

GEOLOGICAL SURVEY OF CANADA
DEPARTMENT OF MINES AND TECHNICAL SURVEYS

SHEET 82 H (East Half)
R.16 R.15 112°00'

PRELIMINARY SERIES
113°00' R.22 45' R.20 R.19 30' R.18 R.17 15'

LEGEND

QUATERNARY

POST-GLACIAL DEPOSITS

- 16 Wind deposits, including areas of blow-outs: sand, silt
- 15 Alluvium (modern stream deposits): gravel, sand, silt, minor till and bedrock exposures
- 14 Alluvium (immediately post-glacial terrace deposits of the modern streams): gravel, sand; local bedrock exposures

LATE-GLACIAL AND EARLY POST-GLACIAL DEPOSITS

- 13 Lake deposits, coarse: sand, silt
- 12 Lake deposits, fine: silt, minor clay; locally varved
- 11 Alluvium, coarse (present chiefly as deltas, bars, and terraces of glacial spillways): gravel, sand; local bedrock exposures
- 10 Alluvium, fine (present chiefly in late Wisconsin spillways but includes alluvium in early Wisconsin or pre-Wisconsin spillways, now partly covered by drift): silt, sand, clay, minor gravel; local bedrock exposures

GLACIAL (LAURENTIDE) DEPOSITS

- 9 Outwash and inwash: gravel, sand, silt; 9a, kame deposits: mostly gravel
- 8 Recessional moraine (mostly deposited by active ice, commonly representing the limit of a minor glacier advance): chiefly till, minor sand and gravel; 8a, modified by streams during deposition: chiefly coarse gravel; 8b, locally covered by fine lake deposits
- 7 Hummocky moraine (mostly deposited by stagnant ice, generally near the margin of the ice-sheet): till; 7a, locally overlain by fine lake deposits; 7b, mostly overlain by wind-deposited silt (loess)
- 6 Drumlin: till
- 5 Ground moraine: till; 5a, locally covered by fine lake deposits; 5b, locally covered by coarse lake deposits or alluvium; 5c, largely exposed through removal by wind of overlying outwash and inwash
- 4 Recessional moraine (mostly deposited by active ice, commonly exhibits strong erosion): till
- 3 Hummocky moraine (mostly deposited by stagnant ice, not overridden by subsequent glaciers and strongly eroded): till
- 2 Ground moraine: till

TERTIARY AND EARLY QUATERNARY

- 1 Alluvium: pre-glacial gravel and sand; includes 'Saskatchewan gravel and sand'; exposed only in non-glaciated areas

CRETACEOUS

- R Bedrock; exposed, or thinly covered by till or scattered erratics; Ra, exposed in non-glaciated areas

Geological boundary (defined, approximate, assumed)

Ice-flow features: drumlins, drumlinoid ridges, furrows, flutings, gouges; individual features or groups of features defining direction of ice-movement; sense of ice-movement known, unknown; (symbol represents actual length of feature)

Orientation of stones in top till; (chief direction or directions only shown)

Esker ridge: gravel, sand, silt, clay, till; (direction of stream flow not indicated)

Spillway valley; (includes both pre-Wisconsin and Wisconsin spillways, former locally drift-covered)

