

# Status Report

**Total Records: 632**

Top 3 County Records		Top 3 Log Type Records		Top 3 Coal Records		Top 3 Member Records	
Sangamon	632	Drillers Log	378	HERRIN	429	HERRIN COAL	429
		Multiple log types	97	SPRINGFIELD	308	SPRINGFIELD COAL	308
		Survey Core Study	91	DANVILLE	139	BRERETON LIMESTONE	200

## Data Summary

Cross-tabulation of all selected logs, individual logs will vary.

Tabulation of logged intervals only, individual logs will vary.

*Depth and Thickness measurements in feet*

Member	Lithology	Avg. Depth	Min. Depth	Max. Depth	Avg. Thk	Min. Thk	Max. Thk
SURVANT - UPPER		359.5	359.5	359.5	0.3	0.3	0.3
SURVANT - LOWER		388.8	388.8	388.8	0.5	0.5	0.5
CARTHAGE	LIMESTONE	50.5	15.0	137.0	9.3	2.5	23.0
NEW HAVEN	COAL	62.5	44.8	90.2	1.5	1.0	3.0
MACOUPIN	LIMESTONE	62.3	40.0	95.2	9.3	2.1	24.0
CRAMER	LIMESTONE	118.5	118.5	118.5	0.8	0.8	0.8
CHAPEL	COAL	90.5	22.0	189.3	1.4	0.2	2.5
WEST FRANKLIN	LIMESTONE	165.2	96.0	233.0	3.2	1.0	5.5
PIASA	LIMESTONE	205.5	34.0	329.1	4.0	0.2	17.0
DANVILLE	COAL	212.7	33.0	335.2	1.7	0.1	8.0
DANVILLE SUMP	COAL	199.7	150.5	277.5	1.2	0.5	2.0
GALUM	LIMESTONE	242.1	157.3	324.5	1.4	0.2	4.0
ALLENBY	COAL	296.3	296.3	296.3	0.1	0.1	0.1
BANKSTON FORK	LIMESTONE	228.4	50.4	337.9	4.3	0.5	14.0
ANVIL ROCK	SANDSTONE	192.3	85.0	300.8	21.1	11.5	37.1
LAWSON	SHALE	230.1	40.0	343.2	9.9	0.1	50.0
CONANT	LIMESTONE	287.4	189.0	353.2	0.5	0.3	1.0
JAMESTOWN	COAL	215.7	215.7	215.7	0.1	0.1	0.1
BRERETON	LIMESTONE	232.4	52.5	355.8	4.2	0.2	15.0
ANNA	SHALE	216.3	50.5	348.7	2.0	0.1	6.5
ENERGY	SHALE	214.9	75.3	291.0	8.8	2.0	30.0
HERRIN	COAL	235.3	44.0	363.1	4.3	0.1	10.0
HIGGINSVILLE	LIMESTONE	187.6	187.6	187.6	0.9	0.9	0.9
ST. DAVID	LIMESTONE	208.9	80.0	347.0	2.5	0.3	9.6
TURNER MINE	SHALE	199.1	64.6	381.5	2.4	0.2	6.5
SPRINGFIELD	COAL	198.8	65.9	386.5	4.9	0.5	14.6
HANOVER	LIMESTONE	244.4	238.0	250.3	1.1	0.6	1.5
EXCELLO	SHALE	258.2	117.5	390.0	2.5	0.5	9.0
HOUCHIN CREEK	COAL	287.1	97.5	445.5	2.0	0.3	4.0
SURVANT	COAL	291.3	207.0	379.0	1.8	0.3	4.0

<b>OAK GROVE</b>	LIMESTONE	<b>333.0</b>	225.0	424.0	<b>1.1</b>	0.5	2.0
<b>MECCA QUARRY</b>	SHALE	<b>360.8</b>	227.0	492.0	<b>4.8</b>	0.3	17.0
<b>COLCHESTER</b>	COAL	<b>330.0</b>	192.2	498.0	<b>2.6</b>	0.2	10.0
<b>DEKOVEN</b>	COAL	<b>410.7</b>	370.9	450.5	<b>1.4</b>	1.2	1.5
<b>DAVIS</b>	COAL	<b>423.0</b>	392.6	453.4	<b>0.5</b>	0.2	0.8
<b>MT. RORAH</b>	COAL	<b>428.3</b>	428.3	428.3	<b>3.1</b>	3.1	3.1
<b>MURPHYSBORO</b>	COAL	<b>434.3</b>	434.3	434.3	<b>1.0</b>	1.0	1.0
<b>ROCK ISLAND</b>	COAL	<b>502.5</b>	502.5	502.5	<b>2.2</b>	2.2	2.2
<b>LITCHFIELD</b>	COAL	<b>555.0</b>	555.0	555.0	<b>4.4</b>	4.4	4.4
<b>TARTER</b>	COAL	<b>531.0</b>	531.0	531.0	<b>2.1</b>	2.1	2.1
				<b>Net Coal</b>	<b>36.4</b>		

## Coal Logs

This report contains non-confidential coal log descriptions from the Coal Section's stratigraphic database in the county listed. Coal logs are sorted by township/range and section. For each log, North American Datum 1983 (NAD83) Longitude/Latitude coordinates in decimal degrees are provided as well as a legal description which uses the Public Land Survey System (PLSS). The following are two examples of coal log locations:

**Example location 1:** COUNTY: SALINE TWP/RNG: 7S 5E SECTION: 19 QUARTERS/FOOTAGES: 330'S line, 330'W line of SE NE  
LONGITUDE: -88.691911 LATITUDE: 37.900435

This log is from a borehole located in Saline County, Township 7 South, Range 5 East, 330 feet from the south line and 330 feet from the west line of the southeast quarter of the northeast quarter of section 19.

**Example location 2:** COUNTY: SALINE TWP/RNG: 9S 5E SECTION: 36 QUARTERS/FOOTAGES: 530'N, 530'W, SE/c NE NW  
LONGITUDE: -88.60834 LATITUDE: 37.700006

This log is from a borehole located in Saline County, Township 9 South, Range 5 East, 530 feet north and 530 feet west of the southeast corner of the northeast quarter of the northwest quarter of section 36.

Beneath the header is geology information for that data point. The Coal Section stratigraphic database from which this .PDF file is derived is a multi-project database which contains drill hole and outcrop descriptions of Pennsylvanian stratigraphy in Illinois. Consequently, the level of detail and accuracy in the data and their interpretation vary (sometimes widely) with the geologist, project type, or original data source. Multiple descriptions of a particular location may be present. Note that both the coal stratigraphic database and this .PDF listing are only a subset of the total amount of data available from the ISGS Geologic Records Library archives, and reflect only coal-specific data and interpretations of past and present Coal Section geologists. They are not a comprehensive listing of all data that may be available from the ISGS.

MAPID: 16700097000C VERSION: 1 PROJECT: EIA-DOE  
COUNTY: SANGAMON TWP/RNG: 13N 4W SECTION: 4 QUARTERS/FOOTAGES: 12' N line, 46' E line  
QUADRANGLE: PAWNEE LONGITUDE: -89.535007 GEOLOGIST: JACOBSON  
CONFIDENTIAL: N LATITUDE: 39.612273 DATE COLLECTED: 12 / 0 / 1945  
SURFACE ELEVATION (FT.): 607.4 LOGGED (FT.): 347.8 LOG TYPE: Drillers Log  
SOURCE: PEABODY COAL CO. 13 WELL TYPE: Coal Test  
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.) UNIT	OVERBURDEN	COMMENT
268.2	CARBONDALE	HERRIN	COAL	8.6	339.2	

---

MAPID: 16701083000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 13N 4W SECTION: 4 QUARTERS/FOOTAGES: 645' S line, 475' W line

QUADRANGLE: PAWNEE

LONGITUDE: -89.551866

GEOLOGIST:

CONFIDENTIAL: N

LATITUDE: 39.598681

DATE COLLECTED:

SURFACE ELEVATION (FT.): 604.0

LOGGED (FT.): 319.5

LOG TYPE: Survey Core Study

SOURCE: PEABODY COAL CO. SC88

WELL TYPE: Coal Test

COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
329.2	MODESTO	PIASA	LIMESTONE	1.5	274.8
327.7	CARBONDALE		SHALE	7.0	276.3
320.7	CARBONDALE	GALUM	LIMESTONE	0.5	283.3
320.2	CARBONDALE		DARK GRAY SHALE	3.5	283.8
316.7	CARBONDALE	BANKSTON FORK	LIMESTONE	4.0	287.3
312.7	CARBONDALE	LAWSON	SHALE & SANDSTONE	8.5	291.3
304.2	CARBONDALE	LAWSON	SANDSTONE	2.3	299.8
301.9	CARBONDALE	LAWSON	GRAY SHALE	1.3	302.1
300.6	CARBONDALE	LAWSON	MOTTLED SHALE	0.5	303.4
300.1	CARBONDALE	LAWSON	DARK GRAY SHALE	2.4	303.9
297.7	CARBONDALE	BRERETON	LIMESTONE/UNDERCLAY	5.4	306.3
292.2	CARBONDALE	ANNA	DARK GRAY SHALE	0.3	311.8
292.0	CARBONDALE	HERRIN	COAL	7.5	312.0

MAPID: 16700008000C VERSION: 1

PROJECT: NCRDS87

COUNTY: SANGAMON TWP/RNG: 13N 4W SECTION: 5 QUARTERS/FOOTAGES: 600' S line, 1650' W line

QUADRANGLE: PAWNEE LONGITUDE: -89.566612 GEOLOGIST: WEIBEL

CONFIDENTIAL: N LATITUDE: 39.598569 DATE COLLECTED: 0 / 0 / 1905

SURFACE ELEVATION (FT.): 573.6 LOGGED (FT.): 332.0 LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO. WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
573.6			UNCONSOLIDATED	31.0	0.0	
542.6	BOND	CARTHAGE	LIMESTONE	7.0	31.0	
535.6	MODESTO		BLACK SHALE	5.0	38.0	
530.6	MODESTO		UNCLASSIFIED	4.0	43.0	
526.6	MODESTO	MACOUPIN	LIMESTONE	10.0	47.0	
516.6	MODESTO		UNCLASSIFIED	31.0	57.0	
485.6	MODESTO		DARK SHALE	10.0	88.0	UNCERTAIN CORRELATION
475.6	MODESTO		UNCLASSIFIED	40.0	98.0	
435.6	MODESTO		DARK SHALE	5.0	138.0	
430.6	MODESTO		UNCLASSIFIED	1.1	143.0	
429.5	MODESTO	CHAPEL	COAL	0.9	144.1	
428.6	MODESTO		UNCLASSIFIED	3.0	145.0	
425.6	MODESTO	WEST FRANKLIN	LIMESTONE	1.0	148.0	UNCERTAIN CORRELATION
424.6	MODESTO		UNCLASSIFIED	138.0	149.0	
286.6	MODESTO		BLACK SHALE	2.0	287.0	
284.6	CARBONDALE	DANVILLE	COAL	1.4	289.0	
283.2	CARBONDALE		UNCLASSIFIED	2.6	290.4	
280.6	CARBONDALE		LIMESTONE	12.0	293.0	
268.6	CARBONDALE		UNCLASSIFIED	12.0	305.0	
256.6	CARBONDALE	ANNA	BLACK SHALE	3.3	317.0	
253.3	CARBONDALE	HERRIN	COAL	7.5	320.3	
245.8	CARBONDALE		UNCLASSIFIED	4.3	327.8	

MAPID: 16700098000C VERSION: 1

PROJECT: EIA-DOE

COUNTY: SANGAMON TWP/RNG: 13N 4W SECTION: 5 QUARTERS/FOOTAGES: 83' N line, 24' W line of NW

QUADRANGLE: PAWNEE LONGITUDE: -89.57266 GEOLOGIST: JACOBSON

CONFIDENTIAL: N LATITUDE: 39.612347 DATE COLLECTED: 11 / 0 / 1945

SURFACE ELEVATION (FT.): 595.8 LOGGED (FT.): 304.8 LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO. 12 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
299.5	CARBONDALE	HERRIN	COAL	8.5	296.3	

MAPID: 16701084000C    VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON    TWP/RNG: 13N 4W    SECTION: 5    QUARTERS/FOOTAGES: 1374' S line, 546' W line

QUADRANGLE: PAWNEE

LONGITUDE: -89.570589

GEOLOGIST:

CONFIDENTIAL: N

LATITUDE: 39.600711

DATE COLLECTED:

SURFACE ELEVATION (FT.): 571.0

LOGGED (FT.): 250.7

LOG TYPE: Survey Core Study

SOURCE: PEABODY COAL CO.    SC89

WELL TYPE: Coal Test

COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
397.0	CARBONDALE		CALCAREOUS SHALE	50.0	174.0	
347.0	CARBONDALE	BANKSTON FORK	LIMESTONE	5.5	224.0	UPPER BENCH
341.5	CARBONDALE	BANKSTON FORK	CALCAREOUS SHALE	2.5	229.5	SHALE PARTING
339.0	CARBONDALE	BANKSTON FORK	LIMESTONE	1.0	232.0	LOWER BENCH
338.0	CARBONDALE	LAWSON	DARK GRAY SHALE	3.0	233.0	
335.0	CARBONDALE	LAWSON	SILTSTONE	0.4	236.0	
334.6	CARBONDALE	LAWSON	MOTTLED SHALE	2.3	236.4	
332.3	CARBONDALE	LAWSON	DARK GRAY SHALE	0.3	238.7	
332.0	CARBONDALE	LAWSON	MOTTLED SHALE	0.5	239.0	
331.5	CARBONDALE	BRERETON	LIMESTONE	3.2	239.5	
328.3	CARBONDALE	ANNA	DARK GRAY SHALE	0.3	242.7	
328.0	CARBONDALE	HERRIN	COAL	7.7	243.0	

MAPID: 16726643000C VERSION: 1

PROJECT: NCRDS17

COUNTY: SANGAMON TWP/RNG: 13N 4W SECTION: 5 QUARTERS/FOOTAGES:

QUADRANGLE: PAWNEE LONGITUDE: -89.563139

GEOLOGIST: JMCBETH

CONFIDENTIAL: N LATITUDE: 39.604705

DATE COLLECTED: 3 / 26 / 1968

SURFACE ELEVATION (FT.): 598.0

LOGGED (FT.): 306.2

LOG TYPE: Drillers Log

SOURCE: PEABODY SC106C

WELL TYPE: Coal Test

COMMENT: MINE #10

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
598.0	PLEISTOCENE		UNCONSOLIDATED	60.1	0.0	
537.9			SHALE	103.0	60.1	
434.9			SANDSTONE	39.0	163.1	
395.9			GRAY SHALE	62.1	202.1	
333.8	SHELBURN	DANVILLE	COAL	1.5	264.2	
332.3	SHELBURN		SHALE	1.4	265.7	
330.9	SHELBURN		LIMESTONE	0.9	267.1	
330.0	SHELBURN		SHALE	7.9	268.0	
322.1	SHELBURN		LIMESTONE	2.5	275.9	
319.6	SHELBURN		GRAY SHALE	0.6	278.4	
319.0	SHELBURN		LIMESTONE	0.7	279.0	
318.3	SHELBURN		GRAY SHALE	1.2	279.7	
317.1	SHELBURN		LIMESTONE	4.6	280.9	
312.5	SHELBURN		SHALE	5.2	285.5	
307.3	SHELBURN	BRERETON	LIMESTONE	6.1	290.7	
301.2	CARBONDALE	ANNA	SHALE	0.3	296.8	DARK GRAY
300.9	CARBONDALE	ANNA	SHALE	0.1	297.1	
300.8	CARBONDALE	HERRIN	COAL	2.3	297.2	
298.5	CARBONDALE	HERRIN	BONE COAL	0.1	299.5	
298.4	CARBONDALE	HERRIN	COAL	2.0	299.6	
296.4	CARBONDALE	HERRIN	SHALE	0.1	301.6	
296.3	CARBONDALE	HERRIN	COAL	2.2	301.7	
294.1	CARBONDALE		GRAY SHALE	1.0	303.9	
293.1	CARBONDALE		GRAY SHALE	1.3	304.9	WITH LS STREAKS

MAPID: 16700936000C VERSION: 1

PROJECT: EIA-DOE

COUNTY: SANGAMON TWP/RNG: 13N 4W SECTION: 6 QUARTERS/FOOTAGES: 11' N line, 103' W line

QUADRANGLE: PAWNEE LONGITUDE: -89.590329

GEOLOGIST: JACOBSON

CONFIDENTIAL: N LATITUDE: 39.612636

DATE COLLECTED: 2 / 23 / 1964

SURFACE ELEVATION (FT.): 600.4

LOGGED (FT.): 310.3

LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO. SC51

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
296.2	CARBONDALE	HERRIN	COAL	6.1	304.2	

MAPID: 16700936000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 13N 4W SECTION: 6 QUARTERS/FOOTAGES: 11' N line, 103' W line

QUADRANGLE: PAWNEE

LONGITUDE: -89.590329

GEOLOGIST:

CONFIDENTIAL: N

LATITUDE: 39.612636

DATE COLLECTED:

SURFACE ELEVATION (FT.): 600.0

LOGGED (FT.): 310.1

LOG TYPE: Survey Core Study

SOURCE: PEABODY COAL CO. SC51

WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
365.9	CARBONDALE		CALCAREOUS SHALE	50.0	234.1
315.9	CARBONDALE	LAWSON	CALCAREOUS SHALE	6.0	284.1
309.9	CARBONDALE	BRERETON	LIMESTONE/UNDERCLAY	0.9	290.1
309.0	CARBONDALE	ENERGY	SILTSTONE	8.8	291.0
300.2	CARBONDALE	ENERGY	CARBONACEOUS SANDSTONE	4.0	299.8
296.2	CARBONDALE	ENERGY	CONGLOMERATE	0.2	303.8
296.0	CARBONDALE	HERRIN	COAL	6.1	304.0



MAPID: 16700002000C VERSION: 1

PROJECT: NCRDS88

COUNTY: SANGAMON TWP/RNG: 13N 4W SECTION: 8 QUARTERS/FOOTAGES: 600' N line, 3200' E line

QUADRANGLE: PAWNEE LONGITUDE: -89.564925 GEOLOGIST: R. SMITH

CONFIDENTIAL: N LATITUDE: 39.595255 DATE COLLECTED:

SURFACE ELEVATION (FT.): 612.0 LOGGED (FT.): 315.0 LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO. WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
612.0			UNCONSOLIDATED	27.0	0.0	
585.0	BOND	CARTHAGE	LIMESTONE	8.0	27.0	
577.0	MODESTO		BLACK SHALE	3.0	35.0	
574.0	MODESTO		SHALE	3.0	38.0	
571.0	MODESTO		UNCLASSIFIED	9.0	41.0	
562.0	MODESTO	MACOUPIN	LIMESTONE	4.0	50.0	
558.0	MODESTO		SHALE	8.0	54.0	
550.0	MODESTO		LIMESTONE	4.0	62.0	
546.0	MODESTO		SANDSTONE	10.0	66.0	
536.0	MODESTO		SANDY SHALE	53.0	76.0	
483.0	MODESTO		SHALE	8.0	129.0	
475.0	MODESTO		LIMESTONE	2.0	137.0	
473.0	MODESTO	CHAPEL	COAL	1.0	139.0	UNCERTAIN CORRELATION
472.0	MODESTO		UNDERCLAY	9.0	140.0	
463.0	MODESTO		SANDSTONE	15.0	149.0	
448.0	MODESTO		SANDY SHALE	80.0	164.0	
368.0	MODESTO		SHALE	6.0	244.0	
362.0	MODESTO		BLACK SHALE	3.0	250.0	
359.0	MODESTO		SHALE	3.0	253.0	
356.0	MODESTO		SANDY SHALE	10.0	256.0	
346.0	MODESTO		SHALE	6.0	266.0	
340.0	MODESTO		LIMESTONE	3.0	272.0	
337.0	CARBONDALE		SHALE	7.0	275.0	
330.0	CARBONDALE	BANKSTON FORK	LIMESTONE	5.0	282.0	
325.0	CARBONDALE		SHALE	15.0	287.0	
310.0	CARBONDALE	BRERETON	LIMESTONE	3.0	302.0	
307.0	CARBONDALE	ANNA	SHALE	0.5	305.0	
306.5	CARBONDALE	HERRIN	COAL	7.0	305.5	
299.5	CARBONDALE		UNDERCLAY	3.0	312.5	

MAPID: 16700009000C    VERSION: 1

PROJECT: NCRDS88

COUNTY: SANGAMON    TWP/RNG: 13N 4W    SECTION: 8    QUARTERS/FOOTAGES: 1200' N line, 1200' E line

QUADRANGLE: PAWNEE    LONGITUDE: -89.557767    GEOLOGIST: R. SMITH

CONFIDENTIAL: N    LATITUDE: 39.593588    DATE COLLECTED: 5 / 10 / 1905

SURFACE ELEVATION (FT.): 620.0    LOGGED (FT.): 502.2    LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO.    WELL TYPE: Coal Test

COMMENT: THIS LOG IS VERY GENERALIZED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
620.0			UNCONSOLIDATED	19.2	0.0	
600.8	BOND		SANDSTONE	10.0	19.2	
590.8	BOND	CARTHAGE	LIMESTONE	15.0	29.2	
575.8	MODESTO		SHALE	12.0	44.2	
563.8	MODESTO	MACOUPIN	LIMESTONE	24.0	56.2	
539.8	MODESTO		SANDY SHALE	30.0	80.2	
509.8	MODESTO		SHALE	35.0	110.2	
474.8	MODESTO	CHAPEL	COAL	0.5	145.2	UNCERTAIN CORRELATION
474.3	MODESTO		SHALE	4.5	145.7	
469.8	MODESTO		SANDSTONE	10.0	150.2	
459.8	MODESTO		SANDY SHALE	90.0	160.2	
369.8	MODESTO		SHALE	30.0	250.2	
339.8	CARBONDALE		BLACK SHALE	30.0	280.2	
309.8	CARBONDALE		LIMESTONE	30.0	310.2	
279.8	CARBONDALE		BLACK SHALE	25.0	340.2	
254.8	CARBONDALE		SHALE	7.0	365.2	
247.8	CARBONDALE	HOUCHIN CREEK	COAL	0.5	372.2	
247.3	CARBONDALE		BLUE SHALE	20.0	372.7	
227.3	CARBONDALE		SANDY SHALE	30.0	392.7	
197.3	CARBONDALE	MECCA QUARRY	BLACK SHALE	11.0	422.7	
186.3	CARBONDALE	COLCHESTER	COAL	1.5	433.7	
184.8	SPOON		LIMESTONE W/ SHALE	10.0	435.2	
174.8	SPOON		BLACK SHALE	10.0	445.2	
164.8	SPOON		SHALE	18.0	455.2	
146.8	SPOON		SANDY SHALE	19.0	473.2	
127.8	SPOON		SANDSTONE	10.0	492.2	

MAPID: 16701085000C VERSION: 1

PROJECT: EIA-DOE

COUNTY: SANGAMON TWP/RNG: 13N 4W SECTION: 8 QUARTERS/FOOTAGES: 1628' S line, 1303' W line

QUADRANGLE: PAWNEE LONGITUDE: -89.5677 GEOLOGIST: JACOBSON

CONFIDENTIAL: N LATITUDE: 39.58692 DATE COLLECTED: 3 / 31 / 1965

SURFACE ELEVATION (FT.): 585.5 LOGGED (FT.): 305.4 LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO. SC87 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
286.8	CARBONDALE	HERRIN	COAL	6.7	298.7	

MAPID: 16701085000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 13N 4W SECTION: 8 QUARTERS/FOOTAGES: 1628' S line, 1303' W line

QUADRANGLE: PAWNEE LONGITUDE: -89.5677 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.58692 DATE COLLECTED:

SURFACE ELEVATION (FT.): 585.0 LOGGED (FT.): 305.7 LOG TYPE: Survey Core Study

SOURCE: PEABODY COAL CO. SC87 WELL TYPE: Coal Test

COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
335.5	CARBONDALE		CALCAREOUS SHALE	30.0	249.5	
305.5	CARBONDALE	BANKSTON FORK	LIMESTONE/UNDERCLAY	3.7	279.5	UPPER BENCH
301.8	CARBONDALE	BANKSTON FORK	CLAYSTONE	0.4	283.2	SHALE PARTING
301.4	CARBONDALE	BANKSTON FORK	LIMESTONE	0.8	283.6	LOWER BENCH
300.7	CARBONDALE	LAWSON	CARBONACEOUS SHALE	2.3	284.3	
298.4	CARBONDALE	LAWSON	SILTSTONE	1.0	286.6	
297.4	CARBONDALE	LAWSON	SANDSTONE	4.3	287.6	
293.2	CARBONDALE	LAWSON	GRAY SHALE	0.3	291.8	
292.9	CARBONDALE	BRERETON	LIMESTONE/UNDERCLAY	4.9	292.1	
288.0	CARBONDALE	ANNA	BLACK SHALE	2.0	297.0	
286.0	CARBONDALE	HERRIN	COAL	6.7	299.0	

MAPID: 16723391000C    VERSION: 1

PROJECT: LUMP

COUNTY: SANGAMON    TWP/RNG: 13N 4W    SECTION: 8    QUARTERS/FOOTAGES:

QUADRANGLE: PAWNEE

LONGITUDE: -89.557793

GEOLOGIST: JMCBETH

CONFIDENTIAL: N

LATITUDE: 39.593624

DATE COLLECTED: 12 / 3 / 1981

SURFACE ELEVATION (FT.): 607.2

LOGGED (FT.): 374.7

LOG TYPE: Drillers Log

SOURCE: PEABODY    SC128C

WELL TYPE: Coal Test

COMMENT: MINE #10

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
607.2	PLEISTOCENE		UNCONSOLIDATED	1.3	0.0	
605.9	PLEISTOCENE		CLAY	6.2	1.3	
599.7	PLEISTOCENE		CLAY	16.1	7.5	W/SAND AND GRAVEL
583.6	PLEISTOCENE		SAND	2.7	23.6	
580.9			GRAY SHALE	5.7	26.3	WITH SAND
575.2			GRAY SHALE	8.7	32.0	
566.5			SHALE	3.1	40.7	
563.4			GRAY SHALE	4.5	43.8	
558.9			LIMESTONE	7.0	48.3	
551.9			SHALE	3.5	55.3	DARK
548.4			GRAY SHALE	11.7	58.8	
536.7			SANDSTONE	13.8	70.5	
522.9			SHALE	7.4	84.3	WITH SAND
515.5			SHALE	78.9	91.7	
436.6			LIMESTONE	1.4	170.6	
435.2			SHALE	18.5	172.0	WITH SAND
416.7			SANDSTONE	5.7	190.5	
411.0			SHALE	46.7	196.2	WITH SAND
364.3			SHALE	32.9	242.9	
331.4			SHALE	15.1	275.8	WITH SAND
316.3			SHALE	1.4	290.9	
314.9			SHALE	1.4	292.3	WITH ARG. LS BAND
313.5			SHALE	8.4	293.7	
305.1			LIMESTONE	0.6	302.1	
304.5			SHALE	8.8	302.7	
295.7			SHALE	2.3	311.5	WITH LS
293.4			LIMESTONE	1.7	313.8	
291.7			SHALE	0.8	315.5	DARK
290.9			LIMESTONE	0.3	316.3	
290.6			SHALE	0.4	316.6	
290.2			SHALE	1.5	317.0	DARK
288.7			LIMESTONE	2.5	318.5	
286.2			SHALE	4.2	321.0	
282.0	SHELBURN	BRERETON	LIMESTONE	3.0	325.2	
279.0	CARBONDALE	HERRIN	COAL	7.8	328.2	
271.2	CARBONDALE		SHALE	0.1	336.0	DARK
271.1	CARBONDALE		UNDERCLAY	2.9	336.1	
268.2	CARBONDALE		SHALE	1.5	339.0	WITH LS BAND
266.7	CARBONDALE		SHALE	1.6	340.5	WITH SAND

265.1	CARBONDALE	SHALE	4.4	342.1	
260.7	CARBONDALE	SHALE	2.8	346.5	WITH SAND
257.9	CARBONDALE	SHALE	1.7	349.3	
256.2	CARBONDALE	LIMESTONE	1.0	351.0	
255.2	CARBONDALE	SHALE	13.6	352.0	WITH SAND
241.6	CARBONDALE	SHALE	9.1	365.6	

---

MAPID: 16700011000C    VERSION: 1

PROJECT: NCRDS87

COUNTY: SANGAMON    TWP/RNG: 13N 4W    SECTION: 9    QUARTERS/FOOTAGES: 1' N line, 1' E line

QUADRANGLE: PAWNEE    LONGITUDE: -89.53465    GEOLOGIST: WEIBEL

CONFIDENTIAL: N    LATITUDE: 39.596984    DATE COLLECTED:

SURFACE ELEVATION (FT.): 610.0    LOGGED (FT.): 457.8    LOG TYPE: Drillers Log

SOURCE: PEABODY COAL COMPANY    WELL TYPE: Coal Test

COMMENT: DIFFICULT TO CORRELATE LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
610.0			UNCONSOLIDATED	57.5	0.0	
552.5	BOND	CARTHAGE	LIMESTONE	4.3	57.5	
548.2	MODESTO		DARK SHALE	0.9	61.8	UNCERTAIN CORRELATION
547.4	MODESTO		GRAY SHALE	2.1	62.6	
545.3	MODESTO		LIMESTONE	4.3	64.7	
541.0	MODESTO		GRAY SHALE	7.1	69.0	
533.9	MODESTO		BLACK SHALE	2.2	76.1	
531.7	MODESTO		GRAY SHALE	12.8	78.3	
519.0	MODESTO		LIMESTONE	3.6	91.0	
515.4	MODESTO		UNCLASSIFIED	34.2	94.6	
481.2	MODESTO		BLACK SHALE	3.3	128.8	
478.0	MODESTO		UNCLASSIFIED	168.0	132.0	
310.0	MODESTO		LIMESTONE	4.9	300.0	
305.1	MODESTO		UNCLASSIFIED	4.5	304.9	
300.6	MODESTO		LIMESTONE	2.1	309.4	
298.5	MODESTO		UNCLASSIFIED	13.5	311.5	
285.0	CARBONDALE	BRERETON	LIMESTONE	4.5	325.0	UNCERTAIN CORRELATION
280.5	CARBONDALE		UNCLASSIFIED	1.8	329.5	
278.7	CARBONDALE	HERRIN	COAL	0.9	331.3	UNCERTAIN CORRELATION
277.8	CARBONDALE		UNCLASSIFIED	6.8	332.2	
271.0	CARBONDALE		BLACK SHALE	1.0	339.0	UNCERTAIN CORRELATION
270.0	CARBONDALE		UNCLASSIFIED	6.0	340.0	
264.0	CARBONDALE		LIMESTONE	2.0	346.0	
262.0	CARBONDALE		UNCLASSIFIED	11.0	348.0	
251.0	CARBONDALE	TURNER MINE	BLACK SHALE	6.0	359.0	UNCERTAIN CORRELATION
245.0	CARBONDALE	SPRINGFIELD	COAL	0.0	365.0	
245.0	CARBONDALE		UNCLASSIFIED	9.0	365.0	
236.0	CARBONDALE		BLACK SHALE	10.0	374.0	
226.0	CARBONDALE		UNCLASSIFIED	5.0	384.0	
221.0	CARBONDALE		LIMESTONE	1.0	389.0	
220.0	CARBONDALE		UNDERCLAY	1.0	390.0	
219.0	CARBONDALE		BLACK SHALE	15.0	391.0	
204.0	CARBONDALE		UNCLASSIFIED	22.0	406.0	
182.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	17.0	428.0	UNCERTAIN CORRELATION
165.0	CARBONDALE		UNCLASSIFIED	7.0	445.0	
158.0	CARBONDALE	COLCHESTER	COAL	0.8	452.0	UNCERTAIN CORRELATION
157.2			UNCLASSIFIED	5.0	452.8	

MAPID: 16700012000C    VERSION: 1

PROJECT: NCRDS88

COUNTY: SANGAMON    TWP/RNG: 13N 4W    SECTION: 9    QUARTERS/FOOTAGES: 1090' N line, 240' E line

QUADRANGLE: PAWNEE    LONGITUDE: -89.535472    GEOLOGIST: R. SMITH

CONFIDENTIAL: N    LATITUDE: 39.593975    DATE COLLECTED:

SURFACE ELEVATION (FT.): 601.6    LOGGED (FT.): 341.0    LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO.    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
601.6			UNCONSOLIDATED	47.0	0.0	
554.6	BOND	CARTHAGE	LIMESTONE	11.0	47.0	
543.6	BOND	CARTHAGE	BLACK SHALE	2.0	58.0	
541.6	BOND	CARTHAGE	LIMESTONE	10.0	60.0	
531.6	MODESTO	NEW HAVEN	BLACK SHALE	1.0	70.0	
530.6	MODESTO		UNDERCLAY	3.0	71.0	
527.6	MODESTO	MACOUPIN	LIMESTONE	21.0	74.0	
506.6	MODESTO		SANDSTONE	20.0	95.0	
486.6	MODESTO		SHALE	40.0	115.0	
446.6	MODESTO	CHAPEL	COAL	1.0	155.0	UNCERTAIN CORRELATION
445.6	MODESTO		UNDERCLAY	4.0	156.0	
441.6	MODESTO		SHALE	143.0	160.0	
298.6	MODESTO		LIMESTONE	1.0	303.0	
297.6	CARBONDALE	DANVILLE	LIMESTONE W/ COAL	2.0	304.0	UNCERTAIN CORRELATION
295.6	CARBONDALE		SHALE	7.0	306.0	
288.6	CARBONDALE	BRERETON	LIMESTONE	15.0	313.0	
273.6	CARBONDALE	ANNA	BLACK SHALE	1.0	328.0	
272.6	CARBONDALE	HERRIN	COAL	8.0	329.0	
264.6	CARBONDALE		UNDERCLAY	4.0	337.0	

MAPID: 16700029000C    VERSION: 1

PROJECT: NCRDS88

COUNTY: SANGAMON    TWP/RNG: 13N 4W    SECTION: 9    QUARTERS/FOOTAGES:

QUADRANGLE: PAWNEE

LONGITUDE: -89.544

GEOLOGIST: R. SMITH

CONFIDENTIAL: N

LATITUDE: 39.589744

DATE COLLECTED:

SURFACE ELEVATION (FT.):

LOGGED (FT.): 328.7

LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO.

WELL TYPE: Coal Test

COMMENT: 700' W OF CENTER

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			UNCONSOLIDATED	28.0	0.0	
-	BOND		BLUE SHALE	4.0	28.0	
-	BOND		COAL	0.5	32.0	
-	BOND		SHALE	10.0	32.5	
-	BOND		UNCLASSIFIED	5.6	42.5	
-	MODESTO		SHALE	0.5	48.1	
-	MODESTO		SANDSTONE	2.5	48.6	
-	MODESTO		GRAY SHALE	2.0	51.1	
-	MODESTO		BLACK SHALE	1.5	53.1	
-	MODESTO		COAL	1.0	54.6	
-	MODESTO		SHALE	5.0	55.6	
-	MODESTO	MACOUPIN	LIMESTONE	7.3	60.6	UNCERTAIN CORRELATION
-	MODESTO		UNDERCLAY	0.5	67.8	
-	MODESTO		BLACK SHALE	3.5	68.3	
-	MODESTO		GRAY SHALE	4.0	71.8	
-	MODESTO		SANDY SHALE	6.0	75.8	
-	MODESTO		SHALE	4.0	81.8	
-	MODESTO		SANDY SHALE	2.0	85.8	
-	MODESTO		SHALE	3.0	87.8	
-	MODESTO		SANDY SHALE	16.0	90.8	
-	MODESTO		BLUE SHALE	49.0	106.8	
-	MODESTO	CHAPEL	COAL	2.0	155.8	UNCERTAIN CORRELATION
-	MODESTO		SANDY SHALE	9.0	157.8	
-	MODESTO		SHALE	11.0	166.8	
-	MODESTO		SANDY SHALE	49.0	177.8	
-	MODESTO		CLAYSTONE	32.0	226.8	
-	MODESTO		GRAY SHALE	10.0	258.8	
-	MODESTO		BLACK SHALE	2.0	268.8	
-	MODESTO		SANDY SHALE	10.0	270.8	
-	MODESTO		SHALE	2.0	280.8	
-	MODESTO		SANDY SHALE	17.0	282.8	
-	CARBONDALE	DANVILLE	BLACK SHALE	1.0	299.8	
-	CARBONDALE	ANVIL ROCK	SANDSTONE	5.3	300.8	
-	CARBONDALE	ANVIL ROCK	SHALE	2.0	306.2	
-	CARBONDALE	ANVIL ROCK	SANDSTONE	2.7	308.2	
-	CARBONDALE	ANVIL ROCK	SANDY SHALE	1.5	310.8	
-	CARBONDALE	BRERETON	LIMESTONE	6.5	312.3	
-	CARBONDALE	ANNA	SHALE	1.3	318.8	
-	CARBONDALE	HERRIN	COAL	8.5	320.2	



---

MAPID: 1670015000C    VERSION: 1    PROJECT: EIA-DOE  
COUNTY: SANGAMON    TWP/RNG: 13N 4W    SECTION: 9    QUARTERS/FOOTAGES: 71' S line, 17' E line of SE NW  
QUADRANGLE: PAWNEE    LONGITUDE: -89.544065    GEOLOGIST: JACOBSON  
CONFIDENTIAL: N    LATITUDE: 39.58994    DATE COLLECTED: 5 / 0 / 1946  
SURFACE ELEVATION (FT.): 605.5    LOGGED (FT.): 339.6    LOG TYPE: Drillers Log  
SOURCE: PEABODY COAL CO.    17    WELL TYPE: Coal Test  
COMMENT:

---

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.) UNIT	OVERBURDEN	COMMENT
272.2	CARBONDALE	HERRIN	COAL	6.3	333.3	

---

---

MAPID: 16700151000C    VERSION: 1    PROJECT: EIA-DOE  
COUNTY: SANGAMON    TWP/RNG: 13N 4W    SECTION: 9    QUARTERS/FOOTAGES: 73' S line, 10' W line of NE NE  
QUADRANGLE: PAWNEE    LONGITUDE: -89.539293    GEOLOGIST: JACOBSON  
CONFIDENTIAL: N    LATITUDE: 39.593568    DATE COLLECTED: 6 / 0 / 1946  
SURFACE ELEVATION (FT.): 600.3    LOGGED (FT.): 345.8    LOG TYPE: Drillers Log  
SOURCE: PEABODY COAL CO.    18    WELL TYPE: Coal Test  
COMMENT:

---

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.) UNIT	OVERBURDEN	COMMENT
262.5	CARBONDALE	HERRIN	COAL	8.0	337.8	

---

---

MAPID: 16700158000C    VERSION: 1    PROJECT: EIA-DOE  
COUNTY: SANGAMON    TWP/RNG: 13N 4W    SECTION: 9    QUARTERS/FOOTAGES: 9' S line, 1432' E line  
QUADRANGLE: PAWNEE    LONGITUDE: -89.539605    GEOLOGIST: JACOBSON  
CONFIDENTIAL: N    LATITUDE: 39.582593    DATE COLLECTED: 4 / 0 / 1953  
SURFACE ELEVATION (FT.): 599.9    LOGGED (FT.): 340.3    LOG TYPE: Drillers Log  
SOURCE: PEABODY COAL CO.    27    WELL TYPE: Coal Test  
COMMENT:

---

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.) UNIT	OVERBURDEN	COMMENT
267.3	CARBONDALE	HERRIN	COAL	7.7	332.6	

---

MAPID: 16700158000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 13N 4W SECTION: 9 QUARTERS/FOOTAGES: 9' S line, 1432' E line

QUADRANGLE: PAWNEE LONGITUDE: -89.539605

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.582593

DATE COLLECTED:

SURFACE ELEVATION (FT.): 600.0 LOGGED (FT.): 340.1

LOG TYPE: Survey Core Study

SOURCE: PEABODY COAL CO. 27

WELL TYPE: Coal Test

COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
310.8	MODESTO	PIASA	LIMESTONE	2.0	289.2
308.8	CARBONDALE		SANDSTONE/SILTSTONE	15.8	291.2
293.0	CARBONDALE	BANKSTON FORK	LIMESTONE	1.3	307.0
291.7	CARBONDALE	LAWSON	DARK GRAY SHALE	0.6	308.3
291.0	CARBONDALE	LAWSON	CLAYSTONE	8.5	309.0
282.5	CARBONDALE	LAWSON	LIMESTONE W/ SHALE	1.2	317.5
281.3	CARBONDALE	LAWSON	MOTTLED SHALE	6.5	318.7
274.8	CARBONDALE	LAWSON	CALCAREOUS SHALE	1.6	325.2
273.2	CARBONDALE	BRERETON	LIMESTONE/UNDERCLAY	6.1	326.8
267.2	CARBONDALE	ANNA	DARK GRAY SHALE	0.2	332.8
267.0	CARBONDALE	HERRIN	COAL	7.1	333.0

MAPID: 16700166000C VERSION: 1

PROJECT: EIA-DOE

COUNTY: SANGAMON TWP/RNG: 13N 4W SECTION: 9 QUARTERS/FOOTAGES: 34' S line, 141' E line of NE

QUADRANGLE: PAWNEE LONGITUDE: -89.535078

GEOLOGIST: JACOBSON

CONFIDENTIAL: N LATITUDE: 39.589885

DATE COLLECTED:

SURFACE ELEVATION (FT.): 602.0 LOGGED (FT.): 328.0

LOG TYPE:

SOURCE: PEABODY COAL CO. SC31J

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
281.5	CARBONDALE	HERRIN	COAL	7.5	320.5

MAPID: 16700159000C VERSION: 1

PROJECT: EIA-DOE

COUNTY: SANGAMON TWP/RNG: 13N 4W SECTION: 16 QUARTERS/FOOTAGES: 9' N line, 2629' W line

QUADRANGLE: PAWNEE LONGITUDE: -89.543957

GEOLOGIST: JACOBSON

CONFIDENTIAL: N LATITUDE: 39.58252

DATE COLLECTED: 5 / 0 / 1953

SURFACE ELEVATION (FT.): 605.8 LOGGED (FT.): 326.1

LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO. 28

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
284.7	CARBONDALE	HERRIN	COAL	5.0	321.1

MAPID: 16700159000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 13N 4W SECTION: 16 QUARTERS/FOOTAGES: 9' N line, 2629' W line

QUADRANGLE: PAWNEE LONGITUDE: -89.543957

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.58252

DATE COLLECTED:

SURFACE ELEVATION (FT.): 606.0 LOGGED (FT.): 328.3

LOG TYPE: Survey Core Study

SOURCE: PEABODY COAL CO. 28

WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
348.2	CARBONDALE		GRAY SHALE	44.0	257.8
304.2	CARBONDALE	BANKSTON FORK	LIMESTONE	3.0	301.8
301.2	CARBONDALE	LAWSON	ARGILLACEOUS SANDSTONE	7.1	304.8
294.1	CARBONDALE	LAWSON	MOTTLED SHALE	1.7	311.9
292.4	CARBONDALE	LAWSON	DARK GRAY SHALE	0.4	313.6
292.0	CARBONDALE	LAWSON	MOTTLED SHALE	0.2	314.0
291.8	CARBONDALE	CONANT	LIMESTONE/UNDERCLAY	0.6	314.2
291.2	CARBONDALE		GRAY SHALE	1.3	314.8
289.9	CARBONDALE	BRERETON	LIMESTONE/UNDERCLAY	4.6	316.1
285.3	CARBONDALE	ANNA	DARK GRAY SHALE	0.3	320.7
285.0	CARBONDALE	HERRIN	COAL WITH SHALE PARTINGS	7.3	321.0

MAPID: 16700160000C VERSION: 1

PROJECT: EIA-DOE

COUNTY: SANGAMON TWP/RNG: 13N 4W SECTION: 16 QUARTERS/FOOTAGES: 12' S line, 86' E line of SW SE

QUADRANGLE: PAWNEE LONGITUDE: -89.539169

GEOLOGIST: JACOBSON

CONFIDENTIAL: N LATITUDE: 39.568052

DATE COLLECTED: 5 / 0 / 1953

SURFACE ELEVATION (FT.): 606.4 LOGGED (FT.): 343.4

LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO. 29

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
270.3	CARBONDALE	HERRIN	COAL	7.3	336.1

MAPID: 16700165000C VERSION: 1

PROJECT: EIA-DOE

COUNTY: SANGAMON TWP/RNG: 13N 4W SECTION: 16 QUARTERS/FOOTAGES: 11' N line, 35' E line of NW NW

QUADRANGLE: PAWNEE LONGITUDE: -89.548747

GEOLOGIST: JACOBSON

CONFIDENTIAL: N LATITUDE: 39.582488

DATE COLLECTED:

SURFACE ELEVATION (FT.): 607.2 LOGGED (FT.): 330.2

LOG TYPE:

SOURCE: PEABODY COAL CO. 30J

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
282.4	CARBONDALE	HERRIN	COAL	5.4	324.8

**MAPID:** 16700456000C    **VERSION:** 1    **PROJECT:** EIA-DOE  
**COUNTY:** SANGAMON    **TWP/RNG:** 13N 4W    **SECTION:** 16    **QUARTERS/FOOTAGES:** 120' N line, 180' W line of NE SW  
**QUADRANGLE:** PAWNEE    **LONGITUDE:** -89.547811    **GEOLOGIST:** JACOBSON  
**CONFIDENTIAL:** N    **LATITUDE:** 39.574933    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 605.8    **LOGGED (FT.):** 331.1    **LOG TYPE:** Drillers Log  
**SOURCE:** PEABODY COAL CO.    32    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
282.0	CARBONDALE	HERRIN	COAL	7.3	323.8	

**MAPID:** 16700457000C    **VERSION:** 1    **PROJECT:** EIA-DOE  
**COUNTY:** SANGAMON    **TWP/RNG:** 13N 4W    **SECTION:** 16    **QUARTERS/FOOTAGES:** 120' N line, 10' W line of SE  
**QUADRANGLE:** PAWNEE    **LONGITUDE:** -89.543706    **GEOLOGIST:** JACOBSON  
**CONFIDENTIAL:** N    **LATITUDE:** 39.574949    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 602.2    **LOGGED (FT.):** 325.3    **LOG TYPE:** Drillers Log  
**SOURCE:** PEABODY COAL CO.    33    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
284.5	CARBONDALE	HERRIN	COAL	7.6	317.7	

**MAPID:** 16701048000C    **VERSION:** 1    **PROJECT:** EIA-DOE  
**COUNTY:** SANGAMON    **TWP/RNG:** 13N 4W    **SECTION:** 17    **QUARTERS/FOOTAGES:** 17' S line, 170' W line of SW SW  
**QUADRANGLE:** PAWNEE    **LONGITUDE:** -89.571412    **GEOLOGIST:** JACOBSON  
**CONFIDENTIAL:** N    **LATITUDE:** 39.567927    **DATE COLLECTED:** 3 / 13 / 1965  
**SURFACE ELEVATION (FT.):** 583.9    **LOGGED (FT.):** 323.2    **LOG TYPE:** Drillers Log  
**SOURCE:** PEABODY COAL CO.    SC-86    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
268.4	CARBONDALE	HERRIN	COAL	7.7	315.5	

**MAPID:** 16701233000C    **VERSION:** 1    **PROJECT:** EIA-DOE  
**COUNTY:** SANGAMON    **TWP/RNG:** 13N 4W    **SECTION:** 17    **QUARTERS/FOOTAGES:** 21' N line, 37' W line of NE NE  
**QUADRANGLE:** PAWNEE    **LONGITUDE:** -89.55794    **GEOLOGIST:** JACOBSON  
**CONFIDENTIAL:** N    **LATITUDE:** 39.582415    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 606.8    **LOGGED (FT.):** 330.9    **LOG TYPE:** Drillers Log  
**SOURCE:** PEABODY COAL CO.    SC98    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
283.4	CARBONDALE	HERRIN	COAL	7.5	323.4	

**MAPID:** 16701234000C    **VERSION:** 1    **PROJECT:** EIA-DOE  
**COUNTY:** SANGAMON    **TWP/RNG:** 13N 4W    **SECTION:** 17    **QUARTERS/FOOTAGES:** 385' S line, 520' E line of NE SW  
**QUADRANGLE:** PAWNEE    **LONGITUDE:** -89.564466    **GEOLOGIST:** JACOBSON  
**CONFIDENTIAL:** N    **LATITUDE:** 39.572618    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 594.1    **LOGGED (FT.):** 291.5    **LOG TYPE:** Drillers Log  
**SOURCE:** PEABODY COAL CO.    SC99    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
307.9	CARBONDALE	HERRIN	COAL	5.3	286.2	

**MAPID:** 16701235000C    **VERSION:** 1    **PROJECT:** EIA-DOE  
**COUNTY:** SANGAMON    **TWP/RNG:** 13N 4W    **SECTION:** 17    **QUARTERS/FOOTAGES:** 1' N line, 230' E line of SE SW  
**QUADRANGLE:** PAWNEE    **LONGITUDE:** -89.563413    **GEOLOGIST:** JACOBSON  
**CONFIDENTIAL:** N    **LATITUDE:** 39.571558    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 604.9    **LOGGED (FT.):** 323.4    **LOG TYPE:** Drillers Log  
**SOURCE:** PEABODY COAL CO.    SC100    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
287.9	CARBONDALE	HERRIN	COAL	6.4	317.0	

**MAPID:** 16701236000C    **VERSION:** 1    **PROJECT:** EIA-DOE  
**COUNTY:** SANGAMON    **TWP/RNG:** 13N 4W    **SECTION:** 17    **QUARTERS/FOOTAGES:** 500' S line, 600' E line of NE SW  
**QUADRANGLE:** PAWNEE    **LONGITUDE:** -89.564759    **GEOLOGIST:** JACOBSON  
**CONFIDENTIAL:** N    **LATITUDE:** 39.572932    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 599.1    **LOGGED (FT.):** 317.2    **LOG TYPE:** Drillers Log  
**SOURCE:** PEABODY COAL CO.    SC101    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
288.2	CARBONDALE	HERRIN	COAL	6.3	310.9	

**MAPID:** 16701237000C    **VERSION:** 1    **PROJECT:** EIA-DOE  
**COUNTY:** SANGAMON    **TWP/RNG:** 13N 4W    **SECTION:** 17    **QUARTERS/FOOTAGES:** 1580' S line, 2195' W line  
**QUADRANGLE:** PAWNEE    **LONGITUDE:** -89.564273    **GEOLOGIST:** JACOBSON  
**CONFIDENTIAL:** N    **LATITUDE:** 39.572287    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 590.5    **LOGGED (FT.):** 281.9    **LOG TYPE:** Drillers Log  
**SOURCE:** PEABODY COAL CO.    SC102    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
313.6	CARBONDALE	HERRIN	COAL	5.0	276.9	

MAPID: 16701237000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 13N 4W SECTION: 17 QUARTERS/FOOTAGES: 1580' S line, 2195' W line

QUADRANGLE: PAWNEE LONGITUDE: -89.564273

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.572287

DATE COLLECTED:

SURFACE ELEVATION (FT.): 591.0 LOGGED (FT.): 305.5

LOG TYPE: Survey Core Study

SOURCE: PEABODY COAL CO. SC102

WELL TYPE: Coal Test

COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
324.5	MODESTO	PIASA	LIMESTONE/UNDERCLAY	2.8	266.5
321.8	MODESTO		DARK GRAY SHALE	7.7	269.2
314.1	CARBONDALE	DANVILLE	COAL	5.0	276.9
309.1	CARBONDALE		CLAYSTONE	3.4	281.9
305.7	CARBONDALE	LAWSON	CARBONACEOUS SANDSTONE	15.7	285.3
290.0	CARBONDALE	HERRIN	COAL	4.5	301.0

MAPID: 16701238000C VERSION: 1

PROJECT: EIA-DOE

COUNTY: SANGAMON TWP/RNG: 13N 4W SECTION: 17 QUARTERS/FOOTAGES: 160' S line, 316' E line of NE SW

QUADRANGLE: PAWNEE LONGITUDE: -89.563727

GEOLOGIST: JACOBSON

CONFIDENTIAL: N LATITUDE: 39.572

DATE COLLECTED:

SURFACE ELEVATION (FT.): 596.1 LOGGED (FT.): 282.6

LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO. SC103

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
317.3	CARBONDALE	HERRIN	COAL	3.8	278.8

MAPID: 16701239000C VERSION: 1

PROJECT: EIA-DOE

COUNTY: SANGAMON TWP/RNG: 13N 4W SECTION: 17 QUARTERS/FOOTAGES: 43' S line, 1' E line of SW SW

QUADRANGLE: PAWNEE LONGITUDE: -89.567272

GEOLOGIST: JACOBSON

CONFIDENTIAL: N LATITUDE: 39.568026

DATE COLLECTED:

SURFACE ELEVATION (FT.): 579.1 LOGGED (FT.): 315.7

LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO. SC104

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
270.8	CARBONDALE	HERRIN	COAL	7.4	308.3

**MAPID:** 16700926000C    **VERSION:** 1    **PROJECT:** EIA-DOE  
**COUNTY:** SANGAMON    **TWP/RNG:** 13N 4W    **SECTION:** 18    **QUARTERS/FOOTAGES:** 1320' N line, 15' W line of NW  
**QUADRANGLE:** PAWNEE    **LONGITUDE:** -89.590232    **GEOLOGIST:** JACOBSON  
**CONFIDENTIAL:** N    **LATITUDE:** 39.578533    **DATE COLLECTED:** 0 / 0 / 1964  
**SURFACE ELEVATION (FT.):** 597.7    **LOGGED (FT.):** 327.1    **LOG TYPE:** Drillers Log  
**SOURCE:** PEABODY COAL CO.    SC48    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
278.4	CARBONDALE	HERRIN	COAL	7.8	319.3

**MAPID:** 16701619000C    **VERSION:** 1    **PROJECT:** EIA-DOE  
**COUNTY:** SANGAMON    **TWP/RNG:** 13N 4W    **SECTION:** 18    **QUARTERS/FOOTAGES:** 360' S line, 1680' E line  
**QUADRANGLE:** PAWNEE    **LONGITUDE:** -89.578029    **GEOLOGIST:** JACOBSON  
**CONFIDENTIAL:** N    **LATITUDE:** 39.568883    **DATE COLLECTED:** 9 / 8 / 1970  
**SURFACE ELEVATION (FT.):** 611.8    **LOGGED (FT.):** 358.0    **LOG TYPE:** Drillers Log  
**SOURCE:** PEABODY COAL CO.    SC109    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
261.2	CARBONDALE	HERRIN	COAL	7.4	350.6

**MAPID:** 16701619000C    **VERSION:** 2    **PROJECT:** ROOF STUDY  
**COUNTY:** SANGAMON    **TWP/RNG:** 13N 4W    **SECTION:** 18    **QUARTERS/FOOTAGES:** 360' S line, 1680' E line  
**QUADRANGLE:** PAWNEE    **LONGITUDE:** -89.578029    **GEOLOGIST:**  
**CONFIDENTIAL:** N    **LATITUDE:** 39.568883    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 612.0    **LOGGED (FT.):** 350.4    **LOG TYPE:** Survey Core Study  
**SOURCE:** PEABODY COAL CO.    SC109    **WELL TYPE:** Coal Test  
**COMMENT:** FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
317.0	MODESTO		GRAY SHALE	20.6	295.0
296.5	CARBONDALE	DANVILLE	DARK GRAY SHALE	1.6	315.5
294.9	CARBONDALE		GRAY SHALE	7.0	317.1
287.9	CARBONDALE	BANKSTON FORK	LIMESTONE	4.0	324.1
283.9	CARBONDALE	LAWSON	SILTY SHALE	6.6	328.1
277.3	CARBONDALE	LAWSON	SANDSTONE	0.4	334.7
276.9	CARBONDALE	LAWSON	ARGILLACEOUS SANDSTONE	2.1	335.1
274.8	CARBONDALE	BRERETON	LIMESTONE/UNDERCLAY	0.3	337.2
274.5	CARBONDALE	ANNA	BLACK SHALE	5.5	337.5
269.0	CARBONDALE	HERRIN	COAL	7.4	343.0

MAPID: 16700933000C VERSION: 1

PROJECT: EIA-DOE

COUNTY: SANGAMON TWP/RNG: 13N 4W SECTION: 19 QUARTERS/FOOTAGES: 104' S line, 16' W line

QUADRANGLE: PAWNEE LONGITUDE: -89.589932 GEOLOGIST: JACOBSON

CONFIDENTIAL: N LATITUDE: 39.553616 DATE COLLECTED:

SURFACE ELEVATION (FT.): 592.5 LOGGED (FT.): 333.5 LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO. SC47 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
266.7	CARBONDALE	HERRIN	COAL	7.7	325.8	

MAPID: 16700933000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 13N 4W SECTION: 19 QUARTERS/FOOTAGES: 104' S line, 16' W line

QUADRANGLE: PAWNEE LONGITUDE: -89.589932 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.553616 DATE COLLECTED:

