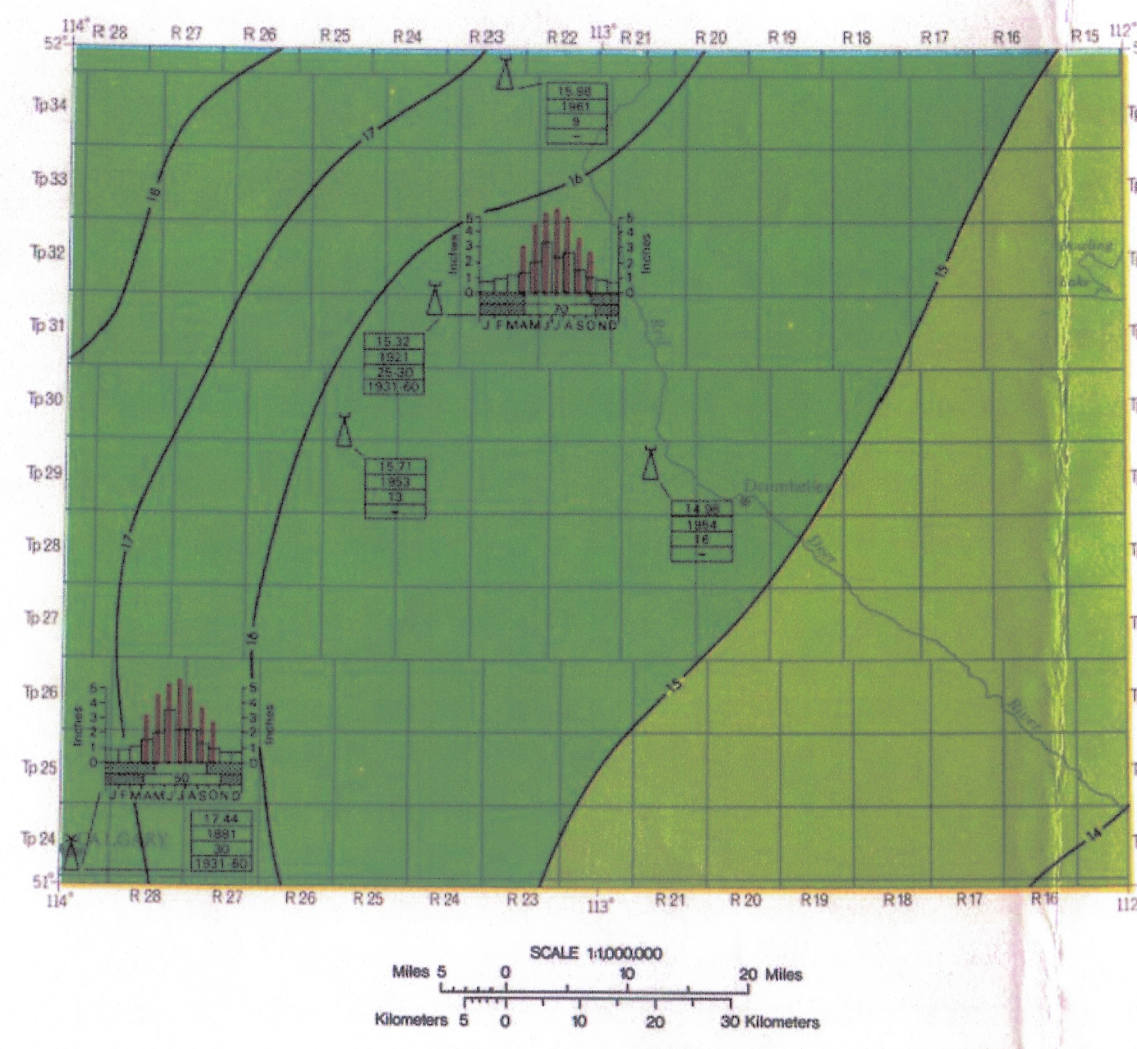




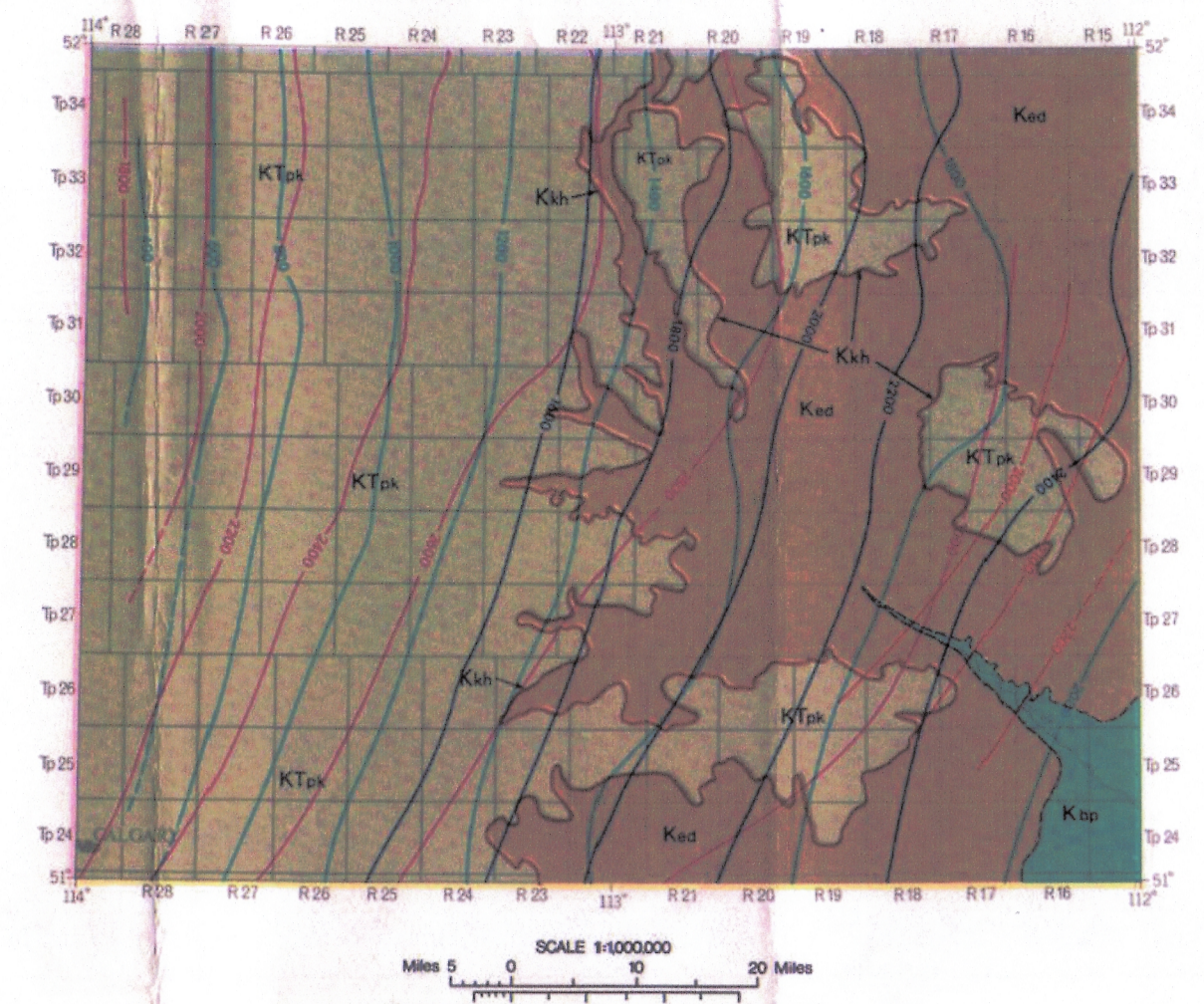
RESEARCH COUNCIL OF ALBERTA

METEOROLOGY



LEGEND
Isohyet, mean annual precipitation in inches
Mean annual precipitation: less than 15 inches, 15-20 inches
Meteorological station: Standard rain gauge only
Precipitation data: Mean annual precipitation in inches, Year of commencement of observations, Method of measurement used to calculate mean annual precipitation, Specific years used to calculate mean annual precipitation for selected years, Mean monthly potential evapotranspiration, Mean monthly precipitation, Period when surface is usually snow covered, Period with mean daily temperature below freezing 5°F, Figure indicates percentage of mean annual precipitation falling as rain

