

Coal Mines in Illinois
Galatia Quadrangle
Saline County, Illinois

Herrin Coal

This map accompanies the Coal Mines Directory for the Galatia Quadrangle and the maps of mines in the Springfield Coal, Galatia 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

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.

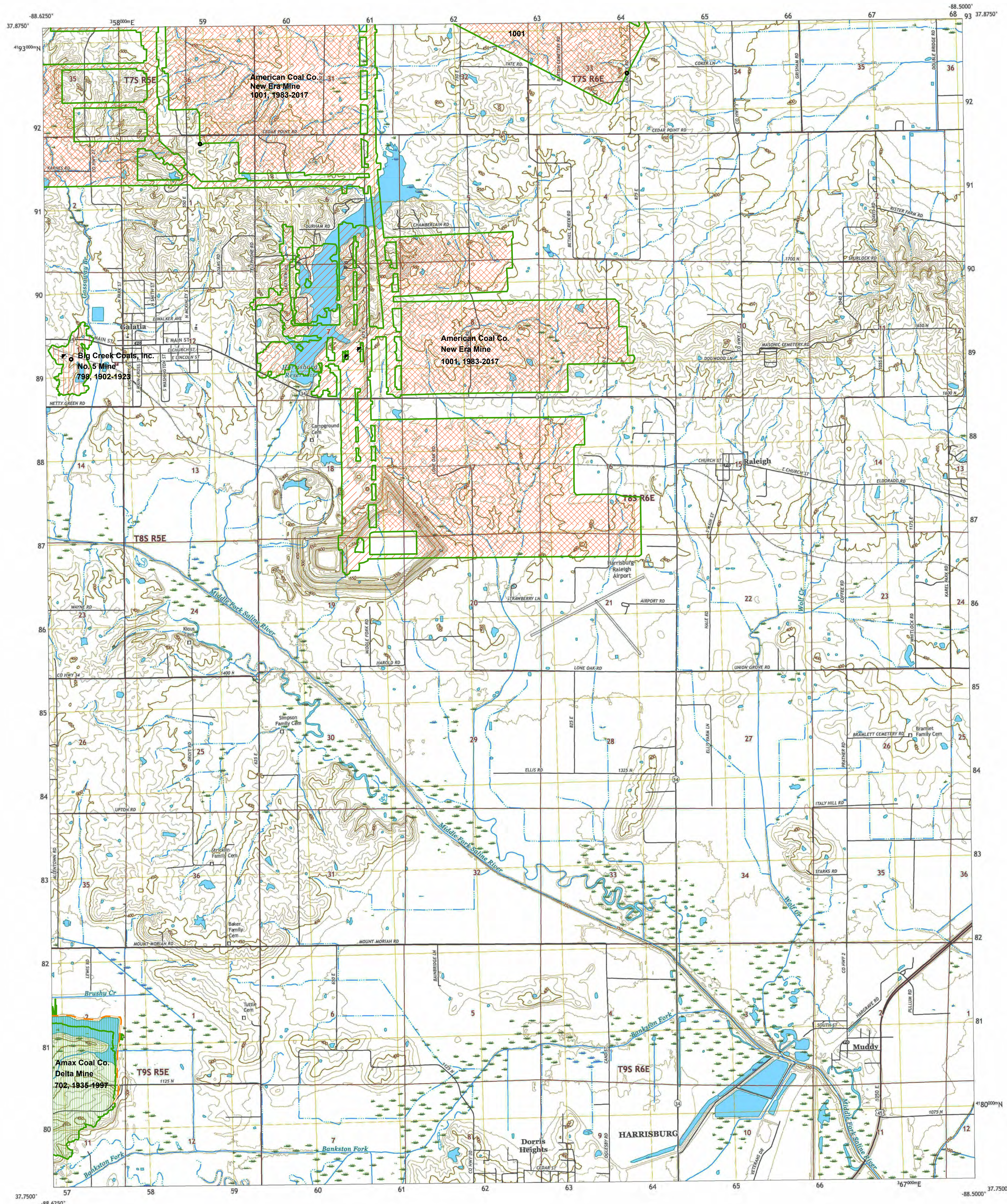
ILLINOIS
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615 E. Peabody Dr.
Champaign, IL 61820

Mine Outlines Compiled by
Jennifer M. Obrad

Revised:
Alan R. Myers 05-22-2024

2005



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
This map is not a legal document. Boundaries may be
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Imagery.....N.A.P., August 2015 - October 2015
Roads.....U.S. Census Bureau, 2017
Names.....GNS, 1980-2017
Hydrography.....National Hydrography Dataset, 2002-2017
Contours.....National Elevation Dataset, 2014
Boundaries.....Multiple sources; see metadata file 2014-2016
Public Land Survey System.....BLM, 2017
Wetlands.....FWS National Wetlands Inventory 1983

UTM GRID AND 2017 MAGNETIC NORTH
DECLINATION AT CENTER OF SHEET

U.S. National Grid
16S000 - 16S000 D
CG
Grid Zone Designation
16S

SCALE 1:24 000
1 000 0 1000 2000
KILOMETERS
1 000 0 1000 2000
METERS
1 000 0 1000 2000
FEET

CONTOUR INTERVAL 10 FEET
NORTH AMERICAN VERTICAL DATUM OF 1988
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

ILLINOIS
QUADRANGLE LOCATION

ADJOINING QUADRANGLES
1 Akin
2 Walpole
3 Broughton
4 Harco
5 Eldorado
6 Carrier Mills
8 Rudement

ROAD CLASSIFICATION
Expressway
Secondary Hwy
Ramp
Local Connector
Local Road
4WD
Interstate Route
US Route
State Route

GALATIA, IL
2018

Coal Mines in Illinois Galatia Quadrangle Saline County, Illinois

Springfield Coal

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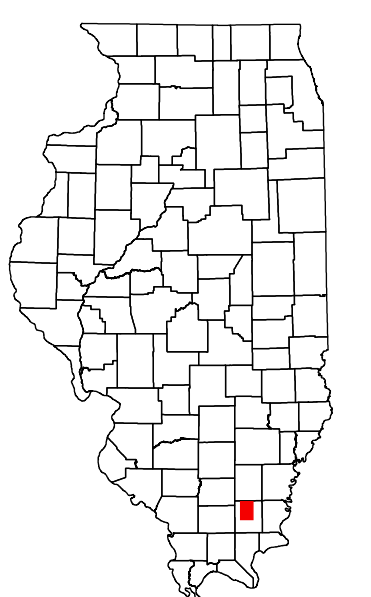
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Other Points Depicted

