Subsurface Geophysical Cross Section of Pennsylvanian-Aged Strata (Upper Cherokee Through Shawnee Groups) in Eastern Kansas Extending from East-Central McPherson County, Kansas, to Central Labette County, Kansas

Stephan C. Oborny, Franek Hasiuk, Anthony L. Layzell, Jon J. Smith

Datum = top of Hushpuckney Shale Member

Note: See text for further discussion of the group boundaries.

Northwest
E
McPherson County
15-113-21317
Marion County
15-115-20989
15-115-20803
(no scale on log)
15-115-21485
15-115-21491
15-115-21395
15-115-21368-0000
Marion County
15-115-21495
Butler County
15-015-22115
15-015-22979
Greenwood County
Cross Section F-F′ Intersect
15-073-24163
15-073-24116
15-073-24029
Cross Section G-G′ Intersect
15-073-23359
Driller's Log Notes in Red
(no scale on log)
15-073-23539
15-073-24070-0000
Greenwood County
Queen Hill
Heebner
15-073-24074
Elk County
15-049-22510
Wilson County
15-205-27254
15-205-27019
15-205-27220
15-205-25501
15-205-21452
(no scale on log)
15-205-25221
15-205-26447
15-205-27743
15-205-27770
15-205-26228
(no scale on log)
Cross Section H-H′ Intersect
Cross Section I-I′ Intersect
15-205-25333
(no scale on log)
Wilson County
15-205-25818
Labette County
~5.0 miles (~8 km)
15-099-23702
15-099-23832
15-099-24036
Driller's Log Notes in Red
15-099-23678
?
15-099-24219
Driller's Log Notes in Red
15-099-23891
15-099-23852
15-099-23999
15-099-24148
15-099-23734
15-099-23483
15-099-23491
0.79 miles apart (1.3 km)
separated by NW-SE trending stream
Galesburg Shale
Lime
Labette Shale
Fort Scott Limestone
unnamed ls
CHEROKEE GROUP
Nomenclature
(revised herein)
Shawnee Group
Douglas Group
Lansing Group
Kansas City Group
Zarah Subgroup
Linn Sgp.
Bronson Subgroup
Pl. Grp.
Marmaton Group
undifferentiated lower Penn.
Mississippian
Southeast
E′
Missouri
D
E
Kansas
Oklahoma

Abbreviations:

Fm.	Formation
Lwr.	Lower
Ls.	Limestone
Sh.	Shale
Sgp.	Subgroup
Altam.	Altamont Limestone
Dew.	Dewey Limestone
Den.	Dennis Limestone
Far.	Farley Limestone Member
H.	Hertha Limestone
Hep.	Hepler
Isl.	Island Creek Shale Member
K.C. Grp.	Kansas City Group
Lib.	Liberty Memorial Shale
Lwr. Sh. Mbr.	Lower Shale Member
Marm. Grp.	Marmaton Group
Mid. Lst. Mbr.	Middle Limestone Member
Penn.	Pennsylvanian
Pl. Grp.	Pleasanton Group
Wy.	Wyandotte Limestone

CROSS SECTION LEGEND

- 🟦 Predominantly carbonate interval. Some intervals may include black fissile shales (i.e., highstand shale).
- ⬜ Intervals in which accommodation is predominantly filled by argillaceous and/or arenaceous shale lithologies. These intervals may include carbonate lenses (e.g., Cherryvale and Chanute Shale formations).
- ★ Indicates an intersect with another cross section.
- — Group and/or subgroup boundary
- ⊗|⊙ Postulated transform faults (e.g., Fall River Tectonic Zone)
- ▤ Argillaceous Shale
- ▦ Arenaceous Shale
- ⁘ Sandstone
- ■ Black Fissile Shale
- ▦ Carbonate

Modified for publication. Petrophysical cross section originally released in non-peer reviewed open-file report:

Oborny, S. C., and Hasiuk, F., 2022, Lithostratigraphic correlations of the upper Desmoinesian and Missourian stages (Pennsylvanian) in eastern Kansas: Kansas Geological Survey, Open-File Report 2022-2, 9 p., 10 plates.