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

Herrin Coal Chlorine MARSHALL County

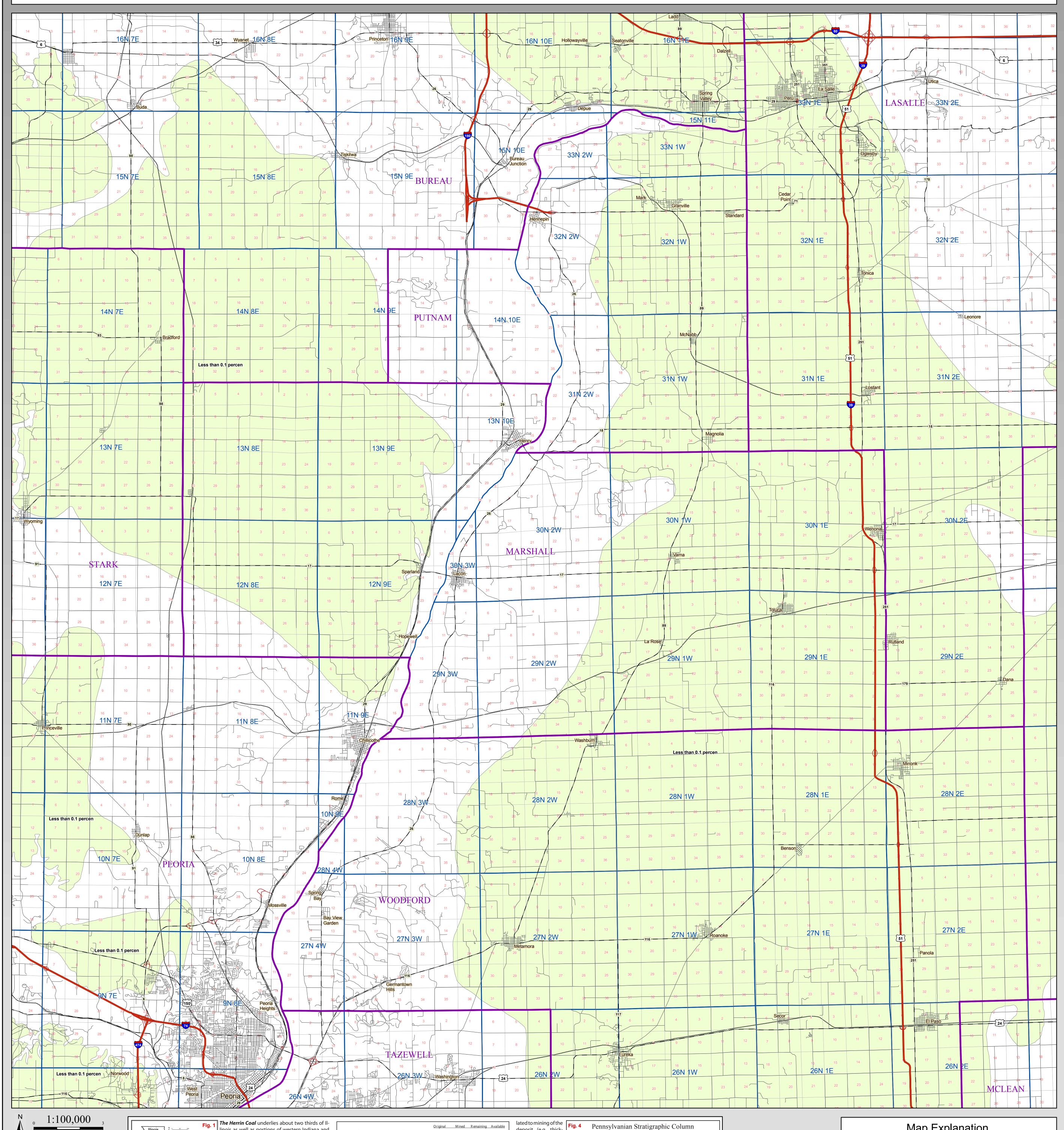
County Coal Map Series Andrew Louchios, Scott Elrick, Chris Korose, David Morse

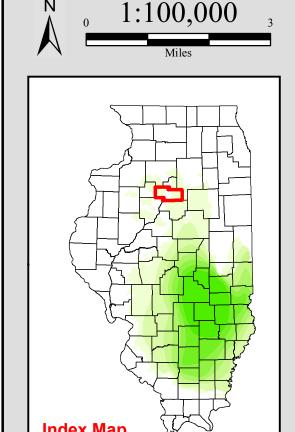
Map construction: October 29, 2009

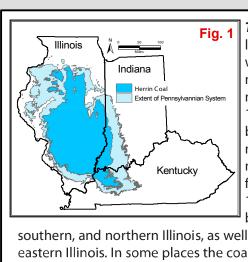
This product is under review and may not meet the