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Location



Mine Annotation (space permitting)

Company
Mine Name
ISGS Index No., Years of Operation

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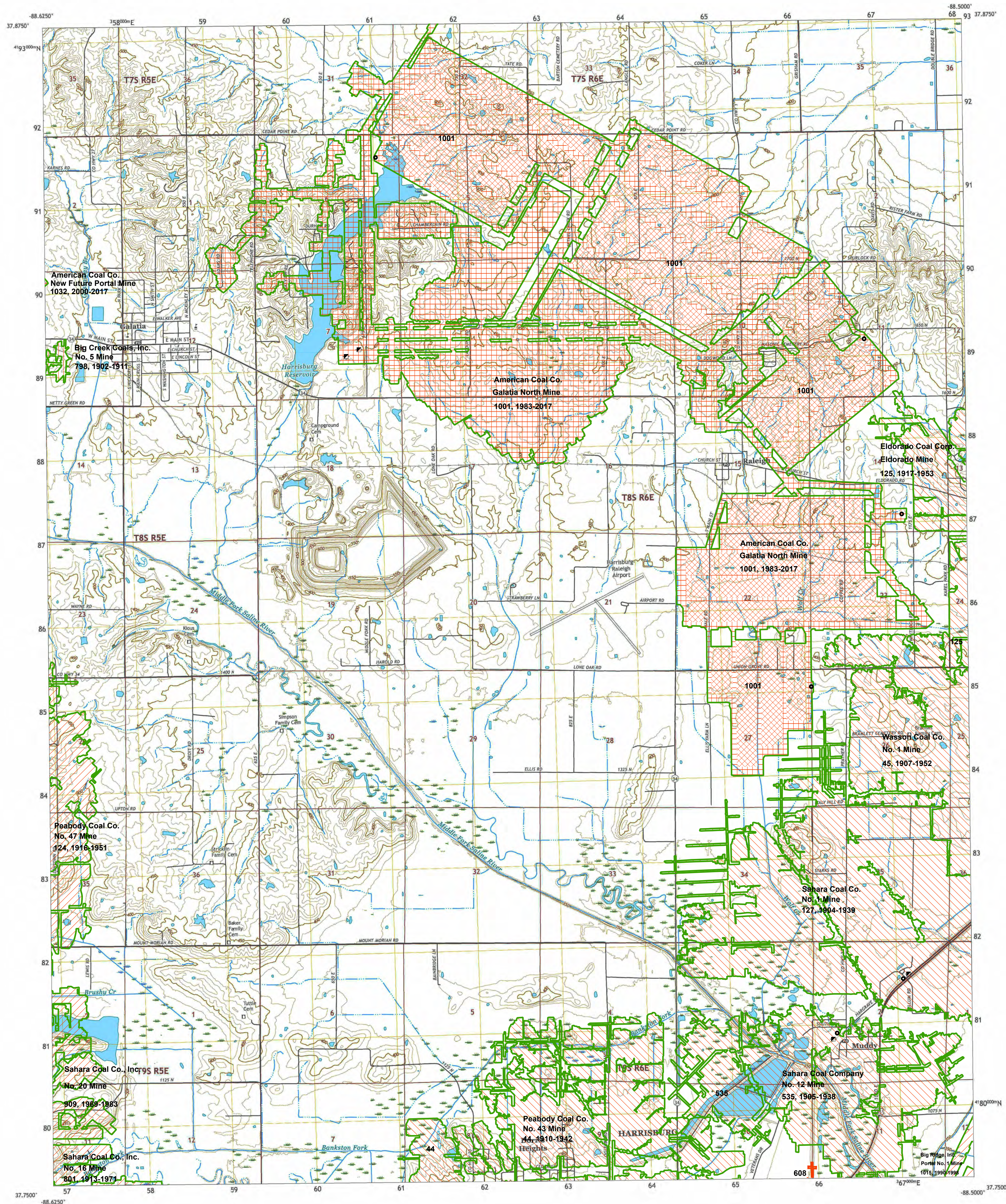
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Hydrography: National Hydrography Dataset, 2002 - 2017

Contours: National Elevation Dataset, 2014

Boundaries: Multiple sources; see metadata file 2014 - 2016

Public Land Survey System: BLM, 2017

Wetlands: FWS National Wetlands Inventory 1983

UTM GRID AND 2017 MAGNETIC NORTH
DECLINATION AT CENTER OF SHEET

U.S. National Grid
(NAD83 - 1983 to 2011)

CG
Grid Zone Designation
18S

SCALE 1:24 000

1 000 0 1000 2000
KILOMETERS

1 000 0 1000 2000
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FEET

CONTOUR INTERVAL 10 FEET
NORTH AMERICAN VERTICAL DATUM OF 1988

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

QUADRANGLE LOCATION

1 2 3
4 5
6 7 8

1 Akin
2 Walpole
3 Broughton
4 Harco
5 Eldorado
6 Carrier Mills
7 Harrisburg
8 Rudement

ROAD CLASSIFICATION

Expressway
Secondary Hwy
Ramp

Local Connector
Local Road
4WD
US Route
State Route

GALATIA, IL
2018

DIRECTORY OF COAL MINES IN ILLINOIS 7.5-MINUTE QUADRANGLE SERIES GALATIA QUADRANGLE SALINE COUNTY

Jennifer M. Obrad & Marge H. Bargh



Department of Natural Resources
ILLINOIS STATE GEOLOGICAL SURVEY
2005
REVISED 2012, 2024

**DIRECTORY OF COAL MINES IN ILLINOIS
7.5-MINUTE QUADRANGLE SERIES
GALATIA QUADRANGLE
SALINE COUNTY**

2005
REVISED 2012, 2024

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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.

Printed by authority of the State of Illinois/2005

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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.

The directory serves as a key to the accompanying mine map and provides basic information on the coal mines. 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.

MINING IN THE GALATIA QUADRANGLE

Mining began in the Galatia Quadrangle in 1902, when the Galatia Coal Company opened a mine in the Herrin Coal, several miles north and west of Harrisburg. The following year, the Diamond Coal Company began operation, mining the Springfield Coal northeast of Harrisburg. The most recent mining was at American Coal Company's Galatia Mine (mine index 1001) and at Millennium Portal (mine index 1032), both of which closed in 2017.

