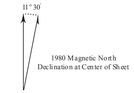
North Dakota Geological Survey
100K Series: Elgn - c

Lignite Reserves
Elgin 100K Sheet, North Dakota



Edward C. Murphy, State Geologist
Lynn D. Helms, Director Dept. of Mineral Resources

Edward C. Murphy

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The Elgin 100K sheet encompasses the southern two-thirds of Grant County and the western portion of Sioux County. There is very little economically mineable coal in this sheet, only about 45 million tons (Murphy, 2006). The economic deposits are all within a 10-mile radius of Elgin. The Davenport Deposit (T.134N, R.90W) contains a reserve of 16.8 million tons making it the largest deposit in this sheet. Only two other deposits, Elgin Northeast (T.134N, Rs.88 and 89W) and Pretty Rock (Ts.132 and 133N, R.90W), contain more than 10 million tons (Murphy, 2006). None of the mineable coals in this area is more than 10 feet thick.

According to the records of the North Dakota Public Service Commission, 27 coal mines are known to have operated at one time or another in this map area. Most mines were located between Carson and New Leipzig. The available information indicates the majority of these were small surface operations that mined less than 1,000 tons of coal per year and eight were underground mines. The Davenport Mine (T.134N, R.90W, section 34) was the largest, producing up to 17,000 tons of coal per year. This mine was in operation from 1926 to 1972.

References
Murphy, E.C., 2006, The lignite reserves of North Dakota: North Dakota Geological Survey Report of Investigation no. 104, 141 p.

UNIT DESCRIPTIONS

Geology Undifferentiated

Area of Mined Lignite

L **Economic Coal Deposits**

Economic coal deposits are those that meet the minimum criteria established by coal companies operating surface mines in North Dakota. These economic criteria include a minimum cumulative coal thickness of ten feet-typicallyoccuring in less than two beds, a minimum individual bed thickness of at least 2.5 feet, a ratio of overburden to coalthickness of not more than 10:1, a minimum of 25 feet of overburden, and a maximum depth to coal of approximately 150 feet.

Geologic Symbols

Extent of Local Lignite Reserves

Data Points
Includes coal exploration NDGS/USGS drill holes, sub-surface mineral drill holes, oil & gas wells, and NDSWC drill holes.

Abandoned coal mine plotted from the records of the Abandoned Mine Land Division of the North Dakota Public Service Commission.

Other Features

- Water
- Water - Intermittent
- River/Stream - Perennial
- River/Stream - Intermittent
- Section Corners
- County Boundary
- State Highway
- Paved Road
- Unpaved Road

Scale 1:100,000

0 1 2 3 4

Miles

Mercator Projection 1927 North American Datum
Standard parallel 46°00 Central meridian 101°30
USGS NED Shaded Relief - Vertical Exaggeration 9x

The North Dakota Geological Survey can publish on demand 1:24,000 scale quadrangle maps (24k - c series) of the mineable coal deposits in the Elgin 100k sheet. These maps include information on mineable coal thicknesses.

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Cartographic Compilation: Elroy L. Kadrmas