

Coal Mines in Illinois Sesser Quadrangle

Franklin, Jefferson, & Perry Counties, Illinois

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

Mining Method



General Area of Mining

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 ۰
- Uncertain Location
- Uncertain Type of Opening

Mine Annotation

(space permiting) Company Mine Name ISGS Index No., Years of Operation

DISCLAIMER

These data were compiled and digitized from the best source maps available. Locations of some features may be offest by 600 feet of more day a combination of these factors. Decumentation of the source materials used is contained in the directory that accompanies this map. It is the limitations of the dat. Though efforts have been made to complet hese data accurately, the Illinois State Geological Survey does not guarantee the validity or the sociary of field data.

The image of the U.S.G.S. Sesser Quadrangle used as a basemap was projected from the original UTM to Lambert Conformal Conic.



Illinois State Geological Survey 615 E. Peabody Dr. Champaign, IL 61820

Mine Outlines Compiled by Alan R. Myers March 12, 2008

Location



DIRECTORY OF COAL MINES IN ILLINOIS 7.5-MINUTE QUADRANGLE SERIES SESSER QUADRANGLE FRANKLIN, JEFFERSON & PERRY COUNTIES

Alan R. Myers & C. Chenoweth



Department of Natural Resources ILLINOIS STATE GEOLOGICAL SURVEY 2008

DIRECTORY OF COAL MINES IN ILLINOIS 7.5-MINUTE QUADRANGLE SERIES SESSER QUADRANGLE FRANKLIN, JEFFERSON & PERRY COUNTIES

2008

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

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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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.

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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 SESSER QUADRANGLE

The earliest mining in the Sesser Quadrangle was the Old Ben No. 16 Mine (mine index 50) in 1905. Mining probably began so late here because of the coal depth; the Herrin Coal was generally over 600 feet deep. The last mining here was the Rend Lake Mine (mine index 877), which ceased production in 2002. The Herrin Coal was quite thick in this area, with average thickness between 7 and 9 feet. The coal was sometimes split. The accompanying map shows that very little area is left unmined, so the split coal apparently affected only small local areas. The seam bottom undulated, and rolls were common but apparently only affected local areas. The roof was commonly gray shale, and roof problems were noted in most of the mines. Top coal was generally left to support the roof and protect the shale from moisture in the ventilating air, which exacerbated the propensity of the shale to come down. The depth of the coal was probably a factor in forcing gas out of the seam. At least 6 explosions were noted, with a total of 21 fatalities. Some faults, associated with the Rend Lake Fault System, were noted in the mines, but displacement was generally less than 10 feet and did not affect large areas.

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 ISGS 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 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 tipple locations Locations of all known former entry points to underground mines or the location of coal cleaning. tipple, 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 guarter of the southwest guarter of the northwest guarter. 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 tipple. 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 tipple for underground mines was generally located near the main shaft or slope. At surface mines, coal was sometimes hauled to a central tipple 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 SESSER QUADRANGLE

MINE SUMMARY SHEETS

A summary sheet on the geology and production history of each mine in the Sesser 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 50

Old Ben Coal Corporation, Old Ben No. 16 Mine

Type: Underground Total mined-out acreage shown: 1,061

SHAFT, SLOPE, DRIFT or TIPPLE LOCATIONS

Туре	County	Township-Range	Section	Quarters-Footage
Main shaft (10'x18')	Franklin	5S 2E	19	SW SW NE
Air shaft (10'x15')	Franklin	5S 2E	19	NW SW NE

GEOLOGY

		Thick	ness (ft)		Mining
Seam(s) Mined	Depth (ft)	Min	Max	Ave	Method
Herrin	644	7.5	9.0	8.5	RPP, some HER

<u>Geologic Problems Reported</u>: The roof was sandy gray shale that fell in large tabular masses. From 19 to 24 inches of top coal was left to support and protect the roof. A few rolls and slips were present in the seam. The mine had a considerable number of swags and hills. The coal thinned in the swags. A few rolls were present in the seam, and the rolls, when present, always occurred in the swags. Pyrite balls were irregularly dispersed through the mine, and some dirt bands were present in the seam. The floor was a very hard underclay 10 or more feet thick that rarely heaved.