The Herrin Coal (No. 6) and the Springfield Coal (No. 5) are the major seams mined in the quadrangle. The Herrin Coal is typically 4 to 6 feet thick and ranges from 60 to 80 feet deep in the southern part of the quadrangle to over 400 feet deep in the vicinity of Galatia. The Springfield Coal ranges from less than 200 feet deep in the Sahara No. 16 Mine (mine index 801) to over 600 feet deep at the northern edge of the quadrangle. The seam averages 5 to 7.5 feet thick.

Mining methods were sometimes varied within a mine due to the changing conditions presented by the seam. In the Sahara No. 20 Mine (mine index 909), for instance, there were several areas where conventional mining was practiced, others where continuous miners were used, and still others where longwall methods were employed. The Springfield Coal is often interrupted by 'rolls', or channel fills, and by sheared fractured zones where the coal is crushed. In some locations, large plant fossils, including leaves, stems and bark, were seen in the roof. Occasionally fossil tree stumps, or 'kettlebottoms', were found in growth position.

This quadrangle lies in an area of southern Illinois disturbed by the Cottage Grove Fault System. This system consists of one or more east-west trending master faults and numerous northwest-southeast trending subsidiary faults. Many large faults and igneous dikes have been encountered in the mines. The dikes are generally a few feet to 30 feet wide and up to several miles long. Nelson (1981 and 1983) and Nelson and Krausse (1981) provide detailed descriptions of the channels, faults, dikes and other disturbances found in these mines.

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.
- Nelson, W. J., 1981, Faults and Their Effect on Coal Mining in Illinois, Illinois State Geological Survey, Circular 523, 38p.
- Nelson, W. J., 1983, Geologic Disturbances in Illinois Coal Seams, Illinois Geological Survey, Circular 530, 47p.
- Nelson, W. J. and H.-F. Krausse, 1981, The Cottage Grove Fault System in Southern Illinois, Illinois State Geological Survey, Circular 522, 65p.
- Treworgy, C. G., C. Chenoweth and M. H. Bargh, 1995, Availability of Coal Resources for Mining in Illinois; Galatia Quadrangle, Saline County, Southern Illinois, Illinois State Geological Survey, Illinois Minerals 113, 38p.
- Treworgy, C. G., C. P. Korose, C. A. Chenoweth and D. L. North, 1999, Availability of the Springfield Coal for Mining in Illinois, Illinois State Geological Survey, Illinois Minerals 118, 43p.

PART II DIRECTORY OF MINES IN THE GALATIA QUADRANGLE

MINE SUMMARY SHEETS

A summary sheet on the geology and production history of each mine in the Galatia 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 44

Peabody Coal Company, Peabody No. 43 Mine

Type: Underground Total mined-out acreage shown: 2,067

SHAFT, SLOPE, DRIFT or TIPPLE LOCATIONS

Type	County	Township-Range	Section	Quarters-Footage
Main shaft (10x20)	Saline	9S 6E	17	SE SE NE
Air shaft (10x14)	Saline	9S 6E	17	SE SE NE

GEOLOGY

Seam(s) Mined	Depth (ft)	Thickness (ft)			Mining Method
		Min	Max	Ave	
Springfield	267-274	4.67	7.0-8.0	6.25-7.25	MRP

Geologic Problems Reported: A gas explosion occurred in 1923, killing one man. The east-west-trending Cottage Grove Fault System bisects the mine. Subsidiary northwest-southeast trending faults were present throughout the mine. In some places, faulting interfered with the mining plan, causing several blocks of coal to be left unmined. Pillar and roof failure noted on the source map indicated faulted zones. At least one fault had 3 feet of displacement, another 6 feet. Dikes were also present, following the same trend as the faults. The roof was composed of 65 feet of gray shale, some of which came down in small, irregular lenticular pieces. Pyrite concretions in the roof occurred only in parts of the mine. Slips were present in the roof and the coal, generally parallel to the faults. The coal contained pyrite in bands, lenses and concretions scattered throughout the seam. The coal bed lay in hills and swags; the hills were like knolls and the coal dipped from the crest in all directions. The floor was fireclay at least 2 feet thick, but no heaving was reported.

PRODUCTION HISTORY

Company	Mine Name	Years	Production (tons)
Saline County Coal Company	Saline County No. 3	1910-1919	4,069,469
Big Creek Coal Company	Big Creek No. 3	1919-1921	1,014,310
Big Creek Coals, Inc.	Big Creek No. 3	1921-1923	980,206
Saline County Coal Corporation	Saline County No. 3	1923-1927	2,968,449
Saline County Coal Corporation	Saline County No. 43	1928-1928	206,634
Peabody Coal Company	Peabody No. 43	1929-1942 *	<u>3,924,433</u>
			13,163,501

* Idle 1934 & 1935

Last reported production: February 1942

SOURCES OF DATA

Source Map	Date	Original Scale	Digitized Scale	Map Type
Company, 4103.S32 i5.1-62	3-3-1942	1:2400	1:2400	Final

Annotated Bibliography (data source, brief description of information)

Coal Reports - Production, ownership, years of operation, shaft sizes, geologic problems.
Directory of Illinois Coal Mines (Saline County) - Mine names, mine index, ownership, years of operation.
Mine notes (Saline County) - Mine type, shaft location, seam, depth, thickness, geologic problems.
Company map, ISGS map library, 4103.S32 i5.1-62 - Shaft locations, mine outline, mining method, geologic

problems.

Mine Index 45

Wasson Coal Company, Wasson No. 1 Mine

Type: Underground Total mined-out acreage shown: 2,895

SHAFT, SLOPE, DRIFT or TIPPLE LOCATIONS

Type	County	Township-Range	Section	Quarters-Footage
Main shaft (9x14)	Saline	8S 6E	36	NW SE NE
Air shaft (9x12)	Saline	8S 6E	36	NW SE NE

GEOLOGY

Seam(s) Mined	Depth (ft)	Thickness (ft)			Mining Method
		Min	Max	Ave	
Springfield	318	4.33	6.5	5.0	MRP

Geologic Problems Reported: One man was killed as the result of a 1911 gas explosion; a 1912 gas explosion killed 2 men. Little timbering was required in this mine. Faults having throws of up to 30 feet were found, with most of the displacement being vertical. At least one steep grade in the mine necessitated the purchase of a special slope hoist. The source map shows that the faults trended northwest-southeast, with subsidiary faults roughly perpendicular. These faults show clearly on the accompanying map in the interruption of the mining pattern. One 25 to 30-foot wide igneous dike was found to cut through the coal along the west section line (30-T8S-R7E). It did not displace the coal but did naturally coke the coal for about 40 feet. Some calcite and pyrite veins and nodules were found throughout the coal, but they were not persistent.

