

# Coal Mines in Illinois Virden South Quadrangle Macoupin County, Illinois

This map accompanies the Coal Mines Directory for the Virden South Quadrangle. Consult the directory for a complete explanation of the information shown on this map.

## Mining Method

- Room & Pillar (RP)
- Room & Pillar Basic (RPB)
- Modified Room & Pillar (MRP)
- Room & Pillar Panel (RPP)
- Blind Room & Pillar (BRP)
- Checkerboard Room & Pillar (CRP)
- High Extraction Retreat (HER)
- Longwall (LW)
- Underground, Method Unknown
- Strip Mine
- Auger Mine
- General Area of Mining

## Other Areas Depicted

- Non-Coal Mines

## Source of Mine Outline

- Final Mine Map
- Not Final Mine Map
- Undated Mine Map
- Incomplete Mine Map
- Secondary Source Map

## Tipple, Shaft, Slope, Drift Locations

- Strip Mine Tipple - Active
- Strip Mine Tipple - Abandoned
- Mine Shaft - Active
- Mine Shaft - Abandoned
- Mine Slope - Active
- Mine Slope - Abandoned
- Mine Drift - Active
- Mine Drift - Abandoned
- Air Shaft
- Uncertain Location
- Uncertain Type of Opening

## Other Points Depicted

- Non-Coal Mines

## Location



## Mine Annotation (space permitting)

Company  
Mine Name  
ISGS Index No., Years of Operation

## Disclaimer

Please check the Coal Section at the Illinois State Geological Survey's web site at <https://www.isgs.illinois.edu> for the most up-to-date version of these products.

Note that each quadrangle scale mined-out area map requires the use of the associated text directory for full explanation of map features and mine attributes. Also note that some quadrangles have multiple seams of mining and therefore more than one map may be available for a particular quadrangle. Please take care to check for multiple maps, as extensive mining may exist in the other seams.

The maps and digital files used for these studies were compiled from data obtained from a variety of public and private sources and have varying degrees of completeness and accuracy. This compilation map presents reasonable interpretation of the geology of the area and is based on available data. Locations of some mine features may be offset by 500 feet or more due to errors in the original source maps, the compilation process, digitizing, or a combination of these factors. These data are not intended for use in site-specific screening or decision-making. Use of these documents does not eliminate the need for detailed studies to fully understand the geology of a specific site. The Illinois State Geological Survey, Prairie Research Institute, or 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.

These maps were designed for use at 1:24,000. Enlarging the map may reduce accuracy, as the original scale of the source maps used to compile the outlines shown varies from 1:400 to 1:150,000, and some mine locations are known only from text descriptions. See the accompanying mine directory for the original scale of the source map used for a specific mine to check accuracy of a given portion of the map. Areas with no mines shown may still be undermined; see the unlocated mines list at the back of each mine directory.

The image of the U.S.G.S. topographic base map was projected from the original UTM to Lambert Conformal Conic.

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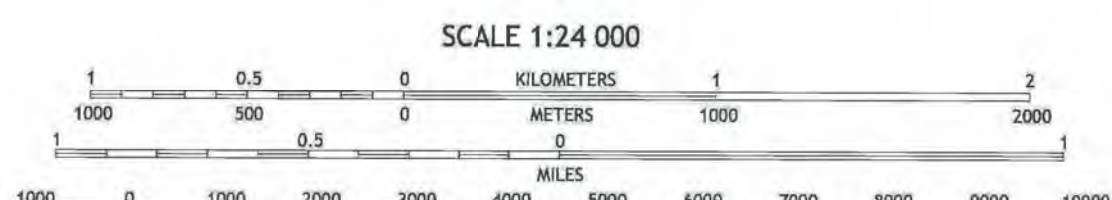
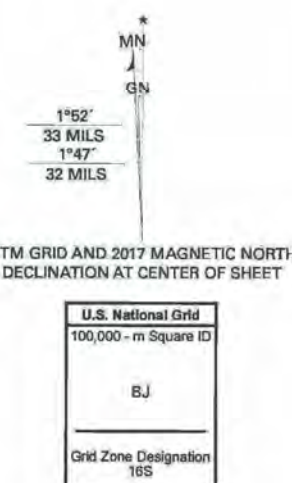
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Mine Outlines Compiled by  
Jennifer M. Obrad

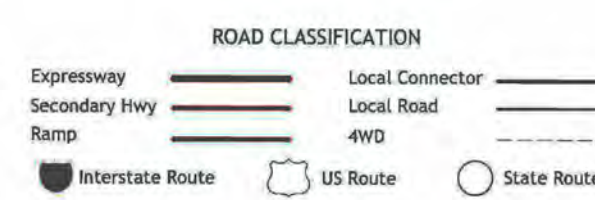
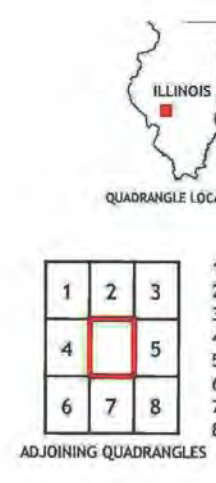
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Produced by the United States Geological Survey  
North American Datum of 1983 (NAD83)  
World Geodetic System of 1984 (WGS84) - Projection and  
1,000-meter grid Universal Transverse Mercator, Zone 16S  
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Imagery.....NAP, July 2015 - October 2015  
Roads.....U.S. Census Bureau, 2017  
Names.....U.S. Census Bureau, 2017  
Hydrography.....National Hydrography Dataset, 2004 - 2011  
Contours.....National Elevation Dataset, 2008  
Boundaries.....Multiple sources; see metadata file 2014 - 2016  
Public Land Survey System.....BLM, 2017  
Wetlands.....FWS National Wetlands Inventory, 1986



CONTOUR INTERVAL 10 FEET  
NORTH AMERICAN DATUM OF 1983  
This map was produced to conform with the  
National Geospatial Program US Topo Product Standard, 2011.  
A metadata file associated with this product is draft version 0.6.18



VIRDEN SOUTH, IL  
2018





# **DIRECTORY OF COAL MINES IN ILLINOIS**

## **7.5-MINUTE QUADRANGLE SERIES**

### **VIRDEN SOUTH QUADRANGLE**

#### **MACOUPIN COUNTY**

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2010, Revised 2023

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**Cover photo** Track-mounted duckbill loading machine at a Peabody Coal Company mine, ca. 1915.