PRODUCTION HISTORY

Company	Mine Name	Years	Production (tons)
Franklin County Construction Company	Franklin County Construction	1905-1906	none
Sesser Coal & Construction Company	Sesser	1906-1907	15,520
Franklin County Colliery Company	Franklin County No. 1	1907-1910	659,533
Sesser Coal Company	Sesser	1910-1919	4,349,274
Old Ben Coal Corporation	Old Ben No. 16	1919-1923	<u>1,419,946</u>
·			6,444,273

Last reported production: November 1923

SOURCES OF DATA

		Original	Digitized		
Source Map	Date	Scale	Scale	Мар Туре	
Company, Old Ben Archive Collection	6-30-1924	1:2400	1:2400	Final	

Annotated Bibliography (data source, brief description of information)

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

Directory of Illinois Coal Mines (Franklin County) - Mine names, mine index, ownership, years of operation. ENR Document 85/01 - Mining method.

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

Company map, Old Ben Archive Collection - Shaft locations, mine outline, mining method.

Mine Index 56 Old Ben Coal Corporation, Old Ben No. 19 Mine

Type: Underground Total mined-out acreage shown: 745

SHAFT, SLOPE, DRIFT or TIPPLE LOCATIONS

Туре	County	Township-Range	Section	Quarters-Footage
Main shaft (10'x18')	Franklin	6S 2E	4	SE SW NE
Air/escape shaft (10'x13')	Franklin	6S 2E	4	NE NW SE

GEOLOGY

		Thio	ckness (f	t)	Mining	
Seam(s) Mined	Depth (ft)	Min	Max	Ave	Method	
Herrin	567-580	7.0	10.0	7.67-9.0	RPP	

<u>Geologic Problems Reported</u>: Two gas explosions killed seven men in November-December 1908. The roof was gray shale over a large portion of the mine, and the roof over the remainder of the mine was 9 feet of limestone. Where gray shale made up the roof, 1.5 feet of top coal was left to support the roof. Rolls were fairly common, but not in sufficient number to seriously affect mining. The seam contained pyrite streaks and lenses, irregularly distributed. The floor clay heaved badly when wet.

PRODUCTION HISTORY

			Production
Company	Mine Name	Years	(tons)
W. P. Rend Coal Company	Rend	1907-1920	3,613,204
Old Ben Coal Corporation	Old Ben No. 19	1920-1923	521,861
-			4,135,065

Last reported production: March 1923

SOURCES OF DATA

		Original	Digitized		
Source Map	Date	Scale	Scale	Мар Туре	
Company, Old Ben Archive Collection	6-30-1924	1:2400	1:2400	Final	

Annotated Bibliography (data source, brief description of information)

Coal Reports - Production, ownership, years of operation, shaft sizes, depth, thickness, geologic problems. Directory of Illinois Coal Mines (Franklin County) - Mine names, mine index, ownership, years of operation. ENR Document 85/01 - Mining method.

Mine notes (Franklin County) - Mine type, shaft location, seam, depth, thickness, geologic problems. Company map, Old Ben Coal Company Archive Collection - Shaft locations, mine outline, mining method.

Mine Index 134 Brewerton Coal Company, Brewerton No. 22 Mine

Type: Underground Total mined-out acreage shown: 495 Production indicates approximately 15 acres were mined after the map date.

