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Herrin Coal Chlorine MARION County

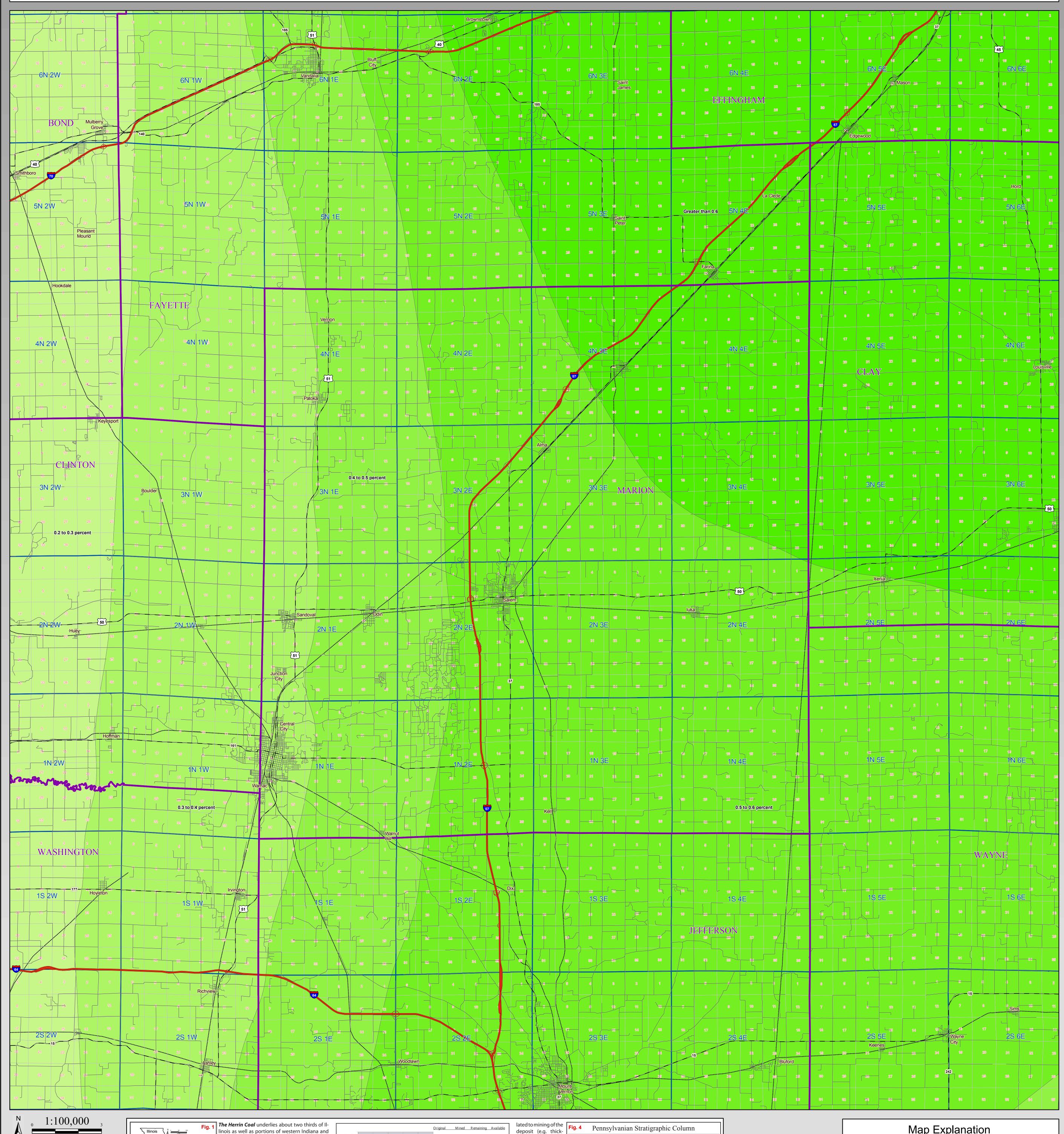
County Coal Map Series Andrew Louchios, Scott Elrick,

