

# GEOLOGIC MAP OF THE HANNA BASIN, WYOMING



## EXPLANATION

- MAP SYMBOLS**
- Formation contact
  - Normal fault—Dotted where concealed; bar and ball on downthrown block; no designation on fault trace indicates undetermined motion
  - Thrust fault—Dotted where concealed; sawteeth on upthrown (tectonically higher) block
  - ☆ County seat
  - City or town
  - ☪ Lake or reservoir
  - Interstate highway
  - U.S. highway
  - State highway
  - County or other road
  - County boundary

### GEOLOGIC UNITS (Geology enlarged from 1:500,000 scale to improve readability)

- |  |  |   |
|--|--|---|
| <b>CENOZOIC</b>  | <b>MESOZOIC</b>  | <b>Triassic</b>   |
| <b>Quaternary</b>  | <b>Cretaceous</b>  | <b>PALEOZOIC AND MESOZOIC</b>   |
| Qa Alluvium and colluvium  | Kmb Medicine Bow Formation                               | <b>Triassic and Permian</b>   |
| Qt Gravel, pediment, and fan deposits  | Kfh Fox Hills Sandstone                                  | Spog Chugwater and Goose Egg Formations   |
| Qg Glacial deposits  | Kle Lewis Shale  | TPg Goose Egg Formation   |
| Qsd Landslide deposits   | Kmv Mesaverde Group                                      | <b>PALEOZOIC</b>  |
| Qs Dune sand and loess   | Kc Cody Shale  | <b>Permian, Pennsylvanian, and Mississippian</b>  |
| <b>Quaternary and Tertiary</b>   | Ks Steele Shale  | PM Tensleep Sandstone and Amsden Formation  |
| Qtc Conglomerate (Pleistocene to Miocene)  | Kn Niobrara Formation                                    | PPM Wells and Amsden Formations   |
| <b>Tertiary</b>  | Kf Frontier Formation                                    | Mm Mississippian Madison Limestone or Group   |
| Tm Miocene rocks   | Kft Frontier Formation, and Mowry and Thermopolis Shales | <b>Mississippian, Devonian, Ordovician, and Cambrian</b>  |
| Tmu Upper Miocene rocks  | Kmt Mowry and Thermopolis Shales                         | Pzz Madison Limestone, Darby Formation, Bighorn Dolomite, Gallatin Limestone, Gros Ventre Formation, and Flathead Sandstone |
| Twdr Wind River Formation—base locally includes equivalent of Indian Meadows Formation | <b>Cretaceous and Jurassic</b>                           | <b>PRECAMBRIAN</b>  |
| Tha Hanna Formation  | Kj Cloverly and Morrison Formations                      | Prc Precambrian rocks, undifferentiated   |
| <b>Tertiary and Cretaceous</b>   | Kjs Cloverly, Morrison, and Sundance Formations          |   |
| TKf Ferris Formation   | <b>Jurassic</b>  |   |
|  | Js Sundance Formation                                    |   |

### DATA REFERENCE

Love, J.D., and Christiansen, A.C., comps., 1985, Geologic map of Wyoming: U.S. Geological Survey, 3 sheets, scale 1:500,000.