SURFACE ELEVATION (FT.): 592.0 LOGGED (FT.): 333.7 LOG TYPE: Survey Core Study

SOURCE: PEABODY COAL CO. SC47 WELL TYPE: Coal Test

COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
307.0	MODESTO	PIASA	NODULAR LIMESTONE	1.8	285.0	
305.2	MODESTO		CLAYSTONE	8.0	286.8	
297.2	CARBONDALE	DANVILLE	CARBONACEOUS SHALE	0.2	294.8	
297.1	CARBONDALE		CLAYSTONE & SHALE	5.9	294.9	
291.2	CARBONDALE	BANKSTON FORK	LIMESTONE/UNDERCLAY	4.0	300.8	UPPER BENCH
287.2	CARBONDALE	BANKSTON FORK	MOTTLED SHALE	0.3	304.8	SHALE PARTING
286.8	CARBONDALE	BANKSTON FORK	LIMESTONE/UNDERCLAY	0.6	305.2	LOWER BENCH
286.2	CARBONDALE	LAWSON	MOTTLED SHALE	1.7	305.8	
284.6	CARBONDALE	LAWSON	NODULAR LIMESTONE	0.8	307.4	
283.8	CARBONDALE	LAWSON	CLAYSTONE	1.5	308.2	
282.3	CARBONDALE	LAWSON	SILTSTONE	2.3	309.7	
280.1	CARBONDALE	LAWSON	CALCAREOUS SHALE	2.3	311.9	
277.7	CARBONDALE	CONANT	LIMESTONE/UNDERCLAY	0.4	314.3	
277.3	CARBONDALE		CLAYSTONE	2.8	314.7	
274.5	CARBONDALE	BRERETON	LIMESTONE/UNDERCLAY	7.6	317.5	
266.9	CARBONDALE	ANNA	DARK GRAY SHALE	0.9	325.1	
266.0	CARBONDALE	HERRIN	COAL	7.7	326.0	



**MAPID:** 16701617000C    **VERSION:** 1    **PROJECT:** EIA-DOE  
**COUNTY:** SANGAMON    **TWP/RNG:** 13N 4W    **SECTION:** 19    **QUARTERS/FOOTAGES:** 965' N line, 895' W line of SE  
**QUADRANGLE:** PAWNEE    **LONGITUDE:** -89.578113    **GEOLOGIST:** JACOBSON  
**CONFIDENTIAL:** N    **LATITUDE:** 39.55798    **DATE COLLECTED:** 8 / 31 / 1970  
**SURFACE ELEVATION (FT.):** 585.1    **LOGGED (FT.):** 332.8    **LOG TYPE:** Drillers Log  
**SOURCE:** PEABODY COAL CO.    SC107    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
259.9	CARBONDALE	HERRIN	COAL	7.6	325.2	

**MAPID:** 16701618000C    **VERSION:** 1    **PROJECT:** EIA-DOE  
**COUNTY:** SANGAMON    **TWP/RNG:** 13N 4W    **SECTION:** 19    **QUARTERS/FOOTAGES:** 25' N line, 810' W line of NW SE  
**QUADRANGLE:** PAWNEE    **LONGITUDE:** -89.578448    **GEOLOGIST:** JACOBSON  
**CONFIDENTIAL:** N    **LATITUDE:** 39.560574    **DATE COLLECTED:** 9 / 3 / 1970  
**SURFACE ELEVATION (FT.):** 604.6    **LOGGED (FT.):** 256.4    **LOG TYPE:** Drillers Log  
**SOURCE:** PEABODY COAL CO.    SC108    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
356.8	CARBONDALE	HERRIN	COAL	8.6	247.8	

**MAPID:** 16700571000C    **VERSION:** 1    **PROJECT:** EIA-DOE  
**COUNTY:** SANGAMON    **TWP/RNG:** 13N 4W    **SECTION:** 21    **QUARTERS/FOOTAGES:** 83' N line, 17' E line of SE NE  
**QUADRANGLE:** PAWNEE    **LONGITUDE:** -89.534138    **GEOLOGIST:** JACOBSON  
**CONFIDENTIAL:** N    **LATITUDE:** 39.564187    **DATE COLLECTED:** 5 / 0 / 1957  
**SURFACE ELEVATION (FT.):** 599.6    **LOGGED (FT.):** 333.1    **LOG TYPE:** Drillers Log  
**SOURCE:** PEABODY COAL CO.    SC35    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
274.0	CARBONDALE	HERRIN	COAL	7.5	325.6	

**MAPID:** 16700618000C    **VERSION:** 1    **PROJECT:** EIA-DOE  
**COUNTY:** SANGAMON    **TWP/RNG:** 13N 4W    **SECTION:** 21    **QUARTERS/FOOTAGES:** 30' S line, 95' W line  
**QUADRANGLE:** PAWNEE    **LONGITUDE:** -89.552529    **GEOLOGIST:** JACOBSON  
**CONFIDENTIAL:** N    **LATITUDE:** 39.553611    **DATE COLLECTED:** 2 / 0 / 1959  
**SURFACE ELEVATION (FT.):** 610.1    **LOGGED (FT.):** 370.9    **LOG TYPE:** Drillers Log  
**SOURCE:** PEABODY COAL CO.    40    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
247.0	CARBONDALE	HERRIN	COAL	7.8	363.1	

MAPID: 16700618000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 13N 4W SECTION: 21 QUARTERS/FOOTAGES: 30' S line, 95' W line

QUADRANGLE: PAWNEE LONGITUDE: -89.552529 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.553611 DATE COLLECTED:

SURFACE ELEVATION (FT.): 610.0 LOGGED (FT.): 370.8 LOG TYPE: Survey Core Study

SOURCE: PEABODY COAL CO. 40 WELL TYPE: Coal Test

COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
280.9	MODESTO	PIASA	LIMESTONE/UNDERCLAY	2.3	329.1
278.7	MODESTO		DARK GRAY SHALE	3.9	331.3
274.8	CARBONDALE	DANVILLE	COAL	0.9	335.2
273.8	CARBONDALE		LIMESTONE W/ SHALE	1.8	336.2
272.1	CARBONDALE	BANKSTON FORK	LIMESTONE/UNDERCLAY	5.3	337.9
266.8	CARBONDALE	LAWSON	SHALE & SILTSTONE	4.0	343.2
262.8	CARBONDALE	LAWSON	ARGILLACEOUS SANDSTONE	4.0	347.2
258.8	CARBONDALE	LAWSON	LIMESTONE AND SANDSTONE	1.0	351.2
257.8	CARBONDALE	LAWSON	SILTSTONE	0.2	352.2
257.6	CARBONDALE	LAWSON	BLACK SHALE	0.8	352.4
256.8	CARBONDALE	CONANT	LIMESTONE/UNDERCLAY	0.4	353.2
256.4	CARBONDALE		DARK GRAY SHALE	2.3	353.6
254.2	CARBONDALE	BRERETON	LIMESTONE/UNDERCLAY	7.2	355.8
247.0	CARBONDALE	HERRIN	COAL	7.8	363.0

MAPID: 16700570000C VERSION: 1

PROJECT: EIA-DOE

COUNTY: SANGAMON TWP/RNG: 13N 4W SECTION: 28 QUARTERS/FOOTAGES: 63' N line, 19' E line

QUADRANGLE: PAWNEE LONGITUDE: -89.533966 GEOLOGIST: JACOBSON

CONFIDENTIAL: N LATITUDE: 39.553419 DATE COLLECTED: 0 / 0 / 1957

SURFACE ELEVATION (FT.): 608.0 LOGGED (FT.): 336.9 LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO. SC34 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
278.3	CARBONDALE	HERRIN	COAL	7.2	329.7

MAPID: 16700570000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 13N 4W SECTION: 28 QUARTERS/FOOTAGES: 63' N line, 19' E line

QUADRANGLE: PAWNEE LONGITUDE: -89.533966 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.553419 DATE COLLECTED:

SURFACE ELEVATION (FT.): 608.0 LOGGED (FT.): 337.2 LOG TYPE: Survey Core Study

SOURCE: PEABODY COAL CO. SC34 WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
346.6	CARBONDALE		SHALE	50.0	261.4
296.6	CARBONDALE	BANKSTON FORK	LIMESTONE/UNDERCLAY	3.2	311.4
293.4	CARBONDALE	LAWSON	SHALE	0.6	314.6
292.8	CARBONDALE	LAWSON	LIMESTONE	0.3	315.2
292.5	CARBONDALE	LAWSON	SHALE	2.1	315.5
290.4	CARBONDALE	LAWSON	SANDSTONE	2.3	317.6
288.1	CARBONDALE	LAWSON	MOTTLED SHALE	2.0	319.9
286.1	CARBONDALE	CONANT	LIMESTONE/UNDERCLAY	0.3	321.9
285.7	CARBONDALE		MOTTLED SHALE	0.5	322.3
285.2	CARBONDALE	BRERETON	LIMESTONE/UNDERCLAY	6.9	322.8
278.3	CARBONDALE	ANNA	DARK GRAY SHALE	0.3	329.7
278.0	CARBONDALE	HERRIN	COAL	7.2	330.0

MAPID: 16701034000C VERSION: 1

PROJECT: EIA-DOE

COUNTY: SANGAMON TWP/RNG: 13N 4W SECTION: 29 QUARTERS/FOOTAGES: 765' S line, 295' W line of SW SW

QUADRANGLE: PAWNEE LONGITUDE: -89.570498 GEOLOGIST: JACOBSON

CONFIDENTIAL: N LATITUDE: 39.541116 DATE COLLECTED: 1 / 18 / 1965

SURFACE ELEVATION (FT.): 591.4 LOGGED (FT.): 339.1 LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO. SC83 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
260.4	CARBONDALE	HERRIN	COAL	8.1	331.0

MAPID: 16701046000C VERSION: 1

PROJECT: EIA-DOE

COUNTY: SANGAMON TWP/RNG: 13N 4W SECTION: 29 QUARTERS/FOOTAGES: 160' S line, 295' W line

QUADRANGLE: PAWNEE LONGITUDE: -89.57046 GEOLOGIST: JACOBSON

CONFIDENTIAL: N LATITUDE: 39.539446 DATE COLLECTED: 1 / 19 / 1965

SURFACE ELEVATION (FT.): 611.0 LOGGED (FT.): 357.0 LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO. SC84 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
261.7	CARBONDALE	HERRIN	COAL	7.7	349.3

MAPID: 16701046000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 13N 4W SECTION: 29 QUARTERS/FOOTAGES: 160' S line, 295' W line

QUADRANGLE: PAWNEE LONGITUDE: -89.57046 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.539446 DATE COLLECTED:

SURFACE ELEVATION (FT.): 611.0 LOGGED (FT.): 356.7 LOG TYPE: Survey Core Study

SOURCE: PEABODY COAL CO. SC84 WELL TYPE: Coal Test

COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
302.2	MODESTO		SHALE	10.0	308.8
292.2	CARBONDALE	DANVILLE	COAL	0.8	318.8
291.5	CARBONDALE		CLAYSTONE & SHALE	7.1	319.5
284.3	CARBONDALE	BANKSTON FORK	LIMESTONE	4.0	326.7
280.3	CARBONDALE	LAWSON	DARK GRAY SHALE	4.1	330.7
276.3	CARBONDALE	LAWSON	CLAYSTONE & SHALE	1.7	334.7
274.6	CARBONDALE	LAWSON	SANDSTONE	3.7	336.4
270.9	CARBONDALE	LAWSON	LIMESTONE	0.2	340.1
270.7	CARBONDALE	LAWSON	MOTTLED SHALE	1.3	340.3
269.5	CARBONDALE	BRERETON	LIMESTONE/UNDERCLAY	7.2	341.5
262.3	CARBONDALE	ANNA	DARK GRAY SHALE	0.3	348.7
262.0	CARBONDALE	HERRIN	COAL	7.7	349.0

MAPID: 16701047000C VERSION: 1

PROJECT: EIA-DOE

COUNTY: SANGAMON TWP/RNG: 13N 4W SECTION: 29 QUARTERS/FOOTAGES: 178' S line, 293' W line of SW SW

QUADRANGLE: PAWNEE LONGITUDE: -89.570471 GEOLOGIST: JACOBSON

CONFIDENTIAL: N LATITUDE: 39.539496 DATE COLLECTED: 3 / 10 / 1965

SURFACE ELEVATION (FT.): 611.8 LOGGED (FT.): 357.1 LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO. SC85 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
262.5	CARBONDALE	HERRIN	COAL	7.8	349.3

MAPID: 16700014000C    VERSION: 1

PROJECT: NCRDS88

COUNTY: SANGAMON    TWP/RNG: 13N 4W    SECTION: 30    QUARTERS/FOOTAGES: NE NE

QUADRANGLE: PAWNEE    LONGITUDE: -89.574134    GEOLOGIST: R. SMITH

CONFIDENTIAL: N    LATITUDE: 39.551617    DATE COLLECTED: 5 / 20 / 1905

SURFACE ELEVATION (FT.): 600.0    LOGGED (FT.): 356.8    LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO.    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
600.0			UNCONSOLIDATED	17.0	0.0	
583.0	BOND		SHALE	4.0	17.0	
579.0	BOND		SANDSTONE	25.1	21.0	
553.9	BOND		SHALE	7.0	46.1	
546.9	BOND		SANDSTONE	11.5	53.1	
535.4	BOND		SHALE	3.0	64.6	
532.4	BOND	CARTHAGE	LIMESTONE	6.0	67.6	UNCERTAIN CORRELATION
526.4	MODESTO		SANDSTONE	3.0	73.6	
523.4	MODESTO		BLACK SHALE	4.0	76.6	
519.4	MODESTO		SHALE	2.8	80.6	
516.6	MODESTO		SANDSTONE	1.7	83.4	
514.9	MODESTO	MACOUPIN	LIMESTONE	8.5	85.1	UNCERTAIN CORRELATION
506.4	MODESTO		SANDSTONE	3.5	93.6	
502.9	MODESTO		BLACK SHALE	2.0	97.1	
500.9	MODESTO		SHALE	2.5	99.1	
498.4	MODESTO		SANDSTONE	16.0	101.6	
482.4	MODESTO		SHALE	20.3	117.6	
462.1	MODESTO		SANDSTONE	16.3	137.9	
445.8	MODESTO		SHALE	23.0	154.2	
422.8	MODESTO		LIMESTONE	1.0	177.2	
421.8	MODESTO		SHALE	4.3	178.2	
417.4	MODESTO		SANDSTONE	2.0	182.6	
415.4	MODESTO		SHALE	9.5	184.6	
405.9	MODESTO		SANDSTONE	16.3	194.1	
389.6	MODESTO		SHALE	22.0	210.4	
367.6	MODESTO		SANDSTONE	12.0	232.4	
355.6	MODESTO		SHALE	44.3	244.4	
311.3	MODESTO		SHALE & CLAYSTONE	30.0	288.7	
281.3	MODESTO		BLUE SHALE	15.0	318.7	
266.3	MODESTO		BLACK SHALE	6.0	333.7	
260.3			LIMESTONE	3.0	339.7	
257.3			COAL	8.0	342.7	
249.3			UNDERCLAY	6.2	350.7	

MAPID: 16722155000C    VERSION: 1

PROJECT: EIA-DOE

COUNTY: SANGAMON    TWP/RNG: 13N 4W    SECTION: 30    QUARTERS/FOOTAGES: NW SW

QUADRANGLE: PAWNEE    LONGITUDE: -89.58756    GEOLOGIST: JACOBSON

CONFIDENTIAL: N    LATITUDE: 39.544249    DATE COLLECTED: 4 / 10 / 1975

SURFACE ELEVATION (FT.): 619.2    LOGGED (FT.): 358.8    LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO.    SC110    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
268.7	CARBONDALE	HERRIN	COAL	8.3	350.5	

---

MAPID: 16722155000C    VERSION: 2

PROJECT: NCRDS17

COUNTY: SANGAMON    TWP/RNG: 13N 4W    SECTION: 30    QUARTERS/FOOTAGES: NW SW

QUADRANGLE: PAWNEE    LONGITUDE: -89.58756    GEOLOGIST: JMCBETH

CONFIDENTIAL: N    LATITUDE: 39.544249    DATE COLLECTED: 4 / 10 / 1975

SURFACE ELEVATION (FT.): 619.2    LOGGED (FT.): 359.7    LOG TYPE: Drillers Log

SOURCE: PEABODY    SC110C    WELL TYPE: Coal Test

COMMENT: MINE#10; ALTERNATE DESC. ON FILE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
619.2	PLEISTOCENE		UNCONSOLIDATED	16.0	0.0	
603.2	PLEISTOCENE		CLAY	5.3	16.0	BLACK
597.9			SHALE	16.4	21.3	
581.5			SANDSTONE	0.1	37.7	
581.4			GRAY SHALE	4.1	37.8	
577.3			SANDSTONE	0.5	41.9	
576.8			GRAY SHALE	0.6	42.4	
576.2			SANDSTONE	0.1	43.0	
576.1			GRAY SHALE	0.7	43.1	
575.4			SANDSTONE	0.1	43.8	
575.3			GRAY SHALE	4.6	43.9	
570.7			SANDSTONE	0.1	48.5	
570.6			SHALE	15.6	48.6	
555.0			LIMESTONE	1.7	64.2	
553.3			GRAY SHALE	9.2	65.9	SOFT
544.1			SANDSTONE	3.7	75.1	
540.4			SHALE	0.5	78.8	SOFT
539.9			SANDSTONE	2.3	79.3	
537.6			GRAY SHALE	1.0	81.6	
536.7			BLACK SHALE	3.5	82.5	BLACK
533.1			UNDERCLAY	5.4	86.1	FIRE CLAY; SOFT
527.7			SANDSTONE	10.1	91.5	HARD
517.6			SHALE	7.7	101.6	DARK, SOFT
509.9			SANDSTONE	18.8	109.3	
491.1			SAND	29.8	128.1	
461.3			SHALE	22.8	157.9	GREEN
438.5			FOSSILIFEROUS LIMESTONE	1.3	180.7	
437.2			COAL	1.2	182.0	
436.0			SHALE	2.2	183.2	GREEN
433.8			SANDSTONE	11.6	185.4	WITH SH BAND
422.2			SHALE	85.1	197.0	GREEN
337.1			LIMESTONE	0.5	282.1	
336.6			SHALE	1.3	282.6	GREEN
335.3			SANDSTONE	8.5	283.9	SOFT W/ SHALE BAND
326.8			SHALE	7.6	292.4	GREEN
319.2			BLACK SHALE	1.5	300.0	
317.7			UNDERCLAY	7.0	301.5	FIRE CLAY
310.7			UNKNOWN	2.4	308.5	

308.3			SANDSTONE	2.6	310.9	
305.7			SHALE	0.2	313.5	DARK
305.5			SANDSTONE	2.3	313.7	
303.2			CONGLOMERATE	7.5	316.0	CONGLOMERATE
295.7			SHALE	0.6	323.5	DARK
295.1			SANDSTONE	10.3	324.1	
284.8			SHALE	2.0	334.4	DARK, HARD
282.8			LIMESTONE	0.8	336.4	
282.0			SHALE	1.2	337.2	DARK
280.8			SANDSTONE	5.4	338.4	
275.4			LIMESTONE	0.9	343.8	HARD
274.5			BLACK SHALE	0.6	344.7	
273.9	SHELburn	BRERETON	LIMESTONE	5.6	345.3	
268.3	CARBONDALE		UNKNOWN	0.5	350.9	
267.8	CARBONDALE	HERRIN	COAL	8.3	351.4	

**MAPID:** 16700909000C    **VERSION:** 1    **PROJECT:** EIA-DOE  
**COUNTY:** SANGAMON    **TWP/RNG:** 13N 4W    **SECTION:** 31    **QUARTERS/FOOTAGES:** 15' S line, 67' W line of SW  
**QUADRANGLE:** PAWNEE    **LONGITUDE:** -89.58935    **GEOLOGIST:** JACOBSON  
**CONFIDENTIAL:** N    **LATITUDE:** 39.524539    **DATE COLLECTED:** 0 / 0 / 1963  
**SURFACE ELEVATION (FT.):** 637.1    **LOGGED (FT.):** 363.7    **LOG TYPE:** Drillers Log  
**SOURCE:** PEABODY COAL CO.    SC41    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	UNIT OVERBURDEN	COMMENT
281.5	CARBONDALE	HERRIN	COAL	8.1	355.6	

**MAPID:** 16700916000C    **VERSION:** 1    **PROJECT:** EIA-DOE  
**COUNTY:** SANGAMON    **TWP/RNG:** 13N 4W    **SECTION:** 31    **QUARTERS/FOOTAGES:** 16' N line, 76' W line  
**QUADRANGLE:** PAWNEE    **LONGITUDE:** -89.589475    **GEOLOGIST:** JACOBSON  
**CONFIDENTIAL:** N    **LATITUDE:** 39.538721    **DATE COLLECTED:** 12 / 20 / 1963  
**SURFACE ELEVATION (FT.):** 622.4    **LOGGED (FT.):** 349.1    **LOG TYPE:** Drillers Log  
**SOURCE:** PEABODY COAL CO.    SC42    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	UNIT OVERBURDEN	COMMENT
281.6	CARBONDALE	HERRIN	COAL	8.3	340.8	



MAPID: 16700916000C    VERSION: 2

PROJECT: ROOF STUDY

COUNTY: SANGAMON    TWP/RNG: 13N 4W    SECTION: 31    QUARTERS/FOOTAGES: 16' N line, 76' W line

QUADRANGLE: PAWNEE    LONGITUDE: -89.589475

GEOLOGIST:

CONFIDENTIAL: N    LATITUDE: 39.538721

DATE COLLECTED:

SURFACE ELEVATION (FT.): 622.0    LOGGED (FT.): 349.3

LOG TYPE: Survey Core Study

SOURCE: PEABODY COAL CO.    SC42

WELL TYPE: Coal Test

COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
319.5	MODESTO	PIASA	LIMESTONE	2.5	302.5	
317.0	CARBONDALE		CALCAREOUS SHALE	12.5	305.0	
304.5	CARBONDALE	BANKSTON FORK	LIMESTONE/UNDERCLAY	3.8	317.5	UPPER BENCH
300.7	CARBONDALE	BANKSTON FORK	LIMESTONE W/ SHALE	2.3	321.3	SHALE PARTING
298.4	CARBONDALE	BANKSTON FORK	NODULAR LIMESTONE	0.8	323.6	LOWER BENCH
297.7	CARBONDALE	LAWSON	CLAYSTONE	1.1	324.3	
296.6	CARBONDALE	LAWSON	ARGILLACEOUS SANDSTONE	3.7	325.4	
292.9	CARBONDALE	LAWSON	MOTTLED SHALE	0.6	329.1	
292.3	CARBONDALE	LAWSON	GRAY SHALE	0.3	329.7	
292.1	CARBONDALE	CONANT	LIMESTONE/UNDERCLAY	0.9	329.9	
291.2	CARBONDALE		DARK GRAY SHALE	2.3	330.8	
288.8	CARBONDALE	BRERETON	LIMESTONE/UNDERCLAY	6.2	333.2	
282.7	CARBONDALE	ANNA	DARK GRAY SHALE	1.7	339.3	
281.0	CARBONDALE	HERRIN	COAL	8.3	341.0	

---

MAPID: 16700001000C    VERSION: 1

PROJECT: NCRDS88

COUNTY: SANGAMON    TWP/RNG: 13N 4W    SECTION: 33    QUARTERS/FOOTAGES: 1840' S line, 720' E line

QUADRANGLE: PAWNEE    LONGITUDE: -89.536293    GEOLOGIST: R. SMITH

CONFIDENTIAL: N    LATITUDE: 39.529674    DATE COLLECTED:

SURFACE ELEVATION (FT.): 614.1    LOGGED (FT.): 367.8    LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO.    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
614.1			UNCONSOLIDATED	45.0	0.0
569.1	BOND		BLUE SHALE	17.6	45.0
551.5	BOND		LIMESTONE	2.5	62.6
549.0	BOND		BLACK SHALE	5.5	65.1
543.5	BOND		LIGHT SHALE	1.1	70.6
542.4	BOND	CARTHAGE	LIMESTONE	13.5	71.7
528.9	MODESTO		BLUE SHALE	2.0	85.2
526.9	MODESTO		BLACK SHALE	3.0	87.2
523.9	MODESTO	NEW HAVEN	COAL	1.0	90.2
522.9	MODESTO		LIGHT SHALE	4.0	91.2
518.9	MODESTO	MACOUPIN	LIMESTONE	2.1	95.2
516.8	MODESTO		LIMESTONE W/ SHALE	52.0	97.3
464.8	MODESTO		SANDY SHALE	20.0	149.3
444.8	MODESTO		LIMESTONE	10.0	169.3
434.8	MODESTO		SHALE	10.0	179.3
424.8	MODESTO	CHAPEL	COAL	0.5	189.3
424.3	MODESTO		UNDERCLAY	5.0	189.8
419.3	MODESTO		SANDY LIMESTONE	2.0	194.8
417.3	MODESTO		SANDY SHALE	10.0	196.8
407.3	MODESTO		SANDSTONE	50.0	206.8
357.3	MODESTO		SANDY SHALE	36.0	256.8
321.3	MODESTO		BLACK SHALE	20.0	292.8
301.3	MODESTO		BROWN SHALE	7.0	312.8
294.3	CARBONDALE	DANVILLE	BLACK SHALE	6.0	319.8
288.3	CARBONDALE		UNCLASSIFIED	8.0	325.8
280.3	CARBONDALE		SANDY SHALE	9.0	333.8
271.3	CARBONDALE		LIMESTONE	1.0	342.8
270.3	CARBONDALE		SANDSTONE	5.0	343.8
265.3	CARBONDALE	BRERETON	LIMESTONE	10.0	348.8
255.3	CARBONDALE	HERRIN	COAL	9.0	358.8

MAPID: 16700617000C VERSION: 1

PROJECT: EIA-DOE

COUNTY: SANGAMON TWP/RNG: 13N 4W SECTION: 33 QUARTERS/FOOTAGES: 15' N line, 70' W line

QUADRANGLE: PAWNEE LONGITUDE: -89.552446 GEOLOGIST: JACOBSON

CONFIDENTIAL: N LATITUDE: 39.539042 DATE COLLECTED: 1 / 0 / 1959

SURFACE ELEVATION (FT.): 613.8 LOGGED (FT.): 349.1 LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO. 39 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
272.5	CARBONDALE	HERRIN	COAL	7.8	341.3	

MAPID: 16700617000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 13N 4W SECTION: 33 QUARTERS/FOOTAGES: 15' N line, 70' W line

QUADRANGLE: PAWNEE LONGITUDE: -89.552446 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.539042 DATE COLLECTED:

SURFACE ELEVATION (FT.): 614.0 LOGGED (FT.): 348.8 LOG TYPE: Survey Core Study

SOURCE: PEABODY COAL CO. 39 WELL TYPE: Coal Test

COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
297.0	MODESTO	PIASA	NODULAR LIMESTONE	1.3	317.0	
295.7	MODESTO		LIMESTONE W/ SHALE	3.5	318.3	
292.2	CARBONDALE	DANVILLE	BLACK SHALE	1.8	321.8	
290.5	CARBONDALE		SILTY SHALE	1.0	323.5	
289.5	CARBONDALE	GALUM	NODULAR LIMESTONE	0.3	324.5	
289.2	CARBONDALE		SHALE & SILTSTONE	2.9	324.8	
286.2	CARBONDALE	BANKSTON FORK	LIMESTONE	1.7	327.8	UPPER BENCH
284.6	CARBONDALE	BANKSTON FORK	LIMESTONE W/ SHALE	2.3	329.4	LOWER BENCH
282.3	CARBONDALE	LAWSON	GRAY SHALE	2.4	331.7	
279.9	CARBONDALE	BRERETON	LIMESTONE/UNDERCLAY	6.0	334.1	
273.9	CARBONDALE	ANNA	SILTY SHALE	0.3	340.1	
273.0	CARBONDALE	HERRIN	COAL	7.8	341.0	

MAPID: 16700937000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 13N 5W SECTION: 2 QUARTERS/FOOTAGES: 18' N line, 77' E line

QUADRANGLE: PAWNEE LONGITUDE: -89.609389 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.612286 DATE COLLECTED:

SURFACE ELEVATION (FT.): 601.0 LOGGED (FT.): 314.5 LOG TYPE: Survey Core Study

SOURCE: PEABODY COAL CO. SC52 WELL TYPE: Coal Test

COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
320.6	CARBONDALE		SANDSTONE	10.0	280.4	
310.6	CARBONDALE	BANKSTON FORK	LIMESTONE/UNDERCLAY	2.0	290.4	UPPER BENCH
308.6	CARBONDALE	BANKSTON FORK	CLAYSTONE	0.4	292.4	SHALE PARTING
308.2	CARBONDALE	BANKSTON FORK	LIMESTONE/UNDERCLAY	0.4	292.8	LOWER BENCH
307.8	CARBONDALE	LAWSON	MOTTLED SHALE	2.2	293.2	
305.6	CARBONDALE	LAWSON	SILTSTONE	1.0	295.4	
304.6	CARBONDALE	LAWSON	ARGILLACEOUS SANDSTONE	3.4	296.4	
301.2	CARBONDALE	LAWSON	SILTY SHALE	0.4	299.8	
300.8	CARBONDALE	BRERETON	LIMESTONE/UNDERCLAY	3.2	300.2	
297.6	CARBONDALE	ANNA	BLACK SHALE	3.6	303.4	
294.0	CARBONDALE	HERRIN	COAL	7.5	307.0	

MAPID: 16700985000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 13N 5W SECTION: 3 QUARTERS/FOOTAGES: 68' S line, 1223' W line

QUADRANGLE: DIVERNON LONGITUDE: -89.642696 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.597257 DATE COLLECTED:

SURFACE ELEVATION (FT.): 597.0 LOGGED (FT.): 305.8 LOG TYPE: Survey Core Study

SOURCE: PEABODY COAL CO. SC72 WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
330.6	CARBONDALE		SHALE	14.0	266.4	
316.6	CARBONDALE	BANKSTON FORK	LIMESTONE	4.6	280.4	UPPER BENCH
312.0	CARBONDALE	BANKSTON FORK	MOTTLED SHALE	0.3	285.0	SHALE PARTING
311.7	CARBONDALE	BANKSTON FORK	LIMESTONE	0.4	285.3	LOWER BENCH
311.4	CARBONDALE	LAWSON	MOTTLED SHALE	2.5	285.6	
308.9	CARBONDALE	LAWSON	SILTSTONE	0.8	288.1	
308.1	CARBONDALE	LAWSON	MOTTLED SHALE	1.0	288.9	
307.0	CARBONDALE	BRERETON	LIMESTONE	3.0	290.0	
304.1	CARBONDALE	ANNA	BLACK SHALE	5.1	292.9	
299.0	CARBONDALE	HERRIN	COAL	7.8	298.0	

MAPID: 16700987000C    VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON    TWP/RNG: 13N 5W    SECTION: 10    QUARTERS/FOOTAGES: 2586' N line, 520' E line

QUADRANGLE: DIVERNON    LONGITUDE: -89.629479

GEOLOGIST:

CONFIDENTIAL: N    LATITUDE: 39.590189

DATE COLLECTED:

SURFACE ELEVATION (FT.): 579.0    LOGGED (FT.): 299.7

LOG TYPE: Survey Core Study

SOURCE: PEABODY COAL CO.    SC74

WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
332.9	CARBONDALE		LIMESTONE W/ SHALE	32.0	246.1
300.9	CARBONDALE	BANKSTON FORK	LIMESTONE	1.0	278.1
299.9	CARBONDALE	LAWSON	LIMESTONE W/ SHALE	4.5	279.1
295.4	CARBONDALE	BRERETON	LIMESTONE	5.2	283.6
290.2	CARBONDALE	ANNA	DARK GRAY SHALE	3.3	288.8
287.0	CARBONDALE	HERRIN	COAL	7.7	292.0

MAPID: 16723487000C    VERSION: 1

PROJECT: NCRDS87

COUNTY: SANGAMON    TWP/RNG: 13N 5W    SECTION: 10    QUARTERS/FOOTAGES: 330' S line, 330' W line of NE NW

QUADRANGLE: DIVERNON    LONGITUDE: -89.641006    GEOLOGIST: WEIBEL

CONFIDENTIAL: N    LATITUDE: 39.594336    DATE COLLECTED: 4 / 13 / 1983

SURFACE ELEVATION (FT.): 612.0    LOGGED (FT.): 561.0    LOG TYPE: Gamma Ray Density

SOURCE: JOHN CAREY OIL CO.,INC.    WELL TYPE: Producer-Oil and Gas

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
612.0			UNCONSOLIDATED	99.0	0.0	
513.0	BOND		UNCLASSIFIED	38.0	99.0	
475.0	BOND	CARTHAGE	LIMESTONE	2.5	137.0	UNCERTAIN CORRELATION
472.5	MODESTO		BLACK SHALE	2.5	139.5	
470.0	MODESTO		UNCLASSIFIED	106.0	142.0	UNCERTAIN CORRELATION
364.0	MODESTO		BLACK SHALE	4.0	248.0	
360.0	MODESTO		UNCLASSIFIED	6.0	252.0	
354.0	MODESTO		LIMESTONE	3.0	258.0	
351.0	MODESTO		UNCLASSIFIED	32.0	261.0	
319.0	CARBONDALE	BRERETON	LIMESTONE	3.0	293.0	
316.0	CARBONDALE		UNCLASSIFIED	5.0	296.0	
311.0	CARBONDALE	ANNA	BLACK SHALE	3.5	301.0	
307.5	CARBONDALE	HERRIN	COAL	8.5	304.5	
299.0	CARBONDALE		UNCLASSIFIED	9.0	313.0	
290.0	CARBONDALE	TURNER MINE	BLACK SHALE	0.0	322.0	
287.0	CARBONDALE	SPRINGFIELD	COAL	0.0	325.0	
287.0	CARBONDALE		UNCLASSIFIED	6.0	325.0	
281.0	CARBONDALE		LIMESTONE	3.0	331.0	
278.0	CARBONDALE		UNCLASSIFIED	11.0	334.0	
267.0	CARBONDALE	EXCELLO	BLACK SHALE	9.0	345.0	
258.0	CARBONDALE	HOUCHIN CREEK	COAL	4.0	354.0	
254.0	CARBONDALE		UNCLASSIFIED	52.0	358.0	
202.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	5.0	410.0	
197.0	CARBONDALE	COLCHESTER	COAL	1.0	415.0	
196.0	CARBONDALE		UNCLASSIFIED	9.0	416.0	
187.0	CARBONDALE		COAL	3.0	425.0	
184.0	CARBONDALE		UNCLASSIFIED	44.0	428.0	
140.0	CARBONDALE		BLACK SHALE	4.0	472.0	
136.0	CARBONDALE		COAL	2.0	476.0	
134.0	CARBONDALE		UNCLASSIFIED	50.0	478.0	
84.0	CARBONDALE		COAL	2.5	528.0	
81.5	CARBONDALE		UNCLASSIFIED	28.5	530.5	
53.0	CARBONDALE		COAL	2.0	559.0	

MAPID: 16700479000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 13N 5W SECTION: 11 QUARTERS/FOOTAGES: 330' S line, 330' W line

QUADRANGLE: DIVERNON LONGITUDE: -89.62637 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.583565 DATE COLLECTED:

SURFACE ELEVATION (FT.): 613.0 LOGGED (FT.): 356.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
313.0	MODESTO	PIASA	LIMESTONE W/ SHALE	10.0	300.0	
303.0	MODESTO		SHALE	6.0	310.0	
297.0	CARBONDALE	DANVILLE	DARK GRAY SHALE	1.0	316.0	
296.0	CARBONDALE		SHALE	9.0	317.0	
287.0	CARBONDALE	BANKSTON FORK	LIMESTONE	6.0	326.0	
281.0	CARBONDALE	LAWSON	SHALE	10.0	332.0	
265.0	CARBONDALE	HERRIN	COAL	8.0	348.0	

MAPID: 16700934000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 13N 5W SECTION: 14 QUARTERS/FOOTAGES: 2629' S line, 2559' E line

QUADRANGLE: PAWNEE LONGITUDE: -89.617881 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.575442 DATE COLLECTED:

SURFACE ELEVATION (FT.): 612.0 LOGGED (FT.): 348.5 LOG TYPE: Survey Core Study

SOURCE: PEABODY COAL CO. SC49 WELL TYPE: Coal Test

COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
314.9	MODESTO	PIASA	LIMESTONE/UNDERCLAY	0.4	297.1	
314.5	MODESTO		SHALE & SILTSTONE	15.8	297.5	
298.7	CARBONDALE	DANVILLE	COAL	2.2	313.3	
296.5	CARBONDALE		CLAYSTONE	7.0	315.5	
289.5	CARBONDALE	BANKSTON FORK	LIMESTONE	3.4	322.5	UPPER BENCH
286.1	CARBONDALE	BANKSTON FORK	MOTTLED SHALE	0.4	325.9	SHALE PARTING
285.7	CARBONDALE	BANKSTON FORK	LIMESTONE	0.3	326.3	LOWER BENCH
285.4	CARBONDALE	LAWSON	MOTTLED SHALE	2.8	326.6	
282.6	CARBONDALE	LAWSON	SILTSTONE	1.7	329.4	
280.9	CARBONDALE	LAWSON	MOTTLED SHALE	0.5	331.1	
280.4	CARBONDALE	BRERETON	LIMESTONE/UNDERCLAY	5.6	331.6	
274.9	CARBONDALE	ANNA	BLACK SHALE	3.9	337.1	
271.0	CARBONDALE	HERRIN	COAL	7.5	341.0	

MAPID: 16700084000C    VERSION: 1

PROJECT: NCRDS88

COUNTY: SANGAMON    TWP/RNG: 13N 5W    SECTION: 15    QUARTERS/FOOTAGES: 2624' S line, 62' W line

QUADRANGLE: DIVERNON    LONGITUDE: -89.646493    GEOLOGIST: R. SMITH

CONFIDENTIAL: N    LATITUDE: 39.57504    DATE COLLECTED: 10 / 0 / 1923

SURFACE ELEVATION (FT.): 615.0    LOGGED (FT.): 1000.0    LOG TYPE: Drillers Log

SOURCE: MADISON COAL CORP.    WELL TYPE: Coal Test

COMMENT: CORE #139

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
615.0			UNCONSOLIDATED	22.0	0.0	
593.0	MODESTO		SHALE	33.0	22.0	
560.0	MODESTO		LIMESTONE	5.3	55.0	
554.7	MODESTO		SHALE	5.8	60.3	
548.8	MODESTO		SANDSTONE	8.8	66.2	
540.0	MODESTO		SANDY SHALE	30.8	75.0	
509.2	MODESTO		BLACK SHALE	0.2	105.8	
509.0	MODESTO		SANDSTONE/SHALE	1.0	106.0	
508.0	MODESTO		BLACK SHALE	15.5	107.0	
492.5	MODESTO		GRAY SHALE	0.5	122.5	
492.0	MODESTO		BLACK SHALE	2.3	123.0	
489.7	MODESTO	CHAPEL	COAL	0.3	125.3	UNCERTAIN CORRELATION
489.3	MODESTO		SHALE & SANDSTONE	2.6	125.7	
486.7	MODESTO		GRAY SHALE	1.3	128.3	
485.5	MODESTO		SANDSTONE	2.5	129.5	
483.0	MODESTO		GRAY SHALE	1.3	132.0	
481.7	MODESTO		DARK SHALE	1.3	133.3	
480.3	MODESTO		LIGHT SHALE	0.3	134.7	
480.0	MODESTO		CLAYSTONE	29.9	135.0	
450.1	MODESTO		LIMESTONE	0.6	164.9	
449.5	MODESTO		SANDSTONE	1.5	165.5	
448.0	MODESTO		GRAY SHALE	72.3	167.0	
375.2	MODESTO		CLAYSTONE & SHALE	17.0	239.8	
358.2	CARBONDALE	DANVILLE	BLACK SHALE	1.4	256.8	
356.8	CARBONDALE		CALCAREOUS SHALE	35.8	258.2	
321.0	CARBONDALE	HERRIN	COAL	8.0	294.0	
313.0	CARBONDALE		UNDERCLAY	4.0	302.0	
309.0	CARBONDALE		LIMESTONE	3.2	306.0	
305.8	CARBONDALE		SHALE	19.5	309.2	
286.3	CARBONDALE		LIMESTONE	1.7	328.7	
284.7	CARBONDALE		BLACK SHALE	5.7	330.3	
279.0	CARBONDALE		GRAY SHALE	1.1	336.0	
277.9	CARBONDALE	EXCELLO	BLACK SHALE	2.3	337.1	
275.7	CARBONDALE	HOUCHIN CREEK	COAL	3.2	339.3	
272.5	CARBONDALE		UNDERCLAY	3.5	342.5	
269.0	CARBONDALE		SANDY SHALE	13.5	346.0	
255.5	CARBONDALE	SURVANT - UPPER	COAL	0.3	359.5	
255.2	CARBONDALE		SANDY SHALE	26.3	359.8	
229.0	CARBONDALE		BLACK SHALE	2.8	386.0	



226.2	CARBONDALE	SURVANT - LOWER	COAL	0.5	388.8
225.7	CARBONDALE		BLACK SHALE	0.8	389.3
225.0	CARBONDALE		GRAY SHALE	6.0	390.0
219.0	CARBONDALE	OAK GROVE	LIMESTONE	0.8	396.0
218.2	CARBONDALE	MECCA QUARRY	BLACK SHALE	0.3	396.8
217.8	CARBONDALE		GRAY SHALE	0.7	397.2
217.2	CARBONDALE	COLCHESTER	COAL	0.2	397.8
217.0	SPOON		GRAY SHALE	6.3	398.0
210.7	SPOON		CLAYSTONE & SHALE	11.7	404.3
199.0	SPOON		LIMESTONE	4.0	416.0
195.0	SPOON		CLAYSTONE & SHALE	10.0	420.0
185.0	SPOON		SANDSTONE	1.0	430.0
184.0	SPOON		GRAY SHALE	0.8	431.0
183.2	SPOON		BLACK SHALE	1.2	431.8
182.0	SPOON		GRAY SHALE	1.0	433.0
181.0	SPOON		SANDSTONE	2.0	434.0
179.0	SPOON		SANDY SHALE	0.8	436.0
178.2			SANDSTONE	1.3	436.8
177.0			GRAY SHALE	9.2	438.0
167.8			BLACK SHALE	0.7	447.2
167.2			GRAY SHALE	0.4	447.8
166.7			BLACK SHALE	1.8	448.3
165.0			GRAY SHALE	1.0	450.0
164.0			BLACK SHALE	1.0	451.0
163.0			COAL	0.2	452.0
162.8			BLACK SHALE	4.8	452.2
158.0			CLAYSTONE & SHALE	7.0	457.0
151.0			BLACK SHALE	14.0	464.0
137.0			SANDSTONE	2.0	478.0
135.0			GRAY SHALE	6.8	480.0
128.2			BLACK SHALE	1.4	486.8
126.8			GRAY SHALE	0.7	488.2
126.2			CLAYSTONE & SHALE	5.7	488.8
120.5			GRAY SHALE	33.5	494.5
87.0			SANDSTONE/SHALE	33.5	528.0
53.5			SANDSTONE	25.5	561.5
28.0			SANDY SHALE	51.0	587.0
-23.0			CLAYSTONE & SHALE	23.0	638.0
-46.0			SANDSTONE	20.0	661.0
-66.0			GREEN SHALE	8.0	681.0
-74.0			LIMESTONE	283.5	689.0
-357.5			GRAY SHALE	2.8	972.5
-360.3			LIMESTONE	9.2	975.3
-369.5			GRAY SHALE	0.5	984.5
-370.0			LIMESTONE	10.0	985.0
-380.0			GRAY SHALE	1.5	995.0
-381.5			LIMESTONE	3.5	996.5

MAPID: 16700084000C    VERSION: 2

PROJECT: ROOF STUDY

COUNTY: SANGAMON    TWP/RNG: 13N 5W    SECTION: 15    QUARTERS/FOOTAGES: 2624' S line, 62' W line

QUADRANGLE: DIVERNON    LONGITUDE: -89.646493

GEOLOGIST:

CONFIDENTIAL: N    LATITUDE: 39.57504

DATE COLLECTED:

SURFACE ELEVATION (FT.): 615.0    LOGGED (FT.): 302.0

LOG TYPE: Drillers Log

SOURCE:

WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION; CORE #139

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
375.2	MODESTO		CALCAREOUS SHALE	17.0	239.8
358.2	CARBONDALE	DANVILLE	BLACK SHALE	1.4	256.8
356.8	CARBONDALE		CALCAREOUS SHALE	12.8	258.2
344.0	CARBONDALE	BANKSTON FORK	LIMESTONE & SHALE	11.3	271.0
332.7	CARBONDALE	LAWSON	MOTTLED SHALE	0.8	282.3
331.8	CARBONDALE	BRERETON	LIMESTONE & SHALE	9.4	283.2
322.4	CARBONDALE	ANNA	DARK GRAY SHALE	1.4	292.6
321.0	CARBONDALE	HERRIN	COAL	8.0	294.0

MAPID: 16700558000C    VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON    TWP/RNG: 13N 5W    SECTION: 16    QUARTERS/FOOTAGES: 330' N line, 330' W line

QUADRANGLE: DIVERNON    LONGITUDE: -89.664465

GEOLOGIST:

CONFIDENTIAL: N    LATITUDE: 39.581136

DATE COLLECTED:

SURFACE ELEVATION (FT.): 618.0    LOGGED (FT.): 303.0

LOG TYPE: Electric Log

SOURCE:

WELL TYPE: Oil and Gas Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
369.0	MODESTO	PIASA	LIMESTONE & SHALE	10.0	249.0
359.0	CARBONDALE		SILTY SHALE	19.0	259.0
340.0	CARBONDALE	BANKSTON FORK	LIMESTONE	7.0	278.0
333.0	CARBONDALE	LAWSON	SHALE	9.0	285.0
323.0	CARBONDALE	HERRIN	COAL	8.0	295.0

MAPID: 16700085000C    VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON    TWP/RNG: 13N 5W    SECTION: 17    QUARTERS/FOOTAGES: 2594' S line, 2566' W line

QUADRANGLE: DIVERNON    LONGITUDE: -89.675236

GEOLOGIST:

CONFIDENTIAL: N    LATITUDE: 39.574515

DATE COLLECTED:

SURFACE ELEVATION (FT.): 617.0

LOGGED (FT.): 303.0

LOG TYPE: Drillers Log

SOURCE:

WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
353.4	CARBONDALE		ROCK	10.0	263.6
343.4	CARBONDALE	GALUM	CALCAREOUS SHALE	0.2	273.6
343.2	CARBONDALE		SILTY SHALE	3.3	273.8
340.0	CARBONDALE	BANKSTON FORK	LIMESTONE & SHALE	2.5	277.0
337.5	CARBONDALE	LAWSON	CALCAREOUS SHALE	5.6	279.5
331.9	CARBONDALE	BRERETON	LIMESTONE & SHALE	8.6	285.1
323.3	CARBONDALE	ANNA	BLACK SHALE	4.3	293.7
319.0	CARBONDALE	HERRIN	COAL	5.0	298.0

MAPID: 16700071000C    VERSION: 1

PROJECT: NCRDS88

COUNTY: SANGAMON    TWP/RNG: 13N 5W    SECTION: 20    QUARTERS/FOOTAGES: 92' N line, 2588' W line

QUADRANGLE: DIVERNON    LONGITUDE: -89.67496    GEOLOGIST: R. SMITH

CONFIDENTIAL: N    LATITUDE: 39.567104    DATE COLLECTED: 0 / 0 / 1923

SURFACE ELEVATION (FT.): 618.9    LOGGED (FT.): 700.0    LOG TYPE: Drillers Log

SOURCE: MADISON COAL CORP.    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
618.9			UNCONSOLIDATED	40.0	0.0	
578.9	MODESTO	MACOUPIN	LIMESTONE	9.0	40.0	
569.9	MODESTO		SANDY SHALE	1.0	49.0	
568.9	MODESTO		CLAYSTONE	10.5	50.0	
558.4	MODESTO		LIMESTONE	0.5	60.5	
557.9	MODESTO		SANDSTONE	19.0	61.0	
538.9	MODESTO		GRAY SHALE	54.5	80.0	
484.4	MODESTO	CHAPEL	COAL	1.0	134.5	UNCERTAIN CORRELATION
483.4	MODESTO		UNDERCLAY	5.5	135.5	
477.9			SHALE	38.0	141.0	
439.9			BLACK SHALE	2.0	179.0	
437.9			SHALE	70.5	181.0	
367.4			BLACK SHALE	5.5	251.5	
361.9			SHALE	6.3	257.0	
355.6			LIMESTONE	0.4	263.3	
355.2			GREEN SHALE	1.0	263.7	
354.2			LIMESTONE	2.2	264.7	
352.1	CARBONDALE	DANVILLE	BLACK SHALE	5.2	266.8	
346.9	CARBONDALE		GRAY SHALE	4.2	272.0	
342.7	CARBONDALE	BANKSTON FORK	LIMESTONE	6.3	276.2	
336.5	CARBONDALE		SHALE	4.3	282.4	
332.1	CARBONDALE		SANDSTONE	0.7	286.8	
331.5	CARBONDALE		SHALE	4.7	287.4	
326.8	CARBONDALE		SANDSTONE	1.4	292.1	
325.4	CARBONDALE	BRERETON	LIMESTONE	0.5	293.5	
324.9	CARBONDALE		GRAY SHALE	0.2	294.0	
324.7	CARBONDALE	ANNA	BLACK SHALE	5.6	294.2	
319.1	CARBONDALE	HERRIN	COAL	8.3	299.8	
310.9	CARBONDALE		SHALE	34.0	308.0	
276.9	CARBONDALE	HOUCHIN CREEK	COAL	3.0	342.0	
273.9	CARBONDALE		UNDERCLAY	1.8	345.0	
272.1	CARBONDALE		LIMESTONE	1.3	346.8	
270.9	CARBONDALE		GRAY SHALE	10.7	348.0	
260.2	CARBONDALE	SURVANT	COAL	0.3	358.7	UNCERTAIN CORRELATION
259.9	CARBONDALE		GRAY SHALE	38.7	359.0	
221.2	CARBONDALE	MECCA QUARRY	BLACK SHALE	3.6	397.7	
217.6	CARBONDALE	COLCHESTER	COAL	4.1	401.3	
213.6	SPOON		GRAY SHALE	1.8	405.3	
211.7	SPOON		SANDSTONE/SHALE	12.8	407.2	

198.9	SPOON	SHALE	1.7	420.0
197.2	SPOON	SHALE & SANDSTONE	18.3	421.7
178.9	SPOON	COAL	1.2	440.0
177.7	SPOON	UNDERCLAY	1.8	441.2
175.9	SPOON	GRAY SHALE	10.4	443.0
165.5	SPOON	COAL	0.1	453.4
165.4	SPOON	GRAY SHALE	15.0	453.5
150.4	SPOON	SANDSTONE	3.0	468.5
144.4	SPOON	GRAY SHALE	1.5	474.5
142.9	SPOON	SANDSTONE/SHALE	35.5	476.0
107.4	SPOON	GRAY SHALE	31.5	511.5
75.9	SPOON	SANDSTONE/SHALE	24.5	543.0
51.4	SPOON	BLACK SHALE	6.9	567.5
44.5	SPOON	LIMESTONE	6.6	574.4
37.9	SPOON	SANDSTONE/SHALE	39.0	581.0
-1.1	SPOON	SANDSTONE	80.0	620.0

**MAPID:** 16700071000C    **VERSION:** 2    **PROJECT:** ROOF STUDY  
**COUNTY:** SANGAMON    **TWP/RNG:** 13N 5W    **SECTION:** 20    **QUARTERS/FOOTAGES:** 92' N line, 2588' W line  
**QUADRANGLE:** DIVERNON    **LONGITUDE:** -89.67496    **GEOLOGIST:**  
**CONFIDENTIAL:** N    **LATITUDE:** 39.567104    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 619.0    **LOGGED (FT.):** 308.3    **LOG TYPE:** Drillers Log  
**SOURCE:**    **WELL TYPE:** Coal Test  
**COMMENT:** GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
354.1	MODESTO	PIASA	LIMESTONE	2.2	264.9
351.9	CARBONDALE		MOTTLED SHALE	9.3	267.1
342.6	CARBONDALE	BANKSTON FORK	LIMESTONE	6.3	276.4
336.3	CARBONDALE	LAWSON	CALCAREOUS SHALE	4.3	282.7
332.0	CARBONDALE	LAWSON	SANDSTONE	0.7	287.0
331.3	CARBONDALE	LAWSON	CALCAREOUS SHALE	4.7	287.7
326.7	CARBONDALE	LAWSON	SANDSTONE	1.4	292.3
325.2	CARBONDALE	BRERETON	LIMESTONE	0.5	293.8
324.7	CARBONDALE	ANNA	BLACK SHALE	5.8	294.3
319.0	CARBONDALE	HERRIN	COAL	8.3	300.0

MAPID: 16700087000C    VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON    TWP/RNG: 13N 5W    SECTION: 20    QUARTERS/FOOTAGES: 100' S line, 2590' E line

QUADRANGLE: DIVERNON    LONGITUDE: -89.674283

GEOLOGIST:

CONFIDENTIAL: N    LATITUDE: 39.553038

DATE COLLECTED:

SURFACE ELEVATION (FT.): 627.0

LOGGED (FT.): 319.5

LOG TYPE: Drillers Log

SOURCE:

WELL TYPE: Coal Test

COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
371.1	MODESTO		CALCAREOUS SHALE	5.5	255.9
365.6	CARBONDALE	DANVILLE	BLACK SHALE	0.8	261.4
364.8	CARBONDALE		MOTTLED SHALE	21.8	262.2
343.1	CARBONDALE	BANKSTON FORK	LIMESTONE & SHALE	8.5	283.9
334.6	CARBONDALE	LAWSON	BLACK SHALE	0.5	292.4
334.1	CARBONDALE	LAWSON	ARGILLACEOUS SANDSTONE	4.6	292.9
329.5	CARBONDALE	LAWSON	SHALE & SANDSTONE	1.2	297.5
328.3	CARBONDALE	LAWSON	LIMESTONE	0.3	298.7
328.0	CARBONDALE	LAWSON	DARK GRAY SHALE	4.5	299.0
323.5	CARBONDALE	BRERETON	LIMESTONE & SHALE	6.9	303.5
316.6	CARBONDALE	ANNA	BLACK SHALE	0.6	310.4
316.0	CARBONDALE	HERRIN	COAL	8.5	311.0

---

MAPID: 16700016000C    VERSION: 1

PROJECT: NCRDS88

COUNTY: SANGAMON    TWP/RNG: 13N 5W    SECTION: 21    QUARTERS/FOOTAGES: 1575' S line, 2405' E line

QUADRANGLE: DIVERNON    LONGITUDE: -89.655014    GEOLOGIST: R. SMITH

CONFIDENTIAL: N    LATITUDE: 39.55738    DATE COLLECTED:

SURFACE ELEVATION (FT.): 618.0    LOGGED (FT.): 604.0    LOG TYPE: Drillers Log

SOURCE: MADISON COAL CO.    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
618.0			UNCONSOLIDATED	40.0	0.0
578.0	BOND	CARTHAGE	LIMESTONE	5.0	40.0
573.0	MODESTO	NEW HAVEN	BLACK SHALE	3.0	45.0
570.0	MODESTO		BLUE SHALE	3.0	48.0
567.0	MODESTO		BLACK SHALE	7.0	51.0
560.0	MODESTO	MACOUPIN	LIMESTONE	4.0	58.0
556.0	MODESTO		SHALE	4.0	62.0
552.0	MODESTO		DARK SHALE	5.0	66.0
547.0	MODESTO		LIMESTONE	1.0	71.0
546.0	MODESTO		LIGHT SHALE	3.0	72.0
543.0	MODESTO		LIMESTONE	3.0	75.0
540.0	MODESTO		LIGHT SHALE	6.0	78.0
534.0	MODESTO		LIMESTONE	15.0	84.0
519.0	MODESTO		SANDSTONE	29.0	99.0
490.0	MODESTO		SHALE	21.0	128.0
469.0	MODESTO		DARK SHALE	2.0	149.0
467.0	MODESTO	CHAPEL	COAL	0.8	151.0
466.2	MODESTO		BLUE SHALE	8.3	151.8
458.0	MODESTO		LIMESTONE	2.0	160.0
456.0	MODESTO		GRAY SHALE	18.0	162.0
438.0	MODESTO		SANDSTONE	12.0	180.0
426.0	MODESTO		BLUE SHALE	12.0	192.0
414.0	MODESTO		DARK SHALE	26.0	204.0
388.0	MODESTO		BLUE SHALE	31.5	230.0
356.5	MODESTO		COAL	0.2	261.5
356.3	MODESTO		SHALE	9.3	261.7
347.0	MODESTO		DARK SHALE	10.0	271.0
337.0	MODESTO		CALCAREOUS SHALE	8.0	281.0
329.0	MODESTO		SHALE	3.0	289.0
326.0	MODESTO	PIASA	LIMESTONE	1.0	292.0
325.0	CARBONDALE	DANVILLE	BLACK SHALE	3.0	293.0
322.0	CARBONDALE		CALCAREOUS SHALE	14.0	296.0
308.0	CARBONDALE		SANDY SHALE	5.0	310.0
303.0	CARBONDALE	ANNA	BLACK SHALE	5.5	315.0
297.5	CARBONDALE	HERRIN	COAL	7.9	320.5
289.6	CARBONDALE		SILTY SHALE	1.1	328.4
288.5	CARBONDALE		SHALE	9.5	329.5
279.0	CARBONDALE		DARK SHALE	4.0	339.0
275.0	CARBONDALE		LIMESTONE W/ SHALE	5.0	343.0

270.0	CARBONDALE		LIGHT SHALE	5.0	348.0	
265.0	CARBONDALE		BLUE SHALE	5.0	353.0	
260.0	CARBONDALE		SHALE	3.0	358.0	
257.0	CARBONDALE		LIMESTONE	0.5	361.0	
256.5	CARBONDALE		SHALE	4.5	361.5	
252.0	CARBONDALE	EXCELLO	BLACK SHALE	0.7	366.0	
251.3	CARBONDALE	HOUCHIN CREEK	COAL	2.9	366.7	
248.4	CARBONDALE		SHALE	2.4	369.6	
245.0	CARBONDALE		LIMESTONE	3.0	373.0	
242.0	CARBONDALE		BLUE SHALE	2.5	376.0	
239.5	CARBONDALE		SANDSTONE	0.5	378.5	
239.0	CARBONDALE	SURVANT	COAL	1.0	379.0	
238.0	CARBONDALE		SANDY SHALE	44.0	380.0	
194.0	CARBONDALE	OAK GROVE	LIMESTONE	1.0	424.0	
193.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	2.8	425.0	
190.2	CARBONDALE	COLCHESTER	COAL	2.2	427.8	
188.0	SPOON		SHALE	8.0	430.0	
180.0	SPOON		BLACK SHALE	0.3	438.0	
179.7	SPOON		LIGHT SHALE	1.7	438.3	
178.0	SPOON		LIMESTONE	4.0	440.0	
174.0	SPOON		BLUE SHALE	5.0	444.0	
169.0	SPOON		BLACK SHALE	7.0	449.0	
162.0	SPOON		CALCAREOUS SHALE	2.3	456.0	
159.7	SPOON		BLACK SHALE	1.0	458.3	
158.7	SPOON		COAL	1.1	459.3	
157.7	SPOON		CALCAREOUS SHALE	6.8	460.3	
151.0	SPOON		DARK SHALE & BLACK SHALE	19.0	467.0	
132.0	SPOON		DARK SHALE	1.0	486.0	
131.0	SPOON		DARK SHALE & LIMESTONE	3.0	487.0	
128.0	SPOON		COAL	1.2	490.0	
126.8	SPOON		SHALE	14.8	491.2	
112.0	SPOON		DARK SHALE	3.0	506.0	
109.0	SPOON		SANDSTONE	3.7	509.0	
105.3	SPOON		COAL	1.7	512.7	
103.7	SPOON		DARK SHALE	9.7	514.3	
94.0	SPOON		LIMESTONE	1.5	524.0	
92.5	SPOON		SANDY SHALE	8.0	525.5	
84.5	SPOON		LIMESTONE	0.5	533.5	
84.0	SPOON		SANDY SHALE AND LIMESTONE	12.0	534.0	
72.0	SPOON		SANDSTONE	5.0	546.0	
67.0	SPOON		DARK SHALE	4.0	551.0	
63.0	SPOON	LITCHFIELD	COAL	4.4	555.0	UNCERTAIN CORRELATION
58.6	ABBOTT		LIGHT SHALE	1.6	559.4	
57.0	ABBOTT		SHALE & SANDSTONE	18.0	561.0	
39.0	ABBOTT		SANDY SHALE	7.0	579.0	



32.0	ABBOTT	SANDSTONE	5.0	586.0
27.0	ABBOTT	SANDY SHALE	7.0	591.0
20.0	ABBOTT	DARK SHALE	1.0	598.0
19.0	ABBOTT	SANDSTONE	1.0	599.0
18.0	ABBOTT	DARK SHALE	2.0	600.0
16.0		CONGLOMERATE	2.0	602.0

**MAPID:** 16700016000C    **VERSION:** 2    **PROJECT:** ROOF STUDY  
**COUNTY:** SANGAMON    **TWP/RNG:** 13N 5W    **SECTION:** 21    **QUARTERS/FOOTAGES:** 1575' S line, 2405' E line  
**QUADRANGLE:** DIVERNON    **LONGITUDE:** -89.655014    **GEOLOGIST:**  
**CONFIDENTIAL:** N    **LATITUDE:** 39.55738    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 624.0    **LOGGED (FT.):** 328.9    **LOG TYPE:** Survey Core Study  
**SOURCE:**    **WELL TYPE:** Coal Test  
**COMMENT:** POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
325.7	MODESTO	PIASA	LIMESTONE & SHALE	1.6	298.3
324.2	CARBONDALE		CLAYSTONE & SHALE	0.7	299.8
323.5	CARBONDALE	GALUM	LIMESTONE & SHALE	0.7	300.5
322.8	CARBONDALE		CLAYSTONE & SHALE	1.9	301.2
320.9	CARBONDALE	BANKSTON FORK	LIMESTONE & SHALE	4.2	303.1
316.7	CARBONDALE	BANKSTON FORK	CLAYSTONE	0.6	307.3
316.1	CARBONDALE	BANKSTON FORK	LIMESTONE & SHALE	0.8	307.9
315.3	CARBONDALE	LAWSON	LIMESTONE W/ SHALE	5.0	308.7
310.3	CARBONDALE	LAWSON	SILTY SHALE	2.2	313.7
308.1	CARBONDALE	LAWSON	MOTTLED SHALE	0.8	315.9
307.2	CARBONDALE	BRERETON	LIMESTONE & SHALE	4.3	316.8
303.0	CARBONDALE	HERRIN	COAL	7.9	321.0

MAPID: 16700088000C    VERSION: 1

PROJECT: NCRDS88

COUNTY: SANGAMON    TWP/RNG: 13N 5W    SECTION: 21    QUARTERS/FOOTAGES: 315' S line, 50' E line of SE NE SE

QUADRANGLE: DIVERNON

LONGITUDE: -89.64662

GEOLOGIST: R. SMITH

CONFIDENTIAL: N

LATITUDE: 39.557691

DATE COLLECTED: 12 / 0 / 1923

SURFACE ELEVATION (FT.): 623.0

LOGGED (FT.): 700.0

LOG TYPE: Drillers Log

SOURCE: MADISON COAL CORP.