DISCLAIMER: The accuracy and completeness of mine maps and directories vary with the availability of reliable information. Maps and other information used to compile this mine map and directory were obtained from a variety of sources and the accuracy of some of the original information cannot be verified. Consequently, the Illinois State Geological Survey (ISGS) cannot guarantee the mine maps are free of errors and disclaims any responsibility for damages that may result from actions or decisions based on them.

The ISGS updates the maps and directories periodically, and welcomes any new information or corrections. Please contact the Coal Section of the ISGS at the address shown on the title page of this directory, or telephone (217) 244-4610.

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## **INTRODUCTION**

Coal has been mined in 76 counties of Illinois. More than 7,400 coal mines have operated since commercial mining began in Illinois about 1810; fewer than 30 are currently active. To detail the extent and location of coal mining in Illinois, the Illinois State Geological Survey (ISGS) has compiled maps and directories of known coal mines. The ISGS offers maps at a scale of 1:100,000 and accompanying directories for each county in which coal mining is known to have occurred. Maps at a scale of 1:24,000 and accompanying directories, such as this, are available for selected quadrangles. Contact the ISGS for a list of these quadrangles.

These larger scale maps show the approximate positions of mines in relation to surface features such as roads and water bodies, and indicate the mining method used and the accuracy of the mine boundaries. The maps are useful for locating mine boundaries relative to specific properties and for assessing the potential for subsidence in an area. Mine boundaries compiled from final mine surveys are generally shown within 200 feet of their true position. As a result of poor cartographic quality and inaccuracies in the original mine surveys, boundaries of some older mines may be mislocated on the map by 500 feet or more. Original mine maps should be consulted in situations that require precise delineation of mine boundaries or internal workings of mined areas.

This directory serves as a key to the accompanying mine map and provides basic information on the coal mines in the quadrangle. The directory is composed of two parts. Part I explains the symbols and patterns used on the accompanying map and the summary data presented for each mine. Part II numerically lists the mines in the quadrangle and summarizes the geology and production history of each mine. Total production for the mine, not the portion in the quadrangle, is given.

## **MINING IN THE VIRDEN SOUTH QUADRANGLE**

Mining began in the Virden South Quadrangle in 1867, when the Carpenter Mine (mine index 186) opened. The Herrin Coal was over 300 feet deep in this area, but generally averaged over 6 feet thick. The uniform seam drew others, and mining took place here until 1959, when the Virden Mine (mine index 67) closed. After a gap when no mining took place, the Crown II Mine (mine index 933) opened in 1974.

The Herrin Coal had a thick shale roof that was prone to fall and roof support planning was required. Slips and rolls were common. Sandstone channels or faults were present and fractures in the shale over the coal introduced moisture into some mines. The geologic problems in this area were common for the Herrin Coal in the Illinois Basin, without any large structural features (such as the Cottage Grove Fault System of southern Illinois) to add special problems.

## PART I EXPLANATION OF MAP AND MINE SUMMARY SHEET

### INTERPRETING THE MAP

The map accompanying this directory shows the location of coal mines known to be present in the quadrangle. The map, corresponding to a U.S. Geological Survey (USGS) 7.5-minute quadrangle, covers an area bounded by lines of latitude and longitude 7.5-minutes apart. In Illinois, a quadrangle is approximately 6.5 miles east to west and 8.5 miles north to south, an area of about 56 square miles. The USGS generally offers one map of mines per quadrangle. In some areas where extensive mining occurred in two or more overlapping seams, separate maps are compiled for mines in each seam to maintain readability of the map.

#### Mine Type and Mining Method

The mine type is indicated on the map by pattern color: green represents surface mines; red and yellow represent underground mines. The red patterns are used for areas of underground mining that are documented by a primary or secondary source map. A yellow pattern is used for cases where no map of the mine workings is available, but a general area of mining can be inferred from property maps or production figures. The patterns indicate the main mining methods used in underground mines. The methods are (1) room and pillar and (2) high extraction. The method used gives some indication of the amount and pattern of coal extraction within each mined area, and has some influence on the timing and type of subsidence that can occur over a mine.

The following discussion and illustrations of mining methods are based on Guither et al. (1984).

In room-and-pillar mines, coal is removed from haulage-ways (entries) and selected areas called rooms. Pillars of unmined coal are left between the rooms to support the roof. Depending on the size of rooms and pillars, the amount of coal removed from the production areas will range from 40% to 70%.

**Room and Pillar** - mining is divided into six categories:

- room-and-pillar basic (RPB, fig. 1A), an early method that did not follow a preset mining plan and therefore resulted in very irregular designs;
- modified room and pillar (MRP, fig. 1B);
- room-and-pillar panel (RPP, fig. 1C);
- blind room and pillar (BRP, fig. 1D);
- checkerboard room and pillar (CRP, fig. 1E);
- room and pillar (RP), a classification used when the specific type of room-and-pillar mining is unknown.

Blind and checkerboard are the most common types of room-and-pillar mining used in Illinois today. The knowledge of room-and-pillar mining methods gives a trained engineer information on the nature of subsidence that may occur. A more extensive discussion of subsidence can be found in Bauer et al. (1993).

**High-extraction** These mining methods are subdivided into high-extraction retreat (HER, Fig 1F) and longwall (LW, Fig 1G, 1H). In these methods, much of the coal is removed within well defined areas of the mine. Subsidence of the surface above these areas occurs within weeks. Once the subsidence activity ceases, the potential for further movement over these areas is low; however, subsidence may continue for several years after mining.

High-extraction retreat mining is a form of room-and-pillar mining that extracts most of the coal. Rooms and pillars are developed in the panels, and the pillars are then systematically removed (fig. 1F).

In early (pre-1960) longwall mines, mining advanced in multiple directions from a central shaft (fig. 1G). Large pillars of coal were left around the shaft, but all coal was removed beyond these pillars. Miners placed rock and wooden props and cribs in the mined-out areas to support the mine roof. The overlying rock gradually settled onto these supports, thus producing subsidence at the surface. In post-1959 longwall mines, room-and-pillar methods have been used to develop the main entries of the mine and panel areas. Modern longwall methods extract 100 percent of the coal in the panel areas (fig. 1H).



## SOURCE MAPS

Mine outlines depicted on the map are, whenever possible, based on maps made from original mine surveys. The process of compiling and digitizing the quadrangle map may produce errors of less than 200 feet in the location of mine boundaries. Larger errors of 500 feet or more are possible for mines that have incomplete or inaccurate source maps.