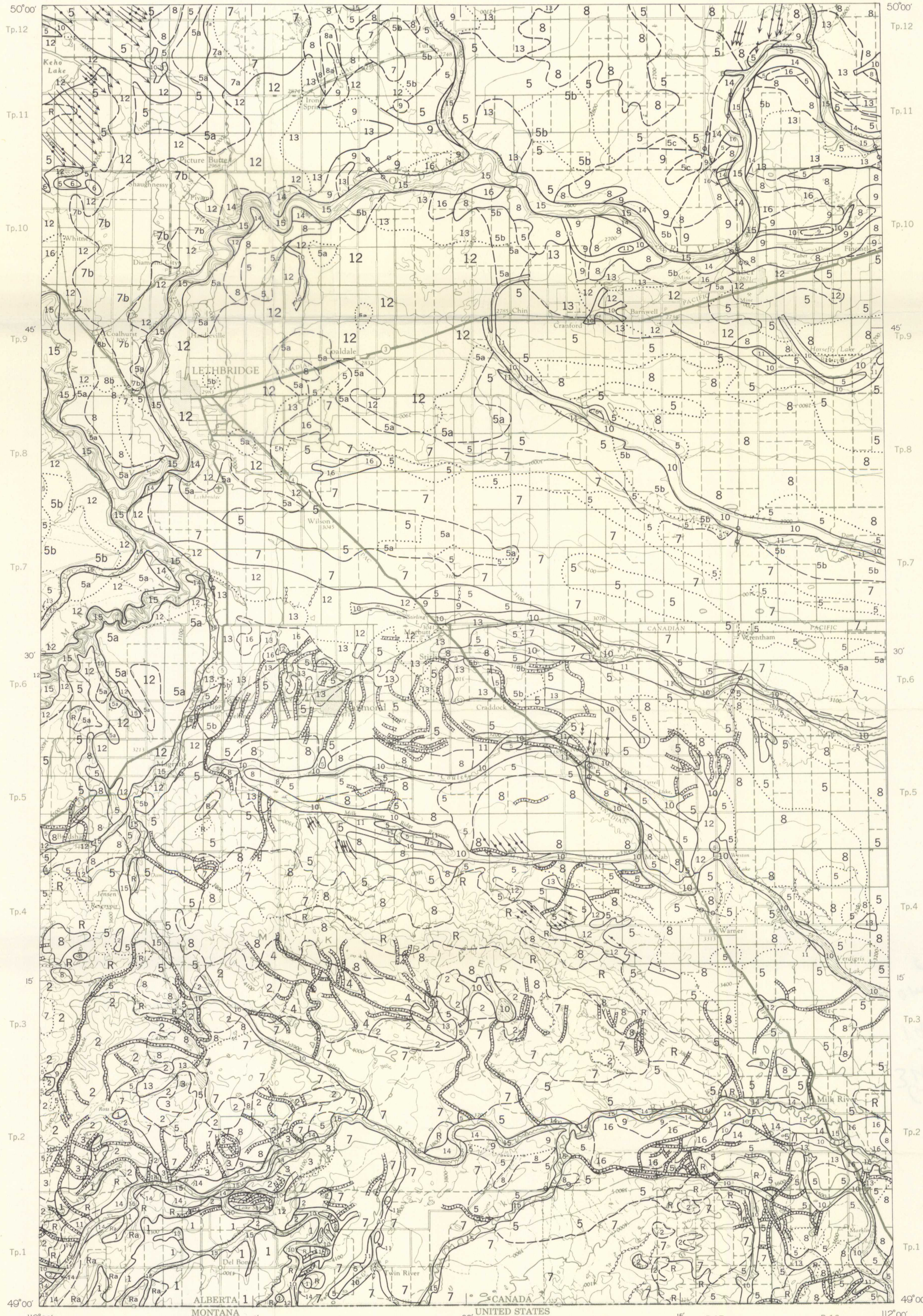
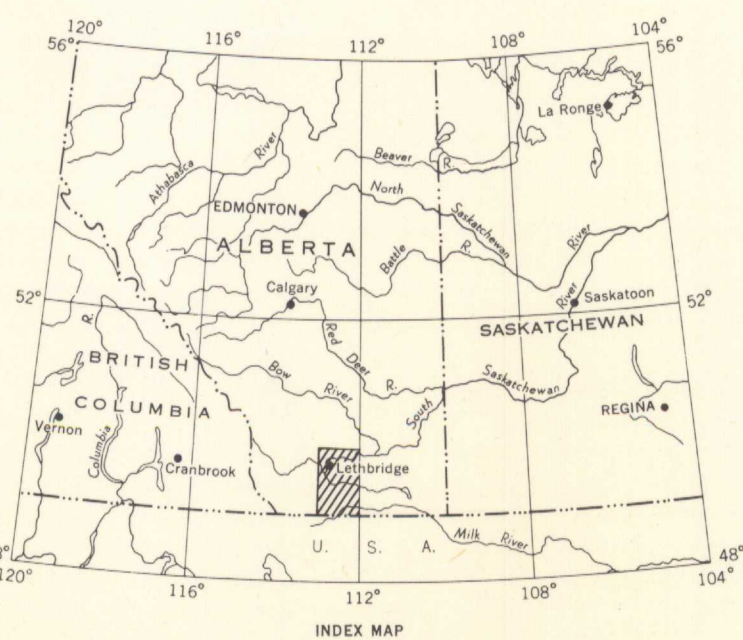
Minor morainial ridge

Geology by A. MacS. Stalker, 1960 and 1961

- Main roads
- Other roads
- Cart track
- Trail
- Railway
- Post Office
- International boundary
- Indian Reserve boundary
- Intermittent lake and stream
- Marsh
- Airport
- Contours (interval 100 feet)
- Height in feet above mean sea-level

Mean magnetic declination, 19° 53' East, decreasing 2.9' annually. Readings vary from 19° 14' E in the SE corner to 20° 47' E in the NW corner of the map area

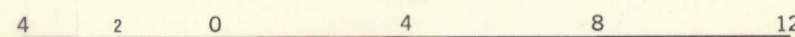
Base-map by the Surveys and Mapping Branch, 1953



PUBLISHED 1962
COPIES OF THIS MAP MAY BE OBTAINED FROM THE
DIRECTOR, GEOLOGICAL SURVEY OF CANADA, OTTAWA

MAP 41-1962
SURFICIAL GEOLOGY
LETHBRIDGE
(EAST HALF)
WEST OF FOURTH MERIDIAN
ALBERTA

Scale: One Inch to Four Miles = $\frac{1}{253,440}$
Miles



MAP 41-1962
LETHBRIDGE
ALBERTA
SHEET 82 H (East Half)