PRODUCTION HISTORY

Company	Mine Name	Years	Production (tons)
Wasson Coal Company	Wasson No. 1	1907-1952	<u>16,641,583</u> 16,641,583

Last reported production: March 1952

SOURCES OF DATA

Source Map	Date	Original Scale	Digitized Scale	Map Type
Microfilm, document 352843	3-17-1952	1:2400	1:5297	Final

Annotated Bibliography (data source, brief description of information)

Coal Reports - Production, ownership, years of operation.

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

ENR Document 85/01 - Mining method.

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

Field notes (Saline County) - Geologic problems.

Microfilm map, document 352843, reel 03140, frames 452-457 -Shaft locations, mine outline, mining method.

Mine Index 124**Peabody Coal Company, Peabody No. 47 Mine**

Type: Underground Total mined-out acreage shown: 4,595

SHAFT, SLOPE, DRIFT or TIPPLE LOCATIONS

Type	County	Township-Range	Section	Quarters-Footage
Main shaft	Saline	8S 5E	27	SE SE SW
Air shaft	Saline	8S 5E	27	NE SE SW

GEOLOGY

Seam(s) Mined	Depth (ft)	Thickness (ft)			Mining Method
		Min	Max	Ave	
Springfield	416-420	4.5	8.0	4.67-6.0	RPP

Geologic Problems Reported: A 1921 gas explosion killed 12 miners, and a 1920 gas explosion killed 1 man. Faults were present throughout the mine, most trending northwest-southeast. Some halted mine expansion. Others were mined through, but the amounts of displacement were not noted on the source map. Above the coal was a shale that made a competent roof, except during humid summer when the shale "sweated" and slabbed off, producing many falls. The northernmost part of the mine had several areas identified as bad top. This same area was also shown on the source map to have a two-foot split of rock in the middle of the coal. In the southern part of the mine, an area was labeled 'squeeze'. Some pyrite concretions and lenses were found in the coal. The floor, which was 2 to 3 feet of shale, heaved some, but was underlain by hard limestone.

PRODUCTION HISTORY

Company	Mine Name	Years	Production (tons)
Harrisburg Colliery Company	Harco	1916-1923 *	2,256,378
Saline County Coal Corporation	Saline County No. 7	1923-1927	2,865,728
Saline County Coal Corporation	Saline County No. 47	1928-1928	897,606
Peabody Coal Company	Peabody No. 47	1929-1951	14,991,905
			21,011,617

* Idle 1921

Last reported production: April 1951

SOURCES OF DATA

Source Map	Date	Original Scale	Digitized Scale	Map Type
State archive, IL_2590	4-27-1951	1:12000	1:12000	Final

Annotated Bibliography (data source, brief description of information)

Coal Reports - Production, ownership, years of operation, geologic problems.

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

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

State archive, IL_2590 - Shaft locations, mine outline, mining method, depth, geologic problems.

Mine Index 125
Eldorado Coal Corporation, Eldorado Mine

Type: Underground Total mined-out acreage shown: 2,076

SHAFT, SLOPE, DRIFT or TIPPLE LOCATIONS

Type	County	Township-Range	Section	Quarters-Footage
Main shaft (11.33x17)	Saline	8S 6E	24	NW SE NE
Air shaft (11.33x18)	Saline	8S 6E	24	SE SW NE

GEOLOGY

Seam(s) Mined	Depth (ft)	Thickness (ft)			Mining Method
		Min	Max	Ave	
Springfield	465 (456-465)	5.0	6.5	5.42-6.5	MRP

Geologic Problems Reported: The mine outline shown on the accompanying map indicates the presence of many faults and dikes throughout the mine. Most trend northwest-southeast. The most bothersome dike cut diagonally through 13 and 24-T8S-R6E, and was 25 feet wide in the entry northwest of the hoist shaft, flanked by a total of 12 feet of naturally coked coal. At least two more dikes were noted, both in the northeastern part of the mine. One southwest-northeast trending fault, that had 35 feet of displacement, was noted south of the air shaft. The roof contained many slips, which caused many roof falls. One large area in the northern part of the mine (13-T8S-R6E and 18-T8S-R7E) was unmined because the coal was split. The source map indicates the upper split was 4.0 to 4.5 feet thick, with 1 foot or less of coal in the lower split below 2 feet of rock. Pyrite lenses were common in the coal. The floor had many slips, but no heaving was reported.

PRODUCTION HISTORY

Company	Mine Name	Years	Production (tons)
J. K. Dering Coal Company	Dering No. 2	1917-1929	2,830,130
Franklin County Coal Company	Franklin County No. 10	1930-1930	178,712
Rex Coal Company	Rex No. 2	1931-1939	3,000,500
Dering Coal Company	Dering No. 2	1940-1951	5,015,490
Eldorado Coal Corporation	Eldorado	1952-1953	85,171
			11,110,003

Last reported production: April 1953

SOURCES OF DATA

Source Map	Date	Original Scale	Digitized Scale	Map Type
Microfilm, document 352805	4-18-1953	1:2400	1:5959	Final

Annotated Bibliography (data source, brief description of information)

Coal Reports - Production, ownership, years of operation.
 Directory of Illinois Coal Mines (Saline County) - Mine names, mine index, ownership, years of operation.
 Mine notes (Saline County) - Mine type, shaft location, seam, depth, thickness, geologic problems.
 Microfilm map, document 352805, reel 03140, frames 352-357 - Shaft locations, mine outline, mining method, geologic problems.
 Company map, ISGS map library, 4103.S32 d5.2-1 - Geologic problems (handwritten on map by G. H. Cady, 1919).

