



State Geological Survey of Kansas
Bulletin 81, Plate 1

Geologic Map Norton County and Northwestern Phillips County, Kansas

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Explanation

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| RECENT | | Quarry in Ogallala volcanic ash |
| | | Outcrop of Ogallala volcanic ash |
| QUATERNARY | | Quarry in soft Ogallala limestone |
| | | Quarry in silicified Ogallala |
| | | Quarry in silicified Niobrara |
| | | Oil well |
| PLEISTOCENE | | Dry hole |
| | | Plugged oil well |
| | | Federal or State highway |
| | | Graded road |
| | | Ungraded road |
| | | Section line (no road) |
| | | Township line (no road) |
| | | Perennial stream |
| | | Intermittent stream |
| | PLIOCENE | |
| | | Pierre shale
Dark-colored, noncalcareous shale, with some bentonite and thin cherty shale beds. Yields little or no water to wells. Sharon Springs shale member. |
| GULFIAN | | Niobrara formation
Chalk and cherty shale. Yields small supplies of mineralized water to deep drilled wells at some places. Smoky Hill chalk member. |
| | | Scale in miles |

Drainage from aerial photographs of the U.S. Dept. of Agriculture
Base modified from maps by State Highway Commission of Kansas