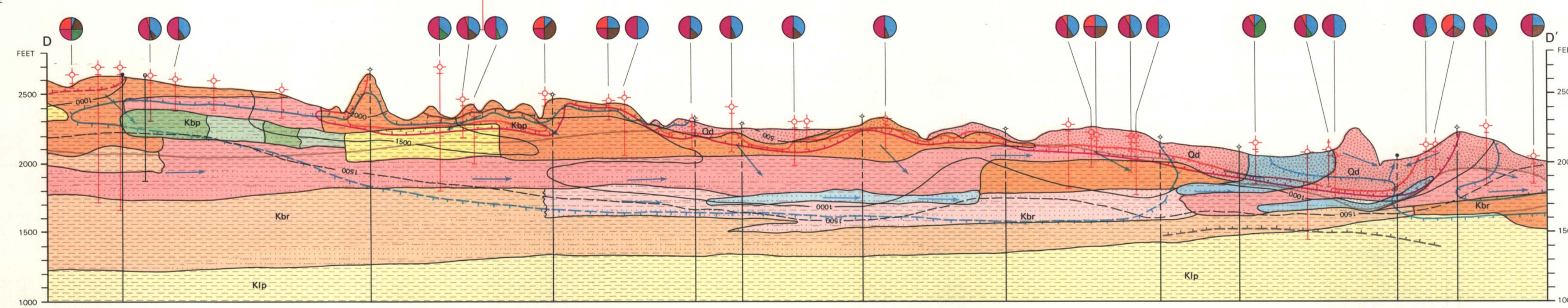
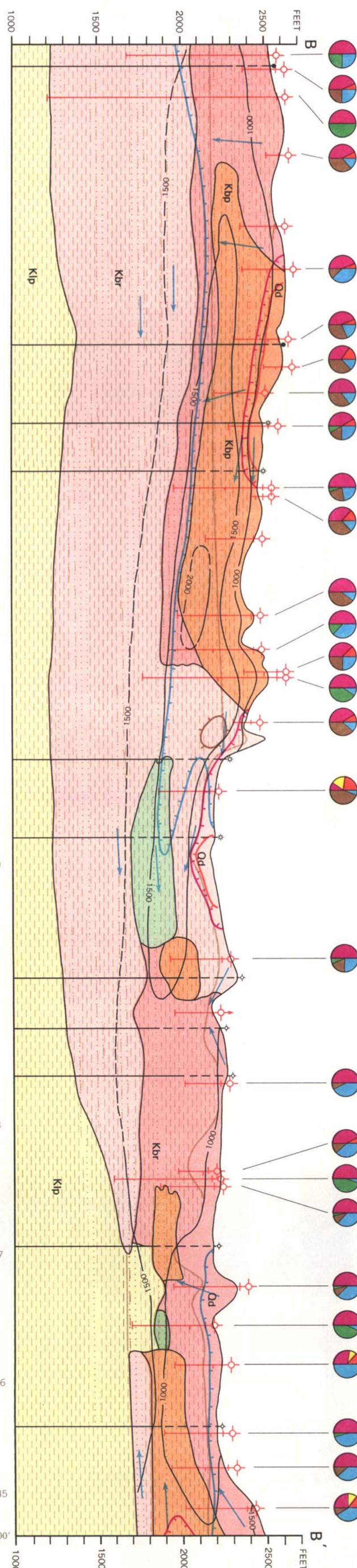
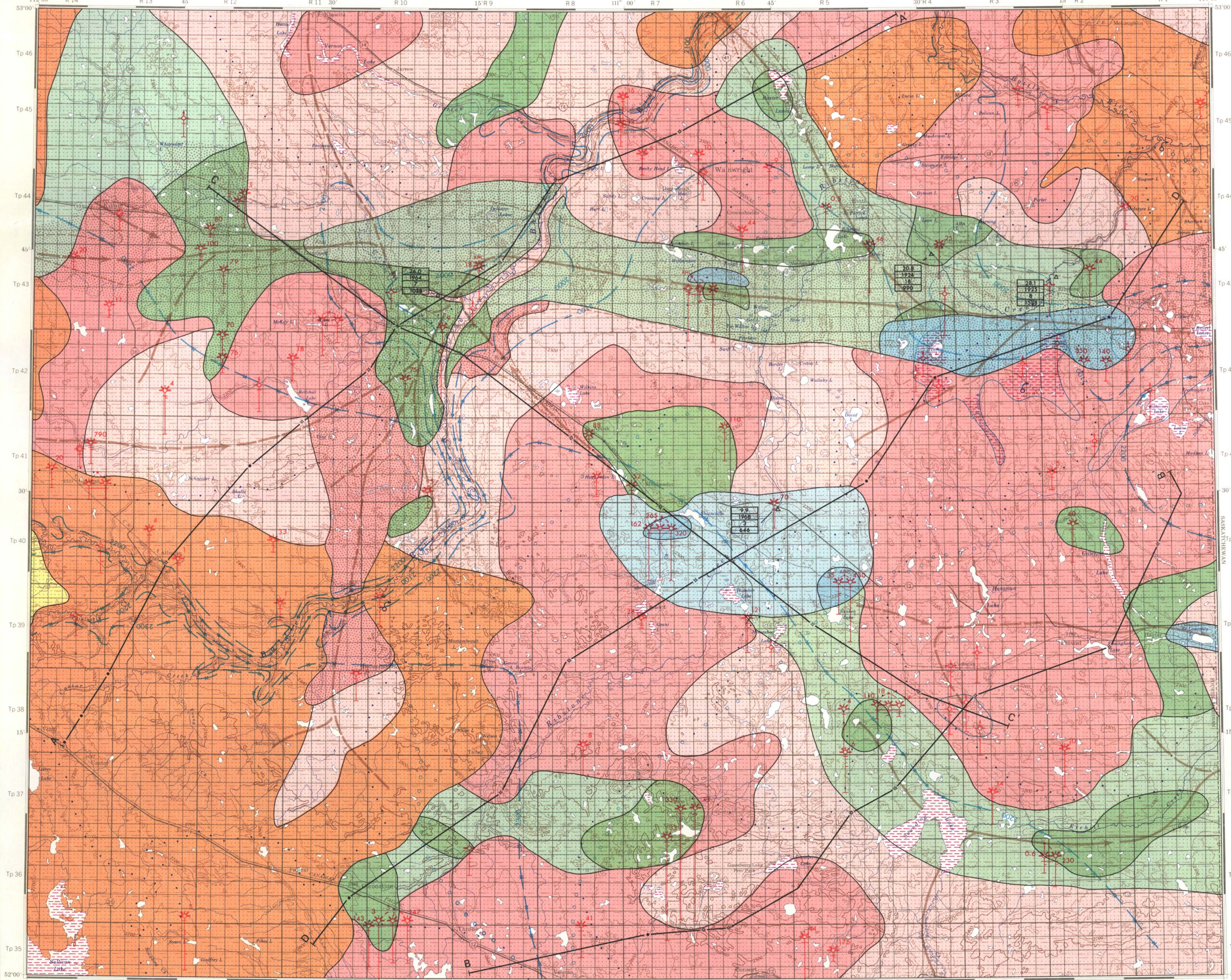
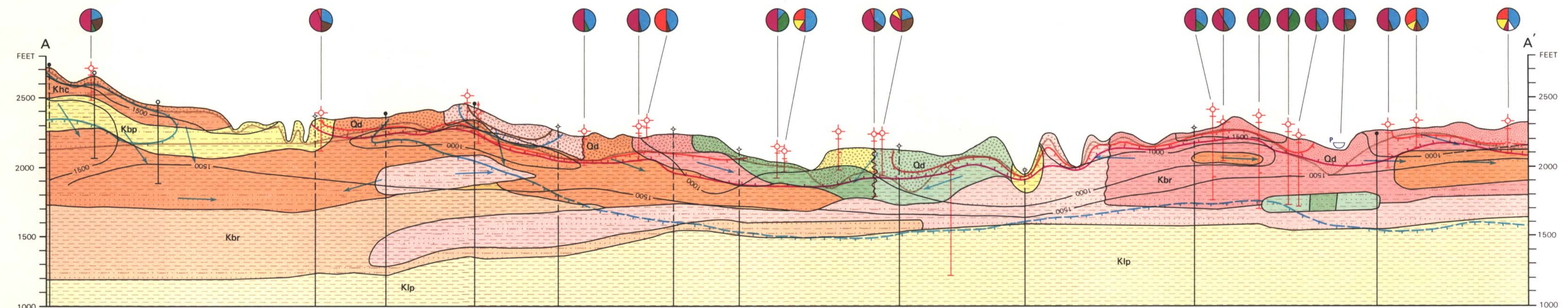
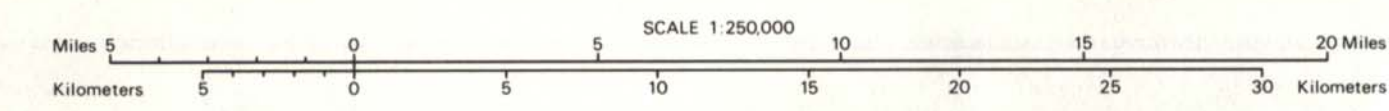
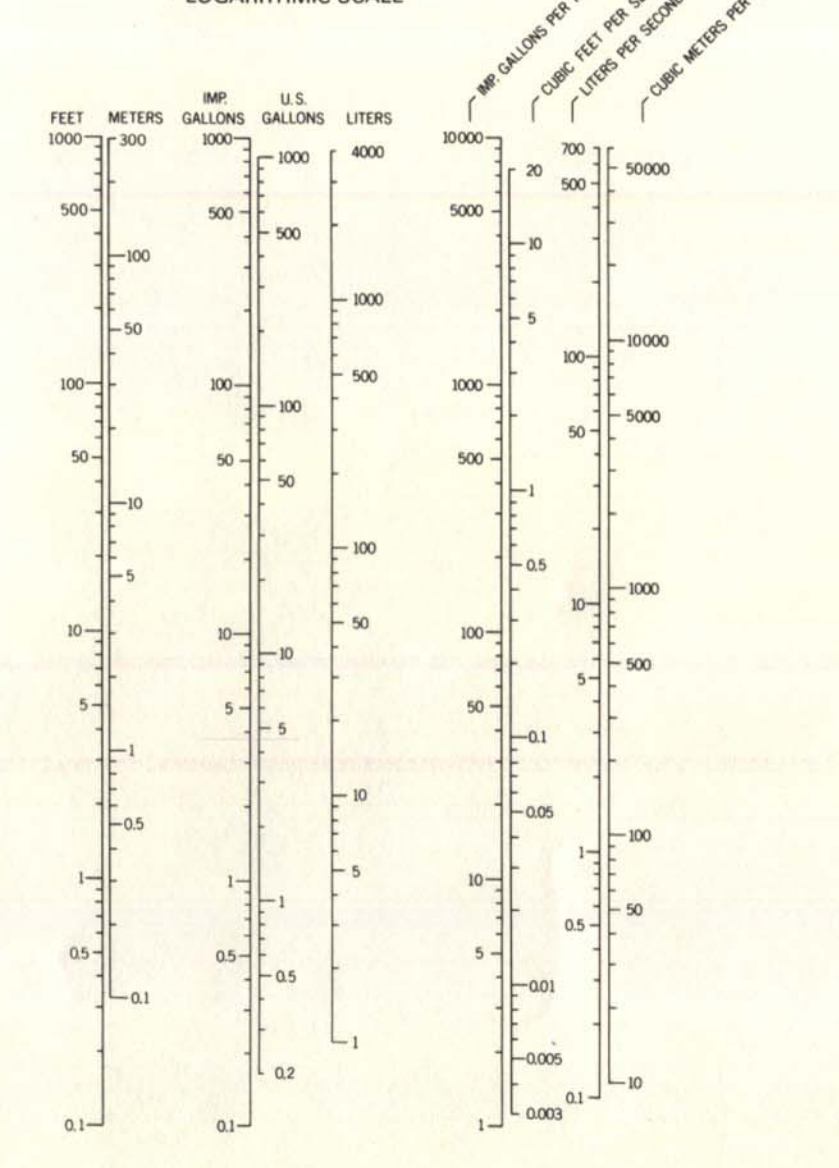


MAIN MAP LEGEND

- Topography**
Surface contours and elevation in feet (interval 100 feet)
- Geology**
Geological boundary
Thickness of buried valley
Boundary of area of approximate subcrop of Belly River Formation
- QUATERNARY**
Unconsolidated deposits
- CRETACEOUS**
Horseshoe Canyon Formation
Belly River Formation
Bearpaw Formation
Lea Park Formation
- Lithology**
Sand and gravel
Sand
Silt and Clay
Sandstone
Shale
- Hydrography**
Lake or slough, perennial
Stream, perennial
Surface water divide
Natural pond or water hole (no surface outlet)
Area of noticeable salt precipitates
- Hydrometry**
Stream gauging station
Average annual discharge in cubic feet per second
Year of commencement of observations
Number of years averaged for average annual discharge figure
