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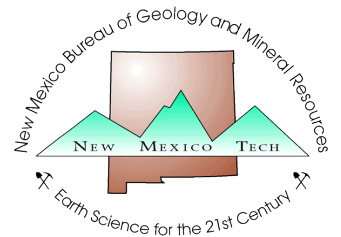
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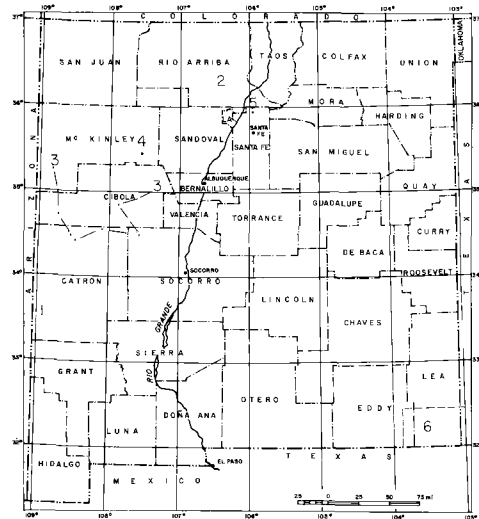
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Modifications of stratigraphic nomenclature in New Mexico for 1980

by M. E. MacLachlan, Geologic Names Committee, U.S. Geological Survey, Denver, CO

No new geologic units were formally named in New Mexico during 1980. However, age assignments, areal distribution, contacts, or new type sections were modified and clarified for the following established units: Bloodgood Canyon Tuff (1), Cutler Formation (2), Dakota Sandstone and Mancos Shale (3), Juana Lopez Member of Mancos Shale (4), Pojoaque Member of Tesuque Formation (5), and Salado Formation (6). General locations of reports in which these units are discussed are shown on the index map. Only published reports are included in this compilation. Abstracts, theses, open-file reports, and guidebooks are not considered suitable formats for defining new stratigraphic units or for modifying existing ones.

The geologic units are listed alphabetically. The first paragraph under each heading after the full reference summarizes what modification was made and how that modification compares with most recent use. A second paragraph, if one is included, is a comment by the compiler.



Bloodgood Canyon Tuff

Ratté, J. C., 1980, *Geologic map of the Saliz Pass quadrangle, New Mexico: U.S. Geological Survey MF-1203*

In the Mogollon-Datil volcanic field a K-Ar age of 27.4 ± 0.9 m.y. and a fission track age of 27.4 ± 3.4 m.y. on zircon was obtained on Bloodgood Canyon Tuff, an ash-flow tuff sheet. These dates give the formation an Oligocene age, rather than Oligocene to Miocene age as previously thought (Elston and others, 1976).

Cutler Formation

Fracasso, M. A., 1980, *Age of the Permo-Carboniferous Cutler Formation vertebrate fauna from El Cobre Canyon, New Mexico: Journal of Paleontology, v. 54, no. 6, p. 1,237-1,244*

Red beds called Cutler Formation and Cutler-Abo sedimentary unit (or sequence) in El Cobre Canyon, Rio Arriba County, north-central New Mexico contain plant fossils of Pennsylvanian (Des Moinesian or Missourian) age and vertebrate fossils of Pennsylvanian (possibly Des Moinesian and Missourian) to Permian (Wolfcampian) age.

Comment: Both the Cutler and Abo have previously been assigned to the Lower Permian. The Cutler at its type locality in southwest Colorado is still considered Permian. Cutler has been mapped in El Cobre Canyon and at other localities in Rio Arriba County (Wood and Northrop, 1946; Dane and Bachman, 1965; Santos and others, 1975). The Cutler-Madera contact (or Permian-Pennsylvanian contact) has been arbitrarily placed at the top of the first limestone below a thick sequence of red-brown sandstone, arkose mudstone, and siltstone. No limestones were observed in El Cobre Canyon according to Langston (in Fracasso, 1980, p. 1). Smith and others (1961, p. 7) reported a deeply scoured contact between their Cutler and the plant-bearing Pennsylvanian rocks in El Cobre Canyon. Some doubt exists as to whether all these beds called Cutler in El Cobre Canyon belong only to the Cutler Formation.