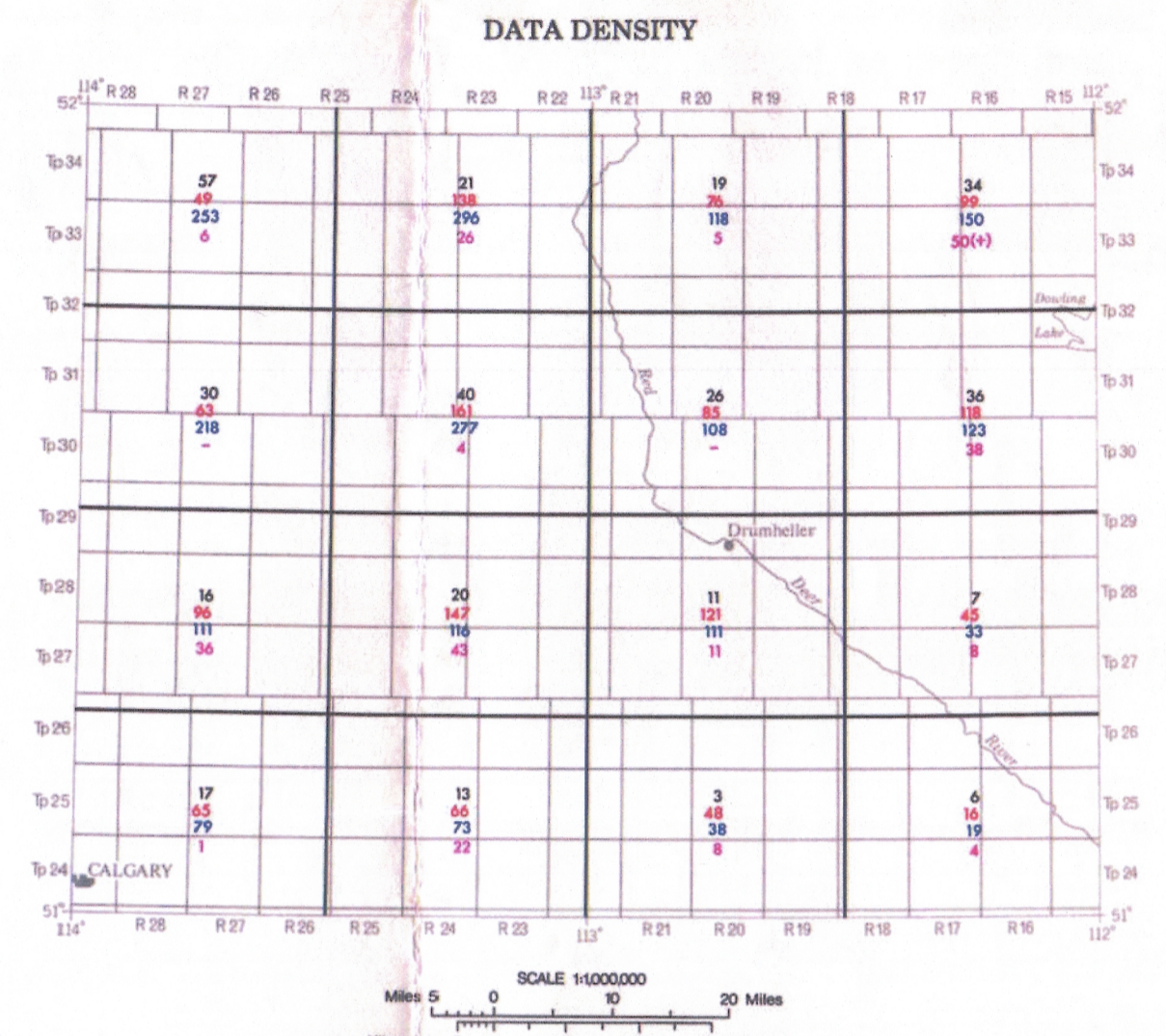
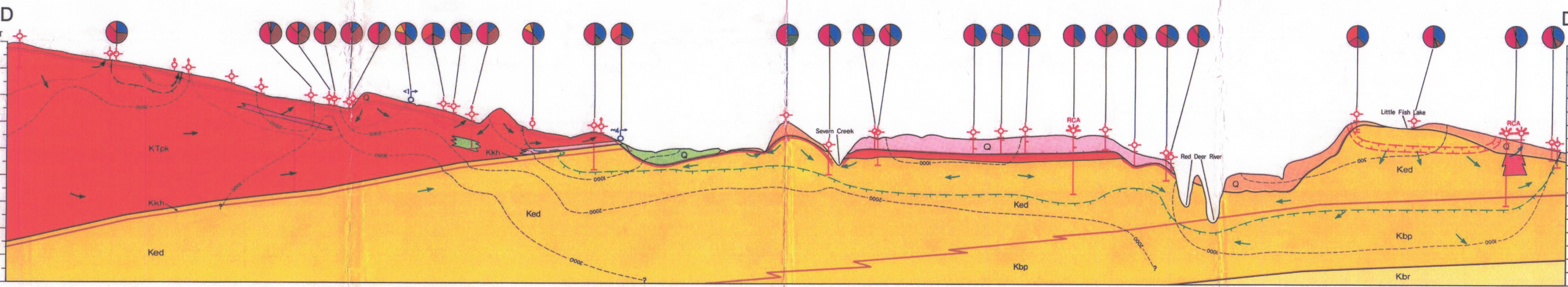
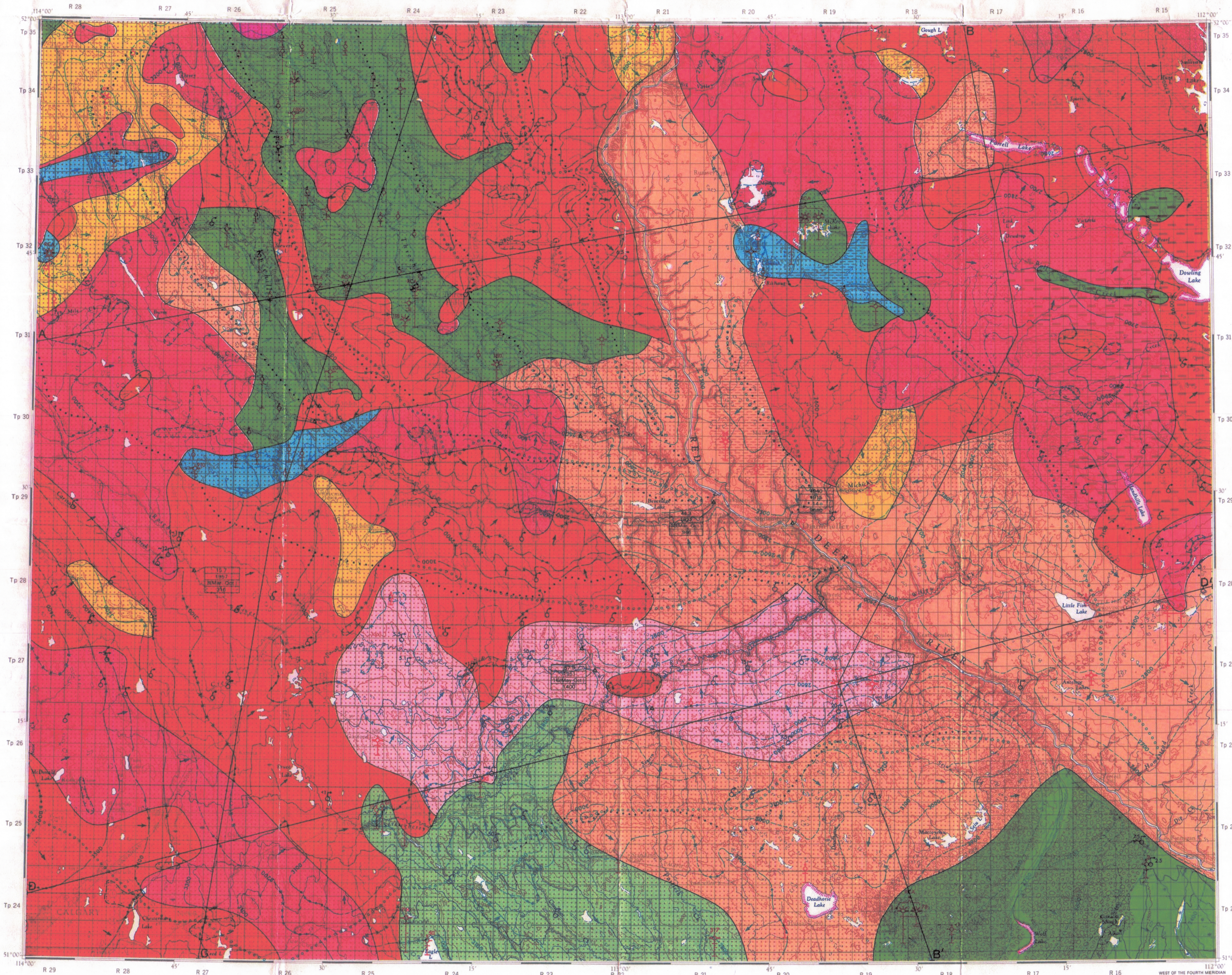
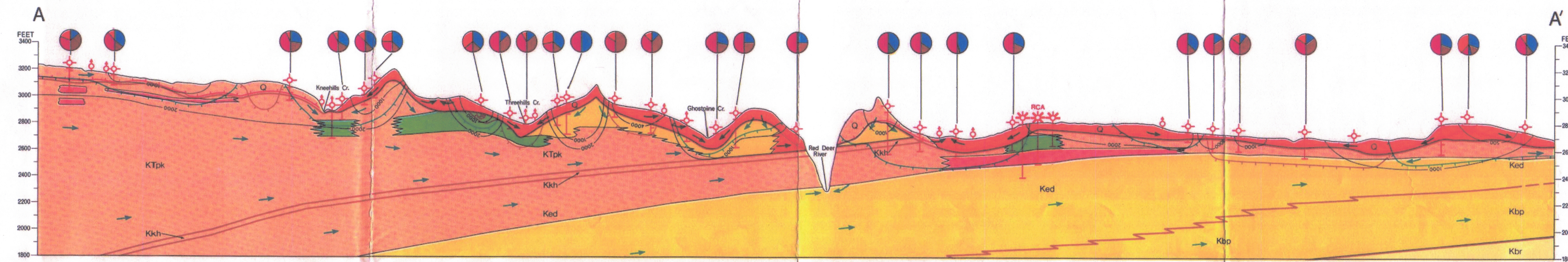
GEOLOGY



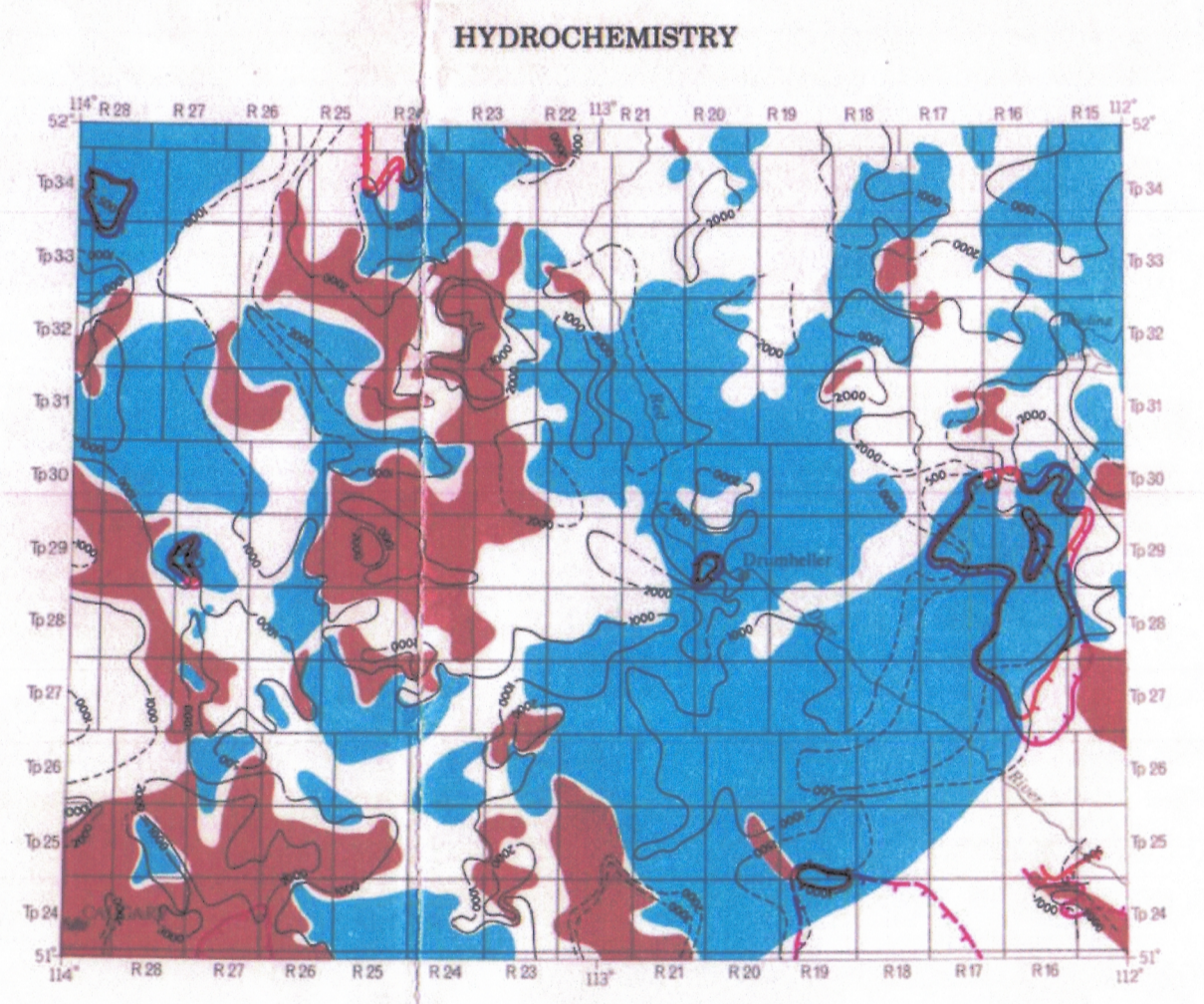
LEGEND
Paskapoo Formation: sandstone, siltstone, minor shale and coal
Knoxville Member, Edmonton Formation: arenaceous shale, white sandstone
Edmonton Formation: sandstone, siltstone, shale, coal
Bearsaw Formation: mainly shale, minor fine-grained sandstone
Boundary of rock unit, approximate
Structure contour on Knoxhills Member: defined, approximate
Structure contour on top of Bearsaw Formation: defined, approximate