SHAFT, SLOPE, DRIFT or TIPPLE LOCATIONS

Туре	County	Township-Range	Section	Quarters-Footage
Main shaft (11.33'x17.2	5') Franklin	5S 1E	12	NW NW SE
Air shaft (11'x15')	Franklin	5S 1E	12	NE NW SE

GEOLOGY

		Thick	ness (ft)		Mining
Seam(s) Mined	Depth (ft)	Min	Max	Ave	Method
Herrin	650-693	8.5	10.0	9.0-9.5	RPP (some HER)

<u>Geologic Problems Reported</u>: The roof consisted of "white top", a soft, heavy shale that fell after exposure to air. This shale reportedly was 28 to 30 feet thick. It was necessary to leave 1 to 3 feet of top coal to protect the roof from exposure to air; roof falls were rare because of this precaution. A few pyrite stringers were present in the top of the seam. Rolls and "hills" occurred throughout the mine. The hills caused considerable trouble, because much grading was required, and the weight of the roof was concentrated in the low areas, resulting in squeezes. The blue band was thick, up to 14 inches. The floor clay was more than 10 feet thick and heaved when wet. A squeeze in the western side of the mine was the result of robbing pillars. This floor clay was harder and more shaley than the usual fireclay floor under the Herrin Coal in other areas of the state, and was characterized by many small slips.

PRODUCTION HISTORY

			Production
Company	Mine Name	Years	(tons)
Modern Coal Company	Modern No. 1	1917-1919	158,895
Southern Gem Coal Corporation	Southern Gem No. 2	1919-1927 *	1,768,040
Brewerton Coal Company **	Brewerton No. 22	1928-1934	1,297,907
Brewerton Coal Company	Brewerton No. 22	1934-1934	97,992 ***
			3,322,834

* Idle 1925-1927

** Known as Interstate Coal Company, Sesser No. 22 Mine, but did not report under this name *** Production after map date

Last reported production: November 1934

SOURCES OF DATA

		Original	Digitized	
Source Map	Date	Scale	Scale	Мар Туре
Microfilm, document 351423	7-15-1934	1:2400	1:4634	Not final

Annotated Bibliography (data source, brief description of information)

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

Directory of Illinois Coal Mines (Franklin County) - Mine names, mine index, ownership, years of operation. ENR Document 85/01 - Mining method.

Mine notes (Franklin County) - Mine type, shaft locations, seam, depth, thickness, geologic problems. Microfilm map, document 351424, reel 03136, frames 69-72 - Shaft locations, mine outline, mining method.

Mine Index 136 Old Ben Coal Corporation, Old Ben No. 22 Mine

Type: Underground Total mined-out acreage shown: 5,912

SHAFT, SLOPE, DRIFT or TIPPLE LOCATIONS

Туре	County	Township-Range	Section	Quarters-Footage
Main shaft (15'x22.5')	Franklin	6S 1E	1	600 FSL, 100 FEL, SE NE
Air shaft (17'x33.17')	Franklin	6S 2E	6	NW NW SW

GEOLOGY

		Thio	ckness (f	it)	Mining	
Seam(s) Mined	Depth (ft)	Min	Max	Ave	Method	
Herrin	577-602	6.0	11.5	8.0 (7.5-9.0)	RPP (some HER)	

<u>Geologic Problems Reported</u>: Gas was present in the mine (four men were killed in a 1930 explosion, one man was asphyxiated in 1945). The roof was a light gray shale that was full of slips, but it was considered troublesome only in the eastern part of the mine. Rolls were present. One roll was 20 feet long. A great number of calcite facings were present in the seam. In addition, there was a considerable number of tiny pyrite veinlets throughout the seam. The source map showed an area of (unminable) split coal in 11-T6S-R1E. The underclay floor was 8 inches to 10 feet thick and heaved when wet.

PRODUCTION HISTORY

			Production	
Company	Mine Name	Years	(tons)	
Valier Coal Company	Valier No. 1	1918-1952 *	32,591,943	
Old Ben Coal Corporation	Old Ben No. 22	1952-1960	4,192,428	
			36,784,371	

* Idle 1950 &1951

Last reported production: January 1960

SOURCES OF DATA

		Original	Digitized	
Source Map	Date	Scale	Scale	Мар Туре
Company, Old Ben Archive Collection	2-1-1960	1:2400	1:2400	Final

Annotated Bibliography (data source, brief description of information)

Coal Reports - Production, ownership, years of operation, seam, shaft sizes, thickness, geologic problems. Directory of Illinois Coal Mines (Franklin County) - Mine names, mine index, ownership, years of operation. ENR Document 85/01 - Mining method.