WELL TYPE: Coal Test

COMMENT: CORE #142, 33-700'

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
623.0			UNCONSOLIDATED	33.0	0.0
590.0	BOND	CARTHAGE	LIMESTONE	11.5	33.0
578.5	MODESTO		GRAY SHALE	0.3	44.5
578.2	MODESTO	NEW HAVEN	BLACK SHALE	1.2	44.8
577.0	MODESTO		CLAYSTONE & SHALE	11.0	46.0
566.0	MODESTO	MACOUPIN	LIMESTONE	3.0	57.0
563.0	MODESTO		SHALE	84.5	60.0
478.5	MODESTO		BLACK SHALE	3.2	144.5
475.3	MODESTO	CHAPEL	COAL	1.0	147.7
474.3	MODESTO		GREEN SHALE	1.7	148.7
472.7	MODESTO		LIMESTONE	0.4	150.3
472.2	MODESTO		GRAY SHALE	0.3	150.8
472.0	MODESTO		SANDSTONE/SHALE	17.0	151.0
455.0	MODESTO		LIMESTONE	0.5	168.0
454.5	MODESTO		CLAYSTONE	0.3	168.5
454.2	MODESTO		GRAY SHALE	1.7	168.8
452.5	MODESTO		CLAYSTONE	0.5	170.5
452.0	MODESTO		SANDSTONE/SHALE	11.0	171.0
441.0	MODESTO		SANDY SHALE	74.0	182.0
367.0	MODESTO		CLAYSTONE & SHALE	3.0	256.0
364.0	MODESTO		SHALE	22.2	259.0
341.8	MODESTO	PIASA	LIMESTONE	2.3	281.2
339.5	MODESTO		SHALE	6.5	283.5
333.0	CARBONDALE		CALCAREOUS SHALE	25.0	290.0
308.0	CARBONDALE	ANNA	BLACK SHALE	1.0	315.0
307.0	CARBONDALE	HERRIN	COAL	8.0	316.0
299.0	CARBONDALE		UNDERCLAY/SHALE	25.5	324.0
273.5	CARBONDALE	EXCELLO	DARK SHALE & BLACK SHALE	8.5	349.5
265.0	CARBONDALE	HOUCHIN CREEK	COAL	2.7	358.0
262.3	CARBONDALE		UNDERCLAY	14.7	360.7
247.7	CARBONDALE		SANDY SHALE	44.5	375.3
203.2	CARBONDALE	COLCHESTER	COAL	1.8	419.8
201.3	SPOON		DARK SHALE & BLACK SHALE	1.5	421.7
199.8	SPOON		SHALE	18.2	423.2
181.7	SPOON		DARK SHALE & BLACK SHALE	4.0	441.3
177.7	SPOON		COAL	0.2	445.3
177.5	SPOON		CALCAREOUS SHALE	5.5	445.5

172.0	SPOON	BLACK SHALE	2.0	451.0
170.0	SPOON	SANDY SHALE	13.0	453.0
157.0	SPOON	DARK SHALE & BLACK SHALE	11.0	466.0
146.0	SPOON	COAL	0.3	477.0
145.7	SPOON	UNDERCLAY	4.8	477.3
141.0	SPOON	CLAYSTONE & SHALE	3.0	482.0
138.0	SPOON	COAL	0.8	485.0
137.2	SPOON	CLAYSTONE & SHALE	19.2	485.8
118.0	SPOON	SANDSTONE & BLACK SHALE	22.0	505.0
96.0	SPOON	SANDSTONE	20.3	527.0
75.7	SPOON	GRAY SHALE	7.7	547.3
68.0		SANDSTONE	31.0	555.0
37.0		GRAY SHALE	50.0	586.0
-13.0		BLACK SHALE	8.0	636.0
-21.0		DARK SHALE & BLACK SHALE	56.0	644.0

**MAPID:** 16700988000C    **VERSION:** 1    **PROJECT:** ROOF STUDY  
**COUNTY:** SANGAMON    **TWP/RNG:** 13N 5W    **SECTION:** 23    **QUARTERS/FOOTAGES:** 119' N line, 12' W line  
**QUADRANGLE:** DIVERNON    **LONGITUDE:** -89.627422    **GEOLOGIST:**  
**CONFIDENTIAL:** N    **LATITUDE:** 39.567756    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 615.0    **LOGGED (FT.):** 320.1    **LOG TYPE:** Survey Core Study  
**SOURCE:** PEABODY COAL CO.    SC75 & 75A    **WELL TYPE:** Coal Test  
**COMMENT:** POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	UNIT OVERBURDEN COMMENT
402.0	CARBONDALE		CALCAREOUS SHALE	80.0	213.0
322.0	CARBONDALE	BANKSTON FORK	LIMESTONE	3.5	293.0
318.5	CARBONDALE	LAWSON	LIMESTONE W/ SHALE	6.5	296.5
312.0	CARBONDALE	BRERETON	LIMESTONE	5.6	303.0
306.4	CARBONDALE	ANNA	DARK GRAY SHALE	3.4	308.6
303.0	CARBONDALE	HERRIN	COAL	8.1	312.0

MAPID: 16700920000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 13N 5W SECTION: 24 QUARTERS/FOOTAGES: 14' N line, 146' E line

QUADRANGLE: PAWNEE LONGITUDE: -89.590636

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.568573

DATE COLLECTED:

SURFACE ELEVATION (FT.): 606.0 LOGGED (FT.): 343.4

LOG TYPE: Survey Core Study

SOURCE: PEABODY COAL CO. SC46

WELL TYPE: Coal Test

COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
299.2	MODESTO	PIASA	NODULAR LIMESTONE	0.8	306.8	
298.4	MODESTO		DARK GRAY SHALE	0.8	307.6	
297.6	CARBONDALE	DANVILLE	COAL	0.8	308.4	
296.8	CARBONDALE		CLAYSTONE	8.8	309.2	
288.0	CARBONDALE	BANKSTON FORK	NODULAR LIMESTONE	3.0	318.0	UPPER BENCH
285.0	CARBONDALE	BANKSTON FORK	CLAYSTONE	2.2	321.0	SHALE PARTING
282.8	CARBONDALE	BANKSTON FORK	LIMESTONE/UNDERCLAY	1.1	323.2	LOWER BENCH
281.8	CARBONDALE	LAWSON	CLAYSTONE	3.9	324.2	
277.8	CARBONDALE	LAWSON	ARGILLACEOUS SANDSTONE	0.8	328.2	
277.1	CARBONDALE	LAWSON	CLAYSTONE	0.4	328.9	
276.7	CARBONDALE	BRERETON	LIMESTONE/UNDERCLAY	2.5	329.3	
274.2	CARBONDALE	ANNA	DARK GRAY SHALE	3.2	331.8	
271.0	CARBONDALE	HERRIN	COAL	8.4	335.0	

MAPID: 16700918000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 13N 5W SECTION: 25 QUARTERS/FOOTAGES: 128' N line, 12' W line

QUADRANGLE: PAWNEE LONGITUDE: -89.608434

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.553316

DATE COLLECTED:

SURFACE ELEVATION (FT.): 612.0 LOGGED (FT.): 336.9

LOG TYPE: Survey Core Study

SOURCE: PEABODY COAL CO. SC44

WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
340.9	CARBONDALE		SHALE	40.0	271.1	
300.9	CARBONDALE	BANKSTON FORK	LIMESTONE/UNDERCLAY	1.3	311.1	UPPER BENCH
299.6	CARBONDALE	BANKSTON FORK	LIMESTONE W/ SHALE	3.1	312.4	SHALE PARTING
296.5	CARBONDALE	BANKSTON FORK	NODULAR LIMESTONE	0.6	315.5	LOWER BENCH
295.9	CARBONDALE	LAWSON	DARK GRAY SHALE	1.0	316.1	
294.9	CARBONDALE	LAWSON	CLAYSTONE	2.3	317.1	
292.6	CARBONDALE	LAWSON	ARGILLACEOUS SANDSTONE	2.2	319.4	
290.4	CARBONDALE	LAWSON	DARK GRAY SHALE	1.3	321.6	
289.1	CARBONDALE	BRERETON	LIMESTONE/UNDERCLAY	4.5	322.9	
284.6	CARBONDALE	ANNA	DARK GRAY SHALE	1.6	327.4	
283.0	CARBONDALE	HERRIN	COAL	7.9	329.0	

MAPID: 16700989000C    VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON    TWP/RNG: 13N 5W    SECTION: 26    QUARTERS/FOOTAGES: 15' S line, 1506' W line

QUADRANGLE: PAWNEE    LONGITUDE: -89.621837    GEOLOGIST:

CONFIDENTIAL: N    LATITUDE: 39.538894    DATE COLLECTED:

SURFACE ELEVATION (FT.): 613.0    LOGGED (FT.): 321.8    LOG TYPE: Survey Core Study

SOURCE: PEABODY COAL CO.    SC78    WELL TYPE: Coal Test

COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
329.3	MODESTO	PIASA	LIMESTONE	3.5	283.7
325.8	MODESTO		SANDSTONE	3.5	287.2
322.3	CARBONDALE		CLAYSTONE & SHALE	4.5	290.7
317.8	CARBONDALE	BANKSTON FORK	LIMESTONE/UNDERCLAY	3.9	295.2
313.9	CARBONDALE	LAWSON	MOTTLED SHALE	2.3	299.1
311.7	CARBONDALE	LAWSON	LIMESTONE/UNDERCLAY	0.5	301.3
311.2	CARBONDALE	LAWSON	MOTTLED SHALE	1.3	301.8
309.9	CARBONDALE	LAWSON	SANDSTONE/SILTSTONE	2.2	303.1
307.7	CARBONDALE	LAWSON	GRAY SHALE	1.2	305.3
306.6	CARBONDALE	BRERETON	LIMESTONE/UNDERCLAY	3.8	306.4
302.8	CARBONDALE	ANNA	BLACK SHALE	3.8	310.2
299.0	CARBONDALE	HERRIN	COAL	7.8	314.0

MAPID: 16726644000C    VERSION: 1

PROJECT: NCRDS17

COUNTY: SANGAMON    TWP/RNG: 13N 5W    SECTION: 26    QUARTERS/FOOTAGES:

QUADRANGLE: PAWNEE

LONGITUDE: -89.617856

GEOLOGIST: JMCBETH

CONFIDENTIAL: N

LATITUDE: 39.546222

DATE COLLECTED: 10 / 24 / 1980

SURFACE ELEVATION (FT.): 596.6

LOGGED (FT.): 321.3

LOG TYPE: Drillers Log

SOURCE: PEABODY    SC126E

WELL TYPE: Coal Test

COMMENT: MINE #10

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
596.6	PLEISTOCENE		UNCONSOLIDATED	9.0	0.0	
587.6	PLEISTOCENE		CLAY	18.0	9.0	
569.6			LIMESTONE	6.2	27.0	
563.4			GRAY SHALE	0.6	33.2	
562.8			LIMESTONE	1.4	33.8	
561.4			BLACK SHALE	2.8	35.2	
558.6			GRAY SHALE	9.2	38.0	
549.4			LIMESTONE	4.2	47.2	
545.2			GRAY SHALE	0.6	51.4	
544.6			LIMESTONE	0.3	52.0	
544.3			SHALE	2.7	52.3	DARK
541.6			GRAY SHALE	5.9	55.0	
535.7			LIMESTONE	5.4	60.9	
530.3			GRAY SHALE	3.7	66.3	
526.6			GRAY SHALE	9.0	70.0	WITH LS BAND
517.6			SANDSTONE	21.0	79.0	
496.6			GRAY SHALE	32.3	100.0	
464.3			LIMESTONE	0.5	132.3	
463.8			SHALE	2.2	132.8	DARK
461.6			COAL	1.2	135.0	
460.4			GRAY SHALE	0.8	136.2	
459.6			SANDSTONE	4.3	137.0	GRAY
455.3			GRAY SHALE	13.7	141.3	W/ SS BAND
441.6			SANDSTONE	5.0	155.0	
436.6			SILTSTONE	24.0	160.0	
412.6			SANDSTONE	3.2	184.0	
409.4			SILTSTONE	71.8	187.2	
337.6			LIMESTONE	2.3	259.0	
335.3			GRAY SHALE	9.3	261.3	
326.0			GRAY SHALE	4.4	270.6	W/ LS BAND
321.6			SHALE	1.6	275.0	DARK
320.0			GRAY SHALE	7.6	276.6	
312.4			LIMESTONE	6.0	284.2	FRACTURED
306.4			GRAY SHALE	1.8	290.2	
304.6			LIMESTONE	0.8	292.0	
303.8			GRAY SHALE	8.4	292.8	W/ SS BAND
295.4			SILTSTONE	1.2	301.2	INTERLAMINATED SS
294.2			SANDSTONE	6.8	302.4	
287.4			LIMESTONE	0.4	309.2	

287.0			SHALE	0.9	309.6	
286.1	CARBONDALE	HERRIN	COAL	8.2	310.5	
277.9	CARBONDALE		UNDERCLAY	2.1	318.7	WITH SILTSTONE
275.8	CARBONDALE		LIMESTONE	0.5	320.8	WITH CLAY

**MAPID:** 16700990000C    **VERSION:** 1    **PROJECT:** ROOF STUDY  
**COUNTY:** SANGAMON    **TWP/RNG:** 13N 5W    **SECTION:** 27    **QUARTERS/FOOTAGES:** 90' N line, 14' E line  
**QUADRANGLE:** DIVERNON    **LONGITUDE:** -89.627346    **GEOLOGIST:**  
**CONFIDENTIAL:** N    **LATITUDE:** 39.553184    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 619.0    **LOGGED (FT.):** 0.0    **LOG TYPE:** Survey Core Study  
**SOURCE:** PEABODY COAL CO.    SC76    **WELL TYPE:** Coal Test  
**COMMENT:** GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.) UNIT OVERBURDEN	COMMENT
-	MODESTO	PIASA	LIMESTONE	1.3	
-	CARBONDALE		SHALE	14.2	
-	CARBONDALE	BANKSTON FORK	LIMESTONE	5.0	
-	CARBONDALE	LAWSON	SHALE & SANDSTONE	11.6	
-	CARBONDALE	BRERETON	LIMESTONE	2.9	
-	CARBONDALE	ANNA	BLACK SHALE	1.1	
-	CARBONDALE	HERRIN	COAL	7.8	

MAPID: 16700017000C    VERSION: 1

PROJECT: NCRDS87

COUNTY: SANGAMON    TWP/RNG: 13N 5W    SECTION: 29    QUARTERS/FOOTAGES: 2552' N line, 32' W line

QUADRANGLE: DIVERNON    LONGITUDE: -89.683649    GEOLOGIST: WEIBEL

CONFIDENTIAL: N    LATITUDE: 39.545604    DATE COLLECTED: 11 / 0 / 1923

SURFACE ELEVATION (FT.): 616.3    LOGGED (FT.): 550.0    LOG TYPE: Survey Core Study

SOURCE: MADISON COAL CORP.    WELL TYPE: Coal Test

COMMENT: DESCREP.BETWEEN DEPTHS&THICK. ARE COMMON

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
616.3			UNCONSOLIDATED	15.0	0.0	
601.3	BOND	CARTHAGE	LIMESTONE	6.0	15.0	
595.3	MODESTO		BLACK SHALE	0.7	21.0	
594.6	MODESTO		LIMESTONE	3.2	21.7	
591.4	MODESTO		UNCLASSIFIED	88.1	24.9	
503.3	MODESTO		BLACK SHALE	1.5	113.0	UNCERTAIN CORRELATION
501.8	MODESTO	CHAPEL	COAL	0.9	114.5	UNCERTAIN CORRELATION
500.9	MODESTO		UNCLASSIFIED	127.9	115.4	
373.0	MODESTO		BLACK SHALE	11.6	243.3	
361.5	MODESTO		UNCLASSIFIED	6.2	254.8	
355.3	MODESTO		LIMESTONE	3.9	261.0	
351.4	CARBONDALE	DANVILLE	BONE COAL	0.3	264.9	
351.1	CARBONDALE		UNCLASSIFIED	14.0	265.2	
337.1	CARBONDALE	BRERETON	LIMESTONE	8.9	279.2	
328.2	CARBONDALE	ANNA	BLACK SHALE	1.9	288.1	
326.3	CARBONDALE	HERRIN	COAL	8.0	290.0	
318.3	CARBONDALE		UNCLASSIFIED	8.6	298.0	
309.7	CARBONDALE		LIMESTONE	0.5	306.6	
309.2	CARBONDALE		UNCLASSIFIED	17.7	307.1	
291.5	CARBONDALE	TURNER MINE	BLACK SHALE	6.2	324.8	UNCERTAIN CORRELATION
285.3	CARBONDALE	SPRINGFIELD	COAL	2.0	331.0	UNCERTAIN CORRELATION
283.3	CARBONDALE		UNCLASSIFIED	57.0	333.0	
226.3	CARBONDALE	EXCELLO	BLACK SHALE	4.5	390.0	UNCERTAIN CORRELATION
221.8	CARBONDALE	HOUCHIN CREEK	COAL	2.4	394.5	UNCERTAIN CORRELATION
219.4	CARBONDALE		UNCLASSIFIED	8.2	396.9	
211.2	CARBONDALE		BLACK SHALE	0.3	405.1	
210.9	CARBONDALE		COAL	0.6	405.4	
210.3	CARBONDALE		UNCLASSIFIED	20.3	406.0	
190.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	1.5	426.3	UNCERTAIN CORRELATION
188.5	CARBONDALE		UNCLASSIFIED	0.7	427.8	
187.8	CARBONDALE	COLCHESTER	COAL	1.9	428.5	UNCERTAIN CORRELATION
185.9			UNCLASSIFIED	15.6	430.4	
170.3			BLACK SHALE	4.5	446.0	
165.8	SPOON	DEKOVEN	COAL	1.5	450.5	UNCERTAIN CORRELATION
164.3			UNCLASSIFIED	1.4	452.0	
162.9	SPOON	DAVIS	COAL	0.2	453.4	UNCERTAIN CORRELATION
162.7			UNCLASSIFIED	43.5	453.6	
119.2			BLACK SHALE	3.9	497.1	



115.3	COAL	0.5	501.0
114.8	UNCLASSIFIED	8.6	501.5
106.2	COAL	0.2	510.1
106.0	UNCLASSIFIED	40.7	510.3

**MAPID:** 16700017000C    **VERSION:** 2    **PROJECT:** ROOF STUDY  
**COUNTY:** SANGAMON    **TWP/RNG:** 13N 5W    **SECTION:** 29    **QUARTERS/FOOTAGES:** 2552' N line, 32' W line  
**QUADRANGLE:** DIVERNON    **LONGITUDE:** -89.683649    **GEOLOGIST:**  
**CONFIDENTIAL:** N    **LATITUDE:** 39.545604    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 616.0    **LOGGED (FT.):** 298.5    **LOG TYPE:** Drillers Log  
**SOURCE:**    **WELL TYPE:** Coal Test  
**COMMENT:** FAIR DESCRIPTION, CORE #138

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
360.7	CARBONDALE	DANVILLE	BLACK SHALE	1.6	255.3
359.1	CARBONDALE		CLAYSTONE & SHALE	5.3	256.9
353.8	CARBONDALE	GALUM	LIMESTONE	0.6	262.2
353.2	CARBONDALE		GRAY SHALE	6.8	262.8
346.3	CARBONDALE	BANKSTON FORK	LIMESTONE & SHALE	3.9	269.7
342.4	CARBONDALE	LAWSON	BLACK SHALE	0.2	273.6
342.2	CARBONDALE	LAWSON	CLAYSTONE	0.3	273.8
341.9	CARBONDALE	LAWSON	CALCAREOUS SANDSTONE	1.5	274.1
340.4	CARBONDALE	LAWSON	LIMESTONE & SHALE	0.5	275.6
339.9	CARBONDALE	LAWSON	CALCAREOUS SHALE	3.1	276.1
336.8	CARBONDALE	BRERETON	LIMESTONE & SHALE	8.9	279.2
327.9	CARBONDALE	ANNA	BLACK SHALE	1.9	288.1
326.0	CARBONDALE	HERRIN	COAL	8.5	290.0

MAPID: 16700625000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 13N 5W SECTION: 30 QUARTERS/FOOTAGES: 330' S line, 330' E line

QUADRANGLE: DIVERNON LONGITUDE: -89.684783

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.539019

DATE COLLECTED:

SURFACE ELEVATION (FT.): 632.0 LOGGED (FT.): 322.0

LOG TYPE: Drillers Log

SOURCE:

WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
362.0	MODESTO	PIASA	LIMESTONE	9.0	270.0
353.0	CARBONDALE		LIMESTONE W/ SHALE	10.0	279.0
343.0	CARBONDALE	BANKSTON FORK	LIMESTONE	9.0	289.0
334.0	CARBONDALE	LAWSON	SANDSTONE	8.0	298.0
326.0	CARBONDALE	BRERETON	LIMESTONE	8.0	306.0
318.0	CARBONDALE	ANNA	BLACK SHALE	4.0	314.0
318.0	CARBONDALE	HERRIN	COAL	8.0	314.0

MAPID: 16700600000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 13N 5W SECTION: 31 QUARTERS/FOOTAGES: 2353' N line, 1650' E line

QUADRANGLE: DIVERNON LONGITUDE: -89.689411

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.531576

DATE COLLECTED:

SURFACE ELEVATION (FT.): 632.0 LOGGED (FT.): 312.0

LOG TYPE: Drillers Log

SOURCE:

WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
360.0	MODESTO	PIASA	LIMESTONE	8.0	272.0
352.0	CARBONDALE		DARK GRAY SHALE	8.0	280.0
344.0	CARBONDALE	BANKSTON FORK	LIMESTONE	4.0	288.0
340.0	CARBONDALE	LAWSON	DARK GRAY SHALE	6.0	292.0
334.0	CARBONDALE	BRERETON	LIMESTONE	5.0	298.0
329.0	CARBONDALE	ANNA	BLACK SHALE	2.0	303.0
329.0	CARBONDALE	HERRIN	COAL	9.0	303.0

MAPID: 16722441000C VERSION: 1

PROJECT: EIA-DOE

COUNTY: SANGAMON TWP/RNG: 13N 5W SECTION: 31 QUARTERS/FOOTAGES: 1' S line, 1' E line of SW

QUADRANGLE: DIVERNON LONGITUDE: -89.692625

GEOLOGIST: JACOBSON

CONFIDENTIAL: N LATITUDE: 39.523405

DATE COLLECTED: 0 / 0 / 1976

SURFACE ELEVATION (FT.): 635.0 LOGGED (FT.): 337.4

LOG TYPE: Survey Core Study

SOURCE: FREEMAN UNITED CII-9-76

WELL TYPE: Coal Test

COMMENT: DRILLERS LOG INC; CORE NO. C11194

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
308.7	CARBONDALE	HERRIN	COAL	7.2	326.3

MAPID: 16700524000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 13N 5W SECTION: 33 QUARTERS/FOOTAGES: 330' N line, 1650' E line

QUADRANGLE: DIVERNON LONGITUDE: -89.652061

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.537581

DATE COLLECTED:

SURFACE ELEVATION (FT.): 626.0 LOGGED (FT.): 311.0

LOG TYPE: Electric Log

SOURCE:

WELL TYPE: Oil and Gas Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
361.0	MODESTO	PIASA	LIMESTONE W/ SHALE	10.0	265.0	
351.0	MODESTO		SHALE	2.0	275.0	
349.0	CARBONDALE	DANVILLE	BONE COAL	1.0	277.0	
348.0	CARBONDALE		SHALE	7.0	278.0	
341.0	CARBONDALE	BANKSTON FORK	LIMESTONE	6.0	285.0	
335.0	CARBONDALE	LAWSON	SHALE	8.0	291.0	
327.0	CARBONDALE	BRERETON	LIMESTONE	3.0	299.0	
324.0	CARBONDALE	ANNA	BLACK SHALE	2.0	302.0	
322.0	CARBONDALE	HERRIN	COAL	7.0	304.0	

MAPID: 16722438000C VERSION: 1

PROJECT: EIA-DOE

COUNTY: SANGAMON TWP/RNG: 13N 5W SECTION: 33 QUARTERS/FOOTAGES: 1' N line, 1' E line

QUADRANGLE: DIVERNON LONGITUDE: -89.646192

GEOLOGIST: JACOBSON

CONFIDENTIAL: N LATITUDE: 39.538554

DATE COLLECTED: 0 / 0 / 1976

SURFACE ELEVATION (FT.): 630.0 LOGGED (FT.): 334.3

LOG TYPE: Survey Core Study

SOURCE: FREEMAN UNITED C2-1-76

WELL TYPE: Coal Test

COMMENT: DRILLERS LOG INC.

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
306.4	CARBONDALE	HERRIN	COAL	7.9	323.6	

MAPID: 16722480000C VERSION: 1

PROJECT: EIA-DOE

COUNTY: SANGAMON TWP/RNG: 13N 5W SECTION: 33 QUARTERS/FOOTAGES: 300' N line, 1' W line

QUADRANGLE: DIVERNON LONGITUDE: -89.664748

GEOLOGIST: JACOBSON

CONFIDENTIAL: N LATITUDE: 39.53752

DATE COLLECTED: 4 / 12 / 1976

SURFACE ELEVATION (FT.): 620.0 LOGGED (FT.): 322.0

LOG TYPE: Survey Core Study

SOURCE: FREEMAN UNITED CII-2676

WELL TYPE: Coal Test

COMMENT: DRILLERS LOG INC; CORE NO. C11209

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
311.0	CARBONDALE	HERRIN	COAL	8.0	309.0	

**MAPID:** 16700996000C    **VERSION:** 1    **PROJECT:** EIA-DOE  
**COUNTY:** SANGAMON    **TWP/RNG:** 13N 5W    **SECTION:** 34    **QUARTERS/FOOTAGES:** 2561' S line, 12' E line  
**QUADRANGLE:** DIVERNON    **LONGITUDE:** -89.627142    **GEOLOGIST:** JACOBSON  
**CONFIDENTIAL:** N    **LATITUDE:** 39.531173    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 623.8    **LOGGED (FT.):** 333.9    **LOG TYPE:** Drillers Log  
**SOURCE:** PEABODY COAL CO.    SC79    **WELL TYPE:** Coal Test  
**COMMENT:** SURVEY CORE STUDY

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
302.9	CARBONDALE	HERRIN	COAL	7.9	320.9

**MAPID:** 16700996000C    **VERSION:** 2    **PROJECT:** ROOF STUDY  
**COUNTY:** SANGAMON    **TWP/RNG:** 13N 5W    **SECTION:** 34    **QUARTERS/FOOTAGES:** 2561' S line, 12' E line  
**QUADRANGLE:** DIVERNON    **LONGITUDE:** -89.627142    **GEOLOGIST:**  
**CONFIDENTIAL:** N    **LATITUDE:** 39.531173    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 624.0    **LOGGED (FT.):** 328.9    **LOG TYPE:** Survey Core Study  
**SOURCE:** PEABODY COAL CO.    SC79    **WELL TYPE:** Coal Test  
**COMMENT:** GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
372.8	CARBONDALE		CALCAREOUS SHALE	50.0	251.2
322.8	CARBONDALE	BANKSTON FORK	NODULAR LIMESTONE	3.8	301.2
319.0	CARBONDALE	LAWSON	MOTTLED SHALE	3.0	305.0
316.0	CARBONDALE	LAWSON	LIMESTONE/UNDERCLAY	0.7	308.0
315.3	CARBONDALE	LAWSON	CLAYSTONE & SHALE	0.8	308.7
314.6	CARBONDALE	LAWSON	SILTSTONE	1.5	309.4
313.1	CARBONDALE	LAWSON	MOTTLED SHALE	1.9	310.9
311.2	CARBONDALE	CONANT	LIMESTONE/UNDERCLAY	0.3	312.8
310.9	CARBONDALE		MOTTLED SHALE	1.4	313.1
309.5	CARBONDALE	BRERETON	LIMESTONE/UNDERCLAY	6.5	314.5
303.0	CARBONDALE	HERRIN	COAL	7.9	321.0

**MAPID:** 16701005000C    **VERSION:** 1    **PROJECT:** EIA-DOE  
**COUNTY:** SANGAMON    **TWP/RNG:** 13N 5W    **SECTION:** 34    **QUARTERS/FOOTAGES:** 78' S line, 12' E line of SE SE  
**QUADRANGLE:** DIVERNON    **LONGITUDE:** -89.627044    **GEOLOGIST:** JACOBSON  
**CONFIDENTIAL:** N    **LATITUDE:** 39.524322    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 629.4    **LOGGED (FT.):** 340.0    **LOG TYPE:** Drillers Log  
**SOURCE:** PEABODY COAL CO.    SC81    **WELL TYPE:** Coal Test  
**COMMENT:** SURVEY CORE STUDY

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
305.9	CARBONDALE	HERRIN	COAL	8.0	323.5

MAPID: 16701006000C VERSION: 1

PROJECT: EIA-DOE

COUNTY: SANGAMON TWP/RNG: 13N 5W SECTION: 35 QUARTERS/FOOTAGES: 14' S line, 710' E line

QUADRANGLE: PAWNEE LONGITUDE: -89.610781 GEOLOGIST: JACOBSON

CONFIDENTIAL: N LATITUDE: 39.524297 DATE COLLECTED:

SURFACE ELEVATION (FT.): 603.5 LOGGED (FT.): 335.2 LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO. SC82 WELL TYPE: Coal Test

COMMENT: SURVEY CORE STUDY

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
282.2	CARBONDALE	HERRIN	COAL	8.1	321.3	

MAPID: 16701006000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 13N 5W SECTION: 35 QUARTERS/FOOTAGES: 14' S line, 710' E line

QUADRANGLE: PAWNEE LONGITUDE: -89.610781 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.524297 DATE COLLECTED:

SURFACE ELEVATION (FT.): 604.0 LOGGED (FT.): 329.1 LOG TYPE: Survey Core Study

SOURCE: PEABODY COAL CO. SC82 WELL TYPE: Coal Test

COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
308.1	MODESTO	PIASA	LIMESTONE	1.1	295.9	
307.0	CARBONDALE		CLAYSTONE	5.3	297.0	
301.8	CARBONDALE	BANKSTON FORK	NODULAR LIMESTONE	6.5	302.2	
295.3	CARBONDALE	LAWSON	MOTTLED SHALE	4.9	308.7	
290.3	CARBONDALE	LAWSON	LIMESTONE	1.3	313.7	
289.0	CARBONDALE	LAWSON	CLAYSTONE & SHALE	1.2	315.0	
287.8	CARBONDALE	LAWSON	ARGILLACEOUS SANDSTONE	3.4	316.2	
284.4	CARBONDALE	LAWSON	DARK GRAY SHALE	0.6	319.6	
283.8	CARBONDALE	BRERETON	LIMESTONE/UNDERCLAY	0.7	320.2	
283.2	CARBONDALE	ANNA	DARK GRAY SHALE	0.2	320.8	
283.0	CARBONDALE	HERRIN	COAL	8.1	321.0	

MAPID: 16700448000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 13N 5W SECTION: 36 QUARTERS/FOOTAGES: 330' S line, 990' W line

QUADRANGLE: PAWNEE LONGITUDE: -89.604734 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.525233 DATE COLLECTED:

SURFACE ELEVATION (FT.): 621.0 LOGGED (FT.): 339.5 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
329.5	MODESTO	PIASA	LIMESTONE W/ SHALE	10.0	291.5
319.5	MODESTO		SHALE	3.0	301.5
316.5	CARBONDALE	DANVILLE	BONE COAL	1.0	304.5
315.5	CARBONDALE		CLAYSTONE	4.0	305.5
311.5	CARBONDALE	BANKSTON FORK	LIMESTONE & SHALE	6.0	309.5
305.5	CARBONDALE	LAWSON	SHALE	5.0	315.5
300.5	CARBONDALE	LAWSON	ARGILLACEOUS SANDSTONE	5.0	320.5
295.5	CARBONDALE	BRERETON	LIMESTONE	4.0	325.5
291.5	CARBONDALE	ANNA	BLACK SHALE	2.5	329.5
289.0	CARBONDALE	HERRIN	COAL	7.5	332.0

MAPID: 16701270000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 13N 6W SECTION: 4 QUARTERS/FOOTAGES: 2570' N line, 11' W line

QUADRANGLE: VIRDEN NORTH LONGITUDE: -89.777663 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.603469 DATE COLLECTED:

SURFACE ELEVATION (FT.): 631.0 LOGGED (FT.): 254.8 LOG TYPE: Survey Core Study

SOURCE: DIKOR DIVISION OF SERV-K M-1 WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
423.0	MODESTO	PIASA	LIMESTONE	2.0	208.0
421.0	CARBONDALE		SHALE & SANDSTONE	25.0	210.0
396.0	CARBONDALE	BANKSTON FORK	LIMESTONE	6.0	235.0
390.0	CARBONDALE	LAWSON	SHALE	2.0	241.0
388.0	CARBONDALE	BRERETON	LIMESTONE	3.5	243.0
384.5	CARBONDALE	ANNA	DARK GRAY SHALE	1.5	246.5
383.0	CARBONDALE	HERRIN	COAL	6.8	248.0

MAPID: 16701708000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 13N 6W SECTION: 17 QUARTERS/FOOTAGES: 1200' N line, 2500' E line

QUADRANGLE: VIRDEN NORTH LONGITUDE: -89.786641

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.578064

DATE COLLECTED:

SURFACE ELEVATION (FT.): 640.0

LOGGED (FT.): 269.6

LOG TYPE: Survey Core Study

SOURCE: PIAMCO INC. I163K

WELL TYPE: Coal Test

COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
419.0	MODESTO	PIASA	LIMESTONE	4.0	221.0
415.0	CARBONDALE		CALCAREOUS SHALE	26.5	225.0
388.5	CARBONDALE	BANKSTON FORK	LIMESTONE W/ SHALE	5.7	251.5
382.8	CARBONDALE	LAWSON	MOTTLED SHALE	2.6	257.2
380.2	CARBONDALE	BRERETON	LIMESTONE/UNDERCLAY	2.2	259.8
378.0	CARBONDALE	ANNA	BLACK SHALE	2.1	262.0
376.0	CARBONDALE	HERRIN	COAL	5.6	264.0

MAPID: 16701860000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 13N 6W SECTION: 18 QUARTERS/FOOTAGES: 2330' S line, 60' W line

QUADRANGLE: VIRDEN NORTH LONGITUDE: -89.81334

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.573432

DATE COLLECTED:

SURFACE ELEVATION (FT.): 649.0

LOGGED (FT.): 246.7

LOG TYPE: Survey Core Study

SOURCE: SANGAMON COUNTY LAND COMPANY I-101

WELL TYPE: Coal Test

COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN COMMENT	
452.0	MODESTO	PIASA	LIMESTONE	5.0	197.0	
447.0	MODESTO		MOTTLED SHALE	7.0	202.0	
440.0	CARBONDALE	DANVILLE	BLACK SHALE	1.0	209.0	
439.0	CARBONDALE		MOTTLED SHALE	7.0	210.0	
432.0	CARBONDALE	GALUM	LIMESTONE	4.0	217.0	
428.0	CARBONDALE		CALCAREOUS SHALE	4.3	221.0	
423.7	CARBONDALE	BANKSTON FORK	NODULAR LIMESTONE	3.8	225.3	UPPER BENCH
419.9	CARBONDALE	BANKSTON FORK	MOTTLED SHALE	3.0	229.1	SHALE PARTING
416.9	CARBONDALE	BANKSTON FORK	NODULAR LIMESTONE	3.5	232.1	LOWER BENCH
413.4	CARBONDALE	LAWSON	MOTTLED SHALE	0.1	235.6	
413.3	CARBONDALE	CONANT	LIMESTONE/UNDERCLAY	0.3	235.7	
413.0	CARBONDALE		MOTTLED SHALE	0.3	236.0	
412.7	CARBONDALE	BRERETON	LIMESTONE/UNDERCLAY	3.7	236.3	
409.0	CARBONDALE	ANNA	CLAYSTONE	0.5	240.0	
408.0	CARBONDALE	HERRIN	COAL	5.7	241.0	

MAPID: 16770006000C    VERSION: 1

PROJECT: NCRDS

COUNTY: SANGAMON    TWP/RNG: 13N 6W    SECTION: 22    QUARTERS/FOOTAGES: 200' S line, 860' W line

QUADRANGLE: VIRDEN NORTH    LONGITUDE: -89.755569    GEOLOGIST: LOUCHIOS

CONFIDENTIAL: N    LATITUDE: 39.552824    DATE COLLECTED: 0 / 0 / 1956

SURFACE ELEVATION (FT.): 620.0    LOGGED (FT.): 1000.0    LOG TYPE: Drillers Log

SOURCE: UTAH INTERNATIONAL    10C525    WELL TYPE: Coal Test

COMMENT: CODED COAL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
620.0			UNCLASSIFIED	255.0	0.0	
365.0	SHELBURN	DANVILLE		5.0	255.0	UNCERTAIN CORRELATION
360.0			UNCLASSIFIED	105.0	260.0	
255.0	CARBONDALE	SPRINGFIELD		5.0	365.0	UNCERTAIN CORRELATION
250.0			UNCLASSIFIED	85.0	370.0	
165.0				15.0	455.0	
150.0			UNCLASSIFIED	530.0	470.0	



MAPID: 16700501000C VERSION: 1

PROJECT: NCRDS87

COUNTY: SANGAMON TWP/RNG: 13N 6W SECTION: 23 QUARTERS/FOOTAGES: 2310' S line, 1650' W line

QUADRANGLE: DIVERNON LONGITUDE: -89.733866 GEOLOGIST: WEIBEL

CONFIDENTIAL: N LATITUDE: 39.558638 DATE COLLECTED: 4 / 16 / 1956

SURFACE ELEVATION (FT.): 633.0 LOGGED (FT.): 401.0 LOG TYPE: Multiple log types

SOURCE: PAUL F. BERGSCHNEIDER WELL TYPE: Dry Hole

COMMENT: LOG TYPES:11,19

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
633.0			UNCONSOLIDATED	70.0	0.0
563.0			UNCLASSIFIED	44.0	70.0
519.0			BLACK SHALE	3.0	114.0
516.0			UNCLASSIFIED	118.0	117.0
398.0			BLACK SHALE	4.0	235.0
394.0			UNCLASSIFIED	12.0	239.0
382.0			LIMESTONE	2.0	251.0
380.0			UNCLASSIFIED	2.0	253.0
378.0			DARK SHALE	3.0	255.0
375.0			UNCLASSIFIED	16.0	258.0
359.0	CARBONDALE	BRERETON	LIMESTONE	6.0	274.0
353.0	CARBONDALE		UNCLASSIFIED	8.0	280.0
345.0	CARBONDALE	ANNA	BLACK SHALE	4.0	288.0
341.0	CARBONDALE	HERRIN	COAL	5.0	292.0
336.0	CARBONDALE		UNCLASSIFIED	24.0	297.0
312.0	CARBONDALE	EXCELLO	BLACK SHALE	6.0	321.0
306.0	CARBONDALE	HOUCHIN CREEK	COAL	3.0	327.0
303.0	CARBONDALE		UNCLASSIFIED	66.0	330.0
237.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	4.0	396.0
233.0	CARBONDALE	COLCHESTER	COAL	1.0	400.0

MAPID: 16700501000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 13N 6W SECTION: 23 QUARTERS/FOOTAGES: 2310' S line, 1650' W line

QUADRANGLE: DIVERNON LONGITUDE: -89.733866 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.558638 DATE COLLECTED:

SURFACE ELEVATION (FT.): 631.0 LOGGED (FT.): 299.0 LOG TYPE: Drillers Log

SOURCE: WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
381.0	MODESTO	PIASA	LIMESTONE	8.0	250.0
373.0	CARBONDALE		DARK GRAY SHALE	17.0	258.0
356.0	CARBONDALE	BANKSTON FORK	LIMESTONE	11.0	275.0
345.0	CARBONDALE	LAWSON	GRAY SHALE	4.0	286.0
341.0	CARBONDALE	BRERETON	LIMESTONE	4.0	290.0
337.0	CARBONDALE	HERRIN	COAL	5.0	294.0

MAPID: 16701247000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 13N 6W SECTION: 25 QUARTERS/FOOTAGES: 2310' S line, 990' W line

QUADRANGLE: DIVERNON LONGITUDE: -89.717393

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.544101

DATE COLLECTED:

SURFACE ELEVATION (FT.): 626.0

LOGGED (FT.): 318.0

LOG TYPE: Electric Log

SOURCE:

WELL TYPE: Oil and Gas Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
361.0	MODESTO	PIASA	LIMESTONE & SHALE	10.0	265.0
351.0	CARBONDALE		SHALE	19.0	275.0
332.0	CARBONDALE	BANKSTON FORK	LIMESTONE	6.0	294.0
326.0	CARBONDALE	LAWSON	SHALE	4.0	300.0
322.0	CARBONDALE	BRERETON	LIMESTONE	5.0	304.0
317.0	CARBONDALE	ANNA	BLACK SHALE	3.0	309.0
315.0	CARBONDALE	HERRIN	COAL	7.0	311.0

MAPID: 16722481000C VERSION: 1

PROJECT: EIA-DOE

COUNTY: SANGAMON TWP/RNG: 13N 6W SECTION: 29 QUARTERS/FOOTAGES: 1' S line, 1' W line

QUADRANGLE: VIRDEN NORTH LONGITUDE: -89.796151

GEOLOGIST: JACOBSON

CONFIDENTIAL: N LATITUDE: 39.537888

DATE COLLECTED: 4 / 14 / 1976

SURFACE ELEVATION (FT.): 628.0

LOGGED (FT.): 361.0

LOG TYPE: Survey Core Study

SOURCE: FREEMAN UNITED CII-27-76

WELL TYPE: Coal Test

COMMENT: DRILLERS LOG INC; CORE NO. C11233

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
319.5	CARBONDALE	HERRIN	COAL	8.3	308.5
276.6	CARBONDALE	HOUCHIN CREEK	COAL	3.7	351.4

MAPID: 16701278000C VERSION: 1

PROJECT: EIA-DOE

COUNTY: SANGAMON TWP/RNG: 13N 6W SECTION: 30 QUARTERS/FOOTAGES: 2561' S line, 20' E line

QUADRANGLE: VIRDEN NORTH LONGITUDE: -89.796138

GEOLOGIST: JACOBSON

CONFIDENTIAL: N LATITUDE: 39.544954

DATE COLLECTED:

SURFACE ELEVATION (FT.):

LOGGED (FT.): 0.0

LOG TYPE:

SOURCE: DIKOR DIVISION OF SERV-K S1-A

WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-	CARBONDALE	HERRIN	COAL	7.0	282.0

MAPID: 16701278000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 13N 6W SECTION: 30 QUARTERS/FOOTAGES: 2561' S line, 20' E line

QUADRANGLE: VIRDEN NORTH LONGITUDE: -89.796138

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.544954

DATE COLLECTED:

SURFACE ELEVATION (FT.): 644.0 LOGGED (FT.): 287.8

LOG TYPE: Survey Core Study

SOURCE: DIKOR DIVISION OF SERV-K S1-A

WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
376.5	MODESTO	PIASA	LIMESTONE/UNDERCLAY	4.4	267.5
372.1	CARBONDALE		CLAYSTONE & SHALE	2.9	271.9
369.2	CARBONDALE	BANKSTON FORK	LIMESTONE/UNDERCLAY	1.0	274.8
368.2	CARBONDALE	LAWSON	SILTSTONE	0.4	275.8
367.8	CARBONDALE	LAWSON	SANDSTONE	3.8	276.2
364.0	CARBONDALE	LAWSON	SILTSTONE	1.0	280.0
363.0	CARBONDALE	HERRIN	COAL	6.8	281.0

MAPID: 16723191000C VERSION: 1

PROJECT: EIA-DOE

COUNTY: SANGAMON TWP/RNG: 13N 6W SECTION: 30 QUARTERS/FOOTAGES: 18' N line, 2030' E line of NE

QUADRANGLE: VIRDEN NORTH LONGITUDE: -89.803215

GEOLOGIST: JACOBSON

CONFIDENTIAL: N LATITUDE: 39.55221

DATE COLLECTED: 6 / 7 / 1978

SURFACE ELEVATION (FT.): 655.0 LOGGED (FT.): 283.0

LOG TYPE: Drillers Log

SOURCE: NICOR DH-28

WELL TYPE: Coal Test

COMMENT: SURVEY CORE STUDY

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
390.5	CARBONDALE	HERRIN	COAL	7.5	264.5

MAPID: 16723195000C VERSION: 1

PROJECT: EIA-DOE

COUNTY: SANGAMON TWP/RNG: 13N 6W SECTION: 31 QUARTERS/FOOTAGES: 1930' N line, 1270' E line of NE

QUADRANGLE: VIRDEN NORTH LONGITUDE: -89.800635

GEOLOGIST: JACOBSON

CONFIDENTIAL: N LATITUDE: 39.532555

DATE COLLECTED: 12 / 18 / 1978

SURFACE ELEVATION (FT.): 665.0 LOGGED (FT.): 293.0

LOG TYPE: Drillers Log

SOURCE: NICOR 78-37

WELL TYPE: Coal Test

COMMENT: SURVEY CORE STUDY

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
388.2	CARBONDALE	HERRIN	COAL	8.0	276.8

MAPID: 16723245000C VERSION: 1

PROJECT: EIA-DOE

COUNTY: SANGAMON TWP/RNG: 13N 6W SECTION: 31 QUARTERS/FOOTAGES: 30' S line, 1370' W line of SW

QUADRANGLE: VIRDEN NORTH LONGITUDE: -89.808339 GEOLOGIST: JACOBSON

CONFIDENTIAL: N LATITUDE: 39.52313 DATE COLLECTED: 12 / 15 / 1978

SURFACE ELEVATION (FT.): 650.0 LOGGED (FT.): 268.0 LOG TYPE: Drillers Log

SOURCE: NICOR 78-36 WELL TYPE: Coal Test

COMMENT: SURVEY CORE STUDY

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
397.0	CARBONDALE	HERRIN	COAL	5.0	253.0	

MAPID: 16700018000C VERSION: 1

PROJECT: NCRDS87

COUNTY: SANGAMON TWP/RNG: 13N 6W SECTION: 34 QUARTERS/FOOTAGES: 1500' N line, 225' W line

QUADRANGLE: VIRDEN NORTH LONGITUDE: -89.757865 GEOLOGIST: WEIBEL

CONFIDENTIAL: N LATITUDE: 39.533513 DATE COLLECTED:

SURFACE ELEVATION (FT.): 652.9 LOGGED (FT.): 299.8 LOG TYPE: Drillers Log

SOURCE: CHICAGO,WILMINGTON,VERMILON COAL CO. WELL TYPE: Mine Shaft

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
652.9			UNCONSOLIDATED	34.0	0.0	
618.9			UNCLASSIFIED	5.0	34.0	
613.9			BLACK SHALE	2.5	39.0	
611.4			UNCLASSIFIED	86.2	41.5	
525.2	MODESTO	CHAPEL	BLACK SHALE	2.0	127.7	UNCERTAIN CORRELATION
523.2			COAL	0.6	129.7	
522.6			UNCLASSIFIED	138.7	130.3	
383.9			BLACK SHALE	1.0	269.0	
382.9	CARBONDALE	DANVILLE	COAL	2.0	270.0	UNCERTAIN CORRELATION
380.9	CARBONDALE		UNCLASSIFIED	19.0	272.0	
361.9	CARBONDALE	ANNA	BLACK SHALE	1.0	291.0	
360.9	CARBONDALE	HERRIN	COAL	7.8	292.0	

MAPID: 16700018000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 13N 6W SECTION: 34 QUARTERS/FOOTAGES: 1500' N line, 225' W line

QUADRANGLE: VIRDEN NORTH LONGITUDE: -89.757865

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.533513

DATE COLLECTED:

SURFACE ELEVATION (FT.): 653.0

LOGGED (FT.): 299.8

LOG TYPE: Drillers Log

SOURCE:

WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
389.0	MODESTO	PIASA	LIMESTONE	5.0	264.0
384.0	MODESTO		BLACK SHALE	1.0	269.0
383.0	CARBONDALE	DANVILLE	COAL	2.0	270.0
381.0	CARBONDALE		CLAYSTONE	4.0	272.0
377.0	CARBONDALE	BANKSTON FORK	LIMESTONE	8.0	276.0
369.0	CARBONDALE	LAWSON	CLAYSTONE	3.0	284.0
366.0	CARBONDALE	LAWSON	SANDSTONE	4.0	287.0
362.0	CARBONDALE	ANNA	BLACK SHALE	1.0	291.0
361.0	CARBONDALE	HERRIN	COAL	7.8	292.0

MAPID: 16770005000C VERSION: 1

PROJECT: NCRDS

COUNTY: SANGAMON TWP/RNG: 13N 6W SECTION: 34 QUARTERS/FOOTAGES: 1560' N line, 690' W line

QUADRANGLE: VIRDEN NORTH LONGITUDE: -89.756207

GEOLOGIST: LOUCHIOS

CONFIDENTIAL: N LATITUDE: 39.53334

DATE COLLECTED:

SURFACE ELEVATION (FT.): 653.0

LOGGED (FT.): 300.0

LOG TYPE: Drillers Log

SOURCE: UTAH INTERNATIONAL 11C18

WELL TYPE: Coal Test

COMMENT: CODED COAL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
653.0			NO RECORD	53.7	0.0
599.3			SHALE	72.0	53.7
527.3			SANDSTONE	2.0	125.7
525.3			SHALE	2.0	127.7
523.3			COAL	0.6	129.7
522.7			SHALE & SANDSTONE	103.0	130.3
419.7			CLAYSTONE	8.7	233.3
411.0			SHALE & SANDSTONE	22.0	242.0
389.0			SHALE	6.0	264.0
383.0	CARBONDALE	DANVILLE	COAL	2.0	270.0
381.0			CLAYSTONE	4.0	272.0
377.0			SHALE	8.0	276.0
369.0			CLAYSTONE	3.0	284.0
366.0			SANDSTONE	4.0	287.0
362.0	CARBONDALE	ANNA	SHALE	1.0	291.0
361.0	CARBONDALE	HERRIN	COAL	7.8	292.0

UNCERTAIN  
CORRELATION

MAPID: 16701410000C VERSION: 1

PROJECT: EIA-DOE

COUNTY: SANGAMON TWP/RNG: 13N 6W SECTION: 35 QUARTERS/FOOTAGES: 13' S line, 2632' E line

QUADRANGLE: DIVERNON LONGITUDE: -89.729937 GEOLOGIST: JACOBSON

CONFIDENTIAL: N LATITUDE: 39.523043 DATE COLLECTED: 6 / 23 / 1969

SURFACE ELEVATION (FT.): 640.0 LOGGED (FT.): 349.0 LOG TYPE: Survey Core Study

SOURCE: FREEMAN UNITED CM-3-69 WELL TYPE: Coal Test

COMMENT: DRILLERS LOG INC; CORE NO. C-7627

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
306.3	CARBONDALE	HERRIN	COAL	9.5	333.7	

MAPID: 16701410000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 13N 6W SECTION: 35 QUARTERS/FOOTAGES: 13' S line, 2632' E line

QUADRANGLE: DIVERNON LONGITUDE: -89.729937 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.523043 DATE COLLECTED:

SURFACE ELEVATION (FT.): 640.0 LOGGED (FT.): 343.1 LOG TYPE: Survey Core Study

SOURCE: FREEMAN UNITED CM-3-69 WELL TYPE: Coal Test

COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
344.3	MODESTO	PIASA	LIMESTONE	3.0	295.7	
341.3	MODESTO		GRAY SHALE	10.1	298.7	
331.3	CARBONDALE	DANVILLE	DARK GRAY SHALE	0.8	308.7	
330.5	CARBONDALE		SILTY SHALE	6.7	309.5	
323.8	CARBONDALE	BANKSTON FORK	LIMESTONE/UNDERCLAY	6.2	316.2	UPPER BENCH
317.7	CARBONDALE	BANKSTON FORK	MOTTLED SHALE	3.5	322.3	SHALE PARTING
314.2	CARBONDALE	BANKSTON FORK	CARBONACEOUS LIMESTONE	1.4	325.8	LOWER BENCH
312.7	CARBONDALE	LAWSON	CLAYSTONE	1.2	327.3	
311.6	CARBONDALE	LAWSON	SANDSTONE	0.3	328.4	
311.3	CARBONDALE	LAWSON	SANDSTONE/SILTSTONE	1.3	328.7	
310.0	CARBONDALE	LAWSON	MOTTLED SHALE	0.2	330.0	
309.8	CARBONDALE	BRERETON	LIMESTONE/UNDERCLAY	2.0	330.2	
307.8	CARBONDALE	ANNA	BLACK SHALE	1.8	332.2	
306.0	CARBONDALE	HERRIN	COAL WITH SHALE PARTINGS	9.1	334.0	