Because of the extreme complexity of some mine maps, detailed features of mined areas have been omitted. The digitized mine boundary includes the exterior boundary of all rooms or entries that were at least 80 feet wide or protruded 500 feet from the main mining area. Unmined areas between mines are shown if they are at least 80 feet wide; unmined blocks of coal within mines are shown if they are at least 400 feet on each side. Original source maps should be consulted when precise information on mine boundaries or interior features is needed.

The mine summary sheet lists the source maps used to determine each mine outline. The completeness of map sources is indicated on the map by a line symbol at the mine boundary. Source maps are organized in five categories.

**Final mine map** The mine outline was digitized from an original map made from mine surveys conducted within a few months after production ceased. The date of the map and the last reported production are listed on the summary sheet.

**Not a final map** The mine is currently active or the mine outline was made from a map based on mine surveys conducted more than a few months before production ceased. This implies the actual mined-out area is probably larger than the outline on the map. The mine summary sheet indicated the dates of source maps and the last reported production, as well as the approximate tonnage mined between these two dates (if the mine is abandoned). The summary sheet also lists the approximate acreage mined since the date of the map and, in some cases, indicates the area where additional mining may have taken place. This latter information is determined by locating on the map the active faces relative to probable boundaries of the mine property.

**Undated map** The source map was undated, so it may or may not be based on a final mine survey. When sufficient data are available, the probable acreage of the mined area is estimated from reported production, average seam thickness and a recovery rate comparable to other mines in the area. This information is listed in the summary sheet for the mine.

**Incomplete map** The source map did not show the entire mine. The summary sheet indicates the missing part of the mine map and the acreage of the unmapped area, which is estimated from the amount of coal known to have been produced from the mine.

**Secondary source map** The original mine map was not found so the outline shown was determined from secondary sources (e.g., outlines from small-scale regional maps published in other reports). The summary sheet describes the secondary sources.

## POINTS AND LABELS

The locations of all known mine openings (shafts, slopes, and drifts) and surface mine tipples are plotted on the map. Tipples are areas where coal was cleaned, stockpiled, and loaded for shipping.

Only openings or tipples are plotted for mines without source maps. If the precise locations of these features are unknown, a special symbol is used to indicate the approximate location of the mine.

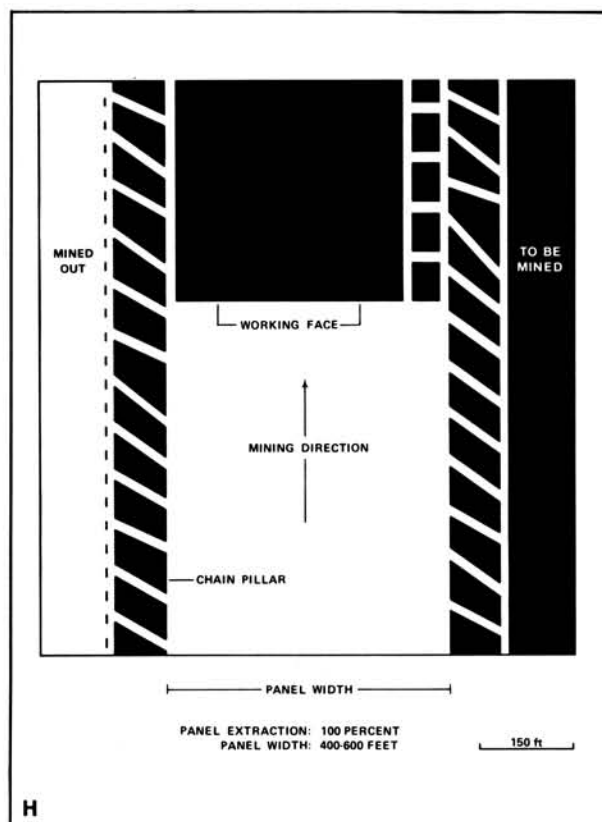
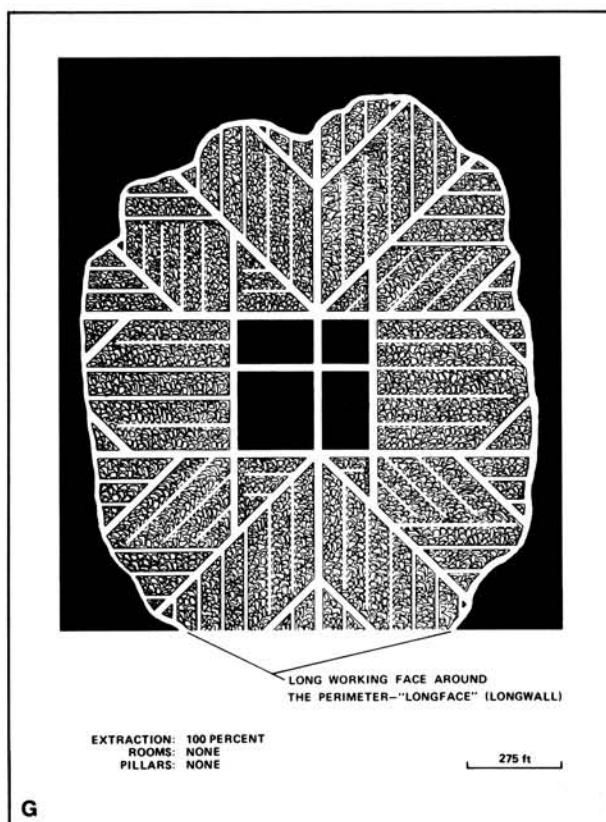
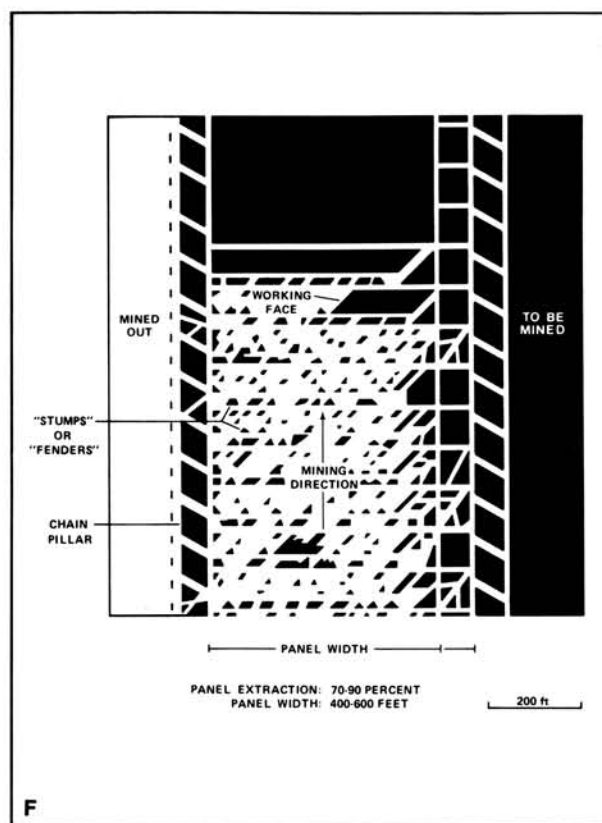
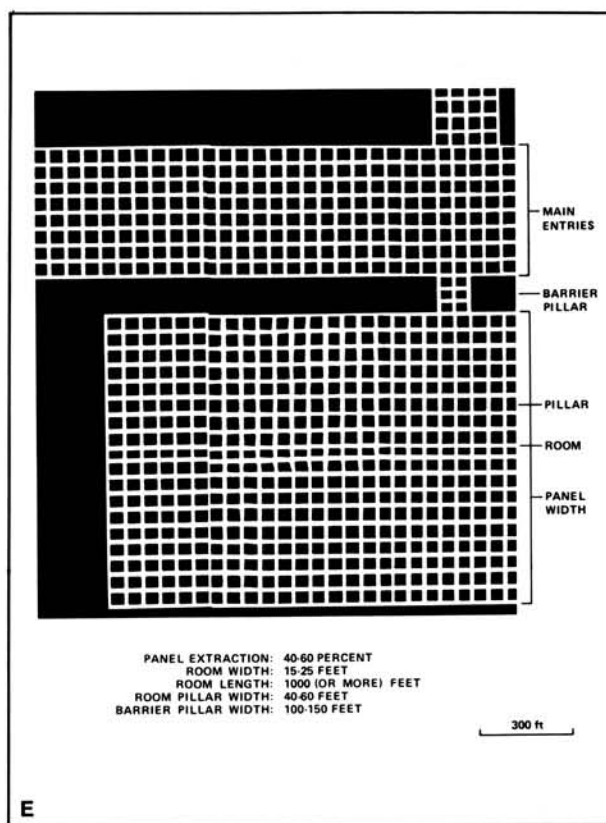
Each mine on the map is labeled with the names of the mine and operating company, ISGS mine index number, and years of operation (if known) if space permits. A seam designation is given on maps where more than one seam was mined. For a mine that operated under more than one name, only the most recent name is generally given. When a mine changed names or ownership shortly before closing, an earlier name is listed. All company and mine names are listed on the mine summary sheet in the directory, under the production history segment.