Dakota Sandstone and Mancos Shale

Hook, S. C., Cobban, W. A., and Landis, E. R., 1980, *Extension of the intertongued Dakota Sandstone-Mancos Shale terminology into the southern Zuni Basin: New Mexico Geology v. 2, no. 3, p. 42-44, 46*

Six named units are represented in this intertongued sequence: 1) Oak Canyon Member (base) and 2) Cubero Tongue of the Dakota Sandstone, 3) Clay Mesa Tongue of the Mancos Shale, 4) Paguate Tongue of the Dakota, 5) Whitewater Arroyo Tongue of the Mancos, and 6) Twowells Tongue (top) of the Dakota. The lower three units are less extensive than the upper three. The lower three can be separated only where a middle unit, the Cubero Tongue of the Dakota, is present. South and west of Laguna, the Cubero pinches out, and the underlying Oak Canyon Member of the Dakota cannot be separated from the overlying Clay Mesa Tongue of the Mancos. The Paguate Tongue of the Dakota, which overlies the Clay Mesa, can be recognized in the Zuni-Gallup coal field; it cannot be separated from the main body of the Dakota north of Atarque in the Zuni Basin. The upper two units of this sequence, the Whitewater Arroyo Tongue of the Mancos and the Twowells Tongue of the Dakota, are the most extensive; they can be recognized in the San Juan and Zuni Basins. This entire sequence, formerly thought to be as old as late Aptian or late Early Cretaceous, is Cenomanian or early Late Cretaceous age as determined from am-

monite, gastropod, bivalve, and palynomorph fossils.

Juana Lopez Member of Mancos Shale

Hook, S. C., and Cobban, W. A., 1980, *Reinterpretation of type section of Juana Lopez Member of Mancos Shale: New Mexico Geology, v. 2, no. 2, p. 17-22*

The type section of the Juana Lopez Member (middle Turonian) is recognized as being in sec. 33, T. 15 N., R. 7 E., following E. G. Kauffman (Dane and others, 1966), rather than being in sec. 32, T. 15 N., R. 7 E. as originally designated by C. H. Rankin in 1944. The lower contact of the Juana Lopez is modified from Rankin's and Kauffman's interpretations to include within the member 96 ft of dark-gray, noncalcareous shale with calcarenite as beds and lenses that lies beneath the 10-ft-thick calcarenite previously used as the base of Juana Lopez. The redefinition of the Juana Lopez by Hook and Cobban is in close agreement with the lithology of the sequence assigned to the member at the reference section (sec. 14, T. 19 N., R. 1 W.) designated by Dane and others (1966) near Cuba in the San Juan Basin. The Juana Lopez overlies the lower member and underlies the upper member of the Mancos.

Pojoaque Member of Tesuque Formation

Naeser, C. W., Izett, G. A., and Obradovich, J. D., 1980, *Fission track and K-Ar ages of natural glasses: U.S. Geological Survey, Bull. 1498, 31 p.*

Miocene dates of 11.4 ± 1.1 m.y. on zircon and 8.0 ± 1.2 m.y. on hydrated glass shards were obtained from ash in the Pojoaque Member and 9.4 ± 0.9 m.y. on zircon and 6.2 ± 0.6 m.y. on hydrated glass in ash interlayered with the Pojoaque in the Española Basin. Pojoaque was considered upper Miocene and lower Pliocene by Galusha and Blick, who named it in 1971.

Salado Formation

Register, J. K., and Brookins, D. G., 1980, *Rb-Sr isochron age of evaporite minerals from the Salado Formation (Late Permian), southeastern New Mexico: Isochron/West, no. 29, p. 39-42*

Dates of 214 ± 15 m.y. were obtained on sylvite-halite, anhydrite, and polyhalite in 41 samples from 5 drill holes in the Salado Formation. According to Register and Brookins (1980), "These dates . . . may reflect either final potash ore formation . . . or post-sedimentation, diagenetic-epigenetic events lasting . . ." to the Triassic. Salado samples were collected from drill holes north of 32° W. and east of 104° N. within the dashed boundary line shown.

ACKNOWLEDGMENTS—E. H. Baltz and R. B. O'Sullivan of the U.S. Geological Survey, Denver, Colorado, critically reviewed this paper.

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Geographic names

U.S. Board on Geographic Names

Mockingbird Gap—pass, elevation 1,631 m (5,350 ft), connects the Tularosa Valley and Jornada del Muerto between the Oscura and San Andres Mountains 54 km (34 mi) southeast of San Antonio, Socorro County, New Mexico; secs. 5, 8, 16, and 17, T. 9 S., R. 5 E.; New Mexico Principal Meridian 33° 34' 00" N., 106° 27' 15" W. (north end), 33° 32' 10" N., 106° 26' 15" W. (south end).

Ritas Draw—watercourse, 17.7 km (11 mi) long in Tularosa Valley, heads at 32° 58' 25" N., 105° 57' 45" W., trends southwest to join Malone Draw at the head of the Lost River 14.5 km (9 mi) west of Alamogordo, Otero County, New Mexico; sec. 27, T. 16 S., R. 9 E.; New Mexico Principal Meridian 32° 54' 02" N., 106° 06' 48" W.

by Stephen J. Frost,
NMBMMR Correspondent

Correction

In the May 1981 issue of *New Mexico Geology*, under the column on geographic names "Compana" should have read "Campana."