MAPID: 16700602000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 13N 6W SECTION: 36 QUARTERS/FOOTAGES: 1650' N line, 330' E line

QUADRANGLE: DIVERNON LONGITUDE: -89.703122

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.533394

DATE COLLECTED:

SURFACE ELEVATION (FT.): 636.0

LOGGED (FT.): 320.0

LOG TYPE: Drillers Log

SOURCE:

WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
356.0	MODESTO	PIASA	LIMESTONE	6.0	280.0
350.0	CARBONDALE		GRAY SHALE	9.0	286.0
341.0	CARBONDALE	BANKSTON FORK	LIMESTONE	5.0	295.0
336.0	CARBONDALE	LAWSON	GRAY SHALE	9.0	300.0
327.0	CARBONDALE	BRERETON	LIMESTONE	2.0	309.0
325.0	CARBONDALE	ANNA	BLACK SHALE	2.0	311.0
323.0	CARBONDALE	HERRIN	COAL	7.0	313.0

MAPID: 16722440000C VERSION: 1

PROJECT: EIA-DOE

COUNTY: SANGAMON TWP/RNG: 13N 6W SECTION: 36 QUARTERS/FOOTAGES: 1' S line, 1' E line of SW

QUADRANGLE: DIVERNON LONGITUDE: -89.711172

GEOLOGIST: JACOBSON

CONFIDENTIAL: N LATITUDE: 39.5232

DATE COLLECTED: 0 / 0 / 1976

SURFACE ELEVATION (FT.): 635.0

LOGGED (FT.): 380.8

LOG TYPE: Survey Core Study

SOURCE: FREEMAN UNITED CII-5-76

WELL TYPE: Coal Test

COMMENT: DRILLERS LOG INC; CORE NO. C11038

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
302.1	CARBONDALE	HERRIN	COAL	8.2	332.9
260.0	CARBONDALE	HOUCHIN CREEK	COAL	3.7	375.0

MAPID: 16701279000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 13N 7W SECTION: 1 QUARTERS/FOOTAGES: 2622' S line, 91' E line

QUADRANGLE: VIRDEN NORTH LONGITUDE: -89.814209

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.603302

DATE COLLECTED:

SURFACE ELEVATION (FT.): 632.0 LOGGED (FT.): 237.5

LOG TYPE: Survey Core Study

SOURCE: DIKOR DIVISION OF SERV-K M-2

WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
440.0	MODESTO	PIASA	LIMESTONE	6.0	192.0
434.0	CARBONDALE		SILTY SHALE	23.0	198.0
411.0	CARBONDALE	BANKSTON FORK	NODULAR LIMESTONE	5.0	221.0
406.0	CARBONDALE	LAWSON	MOTTLED SHALE	1.9	226.0
404.1	CARBONDALE	BRERETON	LIMESTONE/UNDERCLAY	4.7	227.9
399.4	CARBONDALE	ANNA	DARK GRAY SHALE	0.7	232.6
399.0	CARBONDALE	HERRIN	COAL	4.5	233.0

MAPID: 16701275000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 13N 7W SECTION: 2 QUARTERS/FOOTAGES: 2570' S line, 2610' W line

QUADRANGLE: VIRDEN NORTH LONGITUDE: -89.841836

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.602667

DATE COLLECTED:

SURFACE ELEVATION (FT.): 628.0 LOGGED (FT.): 219.1

LOG TYPE: Survey Core Study

SOURCE: DIKOR DIVISION OF SERV-K M-3

WELL TYPE: Coal Test

COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
436.2	MODESTO	PIASA	LIMESTONE	3.0	191.8
433.2	CARBONDALE		DARK GRAY SHALE	1.5	194.8
431.7	CARBONDALE	GALUM	NODULAR LIMESTONE	0.3	196.3
431.4	CARBONDALE		MOTTLED SHALE	3.5	196.6
427.9	CARBONDALE	BANKSTON FORK	LIMESTONE/UNDERCLAY	0.9	200.1
427.0	CARBONDALE	LAWSON	LIMESTONE W/ SHALE	0.9	201.0
426.1	CARBONDALE	LAWSON	MOTTLED SHALE	1.9	201.9
424.2	CARBONDALE	LAWSON	CLAYSTONE	6.0	203.8
418.2	CARBONDALE	LAWSON	LIMESTONE/UNDERCLAY	0.9	209.8
417.3	CARBONDALE	LAWSON	CLAYSTONE	0.6	210.7
416.7	CARBONDALE	BRERETON	NODULAR LIMESTONE	0.7	211.3
416.1	CARBONDALE	ANNA	DARK GRAY SHALE	2.1	211.9
414.0	CARBONDALE	HERRIN	COAL	5.1	214.0



MAPID: 16701271000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 13N 7W SECTION: 4 QUARTERS/FOOTAGES: 2620' N line, 1420' E line

QUADRANGLE: VIRDEN NORTH LONGITUDE: -89.874836

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.602899

DATE COLLECTED:

SURFACE ELEVATION (FT.): 630.0 LOGGED (FT.): 194.0

LOG TYPE: Survey Core Study

SOURCE: DIKOR DIVISION OF SERV-K M-4

WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
480.0	MODESTO	PIASA	LIMESTONE	4.0	150.0
476.0	CARBONDALE		CLAYSTONE & SHALE	8.0	154.0
468.0	CARBONDALE	BANKSTON FORK	LIMESTONE	4.0	162.0
464.0	CARBONDALE	LAWSON	GRAY SHALE	16.0	166.0
448.0	CARBONDALE	BRERETON	LIMESTONE	8.0	182.0
440.0	CARBONDALE	ANNA	BLACK SHALE	1.1	190.0
438.0	CARBONDALE	HERRIN	COAL	2.0	192.0

MAPID: 16701272000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 13N 7W SECTION: 6 QUARTERS/FOOTAGES: 2618' S line, 845' E line

QUADRANGLE: WAVERLY LONGITUDE: -89.909945

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.602243

DATE COLLECTED:

SURFACE ELEVATION (FT.): 620.0 LOGGED (FT.): 164.5

LOG TYPE: Survey Core Study

SOURCE: DIKOR DIVISION OF SERV-K M-5

WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
489.0	MODESTO	PIASA	LIMESTONE	4.0	131.0
485.0	CARBONDALE		CLAYSTONE & SHALE	9.0	135.0
476.0	CARBONDALE	BANKSTON FORK	LIMESTONE W/ SHALE	4.0	144.0
472.0	CARBONDALE	LAWSON	GRAY SHALE	7.0	148.0
465.0	CARBONDALE	BRERETON	LIMESTONE/UNDERCLAY	6.0	155.0
459.0	CARBONDALE	ANNA	CARBONACEOUS SHALE	0.8	161.0
458.0	CARBONDALE	HERRIN	COAL	2.5	162.0

MAPID: 16700020000C    VERSION: 1

PROJECT: NCRDS87

COUNTY: SANGAMON    TWP/RNG: 13N 7W    SECTION: 7    QUARTERS/FOOTAGES: 2550' S line, 2080' W line

QUADRANGLE: WAVERLY    LONGITUDE: -89.918448    GEOLOGIST: WEIBEL

CONFIDENTIAL: N    LATITUDE: 39.587357    DATE COLLECTED: 2 / 19 / 1904

SURFACE ELEVATION (FT.): 625.7    LOGGED (FT.): 500.0    LOG TYPE: Drillers Log

SOURCE: WAVERLY COAL MINING & PROSPECTING CO.    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
625.7			UNCONSOLIDATED	52.0	0.0	
573.7			UNCLASSIFIED	61.5	52.0	
512.2			LIMESTONE	3.5	113.5	
508.7			UNCLASSIFIED	16.0	117.0	
492.7			LIMESTONE	2.0	133.0	
490.7			CALCAREOUS SHALE	4.0	135.0	
486.7	CARBONDALE	BRERETON	LIMESTONE	9.0	139.0	UNCERTAIN CORRELATION
477.7	CARBONDALE		SHALE	1.9	148.0	
475.8	CARBONDALE	ANNA	BLACK SHALE	0.1	149.9	UNCERTAIN CORRELATION
475.7	CARBONDALE	HERRIN	COAL WITH SHALE PARTINGS	3.5	150.0	UNCERTAIN CORRELATION
472.2	CARBONDALE		SHALE	1.0	153.5	
471.2	CARBONDALE		LIMESTONE	9.5	154.5	
461.7	CARBONDALE		BLACK SHALE	9.5	164.0	
452.2	CARBONDALE		UNCLASSIFIED	29.5	173.5	
422.7	CARBONDALE		SHALE	42.8	203.0	
379.9	CARBONDALE		COAL	2.2	245.8	
377.7	CARBONDALE		SHALE	2.3	248.0	
375.4	CARBONDALE		COAL	0.1	250.3	
375.3	CARBONDALE		SHALE	11.6	250.4	
363.7	CARBONDALE		SANDSTONE	5.0	262.0	
358.7	CARBONDALE		SHALE	25.0	267.0	
333.7	CARBONDALE	COLCHESTER	COAL	5.8	292.0	UNCERTAIN CORRELATION
327.9			UNCLASSIFIED	8.8	297.8	
319.2			BLACK SHALE	0.5	306.5	
318.7			LIMESTONE	5.0	307.0	
313.7			SHALE	8.0	312.0	
305.7			SANDSTONE	11.0	320.0	
294.7			SHALE	6.0	331.0	
288.7			BLACK SHALE	1.0	337.0	
287.7			GRAY SHALE	0.8	338.0	
286.9			COAL	0.4	338.8	
286.6			GRAY SHALE	0.8	339.1	
285.8			COAL	1.2	339.9	
284.6			SHALE	2.7	341.1	
281.9			COAL	0.5	343.8	
281.4			UNCLASSIFIED	55.8	344.3	
225.7			BLACK SHALE	11.3	400.0	
214.4			COAL	0.7	411.3	

213.7	GRAY SHALE	2.0	412.0
211.7	LIMESTONE	86.0	414.0

**MAPID:** 16700020000C    **VERSION:** 2    **PROJECT:** ROOF STUDY  
**COUNTY:** SANGAMON    **TWP/RNG:** 13N 7W    **SECTION:** 7    **QUARTERS/FOOTAGES:** 2550' S line, 2080' W line  
**QUADRANGLE:** WAVERLY    **LONGITUDE:** -89.918448    **GEOLOGIST:**  
**CONFIDENTIAL:** N    **LATITUDE:** 39.587357    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 626.0    **LOGGED (FT.):** 153.5    **LOG TYPE:** Drillers Log  
**SOURCE:**    **WELL TYPE:** Coal Test  
**COMMENT:** FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
512.0	MODESTO	PIASA	LIMESTONE	3.5	114.0
508.5	CARBONDALE		SHALE & SANDSTONE	14.0	117.5
494.5	CARBONDALE	BANKSTON FORK	LIMESTONE W/ SHALE	2.0	131.5
492.5	CARBONDALE	BANKSTON FORK	LIMESTONE	2.0	133.5
490.5	CARBONDALE	LAWSON	CALCAREOUS SHALE	4.0	135.5
486.5	CARBONDALE	BRERETON	LIMESTONE	9.0	139.5
477.5	CARBONDALE	ANNA	DARK GRAY SHALE	2.0	148.5
476.0	CARBONDALE	HERRIN	COAL	3.5	150.0

MAPID: 16770003000C VERSION: 1

PROJECT: NCRDS

COUNTY: SANGAMON TWP/RNG: 13N 7W SECTION: 7 QUARTERS/FOOTAGES: 2670' N line, 1690' W line

QUADRANGLE: WAVERLY LONGITUDE: -89.91984 GEOLOGIST: LOUCHIOS

CONFIDENTIAL: N LATITUDE: 39.587493 DATE COLLECTED: 0 / 0 / 1904

SURFACE ELEVATION (FT.): 626.0 LOGGED (FT.): 500.0 LOG TYPE: Drillers Log

SOURCE: UTAH INTERNATIONAL 12C20 WELL TYPE: Coal Test

COMMENT: CODED COAL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
626.0				149.8	0.0	
476.2	CARBONDALE	ANNA	BLACK SHALE	0.2	149.8	UNCERTAIN CORRELATION
476.0	CARBONDALE	HERRIN	COAL	3.5	150.0	UNCERTAIN CORRELATION
472.5	CARBONDALE		SHALE	1.0	153.5	
471.5	CARBONDALE		LIMESTONE	9.5	154.5	
462.0	CARBONDALE		BLACK SHALE	9.5	164.0	
452.5	CARBONDALE		SHALE	29.5	173.5	
423.0	CARBONDALE		SANDY SHALE	42.8	203.0	
380.2	CARBONDALE		COAL	2.2	245.8	
378.0	CARBONDALE		SHALE	2.3	248.0	
375.7	CARBONDALE		COAL	0.1	250.3	
375.6	CARBONDALE		BLACK SHALE	2.6	250.4	
373.0	CARBONDALE		SANDY SHALE	9.0	253.0	
364.0	CARBONDALE		SANDSTONE	5.0	262.0	
359.0	CARBONDALE		SANDY SHALE	13.0	267.0	
346.0	CARBONDALE		SHALE & SANDSTONE	12.0	280.0	
334.0	CARBONDALE	COLCHESTER	BONE COAL	3.0	292.0	
331.0	CARBONDALE	COLCHESTER	COAL	2.8	295.0	
328.2			UNCLASSIFIED	41.0	297.8	
287.2				0.3	338.8	
286.9			DARK SHALE	0.8	339.1	
286.1			COAL	1.2	339.9	
284.9			SHALE	2.7	341.1	
282.2			COAL	0.5	343.8	
281.7			UNCLASSIFIED	67.0	344.3	
214.7			COAL	0.7	411.3	
214.0			UNCLASSIFIED	88.0	412.0	

MAPID: 16701758000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 13N 7W SECTION: 12 QUARTERS/FOOTAGES: 2310' S line, 2310' W line

QUADRANGLE: VIRDEN NORTH LONGITUDE: -89.82397 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.587439 DATE COLLECTED:

SURFACE ELEVATION (FT.): 641.0 LOGGED (FT.): 241.3 LOG TYPE: Survey Core Study

SOURCE: TRUAX-TRAER COAL CO CA-6 WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
441.0	MODESTO	PIASA	LIMESTONE	2.8	200.0
438.2	MODESTO		MOTTLED SHALE	11.8	202.8
426.3	CARBONDALE	DANVILLE	BLACK SHALE	0.8	214.7
425.6	CARBONDALE	GALUM	LIMESTONE	1.0	215.4
424.6	CARBONDALE		CALCAREOUS SHALE	4.0	216.4
420.6	CARBONDALE	BANKSTON FORK	LIMESTONE	2.7	220.4
417.9	CARBONDALE	LAWSON	MOTTLED SHALE	2.8	223.1
415.1	CARBONDALE	BRERETON	LIMESTONE/UNDERCLAY	9.2	225.9
405.9	CARBONDALE	ANNA	BLACK SHALE	1.7	235.1
404.0	CARBONDALE	HERRIN	COAL	4.3	237.0

MAPID: 16700554000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 13N 7W SECTION: 22 QUARTERS/FOOTAGES: 330' S line, 330' W line

QUADRANGLE: VIRDEN NORTH LONGITUDE: -89.867925 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.552774 DATE COLLECTED:

SURFACE ELEVATION (FT.): 690.0 LOGGED (FT.): 271.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
469.0	MODESTO	PIASA	LIMESTONE	10.0	221.0
459.0	MODESTO		CLAYSTONE & SHALE	14.0	231.0
445.0	CARBONDALE	DANVILLE	BONE COAL	1.0	245.0
444.0	CARBONDALE		SHALE	8.0	246.0
436.0	CARBONDALE	BANKSTON FORK	SHALE	6.0	254.0
430.0	CARBONDALE	LAWSON	SHALE	6.0	260.0
424.0	CARBONDALE	HERRIN	COAL	5.0	266.0

MAPID: 16701393000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 13N 7W SECTION: 24 QUARTERS/FOOTAGES: 2050' S line, 1000' E line

QUADRANGLE: VIRDEN NORTH LONGITUDE: -89.817193

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.557873

DATE COLLECTED:

SURFACE ELEVATION (FT.): 675.0 LOGGED (FT.): 290.0

LOG TYPE: Survey Core Study

SOURCE: ATLANTIC RICHFIELD V-5

WELL TYPE: Coal Test

COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
436.0	MODESTO	PIASA	LIMESTONE	9.0	239.0	
427.0	MODESTO		CLAYSTONE & SHALE	13.8	248.0	
413.2	CARBONDALE	DANVILLE	COAL	0.3	261.8	
412.9	CARBONDALE		CLAYSTONE	2.4	262.1	
410.5	CARBONDALE	GALUM	LIMESTONE/UNDERCLAY	3.9	264.5	
406.6	CARBONDALE		CLAYSTONE	5.6	268.4	
401.0	CARBONDALE	BANKSTON FORK	LIMESTONE	3.5	274.0	UPPER BENCH
397.5	CARBONDALE	BANKSTON FORK	CALCAREOUS SHALE	0.5	277.5	SHALE PARTING
397.1	CARBONDALE	BANKSTON FORK	LIMESTONE/UNDERCLAY	1.1	277.9	LOWER BENCH
396.0	CARBONDALE	LAWSON	MOTTLED SHALE	3.0	279.0	
393.0	CARBONDALE	BRERETON	LIMESTONE/UNDERCLAY	0.7	282.0	
392.3	CARBONDALE	ANNA	DARK GRAY SHALE	1.3	282.7	
391.0	CARBONDALE	HERRIN	COAL	6.0	284.0	

MAPID: 16701280000C VERSION: 1

PROJECT: EIA-DOE

COUNTY: SANGAMON TWP/RNG: 13N 7W SECTION: 25 QUARTERS/FOOTAGES: 2590' S line, 211' E line

QUADRANGLE: VIRDEN NORTH LONGITUDE: -89.814261

GEOLOGIST: JACOBSON

CONFIDENTIAL: N LATITUDE: 39.544993

DATE COLLECTED:

SURFACE ELEVATION (FT.): LOGGED (FT.): 0.0

LOG TYPE:

SOURCE: DIKOR DIVISION OF SERV-K S-2

WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	CARBONDALE	HERRIN	COAL	7.5	284.0	

MAPID: 1670128000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 13N 7W SECTION: 25 QUARTERS/FOOTAGES: 2590' S line, 211' E line

QUADRANGLE: VIRDEN NORTH LONGITUDE: -89.814261

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.544993

DATE COLLECTED:

SURFACE ELEVATION (FT.): 668.0 LOGGED (FT.): 291.5

LOG TYPE: Survey Core Study

SOURCE: DIKOR DIVISION OF SERV-K S-2

WELL TYPE: Coal Test

COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
429.8	MODESTO	PIASA	LIMESTONE	4.0	238.2	
425.8	CARBONDALE		SHALE & SANDSTONE	16.0	242.2	
409.8	CARBONDALE		MOTTLED SHALE	3.2	258.2	
406.6	CARBONDALE	BANKSTON FORK	LIMESTONE	3.3	261.4	UPPER BENCH
403.3	CARBONDALE	BANKSTON FORK	CLAYSTONE	2.7	264.7	SHALE PARTING
400.6	CARBONDALE	BANKSTON FORK	LIMESTONE/UNDERCLAY	1.2	267.4	LOWER BENCH
399.4	CARBONDALE	LAWSON	ARGILLACEOUS SANDSTONE	0.4	268.6	
399.0	CARBONDALE	LAWSON	SANDSTONE	7.0	269.0	
392.0	CARBONDALE	LAWSON	SILTSTONE	1.0	276.0	
391.0	CARBONDALE	LAWSON	MOTTLED SHALE	1.3	277.0	
389.7	CARBONDALE	LAWSON	CALCAREOUS SHALE	1.0	278.3	
388.7	CARBONDALE	BRERETON	LIMESTONE/UNDERCLAY	3.8	279.3	
384.9	CARBONDALE	ANNA	DARK GRAY SHALE	0.9	283.1	
384.0	CARBONDALE	HERRIN	COAL	7.5	284.0	

MAPID: 1672319000C VERSION: 1

PROJECT: EIA-DOE

COUNTY: SANGAMON TWP/RNG: 13N 7W SECTION: 25 QUARTERS/FOOTAGES: 50' S line, 655' E line of SE SE

QUADRANGLE: VIRDEN NORTH LONGITUDE: -89.815638

GEOLOGIST: JACOBSON

CONFIDENTIAL: N LATITUDE: 39.537953

DATE COLLECTED: 6 / 14 / 1978

SURFACE ELEVATION (FT.): 681.0 LOGGED (FT.): 303.0

LOG TYPE: Drillers Log

SOURCE: NICOR DH-26

WELL TYPE: Coal Test

COMMENT: SURVEY CORE STUDY

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
391.2	CARBONDALE	HERRIN	COAL	6.0	289.8	

MAPID: 16723193000C VERSION: 1

PROJECT: EIA-DOE

COUNTY: SANGAMON TWP/RNG: 13N 7W SECTION: 25 QUARTERS/FOOTAGES: 2617' S line, 1268' W line of SW  
 QUADRANGLE: VIRDEN NORTH LONGITUDE: -89.827409 GEOLOGIST: JACOBSON  
 CONFIDENTIAL: N LATITUDE: 39.544785 DATE COLLECTED: 6 / 16 / 1978  
 SURFACE ELEVATION (FT.): 690.0 LOGGED (FT.): 318.0 LOG TYPE: Drillers Log  
 SOURCE: NICOR DH-22 WELL TYPE: Coal Test  
 COMMENT: SURVEY CORE STUDY

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
388.9	CARBONDALE	HERRIN	COAL	5.7	301.1

MAPID: 16701281000C VERSION: 1

PROJECT: EIA-DOE

COUNTY: SANGAMON TWP/RNG: 13N 7W SECTION: 26 QUARTERS/FOOTAGES: 2540' N line, 2605' W line  
 QUADRANGLE: VIRDEN NORTH LONGITUDE: -89.841337 GEOLOGIST: JACOBSON  
 CONFIDENTIAL: N LATITUDE: 39.545032 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): LOGGED (FT.): 0.0 LOG TYPE:  
 SOURCE: DIKOR DIVISION OF SERV-K S-3 WELL TYPE:  
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-	CARBONDALE	HERRIN	COAL	5.5	275.0

MAPID: 16701281000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 13N 7W SECTION: 26 QUARTERS/FOOTAGES: 2540' N line, 2605' W line  
 QUADRANGLE: VIRDEN NORTH LONGITUDE: -89.841337 GEOLOGIST:  
 CONFIDENTIAL: N LATITUDE: 39.545032 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 687.0 LOGGED (FT.): 280.5 LOG TYPE: Electric Log  
 SOURCE: DIKOR DIVISION OF SERV-K S-3 WELL TYPE: Oil and Gas Test  
 COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
458.0	MODESTO	PIASA	LIMESTONE	3.0	229.0
455.0	CARBONDALE		MOTTLED SHALE	20.0	232.0
435.0	CARBONDALE	GALUM	LIMESTONE	2.0	252.0
433.0	CARBONDALE		MOTTLED SHALE	6.0	254.0
427.0	CARBONDALE	BANKSTON FORK	LIMESTONE/UNDERCLAY	7.0	260.0
420.0	CARBONDALE	LAWSON	MOTTLED SHALE	3.0	267.0
417.0	CARBONDALE	BRERETON	LIMESTONE	3.0	270.0
414.0	CARBONDALE	ANNA	BLACK SHALE	2.0	273.0
412.0	CARBONDALE	HERRIN	COAL	5.5	275.0



**MAPID:** 16723242000C    **VERSION:** 1    **PROJECT:** EIA-DOE  
**COUNTY:** SANGAMON    **TWP/RNG:** 13N 7W    **SECTION:** 26    **QUARTERS/FOOTAGES:** 20' S line, 1340' E line of SE  
**QUADRANGLE:** VIRDEN NORTH    **LONGITUDE:** -89.836641    **GEOLOGIST:** JACOBSON  
**CONFIDENTIAL:** N    **LATITUDE:** 39.537477    **DATE COLLECTED:** 12 / 19 / 1978  
**SURFACE ELEVATION (FT.):** 689.0    **LOGGED (FT.):** 299.0    **LOG TYPE:** Drillers Log  
**SOURCE:** NICOR    78-33    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
406.4	CARBONDALE	HERRIN	COAL	6.3	282.6	

**MAPID:** 16723194000C    **VERSION:** 1    **PROJECT:** EIA-DOE  
**COUNTY:** SANGAMON    **TWP/RNG:** 13N 7W    **SECTION:** 27    **QUARTERS/FOOTAGES:** 2604' S line, 2602' W line of SW  
**QUADRANGLE:** VIRDEN NORTH    **LONGITUDE:** -89.859838    **GEOLOGIST:** JACOBSON  
**CONFIDENTIAL:** N    **LATITUDE:** 39.544452    **DATE COLLECTED:** 6 / 13 / 1978  
**SURFACE ELEVATION (FT.):** 678.0    **LOGGED (FT.):** 263.0    **LOG TYPE:** Drillers Log  
**SOURCE:** NICOR    DH-21    **WELL TYPE:** Coal Test  
**COMMENT:** SURVEY CORE STUDY

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
431.6	CARBONDALE	HERRIN	COAL	5.7	246.4	

**MAPID:** 16701282000C    **VERSION:** 1    **PROJECT:** EIA-DOE  
**COUNTY:** SANGAMON    **TWP/RNG:** 13N 7W    **SECTION:** 28    **QUARTERS/FOOTAGES:** 2615' S line, 2535' E line  
**QUADRANGLE:** WAVERLY    **LONGITUDE:** -89.878153    **GEOLOGIST:** JACOBSON  
**CONFIDENTIAL:** N    **LATITUDE:** 39.544358    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):**    **LOGGED (FT.):** 0.0    **LOG TYPE:**  
**SOURCE:** DIKOR DIVISION OF SERV-K    S-4    **WELL TYPE:**  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	CARBONDALE	HERRIN	COAL	5.0	247.0	

MAPID: 16701282000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 13N 7W SECTION: 28 QUARTERS/FOOTAGES: 2615' S line, 2535' E line

QUADRANGLE: WAVERLY LONGITUDE: -89.878153

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.544358

DATE COLLECTED:

SURFACE ELEVATION (FT.): 671.0 LOGGED (FT.): 251.9

LOG TYPE: Survey Core Study

SOURCE: DIKOR DIVISION OF SERV-K S-4

WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
463.4	MODESTO	PIASA	LIMESTONE	3.0	207.6	
460.4	CARBONDALE		SHALE & SANDSTONE	27.0	210.6	
433.4	CARBONDALE	BANKSTON FORK	LIMESTONE	4.3	237.6	UPPER BENCH
429.0	CARBONDALE	BANKSTON FORK	CLAYSTONE	0.5	242.0	SHALE PARTING
428.6	CARBONDALE	BANKSTON FORK	LIMESTONE/UNDERCLAY	0.5	242.4	LOWER BENCH
428.1	CARBONDALE	LAWSON	CLAYSTONE	2.0	242.9	
426.1	CARBONDALE	LAWSON	MOTTLED SHALE	0.5	244.9	
425.6	CARBONDALE	BRERETON	LIMESTONE	0.2	245.4	
425.3	CARBONDALE	ANNA	BLACK SHALE	0.4	245.7	
425.0	CARBONDALE	HERRIN	COAL	5.9	246.0	

MAPID: 16701283000C VERSION: 1

PROJECT: EIA-DOE

COUNTY: SANGAMON TWP/RNG: 13N 7W SECTION: 30 QUARTERS/FOOTAGES: 2540' S line, 15' E line

QUADRANGLE: WAVERLY LONGITUDE: -89.906795

GEOLOGIST: JACOBSON

CONFIDENTIAL: N LATITUDE: 39.544085

DATE COLLECTED:

SURFACE ELEVATION (FT.): LOGGED (FT.): 0.0

LOG TYPE:

SOURCE: DIKOR DIVISION OF SERV-K S-5

WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	CARBONDALE	HERRIN	COAL	3.5	222.0	

MAPID: 16701283000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 13N 7W SECTION: 30 QUARTERS/FOOTAGES: 2540' S line, 15' E line

QUADRANGLE: WAVERLY LONGITUDE: -89.906795

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.544085

DATE COLLECTED:

SURFACE ELEVATION (FT.): 684.0 LOGGED (FT.): 225.7

LOG TYPE: Electric Log

SOURCE: DIKOR DIVISION OF SERV-K S-5

WELL TYPE: Oil and Gas Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
504.0	MODESTO	PIASA	LIMESTONE	4.0	180.0
500.0	CARBONDALE		SHALE & SANDSTONE	20.0	184.0
480.0	CARBONDALE	LAWSON	GRAY SHALE	10.0	204.0
470.0	CARBONDALE	BRERETON	LIMESTONE	6.0	214.0
464.0	CARBONDALE	ANNA	BLACK SHALE	2.0	220.0
462.0	CARBONDALE	HERRIN	COAL	3.7	222.0

MAPID: 16722359000C VERSION: 1

PROJECT: EIA-DOE

COUNTY: SANGAMON TWP/RNG: 13N 7W SECTION: 33 QUARTERS/FOOTAGES: 67' S line, 2600' E line of SE

QUADRANGLE: WAVERLY LONGITUDE: -89.878408

GEOLOGIST: JACOBSON

CONFIDENTIAL: N LATITUDE: 39.522849

DATE COLLECTED: 11 / 0 / 1975

SURFACE ELEVATION (FT.): 683.0 LOGGED (FT.): 257.0

LOG TYPE: Drillers Log

SOURCE: NORTHERN ILLINOIS GAS CO. B-7

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
434.7	CARBONDALE	HERRIN	COAL	5.7	248.3

MAPID: 16723235000C VERSION: 1

PROJECT: EIA-DOE

COUNTY: SANGAMON TWP/RNG: 13N 7W SECTION: 33 QUARTERS/FOOTAGES: 1680' N line, 2590' E line of NE

QUADRANGLE: WAVERLY LONGITUDE: -89.878388

GEOLOGIST: JACOBSON

CONFIDENTIAL: N LATITUDE: 39.532502

DATE COLLECTED: 6 / 19 / 1978

SURFACE ELEVATION (FT.): 678.0 LOGGED (FT.): 280.0

LOG TYPE: Drillers Log

SOURCE: NICOR DH-23

WELL TYPE: Coal Test

COMMENT: SURVEY CORE STUDY

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
432.0	CARBONDALE	HERRIN	COAL	5.1	246.0

**MAPID:** 16723236000C    **VERSION:** 1    **PROJECT:** EIA-DOE  
**COUNTY:** SANGAMON    **TWP/RNG:** 13N 7W    **SECTION:** 34    **QUARTERS/FOOTAGES:** 2340' N line, 2340' E line of NE  
**QUADRANGLE:** VIRDEN NORTH    **LONGITUDE:** -89.859002    **GEOLOGIST:** JACOBSON  
**CONFIDENTIAL:** N    **LATITUDE:** 39.530808    **DATE COLLECTED:** 5 / 26 / 1978  
**SURFACE ELEVATION (FT.):** 683.0    **LOGGED (FT.):** 286.0    **LOG TYPE:** Drillers Log  
**SOURCE:** NICOR    DH-24    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
411.6	CARBONDALE	HERRIN	COAL	5.6	271.4	

**MAPID:** 16723243000C    **VERSION:** 1    **PROJECT:** EIA-DOE  
**COUNTY:** SANGAMON    **TWP/RNG:** 13N 7W    **SECTION:** 34    **QUARTERS/FOOTAGES:** 50' S line, 2590' E line of SE  
**QUADRANGLE:** VIRDEN NORTH    **LONGITUDE:** -89.859824    **GEOLOGIST:** JACOBSON  
**CONFIDENTIAL:** N    **LATITUDE:** 39.522858    **DATE COLLECTED:** 12 / 16 / 1978  
**SURFACE ELEVATION (FT.):** 682.0    **LOGGED (FT.):** 271.0    **LOG TYPE:** Drillers Log  
**SOURCE:** NICOR    78-34    **WELL TYPE:** Coal Test  
**COMMENT:** SURVEY CORE STUDY

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
427.3	CARBONDALE	HERRIN	COAL	6.4	254.7	

**MAPID:** 16723237000C    **VERSION:** 1    **PROJECT:** EIA-DOE  
**COUNTY:** SANGAMON    **TWP/RNG:** 13N 7W    **SECTION:** 35    **QUARTERS/FOOTAGES:** 2640' N line, 2585' E line  
**QUADRANGLE:** VIRDEN NORTH    **LONGITUDE:** -89.841032    **GEOLOGIST:** JACOBSON  
**CONFIDENTIAL:** N    **LATITUDE:** 39.530097    **DATE COLLECTED:** 6 / 5 / 1978  
**SURFACE ELEVATION (FT.):** 689.0    **LOGGED (FT.):** 289.0    **LOG TYPE:** Drillers Log  
**SOURCE:** NICOR    DH-25    **WELL TYPE:** Coal Test  
**COMMENT:** SURVEY CORE STUDY

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
415.3	CARBONDALE	HERRIN	COAL	4.5	273.7	

**MAPID:** 16723240000C    **VERSION:** 1    **PROJECT:** EIA-DOE  
**COUNTY:** SANGAMON    **TWP/RNG:** 13N 7W    **SECTION:** 36    **QUARTERS/FOOTAGES:** 1609' N line, 1330' W line of NW  
**QUADRANGLE:** VIRDEN NORTH    **LONGITUDE:** -89.827095    **GEOLOGIST:** JACOBSON  
**CONFIDENTIAL:** N    **LATITUDE:** 39.533126    **DATE COLLECTED:** 6 / 21 / 1978  
**SURFACE ELEVATION (FT.):** 681.0    **LOGGED (FT.):** 293.0    **LOG TYPE:** Drillers Log  
**SOURCE:** NICOR    DH-30    **WELL TYPE:** Coal Test  
**COMMENT:** SURVEY CORE STUDY

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
403.9	CARBONDALE	HERRIN	COAL	6.1	277.1	

**MAPID:** 16700099000C    **VERSION:** 1    **PROJECT:** EIA-DOE  
**COUNTY:** SANGAMON    **TWP/RNG:** 14N 4W    **SECTION:** 13    **QUARTERS/FOOTAGES:** 20' N line, 51' E line of NW NE  
**QUADRANGLE:** EDINBURG    **LONGITUDE:** -89.483268    **GEOLOGIST:** JACOBSON  
**CONFIDENTIAL:** N    **LATITUDE:** 39.66954    **DATE COLLECTED:** 10 / 0 / 1945  
**SURFACE ELEVATION (FT.):** 577.8    **LOGGED (FT.):** 257.1    **LOG TYPE:** Drillers Log  
**SOURCE:** PEABODY COAL CO.    2    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
325.5	CARBONDALE	HERRIN	COAL	4.8	252.3

**MAPID:** 16700100000C    **VERSION:** 1    **PROJECT:** EIA-DOE  
**COUNTY:** SANGAMON    **TWP/RNG:** 14N 4W    **SECTION:** 13    **QUARTERS/FOOTAGES:** 2599' S line, 2570' W line  
**QUADRANGLE:** EDINBURG    **LONGITUDE:** -89.487969    **GEOLOGIST:** JACOBSON  
**CONFIDENTIAL:** N    **LATITUDE:** 39.662328    **DATE COLLECTED:** 11 / 0 / 1945  
**SURFACE ELEVATION (FT.):** 592.6    **LOGGED (FT.):** 291.0    **LOG TYPE:** Drillers Log  
**SOURCE:** PEABODY COAL CO.    7    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
307.2	CARBONDALE	HERRIN	COAL	5.6	285.4

**MAPID:** 16700100000C    **VERSION:** 2    **PROJECT:** ROOF STUDY  
**COUNTY:** SANGAMON    **TWP/RNG:** 14N 4W    **SECTION:** 13    **QUARTERS/FOOTAGES:** 2599' S line, 2570' W line  
**QUADRANGLE:** EDINBURG    **LONGITUDE:** -89.487969    **GEOLOGIST:**  
**CONFIDENTIAL:** N    **LATITUDE:** 39.662328    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 593.0    **LOGGED (FT.):** 290.6    **LOG TYPE:** Drillers Log  
**SOURCE:** PEABODY COAL CO.    7    **WELL TYPE:** Coal Test  
**COMMENT:** FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
349.0	MODESTO	PIASA	LIMESTONE	3.0	244.0
346.0	MODESTO		MOTTLED SHALE	11.0	247.0
335.0	CARBONDALE	DANVILLE	DARK GRAY SHALE	2.0	258.0
333.0	CARBONDALE		SILTY SHALE	10.0	260.0
323.0	CARBONDALE	BANKSTON FORK	LIMESTONE	3.0	270.0
320.0	CARBONDALE	LAWSON	GRAY SHALE	2.0	273.0
318.0	CARBONDALE	BRERETON	LIMESTONE	10.0	275.0
308.0	CARBONDALE	ANNA	DARK GRAY SHALE	0.4	285.0
308.0	CARBONDALE	HERRIN	COAL	5.6	285.0

**MAPID:** 16700101000C    **VERSION:** 1    **PROJECT:** EIA-DOE  
**COUNTY:** SANGAMON    **TWP/RNG:** 14N 4W    **SECTION:** 13    **QUARTERS/FOOTAGES:** 26' S line, 56' E line of SW  
**QUADRANGLE:** EDINBURG    **LONGITUDE:** -89.487917    **GEOLOGIST:** JACOBSON  
**CONFIDENTIAL:** N    **LATITUDE:** 39.655224    **DATE COLLECTED:** 11 / 0 / 1945  
**SURFACE ELEVATION (FT.):** 588.9    **LOGGED (FT.):** 307.5    **LOG TYPE:** Drillers Log  
**SOURCE:** PEABODY COAL CO.    8    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
287.5	CARBONDALE	HERRIN	COAL	6.1	301.4

**MAPID:** 16700102000C    **VERSION:** 1    **PROJECT:** EIA-DOE  
**COUNTY:** SANGAMON    **TWP/RNG:** 14N 4W    **SECTION:** 14    **QUARTERS/FOOTAGES:** 2375' N line, 1524' W line  
**QUADRANGLE:** NEW CITY    **LONGITUDE:** -89.511168    **GEOLOGIST:** JACOBSON  
**CONFIDENTIAL:** N    **LATITUDE:** 39.663574    **DATE COLLECTED:** 10 / 0 / 1945  
**SURFACE ELEVATION (FT.):** 585.5    **LOGGED (FT.):** 271.4    **LOG TYPE:** Drillers Log  
**SOURCE:** PEABODY COAL CO.    6    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
318.9	CARBONDALE	HERRIN	COAL	4.8	266.6

**MAPID:** 16700102000C    **VERSION:** 2    **PROJECT:** ROOF STUDY  
**COUNTY:** SANGAMON    **TWP/RNG:** 14N 4W    **SECTION:** 14    **QUARTERS/FOOTAGES:** 2375' N line, 1524' W line  
**QUADRANGLE:** NEW CITY    **LONGITUDE:** -89.511168    **GEOLOGIST:**  
**CONFIDENTIAL:** N    **LATITUDE:** 39.663574    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 586.0    **LOGGED (FT.):** 271.8    **LOG TYPE:** Drillers Log  
**SOURCE:** PEABODY COAL CO.    6    **WELL TYPE:** Coal Test  
**COMMENT:** FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
351.6	MODESTO	PIASA	LIMESTONE	2.5	234.4
349.1	CARBONDALE		SHALE	11.5	236.9
337.6	CARBONDALE	BANKSTON FORK	LIMESTONE	2.3	248.4
335.2	CARBONDALE	LAWSON	DARK GRAY SHALE	2.4	250.8
332.8	CARBONDALE	LAWSON	GRAY SHALE	1.7	253.2
331.2	CARBONDALE	LAWSON	SANDSTONE	4.6	254.8
326.6	CARBONDALE	LAWSON	DARK GRAY SHALE	1.0	259.4
325.6	CARBONDALE	BRERETON	LIMESTONE	6.6	260.4
319.0	CARBONDALE	HERRIN	COAL	4.8	267.0

MAPID: 16700103000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 14N 4W SECTION: 15 QUARTERS/FOOTAGES: 64' N line, 1336' E line

QUADRANGLE: NEW CITY LONGITUDE: -89.521495

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.669984

DATE COLLECTED:

SURFACE ELEVATION (FT.): 591.0 LOGGED (FT.): 303.8

LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO. 1

WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
335.7	MODESTO		SANDSTONE	24.0	255.3	
311.7	CARBONDALE	DANVILLE	COAL	0.5	279.3	
311.2	CARBONDALE	BANKSTON FORK	LIMESTONE	1.8	279.8	
309.4	CARBONDALE	LAWSON	SILTY SHALE	10.3	281.6	
299.2	CARBONDALE	LAWSON	GRAY SHALE	2.3	291.8	
296.8	CARBONDALE	BRERETON	LIMESTONE	0.8	294.2	
296.1	CARBONDALE	ANNA	BLACK SHALE	3.1	294.9	
293.0	CARBONDALE	HERRIN	COAL	5.8	298.0	

MAPID: 16700105000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 14N 4W SECTION: 16 QUARTERS/FOOTAGES: 2622' S line, 57' W line

QUADRANGLE: NEW CITY LONGITUDE: -89.553942

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.663228

DATE COLLECTED:

SURFACE ELEVATION (FT.): 581.0 LOGGED (FT.): 250.3

LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO. 4

WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
397.7	CARBONDALE		SHALE	50.0	183.3	
347.7	CARBONDALE	BANKSTON FORK	LIMESTONE	1.0	233.3	UPPER BENCH
346.7	CARBONDALE	BANKSTON FORK	CALCAREOUS SHALE	2.7	234.3	SHALE PARTING
344.0	CARBONDALE	BANKSTON FORK	LIMESTONE	2.0	237.0	LOWER BENCH
342.0	CARBONDALE	LAWSON	CALCAREOUS SHALE	1.8	239.0	
340.2	CARBONDALE	LAWSON	DARK GRAY SHALE	1.7	240.8	
338.5	CARBONDALE	BRERETON	LIMESTONE	1.2	242.5	
337.3	CARBONDALE	ANNA	BLACK SHALE	1.3	243.7	
336.0	CARBONDALE	HERRIN	COAL	5.3	245.0	

**MAPID:** 16701086000C    **VERSION:** 1    **PROJECT:** EIA-DOE  
**COUNTY:** SANGAMON    **TWP/RNG:** 14N 4W    **SECTION:** 17    **QUARTERS/FOOTAGES:** 2636' N line, 806' E line  
**QUADRANGLE:** NEW CITY    **LONGITUDE:** -89.557024    **GEOLOGIST:** JACOBSON  
**CONFIDENTIAL:** N    **LATITUDE:** 39.663227    **DATE COLLECTED:** 8 / 13 / 1965  
**SURFACE ELEVATION (FT.):** 551.4    **LOGGED (FT.):** 240.6    **LOG TYPE:** Drillers Log  
**SOURCE:** PEABODY COAL CO.    SC96    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
316.6	CARBONDALE	HERRIN	COAL	5.8	234.8	

**MAPID:** 16701086000C    **VERSION:** 2    **PROJECT:** ROOF STUDY  
**COUNTY:** SANGAMON    **TWP/RNG:** 14N 4W    **SECTION:** 17    **QUARTERS/FOOTAGES:** 2636' N line, 806' E line  
**QUADRANGLE:** NEW CITY    **LONGITUDE:** -89.557024    **GEOLOGIST:**  
**CONFIDENTIAL:** N    **LATITUDE:** 39.663227    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 551.0    **LOGGED (FT.):** 240.3    **LOG TYPE:** Survey Core Study  
**SOURCE:** PEABODY COAL CO.    SC96    **WELL TYPE:** Coal Test  
**COMMENT:** FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
375.4	CARBONDALE		CALCAREOUS SHALE	50.0	175.6	
325.4	CARBONDALE	BANKSTON FORK	LIMESTONE/UNDERCLAY	6.1	225.6	UPPER BENCH
319.3	CARBONDALE	BANKSTON FORK	MOTTLED SHALE	0.4	231.7	SHALE PARTING
318.9	CARBONDALE	BANKSTON FORK	NODULAR LIMESTONE	0.6	232.1	LOWER BENCH
318.3	CARBONDALE	LAWSON	MOTTLED SHALE	1.3	232.7	
317.0	CARBONDALE	LAWSON	SILTSTONE	1.0	234.0	
316.0	CARBONDALE	HERRIN	COAL	5.3	235.0	

**MAPID:** 16700954000C    **VERSION:** 1    **PROJECT:** EIA-DOE  
**COUNTY:** SANGAMON    **TWP/RNG:** 14N 4W    **SECTION:** 18    **QUARTERS/FOOTAGES:** 14' S line, 140' W line  
**QUADRANGLE:** NEW CITY    **LONGITUDE:** -89.590766    **GEOLOGIST:** JACOBSON  
**CONFIDENTIAL:** N    **LATITUDE:** 39.655894    **DATE COLLECTED:** 5 / 15 / 1964  
**SURFACE ELEVATION (FT.):** 592.9    **LOGGED (FT.):** 298.7    **LOG TYPE:** Drillers Log  
**SOURCE:** PEABODY COAL CO.    SC61    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
300.8	CARBONDALE	HERRIN	COAL	6.6	292.1	



MAPID: 16700954000C    VERSION: 2

PROJECT: ROOF STUDY

COUNTY: SANGAMON    TWP/RNG: 14N 4W    SECTION: 18    QUARTERS/FOOTAGES: 14' S line, 140' W line

QUADRANGLE: NEW CITY    LONGITUDE: -89.590766

GEOLOGIST:

CONFIDENTIAL: N    LATITUDE: 39.655894

DATE COLLECTED:

SURFACE ELEVATION (FT.): 593.0    LOGGED (FT.): 298.6

LOG TYPE: Survey Core Study

SOURCE: PEABODY COAL CO.    SC61

WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
365.6	CARBONDALE		LIMESTONE W/ SHALE	50.0	227.4	
315.6	CARBONDALE	BANKSTON FORK	LIMESTONE/UNDERCLAY	4.4	277.4	UPPER BENCH
311.2	CARBONDALE	BANKSTON FORK	MOTTLED SHALE	0.8	281.8	SHALE PARTING
310.4	CARBONDALE	BANKSTON FORK	NODULAR LIMESTONE	0.4	282.6	LOWER BENCH
310.0	CARBONDALE	LAWSON	MOTTLED SHALE	2.2	283.0	
307.8	CARBONDALE	LAWSON	SHALE & SILTSTONE	1.2	285.2	
306.7	CARBONDALE	LAWSON	BLACK SHALE	5.7	286.3	
301.0	CARBONDALE	HERRIN	COAL	6.6	292.0	

MAPID: 16700953000C    VERSION: 1

PROJECT: EIA-DOE

COUNTY: SANGAMON    TWP/RNG: 14N 4W    SECTION: 19    QUARTERS/FOOTAGES: 2627' S line, 97' W line

QUADRANGLE: NEW CITY    LONGITUDE: -89.59076

GEOLOGIST: JACOBSON

CONFIDENTIAL: N    LATITUDE: 39.648469

DATE COLLECTED: 4 / 18 / 1964

SURFACE ELEVATION (FT.): 592.9    LOGGED (FT.): 303.2

LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO.    SC60

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
297.5	CARBONDALE	HERRIN	COAL	7.8	295.4	

MAPID: 16700953000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 14N 4W SECTION: 19 QUARTERS/FOOTAGES: 2627' S line, 97' W line

QUADRANGLE: NEW CITY LONGITUDE: -89.59076 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.648469 DATE COLLECTED:

SURFACE ELEVATION (FT.): 593.0 LOGGED (FT.): 302.8 LOG TYPE: Survey Core Study

SOURCE: PEABODY COAL CO. SC60 WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
365.3	CARBONDALE		CALCAREOUS SHALE	50.0	227.7	
315.3	CARBONDALE	BANKSTON FORK	LIMESTONE/UNDERCLAY	3.3	277.7	UPPER BENCH
312.0	CARBONDALE	BANKSTON FORK	MOTTLED SHALE	0.5	281.0	SHALE PARTING
311.5	CARBONDALE	BANKSTON FORK	LIMESTONE/UNDERCLAY	0.6	281.5	LOWER BENCH
310.9	CARBONDALE	LAWSON	MOTTLED SHALE	1.8	282.1	
309.2	CARBONDALE	LAWSON	CLAYSTONE	1.5	283.8	
307.7	CARBONDALE	LAWSON	ARGILLACEOUS SANDSTONE	0.6	285.3	
307.1	CARBONDALE	LAWSON	SHALE & SANDSTONE	3.8	285.9	
303.2	CARBONDALE	ANNA	BLACK SHALE	5.3	289.8	
298.0	CARBONDALE	HERRIN	COAL	7.8	295.0	

MAPID: 16701081000C VERSION: 1

PROJECT: EIA-DOE

COUNTY: SANGAMON TWP/RNG: 14N 4W SECTION: 20 QUARTERS/FOOTAGES: 110' N line, 14' E line of NE SW

QUADRANGLE: NEW CITY LONGITUDE: -89.563414 GEOLOGIST: JACOBSON

CONFIDENTIAL: N LATITUDE: 39.648398 DATE COLLECTED: 8 / 21 / 1965

SURFACE ELEVATION (FT.): 572.2 LOGGED (FT.): 282.1 LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO. 97 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
297.2	CARBONDALE	HERRIN	COAL	7.1	275.0	

MAPID: 16701082000C VERSION: 1

PROJECT: EIA-DOE

COUNTY: SANGAMON TWP/RNG: 14N 4W SECTION: 20 QUARTERS/FOOTAGES: 19' S line, 48' E line

QUADRANGLE: NEW CITY LONGITUDE: -89.553961 GEOLOGIST: JACOBSON

CONFIDENTIAL: N LATITUDE: 39.641489 DATE COLLECTED: 8 / 22 / 1965

SURFACE ELEVATION (FT.): 594.4 LOGGED (FT.): 305.8 LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO. 94 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
296.4	CARBONDALE	HERRIN	COAL	7.8	298.0	

MAPID: 16701082000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 14N 4W SECTION: 20 QUARTERS/FOOTAGES: 19' S line, 48' E line

QUADRANGLE: NEW CITY LONGITUDE: -89.553961

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.641489

DATE COLLECTED:

SURFACE ELEVATION (FT.): 594.0

LOGGED (FT.): 305.8

LOG TYPE: Survey Core Study

SOURCE: PEABODY COAL CO. 94

WELL TYPE: Coal Test

COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
327.3	MODESTO	PIASA	LIMESTONE	1.6	266.7
325.7	CARBONDALE		MOTTLED SHALE	10.2	268.3
315.5	CARBONDALE	BANKSTON FORK	LIMESTONE/UNDERCLAY	3.2	278.5
312.4	CARBONDALE	LAWSON	MOTTLED SHALE	3.3	281.6
309.1	CARBONDALE	LAWSON	SILTSTONE	3.0	284.9
306.1	CARBONDALE	LAWSON	SANDSTONE	3.6	287.9
302.5	CARBONDALE	ANNA	BLACK SHALE	6.5	291.5
296.0	CARBONDALE	HERRIN	COAL	7.8	298.0

MAPID: 16700106000C VERSION: 1

PROJECT: EIA-DOE

COUNTY: SANGAMON TWP/RNG: 14N 4W SECTION: 21 QUARTERS/FOOTAGES: 190' N line, 33' W line

QUADRANGLE: NEW CITY LONGITUDE: -89.55395

GEOLOGIST: JACOBSON

CONFIDENTIAL: N LATITUDE: 39.655467

DATE COLLECTED: 10 / 0 / 1945

SURFACE ELEVATION (FT.): 593.9

LOGGED (FT.): 266.7

LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO. 5

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
332.5	CARBONDALE	HERRIN	COAL	5.3	261.4

MAPID: 16700107000C VERSION: 1

PROJECT: EIA-DOE

COUNTY: SANGAMON TWP/RNG: 14N 4W SECTION: 21 QUARTERS/FOOTAGES: 53' N line, 20' W line of SE

QUADRANGLE: NEW CITY LONGITUDE: -89.544451

GEOLOGIST: JACOBSON

CONFIDENTIAL: N LATITUDE: 39.648451

DATE COLLECTED: 1 / 0 / 1946

SURFACE ELEVATION (FT.): 593.9

LOGGED (FT.): 283.0

LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO. 16

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
317.2	CARBONDALE	HERRIN	COAL	6.3	276.7

**MAPID:** 16701087000C    **VERSION:** 1    **PROJECT:** EIA-DOE  
**COUNTY:** SANGAMON    **TWP/RNG:** 14N 4W    **SECTION:** 21    **QUARTERS/FOOTAGES:** 2579' N line, 12' W line  
**QUADRANGLE:** NEW CITY    **LONGITUDE:** -89.553891    **GEOLOGIST:** JACOBSON  
**CONFIDENTIAL:** N    **LATITUDE:** 39.648872    **DATE COLLECTED:** 7 / 21 / 1965  
**SURFACE ELEVATION (FT.):** 594.3    **LOGGED (FT.):** 285.8    **LOG TYPE:** Drillers Log  
**SOURCE:** PEABODY COAL CO.    SC93    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
315.0	CARBONDALE	HERRIN	COAL	6.5	279.3	

**MAPID:** 16701087000C    **VERSION:** 2    **PROJECT:** ROOF STUDY  
**COUNTY:** SANGAMON    **TWP/RNG:** 14N 4W    **SECTION:** 21    **QUARTERS/FOOTAGES:** 2579' N line, 12' W line  
**QUADRANGLE:** NEW CITY    **LONGITUDE:** -89.553891    **GEOLOGIST:**  
**CONFIDENTIAL:** N    **LATITUDE:** 39.648872    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 594.0    **LOGGED (FT.):** 285.5    **LOG TYPE:** Survey Core Study  
**SOURCE:** PEABODY COAL CO.    SC93    **WELL TYPE:** Coal Test  
**COMMENT:** FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
373.5	CARBONDALE		SHALE & SANDSTONE	50.0	220.5	
323.5	CARBONDALE	BANKSTON FORK	LIMESTONE/UNDERCLAY	0.3	270.5	UPPER BENCH
323.3	CARBONDALE	BANKSTON FORK	MOTTLED SHALE	0.8	270.7	SHALE PARTING
322.5	CARBONDALE	BANKSTON FORK	LIMESTONE	5.7	271.5	LOWER BENCH
316.8	CARBONDALE	LAWSON	DARK GRAY SHALE	0.4	277.2	
316.4	CARBONDALE	LAWSON	CARBONACEOUS SHALE	0.5	277.6	
315.9	CARBONDALE	ANNA	BLACK SHALE	0.9	278.1	
315.0	CARBONDALE	HERRIN	COAL	6.5	279.0	

**MAPID:** 16700108000C    **VERSION:** 1    **PROJECT:** EIA-DOE  
**COUNTY:** SANGAMON    **TWP/RNG:** 14N 4W    **SECTION:** 22    **QUARTERS/FOOTAGES:** 1' S line, 459' E line of NE NE  
**QUADRANGLE:** NEW CITY    **LONGITUDE:** -89.518033    **GEOLOGIST:** JACOBSON  
**CONFIDENTIAL:** N    **LATITUDE:** 39.651994    **DATE COLLECTED:** 12 / 0 / 1945  
**SURFACE ELEVATION (FT.):** 588.8    **LOGGED (FT.):** 291.7    **LOG TYPE:** Drillers Log  
**SOURCE:** PEABODY COAL CO.    14    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
303.9	CARBONDALE	HERRIN	COAL	6.8	284.9	

MAPID: 16700591000C VERSION: 1

PROJECT: EIA-DOE

COUNTY: SANGAMON TWP/RNG: 14N 4W SECTION: 22 QUARTERS/FOOTAGES: 11' N line, 130' W line

QUADRANGLE: NEW CITY LONGITUDE: -89.534746 GEOLOGIST: JACOBSON

CONFIDENTIAL: N LATITUDE: 39.655708 DATE COLLECTED: 11 / 18 / 1957

SURFACE ELEVATION (FT.): 594.2 LOGGED (FT.): 289.5 LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO. 37 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
309.0	CARBONDALE	HERRIN	COAL	4.3	285.2	

MAPID: 16700591000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 14N 4W SECTION: 22 QUARTERS/FOOTAGES: 11' N line, 130' W line

QUADRANGLE: NEW CITY LONGITUDE: -89.534746 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.655708 DATE COLLECTED:

SURFACE ELEVATION (FT.): 594.0 LOGGED (FT.): 289.3 LOG TYPE: Survey Core Study

SOURCE: PEABODY COAL CO. 37 WELL TYPE: Coal Test

COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
338.4	CARBONDALE		MOTTLED SHALE	12.0	255.6	
326.4	CARBONDALE	GALUM	NODULAR LIMESTONE	1.5	267.6	
324.9	CARBONDALE		MOTTLED SHALE	4.5	269.1	
320.4	CARBONDALE	BANKSTON FORK	NODULAR LIMESTONE	3.3	273.6	
317.2	CARBONDALE	LAWSON	CLAYSTONE	1.4	276.8	
315.7	CARBONDALE	LAWSON	SILTY SHALE	1.6	278.3	
314.2	CARBONDALE	BRERETON	LIMESTONE/UNDERCLAY	4.8	279.8	
309.3	CARBONDALE	ANNA	GRAY SHALE	0.3	284.7	
309.0	CARBONDALE	HERRIN	COAL	4.3	285.0	