**Figure 1** Mining methods: (A) room-and-pillar basic (RPB), (B) modified room and pillar (MRP), (C) room-and-pillar panel (RPP), (D) blind room and pillar (BRP).





**Figure 1 (cont.)** Mining methods: (E) checkerboard room and pillar (CRP), (F) high extraction retreat (HER), (G) early (pre-1960) longwall, (H) post-1959 longwall





**Figure 2** Generalized stratigraphic section, showing approximate vertical relations of coals in Illinois.

## INTERPRETING A MINE SUMMARY SHEET

The mine summary sheet is arranged numerically by mine index number. Index numbers are shown on the map and in the mine listing. The mine summary sheet provides the following information (if available).

**Company and mine name** The last company or owner of the mine is used, unless no production was recorded for the last owner. In that case, the penultimate owner is listed. Mines often have no specific name; in these cases, the company name is also used as the mine name.

**Type** *Underground* denotes a subsurface mine in which the coal was reached through a shaft, slope, or a drift entry. *Surface* denotes a surface, open pit or strip mine.

**Total mined-out acreage shown** The total acreage of the mined area mapped, including any acreage mined on adjacent quadrangles, is calculated from the digitized outline of the mine. The acreage of large barrier pillars depicted on the map is excluded from the mined-out acreage. Small pillars not digitized are included in the acreage calculation. If the mine outline is not based on a final mine map, the acreage is followed by an estimate of additional acres that may have been mined. The estimate is determined from reported mine production, approximate thickness of the coal, and recovery rates calculated from nearby mines that used similar mining methods.

## SHAFT, SLOPE, DRIFT OR TIPPLE LOCATIONS

**Shaft, slope, drift, or tippie locations** Locations of all known former entry points to underground mines or the location of coal cleaning, tippie, and shipping equipment used by the mine's facility are listed. The location is described in terms of county, township and range (Twp-Rge), section, and location within the section by quarters. NE SW NW, for instance, would describe the location in the northeast quarter of the southwest quarter of the northwest quarter. When sections are irregular in size, the quarters remain the same size and are oriented (or "registered") from the southeast corner of the section. Approximate footage from the section lines (FEL = from east line, FNL = from north line, for example) is given when that information is known; this indicates a surveyed location and is not derived from maps. Entry points are also plotted on the map and coded for the type of entry or tippie. A mine opening may have had many purposes during the life of the mine. Old hoist shafts are often later used for air and escape shafts; this information is included in the directory when known. The tippie for underground mines was generally located near the main shaft or slope. At surface mines, coal was sometimes hauled to a central tippie several miles from the mine pit.

## GEOLOGY

**Seam(s) mined** The name of the coal seam(s) mined is listed, if known. If multiple seams were mined, they are all listed, although the mined-out area for each seam may be shown on separate maps. Figure 2 shows the stratigraphic section of the coal-bearing interval in Illinois, and the vertical relations among the coals.

**Depth** The depth to the top of the seam in the vicinity of the shaft is listed, if known. The depth is determined from notes made by geologists who visited the mine during its operation or from drill hole data in ISGS files. Depth generally varies little over the extent of a mine; however, reported depths for an individual mine may vary. Depth for surface-mined coals varies, and is usually represented as a range.



**Thickness** The approximate thickness of the mined seam is shown, if known. Thickness also comes from notes of geologists who visited the mine during its operation or from borehole data in ISGS files. Minimum, maximum, and average thicknesses are given when this information is available.

