DEPARTMENT OF THE INTERIOR
UNITED STATES GEOLOGICAL SURVEY

PREPARED IN COOPERATION WITH THE
WYOMING STATE ENGINEER

HYDROLOGIC INVESTIGATIONS
ATLAS HA-290 (SHEET 1 OF 2)

EXPLANATION

QUATERNARY

Pleistocene and Recent

- Qal — Alluvial deposits. *Not mapped in detail*
- Qs — Windblown sand
- Qgl — Glacial deposits
- Qg — Gravel deposits. *Includes terrace gravel, sand, and silt*

TERTIARY

Pliocene(?)

- Ti — Igneous plug

Miocene(?)

- Tbp — Browns Park Formation

Oligocene and Miocene

- Tbi — Bishop Conglomerate

Middle and upper(?) Eocene

- Tb — Bridger Formation

Uppermost Paleocene to middle Eocene

- Tgu, Tgl, Twu, Twe, Twc, Tgm, Tgw, Twn, Tgt, Tgf, Tw — Green River, Wasatch, and Fort Union Formations

Tgu, *upper tongue of Green River Formation*
Tgwe, *stratigraphic equivalents of upper and middle tongues of Green River Formation, and upper tongue and New Fork Tongue of Wasatch Formation*
Tgl, *Laney Shale Member of Green River Formation*
Twu, *upper tongue of Wasatch Formation*
Tgw, *Wilkins Peak Member of Green River Formation*
Twc, *Cathedral Bluffs Tongue of Wasatch Formation*
Tgm, *middle tongue of Green River Formation*
Twn, *New Fork Tongue of Wasatch Formation*
Tgt, *Tipton Tongue and Tipton Shale Member of Green River Formation*
Tgf, *Fontenelle Tongue of Green River Formation*
Tw, *main body of Wasatch Formation, includes Niland Tongue in southeast (Culbertson, 1965), and Chappo and La Barge Members and conglomerate member in west (Oriel, 1962). Luman Tongue of Green River Formation in southeast (Culbertson, 1965), and part of Fort Union Formation in east (Bradley, 1964) and southeast (Hansen, 1965) mapped with unit*

Paleocene

- Tf — Fort Union Formation

- Tu — Undivided. *Mostly Bridger, Green River, Wasatch, and possibly Fort Union equivalents near the Uinta Mountains (Bradley, 1964) and Wind River Mountains (Love and others, 1955); includes South Pass Formation of late Miocene to middle Pliocene age near the Continental Fault (Denson and others, 1965), and the Pass Peak Conglomerate of middle Eocene of Eardley and others (1944) in the north*

- KCr — Cretaceous through Cambrian rocks
- pCr — Precambrian rocks

Contact
Contacts are approximately located; queried where probable

Gradational contact
Marks major facies change, intertonguing, or limits of areas where stratigraphy is generalized

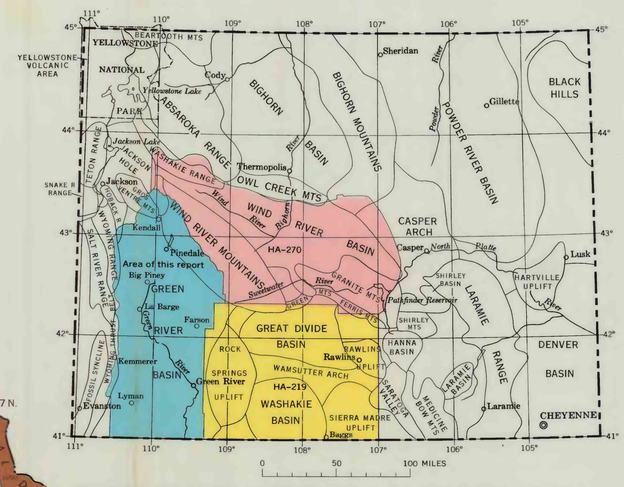
Fault
Approximately located, dotted where concealed. U, upthrown block; D, downthrown block

6000 — Structure contour
Shows altitude of a horizon near base of Fontenelle Tongue and Tipton Shale Member of Green River Formation. Dashed where approximated. Contours are based upon electric-log correlations, sample log descriptions, and outcrop examinations. Contour interval 500 feet