MAPID: 16723457000C VERSION: 1

PROJECT: NCRDS17

COUNTY: SANGAMON TWP/RNG: 14N 4W SECTION: 22 QUARTERS/FOOTAGES: 330' S line, 1650' W line of NE NW NE

QUADRANGLE: NEW CITY

LONGITUDE: -89.525117

GEOLOGIST: JMCBETH

CONFIDENTIAL: N

LATITUDE: 39.654867

DATE COLLECTED: 7 / 12 / 1982

SURFACE ELEVATION (FT.): 596.4

LOGGED (FT.): 320.0

LOG TYPE: Drillers Log

SOURCE: PEABODY SC135C

WELL TYPE: Coal Test

COMMENT: MINE#10, PEABODY L-2

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
596.4	PLEISTOCENE		UNCONSOLIDATED	19.2	0.0	
577.2	PLEISTOCENE		SAND & GRAVEL	3.1	19.2	
574.1	PLEISTOCENE		GLACIAL DRIFT	13.7	22.3	WITH GRAVEL
560.4	PLEISTOCENE		CLAYSTONE & SHALE	5.0	36.0	
555.4	PLEISTOCENE		GLACIAL DRIFT	15.9	41.0	
539.5			LIMESTONE	3.1	56.9	
536.4			GRAY SHALE	4.7	60.0	WITH SAND
531.7			SANDSTONE	40.1	64.7	
491.6			GRAY SHALE	27.8	104.8	WITH SAND
463.8			SHALE	3.8	132.6	DARK
460.0			GRAY SHALE	6.3	136.4	
453.7			GRAY SHALE	107.9	142.7	WITH SAND
345.8			SHALE	1.6	250.6	DARK
344.2			GRAY SHALE	1.0	252.2	
343.2			SHALE	2.2	253.2	
341.0			LIMESTONE	2.2	255.4	
338.8			SHALE	2.1	257.6	
336.7			GRAY SHALE	8.4	259.7	WITH SAND
328.3			LIMESTONE	3.6	268.1	
324.7			GRAY SHALE	1.4	271.7	
323.4			LIMESTONE	0.2	273.0	
323.2			SHALE	1.0	273.2	DARK
322.2			SANDSTONE	2.5	274.2	
319.7			GRAY SHALE	0.8	276.7	
318.9	SHELBURN	BANKSTON FORK	LIMESTONE	2.2	277.5	
316.7	SHELBURN		GRAY SHALE	0.2	279.7	
316.5	SHELBURN	BRERETON	LIMESTONE	7.8	279.9	
308.8	CARBONDALE	HERRIN	COAL	6.1	287.6	
302.7	CARBONDALE		GRAY SHALE	14.9	293.7	WITH SAND
287.7	CARBONDALE		SHALE	3.3	308.7	DARK
284.4	CARBONDALE	SPRINGFIELD	COAL	5.5	312.0	
278.9	CARBONDALE		GRAY SHALE	2.5	317.5	

**MAPID:** 16700592000C    **VERSION:** 1    **PROJECT:** EIA-DOE  
**COUNTY:** SANGAMON    **TWP/RNG:** 14N 4W    **SECTION:** 23    **QUARTERS/FOOTAGES:** 0' N line, 2640' E line  
**QUADRANGLE:** NEW CITY    **LONGITUDE:** -89.506568    **GEOLOGIST:** JACOBSON  
**CONFIDENTIAL:** N    **LATITUDE:** 39.655605    **DATE COLLECTED:** 12 / 9 / 1957  
**SURFACE ELEVATION (FT.):** 554.6    **LOGGED (FT.):** 261.9    **LOG TYPE:** Drillers Log  
**SOURCE:** PEABODY COAL CO.    38    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
297.8	CARBONDALE	HERRIN	COAL	5.1	256.8

**MAPID:** 16700592000C    **VERSION:** 2    **PROJECT:** ROOF STUDY  
**COUNTY:** SANGAMON    **TWP/RNG:** 14N 4W    **SECTION:** 23    **QUARTERS/FOOTAGES:** 0' N line, 2640' E line  
**QUADRANGLE:** NEW CITY    **LONGITUDE:** -89.506568    **GEOLOGIST:**  
**CONFIDENTIAL:** N    **LATITUDE:** 39.655605    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 555.0    **LOGGED (FT.):** 262.1    **LOG TYPE:** Survey Core Study  
**SOURCE:** PEABODY COAL CO.    38    **WELL TYPE:** Coal Test  
**COMMENT:** GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
353.3	MODESTO		SHALE	30.0	201.7
323.3	CARBONDALE		MOTTLED SHALE	4.7	231.7
318.7	CARBONDALE	BANKSTON FORK	NODULAR LIMESTONE	3.8	236.3
314.9	CARBONDALE	LAWSON	CALCAREOUS SHALE	0.8	240.1
314.2	CARBONDALE	LAWSON	MOTTLED SHALE	1.7	240.8
312.5	CARBONDALE	LAWSON	SILTY SHALE	1.1	242.5
311.4	CARBONDALE	LAWSON	ARGILLACEOUS SANDSTONE	4.0	243.6
307.4	CARBONDALE	LAWSON	CLAYSTONE	0.3	247.6
307.1	CARBONDALE	BRERETON	LIMESTONE	5.6	247.9
301.5	CARBONDALE	ANNA	BLACK SHALE	3.5	253.5
298.0	CARBONDALE	HERRIN	COAL	5.1	257.0

**MAPID:** 16700109000C    **VERSION:** 1    **PROJECT:** EIA-DOE  
**COUNTY:** SANGAMON    **TWP/RNG:** 14N 4W    **SECTION:** 24    **QUARTERS/FOOTAGES:** 1285' N line, 2585' W line  
**QUADRANGLE:** EDINBURG    **LONGITUDE:** -89.48785    **GEOLOGIST:** JACOBSON  
**CONFIDENTIAL:** N    **LATITUDE:** 39.651602    **DATE COLLECTED:** 1 / 0 / 1946  
**SURFACE ELEVATION (FT.):** 584.4    **LOGGED (FT.):** 297.9    **LOG TYPE:** Drillers Log  
**SOURCE:** PEABODY COAL CO.    15    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
294.0	CARBONDALE	HERRIN	COAL	7.5	290.4

MAPID: 16700109000C    VERSION: 2

PROJECT: ROOF STUDY

COUNTY: SANGAMON    TWP/RNG: 14N 4W    SECTION: 24    QUARTERS/FOOTAGES: 1285' N line, 2585' W line

QUADRANGLE: EDINBURG    LONGITUDE: -89.48785

GEOLOGIST:

CONFIDENTIAL: N    LATITUDE: 39.651602

DATE COLLECTED:

SURFACE ELEVATION (FT.): 584.0    LOGGED (FT.): 297.5

LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO.    15

WELL TYPE: Coal Test

COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
332.0	MODESTO	PIASA	LIMESTONE	4.0	252.0
328.0	CARBONDALE		SILTY SHALE	21.0	256.0
307.0	CARBONDALE	BANKSTON FORK	LIMESTONE	2.3	277.0
304.7	CARBONDALE	LAWSON	DARK GRAY SHALE	4.3	279.3
300.5	CARBONDALE	BRERETON	LIMESTONE/UNDERCLAY	2.4	283.5
298.1	CARBONDALE	ANNA	BLACK SHALE	2.5	285.9
294.0	CARBONDALE	HERRIN	COAL	7.5	290.0

---



MAPID: 16700007000C    VERSION: 1

PROJECT: NCRDS87

COUNTY: SANGAMON    TWP/RNG: 14N 4W    SECTION: 29    QUARTERS/FOOTAGES:

QUADRANGLE: NEW CITY

LONGITUDE: -89.56313

GEOLOGIST: WEIBEL

CONFIDENTIAL: N

LATITUDE: 39.634125

DATE COLLECTED:

SURFACE ELEVATION (FT.): 600.0

LOGGED (FT.): 304.5

LOG TYPE: Drillers Log

SOURCE: PEABODY COAL COMPANY

WELL TYPE: Coal Test

COMMENT: ELEVATION ESTIMATED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
600.0			UNCONSOLIDATED	56.0	0.0	
544.0			UNCLASSIFIED	10.1	56.0	
533.9			LIMESTONE	4.0	66.1	
529.9			UNCLASSIFIED	48.4	70.1	
481.5	MODESTO	CRAMER	LIMESTONE	0.8	118.5	
480.7	MODESTO		BLACK SHALE	3.7	119.3	UNCERTAIN CORRELATION
477.0	MODESTO	CHAPEL	COAL	2.0	123.0	UNCERTAIN CORRELATION
475.0	MODESTO		UNDERCLAY	1.6	125.0	
473.4	MODESTO		LIMESTONE	6.4	126.6	
467.0	MODESTO		UNCLASSIFIED	23.0	133.0	
444.0	MODESTO		LIMESTONE	19.8	156.0	
424.2	MODESTO		UNCLASSIFIED	40.1	175.8	
384.1	MODESTO		BLACK SHALE	5.0	215.9	
379.1	MODESTO		UNCLASSIFIED	9.7	220.9	
369.4	MODESTO		LIMESTONE	9.5	230.6	
359.9	MODESTO		UNCLASSIFIED	4.0	240.1	
355.9	MODESTO		LIMESTONE	7.7	244.1	
348.2	MODESTO		UNCLASSIFIED	4.7	251.8	
343.5			LIMESTONE	1.5	256.5	
342.0			BLACK SHALE	4.0	258.0	
338.0			UNCLASSIFIED	12.7	262.0	
325.3	CARBONDALE		LIMESTONE	10.8	274.7	
314.5	CARBONDALE	ANNA	BLACK SHALE	5.0	285.5	
309.5	CARBONDALE	HERRIN	COAL	8.0	290.5	
301.5	CARBONDALE		UNDERCLAY	1.5	298.5	
300.0	CARBONDALE		LIMESTONE	4.5	300.0	

MAPID: 1670059000C VERSION: 1

PROJECT: EIA-DOE

COUNTY: SANGAMON TWP/RNG: 14N 4W SECTION: 29 QUARTERS/FOOTAGES: 660' S line, 0' E line

QUADRANGLE: NEW CITY LONGITUDE: -89.553683 GEOLOGIST: JACOBSON

CONFIDENTIAL: N LATITUDE: 39.628634 DATE COLLECTED: 11 / 15 / 1957

SURFACE ELEVATION (FT.): 596.6 LOGGED (FT.): 328.7 LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO. 36 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
275.2	CARBONDALE	HERRIN	COAL	7.3	321.4

MAPID: 1670059000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 14N 4W SECTION: 29 QUARTERS/FOOTAGES: 660' S line, 0' E line

QUADRANGLE: NEW CITY LONGITUDE: -89.553683 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.628634 DATE COLLECTED:

SURFACE ELEVATION (FT.): 597.0 LOGGED (FT.): 328.3 LOG TYPE: Survey Core Study

SOURCE: PEABODY COAL CO. 36 WELL TYPE: Coal Test

COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
314.0	MODESTO	PIASA	LIMESTONE W/ SHALE	9.8	283.0
304.2	MODESTO		MOTTLED SHALE	0.2	292.8
304.0	CARBONDALE	DANVILLE	BLACK SHALE	0.2	293.0
303.8	CARBONDALE		MOTTLED SHALE	1.7	293.2
302.2	CARBONDALE	BANKSTON FORK	LIMESTONE/UNDERCLAY	4.9	294.8
297.2	CARBONDALE	LAWSON	SILTSTONE	5.3	299.8
292.0	CARBONDALE	LAWSON	LIMESTONE/UNDERCLAY	0.5	305.0
291.5	CARBONDALE	LAWSON	MOTTLED SHALE	1.8	305.5
289.7	CARBONDALE	LAWSON	ARGILLACEOUS SANDSTONE	4.2	307.3
285.6	CARBONDALE	LAWSON	SILTSTONE	0.8	311.4
284.8	CARBONDALE	BRERETON	LIMESTONE/UNDERCLAY	3.8	312.2
281.0	CARBONDALE	ANNA	BLACK SHALE	5.0	316.0
276.0	CARBONDALE	HERRIN	COAL	7.3	321.0

**MAPID:** 16700110000C    **VERSION:** 1    **PROJECT:** EIA-DOE  
**COUNTY:** SANGAMON    **TWP/RNG:** 14N 4W    **SECTION:** 30    **QUARTERS/FOOTAGES:** 1206' N line, 170' W line  
**QUADRANGLE:** NEW CITY    **LONGITUDE:** -89.590329    **GEOLOGIST:** JACOBSON  
**CONFIDENTIAL:** N    **LATITUDE:** 39.637892    **DATE COLLECTED:** 11 / 0 / 1945  
**SURFACE ELEVATION (FT.):** 596.3    **LOGGED (FT.):** 284.3    **LOG TYPE:** Drillers Log  
**SOURCE:** PEABODY COAL CO.    9    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
317.8	CARBONDALE	HERRIN	COAL	5.8	278.5	

**MAPID:** 16700111000C    **VERSION:** 1    **PROJECT:** EIA-DOE  
**COUNTY:** SANGAMON    **TWP/RNG:** 14N 4W    **SECTION:** 30    **QUARTERS/FOOTAGES:** 34' S line, 59' W line of SW  
**QUADRANGLE:** NEW CITY    **LONGITUDE:** -89.590693    **GEOLOGIST:** JACOBSON  
**CONFIDENTIAL:** N    **LATITUDE:** 39.626757    **DATE COLLECTED:** 11 / 0 / 1945  
**SURFACE ELEVATION (FT.):** 597.4    **LOGGED (FT.):** 301.4    **LOG TYPE:** Drillers Log  
**SOURCE:** PEABODY COAL CO.    10    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
303.8	CARBONDALE	HERRIN	COAL	7.8	293.6	

**MAPID:** 16701089000C    **VERSION:** 1    **PROJECT:** EIA-DOE  
**COUNTY:** SANGAMON    **TWP/RNG:** 14N 4W    **SECTION:** 30    **QUARTERS/FOOTAGES:** 15' N line, 444' E line  
**QUADRANGLE:** NEW CITY    **LONGITUDE:** -89.574268    **GEOLOGIST:** JACOBSON  
**CONFIDENTIAL:** N    **LATITUDE:** 39.641274    **DATE COLLECTED:** 6 / 3 / 1965  
**SURFACE ELEVATION (FT.):** 593.6    **LOGGED (FT.):** 289.0    **LOG TYPE:** Drillers Log  
**SOURCE:** PEABODY COAL CO.    SC91    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
311.5	CARBONDALE	HERRIN	COAL	6.9	282.1	

MAPID: 16701089000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 14N 4W SECTION: 30 QUARTERS/FOOTAGES: 15' N line, 444' E line

QUADRANGLE: NEW CITY LONGITUDE: -89.574268

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.641274

DATE COLLECTED:

SURFACE ELEVATION (FT.): 594.0 LOGGED (FT.): 288.9

LOG TYPE: Survey Core Study

SOURCE: PEABODY COAL CO. SC91

WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
382.1	CARBONDALE		CALCAREOUS SHALE	50.0	211.9
332.1	CARBONDALE	BANKSTON FORK	LIMESTONE	1.5	261.9
330.6	CARBONDALE	LAWSON	SHALE	8.5	263.4
322.1	CARBONDALE	BRERETON	LIMESTONE	4.7	271.9
317.5	CARBONDALE	ANNA	DARK GRAY SHALE	5.5	276.5
312.0	CARBONDALE	HERRIN	COAL	6.9	282.0

MAPID: 16701090000C VERSION: 1

PROJECT: EIA-DOE

COUNTY: SANGAMON TWP/RNG: 14N 4W SECTION: 31 QUARTERS/FOOTAGES: 2595' N line, 2286' E line

QUADRANGLE: PAWNEE LONGITUDE: -89.580309

GEOLOGIST: JACOBSON

CONFIDENTIAL: N LATITUDE: 39.619651

DATE COLLECTED: 5 / 15 / 1965

SURFACE ELEVATION (FT.): 595.3 LOGGED (FT.): 303.9

LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO. SC90

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
298.7	CARBONDALE	HERRIN	COAL	7.3	296.6

MAPID: 16701090000C    VERSION: 2

PROJECT: ROOF STUDY

COUNTY: SANGAMON    TWP/RNG: 14N 4W    SECTION: 31    QUARTERS/FOOTAGES: 2595' N line, 2286' E line

QUADRANGLE: PAWNEE    LONGITUDE: -89.580309    GEOLOGIST:

CONFIDENTIAL: N    LATITUDE: 39.619651    DATE COLLECTED:

SURFACE ELEVATION (FT.): 595.0    LOGGED (FT.): 304.3    LOG TYPE: Survey Core Study

SOURCE: PEABODY COAL CO.    SC90    WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
364.6	CARBONDALE		CALCAREOUS SHALE	50.0	230.4
314.6	CARBONDALE	BANKSTON FORK	LIMESTONE	0.8	280.4
313.8	CARBONDALE	LAWSON	CALCAREOUS SHALE	0.6	281.2
313.2	CARBONDALE	LAWSON	LIMESTONE	0.3	281.8
312.9	CARBONDALE	LAWSON	MOTTLED SHALE	1.7	282.1
311.2	CARBONDALE	LAWSON	GRAY SHALE	0.9	283.8
310.3	CARBONDALE	LAWSON	SILTY SHALE	2.0	284.7
308.3	CARBONDALE	BRERETON	LIMESTONE/UNDERCLAY	6.0	286.7
302.3	CARBONDALE	ANNA	BLACK SHALE	4.3	292.7
298.0	CARBONDALE	HERRIN	COAL	7.3	297.0

MAPID: 16726645000C    VERSION: 1

PROJECT: NCRDS17

COUNTY: SANGAMON    TWP/RNG: 14N 4W    SECTION: 32    QUARTERS/FOOTAGES:

QUADRANGLE: PAWNEE

LONGITUDE: -89.562769

GEOLOGIST: JMCBETH

CONFIDENTIAL: N

LATITUDE: 39.619703

DATE COLLECTED: 8 / 10 / 1977

SURFACE ELEVATION (FT.): 594.4

LOGGED (FT.): 323.3

LOG TYPE: Drillers Log

SOURCE: PEABODY    SC113C

WELL TYPE: Coal Test

COMMENT: MINE #10

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
594.4	PLEISTOCENE		UNCONSOLIDATED	15.5	0.0	
578.9	PLEISTOCENE		CLAY	5.0	15.5	
573.9	PLEISTOCENE		UNKNOWN	0.5	20.5	
573.4	PLEISTOCENE		SAND	4.0	21.0	
569.4	PLEISTOCENE		CLAY	2.0	25.0	WITH GRAVEL
567.4	PLEISTOCENE		CLAY	25.6	27.0	
541.8			ROCK	0.3	52.6	
541.5			CLAYSTONE	4.7	52.9	
536.8			COAL	0.1	57.6	
536.7			CLAYSTONE	4.4	57.7	
532.3			LIMESTONE	0.2	62.1	
532.1			CLAYSTONE	30.4	62.3	
501.7			SHALE	35.1	92.7	
466.6			LIMESTONE	0.3	127.8	
466.3			BLACK SHALE	0.1	128.1	WITH COAL STREAKS
466.2			COAL	0.9	128.2	
465.3			UNDERCLAY	2.2	129.1	SOFT
463.1			LIMESTONE	0.2	131.3	BAND
462.9			UNDERCLAY	0.6	131.5	SOFT
462.3			LIMESTONE	0.9	132.1	WITH SH
461.4			SHALE	0.5	133.0	
460.9			LIMESTONE	0.4	133.5	
460.5			SHALE	54.3	133.9	WITH SAND
406.2			SANDSTONE	6.8	188.2	WITH SH STREAKS
399.4			SHALE	1.3	195.0	WITH SS STREAKS
398.1			SANDSTONE	1.0	196.3	
397.1			SHALE	33.5	197.3	
363.6			COAL	0.4	230.8	
363.2			UNDERCLAY	1.2	231.2	
362.0			CLAYSTONE	4.4	232.4	
357.6			SHALE	3.7	236.8	
353.9			CLAYSTONE	10.5	240.5	
343.4			SHALE	14.0	251.0	
329.4			SANDSTONE	0.5	265.0	GRAY, HARD
328.9			SHALE	0.8	265.5	
328.1			BLACK SHALE	0.3	266.3	WITH COAL
327.8			CLAYSTONE	0.1	266.6	
327.7			LIMESTONE	1.9	266.7	
325.8			SHALE	4.3	268.6	

321.5			COAL	0.9	272.9	
320.6			GRAY SHALE	0.7	273.8	
319.9			CLAYSTONE	1.5	274.5	
318.4			LIMESTONE	0.9	276.0	
317.5			GRAY SHALE	0.6	276.9	
316.9	SHELburn	DANVILLE	COAL	0.1	277.5	
316.8	SHELburn		CLAYSTONE	1.3	277.6	
315.5	SHELburn		LIMESTONE	1.1	278.9	
314.4	SHELburn		SHALE	0.1	280.0	
314.3	SHELburn		LIMESTONE	0.5	280.1	
313.8	SHELburn		SHALE	1.6	280.6	
312.2	SHELburn		LIMESTONE	3.3	282.2	
308.9	SHELburn		SHALE	0.7	285.5	
308.2	SHELburn		LIMESTONE	0.4	286.2	
307.8	SHELburn		SHALE	2.2	286.6	
305.6	SHELburn		SANDSTONE	2.7	288.8	
302.9	SHELburn		GRAY SHALE	0.3	291.5	
302.6	SHELburn		SANDSTONE	9.9	291.8	
292.7	SHELburn	BRERETON	LIMESTONE	4.5	301.7	
288.2	SHELburn		SHALE	0.4	306.2	WITH LS
287.8	CARBONDALE	ANNA	BLACK SHALE	1.8	306.6	BLACK, HARD
286.0	CARBONDALE	HERRIN	COAL	7.4	308.4	
278.6	CARBONDALE		UNDERCLAY	7.5	315.8	

---

MAPID: 16700986000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 14N 5W SECTION: 3 QUARTERS/FOOTAGES: 44' S line, 18' E line

QUADRANGLE: CHATHAM

LONGITUDE: -89.629707

GEOLOGIST:

CONFIDENTIAL: N

LATITUDE: 39.684923

DATE COLLECTED:

SURFACE ELEVATION (FT.): 601.0

LOGGED (FT.): 324.3

LOG TYPE: Survey Core Study

SOURCE: PEABODY COAL CO. SC73

WELL TYPE: Coal Test

COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
355.6	CARBONDALE		LIMESTONE W/ SHALE	50.0	245.4
305.6	CARBONDALE	GALUM	LIMESTONE/UNDERCLAY	0.9	295.4
304.7	CARBONDALE	ALLENBY	BONE COAL	0.1	296.3
304.6	CARBONDALE		CLAYSTONE	1.8	296.4
302.8	CARBONDALE	BANKSTON FORK	LIMESTONE	5.0	298.2
297.8	CARBONDALE	LAWSON	MOTTLED SHALE	1.6	303.2
296.2	CARBONDALE	LAWSON	CALCAREOUS SHALE	0.2	304.8
296.0	CARBONDALE	LAWSON	GRAY SHALE	0.3	305.0
295.7	CARBONDALE	LAWSON	SILTSTONE	1.6	305.3
294.1	CARBONDALE	LAWSON	MOTTLED SHALE	0.7	306.9
293.4	CARBONDALE	BRERETON	LIMESTONE	2.9	307.6
290.5	CARBONDALE	ANNA	BLACK SHALE	5.5	310.5
285.0	CARBONDALE	HERRIN	COAL	8.3	316.0



MAPID: 16700974000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 14N 5W SECTION: 20 QUARTERS/FOOTAGES: 120' S line, 1007' W line

QUADRANGLE: CHATHAM LONGITUDE: -89.682188

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.64058

DATE COLLECTED:

SURFACE ELEVATION (FT.): 571.0 LOGGED (FT.): 237.3

LOG TYPE: Survey Core Study

SOURCE: PEABODY COAL CO. SC69

WELL TYPE: Coal Test

COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
368.3	MODESTO	PIASA	LIMESTONE	1.5	202.7
366.8	MODESTO		DARK GRAY SHALE	5.0	204.2
361.8	CARBONDALE	DANVILLE	COAL	0.3	209.2
361.4	CARBONDALE		CLAYSTONE & SHALE	0.2	209.6
361.2	CARBONDALE	GALUM	LIMESTONE/UNDERCLAY	1.0	209.8
360.3	CARBONDALE		CLAYSTONE & SHALE	2.7	210.7
357.6	CARBONDALE	BANKSTON FORK	LIMESTONE/UNDERCLAY	4.7	213.4
352.9	CARBONDALE	LAWSON	LIMESTONE W/ SHALE	2.9	218.1
350.0	CARBONDALE	LAWSON	CLAYSTONE	1.1	221.0
348.9	CARBONDALE	LAWSON	SANDSTONE	4.7	222.1
344.2	CARBONDALE	LAWSON	MOTTLED SHALE	0.2	226.8
344.1	CARBONDALE	BRERETON	LIMESTONE/UNDERCLAY	1.1	226.9
343.0	CARBONDALE	ANNA	BLACK SHALE	2.0	228.0
341.0	CARBONDALE	HERRIN	COAL	7.3	230.0

MAPID: 16700961000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 14N 5W SECTION: 22 QUARTERS/FOOTAGES: 2628' S line, 204' W line

QUADRANGLE: CHATHAM LONGITUDE: -89.647198

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.647905

DATE COLLECTED:

SURFACE ELEVATION (FT.): 600.0 LOGGED (FT.): 303.3

LOG TYPE: Survey Core Study

SOURCE: PEABODY COAL CO. SC65

WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
318.8	CARBONDALE	LAWSON	CLAYSTONE	5.8	281.2
313.0	CARBONDALE	LAWSON	DARK GRAY SHALE	2.4	287.0
310.6	CARBONDALE	BRERETON	LIMESTONE/UNDERCLAY	6.1	289.4
304.5	CARBONDALE	ANNA	CALCAREOUS SHALE	0.5	295.5
304.0	CARBONDALE	HERRIN	COAL	7.3	296.0

MAPID: 16700941000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 14N 5W SECTION: 23 QUARTERS/FOOTAGES: 310' N line, 22' W line

QUADRANGLE: CHATHAM LONGITUDE: -89.629209 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.654826 DATE COLLECTED:

SURFACE ELEVATION (FT.): 592.0 LOGGED (FT.): 285.0 LOG TYPE: Survey Core Study

SOURCE: PEABODY COAL CO. SC56 WELL TYPE: Coal Test

COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
347.1	MODESTO	PIASA	LIMESTONE	3.0	244.9
344.1	CARBONDALE		LIMESTONE W/ SHALE	9.0	247.9
335.1	CARBONDALE	BANKSTON FORK	LIMESTONE	5.5	256.9
329.6	CARBONDALE	LAWSON	DARK GRAY SHALE	1.0	262.4
328.6	CARBONDALE	LAWSON	LIMESTONE/UNDERCLAY	0.4	263.4
328.2	CARBONDALE	LAWSON	CLAYSTONE & SHALE	2.5	263.8
325.7	CARBONDALE	LAWSON	SANDSTONE/SILTSTONE	4.5	266.3
321.2	CARBONDALE	LAWSON	CLAYSTONE & SHALE	0.5	270.8
320.7	CARBONDALE	BRERETON	LIMESTONE/UNDERCLAY	1.3	271.3
319.3	CARBONDALE	ANNA	DARK GRAY SHALE	4.3	272.7
315.0	CARBONDALE	HERRIN	COAL	8.0	277.0

MAPID: 16700952000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 14N 5W SECTION: 25 QUARTERS/FOOTAGES: 156' N line, 2625' W line

QUADRANGLE: NEW CITY LONGITUDE: -89.600533 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.641105 DATE COLLECTED:

SURFACE ELEVATION (FT.): 596.0 LOGGED (FT.): 292.4 LOG TYPE: Survey Core Study

SOURCE: PEABODY COAL CO. SC59 WELL TYPE: Coal Test

COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
335.8	MODESTO	PIASA	LIMESTONE	1.0	260.2
334.8	CARBONDALE		LIMESTONE W/ SHALE	5.5	261.2
329.3	CARBONDALE	BANKSTON FORK	LIMESTONE	2.5	266.7
326.8	CARBONDALE	LAWSON	LIMESTONE W/ SHALE	1.9	269.2
324.9	CARBONDALE	LAWSON	LIMESTONE/UNDERCLAY	0.4	271.1
324.5	CARBONDALE	LAWSON	MOTTLED SHALE	1.5	271.5
323.0	CARBONDALE	LAWSON	SILTSTONE	1.4	273.0
321.6	CARBONDALE	LAWSON	GRAY SHALE	0.8	274.4
320.7	CARBONDALE	BRERETON	LIMESTONE/UNDERCLAY	4.6	275.3
316.2	CARBONDALE	ANNA	BLACK SHALE	5.2	279.8
311.0	CARBONDALE	HERRIN	COAL	7.4	285.0

MAPID: 16700939000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 14N 5W SECTION: 26 QUARTERS/FOOTAGES: 494' S line, 32' W line

QUADRANGLE: CHATHAM LONGITUDE: -89.628881

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.627812

DATE COLLECTED:

SURFACE ELEVATION (FT.): 597.0 LOGGED (FT.): 300.4

LOG TYPE: Survey Core Study

SOURCE: PEABODY COAL CO. SC54

WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
333.0	MODESTO	PIASA	LIMESTONE	2.0	264.0
331.0	CARBONDALE		LIMESTONE W/ SHALE	10.5	266.0
320.5	CARBONDALE	BANKSTON FORK	LIMESTONE	4.0	276.5
316.5	CARBONDALE	LAWSON	SHALE	5.0	280.5
311.5	CARBONDALE	BRERETON	LIMESTONE/UNDERCLAY	5.8	285.5
305.7	CARBONDALE	ANNA	BLACK SHALE	3.1	291.3
304.0	CARBONDALE	HERRIN	COAL	7.4	293.0

MAPID: 16700962000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 14N 5W SECTION: 28 QUARTERS/FOOTAGES: 31' N line, 1991' E line

QUADRANGLE: CHATHAM LONGITUDE: -89.654951

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.640409

DATE COLLECTED:

SURFACE ELEVATION (FT.): 593.0 LOGGED (FT.): 274.0

LOG TYPE: Survey Core Study

SOURCE: PEABODY COAL CO. SC64

WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
396.8	CARBONDALE		CALCAREOUS SHALE	50.0	196.2
346.8	CARBONDALE	BANKSTON FORK	LIMESTONE	10.0	246.2
336.8	CARBONDALE	LAWSON	CLAYSTONE	0.3	256.2
336.5	CARBONDALE	LAWSON	SILTSTONE	1.2	256.5
335.3	CARBONDALE	LAWSON	SILTY SHALE	4.3	257.7
331.0	CARBONDALE	LAWSON	MOTTLED SHALE	0.2	262.0
330.8	CARBONDALE	LAWSON	DARK GRAY SHALE	3.8	262.2
327.0	CARBONDALE	HERRIN	COAL	8.0	266.0

MAPID: 16700973000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 14N 5W SECTION: 30 QUARTERS/FOOTAGES: 1657' N line, 2604' W line

QUADRANGLE: CHATHAM LONGITUDE: -89.694769

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.63552

DATE COLLECTED:

SURFACE ELEVATION (FT.): 594.0 LOGGED (FT.): 261.0

LOG TYPE: Survey Core Study

SOURCE: PEABODY COAL CO. SC71

WELL TYPE: Coal Test

COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
374.4	MODESTO	PIASA	LIMESTONE	2.5	219.6	
371.9	MODESTO		SHALE	1.5	222.1	
370.4	CARBONDALE	DANVILLE	BLACK SHALE	2.0	223.6	
368.4	CARBONDALE		CLAYSTONE & SHALE	8.0	225.6	
360.4	CARBONDALE	BANKSTON FORK	NODULAR LIMESTONE	5.2	233.6	UPPER BENCH
355.2	CARBONDALE	BANKSTON FORK	MOTTLED SHALE	0.4	238.8	SHALE PARTING
354.8	CARBONDALE	BANKSTON FORK	NODULAR LIMESTONE	0.5	239.2	LOWER BENCH
354.3	CARBONDALE	LAWSON	MOTTLED SHALE	1.3	239.7	
353.1	CARBONDALE	LAWSON	LIMESTONE/UNDERCLAY	0.7	240.9	
352.4	CARBONDALE	LAWSON	CLAYSTONE	0.8	241.6	
351.6	CARBONDALE	LAWSON	ARGILLACEOUS SANDSTONE	0.8	242.4	
350.7	CARBONDALE	LAWSON	MOTTLED SHALE	1.3	243.3	
349.5	CARBONDALE	BRERETON	LIMESTONE/UNDERCLAY	5.8	244.5	
343.7	CARBONDALE	ANNA	BLACK SHALE	2.8	250.3	
341.0	CARBONDALE	HERRIN	COAL	8.0	253.0	

MAPID: 16700972000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 14N 5W SECTION: 32 QUARTERS/FOOTAGES: 1387' S line, 2051' E line

QUADRANGLE: DIVERNON LONGITUDE: -89.673788

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.6149

DATE COLLECTED:

SURFACE ELEVATION (FT.): 599.0 LOGGED (FT.): 280.8

LOG TYPE: Survey Core Study

SOURCE: PEABODY COAL CO. SC70

WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
399.0	CARBONDALE		CALCAREOUS SHALE	50.0	200.0	
349.0	CARBONDALE	BANKSTON FORK	LIMESTONE	4.5	250.0	UPPER BENCH
344.5	CARBONDALE	BANKSTON FORK	SHALE	1.0	254.5	SHALE PARTING
343.5	CARBONDALE	BANKSTON FORK	NODULAR LIMESTONE	2.5	255.5	LOWER BENCH
341.0	CARBONDALE	LAWSON	SHALE	5.0	258.0	
336.0	CARBONDALE	LAWSON	SANDSTONE	7.0	263.0	
329.0	CARBONDALE	BRERETON	LIMESTONE/UNDERCLAY	2.7	270.0	
326.3	CARBONDALE	ANNA	CALCAREOUS SHALE	0.3	272.7	
326.0	CARBONDALE	HERRIN	COAL	7.8	273.0	

MAPID: 16700955000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 14N 5W SECTION: 34 QUARTERS/FOOTAGES: 20' N line, 154' W line

QUADRANGLE: CHATHAM LONGITUDE: -89.647013

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.626046

DATE COLLECTED:

SURFACE ELEVATION (FT.): 603.0 LOGGED (FT.): 302.5

LOG TYPE: Survey Core Study

SOURCE: PEABODY COAL CO. SC63

WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
382.0	CARBONDALE		CALCAREOUS SHALE	50.0	221.0
332.0	CARBONDALE	BANKSTON FORK	LIMESTONE	6.0	271.0
326.0	CARBONDALE	LAWSON	MOTTLED SHALE	1.0	277.0
325.0	CARBONDALE	LAWSON	SILTY SHALE	3.2	278.0
321.8	CARBONDALE	LAWSON	ARGILLACEOUS SANDSTONE	6.0	281.2
315.8	CARBONDALE	BRERETON	LIMESTONE	2.2	287.2
313.6	CARBONDALE	ANNA	BLACK SHALE	5.6	289.4
308.0	CARBONDALE	HERRIN	COAL	7.5	295.0

MAPID: 16701285000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 14N 6W SECTION: 2 QUARTERS/FOOTAGES: 73' N line, 12' W line

QUADRANGLE: CHATHAM LONGITUDE: -89.742476

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.697878

DATE COLLECTED:

SURFACE ELEVATION (FT.): 609.0 LOGGED (FT.): 202.3

LOG TYPE: Survey Core Study

SOURCE: DIKOR DIVISION OF SERV-K NN-1

WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
439.0	MODESTO	PIASA	LIMESTONE	3.0	170.0
436.0	CARBONDALE		SHALE	14.0	173.0
422.0	CARBONDALE	BANKSTON FORK	LIMESTONE	3.0	187.0
419.0	CARBONDALE	LAWSON	SHALE	1.5	190.0
417.5	CARBONDALE	BRERETON	LIMESTONE	2.0	191.5
415.5	CARBONDALE	ANNA	DARK GRAY SHALE	3.8	193.5
411.0	CARBONDALE	HERRIN	COAL	4.3	198.0

MAPID: 16701286000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 14N 6W SECTION: 4 QUARTERS/FOOTAGES: 1818' N line, 2616' W line

QUADRANGLE: LOAMI

LONGITUDE: -89.770656

GEOLOGIST:

CONFIDENTIAL: N

LATITUDE: 39.693077

DATE COLLECTED:

SURFACE ELEVATION (FT.): 587.0

LOGGED (FT.): 151.5

LOG TYPE: Drillers Log

SOURCE: DIKOR DIVISION OF SERV-K NN-2

WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
455.0	MODESTO	PIASA	LIMESTONE	3.0	132.0
452.0	CARBONDALE		GRAY SHALE	9.0	135.0
443.0	CARBONDALE	BRERETON	LIMESTONE	3.0	144.0
440.0	CARBONDALE	ANNA	BLACK SHALE	1.0	147.0
439.0	CARBONDALE	HERRIN	COAL	3.5	148.0

MAPID: 16701766000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 14N 6W SECTION: 8 QUARTERS/FOOTAGES: 45' S line, 50' W line

QUADRANGLE: LOAMI

LONGITUDE: -89.798364

GEOLOGIST:

CONFIDENTIAL: N

LATITUDE: 39.668924

DATE COLLECTED:

SURFACE ELEVATION (FT.): 611.0

LOGGED (FT.): 183.1

LOG TYPE: Survey Core Study

SOURCE: PIAMCO INC. P209

WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
481.0	MODESTO	PIASA	LIMESTONE/UNDERCLAY	15.0	130.0
466.0	CARBONDALE		MOTTLED SHALE	23.2	145.0
442.8	CARBONDALE	BANKSTON FORK	LIMESTONE/UNDERCLAY	2.9	168.2
439.9	CARBONDALE	LAWSON	MOTTLED SHALE	2.4	171.1
437.5	CARBONDALE	BRERETON	LIMESTONE	0.3	173.5
437.2	CARBONDALE	ANNA	DARK GRAY SHALE	2.6	173.8
434.0	CARBONDALE	HERRIN	COAL	6.1	177.0

MAPID: 16701273000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 14N 6W SECTION: 12 QUARTERS/FOOTAGES: 2605' S line, 17' E line

QUADRANGLE: CHATHAM LONGITUDE: -89.704681

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.676307

DATE COLLECTED:

SURFACE ELEVATION (FT.): 608.0 LOGGED (FT.): 218.0

LOG TYPE: Drillers Log

SOURCE: DIKOR DIVISION OF SERV-K N-1

WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
422.0	MODESTO	PIASA	LIMESTONE	3.0	186.0
419.0	CARBONDALE		SILTY SHALE	15.0	189.0
404.0	CARBONDALE	BRERETON	LIMESTONE/UNDERCLAY	6.0	204.0
398.0	CARBONDALE	ANNA	BLACK SHALE	2.0	210.0
396.0	CARBONDALE	HERRIN	COAL	6.0	212.0

MAPID: 16701850000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 14N 6W SECTION: 14 QUARTERS/FOOTAGES: 25' N line, 2630' E line

QUADRANGLE: CHATHAM LONGITUDE: -89.732836

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.668894

DATE COLLECTED:

SURFACE ELEVATION (FT.): 602.0 LOGGED (FT.): 237.3

LOG TYPE: Survey Core Study

SOURCE: SANGAMON COUNTY LAND COMPANY Q213

WELL TYPE: Coal Test

COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
393.3	MODESTO	PIASA	LIMESTONE/UNDERCLAY	0.9	208.7
392.4	CARBONDALE	DANVILLE	BONE COAL	0.8	209.6
391.6	CARBONDALE		CLAYSTONE	0.7	210.4
390.9	CARBONDALE	BANKSTON FORK	LIMESTONE/UNDERCLAY	4.0	211.1
386.9	CARBONDALE	LAWSON	MOTTLED SHALE	2.0	215.1
384.9	CARBONDALE	LAWSON	SILTSTONE	2.0	217.1
382.9	CARBONDALE	LAWSON	SANDSTONE	1.1	219.1
381.8	CARBONDALE	LAWSON	SILTY SHALE	0.9	220.2
380.9	CARBONDALE	BRERETON	LIMESTONE	8.3	221.1
372.6	CARBONDALE	ANNA	BLACK SHALE	0.6	229.4
372.0	CARBONDALE	HERRIN	COAL	7.3	230.0

MAPID: 16701274000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 14N 6W SECTION: 16 QUARTERS/FOOTAGES: 27' N line, 125' W line

QUADRANGLE: LOAMI LONGITUDE: -89.779176 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.66866 DATE COLLECTED:

SURFACE ELEVATION (FT.): 603.0 LOGGED (FT.): 185.5 LOG TYPE: Drillers Log

SOURCE: DIKOR DIVISION OF SERV-K N-2 WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
461.0	MODESTO	PIASA	LIMESTONE/UNDERCLAY	12.0	142.0	
449.0	CARBONDALE	BANKSTON FORK	SHALE & SANDSTONE	14.0	154.0	
435.0	CARBONDALE	LAWSON	SHALE	3.0	168.0	
432.0	CARBONDALE	BRERETON	LIMESTONE	6.0	171.0	
426.0	CARBONDALE	ANNA	BLACK SHALE	1.0	177.0	
423.0	CARBONDALE	HERRIN	COAL	5.5	180.0	

MAPID: 16701767000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 14N 6W SECTION: 18 QUARTERS/FOOTAGES: 1450' S line, 127' W line

QUADRANGLE: LOAMI LONGITUDE: -89.814384 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.658082 DATE COLLECTED:

SURFACE ELEVATION (FT.): 610.0 LOGGED (FT.): 204.3 LOG TYPE: Survey Core Study

SOURCE: PIAMCO INC. P26K WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
457.3	MODESTO	PIASA	LIMESTONE/UNDERCLAY	11.0	152.7	
446.3	CARBONDALE		CALCAREOUS SHALE	18.0	163.7	
428.3	CARBONDALE	BANKSTON FORK	LIMESTONE	1.4	181.7	UPPER BENCH
426.9	CARBONDALE	BANKSTON FORK	SHALE	2.2	183.1	SHALE PARTING
424.7	CARBONDALE	BANKSTON FORK	LIMESTONE	1.0	185.3	LOWER BENCH
423.7	CARBONDALE	LAWSON	ARGILLACEOUS SANDSTONE	3.6	186.3	
420.1	CARBONDALE	LAWSON	MOTTLED SHALE	0.1	189.9	
420.0	CARBONDALE	BRERETON	LIMESTONE/UNDERCLAY	4.5	190.0	
415.5	CARBONDALE	ANNA	BLACK SHALE	3.5	194.5	
412.0	CARBONDALE	HERRIN	COAL	6.3	198.0	



MAPID: 16701768000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 14N 6W SECTION: 19 QUARTERS/FOOTAGES: 50' N line, 1350' E line

QUADRANGLE: LOAMI LONGITUDE: -89.803171 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.654076 DATE COLLECTED:

SURFACE ELEVATION (FT.): 602.0 LOGGED (FT.): 190.1 LOG TYPE: Survey Core Study

SOURCE: PIAMCO INC. L607 WELL TYPE: Coal Test

COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
442.7	MODESTO	PIASA	LIMESTONE	4.0	159.3	
438.7	CARBONDALE		SHALE	10.0	163.3	
428.7	CARBONDALE	BANKSTON FORK	LIMESTONE/UNDERCLAY	4.3	173.3	
424.5	CARBONDALE	LAWSON	MOTTLED SHALE	2.3	177.5	
422.2	CARBONDALE	LAWSON	ARGILLACEOUS SANDSTONE	2.7	179.8	
419.5	CARBONDALE	LAWSON	BLACK SHALE	0.3	182.5	
419.2	CARBONDALE	LAWSON	GRAY SHALE	0.7	182.8	
418.5	CARBONDALE	LAWSON	DARK GRAY SHALE	0.5	183.5	
418.0	CARBONDALE	HERRIN	COAL	6.1	184.0	

MAPID: 16701715000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 14N 6W SECTION: 20 QUARTERS/FOOTAGES: 15' S line, 0' E line

QUADRANGLE: LOAMI LONGITUDE: -89.779389 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.639677 DATE COLLECTED:

SURFACE ELEVATION (FT.): 615.0 LOGGED (FT.): 207.3 LOG TYPE: Drillers Log

SOURCE: PIAMCO INC. L417 WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
446.0	MODESTO	PIASA	LIMESTONE	2.5	169.0	
443.5	CARBONDALE		ROCK	11.5	171.5	
432.0	CARBONDALE	BANKSTON FORK	LIMESTONE	4.5	183.0	UPPER BENCH
427.5	CARBONDALE	BANKSTON FORK	SHALE	2.5	187.5	SHALE PARTING
425.0	CARBONDALE	BANKSTON FORK	LIMESTONE	1.5	190.0	LOWER BENCH
423.5	CARBONDALE	LAWSON	SHALE	5.0	191.5	
418.5	CARBONDALE	BRERETON	LIMESTONE	4.0	196.5	
414.5	CARBONDALE	ANNA	SHALE	0.3	200.5	
414.0	CARBONDALE	HERRIN	COAL	6.3	201.0	

MAPID: 16701711000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 14N 6W SECTION: 21 QUARTERS/FOOTAGES: 25' N line, 10' W line

QUADRANGLE: LOAMI LONGITUDE: -89.779411 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.654091 DATE COLLECTED:

SURFACE ELEVATION (FT.): 610.0 LOGGED (FT.): 205.8 LOG TYPE: Survey Core Study

SOURCE: PIAMCO INC. L617 WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
441.5	MODESTO	PIASA	LIMESTONE	2.5	168.5	
439.0	CARBONDALE		MOTTLED SHALE	4.5	171.0	
434.5	CARBONDALE	BANKSTON FORK	LIMESTONE	3.0	175.5	UPPER BENCH
431.5	CARBONDALE	BANKSTON FORK	SHALE	5.5	178.5	SHALE PARTING
426.0	CARBONDALE	BANKSTON FORK	LIMESTONE/UNDERCLAY	2.5	184.0	LOWER BENCH
423.5	CARBONDALE	LAWSON	SHALE	3.5	186.5	
420.0	CARBONDALE	LAWSON	SILTSTONE	1.8	190.0	
418.2	CARBONDALE	BRERETON	LIMESTONE/UNDERCLAY	4.5	191.8	
413.7	CARBONDALE	ANNA	CARBONACEOUS SHALE	2.7	196.3	
411.0	CARBONDALE	HERRIN	COAL	6.8	199.0	

MAPID: 16701712000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 14N 6W SECTION: 22 QUARTERS/FOOTAGES: 10' N line, 2625' W line

QUADRANGLE: LOAMI LONGITUDE: -89.751334 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.654337 DATE COLLECTED:

SURFACE ELEVATION (FT.): 615.0 LOGGED (FT.): 215.6 LOG TYPE: Survey Core Study

SOURCE: PIAMCO INC. M605 WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
442.6	MODESTO	PIASA	LIMESTONE	3.0	172.4	
439.6	CARBONDALE		CALCAREOUS SHALE	6.0	175.4	
433.6	CARBONDALE	GALUM	LIMESTONE	2.5	181.4	
431.1	CARBONDALE		CALCAREOUS SHALE	10.0	183.9	
421.1	CARBONDALE	BANKSTON FORK	LIMESTONE/UNDERCLAY	0.8	193.9	UPPER BENCH
420.3	CARBONDALE	BANKSTON FORK	MOTTLED SHALE	1.8	194.7	SHALE PARTING
418.6	CARBONDALE	BANKSTON FORK	LIMESTONE/UNDERCLAY	1.0	196.4	LOWER BENCH
417.6	CARBONDALE	LAWSON	MOTTLED SHALE	0.4	197.4	
417.2	CARBONDALE	LAWSON	SILTSTONE	4.5	197.8	
412.7	CARBONDALE	BRERETON	LIMESTONE	5.0	202.3	
407.7	CARBONDALE	ANNA	DARK GRAY SHALE	1.8	207.3	
406.0	CARBONDALE	HERRIN	COAL	6.6	209.0	

MAPID: 16701769000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 14N 6W SECTION: 24 QUARTERS/FOOTAGES: 1980' N line, 0' W line

QUADRANGLE: CHATHAM LONGITUDE: -89.722932

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.64902

DATE COLLECTED:

SURFACE ELEVATION (FT.): 612.0 LOGGED (FT.): 249.1

LOG TYPE: Survey Core Study

SOURCE: PIAMCO INC. M526

WELL TYPE: Coal Test

COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
399.5	MODESTO	PIASA	LIMESTONE/UNDERCLAY	1.8	212.5	
397.8	MODESTO		CLAYSTONE & SHALE	3.1	214.2	
394.7	CARBONDALE	DANVILLE	BLACK SHALE	0.5	217.3	
394.2	CARBONDALE	GALUM	LIMESTONE/UNDERCLAY	2.3	217.8	
391.9	CARBONDALE		CLAYSTONE	2.0	220.1	
389.9	CARBONDALE	BANKSTON FORK	LIMESTONE/UNDERCLAY	3.5	222.1	UPPER BENCH
386.4	CARBONDALE	BANKSTON FORK	CLAYSTONE & SHALE	1.5	225.6	SHALE PARTING
384.9	CARBONDALE	BANKSTON FORK	LIMESTONE/UNDERCLAY	5.1	227.1	LOWER BENCH
379.8	CARBONDALE	LAWSON	SILTSTONE	0.7	232.2	
379.1	CARBONDALE	LAWSON	LIMESTONE/UNDERCLAY	0.2	232.9	
378.9	CARBONDALE	LAWSON	SILTSTONE	2.3	233.1	
376.7	CARBONDALE	LAWSON	SILTY SHALE	1.1	235.3	
375.6	CARBONDALE	LAWSON	MOTTLED SHALE	1.2	236.4	
374.4	CARBONDALE	BRERETON	LIMESTONE/UNDERCLAY	2.9	237.6	
371.5	CARBONDALE	ANNA	DARK GRAY SHALE	0.5	240.5	
371.0	CARBONDALE	HERRIN	COAL	8.1	241.0	

MAPID: 16701770000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 14N 6W SECTION: 27 QUARTERS/FOOTAGES: 650' S line, 1250' W line

QUADRANGLE: LOAMI LONGITUDE: -89.755919

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.626995

DATE COLLECTED:

SURFACE ELEVATION (FT.): 622.0 LOGGED (FT.): 229.1

LOG TYPE: Survey Core Study

SOURCE: PIAMCO INC. M228

WELL TYPE: Coal Test

COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
442.0	MODESTO	PIASA	LIMESTONE	11.0	180.0	
431.0	CARBONDALE		CALCAREOUS SHALE	18.4	191.0	
412.6	CARBONDALE	BANKSTON FORK	LIMESTONE/UNDERCLAY	4.7	209.4	UPPER BENCH
407.9	CARBONDALE	BANKSTON FORK	MOTTLED SHALE	0.4	214.1	SHALE PARTING
407.5	CARBONDALE	BANKSTON FORK	LIMESTONE/UNDERCLAY	0.7	214.5	LOWER BENCH
406.8	CARBONDALE	LAWSON	MOTTLED SHALE	2.4	215.2	
404.4	CARBONDALE	LAWSON	LIMESTONE	0.2	217.6	
404.2	CARBONDALE	LAWSON	CLAYSTONE	0.7	217.8	
403.5	CARBONDALE	ANNA	BLACK SHALE	3.5	218.5	
400.0	CARBONDALE	HERRIN	COAL	7.1	222.0	

MAPID: 16701713000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 14N 6W SECTION: 29 QUARTERS/FOOTAGES: 25' N line, 2630' E line

QUADRANGLE: LOAMI LONGITUDE: -89.788778 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.639602 DATE COLLECTED:

SURFACE ELEVATION (FT.): 616.0 LOGGED (FT.): 212.3 LOG TYPE: Survey Core Study

SOURCE: PIAMCO INC. L413 WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
451.6	MODESTO	PIASA	CALCAREOUS SHALE	1.0	164.4
450.6	CARBONDALE		SHALE	22.0	165.4
428.6	CARBONDALE	BANKSTON FORK	LIMESTONE	3.5	187.4
425.1	CARBONDALE	LAWSON	CLAYSTONE & SHALE	2.5	190.9
422.6	CARBONDALE	LAWSON	LIMESTONE	0.3	193.4
422.3	CARBONDALE	LAWSON	SILTY SHALE	2.2	193.7
420.1	CARBONDALE	LAWSON	SHALE	2.0	195.9
418.1	CARBONDALE	BRERETON	LIMESTONE/UNDERCLAY	4.7	197.9
413.4	CARBONDALE	ANNA	BLACK SHALE	2.4	202.6
411.0	CARBONDALE	HERRIN	COAL	7.3	205.0

MAPID: 16701394000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 14N 6W SECTION: 33 QUARTERS/FOOTAGES: 0' N line, 0' W line

QUADRANGLE: VIRDEN NORTH LONGITUDE: -89.779192 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.625134 DATE COLLECTED:

SURFACE ELEVATION (FT.): 625.0 LOGGED (FT.): 227.9 LOG TYPE: Survey Core Study

SOURCE: ATLANTIC RICHFIELD V-4A WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
440.0	MODESTO	PIASA	LIMESTONE	2.0	185.0
438.0	CARBONDALE		CALCAREOUS SHALE	25.0	187.0
413.0	CARBONDALE	BANKSTON FORK	LIMESTONE	4.4	212.0
408.6	CARBONDALE	LAWSON	SHALE	3.0	216.4
405.6	CARBONDALE	BRERETON	LIMESTONE	1.3	219.4
404.3	CARBONDALE	ANNA	DARK GRAY SHALE	1.3	220.7
403.0	CARBONDALE	HERRIN	COAL	5.9	222.0

MAPID: 16701266000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 14N 7W SECTION: 7 QUARTERS/FOOTAGES: 2620' N line, 515' W line

QUADRANGLE: NEW BERLIN LONGITUDE: -89.925316

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.675063

DATE COLLECTED:

SURFACE ELEVATION (FT.): 636.0 LOGGED (FT.): 179.0

LOG TYPE: Survey Core Study

SOURCE: DIKOR DIVISION OF SERV-K N-6

WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
502.4	MODESTO	PIASA	LIMESTONE	4.0	133.6
498.4	CARBONDALE		SHALE & SANDSTONE	28.0	137.6
470.4	CARBONDALE	BANKSTON FORK	LIMESTONE	1.9	165.6
468.5	CARBONDALE	LAWSON	CLAYSTONE	0.7	167.5
467.8	CARBONDALE	LAWSON	MOTTLED SHALE	2.1	168.2
465.7	CARBONDALE	BRERETON	LIMESTONE	2.2	170.3
463.5	CARBONDALE	ANNA	DARK GRAY SHALE	2.5	172.5
461.0	CARBONDALE	HERRIN	COAL	4.0	175.0

MAPID: 16701391000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 14N 7W SECTION: 9 QUARTERS/FOOTAGES: 2640' S line, 0' E line

QUADRANGLE: LOAMI LONGITUDE: -89.871431

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.675315

DATE COLLECTED:

SURFACE ELEVATION (FT.): 640.0 LOGGED (FT.): 225.6

LOG TYPE: Drillers Log

SOURCE: ATLANTIC RICHFIELD V-1A

WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
450.6	CARBONDALE		CLAYSTONE & SHALE	6.0	189.4
444.6	CARBONDALE	BANKSTON FORK	LIMESTONE/UNDERCLAY	3.0	195.4
441.6	CARBONDALE	LAWSON	MOTTLED SHALE	5.2	198.4
436.4	CARBONDALE	LAWSON	SHALE	10.4	203.6
426.0	CARBONDALE	BRERETON	LIMESTONE	4.6	214.0
421.4	CARBONDALE	ANNA	DARK GRAY SHALE	1.4	218.6
420.0	CARBONDALE	HERRIN	COAL	5.6	220.0

MAPID: 16701276000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 14N 7W SECTION: 10 QUARTERS/FOOTAGES: 2609' S line, 2123' W line

QUADRANGLE: LOAMI LONGITUDE: -89.863847 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.675292 DATE COLLECTED:

SURFACE ELEVATION (FT.): 640.0 LOGGED (FT.): 207.0 LOG TYPE: Survey Core Study

SOURCE: DIKOR DIVISION OF SERV-K N-4 WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
474.0	MODESTO	PIASA	LIMESTONE W/ SHALE	10.0	166.0
464.0	CARBONDALE		SHALE	16.0	176.0
448.0	CARBONDALE	BANKSTON FORK	LIMESTONE	2.5	192.0
445.5	CARBONDALE	LAWSON	SHALE	4.0	194.5
441.5	CARBONDALE	BRERETON	LIMESTONE	2.4	198.5
439.1	CARBONDALE	ANNA	DARK GRAY SHALE	1.1	200.9
438.0	CARBONDALE	HERRIN	COAL	5.0	202.0

MAPID: 16701772000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 14N 7W SECTION: 12 QUARTERS/FOOTAGES: 2565' N line, 1295' W line

QUADRANGLE: LOAMI LONGITUDE: -89.829099 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.676013 DATE COLLECTED:

SURFACE ELEVATION (FT.): 600.0 LOGGED (FT.): 222.2 LOG TYPE: Survey Core Study

SOURCE: PIAMCO INC. Q319 WELL TYPE: Coal Test

COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
411.5	MODESTO	PIASA	LIMESTONE	2.0	188.5
409.5	CARBONDALE		SHALE	6.4	190.5
403.1	CARBONDALE	GALUM	LIMESTONE/UNDERCLAY	0.3	196.9
402.8	CARBONDALE		MOTTLED SHALE	3.1	197.2
399.7	CARBONDALE	BANKSTON FORK	LIMESTONE/UNDERCLAY	4.4	200.3
395.3	CARBONDALE	LAWSON	MOTTLED SHALE	2.4	204.7
392.9	CARBONDALE	LAWSON	SILTSTONE	1.3	207.1
391.6	CARBONDALE	BRERETON	LIMESTONE/UNDERCLAY	6.2	208.4
385.4	CARBONDALE	ANNA	DARK GRAY SHALE	1.4	214.6
384.0	CARBONDALE	HERRIN	COAL	6.2	216.0