Mine Index 127**Sahara Coal Company, Sahara No. 1 Mine**

Type: Underground Total mined-out acreage shown: 2,213

SHAFT, SLOPE, DRIFT or TIPPLE LOCATIONS

Type	County	Township-Range	Section	Quarters-Footage
Main shaft	Saline	9S 6E	2	SE NW NE
Air shaft	Saline	9S 6E	2	SE NW NE

GEOLOGY

Seam(s) Mined	Depth (ft)	Thickness (ft)			Mining Method
		Min	Max	Ave	
Springfield	311	4.5	6.5	4.67-5.25	MRP

Geologic Problems Reported: A 1907 gas explosion killed a mine examiner. Two northwest-southeast trending faults cut through the mine. These are subsidiary faults of the Cottage Grove Fault System. The main east-west fault of the system limited southern expansion of the mine. The shale roof was generally good, with little timbering needed. Although in isolated parts of the mine, the roof fell easily when the coal was removed. Pyrite lenses were present in the seam. The underclay heaved when wet, causing squeezes in the mine.

PRODUCTION HISTORY

Company	Mine Name	Years	Production (tons)
Diamond Coal Company	Diamond	1904-1905	6,937
O'Gara Coal Company	O'Gara No. 1	1905-1932	9,794,962
Sahara Coal Company	Sahara No. 1	1933-1939	<u>2,334,302</u>
			12,136,201

Last reported production: May 1939

SOURCES OF DATA

Source Map	Date	Original Scale	Digitized Scale	Map Type
Microfilm, document 352836	5-19-1939	1:2400	1:4634	Final
Company, 4103.S32 i5.1-27	5-19-1939	1:2400	1:2400	Final
Company, 4103.S32 i5.1-71	7-1-1913	1:2400	1:2400	Not final

Annotated Bibliography (data source, brief description of information)

Coal Reports - Production, ownership, years of operation, geologic problems.

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

ENR Document 85/01 - Mining method.

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

Microfilm map, document 352836, reel 03140, frames 412-415 - Mine outline (south half), mining method.

Company map, ISGS map library, 4103.S32 i5.1-27 - Mine outline (north half), mining method.

Company map, ISGS map library, 4103.S32 i5.1-71 (sheet 3) - Shaft locations.

Mine Index 535**Sahara Coal Company, Inc., Sahara No. 12 Mine**

Type: Underground Total mined-out acreage shown: 1,000

SHAFT, SLOPE, DRIFT or TIPPLE LOCATIONS

Type	County	Township-Range	Section	Quarters-Footage
Main shaft	Saline	9S 6E	2	SE NW SW
Escape / air shaft	Saline	9S 6E	2	SE NW SW

GEOLOGY

Seam(s) Mined	Depth (ft)	Thickness (ft)			Mining Method
		Min	Max	Ave	
Springfield	415			5.33 (4.5-8.0)	MRP

Geologic Problems Reported: Gas was abundant in places. Northwest-southeast trending faults were present in the eastern and western parts of the mine. The roof was good, except for two layers of "draw slate". The first layer was taken down with the coal, and the second layer came down after a few months. The coal contained a pyrite layer near the top of the seam.

PRODUCTION HISTORY

Company	Mine Name	Years	Production (tons)
Harrisburg-Big Muddy Coal Company	Illinois	1905-1906	11,245
O'Gara Coal Company	O'Gara No. 12	1906-1910 *	242,086
Harrisburg-Big Muddy Coal Company	Harrisburg-Big Muddy No. 12	1910-1911	41,380
O'Gara Coal Company	O'Gara No. 12	1911-1914	276,453
Harrisburg-Big Muddy Coal Company	Harrisburg-Big Muddy No. 12	1914-1920 **	890,145
O'Gara Coal Company	O'Gara No. 12	1920-1932 ***	1,950,291
Sahara Coal Company, Inc.	Sahara No. 12	1933-1938 †	<u>1,310,616</u>
			4,722,216

* Idle 1909

** Idle 1920

*** Idle 1932

† Idle 1933

Last reported production: March 1938

SOURCES OF DATA

Source Map	Date	Original Scale	Digitized Scale	Map Type
Microfilm, document 352792	3-11-1938	1:2400	1:5131	Final

Annotated Bibliography (data source, brief description of information)

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

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

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

Microfilm map, document 352792, reel 03140, frames 327 & 328 - Shaft locations, mine outline, mining method, geologic problems.

Mine Index 608**Sahara Coal Company, Sahara No. 3 Mine**

Type: Underground Total mined-out acreage shown: 1,372 Production indicates approximately 7 acres were mined after the map date.

SHAFT, SLOPE, DRIFT or TIPPLE LOCATIONS

Type	County	Township-Range	Section	Quarters-Footage
Main shaft	Saline	9S 6E	15	NW SE SW
Air / escape shaft	Saline	9S 6E	15	NW SE SW
Slope	Saline	9S 6E	23	NE NW NE

GEOLOGY

Seam(s) Mined	Depth (ft)	Thickness (ft)			Mining Method
		Min	Max	Ave	
Springfield	245			5.0-7.0	RPP

Geologic Problems Reported: A 1910 gas explosion killed a mine examiner. A series of northwest-southeast trending faults were present throughout the mine.

PRODUCTION HISTORY

Company	Mine Name	Years	Production (tons)
Egyptian Coal Company	Egyptian No. 2	1905-1906	not reported
O'Gara Coal Company	O'Gara No. 3	1906-1932 *	6,847,713
Sahara Coal Company, Inc.	Sahara No. 3	1933-1937	1,118,762
Sahara Coal Company	Sahara No. 3	1937-1937	36,128 **
			8,002,603

* Idle 1915

** Production after map date

Last reported production: January 1937

SOURCES OF DATA

Source Map	Date	Original Scale	Digitized Scale	Map Type
Company, R4103.S32 i5.1-89	1-1-1937	1:2400	1:2400	Not final

Annotated Bibliography (data source, brief description of information)

Coal Reports - Production, ownership, years of operation, thickness, geologic problems.

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

ENR Document 85/01 - Mining method.

Mine notes (Saline County) - Mine type, shaft location, seam, depth, thickness.

Company map, ISGS map library, R4103.S32 i5.1-89 - Shaft & slope locations, mine outline, mining method, geologic problems.

Mine Index 702

Amax Coal Company, Delta Mine

Type: Surface Total mined-out acreage shown: 12,942 (2,892 in Danville Coal, 7,668 in Herrin Coal and 2,382 in Springfield Coal)

SHAFT, SLOPE, DRIFT or TIPPLE LOCATIONS

Type	County	Township-Range	Section	Quarters-Footage
Tipple	Williamson	9S 4E	33	NW NW NE

Pits were located in all or parts of Sections 10, 11, 12, 13, 14, 15, 16, 17, 18, 20, 21, 22, 23, 24, 26, 27, 28, 29, 26, 33, 34, 35, 36 of T9S-R4E, 2, 3, 4, 5, 8, 9, 10, 11, 31 of T9S-R5E, and 2, 3 of T10S-R4E.