**Mining method** The principal mining method used at the mine (figs. 1A-H) is listed. See the mining methods section at the beginning of this directory for a discussion of this parameter.

**Geologic problems reported** Any known geologic problems, such as faults, water seepage, floor heaving, and unstable roof, encountered in the mine are reported. This information is from notes made by ISGS geologists who visited the mine, or from reports by mine inspectors published by the Illinois Department of Mines and Minerals, or from the source map(s). Geologic problems are not reported for active mines.

## PRODUCTION HISTORY

**Production history** Tons of coal produced from the mine by each mine owner are totaled. When the source map used for the mine outline is not a final mine map, the tonnage produced since the date of the map is identified. For mines that extend into adjacent quadrangles, the tonnage reported includes areas mined in adjacent quadrangles.

## SOURCE OF DATA

**Source map** This section lists information about the map(s) used to compile the mine outline and the locations of tipples and mine openings. In some cases more than one source map was used. For example, a map drawn before the mine closed may provide better information on original areas of the mine than a later map. When more than one map was used, the bibliography section explains what information was taken from each source.

**Date** The date of the most recent mine survey listed on the source map is reported.

**Original scale** The original scale of the source map is listed. Many maps are photo-reductions and are no longer at their original scale. The original scale gives some indication of the level of detail of the mine outline and the accuracy of the mine boundary relative to surface features. Generally, the larger the scale, the greater the accuracy and detail of the mine map. Mine outlines taken from source maps at scales smaller than 1:24,000 may be highly generalized and may well be inaccurately located with respect to surface features.

**Digitized scale** The scale of the digitized map is reported. The scale may be different from that of the original source map. In many cases the digitized map was made from a photo-reduction of the original source map, or the source map was not in a condition suitable for digitizing and the mine boundaries were transferred to another base map.

**Map type** Source maps are classified into five categories to indicate the probable completeness of the map. See discussion of source maps in the previous section.

**Annotated bibliography** Sources that provide information about the mine are listed, with the data taken from each source. Some commonly used sources are described below. Full bibliographic references are given for all other sources. Unless otherwise noted, all sources are available for public inspection at the ISGS.

**Coal Reports** Published since 1881, these reports contain tabular data on mine ownership, production, employment, and accidents. Some volumes include short descriptions made by mine inspectors of physical features and conditions in selected mines.

**Directory of Illinois Coal Mines** This source is a compilation of basic data about Illinois coal mines, originally gathered by ISGS staff in the early 1950s. Sources used for this directory are undocumented, but they are primarily Illinois Department of Mines and Minerals annual reports, ISGS mine notes, and coal company officials.

**ENR Document 85/01**, Guither, H. D., J. K. Hines, and R. A. Bauer, 1985 The Economic Effect of Underground Mining Upon Land Used for Illinois Agriculture: Illinois Department of Energy and Natural Resources Document 85/01, 185 p.

**Microfilm map** The U.S. Bureau of Mines maintains a microfilm archive of mine maps. A microfilm file for Illinois is available for public viewing at the ISGS.



*Mine notes* ISGS geologists have visited mines or contacted mine officials throughout the state since the early 1900s. Notes made during these visits range from brief descriptions of the mine location to long narratives (including sketches) of mining conditions and geology.

*Federal Land Bank of St. Louis, Preliminary Reports on Subsidence Investigations* Mining engineers working for the Federal Land Bank of St. Louis mapped areas of subsidence due to coal mining in the early 1930s. These reports often include county maps of mine properties with mined-out areas including shaft locations, as well as subsidence areas.

## **REFERENCES**

Bauer, R. A., B. A. Trent, and P. B. Dumontelle, 1993, Mine Subsidence in Illinois: Facts for the Homeowner Considering Insurance, Illinois State Geological Survey, Environmental Geology Note 144, 16p.

Guither, H. D., J. K. Hines, and R. A. Bauer, 1985, The Economic Effects of Underground Mining Upon Land Used for Illinois Agriculture, Illinois Department of Energy and Natural Resources Document 85/01, 185p.



## PART II DIRECTORY OF MINES IN THE VIRDEN SOUTH QUADRANGLE

### MINE SUMMARY SHEETS

A summary sheet on the geology and production history of each mine in the Virden South Quadrangle is provided. These summary sheets are arranged numerically by mine index number. Consult Part I for a complete explanation of the data listed in the summary sheet.

#### Mine Index 67

#### Virden Mining Company, Virden Mine

Type: Underground Total mined-out acreage shown: 1,866 Production indicates approximately 6 acres were mined after the map date.

### SHAFT, SLOPE, DRIFT or TIPPLE LOCATIONS

Type	County	Township-Range	Section	Quarters-Footage
Main shaft	Macoupin	12N 6W	9	NE NW NE
Air shaft	Macoupin	12N 6W	4	SE SW SE
"New" air shaft	Macoupin	12N 6W	3	SE SW NE

### GEOLOGY

Seam(s) Mined	Depth (ft)	Thickness (ft)			Mining Method
		Min	Max	Ave	
Herrin	320-330	4.0	8.0	6.0-7.0	RPP

Geologic Problems Reported: Top coal (15 to 18 inches) was left to support the roof because of the clod between the coal and the limestone caprock. The northern part of the mine had a sandstone roof, which resulted in some wet areas. Rolls were present on the western side of the mine, which curtailed development in that direction. Pyrite bands and lenses were present throughout the seam and the mine. The floor heaved in some areas.

### PRODUCTION HISTORY

Company	Mine Name	Years	Production (tons)
Chicago-Virden Coal Company	Chicago-Virden No. 1	1892-1904	2,796,067
Illinois Collieries Company	Illinois Collieries No. 1	1904-1909 *	1,141,110
Glenridge Coal Company	Glenridge No. 1	1909-1913	664,732
Montour Coal Company	Montour No. 402	1913-1918 **	646,361
Pittsburg Coal Company	Pittsburg No. 402	1918-1920	384,787
Illinois Coal & Coke Corporation	Illinois Coal & Coke No. 3	1920-1923	861,467
Illinois Coal Corporation	Empire No. 3	1923-1932 ***	569,768
Virden Coal Company	Virden	1932-1937	309,008
Lincoln Liquidating Company	Lincoln Liquidating	1937-1939	129,606
Virden Mining Company	Virden	1939-1959	2,879,381
Virden Mining Company	Virden	1959-1959	28,833 †
			10,411,120

\* Idle 1909

\*\* Idle 1916

\*\*\* Idle 1926-1931

† Production after map date

Last reported production: July 1960



## SOURCES OF DATA

Source Map	Date	Original Scale	Digitized Scale	Map Type
Microfilm, document 352558	4-1959	1:2400	1:4966	Not final
Microfilm, document 352541	2-28-1938	1:2400	1:4138	Not final
State archive, IL_1131_03	7-1-1923	1:2400	1:2400	Secondary source
Federal Land Bank Report	4-1934	1:126720	1:126720	Secondary source

### Annotated Bibliography (data source, brief description of information)

Coal Reports - Production, ownership, years of operation, depth.