Mine notes (Franklin County) - Mine type, shaft location, depth, thickness, geologic problems. Company map, Old Ben Archive Collection - Shaft locations, mine outline, mining method.

Mine Index 665 Old Ben Coal Corporation, Old Ben No. 14 Mine

Type: Underground Total mined-out acreage shown: 5,369 The area shown is too large for the reported production and coal thickness. It is probable that a foot or more of top coal was left to support the roof.

SHAFT, SLOPE, DRIFT or TIPPLE LOCATIONS

Туре	County	Township-Range	Section	Quarters-Footage	
Main shaft (11'x19')	Franklin	6S 2E	20	580 FSL, 860 FEL	
Air shaft (10.5'x11')	Franklin	6S 2E	20	SW SE SE	

GEOLOGY

		Thickness (ft)			Mining	
Seam(s) Mined	Depth (ft)	Min	Max	Ave	Method	
Herrin	451			8.5-10.0	HER	

<u>Geologic Problems Reported</u>: The mine had gas; eight men were killed in an explosion in 1915 and one man was killed in a gas explosion in 1931. The roof was a massive brittle shale that fell readily. The source map shows a series of north-south trending faults through the centers and east halves of sections 22 and 27 of T6S-R2E. Individual faults had offsets of up to 25 feet. These faults are part of the Rend Lake Fault System.

PRODUCTION HISTORY

			Production
Company	Mine Name	Years	(tons)
United Coal Mining Company	United No. 2	1911-1915	1,667,066
United Coal Corporation	United No. 2	1915-1916	708,421
Old Ben Coal Corporation	Old Ben No. 14	1916-1960 *	33,638,787
·			36,014,274

* Idle 1933

Last reported production: March 1960

SOURCES OF DATA

		Original	Digitized		
Source Map	Date	Scale	Scale	Мар Туре	
Company, Old Ben Archive Collection	6-24-1960	1:2400	1:2400	Final	

Annotated Bibliography (data source, brief description of information)

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

Directory of Illinois Coal Mines (Franklin County) - Mine names, mine index, ownership, years of operation. ENR Document 85/01 - Mining method.

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

Company map, Old Ben Coal Company Archive collection - Shaft locations, mine outline, mining method, geologic problems.

Mine Index 666 Old Ben Coal Corporation, Old Ben No. 11 Mine

Type: Underground Total mined-out acreage shown: 3,207

SHAFT, SLOPE, DRIFT or TIPPLE LOCATIONS

Туре	County	Township-Range	Section	Quarters-Footage
Main shaft (13'x21')	Franklin	6S 1E	14	NE SW SW
Air shaft (12'x24')	Franklin	6S 1E	14	SE NW SW

GEOLOGY

		Thickness (ft)			Mining	
Seam(s) Mined	Depth (ft)	Min	Max	Ave	Method	
Herrin	619	8.33	12.5	9.0-9.5	RPP. some HER	

<u>Geologic Problems Reported</u>: The mine had some gas; one man was killed in a gas explosion in 1932. The roof was gray shale over 30 feet thick, locally somewhat sandy. This shale was too fractured to stay up and top coal was left to support the roof. Slips were common in the western and northern parts of the mine. The coal contained shale and pyrite bands. The underclay heaved readily, even when dry.

PRODUCTION HISTORY

			Production
Company	Mine Name	Years	(tons)
Christopher Coal Mining Company	Christopher No. 1	1912-1914	201,813
Christopher Coal Mining Company	Christopher No. 2	1914-1916	890,182
Old Ben Coal Corporation	Old Ben No. 11	1916-1953 *	21,835,086
•			22,927,081

* Idle 1932-1935

Last reported production: April 1953

SOURCES OF DATA

		Original	Digitized		
Source Map	Date	Scale	Scale	Мар Туре	
Company, Old Ben Archive Collection	4-29-1953	1:4800	1:4800	Final	

Annotated Bibliography (data source, brief description of information)

Coal Reports - Production, ownership, years of operation, shaft sizes, geological problems. Directory of Illinois Coal Mines (Franklin County) - Mine names, mine index, ownership, years of operation. ENR Document 85/01 - Mining method.