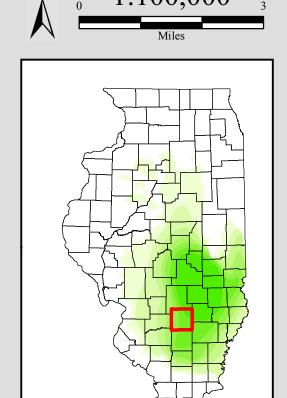
Map construction: October 29, 2009

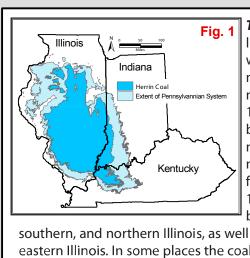
Chris Korose, David Morse

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 of Illinois, silty gray shale as much as 100 feet thick overlies the Herrin Coal. Associated with this shale is a channel sandstone commonly as much as a mile wide and 60-80 feet thick mapped as Anvil **T**he original resource of Herrin Coal in the State of Illinois totals 88.5 billion Rock Sandstone and may be tons, of which 9.4 billion have been mined. Approximately 58% of the original

					<u>Original</u>	Mined	R emaining	Available
Danville]			19.6	0.2	19.4	4.5
Jamestown					3.6	0	3.6	0.9
Herrin				_	88.5	9.4	79.0	51.0
Springfield					65.1	2.2	63.0	27.0
Colchester					19.0	0.5	18.5	1.0
Dekoven					6.0	0.1	5.9	0.3
Davis			Available Avail. w/ pe	otential restr.	9.6	0.1	9.5	4.7
Seelyville			Restricted	or mined	9.7	0	9.7	6.7
	0 2	20 4	0 60	80 1	00	(All numbe	rs in Billions of	f Tons)
Fig. 3		billions of tons			221.1	12.5	208.6	96.1
			thick boo				•	
reet it ha	s a mud	ch lowe	r sultur co	ntent tha	n elsev	vnere. If	ne gray sh	iale ove

Fig. 3	221.1	12.5	208.6	96.1
is overlain by relatively thick bodies of t	the gray sh	ale of up	to a few	tens of
feet it has a much lower sulfur content t	han elsewh	nere. The	gray shal	e over-
lies the coal principally in parts of Willia	amson, Fra	nklin, Jef	ferson, M	adison,
St. Clair, eastern Macoupin, and S. Verm	nilion. Gene	rally, how	wever the	Herrin
Coal is overlain by either the Anna Shale	e Member	(black fis	sile shale)	or the
Brereton Limestone Member. (Hopkins, 1	1968 - B95,	See Fig 4	.)	

contemporaneous with the Herrin Coal resources, 51 billion tons, are considered available for mining. (See

coal. In areas where the coal Fig 3.) Available means that the surface land-use and geologic conditions re-

in the state. Of the resources, 21 billion tons occur in co 42 to 66 inches thi and 30 billion to occur in thickness es. (Modified fro ISGS Pub. IM 12 in Treworgy, et al)

ness, depth, in-place

tonnage, stability

of bedrock overbur-

, ,	Shelbur		Anvil Rock Sandstone Conant Limestone Jamestown Coal	Copperas Creek Sandstone Lawson Shale	Anvil Rock Sandstone — Conant Limestone
, ,	Lesn		/	Lawson Share	Conant Limestone
, ,	ĭΙ				
			Brereton Limestone	Brereton Limestone	— Jamestown Coal Brereton Limestone
in the state. Of these			Anna Shale	Anna Shale	Anna Shale
wasser 21 billiam			Energy Shale		
resources, 21 billion tons occur in coal	eries	***************************************	Herrin Coal	Herrin Coal Spring Lake Coal Bed Big Creek Sandstone Vermillionville Sandstone	Herrin Coal
12 to 66 inches thick	2	XXXXXXX	Briar Hill Coal		Briar Hill Coal
42 to 66 inches thick	를 a		Canton Shale	Canton Shale	Canton Shale
and 30 billion tons 📗	moinesia		St. David Limestone Turner Mine Shale	St. David Limestone Turner Mine Shale	St. David Limestone Turner Mine Shale
occur in thicknesses	<u> </u>		Dykersburg Shale	Turner wine snate	Turner wine snate
occur iii triickriesses	Carbondale	FRXFX RX FR	Springfield Coal	Springfield Coal	Springfield Coal
greater than 66 inch-	3 I ~			Covel Conglomerate	
es. (Modified from	⁻		Hanover Limestone Excello Shale	Hanover Limestone Excello Shale	Excello Shale
, II		XXXXXXXXX	Houchin Creek Coal	Houchin Creek Coal	Houchin Creek Coal
ISGS Pub. IM 120,			Roodhouse Coal	Breezy Hill Limestone Kerton Creek Coal	
Treworgy, et al)			Pleasantview Sandstone	Kerfon Creek Coal Pleasantview Sandstore	Pleasantview Sandstone

- 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

Coal for mining in Illinois: Illinois State Geological Survey Illinois Minerals 120, 54 p.

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

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

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