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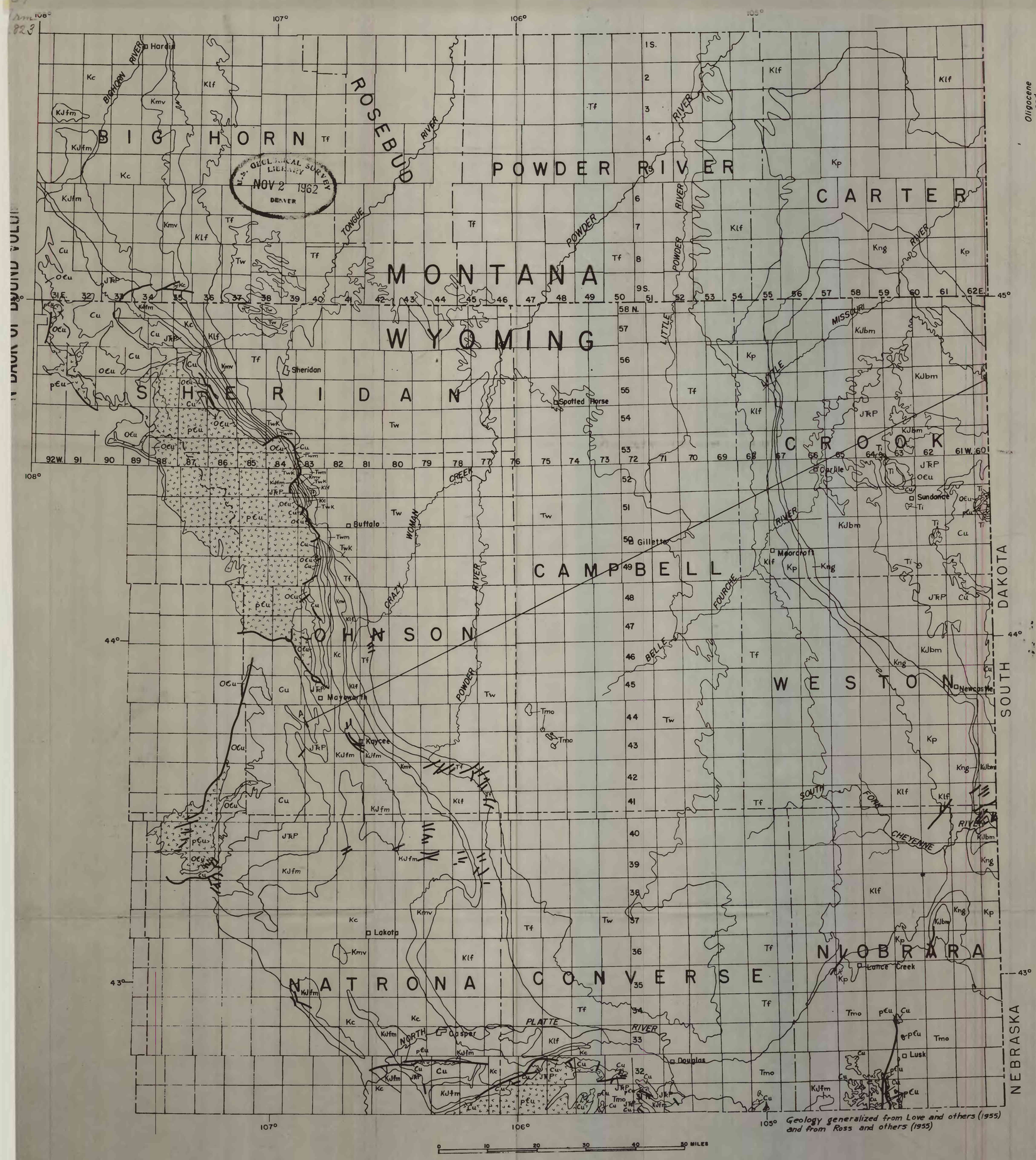

