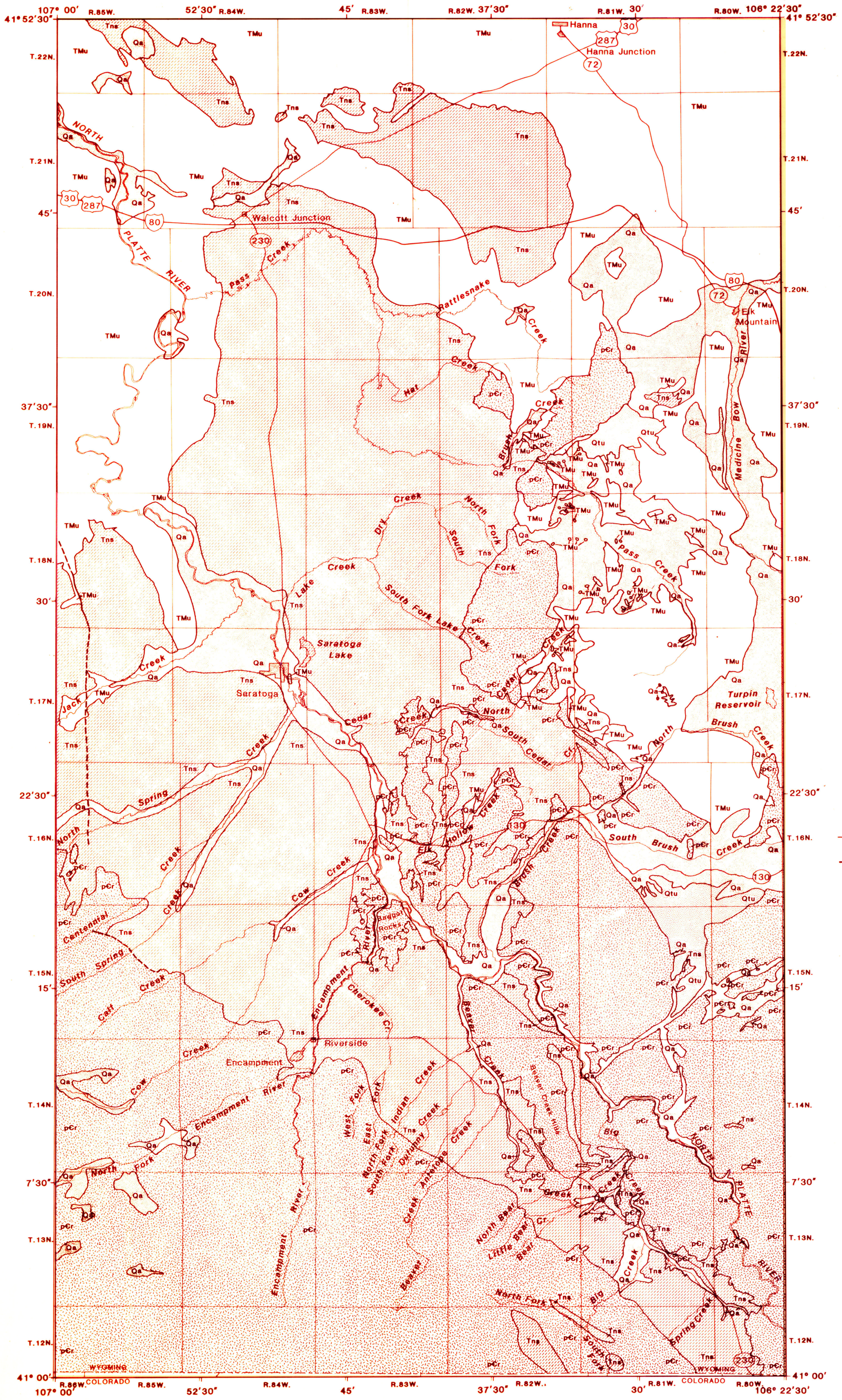
DEPARTMENT OF THE INTERIOR
UNITED STATES GEOLOGICAL SURVEY

PREPARED IN COOPERATION WITH THE
WYOMING STATE ENGINEER
AND THE
WYOMING ECONOMIC DEVELOPMENT AND STABILIZATION BOARD

WATER-RESOURCES INVESTIGATIONS REPORT 84-4040
PLATE 1




Base from U.S. Geological Survey 1:24,000 quadrangles.

SCALE 1:200 000

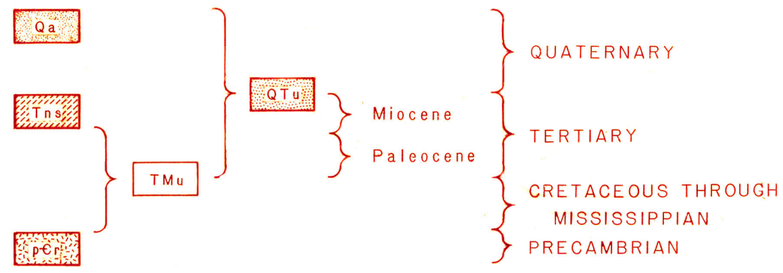
0 2 4 6 8 10 12 MILES

0 2 4 6 8 10 12 KILOMETERS

Geology modified from Houston and others (1968) and Weitz and Love (1952).

# EXPLANATION

## CORRELATION OF MAP UNITS




## DESCRIPTION OF MAP UNITS

**Qa** — ALLUVIAL DEPOSITS (QUATERNARY)--Sand, gravel, and cobbles underlying flood plains and terraces

**QTu** — SEDIMENTARY ROCKS UNDIVIDED (QUATERNARY THROUGH TERTIARY)--Chiefly sandstone, arkosic sandstone with interbedded conglomerate; most outcrops are covered by lag gravel

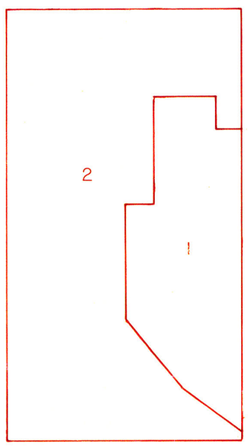
**Tns** — NORTH PARK FORMATION AND LOWER SANDSTONE UNIT UNDIVIDED (MIOCENE)--The North Park Formation consists of medium- to coarse-grained sandstone and conglomerate with siltstone, claystone, and limestone. Maximum thickness estimated to be about 1,500 feet (Montagne, 1953, p. 13) The lower sandstone unit consists of fine- to medium-grained sandstone with sandy conglomerate at base. Little or no volcanic ash. Thickness estimated to be about 1,400 feet (Montagne, 1953, p. 13). Resembles the Arikaree Formation of southeastern Wyoming and the lower part of the Browns Park Formation of northwestern Colorado

**TMu** — SEDIMENTARY ROCKS UNDIVIDED (TERTIARY THROUGH MISSISSIPPIAN)--Bedrock bordering the northern part of Saratoga Valley consists in descending order of Hanna Formation, Ferris Formation, Medicine Bow Formation, Lewis Shale, Mesaverde Formation, Steele Shale, Cody Shale, Niobrara Formation, Frontier Formation, Mowry and Thermopolis Shales, Cloverly Formation, Morrison Formation, Sundance Formation, and Triassic through Mississippian rocks

**pCr** — PRECAMBRIAN ROCKS--Chiefly granitic and metasedimentary rocks

CONTACT--Approximately located

FAULT--Dashed where approximately located




INDEX TO GEOLOGIC MAPPING

1. Houston and others (1968)
2. Weitz and Love (1952)

# MAP SHOWING GEOLOGY IN SARATOGA VALLEY, WYOMING