Mine notes (Franklin County) - Mine type, shaft location, seam, depth, thickness, geological problems.

Company map, Old Ben Coal Company Archive Collection - Shaft locations, mine outline, mining method.

Mine Index 863 Old Ben Coal Corporation, Old Ben No. 21 Mine

Type: Underground Total mined-out acreage shown: 8,696

SHAFT, SLOPE, DRIFT or TIPPLE LOCATIONS

Туре	County	Township-Range	Section	Quarters-Footage
Main shaft	Franklin	5S 2E	8	NE NE NE
Air shaft	Franklin	5S 2E	8	NW NE NE
D & E shafts	Franklin	5S 2E	17	NW SW NE
F & G shafts	Franklin	5S 1E	14	SW NE SE

GEOLOGY

		Thick	ness (ft)		Mining
Seam(s) Mined	Depth (ft)	Min	Max	Ave	Method
Herrin	656-660			5.8-8.42	HER, LW, RP *

* The mine operated in RPP pattern from 1978-1986, and began some longwall panels in 1985 (the only longwall mine in the state at that time). The mine was idled from May to October 1990, and reopened with only the continuous miners working RP method. Plans were underway for longwall expansion in 1991, but the mine was idled instead and never reopened.

<u>Geologic Problems Reported</u>: Several types of structural features are common here: large, high-angle faults apparently of tectonic origin (Rend Lake Fault System) with 1 to 6 feet of displacement, steep high-angle fractures or slips in coal or roof (tectonic origin), minor slips in roof shale (soft-sediment compaction features), and "X" pattern faults (usually two faults intersecting at the top of the coal). The roof was medium gray shale, finely slity and micaceous, finely laminated, firm, with fine sideritic laminations and nodules. The northwestern corner of the property had split coal, where the blue band thickened from its normal 2 to 3 inches up to 24 inches. (This area is adjacent to the Walshville Channel.) At least one large roll was present, plus a series of small rolls. About 12 inches of top coal was left to support the roof throughout the mine.

PRODUCTION HISTORY

			Production
Company	Mine Name	Years	(tons)
Old Ben Coal Corporation **	Old Ben No. 21	1960-1991	<u>53,797,836</u>
			53,797,836

** Listed in the Coal Reports as Old Ben Coal Corporation, but bought by Zeigler Coal Holding Company on May 28, 1990.

Last reported production: October 26, 1991

SOURCES OF DATA

		Original	Digitized	
Source Map	Date	Scale	Scale	Мар Туре
Company	12-1993	1:12000	1:12000	Final
Company	12-31-1996	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 (Franklin County) - Mine names, mine index, ownership, years of operation. ENR Document 85/01 - Mining method. Mine notes (Franklin County) - Mine type, shaft location, seam, thickness, geologic problems. Company map, ISGS Coal Section files - Mine outline, mining method. Company map, ISGS Coal Section files (digital) - Shaft locations.

Mine Index 866 Old Ben Coal Corporation, Old Ben No. 24 Mine

Type: Underground Total mined-out acreage shown: 6,884

SHAFT, SLOPE, DRIFT or TIPPLE LOCATIONS

Туре	County	Township-Range	Section	Quarters-Footage	
A shaft, hoist	Franklin	6S 2E	11	SW SE NE	
B shaft	Franklin	6S 2E	11	NE SE NE	
C shaft, man & material	Franklin	6S 2E	2	NE SE NE	
D shaft, exhaust fan	Franklin	6S 2E	2	NE SE NE	
E shaft, fan	Franklin	5S 2E	25	SE NW NE	

GEOLOGY

0202001		Thi	ckness (f	it)	Mining	
Seam(s) Mined	Depth (ft)	Min	Max	Ave	Method	
Herrin	625-666			6.6-8.5	HER, LW , RP *	

* The older parts of the mine were worked with RPP from 1965 to 1977. The Coal Report lists LW and RP after 1978. The source map shows areas where pillars were removed as mining ended in different areas.

