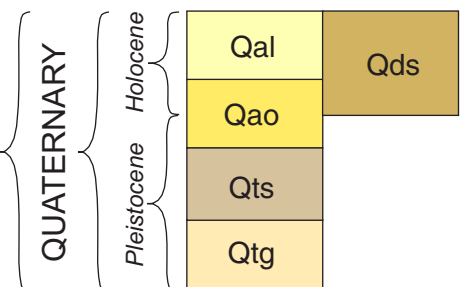
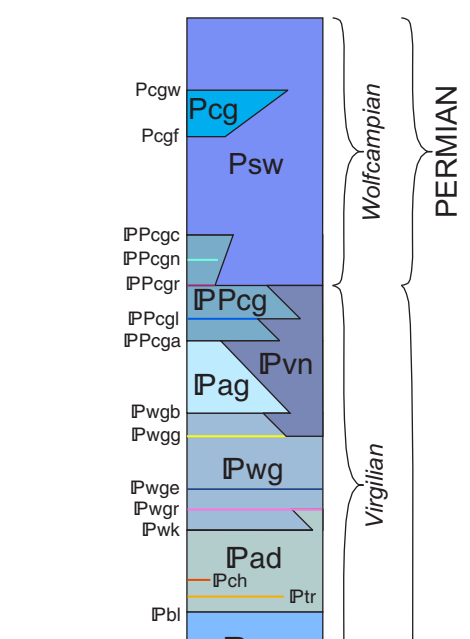


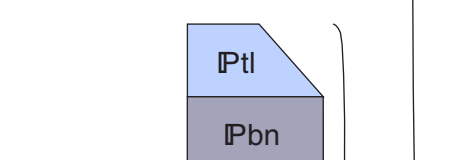
### CORRELATION OF UNITS



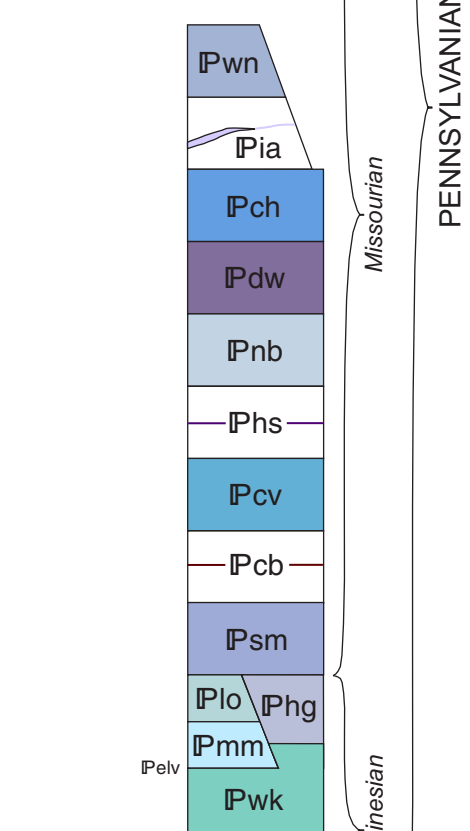
## UNCONFORMITY



## UNCONFORMITY



## UNCONFORMITY



## DESCRIPTION OF UNITS

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| Qal | ALLUVIUM—Clay, silt, sand, and some gravel composed of locally derived, unconsolidated sediment deposited in channels and on flood plains of modern rivers and streams.   |
| Qao | OLDER ALLUVIUM—Clay, silt, sand, and some gravel composed of locally derived, unconsolidated sediment located between 1.5 to 5 meters above, and adjacent to, modern flood plains and alluvial valleys.   |
| Qts | TERRACE SAND—Mostly unconsolidated sand and silt, with little clay- or gravel-sized material. Unit formed at several levels along former courses of present-day rivers and streams.   |
| Qtg | TERRACE GRAVEL—Mostly unconsolidated gravel and sand, with minor silt- and clay-sized material; deposited well above and at several levels along the former courses of modern rivers and streams.   |
| Qds | DUNE SAND—Unconsolidated, fine- to very fine-grained sand and silt formed into definite dune structures and ridges. Deposits mostly likely derived from aeolian reworking of modern and older alluvial and dune deposits. Older deposits are mostly more recently formed terraces.  |
| Psw | STILLWATER FORMATION—a series of red to gray mudstones and claystones interbedded with fine-grained, lenticular quartzite and very fine-grained, micaceous, claystone- to fine-crystalline, limestone and dolomite dolostones.<br>The Stillwater Formation is a sequence of beds defined and named by type section in Patterson (1933), takes stratigraphic preference over nearly the same lithologic interval named as the Oscar Group by Shelton and others (1985). As per Patterson (1933), the top of the Stillwater Formation is defined as the top of the Falls Member. The base of the Stillwater is the base of the Stillwater is locally variable and dependent on when various major tectonics of the Cretaceous and Cenozoic Groups began to pinch out to the south. Consequently, in the far northern part of the sheet, the base of the Stillwater is first recognized by the presence of the Stillwater. Subsequently, the Stillwater is traced to the Cottonwood bench just north of the Cimarron River, the base of the formation becomes fixed as the base of the Stillwater. |