MAPID: 16701852000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 14N 7W SECTION: 14 QUARTERS/FOOTAGES: 2640' S line, 1980' W line

QUADRANGLE: LOAMI LONGITUDE: -89.845278

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.661031

DATE COLLECTED:

SURFACE ELEVATION (FT.): 630.0 LOGGED (FT.): 209.4

LOG TYPE: Survey Core Study

SOURCE: SANGAMON COUNTY LAND COMPANY O112

WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
458.0	MODESTO	PIASA	LIMESTONE	2.7	172.0
455.3	MODESTO		MOTTLED SHALE	10.8	174.7
444.5	CARBONDALE	DANVILLE	CARBONACEOUS SHALE	0.4	185.5
444.1	CARBONDALE		SILTY SHALE	4.6	185.9
439.5	CARBONDALE	BANKSTON FORK	NODULAR LIMESTONE	5.0	190.5
434.5	CARBONDALE	LAWSON	MOTTLED SHALE	2.1	195.5
432.4	CARBONDALE	BRERETON	CARBONACEOUS LIMESTONE	0.4	197.6
432.0	CARBONDALE	ANNA	DARK GRAY SHALE	3.2	198.0
427.0	CARBONDALE	HERRIN	COAL	6.4	203.0

MAPID: 16701773000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 14N 7W SECTION: 15 QUARTERS/FOOTAGES: 60' N line, 365' W line

QUADRANGLE: LOAMI LONGITUDE: -89.870031

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.667872

DATE COLLECTED:

SURFACE ELEVATION (FT.): 610.0 LOGGED (FT.): 206.1

LOG TYPE: Survey Core Study

SOURCE: PIAMCO INC. Q201B

WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
433.9	CARBONDALE		DARK GRAY SHALE	13.0	176.1
420.9	CARBONDALE	BANKSTON FORK	LIMESTONE/UNDERCLAY	3.7	189.1
417.2	CARBONDALE	LAWSON	MOTTLED SHALE	1.5	192.8
415.7	CARBONDALE	LAWSON	ARGILLACEOUS SANDSTONE	0.2	194.3
415.5	CARBONDALE	BRERETON	LIMESTONE	2.1	194.5
413.4	CARBONDALE	ANNA	BLACK SHALE	2.4	196.6
411.0	CARBONDALE	HERRIN	COAL	7.1	199.0

MAPID: 16701716000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 14N 7W SECTION: 21 QUARTERS/FOOTAGES: 2630' S line, 1980' E line

QUADRANGLE: NEW BERLIN LONGITUDE: -89.87805 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.6463 DATE COLLECTED:

SURFACE ELEVATION (FT.): 638.0 LOGGED (FT.): 226.9 LOG TYPE: Survey Core Study

SOURCE: PIAMCO INC. J522 WELL TYPE: Coal Test

COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
448.8	MODESTO	PIASA	LIMESTONE	3.5	189.2	
445.3	CARBONDALE		CALCAREOUS SHALE	14.5	192.7	
430.8	CARBONDALE	BANKSTON FORK	LIMESTONE	2.3	207.2	
428.5	CARBONDALE	LAWSON	CLAYSTONE & SHALE	2.6	209.5	
426.0	CARBONDALE	LAWSON	SILTSTONE	1.0	212.0	
425.0	CARBONDALE	BRERETON	LIMESTONE/UNDERCLAY	6.0	213.0	
419.0	CARBONDALE	ANNA	BLACK SHALE	2.0	219.0	
417.0	CARBONDALE	HERRIN	COAL	5.9	221.0	

MAPID: 16701717000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 14N 7W SECTION: 22 QUARTERS/FOOTAGES: 2630' N line, 1430' W line

QUADRANGLE: LOAMI LONGITUDE: -89.865875 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.646317 DATE COLLECTED:

SURFACE ELEVATION (FT.): 635.0 LOGGED (FT.): 212.7 LOG TYPE: Survey Core Study

SOURCE: PIAMCO INC. K503 WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
460.8	MODESTO	PIASA	LIMESTONE	3.5	174.2	
457.3	CARBONDALE		SHALE	11.5	177.7	
445.8	CARBONDALE	BANKSTON FORK	LIMESTONE/UNDERCLAY	7.4	189.2	UPPER BENCH
438.5	CARBONDALE	BANKSTON FORK	MOTTLED SHALE	0.2	196.5	SHALE PARTING
438.3	CARBONDALE	BANKSTON FORK	LIMESTONE/UNDERCLAY	1.8	196.7	LOWER BENCH
436.5	CARBONDALE	LAWSON	MOTTLED SHALE	2.5	198.5	
434.0	CARBONDALE	LAWSON	SILTSTONE	0.3	201.0	
433.7	CARBONDALE	LAWSON	NODULAR LIMESTONE	0.8	201.3	
432.9	CARBONDALE	LAWSON	ARGILLACEOUS SANDSTONE	3.5	202.1	
429.4	CARBONDALE	ANNA	MOTTLED SHALE	1.4	205.6	
428.0	CARBONDALE	HERRIN	COAL	5.7	207.0	



MAPID: 16701721000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 14N 7W SECTION: 23 QUARTERS/FOOTAGES: 2620' S line, 792' W line

QUADRANGLE: LOAMI LONGITUDE: -89.849348 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.646461 DATE COLLECTED:

SURFACE ELEVATION (FT.): 625.0 LOGGED (FT.): 203.8 LOG TYPE: Survey Core Study

SOURCE: PIAMCO INC. K510N WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
462.7	MODESTO	PIASA	LIMESTONE	4.0	162.3	
458.7	CARBONDALE		CALCAREOUS SHALE	19.0	166.3	
439.7	CARBONDALE	BANKSTON FORK	LIMESTONE	0.6	185.3	UPPER BENCH
439.1	CARBONDALE	BANKSTON FORK	GRAY SHALE	0.2	185.9	SHALE PARTING
438.9	CARBONDALE	BANKSTON FORK	LIMESTONE	2.4	186.1	LOWER BENCH
436.6	CARBONDALE	LAWSON	MOTTLED SHALE	2.4	188.4	
434.2	CARBONDALE	LAWSON	SANDSTONE	1.1	190.8	
433.1	CARBONDALE	LAWSON	SILTY SHALE	0.2	191.9	
432.9	CARBONDALE	BRERETON	LIMESTONE/UNDERCLAY	4.1	192.1	
428.8	CARBONDALE	ANNA	BLACK SHALE	2.8	196.2	
426.0	CARBONDALE	HERRIN	COAL	4.8	199.0	

MAPID: 16701723000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 14N 7W SECTION: 24 QUARTERS/FOOTAGES: 2600' N line, 1310' W line

QUADRANGLE: LOAMI LONGITUDE: -89.828612 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.646819 DATE COLLECTED:

SURFACE ELEVATION (FT.): 600.0 LOGGED (FT.): 186.8 LOG TYPE: Survey Core Study

SOURCE: PIAMCO INC. K519 WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
453.0	MODESTO	PIASA	LIMESTONE	3.0	147.0	
450.0	MODESTO		SHALE	11.5	150.0	
438.5	CARBONDALE	DANVILLE	DARK GRAY SHALE	2.0	161.5	
436.5	CARBONDALE		CLAYSTONE	6.5	163.5	
430.0	CARBONDALE	BANKSTON FORK	NODULAR LIMESTONE	2.1	170.0	UPPER BENCH
427.9	CARBONDALE	BANKSTON FORK	MOTTLED SHALE	0.0	172.1	SHALE PARTING
427.9	CARBONDALE	BANKSTON FORK	LIMESTONE/UNDERCLAY	2.9	172.1	LOWER BENCH
425.0	CARBONDALE	LAWSON	MOTTLED SHALE	3.1	175.0	
421.9	CARBONDALE	BRERETON	LIMESTONE/UNDERCLAY	2.1	178.1	
419.8	CARBONDALE	ANNA	DARK GRAY SHALE	0.6	180.2	
419.0	CARBONDALE	HERRIN	COAL	5.8	181.0	

MAPID: 16701392000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 14N 7W SECTION: 26 QUARTERS/FOOTAGES: 990' N line, 2310' W line

QUADRANGLE: LOAMI LONGITUDE: -89.843761 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.636588 DATE COLLECTED:

SURFACE ELEVATION (FT.): 600.0 LOGGED (FT.): 178.4 LOG TYPE: Survey Core Study

SOURCE: ATLANTIC RICHFIELD V-2 WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
453.7	MODESTO	PIASA	LIMESTONE	5.0	146.3
448.7	CARBONDALE		SHALE	6.0	151.3
442.7	CARBONDALE	GALUM	LIMESTONE	1.0	157.3
441.7	CARBONDALE		CALCAREOUS SHALE	6.0	158.3
435.7	CARBONDALE	BANKSTON FORK	LIMESTONE	1.9	164.3
433.7	CARBONDALE	LAWSON	CLAYSTONE	0.3	166.3
433.4	CARBONDALE	LAWSON	CONGLOMERATE	2.2	166.6
431.2	CARBONDALE	BRERETON	LIMESTONE	3.3	168.8
428.0	CARBONDALE	ANNA	DARK GRAY SHALE	1.0	172.0
427.0	CARBONDALE	HERRIN	COAL	5.4	173.0

MAPID: 16701862000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 14N 7W SECTION: 36 QUARTERS/FOOTAGES: 2630' N line, 20' W line

QUADRANGLE: VIRDEN NORTH LONGITUDE: -89.832373 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.617754 DATE COLLECTED:

SURFACE ELEVATION (FT.): 629.0 LOGGED (FT.): 226.6 LOG TYPE: Survey Core Study

SOURCE: SANGAMON COUNTY LAND COMPANY K-125 WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
429.0	MODESTO	PIASA	CALCAREOUS SHALE	0.2	200.0
428.8	CARBONDALE	DANVILLE	BONE COAL	0.2	200.2
428.7	CARBONDALE		CLAYSTONE & SHALE	6.3	200.3
422.4	CARBONDALE	BANKSTON FORK	LIMESTONE/UNDERCLAY	6.8	206.6
415.6	CARBONDALE	LAWSON	MOTTLED SHALE	2.0	213.4
413.6	CARBONDALE	CONANT	LIMESTONE/UNDERCLAY	0.3	215.4
413.3	CARBONDALE	JAMESTOWN	BONE COAL	0.1	215.7
413.2	CARBONDALE		CLAYSTONE	0.1	215.8
413.1	CARBONDALE	BRERETON	LIMESTONE/UNDERCLAY	0.2	215.9
412.9	CARBONDALE	ANNA	BLACK SHALE	2.0	216.1
410.0	CARBONDALE	HERRIN	COAL	7.6	219.0

MAPID: 16725430000C    VERSION: 1

PROJECT: NCRDS95

COUNTY: SANGAMON    TWP/RNG: 14N 8W    SECTION: 11    QUARTERS/FOOTAGES: NW NW SW

QUADRANGLE: NEW BERLIN    LONGITUDE: -89.963401    GEOLOGIST: C TREWORYG

CONFIDENTIAL: N    LATITUDE: 39.673502    DATE COLLECTED: 4 / 27 / 1981

SURFACE ELEVATION (FT.): 663.0    LOGGED (FT.): 374.0    LOG TYPE: Drillers Log

SOURCE: UTAH INTERNATIONAL    SAN-81-05    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
663.0			UNKNOWN	24.0	0.0
639.0			SANDY SHALE	11.0	24.0
628.0			SHALE	5.0	35.0
623.0			GRAY SHALE	1.0	40.0
622.0			SANDY SHALE	6.0	41.0
616.0			BLACK SHALE	1.0	47.0
615.0			GRAY SHALE	5.0	48.0
610.0			SHALE WITH LIMESTONE	2.0	53.0
608.0			SANDY SHALE	14.0	55.0
594.0			SANDY SHALE	4.0	69.0
590.0			SANDY SHALE	1.0	73.0
589.0			SHALE	63.0	74.0
526.0			GRAY SHALE	10.0	137.0
516.0			BLACK SHALE	1.0	147.0
515.0			SHALE	10.0	148.0
505.0			LIMESTONE	5.0	158.0
500.0			GRAY SHALE	5.0	163.0
495.0			BLACK SHALE	1.0	168.0
494.0			GRAY SHALE	8.0	169.0
486.0			LIMESTONE	2.0	177.0
484.0			GRAY SHALE	2.0	179.0
482.0			SHALE	5.0	181.0
477.0			LIMESTONE	2.0	186.0
475.0			GRAY SHALE	4.0	188.0
471.0			LIMESTONE	2.0	192.0
469.0			GRAY SHALE	1.0	194.0
468.0			BLACK SHALE	3.5	195.0
464.5			LIMESTONE	2.5	198.5
462.0	CARBONDALE	HERRIN	COAL	2.4	201.0
459.6	CARBONDALE		UNDERCLAY	2.6	203.4
457.0	CARBONDALE		SHALE WITH LIMESTONE	3.0	206.0
454.0	CARBONDALE		GRAY SHALE	3.0	209.0
451.0	CARBONDALE		LIMESTONE	4.0	212.0
447.0	CARBONDALE		SHALE	2.0	216.0
445.0	CARBONDALE		LIMESTONE	3.0	218.0
442.0	CARBONDALE		BLACK SHALE	2.0	221.0
440.0	CARBONDALE		GRAY SHALE	3.0	223.0
437.0	CARBONDALE		SHALE WITH LIMESTONE	6.0	226.0
431.0	CARBONDALE		SHALE	2.0	232.0

429.0	CARBONDALE		LIMESTONE	1.0	234.0
428.0	CARBONDALE		GRAY SHALE	14.0	235.0
414.0	CARBONDALE		SHALE	10.0	249.0
404.0	CARBONDALE		SANDY SHALE	36.0	259.0
368.0	CARBONDALE		SHALY COAL	1.0	295.0
367.0	CARBONDALE		UNDERCLAY	3.0	296.0
364.0	CARBONDALE		SHALE	28.0	299.0
336.0	CARBONDALE		SHALE WITH LIMESTONE	7.0	327.0
329.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	2.5	334.0
326.5	CARBONDALE	COLCHESTER	COAL	2.4	336.5
324.1	SPOON		UNDERCLAY	6.1	338.9
318.0	SPOON		SANDY SHALE	3.0	345.0
315.0	SPOON		LIMESTONE	4.0	348.0
311.0	SPOON		GRAY SHALE	7.0	352.0
304.0	SPOON		SANDSTONE	4.0	359.0
300.0	SPOON		SANDY SHALE	11.0	363.0

**MAPID:** 16701969000C    **VERSION:** 1    **PROJECT:** EIA-DOE  
**COUNTY:** SANGAMON    **TWP/RNG:** 15N 2W    **SECTION:** 5    **QUARTERS/FOOTAGES:** 1170' N line, 1360' W line  
**QUADRANGLE:** MT. AUBURN    **LONGITUDE:** -89.340548    **GEOLOGIST:** JACOBSON  
**CONFIDENTIAL:** N    **LATITUDE:** 39.783777    **DATE COLLECTED:** 3 / 28 / 1972  
**SURFACE ELEVATION (FT.):** 600.0    **LOGGED (FT.):** 351.5    **LOG TYPE:** Drillers Log  
**SOURCE:** PIAMCO INC.    I12    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	UNIT OVERBURDEN COMMENT
253.0	CARBONDALE	SPRINGFIELD	COAL	4.5	347.0

**MAPID:** 16701969000C    **VERSION:** 2    **PROJECT:** ROOF STUDY  
**COUNTY:** SANGAMON    **TWP/RNG:** 15N 2W    **SECTION:** 5    **QUARTERS/FOOTAGES:** 1170' N line, 1360' W line  
**QUADRANGLE:** MT. AUBURN    **LONGITUDE:** -89.340548    **GEOLOGIST:**  
**CONFIDENTIAL:** N    **LATITUDE:** 39.783777    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 600.0    **LOGGED (FT.):** 307.0    **LOG TYPE:** Drillers Log  
**SOURCE:** PIAMCO INC.    I12    **WELL TYPE:** Coal Test  
**COMMENT:** FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	UNIT OVERBURDEN COMMENT
316.0	CARBONDALE	DANVILLE	BLACK SHALE	2.0	284.0
314.0	CARBONDALE		MOTTLED SHALE	8.0	286.0
306.0	CARBONDALE	BANKSTON FORK	LIMESTONE	6.0	294.0
300.0	CARBONDALE	LAWSON	GRAY SHALE	2.4	300.0
297.6	CARBONDALE	BRERETON	LIMESTONE	0.6	302.4
297.0	CARBONDALE	ANNA	SILTY SHALE	2.0	303.0
295.0	CARBONDALE	HERRIN	COAL	2.0	305.0

**MAPID:** 16701950000C    **VERSION:** 1    **PROJECT:** EIA-DOE  
**COUNTY:** SANGAMON    **TWP/RNG:** 15N 2W    **SECTION:** 6    **QUARTERS/FOOTAGES:** 2490' S line, 40' W line  
**QUADRANGLE:** MT. AUBURN    **LONGITUDE:** -89.368462    **GEOLOGIST:** JACOBSON  
**CONFIDENTIAL:** N    **LATITUDE:** 39.778921    **DATE COLLECTED:** 10 / 11 / 1973  
**SURFACE ELEVATION (FT.):** 595.0    **LOGGED (FT.):** 325.3    **LOG TYPE:** Drillers Log  
**SOURCE:** PIAMCO INC.    K    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
274.5	CARBONDALE	SPRINGFIELD	COAL	4.8	320.5

**MAPID:** 16701950000C    **VERSION:** 2    **PROJECT:** ROOF STUDY  
**COUNTY:** SANGAMON    **TWP/RNG:** 15N 2W    **SECTION:** 6    **QUARTERS/FOOTAGES:** 2490' S line, 40' W line  
**QUADRANGLE:** MT. AUBURN    **LONGITUDE:** -89.368462    **GEOLOGIST:**  
**CONFIDENTIAL:** N    **LATITUDE:** 39.778921    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 595.0    **LOGGED (FT.):** 293.0    **LOG TYPE:** Drillers Log  
**SOURCE:** PIAMCO INC.    K    **WELL TYPE:** Coal Test  
**COMMENT:** FAIR DESCRIPTION, DEPTHS CORRECTED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
340.0	MODESTO	PIASA	LIMESTONE/UNDERCLAY	4.5	255.0
335.5	MODESTO		MOTTLED SHALE	6.5	259.5
329.0	CARBONDALE	DANVILLE	BLACK SHALE	2.0	266.0
327.0	CARBONDALE		GRAY SHALE	6.0	268.0
321.0	CARBONDALE	BANKSTON FORK	LIMESTONE	8.0	274.0
313.0	CARBONDALE	LAWSON	BLACK SHALE	2.0	282.0
311.0	CARBONDALE	LAWSON	GRAY SHALE	2.0	284.0
309.0	CARBONDALE	BRERETON	LIMESTONE	3.0	286.0

**MAPID:** 16700182000C    **VERSION:** 1    **PROJECT:** ROOF STUDY  
**COUNTY:** SANGAMON    **TWP/RNG:** 15N 3W    **SECTION:** 2    **QUARTERS/FOOTAGES:** 330' N line, 330' W line  
**QUADRANGLE:** MECHANICSBURG    **LONGITUDE:** -89.404806    **GEOLOGIST:**  
**CONFIDENTIAL:** N    **LATITUDE:** 39.787072    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 592.0    **LOGGED (FT.):** 248.0    **LOG TYPE:** Electric Log  
**SOURCE:**    **WELL TYPE:** Oil and Gas Test  
**COMMENT:** FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
401.0	CARBONDALE	LAWSON	GRAY SHALE	50.0	191.0
351.0	CARBONDALE	BRERETON	LIMESTONE	7.0	241.0

MAPID: 16700184000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 15N 3W SECTION: 3 QUARTERS/FOOTAGES: 1650' N line, 2310' E line

QUADRANGLE: MECHANICSBURG

LONGITUDE: -89.414302

GEOLOGIST:

CONFIDENTIAL: N

LATITUDE: 39.783491

DATE COLLECTED:

SURFACE ELEVATION (FT.): 590.0

LOGGED (FT.): 250.0

LOG TYPE: Electric Log

SOURCE:

WELL TYPE: Oil and Gas Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
381.0	MODESTO	PIASA	LIMESTONE & SHALE	6.0	209.0
375.0	CARBONDALE		SHALE	12.0	215.0
363.0	CARBONDALE	BANKSTON FORK	CALCAREOUS SHALE	8.0	227.0
355.0	CARBONDALE	LAWSON	SHALE	10.0	235.0
345.0	CARBONDALE	BRERETON	CALCAREOUS SHALE	5.0	245.0

MAPID: 16700185000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 15N 3W SECTION: 4 QUARTERS/FOOTAGES: 330' N line, 990' W line

QUADRANGLE: MECHANICSBURG

LONGITUDE: -89.440933

GEOLOGIST:

CONFIDENTIAL: N

LATITUDE: 39.787254

DATE COLLECTED:

SURFACE ELEVATION (FT.): 591.0

LOGGED (FT.): 191.0

LOG TYPE: Electric Log

SOURCE:

WELL TYPE: Oil and Gas Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
435.0	CARBONDALE	LAWSON	SHALE	30.0	156.0
405.0	CARBONDALE	BRERETON	LIMESTONE	5.0	186.0

MAPID: 16701139000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 15N 3W SECTION: 5 QUARTERS/FOOTAGES: 2490' N line, 2140' W line

QUADRANGLE: MECHANICSBURG LONGITUDE: -89.456371

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.781313

DATE COLLECTED:

SURFACE ELEVATION (FT.): 591.0 LOGGED (FT.): 169.0

LOG TYPE: Drillers Log

SOURCE:

WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
466.0	CARBONDALE	DANVILLE	DARK GRAY SHALE	3.0	125.0
463.0	CARBONDALE		MOTTLED SHALE	4.0	128.0
459.0	CARBONDALE	BANKSTON FORK	LIMESTONE W/ SHALE	1.5	132.0
458.0	CARBONDALE	LAWSON	GRAY SHALE	7.5	133.0
451.0	CARBONDALE	LAWSON	MOTTLED SHALE	4.0	140.0
447.0	CARBONDALE	LAWSON	DARK GRAY SHALE	1.0	144.0
446.0	CARBONDALE	LAWSON	GRAY SHALE	1.5	145.0
445.0	CARBONDALE	BRERETON	LIMESTONE	4.5	146.0
441.0	CARBONDALE	ENERGY	GRAY SHALE	1.5	150.0
440.0	CARBONDALE	ENERGY	CALCAREOUS SHALE	1.5	151.0

MAPID: 16701140000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 15N 3W SECTION: 6 QUARTERS/FOOTAGES: 1120' N line, 30' W line

QUADRANGLE: MECHANICSBURG LONGITUDE: -89.48065

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.785055

DATE COLLECTED:

SURFACE ELEVATION (FT.): 552.0 LOGGED (FT.): 165.0

LOG TYPE: Drillers Log

SOURCE:

WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
422.0	MODESTO	PIASA	CALCAREOUS SHALE	3.0	130.0
419.0	MODESTO		GRAY SHALE	5.0	133.0
414.0	CARBONDALE	DANVILLE	BLACK SHALE	2.0	138.0
412.0	CARBONDALE	LAWSON	GRAY SHALE	8.0	140.0
404.0	CARBONDALE	LAWSON	MOTTLED SHALE	6.0	148.0
398.0	CARBONDALE	LAWSON	GRAY SHALE	1.0	154.0
397.0	CARBONDALE	LAWSON	DARK GRAY SHALE	0.5	155.0
396.5	CARBONDALE	LAWSON	GRAY SHALE	4.5	155.5
392.0	CARBONDALE	BRERETON	LIMESTONE	2.0	160.0
390.0	CARBONDALE	ENERGY	GRAY SHALE	2.0	162.0
388.0	CARBONDALE	HERRIN	DARK GRAY SHALE	1.0	164.0

MAPID: 16701141000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 15N 3W SECTION: 7 QUARTERS/FOOTAGES: 50' S line, 50' W line

QUADRANGLE: MECHANICSBURG LONGITUDE: -89.480524

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.756932

DATE COLLECTED:

SURFACE ELEVATION (FT.): 587.0 LOGGED (FT.): 125.0

LOG TYPE: Electric Log

SOURCE:

WELL TYPE: Oil and Gas Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
493.0	CARBONDALE	DANVILLE	BONE COAL	1.0	94.0
492.0	CARBONDALE		SHALE	10.0	95.0
482.0	CARBONDALE	BANKSTON FORK	LIMESTONE & SHALE	5.0	105.0
477.0	CARBONDALE	LAWSON	SILTY SHALE	10.0	110.0
467.0	CARBONDALE	BRERETON	LIMESTONE	5.0	120.0

MAPID: 16700186000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 15N 3W SECTION: 8 QUARTERS/FOOTAGES: 330' S line, 1650' E line

QUADRANGLE: MECHANICSBURG LONGITUDE: -89.450252

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.757554

DATE COLLECTED:

SURFACE ELEVATION (FT.): 545.0 LOGGED (FT.): 156.0

LOG TYPE: Electric Log

SOURCE:

WELL TYPE: Oil and Gas Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
435.0	CARBONDALE	LAWSON	GRAY SHALE	40.0	110.0
395.0	CARBONDALE	BRERETON	LIMESTONE & SHALE	6.0	150.0

MAPID: 16700881000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 15N 3W SECTION: 9 QUARTERS/FOOTAGES: 2310' S line, 1650' W line

QUADRANGLE: MECHANICSBURG LONGITUDE: -89.438485

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.76301

DATE COLLECTED:

SURFACE ELEVATION (FT.): 544.0 LOGGED (FT.): 201.0

LOG TYPE: Electric Log

SOURCE:

WELL TYPE: Oil and Gas Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
373.0	MODESTO	PIASA	CALCAREOUS SHALE	4.0	171.0
369.0	CARBONDALE	LAWSON	GRAY SHALE	14.0	175.0
355.0	CARBONDALE	LAWSON	DARK GRAY SHALE	1.0	189.0
354.0	CARBONDALE	LAWSON	SHALE	5.0	190.0
349.0	CARBONDALE	BRERETON	CALCAREOUS SHALE	5.0	195.0
344.0	CARBONDALE	HERRIN	BONE COAL	1.0	200.0



**MAPID:** 16723156000C    **VERSION:** 1    **PROJECT:** EIA-DOE  
**COUNTY:** SANGAMON    **TWP/RNG:** 15N 3W    **SECTION:** 9    **QUARTERS/FOOTAGES:** 2112' S line, 130' W line of SW  
**QUADRANGLE:** MECHANICSBURG    **LONGITUDE:** -89.443918    **GEOLOGIST:** JACOBSON  
**CONFIDENTIAL:** N    **LATITUDE:** 39.762425    **DATE COLLECTED:** 12 / 14 / 1979  
**SURFACE ELEVATION (FT.):** 550.0    **LOGGED (FT.):** 237.9    **LOG TYPE:** Electric Log  
**SOURCE:** NICOR    R-7    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
316.8	CARBONDALE	SPRINGFIELD	COAL	4.7	233.2	

**MAPID:** 16701951000C    **VERSION:** 1    **PROJECT:** EIA-DOE  
**COUNTY:** SANGAMON    **TWP/RNG:** 15N 3W    **SECTION:** 12    **QUARTERS/FOOTAGES:** 2010' S line, 1720' W line  
**QUADRANGLE:** MECHANICSBURG    **LONGITUDE:** -89.38117    **GEOLOGIST:** JACOBSON  
**CONFIDENTIAL:** N    **LATITUDE:** 39.762504    **DATE COLLECTED:** 10 / 10 / 1973  
**SURFACE ELEVATION (FT.):** 595.0    **LOGGED (FT.):** 325.0    **LOG TYPE:** Drillers Log  
**SOURCE:** PIAMCO INC.    L    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
313.5	CARBONDALE	HERRIN	COAL	0.0	281.5	1.5 ft black shale at coal horizon
275.2	CARBONDALE	SPRINGFIELD	COAL	5.2	319.8	

**MAPID:** 16701951000C    **VERSION:** 2    **PROJECT:** ROOF STUDY  
**COUNTY:** SANGAMON    **TWP/RNG:** 15N 3W    **SECTION:** 12    **QUARTERS/FOOTAGES:** 2010' S line, 1720' W line  
**QUADRANGLE:** MECHANICSBURG    **LONGITUDE:** -89.38117    **GEOLOGIST:**  
**CONFIDENTIAL:** N    **LATITUDE:** 39.762504    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 595.0    **LOGGED (FT.):** 283.5    **LOG TYPE:** Drillers Log  
**SOURCE:** PIAMCO INC.    L    **WELL TYPE:** Coal Test  
**COMMENT:** FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
336.0	MODESTO	PIASA	LIMESTONE	3.0	259.0	
333.0	MODESTO		MOTTLED SHALE	9.0	262.0	
324.0	CARBONDALE	DANVILLE	BLACK SHALE	2.0	271.0	
322.0	CARBONDALE	LAWSON	GRAY SHALE	3.0	273.0	
319.0	CARBONDALE	BRERETON	LIMESTONE	5.5	276.0	
313.0	CARBONDALE	HERRIN	BLACK SHALE	1.5	282.0	

MAPID: 16700484000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 15N 3W SECTION: 17 QUARTERS/FOOTAGES: 990' S line, 1650' W line

QUADRANGLE: EDINBURG LONGITUDE: -89.457362 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.744698 DATE COLLECTED:

SURFACE ELEVATION (FT.): 588.0 LOGGED (FT.): 260.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
376.0	CARBONDALE	LAWSON	GRAY SHALE	40.0	212.0
336.0	CARBONDALE	BRERETON	CALCAREOUS SHALE	7.0	252.0
329.0	CARBONDALE	HERRIN	BONE COAL	1.0	259.0

MAPID: 16701142000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 15N 3W SECTION: 19 QUARTERS/FOOTAGES: 2490' S line, 40' W line

QUADRANGLE: EDINBURG LONGITUDE: -89.479415 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.734434 DATE COLLECTED:

SURFACE ELEVATION (FT.): 586.0 LOGGED (FT.): 226.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
385.0	MODESTO	PIASA	LIMESTONE	2.0	201.0
383.0	CARBONDALE		MOTTLED SHALE	11.0	203.0
372.0	CARBONDALE	BANKSTON FORK	LIMESTONE	4.0	214.0
368.0	CARBONDALE	LAWSON	SHALE	6.0	218.0
363.0	CARBONDALE	HERRIN	COAL	3.0	223.0

MAPID: 16723157000C VERSION: 1

PROJECT: EIA-DOE

COUNTY: SANGAMON TWP/RNG: 15N 3W SECTION: 19 QUARTERS/FOOTAGES: 154' S line, 270' W line of SW SW

QUADRANGLE: EDINBURG LONGITUDE: -89.47843 GEOLOGIST: JACOBSON

CONFIDENTIAL: N LATITUDE: 39.727991 DATE COLLECTED: 12 / 7 / 1979

SURFACE ELEVATION (FT.): 588.0 LOGGED (FT.): 286.4 LOG TYPE: Electric Log

SOURCE: NICOR R-6 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
306.5	CARBONDALE	SPRINGFIELD	COAL	4.9	281.5

MAPID: 16700477000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 15N 3W SECTION: 20 QUARTERS/FOOTAGES: 330' N line, 2310' W line

QUADRANGLE: EDINBURG LONGITUDE: -89.45479 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.741072 DATE COLLECTED:

SURFACE ELEVATION (FT.): 548.0 LOGGED (FT.): 226.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
379.0	CARBONDALE	LAWSON	SHALE	45.0	169.0
334.0	CARBONDALE	BRERETON	LIMESTONE	8.0	214.0
326.0	CARBONDALE	ANNA	DARK GRAY SHALE	1.0	222.0
325.0	CARBONDALE	HERRIN	COAL	3.0	223.0

MAPID: 16701143000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 15N 3W SECTION: 30 QUARTERS/FOOTAGES: 40' S line, 150' W line

QUADRANGLE: EDINBURG LONGITUDE: -89.478339 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.713282 DATE COLLECTED:

SURFACE ELEVATION (FT.): 590.0 LOGGED (FT.): 282.0 LOG TYPE: Drillers Log

SOURCE: WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
342.0	CARBONDALE	LAWSON	MOTTLED SHALE	25.0	248.0
317.0	CARBONDALE	BRERETON	LIMESTONE W/ SHALE	5.0	273.0
312.0	CARBONDALE	ANNA	BLACK SHALE	1.0	278.0
311.0	CARBONDALE	HERRIN	COAL	3.0	279.0

MAPID: 16701144000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 15N 3W SECTION: 31 QUARTERS/FOOTAGES: 300' S line, 2200' E line

QUADRANGLE: EDINBURG LONGITUDE: -89.470178 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.699571 DATE COLLECTED:

SURFACE ELEVATION (FT.): 586.0 LOGGED (FT.): 272.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
352.0	MODESTO	PIASA	LIMESTONE	4.0	234.0
348.0	CARBONDALE		CLAYSTONE	3.0	238.0
345.0	CARBONDALE	BANKSTON FORK	LIMESTONE & SHALE	3.0	241.0
342.0	CARBONDALE	LAWSON	SILTY SHALE	23.0	244.0
319.0	CARBONDALE	BRERETON	LIMESTONE	5.0	267.0
314.0	CARBONDALE	ANNA	BLACK SHALE	1.0	272.0
318.0	CARBONDALE	HERRIN	COAL	4.0	268.0

MAPID: 16701145000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 15N 3W SECTION: 32 QUARTERS/FOOTAGES: 40' N line, 25' W line

QUADRANGLE: EDINBURG

LONGITUDE: -89.462517

GEOLOGIST:

CONFIDENTIAL: N

LATITUDE: 39.713162

DATE COLLECTED:

SURFACE ELEVATION (FT.): 587.0

LOGGED (FT.): 263.0

LOG TYPE: Electric Log

SOURCE:

WELL TYPE: Oil and Gas Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
357.0	CARBONDALE	LAWSON	SILTY SHALE	20.0	230.0	
337.0	CARBONDALE	BRERETON	LIMESTONE W/ SHALE	7.0	250.0	
330.0	CARBONDALE	ANNA	BLACK SHALE	1.0	257.0	
329.0	CARBONDALE	HERRIN	COAL	5.0	258.0	

MAPID: 16701146000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 15N 3W SECTION: 33 QUARTERS/FOOTAGES: 50' N line, 2610' E line

QUADRANGLE: EDINBURG

LONGITUDE: -89.433944

GEOLOGIST:

CONFIDENTIAL: N

LATITUDE: 39.713077

DATE COLLECTED:

SURFACE ELEVATION (FT.): 588.0

LOGGED (FT.): 293.0

LOG TYPE: Electric Log

SOURCE:

WELL TYPE: Oil and Gas Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
336.0	MODESTO	PIASA	LIMESTONE	2.0	252.0	
334.0	CARBONDALE	LAWSON	SILTY SHALE	20.0	254.0	
314.0	CARBONDALE	BRERETON	LIMESTONE W/ SHALE	5.0	274.0	
299.0	CARBONDALE	HERRIN	COAL	4.0	289.0	

MAPID: 16700666000C VERSION: 1

PROJECT: NCRDS89

COUNTY: SANGAMON TWP/RNG: 15N 4W SECTION: 2 QUARTERS/FOOTAGES: 330' S line, 330' E line

QUADRANGLE: SPRINGFIELD EAST LONGITUDE: -89.500594

GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 39.772164

DATE COLLECTED: 5 / 0 / 1960

SURFACE ELEVATION (FT.): 544.0

LOGGED (FT.): 402.5

LOG TYPE: Electric Log

SOURCE: JAMES E. CARTER

WELL TYPE: Producer-Oil and Gas

COMMENT: ELECTRIC LOG; W. L. BAKER FARM

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
544.0			UNCONSOLIDATED	75.0	0.0
469.0			UNCLASSIFIED	118.0	75.0
351.0	CARBONDALE		SHALE	3.0	193.0
348.0	CARBONDALE	BANKSTON FORK	LIMESTONE W/ SHALE	4.0	196.0
344.0	CARBONDALE		SHALE	10.0	200.0
334.0	CARBONDALE		LIMESTONE W/ SHALE	6.0	210.0
328.0	CARBONDALE	HERRIN	COAL	2.0	216.0
326.0	CARBONDALE		UNCLASSIFIED	39.0	218.0
287.0	CARBONDALE	SPRINGFIELD	COAL	5.0	257.0
282.0	CARBONDALE		UNCLASSIFIED	23.0	262.0
259.0	CARBONDALE	HOUCHIN CREEK	COAL	1.0	285.0
258.0	CARBONDALE		UNCLASSIFIED	115.0	286.0
143.0	CARBONDALE	COLCHESTER	COAL	1.5	401.0

MAPID: 16700666000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 15N 4W SECTION: 2 QUARTERS/FOOTAGES: 330' S line, 330' E line

QUADRANGLE: SPRINGFIELD EAST LONGITUDE: -89.500594

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.772164

DATE COLLECTED:

SURFACE ELEVATION (FT.): 546.0

LOGGED (FT.): 221.0

LOG TYPE: Electric Log

SOURCE:

WELL TYPE: Oil and Gas Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
353.0	CARBONDALE	DANVILLE	BONE COAL	1.0	193.0
352.0	CARBONDALE		SHALE	6.0	194.0
346.0	CARBONDALE	BANKSTON FORK	LIMESTONE & SHALE	4.0	200.0
342.0	CARBONDALE	LAWSON	SHALE	9.0	204.0
333.0	CARBONDALE	BRERETON	LIMESTONE & SHALE	7.0	213.0
326.0	CARBONDALE	HERRIN	BONE COAL	1.0	220.0

MAPID: 16723158000C VERSION: 1

PROJECT: EIA-DOE

COUNTY: SANGAMON TWP/RNG: 15N 4W SECTION: 2 QUARTERS/FOOTAGES: 1837' S line, 2145' E line of SE

QUADRANGLE: SPRINGFIELD EAST LONGITUDE: -89.507226 GEOLOGIST: JACOBSON

CONFIDENTIAL: N LATITUDE: 39.776547 DATE COLLECTED: 12 / 11 / 1979

SURFACE ELEVATION (FT.): 570.0 LOGGED (FT.): 263.0 LOG TYPE: Electric Log

SOURCE: NICOR R-8 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
312.4	CARBONDALE	SPRINGFIELD	COAL	5.4	257.6	

MAPID: 16701107000C VERSION: 1

PROJECT: IDMM-GWQX

COUNTY: SANGAMON TWP/RNG: 15N 4W SECTION: 3 QUARTERS/FOOTAGES: 330' N line, 330' W line of SE

QUADRANGLE: SPRINGFIELD EAST LONGITUDE: -89.526411 GEOLOGIST: C TREWORYG

CONFIDENTIAL: N LATITUDE: 39.779037 DATE COLLECTED: 10 / 0 / 1965

SURFACE ELEVATION (FT.): 579.0 LOGGED (FT.): 327.0 LOG TYPE: Electric Log

SOURCE: ALADDIN OIL DEV. CO. WELL TYPE: Producer-Oil

COMMENT: ELEV. IS SURF,NOT LOG DATUM: DEPTHS OFF

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
416.0	CARBONDALE	HERRIN	UNCLASSIFIED	1.0	163.0	THIN COAL
379.0	CARBONDALE	SPRINGFIELD	UNCLASSIFIED	3.0	200.0	
339.0	CARBONDALE	HOUCHIN CREEK	UNCLASSIFIED	0.0	240.0	
311.0	CARBONDALE	SURVANT	UNCLASSIFIED	0.0	268.0	
252.0	CARBONDALE	COLCHESTER	UNCLASSIFIED	0.0	327.0	

MAPID: 16701108000C VERSION: 1

PROJECT: NCRDS89

COUNTY: SANGAMON TWP/RNG: 15N 4W SECTION: 3 QUARTERS/FOOTAGES: 2310' N line, 2310' E line

QUADRANGLE: SPRINGFIELD EAST LONGITUDE: -89.526348

GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 39.781576

DATE COLLECTED: 10 / 30 / 1965

SURFACE ELEVATION (FT.): 575.8 LOGGED (FT.): 373.5

LOG TYPE: Electric Log

SOURCE: ALADDIN OIL DEVELOPMENT 1-B

WELL TYPE: Producer-Oil and Gas

COMMENT: ELECTRIC LOG; RAPS FARM

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
575.8			UNCONSOLIDATED	50.0	0.0
525.8			UNCLASSIFIED	118.0	50.0
407.8	CARBONDALE	DANVILLE	COAL	2.0	168.0
405.8	CARBONDALE		SHALE	4.5	170.0
401.3	CARBONDALE	BANKSTON FORK	LIMESTONE W/ SHALE	3.5	174.5
397.8	CARBONDALE		SHALE	7.0	178.0
390.8	CARBONDALE	BRERETON	LIMESTONE W/ SHALE	7.0	185.0
383.8	CARBONDALE	HERRIN	COAL	2.0	192.0
381.8	CARBONDALE		UNCLASSIFIED	37.0	194.0
344.8	CARBONDALE	SPRINGFIELD	COAL	5.0	231.0
339.8	CARBONDALE		UNCLASSIFIED	19.0	236.0
320.8	CARBONDALE	HOUCHIN CREEK	COAL	1.0	255.0
319.8	CARBONDALE		UNCLASSIFIED	116.0	256.0
203.8	CARBONDALE	COLCHESTER	COAL	1.5	372.0

MAPID: 16701108000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 15N 4W SECTION: 3 QUARTERS/FOOTAGES: 2310' N line, 2310' E line

QUADRANGLE: SPRINGFIELD EAST LONGITUDE: -89.526348

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.781576

DATE COLLECTED:

SURFACE ELEVATION (FT.): 580.0 LOGGED (FT.): 195.0

LOG TYPE: Electric Log

SOURCE:

WELL TYPE: Oil and Gas Test

COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
411.0	CARBONDALE	DANVILLE	BONE COAL	2.0	169.0
409.0	CARBONDALE		SHALE	3.5	171.0
405.5	CARBONDALE	BANKSTON FORK	LIMESTONE & SHALE	3.5	174.5
402.0	CARBONDALE	LAWSON	SHALE	7.0	178.0
395.0	CARBONDALE	BRERETON	LIMESTONE & SHALE	7.0	185.0
388.0	CARBONDALE	HERRIN	COAL	3.0	192.0

MAPID: 16700117000C    VERSION: 1

PROJECT: NCRDS88

COUNTY: SANGAMON    TWP/RNG: 15N 4W    SECTION: 5    QUARTERS/FOOTAGES: 2310' S line, 1980' E line

QUADRANGLE: SPRINGFIELD EAST    LONGITUDE: -89.562963    GEOLOGIST: R. SMITH

CONFIDENTIAL: N    LATITUDE: 39.778993    DATE COLLECTED: 0 / 0 / 1902

SURFACE ELEVATION (FT.): 570.0    LOGGED (FT.): 302.0    LOG TYPE: Drillers Log

SOURCE: SULLIVAN MACHINERY CO.    WELL TYPE: Coal Test

COMMENT: 31/2MI.SE SPG.CITY LIM,150YD,SW ST.KEYES

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
570.0			UNCONSOLIDATED	24.0	0.0	
546.0	MODESTO		SHALE	24.7	24.0	
521.3	MODESTO	CHAPEL	COAL	0.3	48.7	
521.0	MODESTO		BLUE SHALE	8.0	49.0	
513.0	MODESTO		SHALE & SANDSTONE	23.0	57.0	
490.0	MODESTO		SHALE & SANDSTONE	39.0	80.0	
451.0	MODESTO		DARK SHALE	25.5	119.0	
425.5	MODESTO		BLACK SHALE	2.5	144.5	
423.0	CARBONDALE	DANVILLE	COAL	0.2	147.0	
422.8	CARBONDALE		BLUE SHALE	10.8	147.2	
412.0	CARBONDALE		LIMESTONE	4.0	158.0	
408.0	CARBONDALE		SHALE	5.0	162.0	
403.0	CARBONDALE		LIMESTONE	6.0	167.0	
397.0	CARBONDALE		DARK SHALE	3.0	173.0	
394.0	CARBONDALE		CALCAREOUS SHALE	3.6	176.0	
390.4	CARBONDALE	HERRIN	COAL	3.3	179.6	
387.2	CARBONDALE		UNDERCLAY	1.2	182.8	
386.0	CARBONDALE		LIMESTONE W/ SHALE	7.0	184.0	
379.0	CARBONDALE		CALCAREOUS SHALE	5.0	191.0	
374.0	CARBONDALE		SANDSTONE	6.0	196.0	
368.0	CARBONDALE		BLUE SHALE	12.0	202.0	
356.0	CARBONDALE		UNCLASSIFIED	3.4	214.0	
352.6	CARBONDALE	TURNER MINE	BLACK SHALE	2.6	217.4	
350.0	CARBONDALE	SPRINGFIELD	COAL	5.4	220.0	UNCERTAIN CORRELATION
344.6	CARBONDALE		UNDERCLAY	8.6	225.4	
336.0	CARBONDALE		SANDY SHALE	4.0	234.0	
332.0	CARBONDALE		CALCAREOUS SHALE	6.0	238.0	
326.0	CARBONDALE		BLACK SHALE	2.0	244.0	
324.0	CARBONDALE		BLUE SHALE	49.8	246.0	
274.2	CARBONDALE	HOUCHIN CREEK	COAL	2.2	295.8	UNCERTAIN CORRELATION
272.1	CARBONDALE		BLUE SHALE	4.1	297.9	



MAPID: 16700117000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 15N 4W SECTION: 5 QUARTERS/FOOTAGES: 2310' S line, 1980' E line

QUADRANGLE: SPRINGFIELD EAST LONGITUDE: -89.562963

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.778993

DATE COLLECTED:

SURFACE ELEVATION (FT.): 570.0 LOGGED (FT.): 183.3

LOG TYPE: Drillers Log

SOURCE:

WELL TYPE: Coal Test

COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
447.6	MODESTO		DARK GRAY SHALE	25.0	122.4
422.6	CARBONDALE	DANVILLE	COAL	0.2	147.4
422.4	CARBONDALE		GRAY SHALE	10.8	147.6
411.6	CARBONDALE	BANKSTON FORK	LIMESTONE	4.0	158.4
407.6	CARBONDALE	LAWSON	MOTTLED SHALE	5.0	162.4
402.6	CARBONDALE	BRERETON	LIMESTONE	6.0	167.4
396.6	CARBONDALE	ANNA	DARK GRAY SHALE	3.0	173.4
393.6	CARBONDALE	ENERGY	DARK GRAY SHALE	3.6	176.4
390.0	CARBONDALE	HERRIN	COAL	3.3	180.0

MAPID: 16700427000C VERSION: 1

PROJECT: NCRDS89

COUNTY: SANGAMON TWP/RNG: 15N 4W SECTION: 9 QUARTERS/FOOTAGES: 2310' S line, 2310' E line

QUADRANGLE: SPRINGFIELD EAST LONGITUDE: -89.545206

GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 39.764074

DATE COLLECTED: 8 / 0 / 1954

SURFACE ELEVATION (FT.): 541.0 LOGGED (FT.): 330.0

LOG TYPE: Electric Log

SOURCE: COLLINS BROTHERS OIL CO. #1

WELL TYPE: Producer-Oil and Gas

COMMENT: ELECTRIC LOG; BENNETT BROS. FARM

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
541.0			UNCONSOLIDATED	38.0	0.0
503.0			UNCLASSIFIED	77.0	38.0
426.0	CARBONDALE		SHALE	30.0	115.0
396.0	CARBONDALE	BRERETON	LIMESTONE	6.0	145.0
390.0	CARBONDALE		GRAY SHALE	3.0	151.0
387.0	CARBONDALE	HERRIN	COAL	1.0	154.0
386.0	CARBONDALE		UNCLASSIFIED	40.0	155.0
346.0	CARBONDALE	SPRINGFIELD	COAL	3.0	195.0
343.0	CARBONDALE		UNCLASSIFIED	22.0	198.0
321.0	CARBONDALE	HOUCHIN CREEK	COAL	0.0	220.0
321.0	CARBONDALE		UNCLASSIFIED	106.0	220.0
215.0	CARBONDALE	COLCHESTER	COAL	4.0	326.0

MAPID: 16700427000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 15N 4W SECTION: 9 QUARTERS/FOOTAGES: 2310' S line, 2310' E line

QUADRANGLE: SPRINGFIELD EAST LONGITUDE: -89.545206

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.764074

DATE COLLECTED:

SURFACE ELEVATION (FT.): 541.0

LOGGED (FT.): 155.0

LOG TYPE: Electric Log

SOURCE:

WELL TYPE: Oil and Gas Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
426.0	CARBONDALE	LAWSON	SHALE	30.0	115.0	
396.0	CARBONDALE	BRERETON	LIMESTONE	6.0	145.0	
390.0	CARBONDALE	ENERGY	GRAY SHALE	3.0	151.0	
387.0	CARBONDALE	HERRIN	BONE COAL	1.0	154.0	

MAPID: 16700427000C VERSION: 3

PROJECT: IDMM-GWQX

COUNTY: SANGAMON TWP/RNG: 15N 4W SECTION: 9 QUARTERS/FOOTAGES: 2310' S line, 2310' E line

QUADRANGLE: SPRINGFIELD EAST LONGITUDE: -89.545206

GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 39.764074

DATE COLLECTED: 8 / 0 / 1954

SURFACE ELEVATION (FT.): 541.0

LOGGED (FT.): 540.0

LOG TYPE: Electric Log

SOURCE: COLLINS BROTHERS OIL CO.