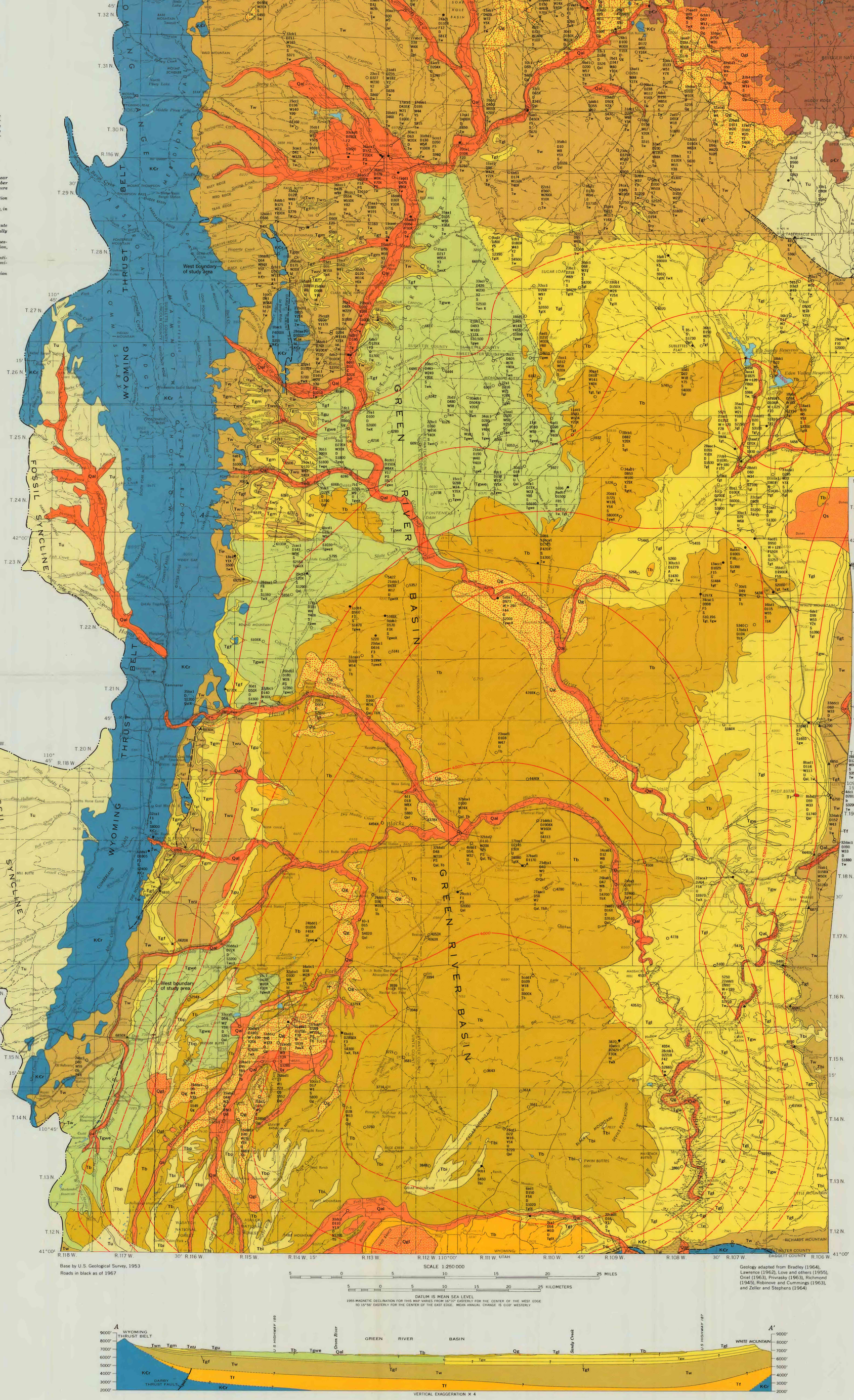
Drainage divide

Non-flowing well	Flowing well	Spring
D196	W+120	F28

7007 — *Altitude (in feet above mean sea level) of point near base of Fontenelle Tongue and Tipton Shale Member of Green River Formation used in preparing structure contours; (A) outcrop, (C) well*
15cc1 — *Section number segment of well number. Explanation of well numbers given in text*
W+120 — *Depth to water below or head above (+) land surface, in feet*
D196 — *Depth of well, in feet below land surface*
F28 — *Flow of artesian well or spring, in gallons per minute*
Y60 — *Yield of pumped well, in gallons per minute; generally not the maximum yield*
D — *Use of water: (A) abandoned, (C) commercial, (D) domestic, (Ir) irrigation, (Id) industrial, (Ob) observation, (PS) public supply, (S) stock, (U) unused*
S1160 — *Specific conductance of water, in micromhos per centimeter at 25° C; based principally on field determinations*
Tw — *Geologic source of water. See geologic formation symbols above*
X — *Data questionable*



STRUCTURAL FEATURE MAP OF WYOMING SHOWING THE AREA OF THIS INVESTIGATION AND PUBLISHED REPORTS IN THE HYDROLOGIC ATLAS SERIES



Base by U.S. Geological Survey, 1953
Roads in black as of 1967

SCALE 1:250 000

5 0 5 10 15 20 25 MILES
5 0 5 10 15 20 25 KILOMETERS

DATUM IS MEAN SEA LEVEL
1955 MAGNETIC DECLINATION FOR THIS MAP VARIES FROM 16°37' EASTERLY FOR THE CENTER OF THE WEST EDGE TO 15°56' EASTERLY FOR THE CENTER OF THE EAST EDGE. MEAN ANNUAL CHANGE IS 0.03° WESTERLY

Geology adapted from Bradley (1964), Lawrence (1962), Love and others (1955), Oriel (1963), Privratsky (1963), Richmond (1945), Robinove and Cummings (1963), and Zeller and Stephens (1964)

INTERIOR—GEOLOGICAL SURVEY, WASHINGTON, D.C.—1968—W68072

GROUND-WATER RECONNAISSANCE OF THE GREEN RIVER BASIN, SOUTHWESTERN WYOMING

By
George E. Welder

1968

For sale by U.S. Geological Survey, price $1.00 per set