GEOLOGY

Seam(s) Mined	Depth (ft)	Thickness (ft)			Mining Method
		Min	Max	Ave	
Danville	43			1.83	Surface
Herrin (1943-1997)	28-120			4.58-7.0	Surface
Springfield (1935-1943)	75-101			4.17-4.33	Surface

Geologic Problems Reported: The coal had a steep pitch near the Cottage Grove fault, which prevented mining in its immediate proximity. Subsidiary faults were encountered, with up to 12 feet of displacement. Near the faults, the coal's topography and thickness varied, but in some pits, the thickness had little variation. Other fault-related features were noted, including pulverized or shattered zones and slips. Coal balls were locally abundant. The top of the Herrin Coal was irregular and interbedded with shale. Three lenses of shale that were up to 4 feet thick were noted in a one-half mile face. The coal contained pyrite nodules.

PRODUCTION HISTORY

Company	Mine Name	Years	Production (tons)
Delta Coal Mining Company	Delta	1935-1946	5,817,335
Delta Collieries Corporation	Delta	1946-1956	6,312,742
Carmac Coal Company	Delta	1957-1962	4,937,465
Thunderbird Collieries Corporation	Delta	1963-1966	3,901,411
Ayrshire Collieries Corporation	Delta	1967-1968	1,860,290
Ayrshire Coal Company, Div. AMAX	Delta	1969-1971	2,804,014
Amax Coal Company	Delta	1972-1997	<u>37,454,266</u>
			63,087,523 *

* Some production is from Saline County.

Last reported production: 1997

SOURCES OF DATA

Source Map	Date	Original Scale	Digitized Scale	Map Type
Company, Coal Section files	2-6-1996	—	—	Final
USGS topographic map	1961, PR 1990	1:24000	1:24000	Secondary source
USGS topographic map	1965, PR 1990	1:24000	1:24000	Secondary source
Department of Mines & Minerals	Undated			Secondary source
Department of Mines & Minerals	Undated			Secondary source

Annotated Bibliography (data source, brief description of information)

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

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

Mine notes (Williamson County) - Mine type, mine location, seam, geologic problems.

Company map, Coal Section files, digital file - Mine outline, mining method.

USGS topographic map, Carrier Mills 7.5-minute Quadrangle, 1961, Photorevised 1990 - Mine outline.

USGS topographic map, Crab Orchard 7.5-minute Quadrangle, 1965, Photorevised 1990 - Mine outline.

Department of Mines & Minerals, 7a-02-13, aerial photograph base with surface mines identified - Mine outline.

Department of Mines & Minerals, 7a-02-12, aerial photograph base with surface mines identified - Mine outline.

Mine Index 798**Big Creek Coals, Inc., Big Creek No. 5 Mine**

Type: Underground Total mined-out acreage shown: 126 (67 Herrin Coal, 59 Springfield Coal)

SHAFT, SLOPE, DRIFT or TIPPLE LOCATIONS

Type	County	Township-Range	Section	Quarters-Footage
Main shaft (Herrin)	Saline	8S 5E	11	SW NW SE
Air shaft (Herrin)	Saline	8S 5E	11	SW NW SE

GEOLOGY

Seam(s) Mined	Depth (ft)	Thickness (ft)			Mining Method
		Min	Max	Ave	
Herrin (1902-1916)	340-367	5.5	6.5	5.5-5.83	RPB
Springfield (1917-1923)	485.5	2.0	7.5	6.0	RPB

Geologic Problems Reported: Two dikes were reported, 3500 feet east of the mine, trending northwest, and the other south of the mine, trending east-west. The Herrin Coal had some gas. The Springfield Coal was very dirty, and sandstone lenses rolled into the coal. Pyrite was present as thin lenses. The roof was good, mostly of limestone, but the shale beneath the limestone fell where it was thin.

PRODUCTION HISTORY

Company	Mine Name	Years	Production (tons)
Galatia Coal Company	Galatia	1902-1911 *	154,914
St. Louis Coal & Coke Company	Galatia No. 1	1911-1912	20,000
Galatia & Saline Coal Company	Galatia No. 1	1912-1913	14,000
Galatia Coal Company	Galatia	1913-1914	21,950
Brown & Jones Coal Company	Galatia	1914-1915	4,893
Durham Coal Company	Durham	1915-1917	66,870
Saline County Coal Company	Saline County No. 5	1917-1918	56,918
Galatia Colliery Company	Galatia No. 5	1918-1919	30,794
Big Creek Coals, Inc.	Big Creek No. 5	1919-1923 **	210,356
Peabody Coal Company	Peabody No. 45	1923-1923	<u>none reported</u> *** 580,695

* Idle 1904

** Production was not reported in 1922; idle or production was less than 10,000 tons

*** Peabody Coal Company was listed as the successor to Saline County Coal Company on the map, but no production was reported under this name.

Last reported production: June 1923

SOURCES OF DATA

Source Map	Date	Original Scale	Digitized Scale	Map Type
State archive, IL_2575_01	6-1-1918	1:2400	1:2400	Final
State archive, IL_2576_01	6-18-1929	1:2400	1:2400	Final

Annotated Bibliography (data source, brief description of information)

Coal Reports - Production, ownership, years of operation.

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

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

ISGS Field notes (Saline County) - Geologic problems.

State archive, IL_2575_01 (Herrin coal) - Shaft locations, mine outline, mining method, seam.

State archive, IL_2576_01 (Springfield coal) - Mine outline, mining method, seam, geologic problems.

Mine Index 801**Sahara Coal Company, Inc., Sahara No. 16 Mine**

Type: Underground Total mined-out acreage shown: 2,861

SHAFT, SLOPE, DRIFT or TIPPLE LOCATIONS

Type	County	Township-Range	Section	Quarters-Footage
Main slope	Saline	9S 5E	13	SE SW SW
Air shaft *	Saline	9S 5E	13	SW SW SW
Escape (old air) shaft	Saline	9S 5E	13	SE SW SW

* The old shaft was converted to an air shaft in 1941, when the new slope was constructed.