MINING REGISTRATIONS (continued)

Date and operation	Operators and owners	Location
2-5-81 barite	Operator—Holiday, G.L.G. Development Corp., P.O. Box 1036, Socorro, NM; Gen. Mgr.: Glen E. Stevenson, 3 mi east of Magdalena, NM, phone: 854-2512; Person in charge: Jim Haines, Los Lunas, NM Owner—Don Fingaldo, Truth or Consequences, NM	Sierra Co.; sec. 6, T. 15 S., R. 3 W.; Caballo mining district; 10 mi east and 10 mi south of Truth or Consequences, NM; barite; underground; state land
2-17-81 silver, gold	Operator—Margery mine, Trans-World Metals, P.O. Box 2003, Truth or Consequences, NM; Gen. Mgr.: Embree H. Hale, Jr., P.O. Box 445, Truth or Consequences, NM, ph: 895-5319 Property owner—Embree H. Hale, same address and phone	Sierra Co.; sec. 13, T. 15 S., R. 9 W.; Kingston mining district; type—underground; works—adit; go to north Percha Road, between Hillsboro and Kingston, go to Percha Cabin, turn north 1 mi; federal land
2-17-81 silver	Operator—Triple Cross exploration drift, Sunspot Minerals, Inc., Box 117, Winston, NM 87943; Gen. Mgr.: Caesar Fulton, 205 Gibson St., Truth or Consequences, NM, ph: 894-7128 Property owner—National Forest Service	Sierra Co.; sec. 22, T. 10 S., R. 9 W.; Winston (Grafton) mining district; 1 mi beyond the old townsite of Grafton which is on Turkey Creek, approximately 10 mi west-northwest of Winston; silver; type—exploration; federal land
2-17-81 uranium	Operator—H-1 mine, Anaconda Copper Co., Box 638, Grants, NM; Mgr.: R. D. Lynn, same address, ph: 876-2211; Mine Supt.: J. Anderson, same address and phone; Other official: Jack E. Sabo, Chief Safety Engr.; Rudy Garza, Assist. Safety Engr., same address	Valencia Co.; secs. 2 and 3, T. 10 N., R. 5 W.; Laguna mining district; type—underground; leave I-40 at Laguna exit; west on old US-66 to NM-279; north 2.9 mi then turn right on dirt road and proceed 4.8 mi to mine site; private land
3-3-81 copper, lead zinc	Operator—Royal John group, Ree-Co Minerals, Inc., 2527 Virginia NE, Suite H, Albuquerque, NM 87110; Gen. Mgr.: Hal McGarr, same address, ph: 293-1520; Person in charge: Bakke & Assoc., same address and phone; Gen. Supt.: Burt Bakke, same address and phone; Other official: Oliver C. Reese, same address and phone Property owner—Ree-Co Minerals, Inc., same address	Grant Co.; secs. 8, 9, 16, 17, T. 17 S., R. 9 W.; Swartz mining district; copper, lead, zinc; type—base metal; works—underground; 40 mi east of Silver City, NM; federal land
3-3-81 silver, copper	Operator—Silver Monument, FMC Minerals, 575 Union Blvd. #300; Lakewood, CO 80228; Gen. Mgr.: Cecil Alvarez, same address, ph: 303-989-5800; Person in charge: Lee Davis, same address and phone; Other officials: A. T. Bogen, V.P., First Mississippi Corp., P.O. Box 1249, Jackson, Miss. 39205 Property owner—FMC Minerals, same address	Sierra Co.; sec. 19, T. 11 S., R. 8 W.; Hot Springs mining district; silver, copper; type—underground; west on NM-52 to Chloride, then west 14 mi up Chloride Creek; private land
3-3-81 mill	Operator—Silver Bar Project—Chloride Mill, FMC Minerals, 575 Union Blvd. Suite 300; Lakewood, CO 80228; Gen. Mgr.: Cecil Alvarez, same address; Other officials: A. T. Bogen, V.P., First Mississippi Corp., P.O. Box 1249, Jackson, Miss. 39205 Property owner—FMC Minerals, same address	Sierra Co.; sec. 20, T. 11 S., R. 8 W.; Hot Springs mining district; silver, copper, gold; exploration only; NM-52 west from Truth or Consequences 40 mi to Chloride; 1 ton per hr capacity; private land
3-3-81 uranium	Operator—Piedra Triste, Todilto Exploration & Dev., 3810 Academy Parkway St. NE, Albuquerque, NM 87109; Gen. Mgr.: George Warnock, same address, ph: 345-8391 Property owner—Todilto Exploration & Development Corp., same address	McKinley Co.; sec. 30, T. 13 N., R. 9 W.; Grants mining district; uranium; NM-53 north from Milan, NM, 11 mi, left on dirt road leading to Hope and Reserve mines (1 mi NW of NM-53); private, federal land

(TO BE CONTINUED NEXT ISSUE)

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