WELL TYPE: Producer-Oil

COMMENT: ELEV. IS SURF,NOT LOG DATUM: DEPTHS OFF

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
387.0	CARBONDALE	HERRIN	UNCLASSIFIED	2.0	154.0	
345.0	CARBONDALE	SPRINGFIELD	UNCLASSIFIED	2.5	196.0	
321.0	CARBONDALE	HOUCHIN CREEK	UNCLASSIFIED	-	220.0	
274.0	CARBONDALE	SURVANT	UNCLASSIFIED	-	267.0	
214.0	CARBONDALE	COLCHESTER	UNCLASSIFIED	3.0	327.0	
1.0	BASE OF PENN.		UNCLASSIFIED	-	540.0	

MAPID: 16700391000C VERSION: 1

PROJECT: NCRDS89

COUNTY: SANGAMON TWP/RNG: 15N 4W SECTION: 10 QUARTERS/FOOTAGES: 990' S line, 330' E line

QUADRANGLE: SPRINGFIELD EAST LONGITUDE: -89.519025

GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 39.760085

DATE COLLECTED: 4 / 12 / 1967

SURFACE ELEVATION (FT.): 577.0 LOGGED (FT.): 388.0

LOG TYPE: Electric Log

SOURCE: ALLADIN OIL DEVELOPMENT CO.-#1

WELL TYPE: Producer-Oil and Gas

COMMENT: CHARLES FAIRCHILD FARM; ELECTRIC LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
577.0			UNCONSOLIDATED	38.5	0.0
538.5	MODESTO		UNCLASSIFIED	145.5	38.5
393.0	CARBONDALE	DANVILLE	COAL	1.0	184.0
392.0	CARBONDALE		SHALE	3.0	185.0
389.0	CARBONDALE	BANKSTON FORK	LIMESTONE W/ SHALE	4.0	188.0
385.0	CARBONDALE		SHALE	9.0	192.0
376.0	CARBONDALE	BRERETON	LIMESTONE	4.0	201.0
372.0	CARBONDALE		GRAY SHALE	2.0	205.0
370.0	CARBONDALE	HERRIN	COAL	1.0	207.0
369.0	CARBONDALE		UNCLASSIFIED	37.0	208.0
332.0	CARBONDALE	SPRINGFIELD	COAL	5.0	245.0
327.0	CARBONDALE		UNCLASSIFIED	20.0	250.0
307.0	CARBONDALE	HOUCHIN CREEK	COAL	1.0	270.0
306.0	CARBONDALE		UNCLASSIFIED	114.0	271.0
192.0	CARBONDALE	COLCHESTER	COAL	3.0	385.0

MAPID: 16700391000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 15N 4W SECTION: 10 QUARTERS/FOOTAGES: 990' S line, 330' E line

QUADRANGLE: SPRINGFIELD EAST LONGITUDE: -89.519025

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.760085

DATE COLLECTED:

SURFACE ELEVATION (FT.): 580.0 LOGGED (FT.): 208.0

LOG TYPE: Electric Log

SOURCE:

WELL TYPE: Oil and Gas Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
396.0	CARBONDALE	DANVILLE	BONE COAL	1.0	184.0
395.0	CARBONDALE		SHALE	3.0	185.0
392.0	CARBONDALE	BANKSTON FORK	LIMESTONE & SHALE	4.0	188.0
388.0	CARBONDALE	LAWSON	SHALE	9.0	192.0
379.0	CARBONDALE	BRERETON	LIMESTONE	4.0	201.0
375.0	CARBONDALE	ENERGY	GRAY SHALE	2.0	205.0
373.0	CARBONDALE	HERRIN	BONE COAL	1.0	207.0

MAPID: 16701148000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 15N 4W SECTION: 12 QUARTERS/FOOTAGES: 1220' N line, 2340' E line

QUADRANGLE: MECHANICSBURG LONGITUDE: -89.488977 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.767858 DATE COLLECTED:

SURFACE ELEVATION (FT.): 536.0 LOGGED (FT.): 180.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
386.0	CARBONDALE	LAWSON	SILTY SHALE	20.0	150.0	
366.0	CARBONDALE	BRERETON	LIMESTONE W/ SHALE	9.0	170.0	
357.0	CARBONDALE	HERRIN	BONE COAL	1.0	179.0	

MAPID: 16701151000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 15N 4W SECTION: 13 QUARTERS/FOOTAGES: 25' S line, 2615' W line

QUADRANGLE: EDINBURG LONGITUDE: -89.488866 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.742384 DATE COLLECTED:

SURFACE ELEVATION (FT.): 586.0 LOGGED (FT.): 216.5 LOG TYPE: Drillers Log

SOURCE: WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
403.5	MODESTO	PIASA	LIMESTONE	0.5	182.5	
403.0	CARBONDALE	DANVILLE	COAL	1.0	183.0	
402.0	CARBONDALE	LAWSON	GRAY SHALE	20.0	184.0	
382.0	CARBONDALE	LAWSON	DARK GRAY SHALE	0.5	204.0	
381.5	CARBONDALE	LAWSON	GRAY SHALE	2.5	204.5	
379.0	CARBONDALE	LAWSON	LIMESTONE W/ SHALE	1.5	207.0	
377.5	CARBONDALE	BRERETON	LIMESTONE	2.5	208.5	
375.0	CARBONDALE	ENERGY	GRAY SHALE	4.0	211.0	
371.0	CARBONDALE	HERRIN	COAL	1.5	215.0	

MAPID: 16701152000C VERSION: 1

PROJECT: NCRDS89

COUNTY: SANGAMON TWP/RNG: 15N 4W SECTION: 14 QUARTERS/FOOTAGES: 2340' N line, 600' W line

QUADRANGLE: SPRINGFIELD EAST LONGITUDE: -89.515447 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 39.750844 DATE COLLECTED: 9 / 4 / 1956

SURFACE ELEVATION (FT.): 575.0 LOGGED (FT.): 260.0 LOG TYPE: Electric Log

SOURCE: SUN OIL CO. WELL TYPE: Producer-Oil and Gas

COMMENT: ELECTRIC LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
404.0	CARBONDALE	DANVILLE	COAL	1.0	171.0
403.0	CARBONDALE		SHALE	20.0	172.0
383.0	CARBONDALE	BANKSTON FORK	LIMESTONE	3.0	192.0
380.0	CARBONDALE		SHALE	8.0	195.0
372.0	CARBONDALE	BRERETON	LIMESTONE	3.0	203.0
369.0	CARBONDALE	ANNA	BLACK SHALE	1.0	206.0
368.0	CARBONDALE	HERRIN	COAL	2.0	207.0
366.0	CARBONDALE		UNCLASSIFIED	29.0	209.0
337.0	CARBONDALE	ST. DAVID	LIMESTONE	4.0	238.0
333.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	242.0
331.0	CARBONDALE	SPRINGFIELD	COAL	5.5	244.0
325.5	CARBONDALE		UNCLASSIFIED	10.5	249.5

MAPID: 16701152000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 15N 4W SECTION: 14 QUARTERS/FOOTAGES: 2340' N line, 600' W line

QUADRANGLE: SPRINGFIELD EAST LONGITUDE: -89.515447 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.750844 DATE COLLECTED:

SURFACE ELEVATION (FT.): 575.0 LOGGED (FT.): 209.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
405.5	CARBONDALE	DANVILLE	COAL	1.0	169.5
404.5	CARBONDALE		SHALE	20.0	170.5
384.5	CARBONDALE	BANKSTON FORK	LIMESTONE	3.0	190.5
381.5	CARBONDALE	LAWSON	SHALE	8.5	193.5
373.0	CARBONDALE	BRERETON	LIMESTONE	4.0	202.0
369.0	CARBONDALE	ANNA	BLACK SHALE	1.0	206.0
368.0	CARBONDALE	HERRIN	COAL	2.0	207.0

MAPID: 16701231000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 15N 4W SECTION: 15 QUARTERS/FOOTAGES: 875' N line, 330' E line

QUADRANGLE: SPRINGFIELD EAST LONGITUDE: -89.518902

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.754934

DATE COLLECTED:

SURFACE ELEVATION (FT.): 577.0

LOGGED (FT.): 201.0

LOG TYPE: Electric Log

SOURCE:

WELL TYPE: Oil and Gas Test

COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
408.5	CARBONDALE	DANVILLE	BLACK SHALE	4.0	168.5
404.5	CARBONDALE		SHALE	4.5	172.5
400.0	CARBONDALE	BANKSTON FORK	LIMESTONE & SHALE	3.0	177.0
397.0	CARBONDALE	LAWSON	SILTY SHALE	5.0	180.0
392.0	CARBONDALE	LAWSON	BLACK SHALE	4.0	185.0
388.0	CARBONDALE	CONANT	LIMESTONE & SHALE	1.0	189.0
387.0	CARBONDALE		SHALE	1.5	190.0
385.5	CARBONDALE	BRERETON	LIMESTONE	4.5	191.5
381.0	CARBONDALE	ANNA	BLACK SHALE	3.0	196.0
378.0	CARBONDALE	HERRIN	BONE COAL	2.0	199.0

MAPID: 16701153000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 15N 4W SECTION: 16 QUARTERS/FOOTAGES: 2215' S line, 870' E line

QUADRANGLE: NEW CITY LONGITUDE: -89.539647

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.748951

DATE COLLECTED:

SURFACE ELEVATION (FT.): 571.0

LOGGED (FT.): 188.0

LOG TYPE: Drillers Log

SOURCE:

WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
420.0	MODESTO	PIASA	LIMESTONE	1.0	151.0
419.0	MODESTO		GRAY SHALE	2.0	152.0
417.0	CARBONDALE	DANVILLE	DARK GRAY SHALE	4.0	154.0
413.0	CARBONDALE		MOTTLED SHALE	13.0	158.0
400.0	CARBONDALE	BANKSTON FORK	LIMESTONE	5.0	171.0
395.0	CARBONDALE	LAWSON	GRAY SHALE	4.0	176.0
391.0	CARBONDALE	BRERETON	LIMESTONE	5.0	180.0
386.0	CARBONDALE	ANNA	DARK GRAY SHALE	1.0	185.0
385.0	CARBONDALE	HERRIN	COAL	2.0	186.0

MAPID: 16700551000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 15N 4W SECTION: 17 QUARTERS/FOOTAGES: 990' S line, 2310' W line

QUADRANGLE: NEW CITY LONGITUDE: -89.565579

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.746052

DATE COLLECTED:

SURFACE ELEVATION (FT.): 572.0

LOGGED (FT.): 195.0

LOG TYPE: Electric Log

SOURCE:

WELL TYPE: Oil and Gas Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
399.0	MODESTO	PIASA	LIMESTONE & SHALE	3.0	173.0
396.0	CARBONDALE		MOTTLED SHALE	10.0	176.0
386.0	CARBONDALE	BANKSTON FORK	LIMESTONE	4.0	186.0
382.0	CARBONDALE	LAWSON	GRAY SHALE	4.0	190.0
378.0	CARBONDALE	BRERETON	LIMESTONE	6.0	194.0
372.0	CARBONDALE	ANNA	DARK GRAY SHALE	1.0	200.0
378.0	CARBONDALE	HERRIN	COAL	1.0	194.0

MAPID: 16700673000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 15N 4W SECTION: 20 QUARTERS/FOOTAGES: 330' S line, 1650' E line

QUADRANGLE: NEW CITY LONGITUDE: -89.560684

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.729955

DATE COLLECTED:

SURFACE ELEVATION (FT.): 531.0

LOGGED (FT.): 163.0

LOG TYPE: Electric Log

SOURCE:

WELL TYPE: Oil and Gas Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
392.0	CARBONDALE	DANVILLE	BONE COAL	1.0	139.0
391.0	CARBONDALE		SHALE	6.0	140.0
385.0	CARBONDALE	BANKSTON FORK	LIMESTONE	4.0	146.0
381.0	CARBONDALE	LAWSON	GRAY SHALE	5.0	150.0
376.0	CARBONDALE	BRERETON	LIMESTONE	7.0	155.0
369.0	CARBONDALE	HERRIN	BONE COAL	1.0	162.0

MAPID: 16700662000C VERSION: 1

PROJECT: IDMM-GWQX

COUNTY: SANGAMON TWP/RNG: 15N 4W SECTION: 21 QUARTERS/FOOTAGES: 990' S line, 990' W line  
 QUADRANGLE: NEW CITY LONGITUDE: -89.551298 GEOLOGIST: C TREWORGY  
 CONFIDENTIAL: N LATITUDE: 39.731544 DATE COLLECTED: 3 / 0 / 1960  
 SURFACE ELEVATION (FT.): LOGGED (FT.): 660.0 LOG TYPE: Electric Log  
 SOURCE: TROOP, R. H. ETAL WELL TYPE: Producer-Oil  
 COMMENT: ELEV. IS SURF,NOT LOG DATUM: DEPTHS OFF

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	CARBONDALE	HERRIN	UNCLASSIFIED	2.0	199.0	
-	CARBONDALE	SPRINGFIELD	UNCLASSIFIED	5.0	233.0	
-	CARBONDALE	HOUCHIN CREEK	UNCLASSIFIED	-	260.0	
-	CARBONDALE	SURVANT	UNCLASSIFIED	-	308.0	
-	CARBONDALE	COLCHESTER	UNCLASSIFIED	2.5	365.0	SPLIT COAL?
-	BASE OF PENN.		UNCLASSIFIED	-	660.0	

MAPID: 16700662000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 15N 4W SECTION: 21 QUARTERS/FOOTAGES: 990' S line, 990' W line  
 QUADRANGLE: NEW CITY LONGITUDE: -89.551298 GEOLOGIST:  
 CONFIDENTIAL: N LATITUDE: 39.731544 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 577.0 LOGGED (FT.): 201.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
413.0	CARBONDALE		SHALE	20.0	164.0	
393.0	CARBONDALE	BANKSTON FORK	LIMESTONE	5.0	184.0	
388.0	CARBONDALE	LAWSON	GRAY SHALE	4.0	189.0	
384.0	CARBONDALE	BRERETON	LIMESTONE & SHALE	5.0	193.0	
379.0	CARBONDALE	ANNA	SHALE	1.0	198.0	
378.0	CARBONDALE	HERRIN	COAL	2.0	199.0	



MAPID: 16701154000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 15N 4W SECTION: 22 QUARTERS/FOOTAGES: 175' S line, 40' E line

QUADRANGLE: NEW CITY LONGITUDE: -89.517112

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.728603

DATE COLLECTED:

SURFACE ELEVATION (FT.): 581.0

LOGGED (FT.): 243.0

LOG TYPE: Electric Log

SOURCE:

WELL TYPE: Oil and Gas Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
376.5	CARBONDALE	DANVILLE	COAL	2.0	204.5
374.5	CARBONDALE	LAWSON	SHALE	19.5	206.5
355.0	CARBONDALE	LAWSON	BLACK SHALE	1.0	226.0
354.0	CARBONDALE	LAWSON	SHALE	2.0	227.0
352.0	CARBONDALE	BRERETON	LIMESTONE W/ SHALE	8.0	229.0
344.0	CARBONDALE	ANNA	BLACK SHALE	2.0	237.0
342.0	CARBONDALE	HERRIN	COAL	4.0	239.0

MAPID: 16701155000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 15N 4W SECTION: 23 QUARTERS/FOOTAGES: 40' S line, 420' E line

QUADRANGLE: EDINBURG LONGITUDE: -89.499531

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.72838

DATE COLLECTED:

SURFACE ELEVATION (FT.): 585.0

LOGGED (FT.): 226.0

LOG TYPE: Electric Log

SOURCE:

WELL TYPE: Oil and Gas Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
388.5	CARBONDALE	DANVILLE	COAL	1.5	196.5
387.0	CARBONDALE		SHALE	17.0	198.0
370.0	CARBONDALE	BANKSTON FORK	LIMESTONE & SHALE	2.0	215.0
368.0	CARBONDALE	LAWSON	SHALE	7.0	217.0
361.0	CARBONDALE	HERRIN	COAL	2.0	224.0

MAPID: 16701157000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 15N 4W SECTION: 25 QUARTERS/FOOTAGES: 40' S line, 300' W line

QUADRANGLE: EDINBURG LONGITUDE: -89.496648

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.713669

DATE COLLECTED:

SURFACE ELEVATION (FT.): 588.0

LOGGED (FT.): 243.0

LOG TYPE: Electric Log

SOURCE:

WELL TYPE: Oil and Gas Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
385.0	CARBONDALE	DANVILLE	COAL	1.0	203.0
384.0	CARBONDALE	LAWSON	SHALE	21.0	204.0
363.0	CARBONDALE	LAWSON	CALCAREOUS SHALE	5.0	225.0
358.0	CARBONDALE	LAWSON	SHALE	2.0	230.0
356.0	CARBONDALE	BRERETON	LIMESTONE	3.5	232.0
352.5	CARBONDALE	ANNA	BLACK SHALE	2.5	235.5
350.0	CARBONDALE	HERRIN	COAL	5.0	238.0

MAPID: 16700786000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 15N 4W SECTION: 28 QUARTERS/FOOTAGES: 990' N line, 1650' E line

QUADRANGLE: NEW CITY LONGITUDE: -89.541732

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.725823

DATE COLLECTED:

SURFACE ELEVATION (FT.): 583.0

LOGGED (FT.): 220.0

LOG TYPE: Electric Log

SOURCE:

WELL TYPE: Oil and Gas Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
401.0	CARBONDALE		SHALE	20.0	182.0
381.0	CARBONDALE	BANKSTON FORK	LIMESTONE & SHALE	4.0	202.0
377.0	CARBONDALE	LAWSON	SHALE	4.0	206.0
373.0	CARBONDALE	BRERETON	LIMESTONE & SHALE	4.0	210.0
369.0	CARBONDALE	HERRIN	COAL	6.0	214.0

MAPID: 16700675000C VERSION: 1

PROJECT: IDMM-GWQX

COUNTY: SANGAMON TWP/RNG: 15N 4W SECTION: 35 QUARTERS/FOOTAGES: 330' N line, 330' E line of SW NE

QUADRANGLE: NEW CITY LONGITUDE: -89.503542 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 39.709103 DATE COLLECTED: 7 / 0 / 1960

SURFACE ELEVATION (FT.): 588.0 LOGGED (FT.): 395.0 LOG TYPE: Electric Log

SOURCE: ATKINS AND HALE WELL TYPE: Producer-Oil

COMMENT: ELEV. IS SURF,NOT LOG DATUM: DEPTHS OFF

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
349.0	CARBONDALE	HERRIN	UNCLASSIFIED	6.0	239.0
313.0			UNCLASSIFIED	5.0	275.0
273.0	CARBONDALE	HOUCHIN CREEK	UNCLASSIFIED	-	315.0
248.0	CARBONDALE	SURVANT	UNCLASSIFIED	-	340.0
193.0	CARBONDALE	COLCHESTER	UNCLASSIFIED	-	395.0

MAPID: 16701158000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 15N 4W SECTION: 35 QUARTERS/FOOTAGES: 125' N line, 2000' E line

QUADRANGLE: NEW CITY LONGITUDE: -89.50486 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.713199 DATE COLLECTED:

SURFACE ELEVATION (FT.): 563.0 LOGGED (FT.): 218.0 LOG TYPE: Drillers Log

SOURCE: WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
387.5	CARBONDALE	DANVILLE	COAL	1.0	175.5
386.5	CARBONDALE		MOTTLED SHALE	28.5	176.5
358.0	CARBONDALE	BANKSTON FORK	LIMESTONE	3.5	205.0
354.5	CARBONDALE	LAWSON	LIMESTONE W/ SHALE	1.0	208.5
353.5	CARBONDALE	LAWSON	GRAY SHALE	3.0	209.5
350.5	CARBONDALE	BRERETON	LIMESTONE	2.0	212.5
348.5	CARBONDALE	ANNA	GRAY SHALE	0.5	214.5
348.0	CARBONDALE	HERRIN	COAL	3.0	215.0

MAPID: 16701159000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 15N 4W SECTION: 36 QUARTERS/FOOTAGES: 40' S line, 1620' W line

QUADRANGLE: EDINBURG LONGITUDE: -89.491732 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.699293 DATE COLLECTED:

SURFACE ELEVATION (FT.): 589.0 LOGGED (FT.): 262.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
356.0	MODESTO	PIASA	LIMESTONE	5.0	233.0
351.0	CARBONDALE	DANVILLE	BONE COAL	2.0	238.0
349.0	CARBONDALE		MOTTLED SHALE	7.0	240.0
342.0	CARBONDALE	BANKSTON FORK	LIMESTONE	4.0	247.0
338.0	CARBONDALE	LAWSON	SHALE	3.5	251.0
334.5	CARBONDALE	BRERETON	LIMESTONE	3.0	254.5
331.5	CARBONDALE	ANNA	BLACK SHALE	1.0	257.5
330.0	CARBONDALE	HERRIN	COAL	3.0	259.0

MAPID: 16700152000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 15N 5W SECTION: 1 QUARTERS/FOOTAGES: 320' N line, 340' W line

QUADRANGLE: SPRINGFIELD EAST LONGITUDE: -89.611185 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.786407 DATE COLLECTED:

SURFACE ELEVATION (FT.): 592.0 LOGGED (FT.): 207.5 LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO. 19 WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
403.0	MODESTO	PIASA	LIMESTONE	4.0	189.0
399.0	CARBONDALE		DARK GRAY SHALE	1.0	193.0
398.0	CARBONDALE	BANKSTON FORK	LIMESTONE	1.7	194.0
396.3	CARBONDALE	LAWSON	DARK GRAY SHALE	4.8	195.7
391.5	CARBONDALE	BRERETON	LIMESTONE	7.0	200.5

MAPID: 16700119000C    VERSION: 1

PROJECT: NCRDS87

COUNTY: SANGAMON    TWP/RNG: 15N 5W    SECTION: 5    QUARTERS/FOOTAGES: SE

QUADRANGLE: SPRINGFIELD WEST    LONGITUDE: -89.672846

GEOLOGIST: WEIBEL

CONFIDENTIAL: N    LATITUDE: 39.77531

DATE COLLECTED: 0 / 0 / 1903

SURFACE ELEVATION (FT.): 575.0    LOGGED (FT.): 593.0

LOG TYPE: Drillers Log

SOURCE: JUNCTION MINING CO.

WELL TYPE: Coal Test

COMMENT: LOC UNCERTAIN, .5 MILE SW SPRINGFIELD

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
575.0			UNCONSOLIDATED	159.5	0.0	
-			COAL	34.0		
-			UNCLASSIFIED	35.5		
-			BLACK SHALE	126.0		
-			COAL	129.5		
-			UNCLASSIFIED	129.8		
-			LIMESTONE	148.0		
-			UNCLASSIFIED	150.0		
-			BLACK SHALE	153.5		
415.5	CARBONDALE		LIMESTONE	9.5	159.5	
406.0	CARBONDALE		UNCLASSIFIED	5.6	169.0	
400.4	CARBONDALE	HERRIN	COAL	0.4	174.6	UNCERTAIN CORRELATION
400.0	CARBONDALE		UNCLASSIFIED	33.5	175.0	
366.5	CARBONDALE		BLACK SHALE	4.3	208.5	
362.2	CARBONDALE		LIMESTONE	0.3	212.8	
362.0	CARBONDALE	SPRINGFIELD	COAL	6.3	213.0	UNCERTAIN CORRELATION
355.7	CARBONDALE		UNCLASSIFIED	12.7	219.3	
343.0	CARBONDALE		BLACK SHALE	1.7	232.0	
341.3	CARBONDALE		COAL	0.6	233.7	
340.7	CARBONDALE		UNCLASSIFIED	41.4	234.3	
299.3	CARBONDALE	HOUCHIN CREEK	COAL	2.6	275.7	UNCERTAIN CORRELATION
296.7	CARBONDALE		UNCLASSIFIED	52.7	278.3	
244.0	CARBONDALE		BLACK SHALE	1.8	331.0	
242.2	CARBONDALE		UNCLASSIFIED	0.3	332.8	
242.0	CARBONDALE		COAL	1.5	333.0	
240.5	CARBONDALE		UNCLASSIFIED	27.5	334.5	
213.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	1.3	362.0	UNCERTAIN CORRELATION
211.7	CARBONDALE	COLCHESTER	COAL	0.3	363.3	UNCERTAIN CORRELATION
211.4			UNCLASSIFIED	49.4	363.6	
162.0			COAL	1.3	413.0	
160.7			SHALE	3.9	414.3	
156.8			COAL	0.9	418.2	
156.0			UNCLASSIFIED	8.0	419.0	
148.0			BLACK SHALE	10.0	427.0	
138.0			UNCLASSIFIED	14.2	437.0	
123.8			COAL	1.4	451.2	
122.5			UNCLASSIFIED	6.5	452.5	
116.0			COAL	1.0	459.0	
115.0			BLACK SHALE	2.0	460.0	

113.0	UNCLASSIFIED	12.5	462.0
100.5	COAL	1.5	474.5
99.0	UNCLASSIFIED	8.0	476.0
91.0	BLACK SHALE	45.0	484.0
46.0	UNCLASSIFIED	24.3	529.0
21.7	BLACK SHALE	1.0	553.3
20.7	COAL	0.9	554.3
19.8	BLACK SHALE	24.9	555.2
-5.0	SANDSTONE	13.0	580.0

**MAPID:** 16700120000C    **VERSION:** 1    **PROJECT:** NCRDS88  
**COUNTY:** SANGAMON    **TWP/RNG:** 15N 5W    **SECTION:** 18    **QUARTERS/FOOTAGES:** 0' S line, 2640' E line  
**QUADRANGLE:** CHATHAM    **LONGITUDE:** -89.695965    **GEOLOGIST:** R. SMITH  
**CONFIDENTIAL:** N    **LATITUDE:** 39.742276    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 598.0    **LOGGED (FT.):** 224.4    **LOG TYPE:** Drillers Log  
**SOURCE:** PEABODY COAL CO.    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.) UNIT	OVERBURDEN	COMMENT
598.0			UNCONSOLIDATED	86.0	0.0	
512.0	MODESTO		CLAYSTONE & LIMESTONE	20.0	86.0	
492.0	MODESTO		SANDY SHALE	1.0	106.0	
491.0	MODESTO		SHALE	32.0	107.0	
459.0	MODESTO		COAL	0.3	139.0	
458.7	MODESTO		UNDERCLAY	19.8	139.3	
439.0	MODESTO		LIMESTONE	7.0	159.0	
432.0	MODESTO		UNDERCLAY	10.0	166.0	
422.0	MODESTO		LIMESTONE	6.0	176.0	
416.0	MODESTO		UNDERCLAY	6.0	182.0	
410.0	MODESTO		LIMESTONE	1.0	188.0	
409.0	CARBONDALE		SHALE	28.3	189.0	
380.7	CARBONDALE		UNCLASSIFIED	0.2	217.3	
380.6	CARBONDALE	TURNER MINE	BLACK SHALE	0.6	217.4	
380.0	CARBONDALE	TURNER MINE	GRAY SHALE	0.9	218.0	
379.1	CARBONDALE	TURNER MINE	BLACK SHALE	0.7	218.9	
378.4	CARBONDALE	SPRINGFIELD	COAL	0.5	219.6	
377.9	CARBONDALE	SPRINGFIELD	LIGHT SHALE	0.3	220.1	
377.6	CARBONDALE	SPRINGFIELD	COAL	3.8	220.4	
373.8	CARBONDALE		UNDERCLAY	0.2	224.2	

MAPID: 16700120000C    VERSION: 2

PROJECT: ROOF STUDY

COUNTY: SANGAMON    TWP/RNG: 15N 5W    SECTION: 18    QUARTERS/FOOTAGES: 0' S line, 2640' E line

QUADRANGLE: CHATHAM    LONGITUDE: -89.695965

GEOLOGIST:

CONFIDENTIAL: N    LATITUDE: 39.742276

DATE COLLECTED:

SURFACE ELEVATION (FT.): 598.0

LOGGED (FT.): 122.4

LOG TYPE: Drillers Log

SOURCE:

WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
518.6	CARBONDALE	DANVILLE	COAL	0.3	79.4
518.3	CARBONDALE		CLAYSTONE	19.8	79.7
498.6	CARBONDALE	BANKSTON FORK	LIMESTONE	7.0	99.4
491.6	CARBONDALE	LAWSON	CLAYSTONE	10.0	106.4
481.6	CARBONDALE	BRERETON	LIMESTONE	6.0	116.4

---

MAPID: 16700122000C    VERSION: 1

PROJECT: NCRDS88

COUNTY: SANGAMON    TWP/RNG: 15N 6W    SECTION: 12    QUARTERS/FOOTAGES: 2640' N line, 2640' E line

QUADRANGLE: SPRINGFIELD WEST    LONGITUDE: -89.715205    GEOLOGIST: R. SMITH

CONFIDENTIAL: N    LATITUDE: 39.763612    DATE COLLECTED:

SURFACE ELEVATION (FT.): 605.0    LOGGED (FT.): 213.8    LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO.    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
605.0			UNCONSOLIDATED	38.0	0.0	
567.0	MODESTO		LIMESTONE	1.0	38.0	
566.0	MODESTO		CLAYSTONE	1.0	39.0	
565.0	MODESTO		BLACK SHALE	1.0	40.0	
564.0	MODESTO		COAL	0.2	41.0	
563.8	MODESTO		UNDERCLAY	18.8	41.2	
545.0	MODESTO		SANDY SHALE	39.0	60.0	
506.0	MODESTO		LIGHT SHALE	29.0	99.0	
477.0	MODESTO		CLAYSTONE	20.0	128.0	
457.0	MODESTO		SHALE	8.0	148.0	
449.0	CARBONDALE	DANVILLE	COAL	0.0	156.0	
449.0	CARBONDALE		CLAYSTONE	9.0	156.0	
440.0	CARBONDALE	BANKSTON FORK	LIMESTONE	4.5	165.0	UNCERTAIN CORRELATION
435.5	CARBONDALE		CLAYSTONE	6.0	169.5	
429.5	CARBONDALE	BRERETON	LIMESTONE	3.0	175.5	UNCERTAIN CORRELATION
426.5	CARBONDALE	HERRIN	COAL	0.0	178.5	
426.5	CARBONDALE		CLAYSTONE	2.5	178.5	
424.0	CARBONDALE		SANDY SHALE	25.5	181.0	
398.5	CARBONDALE		UNCLASSIFIED	0.6	206.5	
397.9	CARBONDALE	TURNER MINE	BLACK SHALE	1.6	207.1	
396.3	CARBONDALE		UNCLASSIFIED	0.1	208.7	
396.2	CARBONDALE	SPRINGFIELD	COAL	3.0	208.8	
393.2	CARBONDALE	SPRINGFIELD	UNCLASSIFIED	0.3	211.8	
392.9	CARBONDALE	SPRINGFIELD	COAL	1.5	212.1	
391.4	CARBONDALE		UNDERCLAY	0.2	213.6	



MAPID: 16700122000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 15N 6W SECTION: 12 QUARTERS/FOOTAGES: 2640' N line, 2640' E line

QUADRANGLE: SPRINGFIELD WEST LONGITUDE: -89.715205

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.763612

DATE COLLECTED:

SURFACE ELEVATION (FT.): 605.0 LOGGED (FT.): 79.4

LOG TYPE: Drillers Log

SOURCE:

WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
554.1	CARBONDALE		MOTTLED SHALE	15.0	50.9
539.1	CARBONDALE	BANKSTON FORK	LIMESTONE	4.5	65.9
534.6	CARBONDALE	LAWSON	CLAYSTONE	6.0	70.4
528.6	CARBONDALE	BRERETON	LIMESTONE	3.0	76.4

MAPID: 16700123000C VERSION: 1

PROJECT: NCRDS87

COUNTY: SANGAMON TWP/RNG: 15N 6W SECTION: 13 QUARTERS/FOOTAGES: 1650' N line, 1650' W line

QUADRANGLE: SPRINGFIELD WEST LONGITUDE: -89.718798

GEOLOGIST: WEIBEL

CONFIDENTIAL: N LATITUDE: 39.751695

DATE COLLECTED:

SURFACE ELEVATION (FT.): 613.0 LOGGED (FT.): 284.0

LOG TYPE: Drillers Log

SOURCE: PEABODY COAL COMPANY

WELL TYPE: Coal Test

COMMENT: LOCATION AND ELEVATION APPROX.

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
613.0			UNCONSOLIDATED	125.0	0.0
488.0			UNCLASSIFIED	24.5	125.0
463.5			LIMESTONE	2.0	149.5
461.5			UNCLASSIFIED	14.5	151.5
447.0			LIMESTONE	2.0	166.0
445.0			UNCLASSIFIED	4.0	168.0
441.0			LIMESTONE	1.5	172.0
439.5			UNCLASSIFIED	29.3	173.5
410.2	CARBONDALE	TURNER MINE	BLACK SHALE	1.0	202.8
409.2	CARBONDALE	SPRINGFIELD	COAL	5.2	203.8
404.0	CARBONDALE		UNCLASSIFIED	72.0	209.0
332.0	CARBONDALE		COAL	1.7	281.0
330.3	CARBONDALE		UNCLASSIFIED	1.3	282.7

MAPID: 16700123000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 15N 6W SECTION: 13 QUARTERS/FOOTAGES: 1650' N line, 1650' W line

QUADRANGLE: SPRINGFIELD WEST LONGITUDE: -89.718798

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.751695

DATE COLLECTED:

SURFACE ELEVATION (FT.): 613.0 LOGGED (FT.): 174.0

LOG TYPE: Drillers Log

SOURCE:

WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
463.0	MODESTO	PIASA	LIMESTONE	2.0	150.0
461.0	CARBONDALE		CLAYSTONE	14.5	152.0
446.5	CARBONDALE	BANKSTON FORK	LIMESTONE	2.0	166.5
444.5	CARBONDALE	LAWSON	CLAYSTONE	4.0	168.5
440.5	CARBONDALE	BRERETON	LIMESTONE	1.5	172.5

MAPID: 16700193000C VERSION: 1

PROJECT: NCRDS87

COUNTY: SANGAMON TWP/RNG: 15N 7W SECTION: 15 QUARTERS/FOOTAGES: 330' N line, 330' W line of SW SW

QUADRANGLE: LOAMI LONGITUDE: -89.871432

GEOLOGIST: WEIBEL

CONFIDENTIAL: N LATITUDE: 39.743478

DATE COLLECTED: 8 / 0 / 1952

SURFACE ELEVATION (FT.): 633.0 LOGGED (FT.): 480.0

LOG TYPE: Survey Sample Study

SOURCE: GERHARDT AND GARHARDT

WELL TYPE: Dry Hole

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
633.0			UNCONSOLIDATED	98.0	0.0
535.0			UNCLASSIFIED	27.0	98.0
508.0			LIMESTONE	5.0	125.0
503.0			UNCLASSIFIED	20.0	130.0
483.0			LIMESTONE	30.0	150.0
453.0	CARBONDALE	HERRIN	BLACK SHALE	10.0	180.0
443.0	CARBONDALE		UNCLASSIFIED	70.0	190.0
373.0	CARBONDALE	COLCHESTER	SHALE/COAL	10.0	260.0
363.0			UNCLASSIFIED	35.0	270.0
328.0			BLACK SHALE	10.0	305.0
318.0			UNCLASSIFIED	5.0	315.0
313.0			LIMESTONE	10.0	320.0
303.0			UNCLASSIFIED	40.0	330.0
263.0			BLACK SHALE	20.0	370.0
243.0			UNCLASSIFIED	10.0	390.0
233.0			SHALE	80.0	400.0
153.0			UNCLASSIFIED	0.0	480.0

MAPID: 16700125000C    VERSION: 1

PROJECT: NCRDS88

COUNTY: SANGAMON

TWP/RNG: 15N 7W

SECTION: 23

QUARTERS/FOOTAGES: 1650' N line, 990' W line

QUADRANGLE: LOAMI

LONGITUDE: -89.850002

GEOLOGIST: R. SMITH

CONFIDENTIAL: N

LATITUDE: 39.736484

DATE COLLECTED: 10 / 30 / 1889

SURFACE ELEVATION (FT.): 636.4

LOGGED (FT.): 274.0

LOG TYPE: Drillers Log

SOURCE: D.W. SMITH

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
636.4			UNCONSOLIDATED	70.0	0.0	
566.4	MODESTO		SHALE	54.5	70.0	
511.9	MODESTO		LIMESTONE	3.5	124.5	
508.4	MODESTO		SHALE	6.0	128.0	
502.4	MODESTO		SANDY SHALE	5.0	134.0	
497.4	MODESTO	PIASA	LIMESTONE	2.0	139.0	
495.4			SHALE	14.0	141.0	
481.4	CARBONDALE	HERRIN	COAL	0.3	155.0	UNCERTAIN CORRELATION
481.1	CARBONDALE		UNDERCLAY	4.8	155.3	
476.4	CARBONDALE		LIMESTONE W/ SHALE	2.0	160.0	
474.4	CARBONDALE		SANDSTONE	15.0	162.0	
459.4	CARBONDALE	ST. DAVID	LIMESTONE	3.0	177.0	
456.4	CARBONDALE	TURNER MINE	BLACK SHALE	2.3	180.0	
454.1	CARBONDALE		UNCLASSIFIED	0.2	182.3	
453.9	CARBONDALE	SPRINGFIELD	COAL	3.1	182.5	
450.8	CARBONDALE		UNDERCLAY	6.4	185.6	
444.4	CARBONDALE		BLACK SHALE	1.0	192.0	
443.4	CARBONDALE		SANDY SHALE	4.0	193.0	
439.4	CARBONDALE		SANDSTONE	11.0	197.0	
428.4	CARBONDALE		LIMESTONE	2.6	208.0	
425.8	CARBONDALE		SANDSTONE	27.4	210.6	
398.4	CARBONDALE		SANDY SHALE	17.0	238.0	
381.4	CARBONDALE		GRAY SHALE	15.0	255.0	
366.4	CARBONDALE	SURVANT	COAL	0.9	270.0	
365.5	CARBONDALE		SANDY LIMESTONE	1.3	270.9	
364.1	CARBONDALE		BLUE SHALE	1.8	272.3	

MAPID: 16700586000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 15N 7W SECTION: 24 QUARTERS/FOOTAGES: 990' S line, 2310' W line

QUADRANGLE: LOAMI LONGITUDE: -89.826431 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.72956 DATE COLLECTED:

SURFACE ELEVATION (FT.): 633.0 LOGGED (FT.): 183.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
484.0	MODESTO	PIASA	LIMESTONE	5.0	149.0
479.0	CARBONDALE		CLAYSTONE	7.0	154.0
472.0	CARBONDALE	BANKSTON FORK	LIMESTONE & SHALE	9.0	161.0
463.0	CARBONDALE	LAWSON	SHALE	7.0	170.0
456.0	CARBONDALE	BRERETON	LIMESTONE	1.5	177.0
454.5	CARBONDALE	ANNA	BLACK SHALE	1.5	178.5
453.0	CARBONDALE	HERRIN	COAL	3.0	180.0

MAPID: 16770002000C VERSION: 1

PROJECT: NCRDS

COUNTY: SANGAMON TWP/RNG: 15N 7W SECTION: 24 QUARTERS/FOOTAGES: 1850' S line, 1080' E line

QUADRANGLE: LOAMI LONGITUDE: -89.819597 GEOLOGIST: LOUCHIOS

CONFIDENTIAL: N LATITUDE: 39.732038 DATE COLLECTED: 0 / 0 / 1938

SURFACE ELEVATION (FT.): 633.0 LOGGED (FT.): 912.0 LOG TYPE: Drillers Log

SOURCE: UTAH INTERNATIONAL 14C126 WELL TYPE: Coal Test

COMMENT: CODED COAL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
633.0			UNCLASSIFIED	225.0	0.0
408.0			LIMESTONE	20.0	225.0
388.0			SHALE & SANDSTONE	15.0	245.0
373.0			BLACK SHALE	2.0	260.0
371.0			COAL	0.5	262.0
370.5			UNCLASSIFIED	649.5	262.5

MAPID: 16700127000C VERSION: 1

PROJECT: NCRDS87

COUNTY: SANGAMON TWP/RNG: 15N 7W SECTION: 27 QUARTERS/FOOTAGES: 660' N line, 1980' E line

QUADRANGLE: LOAMI LONGITUDE: -89.860472 GEOLOGIST: WEIBEL

CONFIDENTIAL: N LATITUDE: 39.724536 DATE COLLECTED: 12 / 9 / 1889

SURFACE ELEVATION (FT.): 642.0 LOGGED (FT.): 432.0 LOG TYPE: Drillers Log

SOURCE: D.W. SMITH WELL TYPE: Mine Shaft

COMMENT: PRECISE LOCATION UNCERTAIN

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
642.0			UNCONSOLIDATED	101.0	0.0	
541.0			UNCLASSIFIED	39.0	101.0	
502.0			LIMESTONE W/ SHALE	6.0	140.0	
496.0			UNCLASSIFIED	16.0	146.0	
480.0			LIMESTONE	1.0	162.0	
479.0			UNCLASSIFIED	6.0	163.0	
473.0			LIMESTONE	5.0	169.0	
468.0			UNCLASSIFIED	4.0	174.0	
464.0			COAL	1.0	178.0	
463.0			UNCLASSIFIED	4.0	179.0	
459.0	CARBONDALE		LIMESTONE W/ SHALE	4.5	183.0	UNCERTAIN CORRELATION
454.5	CARBONDALE		UNCLASSIFIED	18.5	187.5	
436.0	CARBONDALE	HERRIN	COAL	1.4	206.0	UNCERTAIN CORRELATION
434.6	CARBONDALE		UNCLASSIFIED	4.6	207.4	
430.0	CARBONDALE		LIMESTONE W/ SHALE	2.0	212.0	
428.0	CARBONDALE		UNCLASSIFIED	3.0	214.0	
425.0	CARBONDALE		BLACK SHALE	0.7	217.0	
424.3	CARBONDALE		UNCLASSIFIED	73.4	217.7	
350.9	CARBONDALE		COAL	1.5	291.1	
349.4	CARBONDALE		UNCLASSIFIED	0.7	292.6	
348.7	CARBONDALE		BLACK SHALE	8.7	293.3	
340.0	CARBONDALE		UNCLASSIFIED	30.0	302.0	
310.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	2.5	332.0	UNCERTAIN CORRELATION
307.5	CARBONDALE	COLCHESTER	COAL	2.5	334.5	UNCERTAIN CORRELATION
305.0			UNCLASSIFIED	3.0	337.0	
302.0			LIMESTONE	1.2	340.0	
300.8			UNCLASSIFIED	3.9	341.2	
297.0			COAL	0.3	345.0	
296.7			UNCLASSIFIED	0.8	345.3	
296.0			LIMESTONE	3.0	346.0	
293.0			UNCLASSIFIED	13.7	349.0	
279.3			COAL	0.3	362.7	
279.0			UNCLASSIFIED	24.0	363.0	
255.0			BLACK SHALE	0.4	387.0	
254.6			COAL	0.6	387.4	
254.0			UNCLASSIFIED	3.0	388.0	
251.0			COAL	0.9	391.0	
250.1			UNCLASSIFIED	36.9	391.9	
213.2			COAL	2.6	428.8	

210.7

UNCLASSIFIED

0.7 431.3

**MAPID:** 16700127000C    **VERSION:** 2    **PROJECT:** ROOF STUDY  
**COUNTY:** SANGAMON    **TWP/RNG:** 15N 7W    **SECTION:** 27    **QUARTERS/FOOTAGES:** 660' N line, 1980' E line  
**QUADRANGLE:** LOAMI    **LONGITUDE:** -89.860472    **GEOLOGIST:**  
**CONFIDENTIAL:** N    **LATITUDE:** 39.724536    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 642.0    **LOGGED (FT.):** 179.4    **LOG TYPE:** Drillers Log  
**SOURCE:**    **WELL TYPE:** Coal Test  
**COMMENT:** FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
502.0	MODESTO	PIASA	LIMESTONE W/ SHALE	6.0	140.0
496.0	CARBONDALE		MOTTLED SHALE	16.0	146.0
480.0	CARBONDALE	BANKSTON FORK	LIMESTONE	1.0	162.0
479.0	CARBONDALE	LAWSON	CALCAREOUS SHALE	6.0	163.0
473.0	CARBONDALE	BRERETON	LIMESTONE	5.0	169.0
468.0	CARBONDALE	ENERGY	GRAY SHALE	3.6	174.0
464.0	CARBONDALE	HERRIN	BONE COAL	1.4	178.0

MAPID: 16770001000C    VERSION: 1

PROJECT: NCRDS

COUNTY: SANGAMON    TWP/RNG: 15N 7W    SECTION: 30    QUARTERS/FOOTAGES: 1660' N line, 2180' W line

QUADRANGLE: NEW BERLIN    LONGITUDE: -89.920353    GEOLOGIST: LOUCHIOS

CONFIDENTIAL: N    LATITUDE: 39.721146    DATE COLLECTED: 0 / 0 / 1931

SURFACE ELEVATION (FT.): 658.0    LOGGED (FT.): 500.0    LOG TYPE: Drillers Log

SOURCE: UTAH INTERNATIONAL    16C128    WELL TYPE: Coal Test

COMMENT: CODED COAL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
658.0			NO RECORD	140.0	0.0
518.0			SHALE	37.5	140.0
480.5			LIMESTONE	5.0	177.5
475.5			BLACK SHALE	7.5	182.5
468.0			DARK SHALE	4.0	190.0
464.0			LIMESTONE	17.0	194.0
447.0			SHALE	26.0	211.0
421.0			LIMESTONE	3.0	237.0
418.0			DARK SHALE	47.0	240.0
371.0			BLACK SHALE	4.0	287.0
367.0			SHALE & SANDSTONE	24.0	291.0
343.0			BLACK SHALE	13.0	315.0
330.0			COAL	6.0	328.0
324.0			DARK SHALE	8.0	334.0
316.0			LIMESTONE	8.0	342.0
308.0			DARK SHALE	5.0	350.0
303.0			UNCLASSIFIED	145.0	355.0

---

MAPID: 16770004000C VERSION: 1

PROJECT: NCRDS

COUNTY: SANGAMON TWP/RNG: 15N 8W SECTION: 24 QUARTERS/FOOTAGES: 1390' N line, 690' E line

QUADRANGLE: NEW BERLIN LONGITUDE: -89.930692 GEOLOGIST: LOUCHIOS

CONFIDENTIAL: N LATITUDE: 39.73613 DATE COLLECTED:

SURFACE ELEVATION (FT.): 650.0 LOGGED (FT.): 505.0 LOG TYPE: Drillers Log

SOURCE: UTAH INTERNATIONAL 01C66 WELL TYPE: Coal Test

COMMENT: CODED COAL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
650.0			NO RECORD	75.0	0.0
575.0			SHALE	57.0	75.0
518.0			LIMESTONE	33.0	132.0
485.0			SHALE	45.0	165.0
440.0			SANDSTONE	20.0	210.0
420.0			SHALE	40.0	230.0
380.0			LIMESTONE	10.0	270.0
370.0	CARBONDALE	COLCHESTER	COAL	5.0	280.0
365.0			LIMESTONE	25.0	285.0
340.0			SHALE	25.0	310.0
315.0			SANDSTONE	35.0	335.0
280.0			COAL	5.0	370.0
275.0			SHALE	65.0	375.0
210.0			SANDSTONE	65.0	440.0

MAPID: 16701212000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 16N 1W SECTION: 5 QUARTERS/FOOTAGES: 1365' N line, 45' W line

QUADRANGLE: NIAN TIC LONGITUDE: -89.236185 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.86948 DATE COLLECTED:

SURFACE ELEVATION (FT.): 595.0 LOGGED (FT.): 292.0 LOG TYPE: Drillers Log

SOURCE: WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
353.0	MODESTO	PIASA	LIMESTONE	6.0	242.0
347.0	MODESTO		GRAY SHALE	25.0	248.0
322.0	CARBONDALE	DANVILLE	BLACK SHALE	2.0	273.0
320.0	CARBONDALE	LAWSON	MOTTLED SHALE	3.0	275.0
317.0	CARBONDALE	LAWSON	CARBONACEOUS SHALE	5.0	278.0
312.0	CARBONDALE	BRERETON	LIMESTONE	6.0	283.0
306.0	CARBONDALE	ANNA	LIMESTONE	2.0	289.0
304.0	CARBONDALE	HERRIN	COAL	1.0	291.0



MAPID: 16700213000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 16N 1W SECTION: 6 QUARTERS/FOOTAGES: 330' N line, 330' W line

QUADRANGLE: MT. AUBURN LONGITUDE: -89.254018

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.872624

DATE COLLECTED:

SURFACE ELEVATION (FT.): 604.0

LOGGED (FT.): 271.0

LOG TYPE: Electric Log

SOURCE:

WELL TYPE: Oil and Gas Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
381.0	MODESTO	PIASA	LIMESTONE W/ SHALE	17.0	223.0	
364.0	MODESTO		SHALE	14.0	240.0	
350.0	CARBONDALE	DANVILLE	BONE COAL	1.0	254.0	
349.0	CARBONDALE	LAWSON	SHALE	10.0	255.0	
339.0	CARBONDALE	BRERETON	LIMESTONE	6.0	265.0	

MAPID: 16701162000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 16N 1W SECTION: 7 QUARTERS/FOOTAGES: 40' N line, 1295' W line

QUADRANGLE: MT. AUBURN LONGITUDE: -89.250342

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.858772

DATE COLLECTED:

SURFACE ELEVATION (FT.): 602.0

LOGGED (FT.): 237.0

LOG TYPE: Drillers Log

SOURCE:

WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
325.0	MODESTO	PIASA	LIMESTONE W/ SHALE	5.0	277.0	
320.0	MODESTO		GRAY SHALE	23.0	282.0	
297.0	CARBONDALE	DANVILLE	COAL	2.0	305.0	
295.0	CARBONDALE	LAWSON	GRAY SHALE	9.0	307.0	
286.0	CARBONDALE	BRERETON	LIMESTONE	2.0	316.0	
266.0	CARBONDALE	HERRIN	COAL	1.0	336.0	

MAPID: 16701163000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 16N 1W SECTION: 8 QUARTERS/FOOTAGES: 36' N line, 36' W line

QUADRANGLE: NIANTIC LONGITUDE: -89.236006

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.85887

DATE COLLECTED:

SURFACE ELEVATION (FT.): 600.0 LOGGED (FT.): 285.0

LOG TYPE: Drillers Log

SOURCE:

WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
375.0	MODESTO	PIASA	LIMESTONE & SHALE	10.0	225.0
365.0	MODESTO		MOTTLED SHALE	8.0	235.0
357.0	CARBONDALE	DANVILLE	BLACK SHALE	2.0	243.0
355.0	CARBONDALE		MOTTLED SHALE	5.0	245.0
350.0	CARBONDALE	BANKSTON FORK	LIMESTONE & SHALE	12.0	250.0
338.0	CARBONDALE	LAWSON	SHALE	18.0	262.0
320.0	CARBONDALE	BRERETON	LIMESTONE	2.0	280.0
318.0	CARBONDALE	ANNA	BLACK SHALE	1.0	282.0
317.0	CARBONDALE	HERRIN	COAL	2.0	283.0

MAPID: 16701164000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 16N 1W SECTION: 18 QUARTERS/FOOTAGES: 30' N line, 150' W line

QUADRANGLE: MT. AUBURN LONGITUDE: -89.254428

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.84442

DATE COLLECTED:

SURFACE ELEVATION (FT.): 584.0 LOGGED (FT.): 218.0

LOG TYPE: Drillers Log

SOURCE:

WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
326.0	MODESTO	PIASA	LIMESTONE AND SANDSTONE	3.5	258.0
322.5	MODESTO		MOTTLED SHALE	25.0	261.5
297.5	CARBONDALE	DANVILLE	COAL	3.0	286.5
294.5	CARBONDALE	LAWSON	SHALE	6.0	289.5
288.5	CARBONDALE	BRERETON	LIMESTONE	4.0	295.5
267.0	CARBONDALE	HERRIN	BONE COAL	1.0	317.0

MAPID: 16701960000C VERSION: 1

PROJECT: EIA-DOE

COUNTY: SANGAMON TWP/RNG: 16N 2W SECTION: 1 QUARTERS/FOOTAGES: 1640' S line, 0' W line

QUADRANGLE: MT. AUBURN LONGITUDE: -89.273799

GEOLOGIST: JACOBSON

CONFIDENTIAL: N LATITUDE: 39.863534

DATE COLLECTED: 2 / 27 / 1973

SURFACE ELEVATION (FT.): 603.0 LOGGED (FT.): 348.1

LOG TYPE: Drillers Log

SOURCE: PIAMCO INC. 13

WELL TYPE: Coal Test

COMMENT:

MAPID: 1670196000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 16N 2W SECTION: 1 QUARTERS/FOOTAGES: 1640' S line, 0' W line

QUADRANGLE: MT. AUBURN LONGITUDE: -89.273799

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.863534

DATE COLLECTED:

SURFACE ELEVATION (FT.): 603.0 LOGGED (FT.): 147.0

LOG TYPE: Drillers Log

SOURCE: PIAMCO INC. I3

WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION, DEPTHS CORRECTED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
330.0	MODESTO		BLACK SHALE	1.5	273.0
328.5	CARBONDALE	DANVILLE	COAL	1.5	274.5
260.0	CARBONDALE	SPRINGFIELD	COAL	5.1	343.0
-	CARBONDALE	LAWSON	GRAY SHALE	8.0	
-	CARBONDALE	LAWSON	SILTY SHALE	21.0	
-	CARBONDALE	BRERETON	LIMESTONE	1.0	

MAPID: 16701167000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 16N 2W SECTION: 4 QUARTERS/FOOTAGES: 50' N line, 100' W line

QUADRANGLE: MT. AUBURN LONGITUDE: -89.329357

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.8738

DATE COLLECTED:

SURFACE ELEVATION (FT.): 599.0 LOGGED (FT.): 307.0

LOG TYPE: Drillers Log

SOURCE:

WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
343.0	CARBONDALE		GRAY SHALE	34.0	256.0
309.0	CARBONDALE	BANKSTON FORK	LIMESTONE	4.0	290.0
305.0	CARBONDALE	LAWSON	GRAY SHALE	5.0	294.0
300.0	CARBONDALE	BRERETON	LIMESTONE	1.0	299.0
299.0	CARBONDALE	ANNA	BLACK SHALE	3.0	300.0
296.0	CARBONDALE	HERRIN	COAL	4.0	303.0

MAPID: 16701946000C VERSION: 1

PROJECT: EIA-DOE

COUNTY: SANGAMON TWP/RNG: 16N 2W SECTION: 7 QUARTERS/FOOTAGES: 1340' N line, 2610' W line

QUADRANGLE: MT. AUBURN LONGITUDE: -89.358453

GEOLOGIST: JACOBSON

CONFIDENTIAL: N LATITUDE: 39.856451

DATE COLLECTED: 9 / 22 / 1973

SURFACE ELEVATION (FT.): 597.0 LOGGED (FT.): 298.9

LOG TYPE: Drillers Log

SOURCE: PIAMCO INC. G

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
302.7	CARBONDALE	SPRINGFIELD	COAL	4.6	294.3

MAPID: 16701946000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 16N 2W SECTION: 7 QUARTERS/FOOTAGES: 1340' N line, 2610' W line

QUADRANGLE: MT. AUBURN LONGITUDE: -89.358453

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.856451

DATE COLLECTED:

SURFACE ELEVATION (FT.): 597.0

LOGGED (FT.): 262.0

LOG TYPE: Drillers Log

SOURCE: PIAMCO INC. G

WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
375.0	MODESTO	PIASA	LIMESTONE AND SANDSTONE	2.0	222.0
373.0	MODESTO		GRAY SHALE	16.0	224.0
357.0	CARBONDALE	DANVILLE	COAL	2.0	240.0
355.0	CARBONDALE	LAWSON	GRAY SHALE	14.0	242.0
341.0	CARBONDALE	HERRIN	DARK GRAY SHALE	6.0	256.0

MAPID: 16701168000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 16N 2W SECTION: 11 QUARTERS/FOOTAGES: 950' N line, 50' E line

QUADRANGLE: MT. AUBURN LONGITUDE: -89.273933

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.856386

DATE COLLECTED:

SURFACE ELEVATION (FT.): 601.0

LOGGED (FT.): 299.0

LOG TYPE: Drillers Log

SOURCE:

WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
338.0	MODESTO		MOTTLED SHALE	17.0	263.0
321.0	CARBONDALE	DANVILLE	BLACK SHALE	1.0	280.0
320.0	CARBONDALE	LAWSON	GRAY SHALE	17.0	281.0
303.0	CARBONDALE	HERRIN	BLACK SHALE	1.0	298.0

MAPID: 16701169000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 16N 2W SECTION: 17 QUARTERS/FOOTAGES: 100' N line, 50' E line

QUADRANGLE: MT. AUBURN LONGITUDE: -89.330167

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.845102

DATE COLLECTED:

SURFACE ELEVATION (FT.): 595.0

LOGGED (FT.): 294.0

LOG TYPE: Drillers Log

SOURCE:

WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
330.0	CARBONDALE		MOTTLED SHALE	13.0	265.0
317.0	CARBONDALE	BANKSTON FORK	LIMESTONE	4.0	278.0
313.0	CARBONDALE	LAWSON	GRAY SHALE	3.0	282.0
310.0	CARBONDALE	BRERETON	LIMESTONE	5.0	285.0
305.0	CARBONDALE	HERRIN	COAL	4.0	290.0

**MAPID:** 16701957000C    **VERSION:** 1    **PROJECT:** EIA-DOE  
**COUNTY:** SANGAMON    **TWP/RNG:** 16N 2W    **SECTION:** 17    **QUARTERS/FOOTAGES:** 1380' N line, 40' E line of NE  
**QUADRANGLE:** MT. AUBURN    **LONGITUDE:** -89.330168    **GEOLOGIST:** JACOBSON  
**CONFIDENTIAL:** N    **LATITUDE:** 39.841569    **DATE COLLECTED:** 0 / 0 / 1973  
**SURFACE ELEVATION (FT.):** 590.0    **LOGGED (FT.):** 319.7    **LOG TYPE:** Drillers Log  
**SOURCE:** PIAMCO INC.    H    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
274.8	CARBONDALE	SPRINGFIELD	COAL	4.5	315.2	

**MAPID:** 16701170000C    **VERSION:** 1    **PROJECT:** ROOF STUDY  
**COUNTY:** SANGAMON    **TWP/RNG:** 16N 2W    **SECTION:** 20    **QUARTERS/FOOTAGES:** 750' S line, 50' W line  
**QUADRANGLE:** MT. AUBURN    **LONGITUDE:** -89.349078    **GEOLOGIST:**  
**CONFIDENTIAL:** N    **LATITUDE:** 39.818563    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 579.0    **LOGGED (FT.):** 260.0    **LOG TYPE:** Drillers Log  
**SOURCE:**    **WELL TYPE:** Coal Test  
**COMMENT:** FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
357.0	MODESTO	PIASA	LIMESTONE AND SANDSTONE	4.0	222.0	
353.0	CARBONDALE	LAWSON	LIMESTONE W/ SHALE	14.0	226.0	
339.0	CARBONDALE	LAWSON	GRAY SHALE	12.0	240.0	
327.0	CARBONDALE	BRERETON	LIMESTONE	5.0	252.0	
322.0	CARBONDALE	HERRIN	COAL	3.0	257.0	

**MAPID:** 16701947000C    **VERSION:** 1    **PROJECT:** EIA-DOE  
**COUNTY:** SANGAMON    **TWP/RNG:** 16N 2W    **SECTION:** 24    **QUARTERS/FOOTAGES:** 300' N line, 50' W line  
**QUADRANGLE:** MT. AUBURN    **LONGITUDE:** -89.273497    **GEOLOGIST:** JACOBSON  
**CONFIDENTIAL:** N    **LATITUDE:** 39.829171    **DATE COLLECTED:** 2 / 22 / 1973  
**SURFACE ELEVATION (FT.):** 604.0    **LOGGED (FT.):** 356.0    **LOG TYPE:** Drillers Log  
**SOURCE:** PIAMCO INC.    I1    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
310.5	CARBONDALE	DANVILLE	COAL	2.0	293.5	
299.5	CARBONDALE	HERRIN	COAL	0.5	304.5	
253.5	CARBONDALE	SPRINGFIELD	COAL	5.5	350.5	

MAPID: 16701947000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 16N 2W SECTION: 24 QUARTERS/FOOTAGES: 300' N line, 50' W line

QUADRANGLE: MT. AUBURN LONGITUDE: -89.273497

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.829171

DATE COLLECTED:

SURFACE ELEVATION (FT.): 604.0

LOGGED (FT.): 305.5

LOG TYPE: Drillers Log

SOURCE: PIAMCO INC. 11

WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
340.0	MODESTO	PIASA	LIMESTONE	3.5	264.0
336.5	MODESTO		MOTTLED SHALE	18.0	267.5
318.5	CARBONDALE	DANVILLE	COAL	2.0	285.5
316.5	CARBONDALE	LAWSON	SILTY SHALE	3.5	287.5
313.0	CARBONDALE	BRERETON	LIMESTONE	4.0	291.0
309.0	CARBONDALE	ANNA	BLACK SHALE	1.5	295.0
299.0	CARBONDALE	HERRIN	COAL	0.5	305.0

MAPID: 16701171000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 16N 2W SECTION: 25 QUARTERS/FOOTAGES: 25' N line, 25' W line

QUADRANGLE: MT. AUBURN LONGITUDE: -89.273798

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.81547

DATE COLLECTED:

SURFACE ELEVATION (FT.): 595.0

LOGGED (FT.): 303.0

LOG TYPE: Drillers Log

SOURCE:

WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
331.0	MODESTO	PIASA	LIMESTONE	3.0	264.0
328.0	CARBONDALE	LAWSON	LIMESTONE W/ SHALE	9.0	267.0
319.0	CARBONDALE	LAWSON	MOTTLED SHALE	1.0	276.0
318.0	CARBONDALE	LAWSON	GRAY SHALE	19.0	277.0
299.0	CARBONDALE	BRERETON	LIMESTONE	3.0	296.0
296.0	CARBONDALE	HERRIN	COAL	4.0	299.0

MAPID: 16723330000C VERSION: 1

PROJECT: NCRDS87

COUNTY: SANGAMON TWP/RNG: 16N 2W SECTION: 26 QUARTERS/FOOTAGES: 330' S line, 660' E line of SE NW

QUADRANGLE: MT. AUBURN LONGITUDE: -89.285714 GEOLOGIST: WEIBEL

CONFIDENTIAL: N LATITUDE: 39.80936 DATE COLLECTED: 10 / 3 / 1981

SURFACE ELEVATION (FT.): 608.2 LOGGED (FT.): 581.0 LOG TYPE: Gamma Ray Density

SOURCE: JOHN CAREY OIL COMPANY, INC. WELL TYPE: Producer-Oil and Gas

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
608.2			UNCONSOLIDATED	171.0	0.0	
437.2			UNCLASSIFIED	34.0	171.0	
403.2			BLACK SHALE	3.0	205.0	
400.2			UNCLASSIFIED	138.5	208.0	
261.7	CARBONDALE	ANNA	BLACK SHALE	3.5	346.5	UNCERTAIN CORRELATION
258.2	CARBONDALE	HERRIN	COAL	2.0	350.0	UNCERTAIN CORRELATION
256.2	CARBONDALE		UNCLASSIFIED	29.5	352.0	
226.7	CARBONDALE	TURNER MINE	BLACK SHALE	5.0	381.5	
221.7	CARBONDALE	SPRINGFIELD	COAL	2.5	386.5	
219.2	CARBONDALE		COAL	56.5	389.0	
162.7	CARBONDALE	HOUCHIN CREEK	COAL	2.5	445.5	
160.2	CARBONDALE		UNCLASSIFIED	21.5	448.0	
138.7	CARBONDALE		COAL	1.0	469.5	
137.7	CARBONDALE		UNCLASSIFIED	21.5	470.5	
116.2	CARBONDALE	MECCA QUARRY	BLACK SHALE	6.0	492.0	
110.2	CARBONDALE	COLCHESTER	COAL	2.0	498.0	
108.2			UNCLASSIFIED	6.0	500.0	
102.2			COAL	2.0	506.0	
100.2			UNCLASSIFIED	28.0	508.0	
72.2			BLACK SHALE	5.0	536.0	
67.2			UNCLASSIFIED	4.0	541.0	
63.2			DARK GRAY SHALE	4.0	545.0	
59.2			UNCLASSIFIED	30.0	549.0	
29.2			COAL	2.0	579.0	

MAPID: 16701172000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 16N 2W SECTION: 28 QUARTERS/FOOTAGES: 25' S line, 25' E line

QUADRANGLE: MT. AUBURN LONGITUDE: -89.311913

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.80152

DATE COLLECTED:

SURFACE ELEVATION (FT.): 592.0 LOGGED (FT.): 252.0

LOG TYPE: Drillers Log

SOURCE:

WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
306.0	MODESTO	PIASA	LIMESTONE & SHALE	5.0	286.0
301.0	CARBONDALE	LAWSON	GRAY SHALE	27.0	291.0
274.0	CARBONDALE	BRERETON	LIMESTONE	3.0	318.0
341.0	CARBONDALE	HERRIN	BLACK SHALE	1.0	251.0

