the Saskatchewan Department of Mineral Resources

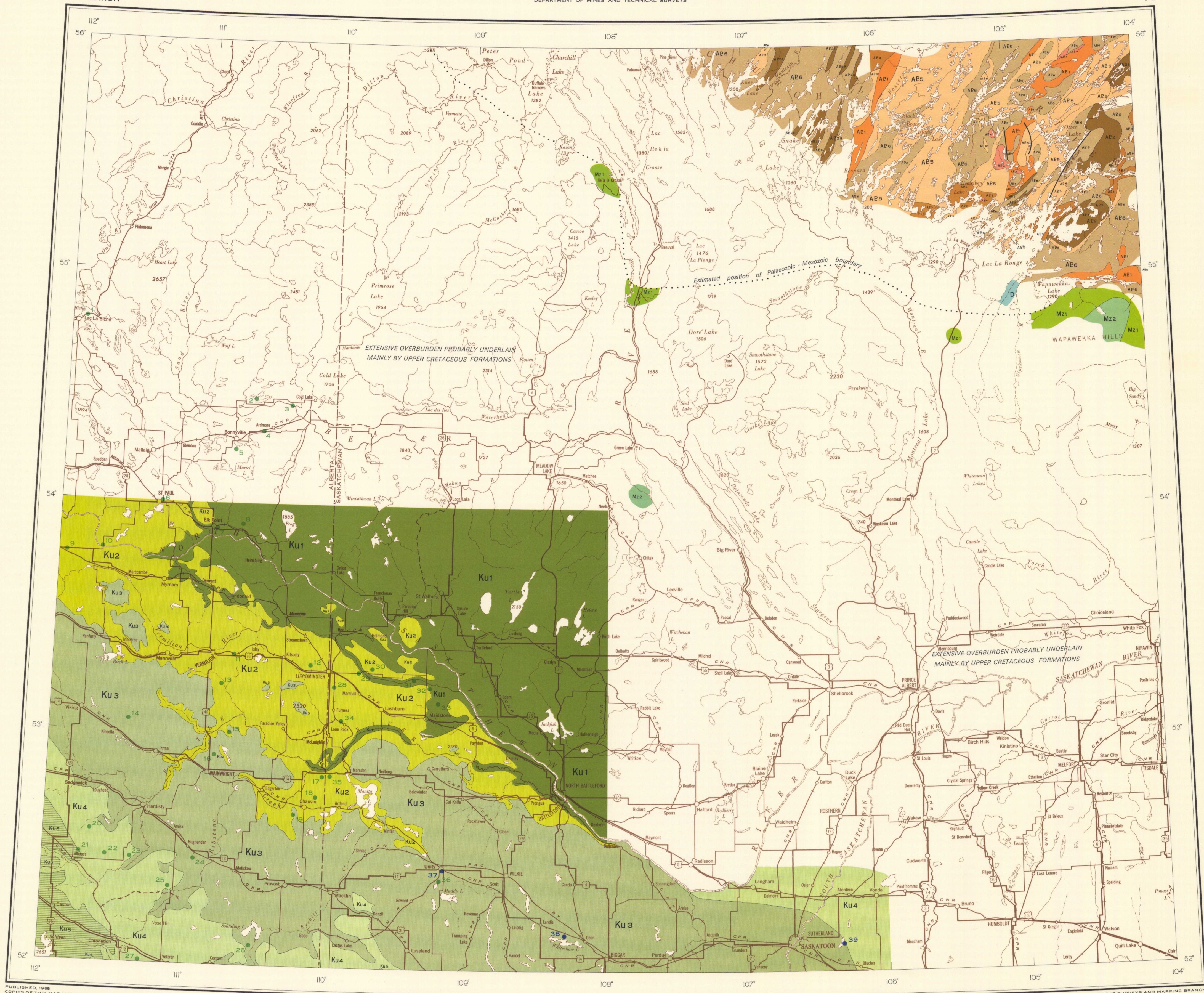
Base-map from Map 2184, "North Saskatchewan River" by the Surveys and Mapping Branch, 1952, with minor revisions, 1964

PRINCIPAL OIL AND GAS FIELDS AND INDUSTRIAL MINERAL OPERATIONS

- | | | |
|------------------------------|-------------------------|-------------------------------------|
| 1. Lac La Biche Gas | 14. Viking-Kinsella Gas | 27. Hamilton Lake Oil |
| 2. Harold Lake Oil and gas | 15. Baxter Lake Oil | 28. Lloydminster Oil and gas |
| 3. Cold Lake Gas | 16. Wainwright Oil | 29. Aberfeldy Oil |
| 4. Fort Kent Gas | 17. Dina Oil | 30. McLaren Oil and gas |
| 5. Bonnyville Gas | 18. Chauvin Oil | 31. Waseca Oil |
| 6. St. Paul Gas | 19. Chauvin South Oil | 32. Maidstone Oil |
| 7. Elk Point Gas | 20. Bellshill Oil | 33. Birling Oil |
| 8. Lindbergh Gas | 21. Alliance Oil | 34. Lone Rock Oil and gas |
| 9. Hairy Hill Gas | 22. Thompson Lake Oil | 35. Marsden Oil |
| 10. Duvernay Gas | 23. Choice Oil | 36. Unity Gas |
| 11. Vermilion Oil | 24. Hughenden Oil | 37. Unity Salt |
| 12. Lloydminster Oil and gas | 25. Kessler Oil | 38. Whiteshore Lake Sodium sulphate |
| 13. Wildmere Gas | 26. Provost Gas and oil | 39. Patience Lake Potash |



INDEX MAP



PUBLISHED 1965
COPIES OF THIS MAP MAY BE OBTAINED FROM THE
DIRECTOR, GEOLOGICAL SURVEY OF CANADA, OTTAWA

| | | | | | |
|----|-----------------|----|--------------------------------|----|-------------------------|
| 84 | 1161A HAY RIVER | 74 | 1162A CLEARWATER RIVER | 64 | COCHRANE RIVER |
| 83 | ATHABASCA RIVER | 73 | 1163A NORTH SASKATCHEWAN RIVER | 63 | 1164A CARROT RIVER |
| 82 | KOOTENAY RIVER | 72 | 1165A SOUTH SASKATCHEWAN RIVER | 62 | 1166A ASSINIBOINE RIVER |

INDEX TO ADJACENT SHEETS

NOT TO BE TAKEN FROM LIBRARY
NE PAS SORTIR DE LA BIBLIOTHEQUE

MAP 1163A
GEOLOGY
NORTH SASKATCHEWAN RIVER
SASKATCHEWAN-ALBERTA

Scale 1:1,000,000
1 inch to 15.78 miles
Miles 20 0 20 40 60
Kilometres 25 0 25 50 75 100