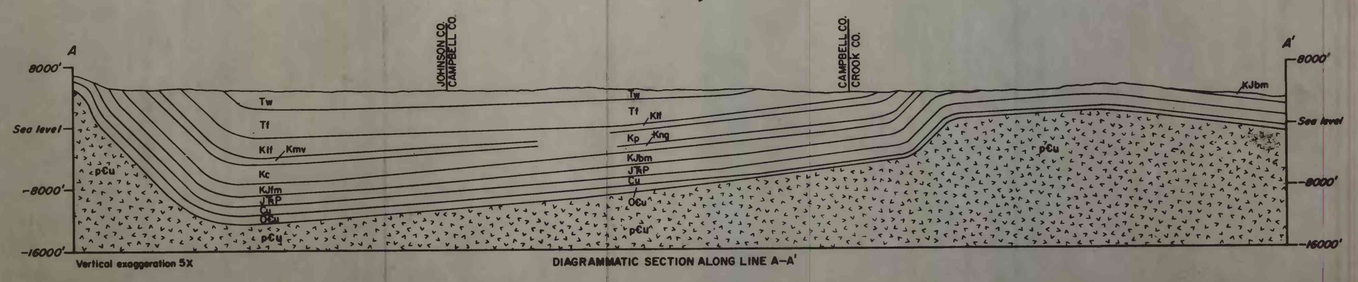

FIGURE 2.--GEOLOGIC MAP AND DIAGRAMMATIC SECTION OF THE POWDER RIVER BASIN, WYOMING AND MONTANA

EXPLANATION

TERTIARY

Oligocene and Miocene

Tmo — Miocene and Oligocene rocks

Eocene

Twm / TwK / Tw — Wasatch Formation
Twm; Moncrief Member
Twk; Kingsbury Conglomerate Member

Paleocene

Tf — Fort Union Formation

CRETACEOUS

Klf — Lance Formation and Fox Hills Sandstone
Includes the Hell Creek Formation and the Bearpaw Shale in the northwestern part of the Basin

WEST SIDE OF BASIN

Kmv — Mesaverde Formation
Includes Teapot Sandstone Member near top, Parkman Sandstone Member at base

Kc — Cody Shale

EAST SIDE OF BASIN

Kp — Pierre Shale

Kng — Niobrara Formation, Carlile Shale, and Greenhorn Formation

JURASSIC AND CRETACEOUS

KJfm — Frontier Formation, Mowry Shale, Newcastle Sandstone and Skull Creek Shale (Thermopolis Shale) and Cloverly and Morrison Formations

KJbm — Belle Fourche and Mowry Shales, Newcastle Sandstone, Skull Creek Shale, and Fall River, Lakota, and Morrison Formations

PERMIAN, TRIASSIC AND JURASSIC

JTRP — Jurassic, Triassic and Permian rocks undivided
Includes the Sundance and Gypsum Spring Formations of Jurassic age, the Chugwater Formation of Triassic age, and an unnamed sequence of rocks of Permian age

JTRP — Jurassic, Triassic, and Permian rocks undivided
Includes the Sundance and Gypsum Spring Formations of Jurassic age, the Spearfish Formation of Triassic and Permian age, and the Minnekahta Limestone and Opeche Shale of Permian age

MISSISSIPPIAN AND PENNSYLVANIAN

Cu — Carboniferous rocks, undivided
Includes the Tensleep Sandstone and Amsden Formation of Pennsylvanian age and the Madison Limestone Of Mississippian age. In the Laramie Mountains, includes the the Casper Formation of Permian, Pennsylvanian, and Mississippian age, the Madison Limestone of Mississippian age, and a thin sequence of rocks of Cambrian age

Cu — Carboniferous rocks, undivided
Includes the Minnelusa Formation of Permian and Pennsylvanian age and the Pahasapa and Englewood Limestones of Mississippian age. In the Hartville uplift, includes the Hartville Formation of Permian, Pennsylvanian, and Mississippian age, and the Guernsey Formation of Mississippian and Devonian age

CARBONIFEROUS

CAMBRIAN AND ORDOVICIAN

O€u — Ordovician and Cambrian rocks, undivided
Includes the Bighorn Dolomite of Ordovician age, the Gallatin Limestone of Ordovician and Cambrian age, and the Gros Ventre Forma- and Flathead Sandstone of Cambrian age

O€u — Ordovician and Cambrian rocks, undivided
Includes the Whitewood Dolomite of Ordovician age and the Deadwood Formation of Cambrian age

IGNEOUS AND METAMORPHIC ROCKS

TERTIARY

Ti — Tertiary intrusive rocks

PRECAMBRIAN

p€u — Precambrian rocks, undivided

Contact

Fault