Mine notes (Macoupin County) - Mine type, shaft location, seam, depth, thickness, geologic problems.

Microfilm map, document 352558, reel 03139, frames 307-314 - Shaft locations, mine outline, mining method.

Microfilm map, document 352541, reel 03139, frames 272-274 - Partial mine outline (west side).

State archive, IL\_1103\_03, map of Royal Colliery Mine (mine index 185) - Partial mine outline (southwest part of mine).

Federal Land Bank Report (Macoupin County) - General area of mining.

ISGS map library, 4103.M34 i5.1-1 - Geologic problems.

**Mine Index 185****Royal Colliery Company, Royal No. 2 Mine**

Type: Underground    Total mined-out acreage shown: 1,459    Production indicates approximately 50 acres were mined after the map date.

**SHAFT, SLOPE, DRIFT or TIPPLE LOCATIONS**

Type	County	Township-Range	Section	Quarters-Footage
Main shaft	Macoupin	12N 6W	8	SE SW SW
Air shaft	Macoupin	12N 6W	8	SE SW SW

**GEOLOGY**

Seam(s) Mined	Depth (ft)	Thickness (ft)			Mining Method
		Min	Max	Avg	
Herrin	300-350	4.5	7.5	6.0-6.5	MRP

Geologic Problems Reported: The soft, massive, dark-to-light gray shale roof required timbering. One slip, with a displacement of 1.5 feet and filled with clay gouge, was noted. A few rolls were present in the roof. The principle trouble with the coal was the number and thickness of horizontal shale and pyrite bands. The coal seam contained pyrite bands in lenses and stringers above the blue band. Calcite and gypsum fracture fillings were throughout the bed vertically and laterally.

**PRODUCTION HISTORY**

Company	Mine Name	Years	Production (tons)
Royal Colliery Company	Royal No. 1	1903-1914	3,091,390
Chicago, Wilmington & Franklin Coal Co.	Royal	1914-1919	2,407,238
Royal Colliery Company	Royal No. 2	1919-1923	1,008,894
Royal Colliery Company	Royal No. 2	1923-1924	363,318 *
			6,870,840

\* Production after map date

Last reported production: 1924

**SOURCES OF DATA**

Source Map	Date	Original Scale	Digitized Scale	Map Type
State archive, IL_1131_03	7-1-1923	1:2400	1:2400	Not final

Annotated Bibliography (data source, brief description of information)

Coal Reports - Production, ownership, years of operation, depth.

Directory of Illinois Coal Mines (Macoupin County) - Mine names, mine index, ownership, years of operation.

Mine notes (Macoupin County) - Mine type, shaft location, seam, depth, thickness, geologic problems.

State archive, IL\_1131\_03 - Shaft locations, mine outline, mining method.



**Mine Index 186****Illinois Coal & Coke Corporation, Illinois Coal & Coke No. 4 Mine**

Type: Underground Total mined-out acreage shown: 641 Production indicates approximately 1,150 acres were mined, with another 30 acres mined after the map date. Because the mapped area of known workings differed so substantially from the size of the mine calculated from reported production, the area shown on the accompanying map was not coded as a general area of mining, as is the usual custom from the secondary source map from the Federal Land Bank of St. Louis.

**SHAFT, SLOPE, DRIFT or TIPPLE LOCATIONS**

Type	County	Township-Range	Section	Quarters-Footage
Main shaft	Macoupin	12N 6W	32	SE SE NE
Air / escape shaft	Macoupin	12N 6W	32	SW SE NE
Air / escape shaft	Macoupin	12N 6W	32	NE SE NE

**GEOLOGY**

Seam(s) Mined	Depth (ft)	Thickness (ft)			Mining Method
		Min	Max	Ave	
Herrin	352-365	5.0	8.5	6.0-7.0	MRP

Geologic Problems Reported: Some small faults, with 12 to 15 inches displacement, were noted. The source map showed a feature in SE SE NE 31-T12N-R6W labeled "Fault", but may be either two parallel faults or a sand channel. Some gas was present in the rooms. The immediate roof was shale that ranged from black and massive to white and crumbly. The white crumbly shale was present in patches throughout the mine, and was from 1 inch to 6 feet thick. Above the shale was up to 12 inches of lenticular limestone, and above that was 4 feet of green and brown shale and a crumbly gray shale before reaching a persistent and competent limestone. Rolls and slips were present in the coal, one cutting out 4 feet of coal (from the top; the floor remained level). Generally, 14 to 22 inches of top coal was left to help support the shale roof and protect the roof from moisture.

**PRODUCTION HISTORY**

Company	Mine Name	Years	Production (tons)
Carpenter	Carpenter	1867-1881	996 *
Young, Armstrong & Lowe	Young, Armstrong & Lowe	1881-1882 *	60,000
Girard Coal & Tile Company **	Girard	1882-1883	62,000
Girard Coal Company	Girard	1883-1904	2,471,104
Illinois Collieries Company	Illinois Collieries No. 5	1904-1909	852,344
Girard Colliery Company	Girard Collieries No. 5	1909-1913	1,153,874
Montour Coal Company	Montour No. 403	1913-1918	1,282,868
Pittsburg Coal Company	Pittsburg No. 403	1918-1920	346,314
Illinois Coal & Coke Corporation ***	Illinois Coal & Coke No. 4	1920-1921	249,748
Illinois Coal & Coke Corporation	Illinois Coal & Coke No. 4	1921-1923	159,272 †
			6,638,520

\* Production is unknown prior to June 1878, and from July 1879 to June 1881. The 1882 Coal Report indicated 15 acres were mined.

\*\* The firm consisted of A. K. Young, C. C. Armstrong, and Henry Wood.