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| Pc | <p><b>CHASE GROUP</b>—In the current map area, the Chase Group is represented only by the Fort Riley Member (Pc) of the Barneston Limestone and probably the lower part of the Doyle Shale. The Chase Group is a very thin unit, and is not shown on the 1:250,000 scale block diagram.</p> <p>The top of the Chase Group is represented by the top of the Winfield Limestone, which crops out further to the east of this sheet.</p> <p>The group pinches out just north of the Cimarron River where it interfingers with lithologic elements of the Stillwater Formation.</p> <p>Only the basal 8 meters of the Chase Group is present.</p> |
| Pp | <p><b>COUNCIL GROVE GROUP</b>—The group is near complete along the northern border of the quad, being comprised of, in descending order: the Beatle Formation, Eskridge Shale, Genoa Formation, Roca Shale, and the Fort Union Formation. The Beatle, Eskridge, and Roca Shales are the only the more prominent limestone members are shown.</p> <p>Both the Coturnow Limestone (Pp) of the Beatle Formation and the Neva Limestone (Pp) of the Roca Shale are shown in the block diagram.</p>  |

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| Piv | <p><b>VANOS FORMATION</b>—Mostly multicolored mudstones and mudclaystones interbedded with lenticular, fine-grained, argillaceous quartz arenites. Minor red to reddish-brown chert layers occur in the middle of the unit. The sandstones in the lower half of the formation become slightly arkosic in the lower part of the shales. Limestone-clast conglomerates are rare and show a similar distribution as the arkoses. The top to the formation is placed at the base of the Red Eagle Limestone, whereas the base of the formation is placed at the top of the Reading Limestone because most lithostratigraphic elements of the Council Group, Admire, and Watauska Groups pinch out to the south.</p> <p>Total thickness of the Vanoss Formation ~70 meters.</p> | <p>Patterson, J.J., 1933. Permian of Logan and Lincoln Counties, Oklahoma: American Association of Petroleum Geologists Bulletin, 17, p. 241-256.</p> <p>Rees, E.R., 1954. Geology and mineral resources of Osage County, Oklahoma: Oklahoma Geological Survey Bulletin, 71, 120 p.</p> <p>Shelton, J.W.; Ross, J.S.; Gorden, A.J.; and Franks, J.J., 1985. Geology and mineral resources of Osage County, Oklahoma: Oklahoma Geological Survey Bulletin, 137, 85 p.</p> |
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- Page** **ADMIRE FORMATION**—Composed of undifferentiated red and gray shales, fine-grained sandstones, and undistinguishable thin, fossiliferous limestones. Unit bounded at top by the base of the Americus Limestone of the Council Grove Group, and the base occurs at the top of the Brownsville Limestone of the Wabasa Group. The Admire pinches out into the Vanoss Formation approximately 11 km north of Stroud.

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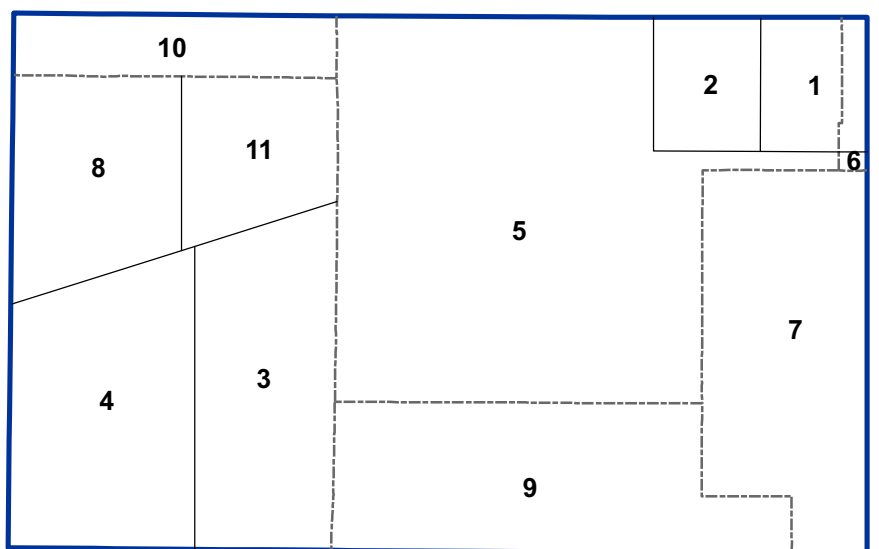
**GEOLOGIC MAP OF THE BRISTOW 30X60-MINUTE QUADRANGLE,  
CREEK, LINCOLN, OKFUSKEE, OKMULGEE, PAYNE, AND TULSA COUNTIES, OKLAHOMA**

Thomas M. S.

## SYMBOLS

- · — · — Unit contact; dashed were approximate  
 — + — · — Normal fault; dashed where approximate  
                   dotted where concealed; bar and ball on  
                   downthrown side  
 — · — · — · — Facies contact; approximately located

#### MAP REFERENCES



- [illegible]