ILLINOIS AT URBANA-CHAMPAIGN Institute of Natural Resource Sustainability William W. Shilts, Executive Director ILLINOIS STATE GEOLOGICAL SURVEY E. Donald McKay III, Interim Director For more information contact: Institute of Natural Resource Sustainablity Illinois State Geological Survey 615 East Peabody Drive Champaign, Illinois 61820-6964

(217) 333-4747

http://www.isgs.illinois.edu

Springfield Coal Sulfur MARSHALL County

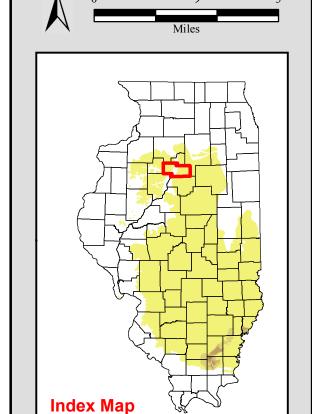
County Coal Map Series Andrew Louchios, Scott Elrick, Chris Korose, David Morse

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

33N 2E 33N 1W 33N 2W 5N 9E BUREAU 15N 8E **PUTNAM** 32N 2W 32N 2E 32N 1E 32N 1W LAŠALLE 14N 7E Leonore 14N_{10E} Bradford STARK 31N 2E 31N 1W 31N 1E Lostant 31N 2W 13N 10E Magnolia 13N 7E 13N 9E 13N 8E 30N 1/W 30N 1E 30N-2W-MARSHALL Sparland 12N 7E 12N 9E 12N 8E Greater than 2.50 (lb S per MM Btu) 29N 1E 29N 2W Greater than 2.50 (lb S per MM Btu) 11N 7E 11N 8E -Washburn 28N 1E 28N 1W 28N 2W 28N 3V 10N 7E 27N 1W/ 27N 4W Greater than 2.50 (lb S per MM Btu) MCLEAN TAZEWELI 26N 26N 1E 26N 1W 26N 2W Norwood



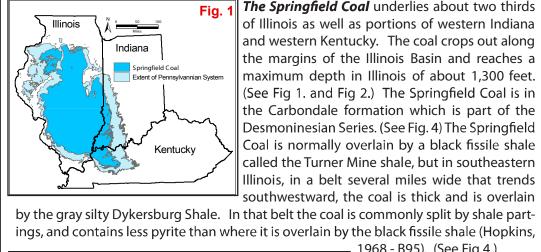
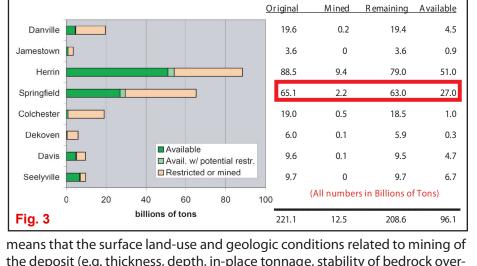


Fig. 1 The Springfield Coal underlies about two thirds of Illinois as well as portions of western Indiana and western Kentucky. The coal crops out along the margins of the Illinois Basin and reaches a maximum depth in Illinois of about 1,300 feet. (See Fig 1. and Fig 2.) The Springfield Coal is in the Carbondale formation which is part of the Desmoninesian Series. (See Fig. 4) The Springfield Coal is normally overlain by a black fissile shale called the Turner Mine shale, but in southeastern Illinois, in a belt several miles wide that trends southwestward, the coal is thick and is overlain by the gray silty Dykersburg Shale. In that belt the coal is commonly split by shale part-

968 - B95). (See Fig 4.) **T**he original resource of Springfield Coal in the State of Illinois totals 65.1 billion tons, of which 2.2 billion have been mined. Approximately **T**he Springfield Coal has been mined in Illinois for well over 100 years. The 41% of the original Springfield thickest resources of Springfield Coal in Illinois are found in the central part of



the deposit (e.g. thickness, depth, in-place tonnage, stability of bedrock overburden) are comparable to other coals currently being mined in the state. Of these resources, 23 billion tons occur in coal 42 to 66 inches thick and 4 billion tons occur in thicknesses greater than 66 inches thick.

along the Galatia Channel. Recent and historical mining of the coal has been

in the southwestern Members and Beds | Members and Beds | Members and Beds and extreme northern portions of the coal field. (Modified from ISGS Pub. IM Canton Shale St. David Limestone Turner Mine Shale Canton Shale St. David Limestone Turner Mine Shale 118, Treworgy, et al) Dykersburg Shale Excello Shale
Houchin Creek Coal
oodhouse Coal

Pennsylvanian Stratigraphic Column

Central and Southern Northern and Western Eastern and Southern

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)

the Illinois River. The

coal is thin or absent

- Handbook of Illinois Stratigraphy, 1975, Illinois State Geological Survey Bulletin 95, 261p. the state around the city of Springfield and in the southeastern part of the state - Treworgy, C.G., C.P. Korose, C.A. Chenoweth, and D.L. North, 1999a, Availability of the Springfield concentrated in these areas and in shallow surface minable deposits west of Coal for mining in Illinois: Illinois State Geological Survey Illinois Minerals 118, 43 p.

Map Explanation

The maps and digital files of this study were compiled from data from a variety of public 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. 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. These data are not intended for use in site-specific screening or decision-making.

Disclaimer

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

basis of the information presented here. © 2009 Board of Trustees of the University of Illinois. All rights reserved.