### BASE MAP REFERENCES

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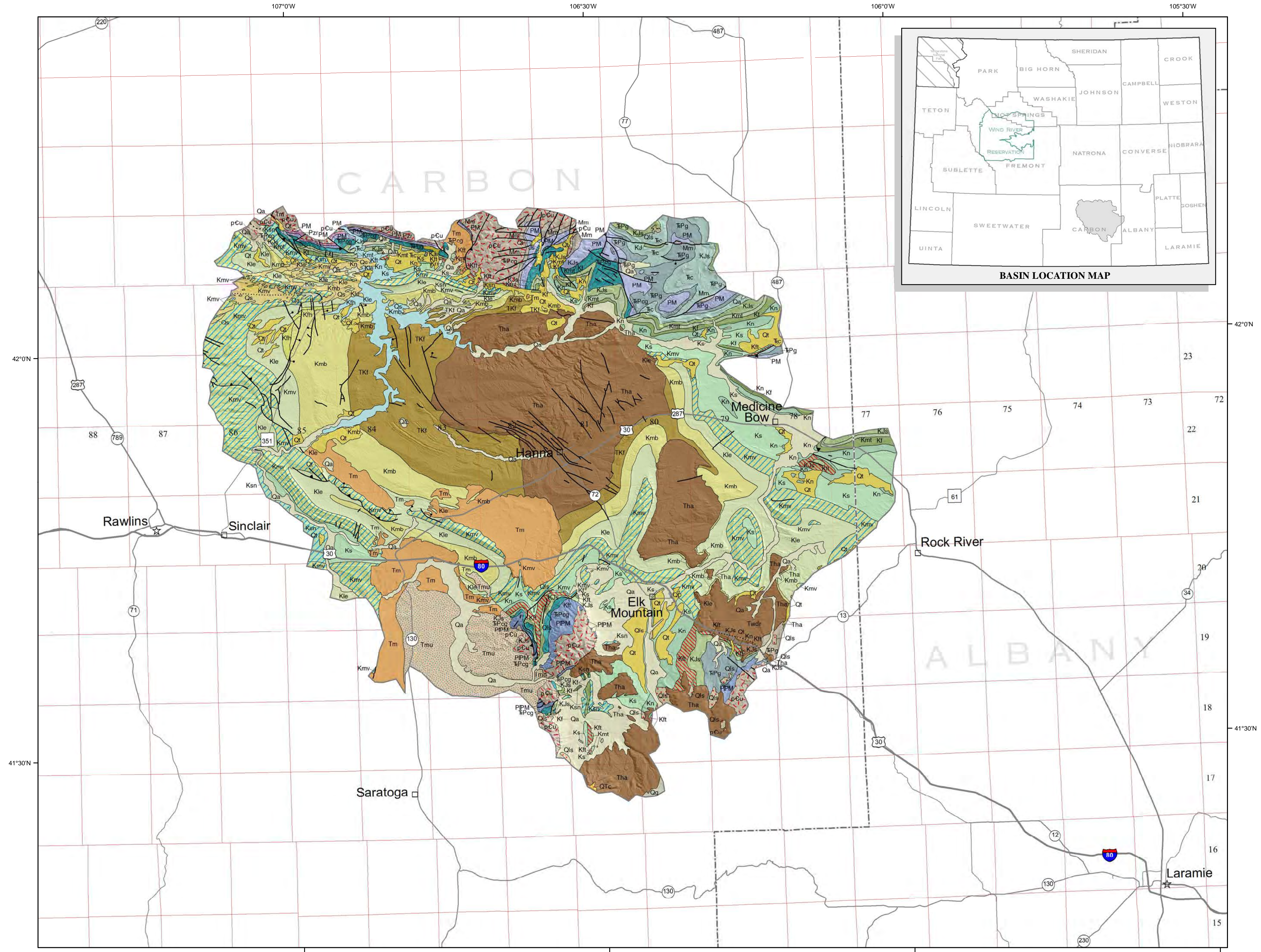
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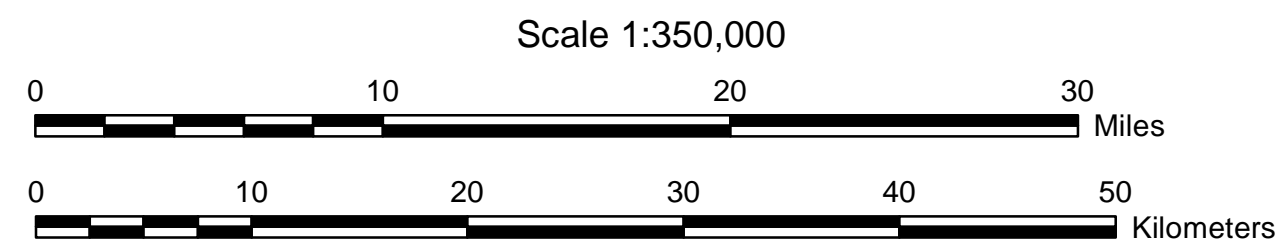
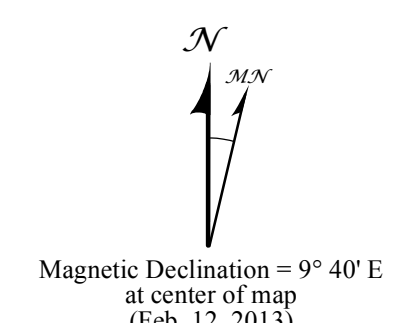
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Map Projection: Lambert Conformal Conic  
 False Easting: 500000, False Northing: 200000  
 Central Meridian: -107.5 degrees West  
 Standard Parallel 1: 41 degrees North  
 Standard Parallel 2: 45 degrees North  
 Latitude of Origin: 41 degrees North  
 Linear Unit: Meter  
 Horizontal Datum: North American Datum of 1983 (NAD 83)  
 Ellipsoid: Geodetic Reference System 80



Geology modified from Love and Christiansen (1985)  
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