GEOLOGY

Seam(s) Mined	Depth (ft)	Thickness (ft)			Mining Method
		Min	Max	Ave	
Springfield	189-200	5.0	7.0	6.5	RPP

Geologic Problems Reported: The mine had many faults, trending northwest-southeast. These faults controlled the mine plan to some extent, specifically in the southeastern part of the mine, where a large block was left unmined. The roof was not good, the seam "hilly", and the floor heaved slightly.

PRODUCTION HISTORY

Company	Mine Name	Years	Production (tons)
Elder & Bixler Coal Company	Elder & Bixler	1913-1920	41,322
Harrisburg Coal Mining Company	Blue Bird	1920-1924	598,492
Harrisburg Coal Mining Company	Harrisburg No. 1	1924-1927	285,917
Idle		1927-1941	
Bankston Creek Collieries Company	Bankston Creek No. 16	1941-1950	4,359,557
Sahara Coal Company, Inc.	Sahara No. 16	1951-1971	<u>12,115,092</u>
			17,400,380

Last reported production: 1971

SOURCES OF DATA

Source Map	Date	Original Scale	Digitized Scale	Map Type
State archive, IL_356_06	12-23-1971	1:2400	1:2400	Final

Annotated Bibliography (data source, brief description of information)

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

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

Mine notes (Saline County) - Mine type, slope location, seam, depth, thickness, geologic problems.

State archive, IL_356_06 - Slope & shaft locations, mine outline, mining method, geologic problems.

Mine Index 909**Sahara Coal Company, Inc., Sahara No. 20 Mine**

Type: Underground Total mined-out acreage shown: 1,200

SHAFT, SLOPE, DRIFT or TIPPLE LOCATIONS

Type	County	Township-Range	Section	Quarters-Footage
Main slope	Saline	9S 5E	10	SE NW SW
Air shaft	Saline	9S 5E	10	SW SW NW

GEOLOGY

Seam(s) Mined	Depth (ft)	Thickness (ft)			Mining Method
		Min	Max	Ave	
Springfield	223	4.0	10.0	4.58-5.83	RPP, some HER *

* The source map shows what appears to be some pillar removal in the south half of 9-T9S-R5E.

Geologic Problems Reported: Faulting throughout the mine displaced the coal bed in many areas. The amount of displacement was not specified in the ISGS mine notes nor on the source map. In general, the roof was good, but the source map shows "bad top" that apparently halted southward expansion in the southwest quarter of 9-T9S-R5E. Bad top was also a problem in a small area in the NE SW 9-T9S-R5E. Some areas of the mine also displayed rolls.

PRODUCTION HISTORY

Company	Mine Name	Years	Production (tons)
Sahara Coal Company, Inc.	Sahara No. 20	1969-1983	<u>5,586,580</u> 5,586,580

Last reported production: May 1983

SOURCES OF DATA

Source Map	Date	Original Scale	Digitized Scale	Map Type
Company, 10-5-55	6-1983	1:1200	1:1200	Final

Annotated Bibliography (data source, brief description of information)

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

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

ENR Document 85/01 - Mining method.

Mine notes (Saline County) - Mine type, slope location, seam, thickness, geologic problems.

Company map, ISGS Coal Section files, 10-5-55 - Slope & shaft locations, mine outline, mining method, geologic problems.

Mine Index 1001**American Coal Company, Galatia Mine**

Type: Underground Total mined-out acreage shown: 20,054 (7,899 in the Herrin Coal, 12,155 in the Springfield Coal) This mine does not extend onto the Harco Quadrangle, but is included because all production for the Millennium Portal (mine index 1032) is reported with the Galatia Mine.

SHAFT, SLOPE, DRIFT or TIPPLE LOCATIONS

Type	County	Township-Range	Section	Quarters-Footage
Main shaft	Saline	8S 6E	7	SE NW SE *
Main slope	Saline	8S 6E	7	SW NW SE
Shaft	Saline	7S 6E	29	SW SE NE
Air shaft	Saline	7S 6E	29	NW SE NE
Air shaft	Saline	8S 6E	6	SW NE NE
Air shaft	Saline	8S 6E	11	NE NE SW
Air shaft	Saline	8S 6E	14	NE SW SE
Air shaft	Saline	8S 6E	27	NE NE NE
Air shaft	Saline	7S 5E	24	SW NW SW
Air shaft	Saline	8S 5E	1	NW NW NE
Air shaft	Saline	7S 5E	35	NE NW NE
Air intake/return shaft	Saline	7S 6E	30	SW SE SE
Air shaft	Hamilton	7S 6E	18	SE NE NE
Air shaft	Hamilton	7S 5E	13	NW NW SE
Air shaft	Hamilton	7S 5E	10	SW NE SE
Air shaft	Hamilton	7S 5E	10	SW NE NW
Air shaft	Hamilton	7S 6E	7	NE NW SE

GEOLOGY

Seam(s) Mined	Depth (ft)	Thickness (ft)			Mining Method
		Min	Max	Ave	
Herrin *	450			6.0	CRP, LW
Springfield	550			6.5	CRP, LW

* The Herrin seam was inactive from 1995 to 2003.

Geologic Problems Reported: In the Herrin Coal workings, the roof was firm, well laminated, finely micaceous and silty, with abundant plant fossils. Roof falls were a problem, with some as much as 25-30 feet high. They occurred suddenly, with no warning, several weeks or months after mining. Many were attributed to roof rolls, slip fractures, and small local faults, but some appeared unrelated to roof structures or discontinuities. These falls occurred under a thinly-laminated, micaceous siltstone probably the result of bedding plane separation. Large masses of coal balls were also encountered in the coal, sometimes replacing most or all of the coal seam. The floor was typically siltstone or firm silty shale, but locally more claylike. It was generally firm, abrasive, and not prone to heave. The mine was usually dry. In the Springfield workings, the roof was gray shale, very carbonaceous and nearly black at the base. The coal was split in some locations by as much as 5 feet of massive siltstone. The floor was rooted claystone grading down to siltstone.

PRODUCTION HISTORY

Company	Mine Name	Years	Production (tons)
Kerr-McGee Coal Corporation	Galatia	1983-1997	47,226,632
American Coal Company	Galatia **	1998-2017	133,418,031 ***
			180,644,663

**In 2006, the portion of the mine in the Herrin seam became known as New Era Mine, and the portion of the mine in the Springfield seam became known as Galatia North Mine.