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



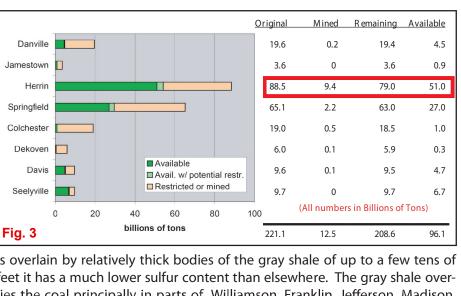




orth-south cross section of the Pennsylvanian System in Illinois

linois 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 . 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 Sandstone Member. In parts is over of Illinois, silty gray shale as feet i much as 100 feet thick over- lies t lies the Herrin Coal. Associ- St. Cl ated with this shale is a chan- Coal nel sandstone commonly as Brere much as a mile wide and 60-80 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 contemporaneous with the Herrin Coal resources, 51 billion tons, are considered available for mining. (See



everlain by relatively thick bodies of the gray shale of up to a few tens of tit has a much lower sulfur content than elsewhere. The gray shale over the coal principally in parts of Williamson, Franklin, Jefferson, Madison Clair, eastern Macoupin, and S. Vermilion. Generally, however the Herring is overlain by either the Anna Shale Member (black fissile shale) or the preton Limestone Member. (Hopkins, 1968 - B95, See Fig 4.)						
t it has a much lower sulfur content than elsewhere. The gray shale over the coal principally in parts of Williamson, Franklin, Jefferson, Madison Clair, eastern Macoupin, and S. Vermilion. Generally, however the Herrir al is overlain by either the Anna Shale Member (black fissile shale) or the	g. 3	billions of tons	221.1	12.5	208.6	96.1
·	t it has a much lo the coal princip Clair, eastern Ma al is overlain by o	ower sulfur content the pally in parts of Willia acoupin, and S. Verminether the Anna Shale	ian elsewh mson, Fra lion. Gene Member	nere. The nklin, Jef erally, how (black fis	e gray sha ferson, M wever the sile shale	le over- adison, 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.

den) are comparable	les	lbr		Bankston Fork Limestone		Bankston Fork Limestone
to other coals cur-	Desmoines	Shelbu		Anvil Rock Sandstone Conant Limestone	Copperas Creek Sandstone Lawson Shale	Anvil Rock Sandstone — Conant Limestone
rently being mined in the state. Of these resources, 21 billion tons occur in coal 42 to 66 inches thick and 30 billion tons occur in thicknesses	Desmoinesian Series Desr	Carbondale	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	Conant Limestone Jamestown Coal Brereton Limestone Anna Shale Energy Shale Herrin Coal Briar Hill Coal Canton Shale St. David Limestone Turner Mine Shale Dykersburg Shale Springfield Coal	Brereton Limestone Anna Shale Herrin Coal Spring Lake Coal Bed Big Creek Sandstone Vermillionville Sandstone Canton Shale St. David Limestone Turner Mine Shale Springfield Coal	Conant Limestone Jamestown Coal Brereton Limestone Anna Shale Herrin Coal Briar Hill Coal Canton Shale St. David Limestone Turner Mine Shale Springfield Coal
greater than 66 inches. (Modified from ISGS Pub. IM 120, Treworgy, et al)	Des	O	*********	Hanover Limestone Excello Shale Houchin Creek Coal Roodhouse Coal Pleasantview Sandstone	Covel Conglomerate Hanover Limestone Excello Shale Houchin Creek Coal Breezy Hill Limestone Kerfon Creek Coal Pleasantview Sandstore	Excello Shale Houchin Creek Coal Pleasantview Sandstone
Potoroncos						
KOTOPONCOC!						

- Handbook of Illinois Stratigraphy, 1975, Illinois State Geological Survey Bulletin 95, 261p.

- Treworgy, C.G., C.P. Korose, C.A. Chenoweth, and D.L. North, 1999a, Availability of the Herrin

Central and Southern Northern and Western Eastern and Southern Members and Beds Members and Beds Members and Beds

deposit (e.g. thick-

ness, depth, in-place tonnage, stability

of bedrock overbur-

Coal Chlorine Less than 0.1 % 0.1 to 0.2 % 0.2 to 0.3 % 0.3 to 0.4 % 0.4 to 0.5 % 0.5 to 0.6 % Greater than 0.6 %

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.

 $\hbox{@}$ 2009 Board of Trustees of the University of Illinois. All rights reserved.