Structure contour on base of Bearsaw Formation: defined, approximate
Structure contour on Balneark Sandstone: defined, approximate

MAIN MAP LEGEND

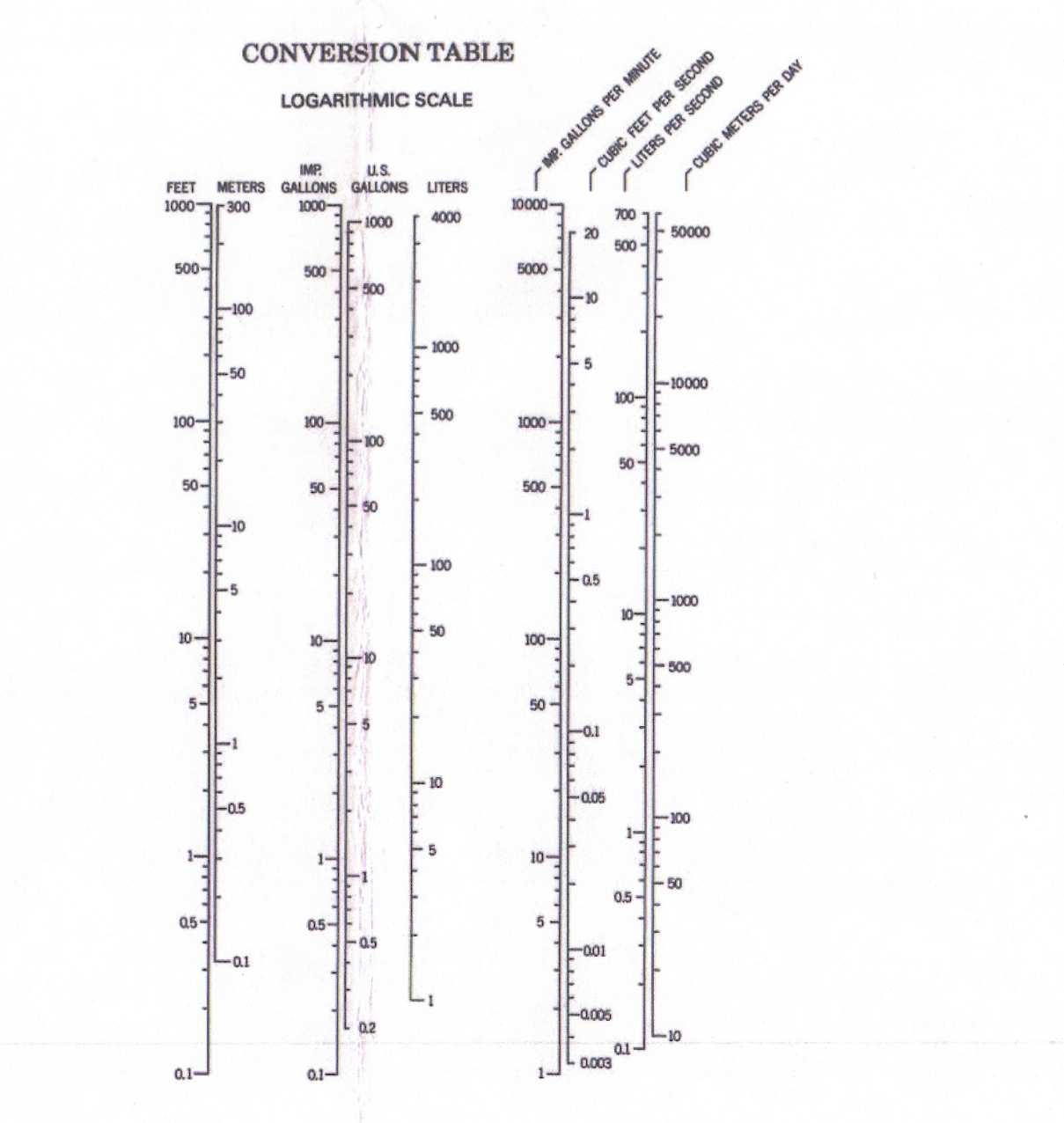
Topography: Surface contours (interval 100 feet): elevation, depression, approximate
Geology: Geological boundary: defined, approximate
QUATERNARY: Unconsolidated deposits
CRETACEOUS-TERTIARY: Paskapoo Formation
CRETACEOUS: Knoxhills Member, Bearsaw Formation, Edmonton Formation, Belly River Formation
Lithology: Sand and gravel, Shale, Sandstone, Coal
Hydrography: Lakes or slough, intermittent, Saline lake, Marsh, meadow, Stream, intermittent, Surface water divide