\*\*\* Also known as Nason Coal Company

† Production after map date

Last reported production: February 1923

**SOURCES OF DATA**

Source Map	Date	Original Scale	Digitized Scale	Map Type
State archive, IL_1128_01	6-1921	1:2400	1:2400	Not final
State archive, IL_1115_01	8-6-1916	1:2400	1:2400	Not final
Federal Land Bank Report	4-1934	1:126720	1:126720	Secondary source

Annotated Bibliography (data source, brief description of information)

Coal Reports - Production, ownership, years of operation, depth.

Mine notes (Macoupin County) - Mine type, shaft location, seam, depth, thickness, geologic problems.

State archive, IL\_1128\_01 - Shaft locations, mine outline, mining method.

State archive, IL\_1115\_01 - Mine outline (southern and southwestern extent).

Federal Land Bank Report (Macoupin County) - Mine outline (eastern and southern extent).

**Mine Index 933**  
**Freeman United Coal Mining Company, Crown II Mine**

Type: Underground    Total mined-out acreage shown: 8,244

**SHAFT, SLOPE, DRIFT or TIPPLE LOCATIONS**

Type	County	Township-Range	Section	Quarters-Footage
Shaft	Macoupin	12N 6W	23	NW NE NW
Slope	Macoupin	12N 6W	23	SE NE NW
Air shaft	Macoupin	12N 5W	8	NW NE SE

**GEOLOGY**

Seam(s) Mined	Depth (ft)	Thickness (ft)			Mining Method
		Min	Max	Ave	
Herrin	330			6.0-6.67	RPP

Geologic Problems Reported: This mine had a variety of problems. There were numerous slickensides, clay dikes, faults and channels throughout the mine. These features, along with a shale roof that lacked competency and allowed for water seepage, created roof problems. Roof falls were reported.

**PRODUCTION HISTORY**

Company	Mine Name	Years	Production (tons)
Freeman United Coal Mining Company	Crown II	1974-2007	41,644,282 *
			41,644,282

Last reported production: August 2007

**SOURCES OF DATA**

Source Map	Date	Original Scale	Digitized Scale	Map Type
Company, Coal Section digital files	9-4-2007	1:12000	1:12000	Final

Annotated Bibliography (data source, brief description of information)

Coal Reports - Production, ownership, years of operation, depth, thickness.  
 Directory of Illinois Coal Mines (Macoupin County) - Mine names, mine index, ownership, years of operation.  
 Mine notes (Macoupin County) - Mine type, shaft location, seam, mining method, geologic problems.  
 Company map, Coal Section digital files, 6-380\_final - Slope and shaft locations, mine outline, mining method.



**Mine Index 996**  
**Springfield Coal Company, LLC, Crown III Mine**

Type: Underground    Total mined-out acreage shown: 7,024

**SHAFT, SLOPE, DRIFT or TIPPLE LOCATIONS**

Type	County	Township-Range	Section	Quarters-Footage
Slope	Macoupin	11N 6W	1	NW NE SE
Man / material shaft	Macoupin	11N 6W	1	NW NW SE
Air shaft	Macoupin	11N 6W	1	SW NW SE

**GEOLOGY**

Seam(s) Mined	Depth (ft)	Thickness (ft)			Mining Method
		Min	Max	Ave	
Herrin	366			6.0-7.5	RPP

Geologic Problems Reported: This mine had an irregular roof that lead to a variety of problems. There were numerous slickensides, limestone "bosses" and faults throughout the mine. A channel that ranged from several hundred feet to 1000 feet wide extended throughout the mine, which greatly affected mining. Concretions were found at the top of the Herrin Coal in some areas. These features, along with a shale roof that lacked competency and allowed for water seepage, created roof problems. Roof falls were reported.

**PRODUCTION HISTORY**

Company	Mine Name	Years	Production (tons)
Freeman United Coal Mining Company	Crown III	1981-2007 *, **	29,367,673
Springfield Coal Company, LLC	Crown III	2007-2008 **	1,407,552
Tri County Coal, LLC	Crown III	2009-2013	5,330,670
			36,105,895

\* Mining began in 1978, but no production was reported until 1981. Idle May 1982 to January 1985, and 1988 through 1990.

\*\* The mine was closed August 30, 2007 and re-opened September 4, 2008 under new ownership. However, the 2007 Coal Report listed all 2007 production under the old ownership.

Last reported production: 2013

**SOURCES OF DATA**

Source Map	Date	Original Scale	Digitized Scale	Map Type
Company, 6-381L	1-2-2014	1:9600	1:9600	Final

Annotated Bibliography (data source, brief description of information)

Coal Reports - Production, ownership, years of operation.

Directory of Illinois Coal Mines (Macoupin County) - Mine names, mine index, ownership, years of operation.

Mine notes (Macoupin County) - Mine type, shaft location, seam, depth, thickness, geologic problems.

Company map, Coal Section files, 6-381L - Slope & shaft locations, mine outline, mining method, geologic problems.

**Mine Index 2931**  
**Union Fuel Company, Ridge Mine**

Type: Underground    Total mined-out acreage shown: 648    Production indicates approximately 20 acres were mined after the map date.

**SHAFT, SLOPE, DRIFT or TIPPLE LOCATIONS**

Type	County	Township-Range	Section	Quarters-Footage
Main shaft	Macoupin	11N 6W	5	NE SW SW
Air shaft	Macoupin	11N 6W	5	NE SW SW

**GEOLOGY**

Seam(s) Mined	Depth (ft)	Thickness (ft)			Mining Method
		Min	Max	Ave	
Herrin	341-365			6.0-7.0	MRP

Geologic Problems Reported: The source map showed that northern expansion was halted in central portion of the mine by some type of geologic problem. The line type designating the problem is not included in the legend, so the problem may be a fault or a change of roof material or channel fill.

