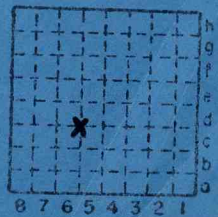


Jader Fuel Company

JADER FUEL COMPANY
(Strip Mine)

Mine Index No. 931
Coal Report No. L-130

SALINE COUNTY



Sec.	10	■
T.	10	■
R.	6	■
Index No.		■



Period				Tons		
Mo.	Day	Year	Mo.	Day	Year	
					1971	9 600
					1972	101 805
					1973	74 930
					1974	87 316
					1975	93 313
					1976	83 222
					1977	76 208
					1978	36 797
					1979	47 197
					1980	63 761
					1981	21 588

JADER FUEL CO.

MINE NO. 1

Final production July 1981.

SUMMARIES		
No.	to	No.

Railroad, Wagon, Strip, Idle, Abandoned

Strip

Sec. 10

IDENTIFICATION

County No. _____

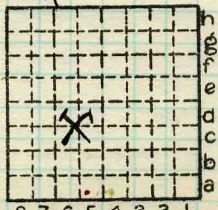
Coal No.

Coal Report No. L-130

Davis & DeKoven

Quad.

County SALINE



T. 10 S. E. R. 6 Index No.

COAL MINE—PRODUCTION



ILLINOIS GEOLOGICAL SURVEY, URBANA

Jader Coal Company

Sample #1

DeKoven Coal - Average 3'

NO EXCLUSIONS

0'-0.8' Coal - Normally bright banded, some pyrite on cleats.

0.8'-0.825' Lenticula - Pyrite band.

0.825'-3.0' Coal - Normally bright banded, some pyrite and a little calcite on cleat surfaces.

Sample #2

Approx. 50' south of #1

0'-1.1' Coal - Normally bright banded, some pyrite and a little calcite on cleats.

1.1'-1.12' Pyrite band, lenticular (not excluded)

1.12'-1.6' Coal - Normally bright banded, small unit of pyrite on cleats.

1.6'-1.62' Pyrite band, lenticular (not excluded)

1.62'-2.1' Coal - Normally bright banded, some pyrite on cleats.

+	+	+	+	+	+	h	
+	+	+	+	+	+	g	
+	+	+	+	+	+	f	
+	+	+	+	+	+	e	
+	+	+	+	+	+	d	
+	+	+	+	+	+	c	
+	+	+	+	+	+	b	
+	+	+	+	+	+	a	
8	7	6	5	4	3	2	1

By G. J. Allgaier Date March 22, 1974
R. B. Nance

Quadrangle NE/4, SW/4

County Saline County Sec. 10 T. 10 S. R. 6 E.

Access road from IL 34 ~~to~~^{and} 145, $\frac{1}{2}$ mile N of Saline R. artificial channel bridge. Downen Brothers (Jader Fuel Co., Box 217, Shawneetown, IL 269-3101) mining "lower coal" (Davis Coal) in Saline R. valley ($4\frac{1}{2}$ ft.). DeKoven coal not present, presumably removed by erosion - has been found in nearby drilling (3 ft.), and probably will start mining DeKoven in April, 1972. Bill Downen appears to be most interested in drilling and exploration.

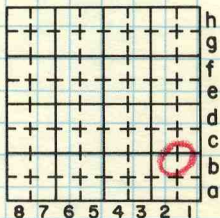
Near crest of hill 450, NW $\frac{1}{4}$, SE $\frac{1}{4}$, Sec. 10 have exposed "rider coal" about 20-30" thick, with 2" shale split. Appears to underlie entire crest of hill. Stratigraphic distance above DeKoven not clear, for according to Downen Brothers, strata dip more steeply N or NW under the hill.

Davis coal in pit presently mined lies essentially horizontal, is overlain by 0.10-0.15 ft. soft black ms with very abundant pyritized, small fossils, recognized brachiopod, gastripod, probably crinoid fragments. Overlain by 2 ft. dark gray shale, overlain by buff sandstone interbedded with gray shale at least 6 ft.