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, Specific portion of year used if not on a twelve-month basis, Drainage area in square miles
Source of data: Surface Water Data Alberta (1965, Inland Waters Branch, Department of Energy, Mines and Resources)
Hydrogeology: Spring, flow rate unknown; Spring and approximate rate of flow in imperial gallons per minute (measured or approximated in summer, 1969)
Nonpumping water level contour (elevation in feet) and vertical component of groundwater movement: defined, approximate
Direction of groundwater flow; Groundwater divide; Boundary of area of artesian flow (dotted pattern line within area of artesian flow)
Groundwater Probability: Range of average expected yield of wells (in imperial gallons per minute)
Yield area boundary
Wells and Other Artificial Works: Water well, shallow; Water well, flowing; Water well, 30-year safe yield calculated from apparent transmissivity, and yield value in imperial gallons per minute; Water well, 30-year safe yield calculated from a good bail test or a short pump test; Water well, 30-year safe yield calculated from a pump test of sufficient length to reflect regional hydraulic conditions; Observation well, automatic recorder; Seismic shot hole reported to have flowed; Seismic shot hole and flow rate in imperial gallons per minute; Depth scale
Research Council of Alberta test well: Location of test well; Line of hydrogeological profile
Hydrochemistry: Total dissolved solids in parts per million; Isogram along which calcium + magnesium constitute 60 per cent of total cations; Isogram along which sodium + potassium constitute 60 per cent of total cations; Isogram along which carbonate + bicarbonate constitute 60 per cent of total anions; Isogram along which sulfate constitutes 60 per cent of total anions



LEGEND
(a) used in construction of the field area (i.e. production tests)
(b) used in construction of the hydrochemical map
(c) used in construction of the water level contours
(d) used in construction of the hydrogeological surface features



LEGEND
Total dissolved solids in parts per million: defined, approximate
Isogram along which calcium + magnesium constitute over 60 per cent of total anions
Isogram along which sodium + potassium constitute 60 per cent of total cations; Isogram along which carbonate + bicarbonate constitute 60 per cent of total anions; Isogram along which sulfate constitutes 60 per cent of total anions



HYDROGEOLOGICAL MAP DRUMHELLER ALBERTA

Hydrogeology by D. Bernot, 1970, based on data collected in 1969. Drawn by R. J. Clouston. Map to accompany Report 75-1. An expanded legend and explanatory notes for use with this hydrogeological map series is available from the Research Council of Alberta, Edmonton, Canada.

