Illinois State Geological Survey

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Herrin Coal Chlorine CRAWFORD County

County Coal Map Series

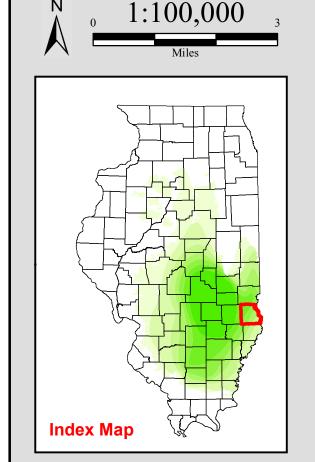
Chris Korose, David Morse Map construction: October 29, 2009

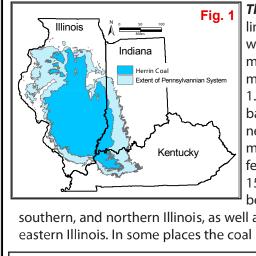
Andrew Louchios, Scott Elrick,

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

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 . 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

					Original	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			<u> </u>		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/	potential restr.	9.6	0.1	9.5	4.7	
Seelyville			Restricte	d or mined	9.7	0	9.7	6.7	
	0 20) 40	0 60	80	100	(All numbe	rs in Billions of	Tons)	
Fig. 3		bill	ions of tons		221.1	12.5	208.6	96.1	
is overlain by relatively thick bodies of the gray shale of up to a few tens of feet it has a much lower sulfur content than elsewhere. The gray shale over-									

rig. 3	221.1	12.5	208.0	90.1
is overlain by relatively thick bodi	es of the gray	shale of up	p to a few	tens of
feet it has a much lower sulfur cor	itent than else	where. Th	e gray sha	le over-
lies the coal principally in parts of	· Williamson, F	ranklin, Je	efferson, M	adison,
St. Clair, eastern Macoupin, and S	. Vermilion. Ge	nerally, ho	wever the	Herrin
Coal is overlain by either the Anna	a Shale Memb	er (black fi	ssile shale) or the
Brereton Limestone Member. (Hop	kins, 1968 - B9	5, See Fig	4.)	

- 1				1
	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	- 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		
	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.	

deposit (e.g. triick-	1				<u> </u>	
ness, depth, in-place	Series	Fm.	Graphic		Northern and Western	
tonnage, stability	erSe	Ŧ	Column	Members and Beds — Danville Coal	Members and Beds Danville Coal	Members and Beds Danville Coal
of bedrock overbur-	Š		×××××××××××××××××××××××××××××××××××××××	Galum Limestone	Bunvine cour	Banvine coar
den) are comparable	Desmoinesian	Shelburn	XXXX	— Allenby Coal Bankston Fork Limestone		Bankston Fork Limestone
to other coals cur-	oine	hell	XXXX	Anvil Rock Sandstone	Copperas Creek Sandstone	Anvil Rock Sandstone
	ssm	S	\sim	Conant Limestone	Lawson Shale	Conant Limestone
rently being mined	Ď			Jamestown Coal Brereton Limestone	Brereton Limestone	— Jamestown Coal Brereton Limestone
in the state. Of these				Anna Shale Energy Shale	Anna Shale	Anna Shale
resources, 21 billion	s		\$ 12 B B B B B B B B B B B B B B B B B B	Herrin Coal	Herrin Coal Spring Lake Coal Bed	Herrin Coal
tons occur in coal	eries		Control of the second		Spring Lake Coal Bed Big Creek Sandstone Vermillionville Sandstone	
42 to 66 inches thick	S		XXXXXXX	Briar Hill Coal Canton Shale	Canton Shale	Briar Hill Coal Canton Shale
and 30 billion tons	Desmoinesian	Carbondale		St. David Limestone	St. David Limestone	St. David Limestone
occur in thicknesses	oin	pou		Turner Mine Shale Dykersburg Shale	Turner Mine Shale	Turner Mine Shale
	esm	Car	图xRxRxR	Springfield Coal	Springfield Coal Covel Conglomerate	Springfield Coal
greater than 66 inch-	Δ				Hanover Limestone	
es. (Modified from			×××××××××	Excello Shale Houchin Creek Coal	Excello Shale Houchin Creek Coal	Excello Shale Houchin Creek Coal
ISGS Pub. IM 120,				Roodhouse Coal	Breezy Hill Limestone Kerton Creek Coal Pleasantview Sandstore	
Treworgy, et al)	Ш			Pleasantview Sandstone	Pleasantview Sandstore	Pleasantview Sandstone
			-			

Pennsylvanian Stratigraphic Column

lated to mining of the Fig. 4

ed	Des			Jamestown Coal —	B	— Jamestown Coal		2000 11011 011 70
ese				Brereton Limestone Anna Shale Energy Shale	Brereton Limestone Anna Shale	Brereton Limestone Anna Shale		0.4 += 0.0 0/
on	ş		\$ 10 mm mm	Herrin Coal	Herrin Coal Spring Lake Coal Bed Big Creek Sandstone	Herrin Coal		0.1 to 0.2 %
oal	eries			n :	Big Creek Sandstone Vermillionville Sandstone			
ick	an S	e_	XXXXXXX	Briar Hill Coal Canton Shale	Canton Shale	Briar Hill Coal Canton Shale		0.2 to 0.3 %
ns	esig	ndal		St. David Limestone Turner Mine Shale	St. David Limestone Turner Mine Shale	St. David Limestone Turner Mine Shale		
ses	ioi	rbo		— Dykersburg Shale				0.3 to 0.4 %
:h-	Desmoinesi	Ca	RXRXRY	Springfield Coal	Springfield Coal Covel Conglomerate	Springfield Coal		0.0 to 0.4 /0
				Hanover Limestone Excello Shale	Hanover Limestone Excello Shale	Excello Shale		
om			XXXXXXXXX	Houchin Creek Coal	Houchin Creek Coal	Houchin Creek Coal		0.4 to 0.5 %
20,				Roodhouse Coal Pleasantview Sandstone	Breezy Hill Limestone Kerton Creek Coal Pleasantview Sandstore	Pleasantview Sandstone		
	<u> </u>	_						0.5 to 0.6 %
								0.0 10 0.0 70
								0 1 11 0001
								Greater than 0.6 %

Coal Chlorine

Less than 0.1 %

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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