By N. Bostick Date Dec. 17, 1971

Quadrangle Harrisburg

County Saline Sec. 30 T 10S R 6E



2.1'-2.15' Pyritic shale band, dense. Lateral pyritic nodules up to 0.3' thick and 0.5' long noted (excluded from coal sample but took individual samples).

2.15'-3.3' Coal - Normally bright banded.

Roof

~25' Shale - Medium gray (becomes medium dark gray downward); well laminated. Grades into.

~0.5'-.1' Shale - Medium dark gray. Contains abundant pyritized shell fragments (Dunbarella)

~3' Coal - DeKoven

NOTE: Two faults encountered in pit. ~3' displacement. Downthrown side north.

JADER FUEL CO. NO. 1 (Strip Mine) Saline County

Visit by John Nelson August 4, 1977.

Small strip mine located approx. NE $\frac{1}{4}$ SW $\frac{1}{4}$ Sect. 10, 10S-6E, Saline County. Just east of Route 34-145 and north of South Fork Saline River, in small hill.

The active pit runs roughly NE-SW and is about 1000 feet long. Two coal seams are being mined. Bill DeVeux, the superintendent, says they are "No. 2 and No. 3".

Only the upper coal seam is exposed on the day of the visit. Strata below the upper seam are exposed in two small excavations near the NE and SW ends of the main pit. The lower coal seam is covered by mud and debris in both small pits.

The overburden, both the bedrock and the glacial drift, thicken toward the NE. The highwall is much broken up by shooting, and the strata below the upper coal seam are mostly covered with mud, so this rates as only a fair exposure.

Approximate Section
Near East End of Main Pit

- 15' Glacial drift, yellowish-brown.
- 5' Shale, yellow-brown, sandy, deeply weathered.
- 15' Sandstone, light gray, fine-grained, thin bedded, finely laminated, contains abundant mica and coarse carbonaceous debris on bedding plane with large coalified plant impressions and occasional vitrain streaks. Interlaminated with shale, dark gray, carb., micaceous. Laminae generally even and parallel.

This unit varies laterally. At extreme east end of highwall there is an upper, thick-bedded sandstone and a lower silty, carbonaceous shale. Contact with coal slightly irregular with thin "riders".

(2)

- 2.9' Coal, N.B.B., no significant bands or partings yellow weathering products on surface. This exposure deeply weathered.
- 1.8' Claystone, medium-light gray, soft, very silty to sandy, upper part darker with coalified rootlets and plant debris. Grades into:
- 2.1' Sandstone, greenish-gray, fine-grained, argillaceous, contains finely disseminated carbonaceous particles. Thick-bedded to massive, with faint uneven laminations near base. Varies in thickness. Contact to unit below appears to be erosional, at least locally.
- 10' Shale, dark gray, silty to sandy, coarsely micaceous, carbonaceous, finely laminated, contains numerous thin light gray parallel laminae of siltstone and sandstone. Grades into:
- 5' Shale, dark gray, thinly laminated, smooth, finely carbonaceous.

Water Level at Bottom of Pit.

Believe the coal seams are the Shawneetown (No. 2-A) and the Colchester (No. 2). The sandstones and shales in the highwall appear typical of those usually found at this interval. Coals # 4 through # 7 all have black shale and limestone roof in this part of the state, and the Davis and DeKoven Coals normally have black shale roof and lie closer together (10-15 feet).

The upper coal seam (No. 2-A ?) undulates rather strongly and generally dips off to the east. No definite indication of faulting, but this is hard to tell due to condition of highwall.

Shovel operator tells me they have encountered

faults where the coal seam was broken and drowndrop-
ped on on side or the other. The offset is said to
be 10-40 feet. The largest such fault is said to
run nearly parallel with the present pit; that is,
NE to SW. This is all in land that is now reclaimed.
It was not easy to tell exactly what was seen from
the shovel man's description. He also reported
finding "concrete with gravel" (conglomerate ?)
directly above the coal in another part of the pit.

This mine lies close to both the Cottage Grove
and Shawneetown Fault Zones and so it is no surprise
to hear of faults here. The undulations in the coal
seam may also be related to tectonic activity.

JADER FUEL COMPANY MINE NO. 1 November 7, 1978

Notes by John Nelson on visit with John Popp.