**PRODUCTION HISTORY**

Company	Mine Name	Years	Production (tons)
Green Ridge Coal Company	Green Ridge	1895-1897	214,578
O'Gara King Coal Company	Green Ridge	1897-1898	104,400
Green Ridge Coal Company	Green Ridge	1898-1907	1,175,504
Vivian Collieries Company	Green Ridge	1907-1913	1,035,307
Middle States Coal Company	Middle States No. 27	1913-1917 *	106,480
Ridge Coal Mining Company	Green Ridge	1917-1919	126,395
Union Fuel Company	Ridge	1919-1921	206,452
Union Fuel Company	Ridge	1921-1923 **	102,006 ***
			3,071,122

\* Idle or abandoned 1914-1917

\*\* Idle 1922

\*\*\* Production after map date

Last reported production: March 1923

**SOURCES OF DATA**

Source Map	Date	Original Scale	Digitized Scale	Map Type
State archive, PB_1093_01	9-15-1924	1:6000	1:6000	Final
State archive, IL_1125_03	2-2-1921	1:2400	1:2400	Not final

Annotated Bibliography (data source, brief description of information)

Coal Reports - Production, ownership, years of operation, mine type, depth, thickness, mining method.  
 Directory of Illinois Coal Mines (Macoupin County) - Mine names, mine index, ownership, years of operation.  
 Mine notes (Macoupin County) - Shaft location, seam, thickness.  
 State archive, PB\_1093\_01 - Mine outline.  
 State archive, IL\_1125\_03 - Shaft locations, mine outline, mining method, geologic problems.



## Mine Index 2932

### Union Fuel Company, Union Fuel No. 1 Mine

Type: Underground Total mined-out acreage shown: 202 The area shown by the source map is smaller than expected for the reported production, which indicates approximately 230 acres were mined. A 344 acre general area of mining has been added to indicate the approximate dimensions of the mined area, as well as the area that a 1934 map indicated the presence of subsidence pits caused by under-mining.

#### SHAFT, SLOPE, DRIFT or TIPPLE LOCATIONS

Type	County	Township-Range	Section	Quarters-Footage
Main shaft	Macoupin	11N 6W	18	SE NW SW
Air shaft	Macoupin	11N 6W	18	SE NW SW

#### GEOLOGY

Seam(s) Mined	Depth (ft)	Thickness (ft)			Mining Method
		Min	Max	Ave	
Herrin	325-340			6.0-7.5	RP

Geologic Problems Reported:

#### PRODUCTION HISTORY

Company	Mine Name	Years	Production (tons)
Henry Cooper & Sons	Cooper	1878-1881	600 *
Dennis Noonan	Noonan	1881-1888	227,310
H. Cooper & Son	Cooper	1888-1889	26,398
Carbon Coal Company	Carbon	1889-1893	190,655
Nilwood Carbon Coal Company	Nilwood Carbon	1893-1902	292,137
Weaver Coal & Coke Company	Weaver	1902-1903	42,420
Manufacturer's Fuel Company	Manufacturer's Fuel	1903-1906 **	63,463
Prairie State Coal & Coke Company	Prairie State No. 1	1906-1909 ***	126,542
Nilwood Coal Company	Nilwood	1909-1910	1,500
Illinois Central Fuel Company	Illinois Central Fuel No. 1	1910-1911	77,877
Illinois Central Fuel Company	Illinois Central Fuel No. 1	1911-1917 †	30,850 ††
Nilwood Coal Company	Nilwood No. 1	1917-1919	49,000 ††
Union Fuel Company	Union Fuel No. 1	1919-1921	76,184 ††
			1,204,936

\* Production from July 1879 to June 1881 unknown

\*\* Idle 1905, 1906

\*\*\* Idle 1909

† Idle 1913-1917

†† Production after map date

Last reported production: January 1921

#### SOURCES OF DATA

Source Map	Date	Original Scale	Digitized Scale	Map Type
State archive, PB_1029_01	2-17-1921	Unknown	1:24000	Not final
State archive, PB_1096_01	9-12-1924	1:6000	1:6000	Final
Federal Land Bank Report	4-1934	1:189096	1:189096	Secondary source

Annotated Bibliography (data source, brief description of information)

Coal Reports - Production, ownership, years of operation, mine type, depth, thickness.

Directory of Illinois Coal Mines (Macoupin County) - Mine names, mine index, ownership, years of operation.

Mine notes (Macoupin County) - Shaft location, seam, thickness.

State archive, PB\_1029\_01 - Mine outline, mining method.

State archive, PB\_1096\_01 - Shaft locations, mine outline (northwest part of mine).

Federal Land Bank Report (Macoupin County) - General area of mining (subsidence pits).

**Mine Index 2934**  
**Lukens & Andrews, South Mine**

Type: Underground    Total mined-out acreage shown: 346    Production indicates approximately 17 acres were mined after the map date.

**SHAFT, SLOPE, DRIFT or TIPPLE LOCATIONS**

Type	County	Township-Range	Section	Quarters-Footage
Main shaft	Macoupin	12N 6W	9	NW SW SE
Air shaft	Macoupin	12N 6W	16	SW SW NE
Air shaft (probable)	Macoupin	12N 6W	9	NW SW SE

**GEOLOGY**

Seam(s) Mined	Depth (ft)	Thickness (ft)			Mining Method
		Min	Max	Avg	
Herrin	320-350			6.5-7.5	RPP

Geologic Problems Reported: The mine was greatly troubled with gob fires. According to the 1884 and 1885 Coal Reports, the mine also worked a shale seam, and that clay product was hoisted out of an air / escape shaft. The shale was used in a tile and paving brick production operation connected with Utt's coal mine.

**PRODUCTION HISTORY**

Company	Mine Name	Years	Production (tons)
John W. Utt	Utt	pre1878-1889	462,083
J. W. Utt's heirs	Utt	1889-1890	41,022
Virden Coal Company	Virden	1890-1904	1,421,257
Illinois Collieries Company	Illinois Collieries No. 4	1904-1907	156,177
Illinois Collieries Company	Illinois Collieries No. 4	1908-1909	51,833 *
Lukens & Andrews	South	1909-1910	52,440 *
			<u>2,184,912</u>

\* Production after map date

Last reported production: 1910

**SOURCES OF DATA**

Source Map	Date	Original Scale	Digitized Scale	Map Type
State archive, IL_1121_01	1-1908	1:2400	1:2400	Not final
Federal Land Bank Report	4-1934	1:126720	1:126720	Secondary source

Annotated Bibliography (data source, brief description of information)

Coal Reports - Production, ownership, years of operation, depth, thickness, mining method, geologic problems.  
 Directory of Illinois Coal Mines (Macoupin County) - Mine names, mine index, ownership, years of operation.  
 Mine notes (Macoupin County) - Shaft location, seam.  
 State archive, IL\_1121\_01 - Shaft locations, mine outline, mining method.  
 Federal Land Bank Report (Macoupin County) - General area of mining (north side of mine).



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