U.S. Department of the Interior
U.S. Geological Survey

Scientific Investigations Map 3240
Pamphlet accompanies map

DESCRIPTION OF MAP UNITS

Tw — **Wasatch Formation (Eocene and Paleocene)**—Yellowish-brown sandstone and siltstone, gray mudstone, tan and gray shale, dusky-red-brown carbonaceous shale, both extensive and local coal beds, and thin lenses of coquinoid limestone. Exposed thickness about 1,100 ft. Contact between Wasatch Formation and Fort Union Formation shown on base of Arvada coal bed (For discussion of this contact, see "Stratigraphy" section of text)

Tft — **Fort Union Formation (Paleocene), Tongue River Member**—Grayish sandstone and siltstone, gray mudstone, dusky-red-brown carbonaceous shale, both extensive and local coal beds, and lenses of coquinoid limestone. Exposed thickness about 200 ft

Coal bed—Approximately located. Drawn on base of coal bed or coal zone or on base of clinker. Dashed where inferred. Wasatch Formation coal beds (descending order): M, Monument Peak; W, Walters (also called Ulm 1); H, Healy (also called Ulm 2); T, Truman; F, Felix; A, Arvada. Fort Union Formation coal beds (descending order): R, Roland (of Baker, 1929); S, Smith

Approximate limit—Approximate limit (shown by "×") of coal bed because of apparent pinch-out, splitting into minor coal beds, or lack of outcrop of coal or clinker

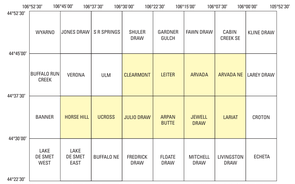
Approximate limit—Approximate limit (shown by " [") of coal bed where buried by alluvial deposits

Fault—**U**, upthrown side; **D**, downthrown side

Coal bed outcrop showing area of clinker—Rocks baked and fused by the natural burning of underlying coal beds. Mostly red, yellow, orange, and black; commonly caps hills, mesas, and ridges. Shown only in places of major areal extent. Dotted line indicates approximate limit of clinker

CORRELATION OF MAP UNITS

Tw	Eocene	TERTIARY
Tft	Paleocene	

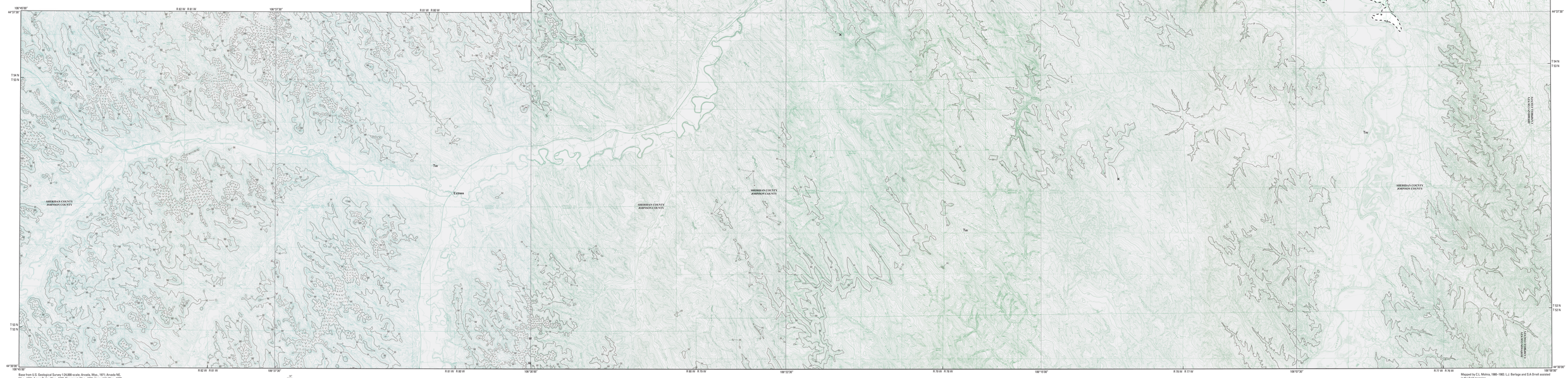


Index map showing the study area in yellow, with the surrounding 7½-minute U.S. Geological Survey quadrangle maps.

SCALE 1:50 000

4 MILES
3000 0 3000 6000 9000 12000 15000 18000 21000 FEET
5 KILOMETERS

CONTOUR INTERVAL 20 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929



Base from U.S. Geological Survey 1:24,000-scale; Arvada, Wyo., 1971; Arvada NE, Wyo., 1971; Arpan Butte, Wyo., 1972; Clearmont, Wyo., 1971; Horse Hill, Wyo., 1970; Jewell Draw, Wyo., 1972; John Draw, Wyo., 1971; Larrat, Wyo., 1972; Leiter, Wyo., 1971; Ucross, Wyo., 1970

Projection: Wyoming coordinate system, east central zone (Transverse Mercator)

Universal Transverse Mercator (UTM) zone 13



Map Showing Principal Coal Beds and Bedrock Geology of the Ucross-Arvada Area, Central Powder River Basin, Wyoming

By
Carol L. Molnia
2013

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Mapped by C.L. Molnia, 1980–1983. L.J. Barlage and S.A. Orrell assisted in the field mapping.

The northern part of the Horse Hill and Ucross 7 ½-minute quadrangles were previously mapped by Mapel (1978a, 1978b), and these areas have been presented here without change.

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