*** Production from 2000-2017 includes production for the Millennium Portal (mine index 1032).

Last reported production: 2017

SOURCES OF DATA

Source Map	Date	Original Scale	Digitized Scale	Map Type
Company, 6-374aa	1-12-2018	1:24000	1:24000	Final
Company, 6-374s	2-6-2012	1:24000	1:24000	Final

Annotated Bibliography (data source, brief description of information)

Coal Reports - Production, ownership, years of operation.

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

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

Company map, Coal section files, 6-374aa (Herrin Coal) - Shaft & slope locations, mine outline, mining method.

Company map, Coal section files, 6-374s (Springfield Coal) - Shaft & slope locations, mine outline, mining method.

Mine Index 1015**Big Ridge, Inc., Big Ridge Portal No. 1 Mine**

Type: Underground Total mined-out acreage shown: 2,509

SHAFT, SLOPE, DRIFT or TIPPLE LOCATIONS

Type	County	Township-Range	Section	Quarters-Footage
Main slope	Saline	9S 7E	20	NW NW SW
Air shaft	Saline	9S 7E	20	NW SW NW

GEOLOGY

Seam(s) Mined	Depth (ft)	Thickness (ft)			Mining Method
		Min	Max	Ave	
Springfield	150	4.3	6.0	4.5	RPP

Geologic Problems Reported: Northwest-southeast trending faults that parallel the Cottage Grove Fault System run through the mine.

PRODUCTION HISTORY

Company	Mine Name	Years	Production (tons)
Arclar Company	Big Ridge Portal No. 1	1990-1997	9,249,080 *
Big Ridge, Inc.	Big Ridge Portal No. 1	1998-1998	384,466 *
			9,633,546

* The production for Portal No. 1 and Portal No. 2 (mine index 1021) was not listed separately in the Coal Reports. The reported production for 1997 and 1998 has been split into an estimate for each of the two mines.

Last reported production: 1998 (Text on the source map stated that the bottom was sealed 8-13-1998.)

SOURCES OF DATA

Source Map	Date	Original Scale	Digitized Scale	Map Type
Company, 4103.S32 i5.1-96	2-16-1999	1:4800	1:4800	Final

Annotated Bibliography (data source, brief description of information)

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

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

Mine notes (Saline County) - Mine type, slope location, seam, thickness.

Company map, ISGS map library, 4103.S32 i5.1-96 - Slope & shaft locations, mine outline, mining method, geologic problems.

Mine Index 1032**American Coal Company, New Future Portal Mine**

Type: Underground Total mined-out acreage shown: 3,535 acres in the Herrin Coal and 2,198 acres in the Springfield Coal

SHAFT, SLOPE, DRIFT or TIPPLE LOCATIONS

Type	County	Township-Range	Section	Quarters-Footage
Main slope	Saline	8S 5E	15	SW NW NE
Air shaft	Saline	8S 5E	2	SE NE SW
Air shaft	Saline	8S 5E	8	NE NE NE
Air shaft	Saline	8S 5E	17	SE NE NE

GEOLOGY

Seam(s) Mined	Depth (ft)	Thickness (ft)			Mining Method
		Min	Max	Ave	
Herrin *					LW
Springfield *					LW

*The Springfield Coal was mined from the mine's opening until 2011. The Herrin Coal began being worked in 2010, and was worked until the mine closed.

Geologic Problems Reported: The roof material is largely medium gray silty shale to siltstone. In some parts of the mine, NE-trending vertical joints were present. In areas where this jointing was intense, large roof falls and water problems were encountered. Fracture zones were also encountered that produced water which created mud issues for the miners, sometimes requiring cribs to deal with roof falls. Numerous rolls were present throughout the mine, sometimes appearing in swarms.

PRODUCTION HISTORY

Company	Mine Name	Years	Production (tons)
American Coal Company	Millennium Portal	2000-2005	none reported **
American Coal Company	New Future Portal	2006-2017	none reported **

** No production has been reported under this name. Production for this mine is included in the totals for American Coal Company, Galatia Mine (index 1001).

Last reported production: 2017

SOURCES OF DATA

Source Map	Date	Original Scale	Digitized Scale	Map Type
Company, 6-374aa	1-12-2018	1:24000	1:24000	Final
Company, 6-374s	2-6-2012	1:24000	1:24000	Final

Annotated Bibliography (data source, brief description of information)

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

Mine notes (Saline County) - Geologic problems.

Company map, Coal section files, 6-374aa (Herrin Coal) - Shaft & slope locations, mine outline, mining method.

Company map, Coal section files, 6-374s (Springfield Coal) - Shaft & slope locations, mine outline, mining method.

MINES WHOSE LOCATIONS ARE NOT KNOWN, GALATIA QUADRANGLE

The locations of the following mines are unknown, but the production tonnage, operating names, and nearest town were reported in the Annual Coal Reports. The operators listed below mined in or near the Galatia Quadrangle. The information shown is similar to that presented on the summary sheets in the previous pages of this directory. The first item is the name the mine operated under as listed in the Coal Report, then the years the mine reported. If no physical data are available, the next item listed is the total tons produced by the mine. If physical data are available, the order of presentation is as follows: type of opening for the mine (drift, slope or shaft), depth of coal in feet, and thickness of coal in feet.

The total tons mined by these unlocated mines is 11,391 (695 underground and 10,696 surface mined), which would represent approximately 1 to 2 acres, depending on the recovery factor, mining method, and numerous other factors. (Note: 1 square mile = 640 acres)

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Adams Coal Company, 1957-1957, surface	4,172 tons
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SOUTH AMERICA

Curtner (John), 1889-1891, surface, Herrin, 10, 5.0	730 tons
Curtner (Daniel), 1891-1893	<u>852</u> tons
	1,582 tons

Speare (Philip), 1889-1891, surface, Herrin, —, 5.0	1,000 tons
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Harris (W. W.), 1889-1890, surface, Herrin, —, 5.33	320 tons
Harris & Motsinger, 1890-1891	<u>560</u> tons
	880 tons

Rush (W. V.), 1889-1890, surface, Herrin, —, 5.0	600 tons
Rush & Shanks, 1890-1891	<u>2,206</u> tons
	2,806 tons

Thompson (Bryant), 1890-1891, surface, Herrin, —, 5.0	256 tons
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Stiff (Noah), 1895-1899, drift, Herrin, 10-15, 5.0, RP	695 tons
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Funding for this project was supplied by the Illinois Department of Transportation.