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Herrin Coal Sulfur MARION County

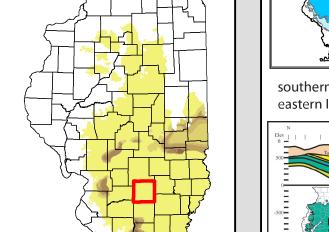
County Coal Map Series Andrew Louchios, Scott Elrick, Chris Korose, David Morse

Map construction: October 29, 2009

This product is under review and may not meet the standards of the Illinois State Geological Survey.

County coal maps and select quadrangle maps available as downloadable PDF files at: http://www.isgs.illinois.edu/maps-data-pub/coal-maps/county-index.shtml





Indiana

The Herrin Coal underlies about two thirds of Illinois as well as portions of western Indiana and western Kentucky. The coal crops out along the margins of the Illinois Basin and reaches a maximum depth in Illinois of about 1,300 feet. (See Fig 1. and Fig 2.) The Herrin Coal is a normal brightbanded coal. Its lower portion contains a prominent claystone parting (the "blue band") that normally is 1-3 inches thick. It averages more than 6 feet thick in extensive areas and locally reaches 15 feet. It is thin in much of central Illinois but has been extensively mined in western, west-central,

southern, and northern Illinois, as well as in the southern part of the Danville region of eastern Illinois. In some places the coal is cut out by channels filled with the Anvil Rock Carthage Ls much as a mile wide and 60-

Original Mined Remaining Available Avail. w/ potential restr. 12.5 208.6 Sandstone Member. In parts is overlain by relatively thick bodies of the gray shale of up to a few tens of greater than 66 inch-

of Illinois, silty gray shale as feet it has a much lower sulfur content than elsewhere. The gray shale over- es. (Modified from much as 100 feet thick over- lies the coal principally in parts of Williamson, Franklin, Jefferson, Madison, ISGS Pub. IM 120, lies the Herrin Coal. Associ- St. Clair, eastern Macoupin, and S. Vermilion. Generally, however the Herrin Treworgy, et al) ated with this shale is a chan- Coal is overlain by either the Anna Shale Member (black fissile shale) or the nel sandstone commonly as Brereton Limestone Member. (Hopkins, 1968 - B95, See Fig 4.)

80 feet thick mapped as Anvil The original resource of Herrin Coal in the State of Illinois totals 88.5 billion References: Rock Sandstone and may be tons, of which 9.4 billion have been mined. Approximately 58% of the original

Pennsylvanian Stratigraphic Column deposit (e.g. thick-Central and Southern Northern and Western Eastern and Southern ness, depth, in-place tonnage, stability Galum LimestonAllenby Coal of bedrock overburden) are comparable nvil Rock Sandston to other coals cur-Lawson Shale Conant Limestone rently being mined in the state. Of these Anna Shale Anna Shale resources, 21 billion tons occur in coal 42 to 66 inches thick and 30 billion tons occur in thicknesses Excello Shale Houchin Creek Coal

- Handbook of Illinois Stratigraphy, 1975, Illinois State Geological Survey Bulletin 95, 261p. contemporaneous with the Herrin Coal resources, 51 billion tons, are considered available for mining. (See - Treworgy, C.G., C.P. Korose, C.A. Chenoweth, and D.L. North, 1999a, Availability of the Herrin coal. In areas where the coal Fig 3.) Available means that the surface land-use and geologic conditions re- Coal for mining in Illinois: Illinois State Geological Survey Illinois Minerals 120, 54 p.

Coal Sulfur Less than or equal to 0.40 (lb S per MM Btu) 0.41 to 0.60 (lb S per MM Btu)

0.61 to 0.83 (lb S per MM Btu) 0.84 to 1.24 (lb S per MM Btu) 1.25 to 1.67 (lb S per MM Btu)

1.68 to 2.50 (lb S per MM Btu) Greater than 2.50 (lb S per MM Btu)

and private sources and have varying degrees of completeness and accuracy. They present interpretations of the geology of the area and are based on available data.

The maps and digital files of this study were compiled from data from a variety of public

However, these interpretations are based on data that may vary with respect to accuracy of geographic location, type, quantity, and reliability, as they were supplied to the Illinois State Geological Survey. Consequently, the accuracy of the interpreted features shown in these files is subject to the limitations of the data and varies from place to place. Contoured features less than 7 million square feet (about 1/2 mile square) in area may not be accurately portrayed or resolved. This data set provides a large-scale conceptual model of the geology of the area on which to base further work.

Disclaimer

These data are not intended for use in site-specific screening or decision-making.

The Illinois State Geological Survey and the University of Illinois make no guarantee, expressed or implied, regarding the correctness of the interpretations presented in this data set and accept no liability for the consequences of decisions made by others on the

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