<u>Geologic Problems Reported</u>: The eastern part of the mine had faults. The near western portion of the mine was hilly and had poor roof conditions.

PRODUCTION HISTORY

			FIGUUCION	
Company	Mine Name	Years	(tons)	
Old Ben Coal Corporation	Old Ben No. 24	1965-1996 **	<u>51,487,488</u> 51,487,488	

Droduction

** Idle 1981 and 1982

Last reported production: 1996

SOURCES OF DATA

		Original	Digitized	
Source Map	Date	Scale	Scale	Мар Туре
Company	12-31-1996	1:4800	1:4800	Final

Annotated Bibliography (data source, brief description of information)

Coal Reports - Production, ownership, years of operation, seam, depth, thickness. Directory of Illinois Coal Mines (Franklin County) - Mine names, mine index, ownership, years of operation. Mine notes (Franklin County) - Mine type, shaft location, geologic problems. Company map, ISGS Coal Section files (digital) - Shaft locations, mine outline, mining method.

Mine Index 877 Consol Energy, Inc., Rend Lake Mine

Type: Underground Total mined-out acreage shown: 9,845

SHAFT, SLOPE, DRIFT or TIPPLE LOCATIONS

Туре	County	Township-Range	Section	Quarters-Footage
Main production shaft	Jefferson	4S 2E	30	SE NE SW
Air, man & material shaft	Jefferson	4S 2E	30	NW SE SW

GEOLOGY

		Thick	ness (ft)		Mining
Seam(s) Mined	Depth (ft)	Min	Max	Avg	Method
Herrin	733			7.0-9.0	LW

<u>Geologic Problems Reported</u>: Faults were noted, with 3 to 13 feet displacement. The mine had a wet area that was delineated by the company by a "drip line" on their mine maps. Some saline water came from layers above the shale and dripped down the pillars into the mine. Another source of water was probably Rend Lake, as one of the test holes for the mine, drilled in 1918 and later submerged, penetrated one area noted for water problems. In other areas, water was said to seep up from the floor. The roof was a weak gray shale that came down readily, with a silty gray shale above that. Roof falls were more common near the top of seam undulations. A large roll was noted that crossed three entries. Sandstone-filled rolls were seen in this mine. One such roll cut out 5 feet of coal, and a different roll cut out 2 feet of coal and was 6 feet wide. However, most rolls were not persistent. The seam contained pyrite along cleat fillings and in en echelon fractures. Some pyrite occurred as thin laminations, with pyrite-filled "goat beards" above and below the laminations. (In this mine, "goat beards" was used for bundles of extension fractures.) When using the continuous mining machine, the company attempted to keep a 7-foot mining height, which sometimes involved leaving 1 foot of bottom coal and some top coal. The bottom coal was left because of the water, which would have turned the floor into mud and created a difficult surface for the machines. Some areas of the mine had split coal. The largest split was in the upper part of the seam, and was 0.1 to 0.4 feet thick.

PRODUCTION HISTORY

		X	Production
Company	Mine Name	Years	(tons)
Inland Steel Coal Company	Inland	1967-1985	33,621,654
Consolidation Coal Company	Rend Lake	1986-1998	37,500,415
Consol Energy, Inc.	Rend Lake	1999-2002	10,134,144
			81,256,213
Last reported production: 2002			

SOURCES OF DATA

		Original	Digitized		
Source Map	Date	Scale	Scale	Мар Туре	
Company, 6-355	1-1-2003	1:12000	1:12000	Final	

Annotated Bibliography (data source, brief description of information)

Coal Reports - Production, ownership, years of operation, depth. Directory of Illinois Coal Mines (Jefferson County) - Mine names, mine index, ownership, years of operation. ENR Document 85/01 - Mining method.