Drainage area in square miles
- Hydrogeology**
Spring, flow rate unknown
Approximate water level contour of Belly River Formation
Direction of groundwater flow
Groundwater divide
Boundary of area of artesian flow
Groundwater Probability!
Range of average expected yield of wells (in imperial gallons per minute)
Probable: estimated from quantitative information (pump tests, bail tests, etc.)
Possible: estimated from qualitative information (flow regime, lithology, etc.)
- Yield boundary**
The indicated average expected yields to wells are predictions based on the test data available at the time of map construction, due to site topography and special conditions. Local discrepancies between predicted and actual yields are inevitable. Multiphase completion may increase or decrease the yield indicated.
- Wells and Other Artificial Works**
Depth Scale
Water well, nonflowing
Water well, flowing
Water well, 20 year safe yield calculated from apparent transmissivity
Water well, 20 year safe yield calculated from a good bail test or a short pump test
Water well, 20 year safe yield calculated from a pump test of sufficient length to reflect regional hydraulic conditions
Adjacent wells
Observation well with an automatic recorder
Location of Alberta Research Council test well
Oil well
Gas well
Abandoned well* drilled for oil or gas
Structure testhole*
Line of hydrogeological profile
- Hydrochemistry**
Cation: Calcium, Magnesium, Sodium + potassium
Anion: Sulfate, Chloride, Bicarbonate + carbonate, Nitrate, Sulfide, Silica
Note: When the sulfate Mg per cent is absent, Mg are represented as a part of the total per cent.
Total dissolved solids in parts per million:
approximate
Isogram along which calcium + magnesium constitute 60 percent of total cations,* teeth indicate direction of lesser calcium + magnesium content
approximate
Isogram along which sodium + potassium constitute 60 percent of total cations,* teeth indicate direction of lesser sodium + potassium content
approximate
Isogram along which carbonate + bicarbonate constitute 60 percent of total anions,* teeth indicate direction of lesser carbonate + bicarbonate content
approximate
Isogram along which sulfate constitutes 60 percent of total anions,* teeth indicate direction of lesser sulfate content
approximate
Isogram along which chloride constitutes 60 percent of total anions,* teeth indicate direction of lesser chloride content
approximate
- * determined on equivalent per million basis



CONVERSION TABLE
LOGARITHMIC SCALE



All elevations in feet above mean sea level.
Vertical exaggeration of the hydrogeological profiles is approximately 40X.
An examined legend and explanatory notes for use with this hydrogeological map series is available from Alberta Research Council, Edmonton, Canada.
Map to accompany Report 75-1
Hydrogeology by D. A. Hackbarth
Drawn by R. W. Swenson and J. H. Dey
Cartographic editing by A. R. Campbell

HYDROGEOLOGICAL MAP
WAINWRIGHT
ALBERTA

NTS 73D