



CORRELATION OF MAP UNITS

Qal	Holocene and Pleistocene	QUATERNARY
Q1	Pleistocene	
Ta	Lower Miocene	TERTIARY
Tb	Oligocene	
Tc		CRETACEOUS
Kl	Upper Cretaceous	

DESCRIPTION OF MAP UNITS

- Qal** ALLUVIUM--Unconsolidated silt, sand, and gravel; contains siltstone pebbles and abundant pink feldspar
- Q1** TERRACE DEPOSITS--Unconsolidated sand and gravel containing lenses and beds of fine sand, silt, and clay
- Ta** ARIKAREE FORMATION--Tan to light-gray sandstone, very fine to fine-grained, loosely to moderately cemented; contains pipy concretions and many layers of well cemented hard sandstone. Coarse conglomerate occurs at base in some areas
- Tb** BRULE FORMATION (WHITE RIVER GROUP)--Pinkish-brown, moderately hard, brittle, argillaceous siltstone
- Tc** CHADRON FORMATION (WHITE RIVER GROUP)--Green, brown, red, or buff loosely to moderately cemented clay and silt that contains channel deposits of sandstone and conglomerate. Contains a lower unit consisting of variegated fluvial deposits
- Kl** LANCE FORMATION--Upper unit consists of variegated sequence of beds of sandstone and shale; lower unit consists of a sequence of beds of carbonaceous shale, gray siltstone, and gray to light-gray sandstone. Both units contain thin beds of coal

- CONTACT--Approximately located
- - - STRUCTURE CONTOUR--Shows altitude of base of LaGrange aquifer. Dashed where approximately located. Contour interval 50 feet. Datum is sea level

- AREA OF HAWK SPRINGS RESERVOIR AT ALTITUDE 4,475 FEET
- ADDITIONAL AREA OF HAWK SPRINGS RESERVOIR AT ALTITUDE OF ABOUT 4,480 FEET

- WELL
- WELL DRILLED IN 1978 WITH ELECTRIC LOG AVAILABLE
- ⊕ TEST HOLE
- ⊙ TEST HOLE DRILLED IN 1978 NOT PENETRATING LaGRANGE AQUIFER
- ⊕ TEST HOLE DRILLED IN 1978 WITH ELECTRIC LOG AVAILABLE
- TEST HOLE DRILLED BY OIL COMPANY WITH ELECTRIC LOG AVAILABLE

- 4191 Number near symbol is altitude of base of LaGrange aquifer, in feet above sea level, determined from drillers' log or electric log. Symbol (⊕) indicates number is altitude of bottom of well that does not fully penetrate aquifer. Symbol (⊙) indicates number is altitude where electric log started

- BOUNDARY OF MODEL

Base from U.S. Geological Survey 1:24,000 quadrangles, Kessler Gap, La Grange, McCompsey Pass, Meridan, Petch Reservoir, and Tremain, 1976

Geology modified from J.R. Rapp in Rapp and others, 1967 (for Goshen County) and M.E. Lowry in Lowry and Crist, 1967 (for Laramie County). Structure contours by W.B. Borchert, 1979

MAP SHOWING GEOLOGY AND STRUCTURE CONTOURS OF BASE OF THE LaGRANGE AQUIFER NEAR LaGRANGE, SOUTHEASTERN WYOMING