Mine notes (Jefferson County) - Mine type, shaft locations, seam, thickness, geologic problems.

Company map, Coal Section files, 6-355 - Shaft locations, mine outline, mining method.

Mine Index 879 Old Ben Coal Corporation, Old Ben No. 26 Mine

Type: Underground Total mined-out acreage shown: 7,165

SHAFT, SLOPE, DRIFT or TIPPLE LOCATIONS

Туре	County	Township-Range	Section	Quarters-Footage
Hoist shaft	Franklin	5S 2E	20	SE NE NE
Man & material shaft	Franklin	5S 2E	20	NE SE NE
C portal & D shaft	Franklin	5S 2E	32	SW NE NE
E & F shaft	Franklin	5S 2E	30	SW SW NW

GEOLOGY

		Thickness (ft)		Mining	
Seam(s) Mined	Depth (ft)	Min	Max	Ave	Method
Herrin	640-651			8.0-8.8	RPP, LW, RP, HER *

* The mining method is recorded as RPP from 1968 to 1978, and afterwards as LW & RP. The source map shows areas where pillars were removed as mining ended in different areas.

<u>Geologic Problems Reported</u>: A fault system was encountered in the East North mains and the East South mains, which had up to 8 feet of displacement. The main fault zone was about 15 feet wide, with as much as 55 feet of displacement. Oil seeped in along the fault. The roof over most of the mine is Energy Shale, often massive and very silty. Some large (up to 12 inches long) limestone nodules were noted in the Energy Shale. Generally 6 to 10 inches of top coal was left to support and protect the Energy Shale roof. The Anna Shale was the immediate roof over the coal in some rare cases. The coal seam contained rolls 3 to 4 feet wide and smaller. Coal balls, small and elongated, occurred in places. Erosional channels were also present. Minor floor heave was seen in several places, along both entries and crosscuts (no preferred orientation).

PRODUCTION HISTORY

			Production	
Company	Mine Name	Years	(tons)	
Old Ben Coal Corporation **	Old Ben No. 26	1968-1996	<u>57,779,383</u>	
			51,119,303	

** Owned by British Petroleum in the 1980s; bought by Zeigler Coal Holding Company in July 1990

Last reported production: 1996

SOURCES OF DATA

		Original	Digitized		
Source Map	Date	Scale	Scale	Мар Туре	
Company	12-31-1996	1:4800	1:4800	Final	

Annotated Bibliography (data source, brief description of information)

Coal Reports - Production, ownership, years of operation, seam, depth, thickness, mining method. Directory of Illinois Coal Mines (Franklin County) - Mine names, mine index, ownership, years of operation. ENR Document 85/01 - Mining method.

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

Company map, ISGS Coal Section files (digital) - Shaft locations, mine outline, mining method.

INDEX OF MINES IN THE SESSER QUADRANGLE

Brewerton Coal Company, No. 22 Mine 11
British Petroleum
Christopher Coal Mining Company, No. 1 Mine
Christopher Coal Mining Company, No. 2 Mine
Consol Energy, Inc
Consolidation Coal Company
Franklin County Colliery Company
Franklin County Construction Company
Inland Steel Coal Company
Interstate Coal Company
Modern Coal Company
Old Ben Coal Corporation, No. 11 Mine 14
Old Ben Coal Corporation, No. 14 Mine
Old Ben Coal Corporation, No. 16 Mine 9
Old Ben Coal Corporation, No. 19 Mine 10
Old Ben Coal Corporation, No. 21 Mine
Old Ben Coal Corporation, No. 22 Mine 12
Old Ben Coal Corporation, No. 24 Mine
Old Ben Coal Corporation, No. 26 Mine 18
Rend (W. P.) Coal Company 10
Rend Lake Mine 17
Sesser Coal & Construction Company
Sesser Coal Company
Sesser No. 22 Mine
Southern Gem Coal Corporation, No. 2 Mine
United Coal Corporation, No. 2 Mine
United Coal Mining Company, No. 2 Mine
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