The pit which was active in 1977 has now been filled, the contour of the land restored, and the surface graded and seeded. Except for some minor erosion it is an excellent job of reclamation.

A new pit has been opened on the south side of the hill, in the NE $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$ Section 10, T. 10S-R. 6E, Saline County. The De Koven Coal is being mined along its crop line. Locally the coal is missing because of erosion. Where it is present it is badly weathered. A deeper pit has been excavated to uncover the Davis Coal.

Estimated Section in Deep Pit

TOP

- 25' Surface; drift, loess, etc. inaccessible and not distinguishable to us.
- 0.5' Coal (De Koven) discontinuous; most of seam is eroded.
- 25' Siltstone, with sandstone and silty shale. Med. gray, hard, well laminated, contains zones of siderite lenses.
- 2.5' Shale, dark gray to black, smooth, fissile, contains pyrite. Pecten noted.
- 4.4' Coal (Davis), hard, blocky, with well-developed cleat in two directions:

<u>Face Cleat</u>	<u>Butt Cleat</u>	
042°	150°	
046°	152°	↓
042°	150°	(The best-developed
048°	130°	butt cleat trends
038°	135°	150°; the other di-
039°		rections are less
		well-developed.)

Coal seam contains partings as follows: 0.05' hard, dark gray, pyritic shale 0.10' from top, fusain parting 0.80' from top, fusain parting

(2)

1.4' from top, and numerous small pyrite lenses and cleat fillings throughout. Not much calcite on the cleat (this may relate to lack on limestone in overburden).

The dark fissile shale above the coal contains an occasional concretion. The shale grades upward into lighter gray shale. In the transition zone, about 2.0-2.5' above the coal, is a thin band containing fragments of crinoids, brachiopods and other marine fossils.

Above the fossil band is sideritic shale which grades upward into siltstone.

Only in the western part of the pit is there bedrock above the De Koven Coal. A small area of the coal has been mined. Estimated section:

TOP

- 20' Surficial material, not described in detail.
- 20' Shale, medium gray, hard, poorly laminated, very silty; almost a siltstone; but contains no visible mica. Numerous small rounded nodules of siderite. Becomes darker, softer, and more carbonaceous in the basal few inches.
- 3.2' Coal (De Koven), badly weathered, no cleat measurements possible, note no definite banding. Coal and highwall have been shot, then exposed to the elements for a long time.

No faults or other structural features observed in active pit.

East of the active pit is an abandoned pit with water at the bottom. The highwall, which faces southeast, can be seen from across the pit. The De Koven Coal is well above the water line, but the Davis Coal is submerged.

A definite fault trending in an easterly or

northeasterly direction is visible along this high-wall. Both the De Koven Coal and a thin black shale about 20 feet above the coal have been displaced. The fault plane is nearly vertical and the throw is about 4 feet down to the north or northwest.

Approximate Section
in Abandoned Pit located
NE $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$ Section 10

10-20' glacial drift, etc.
 10-15' gray shale
 1' black fissile shale
 20' gray shale with siderite nodules
 4' De Koven Coal
 3' underclay
 2' sandstone, massive
 10' sandstone and shale
 Water Line.

Jader Fuel Company - Mine No. 1
Saline County
November 7, 1978

Notes by Popp on a visit with C. J. Nelson.

We had visited this mine before but had not been able to see exposures of both coals. See Nelson's notes for additional notes. The pit is located in the NE $\frac{1}{4}$, SE $\frac{1}{4}$, SW $\frac{1}{4}$, 10-10S-6E.

It wasn't immediately obvious whether the lowermost coal exposed is Davis or DeKoven because there has been erosion of the uppermost coal. Because the lowermost coal has a marine, black shale, about 2.5 ft. thick, we assume it is the Davis. The overlying coal, then, is the DeKoven, and it has a non-marine gray shale that has plant fragments.

To the east and north in the last cut of an abandoned pit is a normal fault, down to the north and trending west-southwest-east-northeast. Displacement is estimated at 5 ft. We could only observe the fault from the spoil bank across the pit because of water in the pit.



"Dueling Draglines"

Sader Fuel No. 1 Mine

Photos by John Popp

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