MAPID: 16701948000C VERSION: 1

PROJECT: EIA-DOE

COUNTY: SANGAMON TWP/RNG: 16N 2W SECTION: 30 QUARTERS/FOOTAGES: 54' N line, 1270' E line

QUADRANGLE: MT. AUBURN LONGITUDE: -89.35384

GEOLOGIST: JACOBSON

CONFIDENTIAL: N LATITUDE: 39.816322

DATE COLLECTED: 10 / 3 / 1973

SURFACE ELEVATION (FT.): 585.0 LOGGED (FT.): 307.5

LOG TYPE: Drillers Log

SOURCE: PIAMCO INC. I

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
312.0	CARBONDALE	HERRIN	COAL	2.5	273.0
283.1	CARBONDALE	SPRINGFIELD	COAL	5.6	301.9

MAPID: 16701948000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 16N 2W SECTION: 30 QUARTERS/FOOTAGES: 54' N line, 1270' E line

QUADRANGLE: MT. AUBURN LONGITUDE: -89.35384

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.816322

DATE COLLECTED:

SURFACE ELEVATION (FT.): 585.0 LOGGED (FT.): 275.5

LOG TYPE: Drillers Log

SOURCE: PIAMCO INC. I

WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
347.0	MODESTO	PIASA	LIMESTONE W/ SHALE	6.5	238.0
340.5	MODESTO		MOTTLED SHALE	5.0	244.5
335.5	CARBONDALE	DANVILLE	BLACK SHALE	2.0	249.5
333.5	CARBONDALE		GRAY SHALE	8.5	251.5
325.0	CARBONDALE	BANKSTON FORK	LIMESTONE	6.5	260.0
318.5	CARBONDALE	LAWSON	DARK GRAY SHALE	3.0	266.5
315.5	CARBONDALE	BRERETON	LIMESTONE	1.0	269.5
314.5	CARBONDALE	ENERGY	GRAY SHALE	9.0	270.5
312.0	CARBONDALE	HERRIN	COAL	2.5	273.0



MAPID: 16701949000C    VERSION: 1

PROJECT: EIA-DOE

COUNTY: SANGAMON    TWP/RNG: 16N 2W    SECTION: 30    QUARTERS/FOOTAGES: 20' S line, 2604' W line of SW

QUADRANGLE: MT. AUBURN    LONGITUDE: -89.359809    GEOLOGIST: JACOBSON

CONFIDENTIAL: N    LATITUDE: 39.802016    DATE COLLECTED: 10 / 4 / 1973

SURFACE ELEVATION (FT.): 600.0    LOGGED (FT.): 320.0    LOG TYPE: Drillers Log

SOURCE: PIAMCO INC.    J    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
348.0	CARBONDALE	DANVILLE	COAL	0.0	252.0	
327.0	CARBONDALE	HERRIN	COAL	0.0	273.0	2 ft black shale at coal horizon
285.0	CARBONDALE	SPRINGFIELD	COAL	5.0	315.0	

---

MAPID: 16722404000C    VERSION: 1

PROJECT: NCRDS89

COUNTY: SANGAMON    TWP/RNG: 16N 3W    SECTION: 3    QUARTERS/FOOTAGES: 60' N line, 2620' W line

QUADRANGLE: MECHANICSBURG    LONGITUDE: -89.415272    GEOLOGIST: SROKA

CONFIDENTIAL: N    LATITUDE: 39.874765    DATE COLLECTED: 12 / 2 / 1975

SURFACE ELEVATION (FT.): 620.0    LOGGED (FT.): 326.0    LOG TYPE: Multiple log types

SOURCE: MOBIL OIL SI-148    WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENSITY, DRILL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
620.0			UNCONSOLIDATED	158.0	0.0	
462.0	MODESTO		GRAY SHALE	52.0	158.0	
410.0	MODESTO		SHALE	8.0	210.0	
402.0	MODESTO		BLACK SHALE	2.0	218.0	
400.0	MODESTO		SHALE	8.0	220.0	
392.0	MODESTO		SHALY LIMESTONE	4.0	228.0	
388.0	MODESTO		SHALE	2.0	232.0	
386.0	MODESTO		SHALY LIMESTONE	2.0	234.0	
384.0	MODESTO		SHALE	4.0	236.0	
380.0	MODESTO		SHALE	4.5	240.0	
375.5	MODESTO		BLACK SHALE	1.5	244.5	
374.0	MODESTO		SHALE	7.0	246.0	
367.0	CARBONDALE	DANVILLE	COAL	1.0	253.0	
366.0	CARBONDALE		SHALE	7.5	254.0	
358.5	CARBONDALE	BANKSTON FORK	LIMESTONE	3.5	261.5	
355.0	CARBONDALE		GRAY SHALE	8.0	265.0	
347.0	CARBONDALE	BRERETON	LIMESTONE	4.0	273.0	
343.0	CARBONDALE	HERRIN	COAL	0.0	277.0	
343.0	CARBONDALE		GRAY SHALE	23.0	277.0	
320.0	CARBONDALE		GRAY SHALE	9.0	300.0	
311.0	CARBONDALE	ST. DAVID	LIMESTONE	2.0	309.0	
309.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.8	311.0	
306.2	CARBONDALE	SPRINGFIELD	COAL	5.0	313.8	
301.2	CARBONDALE		UNDERCLAY	3.2	318.8	
298.0	CARBONDALE		SHALE	4.0	322.0	

MAPID: 16723037000C    VERSION: 1

PROJECT: NCRDS89

COUNTY: SANGAMON    TWP/RNG: 16N 3W    SECTION: 4    QUARTERS/FOOTAGES: 2540' S line, 2540' W line

QUADRANGLE: MECHANICSBURG    LONGITUDE: -89.435041    GEOLOGIST: SROKA

CONFIDENTIAL: N    LATITUDE: 39.867875    DATE COLLECTED: 6 / 6 / 1979

SURFACE ELEVATION (FT.): 600.0    LOGGED (FT.): 305.0    LOG TYPE: Multiple log types

SOURCE: MOBIL OIL SI-79-4-51C    WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENSITY, DRILL LOG, CORE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
600.0			UNCONSOLIDATED	68.0	0.0
532.0	MODESTO		GRAY SHALE	54.5	68.0
477.5	MODESTO		SHALY SANDSTONE	4.0	122.5
473.5	MODESTO		GRAY SHALE	13.0	126.5
460.5	MODESTO		LIMESTONE	0.5	139.5
460.0	MODESTO		GRAY SHALE	43.5	140.0
416.5	MODESTO		LIMESTONE	0.5	183.5
416.0	MODESTO		GRAY SHALE	7.0	184.0
409.0	MODESTO		COAL	0.5	191.0
408.5	MODESTO		GRAY SHALE	9.5	191.5
399.0	MODESTO		BLACK SHALE	3.0	201.0
396.0	MODESTO		GRAY SHALE	12.0	204.0
384.0	MODESTO		SHALE	4.0	216.0
380.0	CARBONDALE	DANVILLE	COAL	0.0	220.0
380.0	CARBONDALE		GRAY SHALE	32.5	220.0
347.5	CARBONDALE		LIMESTONE W/ SHALE	6.0	252.5
341.5	CARBONDALE	HERRIN	COAL	0.0	258.5
341.5	CARBONDALE		GRAY SHALE	19.5	258.5
322.0	CARBONDALE	ST. DAVID	LIMESTONE	2.0	278.0
320.0	CARBONDALE	TURNER MINE	BLACK SHALE	3.0	280.0
317.0	CARBONDALE	SPRINGFIELD	COAL	4.9	283.0
312.1	CARBONDALE		UNDERCLAY	0.1	287.9
312.0	CARBONDALE		CORE LOSS	0.5	288.0
311.5	CARBONDALE		GRAY SHALE	4.5	288.5
307.0	CARBONDALE		LIMESTONE	1.0	293.0
306.0	CARBONDALE		CALCAREOUS SHALE	11.0	294.0

MAPID: 16722405000C    VERSION: 1

PROJECT: NCRDS89

COUNTY: SANGAMON    TWP/RNG: 16N 3W    SECTION: 5    QUARTERS/FOOTAGES: 120' S line, 1275' E line

QUADRANGLE: MECHANICSBURG    LONGITUDE: -89.44881    GEOLOGIST: SROKA

CONFIDENTIAL: N    LATITUDE: 39.861214    DATE COLLECTED: 12 / 4 / 1975

SURFACE ELEVATION (FT.): 590.0    LOGGED (FT.): 240.0    LOG TYPE: Multiple log types

SOURCE: MOBIL OIL SI-134    WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENSITY, DRILL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
590.0			UNCONSOLIDATED	44.0	0.0
546.0	MODESTO		SHALE	4.0	44.0
542.0	MODESTO		SANDY SHALE	52.0	48.0
490.0	MODESTO		SILTY SHALE	25.0	100.0
465.0	MODESTO		SHALE	5.0	125.0
460.0	MODESTO		SHALE	3.0	130.0
457.0	MODESTO		SHALE	5.0	133.0
452.0	MODESTO		BLACK SHALE	1.0	138.0
451.0	MODESTO		SHALE	8.5	139.0
442.5	MODESTO	PIASA	LIMESTONE	5.0	147.5
437.5	MODESTO		SHALE	15.5	152.5
422.0	CARBONDALE	DANVILLE	SHALE	1.5	168.0
420.5	CARBONDALE		SHALE	16.5	169.5
404.0	CARBONDALE		SHALY LIMESTONE	3.0	186.0
401.0	CARBONDALE	HERRIN	COAL	0.0	189.0
401.0	CARBONDALE		GRAY SHALE	11.0	189.0
390.0	CARBONDALE		GRAY SHALE	20.0	200.0
370.0	CARBONDALE	ST. DAVID	LIMESTONE	4.0	220.0
366.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	224.0
364.0	CARBONDALE	SPRINGFIELD	COAL	5.0	226.0
359.0	CARBONDALE		UNDERCLAY	5.0	231.0
354.0	CARBONDALE		GRAY SHALE	4.0	236.0

MAPID: 16701173000C    VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON    TWP/RNG: 16N 3W    SECTION: 6    QUARTERS/FOOTAGES: 2615' S line, 25' E line

QUADRANGLE: MECHANICSBURG

LONGITUDE: -89.463702

GEOLOGIST:

CONFIDENTIAL: N

LATITUDE: 39.868051

DATE COLLECTED:

SURFACE ELEVATION (FT.): 598.0

LOGGED (FT.): 265.0

LOG TYPE: Drillers Log

SOURCE:

WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
367.0	MODESTO		MOTTLED SHALE	8.0	231.0
359.0	CARBONDALE	DANVILLE	COAL	2.0	239.0
357.0	CARBONDALE	LAWSON	GRAY SHALE	4.0	241.0
353.0	CARBONDALE	LAWSON	SANDSTONE	3.0	245.0
350.0	CARBONDALE	LAWSON	GRAY SHALE	4.0	248.0
346.0	CARBONDALE	BRERETON	LIMESTONE	2.0	252.0

---

MAPID: 16723088000C    VERSION: 1

PROJECT: NCRDS89

COUNTY: SANGAMON    TWP/RNG: 16N 3W    SECTION: 6    QUARTERS/FOOTAGES: 2570' S line, 1310' W line

QUADRANGLE: MECHANICSBURG    LONGITUDE: -89.478438    GEOLOGIST: SROKA

CONFIDENTIAL: N    LATITUDE: 39.867743    DATE COLLECTED: 6 / 5 / 1979

SURFACE ELEVATION (FT.): 580.0    LOGGED (FT.): 260.0    LOG TYPE: Multiple log types

SOURCE: MOBIL OIL SI-79-6-57    WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENSITY, DRILL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
580.0			UNCONSOLIDATED	73.0	0.0
507.0	MODESTO		SHALE	2.0	73.0
505.0	MODESTO		GRAY SHALE	40.5	75.0
464.5	MODESTO		SHALE	2.5	115.5
462.0	MODESTO		CALCAREOUS SHALE	6.0	118.0
456.0	MODESTO		BLACK SHALE	1.0	124.0
455.0	MODESTO		SHALE	13.0	125.0
442.0	MODESTO	PIASA	LIMESTONE	3.5	138.0
438.5	MODESTO		SHALE	10.5	141.5
428.0	CARBONDALE	DANVILLE	COAL	1.0	152.0
427.0	CARBONDALE		GRAY SHALE	3.5	153.0
423.5	CARBONDALE	BANKSTON FORK	SHALY LIMESTONE	1.5	156.5
422.0	CARBONDALE		SHALE	3.0	158.0
419.0	CARBONDALE	BRERETON	LIMESTONE	3.5	161.0
415.5	CARBONDALE	HERRIN	COAL	0.0	164.5
415.5	CARBONDALE		GRAY SHALE	36.5	164.5
379.0	CARBONDALE		GRAY SHALE	8.0	201.0
371.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	209.0
369.0	CARBONDALE	SPRINGFIELD	COAL	5.0	211.0
364.0	CARBONDALE		GRAY SHALE	3.0	216.0
361.0	CARBONDALE		SHALE	3.0	219.0
358.0	CARBONDALE		SHALE	14.0	222.0
344.0	CARBONDALE	EXCELLO	BLACK SHALE	2.0	236.0
342.0	CARBONDALE	HOUCHIN CREEK	COAL	2.0	238.0
340.0	CARBONDALE		GRAY SHALE	10.0	240.0
330.0	CARBONDALE		GRAY SHALE	10.0	250.0

MAPID: 16723043000C    VERSION: 1

PROJECT: NCRDS89

COUNTY: SANGAMON    TWP/RNG: 16N 3W    SECTION: 8    QUARTERS/FOOTAGES: 2445' N line, 2505' E line

QUADRANGLE: MECHANICSBURG    LONGITUDE: -89.453263    GEOLOGIST: SROKA

CONFIDENTIAL: N    LATITUDE: 39.85412    DATE COLLECTED: 6 / 8 / 1979

SURFACE ELEVATION (FT.): 590.0    LOGGED (FT.): 260.0    LOG TYPE: Multiple log types

SOURCE: MOBIL OIL SI-79-8-56C    WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENSITY, DRILL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
590.0			UNCONSOLIDATED	60.0	0.0
530.0	MODESTO		CALCAREOUS SANDSTONE	4.0	60.0
526.0	MODESTO		GRAY SHALE	15.0	64.0
511.0	MODESTO		CALCAREOUS SANDSTONE	3.0	79.0
508.0	MODESTO		SANDY SHALE	18.0	82.0
490.0	MODESTO		GRAY SHALE	50.0	100.0
440.0	MODESTO		SHALE	4.0	150.0
436.0	MODESTO		BLACK SHALE	2.0	154.0
434.0	MODESTO		SHALE	9.5	156.0
424.5	MODESTO	PIASA	LIMESTONE	4.0	165.5
420.5	MODESTO		SHALE	5.0	169.5
415.5	MODESTO		BLACK SHALE	1.5	174.5
414.0	MODESTO		SHALE	9.0	176.0
405.0	CARBONDALE	DANVILLE	COAL	0.0	185.0
405.0	CARBONDALE		CALCAREOUS SHALE	11.0	185.0
394.0	CARBONDALE	HERRIN	GRAY SHALE	3.0	196.0
391.0	CARBONDALE		SANDY SHALE	8.0	199.0
383.0	CARBONDALE		GRAY SHALE	20.7	207.0
362.3	CARBONDALE	ST. DAVID	LIMESTONE	8.8	227.7
353.5	CARBONDALE	TURNER MINE	BLACK SHALE	1.0	236.5
352.5	CARBONDALE	SPRINGFIELD	COAL	2.9	237.5
349.6	CARBONDALE	SPRINGFIELD	COAL/CLAYSTONE	1.0	240.4
348.6	CARBONDALE	SPRINGFIELD	COAL	0.2	241.4
348.4	CARBONDALE		UNDERCLAY	1.6	241.6
346.9	CARBONDALE		CORE LOSS	0.4	243.1
346.5	CARBONDALE		GRAY SHALE	3.5	243.5
343.0	CARBONDALE		SHALY LIMESTONE	2.0	247.0
341.0	CARBONDALE		GRAY SHALE	11.0	249.0

MAPID: 16722406000C    VERSION: 1

PROJECT: NCRDS89

COUNTY: SANGAMON    TWP/RNG: 16N 3W    SECTION: 10    QUARTERS/FOOTAGES: 2605' N line, 2600' W line

QUADRANGLE: MECHANICSBURG    LONGITUDE: -89.415787

GEOLOGIST: SROKA

CONFIDENTIAL: N

LATITUDE: 39.85364

DATE COLLECTED: 12 / 4 / 1975

SURFACE ELEVATION (FT.): 600.0

LOGGED (FT.): 315.0

LOG TYPE: Multiple log types

SOURCE: MOBIL OIL SI-49

WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENSITY, DRILL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
600.0			UNCONSOLIDATED	141.0	0.0
459.0	MODESTO		SANDY SHALE	48.0	141.0
411.0	MODESTO		SANDSTONE	2.0	189.0
409.0	MODESTO		GRAY SHALE	12.0	191.0
397.0	MODESTO		SHALY LIMESTONE	4.0	203.0
393.0	MODESTO		SHALE	11.0	207.0
382.0	MODESTO		BLACK SHALE	1.0	218.0
381.0	MODESTO		SHALE	1.5	219.0
379.5	MODESTO		LIMESTONE	4.5	220.5
375.0	MODESTO		SHALE	13.0	225.0
362.0	CARBONDALE	DANVILLE	COAL	0.0	238.0
362.0	CARBONDALE		GRAY SHALE	19.0	238.0
343.0	CARBONDALE	HERRIN	COAL	2.0	257.0
341.0	CARBONDALE		UNDERCLAY	3.0	259.0
338.0	CARBONDALE		LIMESTONE	1.5	262.0
336.5	CARBONDALE		SANDY SHALE	6.5	263.5
330.0	CARBONDALE		SANDY SHALE	29.0	270.0
301.0	CARBONDALE	ST. DAVID	LIMESTONE	1.0	299.0
300.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	300.0
298.0	CARBONDALE	SPRINGFIELD	COAL	5.0	302.0
293.0	CARBONDALE		UNDERCLAY	2.5	307.0
290.5	CARBONDALE		GRAY SHALE	5.5	309.5



MAPID: 16723039000C    VERSION: 1

PROJECT: NCRDS89

COUNTY: SANGAMON    TWP/RNG: 16N 3W    SECTION: 10    QUARTERS/FOOTAGES: 15' N line, 2620' W line

QUADRANGLE: MECHANICSBURG    LONGITUDE: -89.415639    GEOLOGIST: SROKA

CONFIDENTIAL: N    LATITUDE: 39.860788    DATE COLLECTED: 6 / 7 / 1979

SURFACE ELEVATION (FT.): 620.0    LOGGED (FT.): 330.0    LOG TYPE: Multiple log types

SOURCE: MOBIL OIL SI-79-10-48C    WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENSITY, DRILL LOG, CORE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
620.0			UNCONSOLIDATED	168.0	0.0	
452.0	MODESTO		GRAY SHALE	53.0	168.0	
399.0	MODESTO		SHALE	2.0	221.0	
397.0	MODESTO		BLACK SHALE	1.0	223.0	
396.0	MODESTO		GRAY SHALE	9.0	224.0	
387.0	MODESTO		BLACK SHALE	2.0	233.0	
385.0	MODESTO		GRAY SHALE	8.0	235.0	
377.0	MODESTO		SHALE	7.0	243.0	
370.0	MODESTO		SHALE	6.5	250.0	
363.5	MODESTO		LIMESTONE	3.0	256.5	
360.5	CARBONDALE	DANVILLE	COAL	0.0	259.5	
360.5	CARBONDALE		CALCAREOUS SHALE	12.5	259.5	
348.0	CARBONDALE	HERRIN	COAL	1.5	272.0	
346.5	CARBONDALE		GRAY SHALE	20.5	273.5	
326.0	CARBONDALE		SHALY LIMESTONE	1.0	294.0	
325.0	CARBONDALE		GRAY SHALE	14.0	295.0	
311.0	CARBONDALE	ST. DAVID	LIMESTONE	1.0	309.0	
310.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.9	310.0	
308.1	CARBONDALE	SPRINGFIELD	COAL	4.9	311.9	
303.3	CARBONDALE		UNDERCLAY	0.5	316.7	
302.8	CARBONDALE		CORE LOSS	0.3	317.2	
302.5	CARBONDALE		GRAY SHALE	3.5	317.5	
299.0	CARBONDALE		CALCAREOUS SHALE	4.0	321.0	
295.0	CARBONDALE		GRAY SHALE	5.0	325.0	

MAPID: 16723040000C    VERSION: 1

PROJECT: NCRDS89

COUNTY: SANGAMON    TWP/RNG: 16N 3W    SECTION: 15    QUARTERS/FOOTAGES: 1350' N line, 75' E line

QUADRANGLE: MECHANICSBURG    LONGITUDE: -89.406416

GEOLOGIST: SROKA

CONFIDENTIAL: N    LATITUDE: 39.842642

DATE COLLECTED: 6 / 8 / 1979

SURFACE ELEVATION (FT.): 610.0    LOGGED (FT.): 320.0

LOG TYPE: Multiple log types

SOURCE: MOBIL OIL SI-79-15-49C

WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENSITY, DRILL LOG, CORE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
610.0			UNCONSOLIDATED	132.0	0.0
478.0	MODESTO		SILTSTONE	36.0	132.0
442.0	MODESTO		GRAY SHALE	36.0	168.0
406.0	MODESTO		SHALE	6.0	204.0
400.0	MODESTO		GRAY SHALE	6.0	210.0
394.0	MODESTO		BLACK SHALE	2.0	216.0
392.0	MODESTO		GRAY SHALE	4.5	218.0
387.5	MODESTO		SHALY LIMESTONE	3.5	222.5
384.0	MODESTO		SHALE	15.0	226.0
369.0	MODESTO		GRAY SHALE	5.0	241.0
364.0	CARBONDALE	DANVILLE	COAL	0.0	246.0
364.0	CARBONDALE	BANKSTON FORK	SHALY LIMESTONE	3.5	246.0
360.5	CARBONDALE		GRAY SHALE	1.5	249.5
359.0	CARBONDALE	BRERETON	LIMESTONE	5.0	251.0
354.0	CARBONDALE	ANNA	BLACK SHALE	2.0	256.0
352.0	CARBONDALE	HERRIN	COAL	0.0	258.0
352.0	CARBONDALE		GRAY SHALE	37.0	258.0
315.0	CARBONDALE	ST. DAVID	LIMESTONE	3.9	295.0
311.1	CARBONDALE	TURNER MINE	BLACK SHALE	1.9	298.9
309.2	CARBONDALE	SPRINGFIELD	COAL	5.3	300.8
304.0	CARBONDALE		UNDERCLAY	0.2	306.0
303.8	CARBONDALE		CORE LOSS	0.3	306.2
303.5	CARBONDALE		GRAY SHALE	3.0	306.5
300.5	CARBONDALE		SANDY SHALE	10.5	309.5

MAPID: 16723041000C    VERSION: 1

PROJECT: NCRDS89

COUNTY: SANGAMON    TWP/RNG: 16N 3W    SECTION: 16    QUARTERS/FOOTAGES: 1370' N line, 2636' E line

QUADRANGLE: MECHANICSBURG    LONGITUDE: -89.434759    GEOLOGIST: SROKA

CONFIDENTIAL: N    LATITUDE: 39.84262    DATE COLLECTED: 6 / 7 / 1979

SURFACE ELEVATION (FT.): 581.0    LOGGED (FT.): 300.0    LOG TYPE: Multiple log types

SOURCE: MOBIL OIL SI-79-16-50C    WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENSITY, DRILL LOG, CORE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
581.0			UNCONSOLIDATED	135.0	0.0	
446.0	MODESTO		GRAY SHALE	50.0	135.0	
396.0	MODESTO		SHALE	14.0	185.0	
382.0	MODESTO		BLACK SHALE	0.0	199.0	
382.0	MODESTO		GRAY SHALE	13.0	199.0	
369.0	MODESTO		SHALE	6.0	212.0	
363.0	CARBONDALE	DANVILLE	COAL	0.0	218.0	
363.0	CARBONDALE		GRAY SHALE	5.0	218.0	
358.0	CARBONDALE	BANKSTON FORK	LIMESTONE	3.0	223.0	
355.0	CARBONDALE		GRAY SHALE	1.0	226.0	
354.0	CARBONDALE	BRERETON	LIMESTONE	0.5	227.0	
353.5	CARBONDALE		SHALE	3.0	227.5	
350.5	CARBONDALE	HERRIN	COAL	1.0	230.5	
349.5	CARBONDALE		GRAY SHALE	20.5	231.5	
329.0	CARBONDALE		GRAY SHALE	21.7	252.0	
307.3	CARBONDALE	ST. DAVID	LIMESTONE	0.8	273.7	
306.5	CARBONDALE	TURNER MINE	BLACK SHALE	1.3	274.5	
305.2	CARBONDALE	SPRINGFIELD	COAL	5.3	275.8	
299.9	CARBONDALE		UNDERCLAY	0.5	281.1	
299.4	CARBONDALE		CORE LOSS	0.5	281.6	
299.0	CARBONDALE		GRAY SHALE	6.5	282.0	
292.5	CARBONDALE		SANDY SHALE	11.5	288.5	

MAPID: 16723425000C    VERSION: 1

PROJECT: NCRDS87

COUNTY: SANGAMON    TWP/RNG: 16N 3W    SECTION: 20    QUARTERS/FOOTAGES: 330' N line, 330' E line of SE

QUADRANGLE: MECHANICSBURG

LONGITUDE: -89.445661

GEOLOGIST: WEIBEL

CONFIDENTIAL: N

LATITUDE: 39.82364

DATE COLLECTED: 9 / 3 / 1982

SURFACE ELEVATION (FT.): 607.6

LOGGED (FT.): 512.0

LOG TYPE: Gamma Ray Density

SOURCE: JOHN CAREY OIL CO., INC.

WELL TYPE: Producer-Oil and Gas

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
607.6			UNCONSOLIDATED	142.0	0.0	
465.6			UNCLASSIFIED	55.0	142.0	
410.6			DARK GRAY SHALE	2.0	197.0	
408.6			UNCLASSIFIED	9.0	199.0	
399.6			BLACK SHALE	4.0	208.0	
395.6			UNCLASSIFIED	12.0	212.0	
383.6			DARK GRAY SHALE	2.5	224.0	
381.1			UNCLASSIFIED	5.5	226.5	
375.6			LIMESTONE	9.0	232.0	
366.6			UNCLASSIFIED	41.0	241.0	
325.6	CARBONDALE	ANNA	BLACK SHALE	3.0	282.0	
322.6	CARBONDALE	HERRIN	COAL	3.5	285.0	
319.1	CARBONDALE		UNCLASSIFIED	2.5	288.5	
316.6	CARBONDALE		LIMESTONE	3.0	291.0	
313.6	CARBONDALE		UNCLASSIFIED	17.0	294.0	
296.6	CARBONDALE	TURNER MINE	BLACK SHALE	3.0	311.0	
293.6	CARBONDALE	SPRINGFIELD	COAL	3.0	314.0	
290.6	CARBONDALE		UNCLASSIFIED	59.0	317.0	
231.6	CARBONDALE	HOUCHIN CREEK	COAL	3.0	376.0	UNCERTAIN CORRELATION
228.6	CARBONDALE		UNCLASSIFIED	57.0	379.0	
171.6	CARBONDALE		LIMESTONE	2.0	436.0	
169.6	CARBONDALE	MECCA QUARRY	BLACK SHALE	13.0	438.0	
156.6	CARBONDALE	COLCHESTER	COAL	2.0	451.0	
154.6			UNCLASSIFIED	14.0	453.0	
140.6			COAL	1.0	467.0	
139.6			UNCLASSIFIED	26.0	468.0	
113.6			DARK GRAY SHALE	3.0	494.0	
110.6			UNCLASSIFIED	6.0	497.0	
104.6			BLACK SHALE	7.0	503.0	
97.6			COAL	2.0	510.0	

MAPID: 16701954000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 16N 3W SECTION: 21 QUARTERS/FOOTAGES: 30' S line, 2490' E line

QUADRANGLE: MECHANICSBURG LONGITUDE: -89.434696

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.817504

DATE COLLECTED:

SURFACE ELEVATION (FT.): 575.0

LOGGED (FT.): 230.0

LOG TYPE: Drillers Log

SOURCE: PIAMCO INC. Q

WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
380.0	CARBONDALE	DANVILLE	BLACK SHALE	2.0	195.0
378.0	CARBONDALE	LAWSON	GRAY SHALE	17.0	197.0
361.0	CARBONDALE	LAWSON	MOTTLED SHALE	2.0	214.0
359.0	CARBONDALE	LAWSON	GRAY SHALE	3.5	216.0
355.5	CARBONDALE	BRERETON	LIMESTONE	5.5	219.5
350.0	CARBONDALE	HERRIN	DARK GRAY SHALE	5.0	225.0

MAPID: 16701963000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 16N 3W SECTION: 24 QUARTERS/FOOTAGES: 40' N line, 40' E line

QUADRANGLE: MT. AUBURN LONGITUDE: -89.368388

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.830711

DATE COLLECTED:

SURFACE ELEVATION (FT.): 585.0

LOGGED (FT.): 0.0

LOG TYPE: Drillers Log

SOURCE: PIAMCO INC. I5-2

WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-	MODESTO	PIASA	LIMESTONE	2.0	
-	CARBONDALE		GRAY SHALE	21.0	
-	CARBONDALE	BANKSTON FORK	LIMESTONE	3.0	
-	CARBONDALE	LAWSON	SILTY SHALE	6.0	
-	CARBONDALE	BRERETON	LIMESTONE	2.0	
-	CARBONDALE	HERRIN	COAL	2.0	

MAPID: 16700195000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 16N 3W SECTION: 27 QUARTERS/FOOTAGES: 330' N line, 2310' E line

QUADRANGLE: MECHANICSBURG LONGITUDE: -89.41441 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.816469 DATE COLLECTED:

SURFACE ELEVATION (FT.): 581.0 LOGGED (FT.): 232.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
380.0	MODESTO	PIASA	LIMESTONE	6.0	201.0
374.0	CARBONDALE		SHALE	4.0	207.0
370.0	CARBONDALE	BANKSTON FORK	LIMESTONE & SHALE	4.0	211.0
366.0	CARBONDALE	LAWSON	SHALE	11.0	215.0
355.0	CARBONDALE	BRERETON	LIMESTONE & SHALE	4.0	226.0
351.0	CARBONDALE	HERRIN	COAL	2.0	230.0

MAPID: 16701952000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 16N 3W SECTION: 28 QUARTERS/FOOTAGES: 210' S line, 1390' W line

QUADRANGLE: MECHANICSBURG LONGITUDE: -89.440076 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.803315 DATE COLLECTED:

SURFACE ELEVATION (FT.): 588.0 LOGGED (FT.): 211.0 LOG TYPE: Drillers Log

SOURCE: PIAMCO INC. P WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
403.0	MODESTO	PIASA	LIMESTONE	3.5	185.0
399.5	MODESTO		MOTTLED SHALE	8.5	188.5
391.0	CARBONDALE	DANVILLE	BLACK SHALE	2.0	197.0
389.0	CARBONDALE	LAWSON	GRAY SHALE	5.5	199.0
383.5	CARBONDALE	BRERETON	LIMESTONE	4.5	204.5
379.0	CARBONDALE	HERRIN	BLACK SHALE	2.0	209.0

MAPID: 16701174000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 16N 3W SECTION: 29 QUARTERS/FOOTAGES: 200' N line, 2140' E line

QUADRANGLE: MECHANICSBURG LONGITUDE: -89.452302

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.816861

DATE COLLECTED:

SURFACE ELEVATION (FT.): 600.0 LOGGED (FT.): 231.0

LOG TYPE: Drillers Log

SOURCE: SUN PRODUCTION CO. Bernahl 1

WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION, DEPTHS CORRECTED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
400.0	MODESTO		GRAY SHALE	15.0	200.0
385.0	CARBONDALE	DANVILLE	BLACK SHALE	3.0	215.0
382.0	CARBONDALE	LAWSON	GRAY SHALE	7.0	218.0
375.0	CARBONDALE	LAWSON	SANDSTONE	5.0	225.0
370.0	CARBONDALE	LAWSON	MOTTLED SHALE	7.0	230.0
363.0	CARBONDALE	BRERETON	LIMESTONE	5.0	237.0

MAPID: 16701176000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 16N 3W SECTION: 30 QUARTERS/FOOTAGES: 660' N line, 1980' W line

QUADRANGLE: MECHANICSBURG LONGITUDE: -89.476093

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.815467

DATE COLLECTED:

SURFACE ELEVATION (FT.): 582.0 LOGGED (FT.): 170.0

LOG TYPE: Drillers Log

SOURCE: SUN PRODUCTION CO. SG-10-57

WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION, DEPTHS CORRECTED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
439.0	MODESTO		MOTTLED SHALE	15.0	143.0
424.0	CARBONDALE	DANVILLE	BLACK SHALE	2.0	158.0
422.0	CARBONDALE		MOTTLED SHALE	4.0	160.0
418.0	CARBONDALE	BANKSTON FORK	LIMESTONE	2.0	164.0
416.0	CARBONDALE	LAWSON	MOTTLED SHALE	9.0	166.0
407.0	CARBONDALE	LAWSON	BLACK SHALE	1.0	175.0
406.0	CARBONDALE	LAWSON	MOTTLED SHALE	4.0	176.0
402.0	CARBONDALE	BRERETON	LIMESTONE	7.0	180.0

MAPID: 16701178000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 16N 3W SECTION: 31 QUARTERS/FOOTAGES: 2630' S line, 15' W line

QUADRANGLE: MECHANICSBURG LONGITUDE: -89.483123

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.795395

DATE COLLECTED:

SURFACE ELEVATION (FT.): 566.0 LOGGED (FT.): 112.0

LOG TYPE: Drillers Log

SOURCE: SUN PRODUCTION CO. Mechsbg. 1

WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
406.5	MODESTO		MOTTLED SHALE	15.0	159.5
391.5	CARBONDALE	DANVILLE	DARK GRAY SHALE	1.5	174.5
390.0	CARBONDALE		MOTTLED SHALE	5.5	176.0
384.5	CARBONDALE	BANKSTON FORK	LIMESTONE W/ SHALE	1.0	181.5
383.5	CARBONDALE	LAWSON	GRAY SHALE	12.5	182.5
371.0	CARBONDALE	LAWSON	LIMESTONE W/ SHALE	2.0	195.0
369.0	CARBONDALE	BRERETON	LIMESTONE	4.0	197.0

MAPID: 16701956000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 16N 3W SECTION: 33 QUARTERS/FOOTAGES: 265' S line, 1290' W line

QUADRANGLE: MECHANICSBURG LONGITUDE: -89.440571

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.788891

DATE COLLECTED:

SURFACE ELEVATION (FT.): 592.0 LOGGED (FT.): 223.5

LOG TYPE: Drillers Log

SOURCE: PIAMCO INC. O

WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
428.5	CARBONDALE		DARK GRAY SHALE	34.0	163.5
394.5	CARBONDALE	BANKSTON FORK	LIMESTONE	2.5	197.5
392.0	CARBONDALE	LAWSON	GRAY SHALE	9.5	200.0
382.5	CARBONDALE	LAWSON	MOTTLED SHALE	1.0	209.5
381.5	CARBONDALE	LAWSON	GRAY SHALE	6.0	210.5
375.5	CARBONDALE	BRERETON	LIMESTONE	4.5	216.5
371.0	CARBONDALE	HERRIN	DARK GRAY SHALE	2.5	221.0



MAPID: 1670118000C    VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON    TWP/RNG: 16N 4W    SECTION: 1    QUARTERS/FOOTAGES: 2625' S line, 15' E line

QUADRANGLE: MECHANICSBURG

LONGITUDE: -89.483184

GEOLOGIST:

CONFIDENTIAL: N

LATITUDE: 39.867835

DATE COLLECTED:

SURFACE ELEVATION (FT.): 577.0

LOGGED (FT.): 176.0

LOG TYPE: Drillers Log

SOURCE:

WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
428.0	MODESTO	PIASA	LIMESTONE	3.0	149.0
425.0	MODESTO		SHALE	14.0	152.0
411.0	CARBONDALE	DANVILLE	COAL	2.0	166.0
409.0	CARBONDALE	LAWSON	GRAY SHALE	6.0	168.0
403.0	CARBONDALE	BRERETON	LIMESTONE	2.0	174.0

---

MAPID: 16723042000C    VERSION: 1

PROJECT: NCRDS89

COUNTY: SANGAMON    TWP/RNG: 16N 4W    SECTION: 1    QUARTERS/FOOTAGES: 2610' S line, 90' W line

QUADRANGLE: SPRINGFIELD EAST    LONGITUDE: -89.501376    GEOLOGIST: SROKA

CONFIDENTIAL: N    LATITUDE: 39.867517    DATE COLLECTED: 6 / 6 / 1979

SURFACE ELEVATION (FT.): 579.0    LOGGED (FT.): 260.0    LOG TYPE: Multiple log types

SOURCE: MOBIL OIL SI-79-1-63C    WELL TYPE: Coal Test

COMMENT: GAMMA, RESIS, DENSITY, DRILL LOG, CORE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
579.0			UNCONSOLIDATED	111.0	0.0	
468.0	MODESTO		GRAY SHALE	38.0	111.0	
430.0	MODESTO		BLACK SHALE	1.0	149.0	
429.0	MODESTO		GRAY SHALE	6.5	150.0	
422.5	MODESTO		SHALY LIMESTONE	1.0	156.5	
421.5	MODESTO		SHALE	7.3	157.5	
414.2	MODESTO	PIASA	LIMESTONE	3.7	164.8	
410.5	MODESTO		GRAY SHALE	5.5	168.5	
405.0	MODESTO		BLACK SHALE	1.0	174.0	
404.0	MODESTO		GRAY SHALE	7.0	175.0	
397.0	CARBONDALE	DANVILLE	COAL	0.5	182.0	
396.5	CARBONDALE		GRAY SHALE	5.0	182.5	
391.5	CARBONDALE	BRERETON	SHALY LIMESTONE	5.0	187.5	
386.5	CARBONDALE		SHALE	1.0	192.5	
385.5	CARBONDALE	HERRIN	UNCLASSIFIED	0.0	193.5	
385.5	CARBONDALE		GRAY SHALE	5.5	193.5	
380.0	CARBONDALE		LIMESTONE	1.5	199.0	
378.5	CARBONDALE		GRAY SHALE	31.2	200.5	
347.3	CARBONDALE	ST. DAVID	LIMESTONE	3.7	231.7	
343.6	CARBONDALE	TURNER MINE	BLACK SHALE	3.2	235.4	
340.4	CARBONDALE	SPRINGFIELD	COAL	5.9	238.6	
334.5	CARBONDALE		GRAY SHALE	1.0	244.5	
333.5	CARBONDALE		CORE LOSS	0.3	245.5	
333.2	CARBONDALE		GRAY SHALE	14.2	245.8	

MAPID: 16700054000C VERSION: 1

PROJECT: NCRDS89

COUNTY: SANGAMON TWP/RNG: 16N 4W SECTION: 9 QUARTERS/FOOTAGES: 990' S line, 990' E line

QUADRANGLE: SPRINGFIELD EAST LONGITUDE: -89.542961

GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 39.848227

DATE COLLECTED:

SURFACE ELEVATION (FT.): 545.0

LOGGED (FT.): 206.8

LOG TYPE: Drillers Log

SOURCE:

WELL TYPE: Mine Shaft

COMMENT: FROM ILL REPORTS VOL V, P. 313

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
545.0	MODESTO		SANDY SHALE	20.0	0.0
525.0	MODESTO		BLACK SHALE	3.0	20.0
522.0	MODESTO	CHAPEL	COAL	2.0	23.0
520.0	MODESTO		UNDERCLAY	2.0	25.0
518.0	MODESTO		LIMESTONE	3.0	27.0
515.0	MODESTO		SANDSTONE	18.0	30.0
497.0	MODESTO		SANDY SHALE	49.8	48.0
447.2	MODESTO		SHALE	16.2	97.8
431.1	MODESTO	PIASA	LIMESTONE	3.0	113.9
428.1	MODESTO		BLACK SHALE	1.0	116.9
427.1	CARBONDALE	DANVILLE	COAL	0.2	117.9
426.9	CARBONDALE		UNDERCLAY	4.5	118.1
422.4	CARBONDALE		SHALE	11.3	122.6
411.1	CARBONDALE	BANKSTON FORK	LIMESTONE	3.5	133.9
407.6	CARBONDALE		SHALE	9.5	137.4
398.1	CARBONDALE	BRERETON	LIMESTONE	8.0	146.9
390.1	CARBONDALE		SHALE	2.0	154.9
388.1	CARBONDALE	HERRIN	COAL	0.4	156.9
387.7	CARBONDALE		UNDERCLAY	7.5	157.3
380.2	CARBONDALE		SANDSTONE/SHALE	32.0	164.8
348.2	CARBONDALE	ST. DAVID	LIMESTONE	1.5	196.8
346.7	CARBONDALE	TURNER MINE	BLACK SHALE	2.5	198.3
344.2	CARBONDALE	SPRINGFIELD	COAL	6.0	200.8

MAPID: 16700054000C    VERSION: 2

PROJECT: ROOF STUDY

COUNTY: SANGAMON    TWP/RNG: 16N 4W    SECTION: 9    QUARTERS/FOOTAGES: 990' S line, 990' E line

QUADRANGLE: SPRINGFIELD EAST    LONGITUDE: -89.542961

GEOLOGIST:

CONFIDENTIAL: N    LATITUDE: 39.848227

DATE COLLECTED:

SURFACE ELEVATION (FT.): 545.0

LOGGED (FT.): 157.4

LOG TYPE: Drillers Log

SOURCE:

WELL TYPE: Coal Test

COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
431.0	MODESTO	PIASA	LIMESTONE	3.0	114.0
428.0	MODESTO		BLACK SHALE	1.0	117.0
427.0	CARBONDALE	DANVILLE	COAL	0.2	118.0
426.8	CARBONDALE		MOTTLED SHALE	15.8	118.2
411.0	CARBONDALE	BANKSTON FORK	LIMESTONE	3.5	134.0
407.5	CARBONDALE	LAWSON	MOTTLED SHALE	9.5	137.5
398.0	CARBONDALE	BRERETON	LIMESTONE	8.0	147.0
390.0	CARBONDALE	ANNA	SHALE	2.0	155.0
388.0	CARBONDALE	HERRIN	COAL	0.4	157.0

---

MAPID: 16700138000C    VERSION: 1

PROJECT: NCRDS88

COUNTY: SANGAMON    TWP/RNG: 16N 4W    SECTION: 9    QUARTERS/FOOTAGES: NW SE SE

QUADRANGLE: SPRINGFIELD EAST    LONGITUDE: -89.543065    GEOLOGIST: R. SMITH

CONFIDENTIAL: N    LATITUDE: 39.848205    DATE COLLECTED:

SURFACE ELEVATION (FT.):    LOGGED (FT.): 206.8    LOG TYPE: Drillers Log

SOURCE: SPRINGFIELD COAL MINING CO.    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			SANDY SHALE	20.0	0.0	
-	MODESTO		BLACK SHALE	3.0	20.0	
-	MODESTO	CHAPEL	COAL	2.0	23.0	UNCERTAIN CORRELATION
-	MODESTO		UNDERCLAY	2.0	25.0	
-	MODESTO		LIMESTONE	3.0	27.0	
-	MODESTO		SANDSTONE	18.0	30.0	
-	MODESTO		SANDY SHALE	49.8	48.0	
-	MODESTO		CLAYSTONE & SHALE	16.2	97.8	
-	MODESTO	PIASA	LIMESTONE	3.0	113.9	
-	MODESTO		BLACK SHALE	1.0	116.9	
-	CARBONDALE	DANVILLE	COAL	0.2	117.9	UNCERTAIN CORRELATION
-	CARBONDALE		UNDERCLAY	4.5	118.1	
-	CARBONDALE		SHALE	11.3	122.6	
-	CARBONDALE		UNCLASSIFIED	3.5	133.9	
-	CARBONDALE		SHALE	9.5	137.4	
-	CARBONDALE	BRERETON	LIMESTONE	8.0	146.9	
-	CARBONDALE	ANNA	RED SHALE	2.0	154.9	UNCERTAIN CORRELATION
-	CARBONDALE	HERRIN	COAL	0.4	156.9	
-	CARBONDALE		UNDERCLAY	7.5	157.3	
-	CARBONDALE		SANDSTONE/SHALE	32.0	164.8	
-	CARBONDALE	ST. DAVID	LIMESTONE	1.5	196.8	
-	CARBONDALE	TURNER MINE	BLACK SHALE	2.5	198.3	
-	CARBONDALE	SPRINGFIELD	COAL	6.0	200.8	

MAPID: 16700139000C VERSION: 1

PROJECT: NCRDS87

COUNTY: SANGAMON TWP/RNG: 16N 4W SECTION: 12 QUARTERS/FOOTAGES: 165' N line, 2475' E line

QUADRANGLE: MECHANICSBURG LONGITUDE: -89.491931

GEOLOGIST: WEIBEL

CONFIDENTIAL: N LATITUDE: 39.860003

DATE COLLECTED: 0 / 0 / 1936

SURFACE ELEVATION (FT.): 582.0

LOGGED (FT.): 268.0

LOG TYPE: Drillers Log

SOURCE: DENKERT COAL CO.

WELL TYPE: Mine Shaft

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
582.0			UNCONSOLIDATED	65.0	0.0	
517.0			UNCLASSIFIED	135.0	65.0	
382.0	CARBONDALE	ANNA	BLACK SHALE	2.8	200.0	
379.2	CARBONDALE	HERRIN	COAL	0.1	202.8	
379.1	CARBONDALE		UNCLASSIFIED	56.6	202.9	
322.5	CARBONDALE	ST. DAVID	LIMESTONE	1.0	259.5	
321.5	CARBONDALE	TURNER MINE	BLACK SHALE	2.1	260.5	
319.4	CARBONDALE	SPRINGFIELD	COAL	5.4	262.6	

MAPID: 16700157000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 16N 4W SECTION: 12 QUARTERS/FOOTAGES: 680' S line, 1320' W line

QUADRANGLE: MECHANICSBURG LONGITUDE: -89.496884

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.847802

DATE COLLECTED:

SURFACE ELEVATION (FT.): 579.0

LOGGED (FT.): 241.5

LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO. 26

WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
354.0	MODESTO	PIASA	LIMESTONE	1.0	225.0	
353.0	CARBONDALE		SHALE	7.0	226.0	
346.0	CARBONDALE	BANKSTON FORK	LIMESTONE	1.0	233.0	
345.0	CARBONDALE	LAWSON	GRAY SHALE	4.0	234.0	
341.0	CARBONDALE	ANNA	DARK GRAY SHALE	3.5	238.0	

MAPID: 16701181000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 16N 4W SECTION: 13 QUARTERS/FOOTAGES: 2440' N line, 2630' E line

QUADRANGLE: MECHANICSBURG LONGITUDE: -89.492398

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.839364

DATE COLLECTED:

SURFACE ELEVATION (FT.): 580.0

LOGGED (FT.): 231.0

LOG TYPE: Drillers Log

SOURCE:

WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
390.0	MODESTO	PIASA	LIMESTONE & SHALE	5.0	190.0	
385.0	MODESTO		MOTTLED SHALE	9.0	195.0	
376.0	CARBONDALE	DANVILLE	BLACK SHALE	1.0	204.0	
375.0	CARBONDALE		MOTTLED SHALE	5.0	205.0	
370.0	CARBONDALE	BANKSTON FORK	LIMESTONE	5.0	210.0	
365.0	CARBONDALE	LAWSON	MOTTLED SHALE	10.0	215.0	
355.0	CARBONDALE	BRERETON	LIMESTONE	6.0	225.0	

MAPID: 16700723000C VERSION: 1

PROJECT: IDMM-GWQX

COUNTY: SANGAMON TWP/RNG: 16N 4W SECTION: 19 QUARTERS/FOOTAGES: 525' N line, 330' W line of SE NE

QUADRANGLE: SPRINGFIELD EAST LONGITUDE: -89.581331

GEOLOGIST: C TREWORYG

CONFIDENTIAL: N LATITUDE: 39.826422

DATE COLLECTED: 6 / 0 / 1961

SURFACE ELEVATION (FT.): 596.0

LOGGED (FT.): 630.0

LOG TYPE: Electric Log

SOURCE: KROHN, WM. H.

WELL TYPE: Producer-Oil

COMMENT: ELEV. IS SURF,NOT LOG DATUM: DEPTHS OFF

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
447.0	CARBONDALE	DANVILLE	UNCLASSIFIED	0.0	149.0	
420.0	CARBONDALE	HERRIN	UNCLASSIFIED	0.0	176.0	THIN COAL
374.0	CARBONDALE	SPRINGFIELD	UNCLASSIFIED	6.0	222.0	
349.0	CARBONDALE	HOUCHIN CREEK	UNCLASSIFIED	0.0	247.0	THIN COAL
299.0	CARBONDALE	SURVANT	UNCLASSIFIED	0.0	297.0	
235.0	CARBONDALE	COLCHESTER	UNCLASSIFIED	3.0	361.0	
-34.0	BASE OF PENN.		UNCLASSIFIED	-	630.0	

MAPID: 16701182000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 16N 4W SECTION: 25 QUARTERS/FOOTAGES: 50' S line, 660' W line

QUADRANGLE: MECHANICSBURG LONGITUDE: -89.499286

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.802826

DATE COLLECTED:

SURFACE ELEVATION (FT.): 553.0 LOGGED (FT.): 56.0

LOG TYPE: Drillers Log

SOURCE:

WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
514.0	CARBONDALE	DANVILLE	DARK GRAY SHALE	1.0	39.0	
513.0	CARBONDALE	LAWSON	GRAY SHALE	12.5	40.0	
500.5	CARBONDALE	BRERETON	LIMESTONE	3.5	52.5	

MAPID: 16700153000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 16N 4W SECTION: 33 QUARTERS/FOOTAGES: 1152' N line, 2379' E line

QUADRANGLE: SPRINGFIELD EAST LONGITUDE: -89.547982

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.799301

DATE COLLECTED:

SURFACE ELEVATION (FT.): 577.0 LOGGED (FT.): 199.0

LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO. 20

WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
400.6	CARBONDALE	BANKSTON FORK	LIMESTONE	2.0	176.4	
398.6	CARBONDALE	LAWSON	DARK GRAY SHALE	12.0	178.4	
386.6	CARBONDALE	BRERETON	LIMESTONE	6.0	190.4	
380.6	CARBONDALE	ANNA	CLAYSTONE & SHALE	1.6	196.4	
379.0	CARBONDALE	HERRIN	COAL	1.0	198.0	



MAPID: 16700144000C VERSION: 1

PROJECT: NCRDS88

COUNTY: SANGAMON TWP/RNG: 16N 5W SECTION: 1 QUARTERS/FOOTAGES: 1980' S line, 1980' W line

QUADRANGLE: SPRINGFIELD EAST LONGITUDE: -89.609085 GEOLOGIST: R. SMITH

CONFIDENTIAL: N LATITUDE: 39.865488 DATE COLLECTED:

SURFACE ELEVATION (FT.): 525.0 LOGGED (FT.): 181.0 LOG TYPE: Drillers Log

SOURCE: PEABODY WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
525.0			UNCONSOLIDATED	26.0	0.0	
499.0	MODESTO		SHALE	54.0	26.0	
445.0	MODESTO		DARK SHALE	5.9	80.0	
439.1	CARBONDALE	DANVILLE	COAL	0.1	85.9	UNCERTAIN CORRELATION
439.0	CARBONDALE		GRAY SHALE	2.0	86.0	
437.0	CARBONDALE		CLAYSTONE & SHALE	12.0	88.0	
425.0	CARBONDALE	BANKSTON FORK	LIMESTONE	2.5	100.0	
422.5	CARBONDALE		CLAYSTONE & SHALE	13.5	102.5	
409.0	CARBONDALE		DARK SHALE	6.0	116.0	
403.0	CARBONDALE		LIMESTONE	6.0	122.0	
397.0	CARBONDALE		DARK SHALE	4.0	128.0	
393.0	CARBONDALE		SANDSTONE	12.0	132.0	
381.0	CARBONDALE		LIMESTONE	0.5	144.0	
380.5	CARBONDALE	HERRIN	DARK SHALE	1.5	144.5	
379.0	CARBONDALE		GRAY SHALE	22.7	146.0	
356.3	CARBONDALE	ST. DAVID	LIMESTONE	1.0	168.7	
355.3	CARBONDALE	TURNER MINE	SHALE	3.3	169.7	
352.0	CARBONDALE	SPRINGFIELD	COAL	6.0	173.0	
346.0	CARBONDALE		UNDERCLAY	2.0	179.0	

MAPID: 16700144000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 16N 5W SECTION: 1 QUARTERS/FOOTAGES: 1980' S line, 1980' W line

QUADRANGLE: SPRINGFIELD EAST LONGITUDE: -89.609085 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.865488 DATE COLLECTED:

SURFACE ELEVATION (FT.): 530.0 LOGGED (FT.): 146.5 LOG TYPE: Drillers Log

SOURCE: WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
429.5	MODESTO	PIASA	LIMESTONE	2.5	100.5	
427.0	CARBONDALE		CLAYSTONE & SHALE	19.5	103.0	
407.5	CARBONDALE	BANKSTON FORK	LIMESTONE	6.0	122.5	
401.5	CARBONDALE	LAWSON	DARK GRAY SHALE	4.0	128.5	
397.5	CARBONDALE	LAWSON	SANDSTONE	12.0	132.5	
385.5	CARBONDALE	BRERETON	LIMESTONE	0.5	144.5	
385.0	CARBONDALE	HERRIN	BONE COAL	1.5	145.0	

MAPID: 16700146000C    VERSION: 1

PROJECT: NCRDS88

COUNTY: SANGAMON    TWP/RNG: 16N 5W    SECTION: 1    QUARTERS/FOOTAGES: NE SE

QUADRANGLE: SPRINGFIELD EAST    LONGITUDE: -89.599583    GEOLOGIST: R. SMITH

CONFIDENTIAL: N    LATITUDE: 39.865234    DATE COLLECTED:

SURFACE ELEVATION (FT.):    LOGGED (FT.): 226.0    LOG TYPE: Drillers Log

SOURCE: PEABODY    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			UNCONSOLIDATED	30.0	0.0	
-	MODESTO		GRAY SHALE	3.0	30.0	
-	MODESTO		DARK SHALE	8.0	33.0	
-	MODESTO		SHALE	0.8	41.0	
-	MODESTO	CHAPEL	COAL	0.3	41.8	UNCERTAIN CORRELATION
-	MODESTO		DARK SHALE	0.8	42.2	
-	MODESTO		CLAYSTONE & SHALE	7.0	43.0	
-	MODESTO		SANDY SHALE	17.0	50.0	
-	MODESTO		DARK SHALE	1.0	67.0	
-	MODESTO		SANDY SHALE	52.0	68.0	
-	MODESTO		DARK SHALE	11.2	120.0	
-	MODESTO		LIMESTONE	0.3	131.2	
-	MODESTO		CLAYSTONE & SHALE	5.5	131.5	
-	MODESTO		SHALE	2.5	137.0	
-	MODESTO		SHALE	1.5	139.5	
-	MODESTO		GRAY SHALE	2.0	141.0	
-	MODESTO		CLAYSTONE & SHALE	3.5	143.0	
-	MODESTO		CALCAREOUS SHALE	3.6	146.5	
-	MODESTO		CLAYSTONE & SHALE	5.5	150.0	
-	CARBONDALE	DANVILLE	SHALE	1.0	155.5	
-	CARBONDALE		CLAYSTONE & SHALE	2.5	156.5	
-	CARBONDALE		DARK SHALE	1.0	159.0	
-	CARBONDALE		CALCAREOUS SHALE	3.0	160.0	
-	CARBONDALE	BANKSTON FORK	LIMESTONE	5.0	163.0	
-	CARBONDALE		SHALE	8.0	168.0	
-	CARBONDALE		SANDY SHALE	28.0	176.0	
-	CARBONDALE		GRAY SHALE	2.0	204.0	
-	CARBONDALE		DARK SHALE	9.7	206.0	
-	CARBONDALE		UNCLASSIFIED	0.3	215.7	
-	CARBONDALE	TURNER MINE	SHALE	2.5	216.0	
-	CARBONDALE		UNCLASSIFIED	0.5	218.5	
-	CARBONDALE	SPRINGFIELD	COAL	5.8	219.0	
-	CARBONDALE		DARK SHALE	1.2	224.8	

MAPID: 16700147000C VERSION: 1

PROJECT: NCRDS87

COUNTY: SANGAMON TWP/RNG: 16N 5W SECTION: 1 QUARTERS/FOOTAGES: NW NE

QUADRANGLE: SPRINGFIELD EAST LONGITUDE: -89.604458 GEOLOGIST: WEIBEL

CONFIDENTIAL: N LATITUDE: 39.872375 DATE COLLECTED:

SURFACE ELEVATION (FT.): 515.0 LOGGED (FT.): 187.0 LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO. WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
515.0			UNCONSOLIDATED	60.0	0.0
455.0	CARBONDALE		UNCLASSIFIED	67.0	60.0
388.0	CARBONDALE		SHALE	36.0	127.0
352.0	CARBONDALE		CLAYSTONE	10.0	163.0
342.0	CARBONDALE	ST. DAVID	LIMESTONE	2.9	173.0
339.1	CARBONDALE	TURNER MINE	BLACK SHALE	4.0	175.9
335.1	CARBONDALE	SPRINGFIELD	COAL	6.0	179.9
329.1	CARBONDALE		UNDERCLAY	1.1	185.9

MAPID: 16700148000C VERSION: 1

PROJECT: NCRDS89

COUNTY: SANGAMON TWP/RNG: 16N 5W SECTION: 3 QUARTERS/FOOTAGES: 1320' S line, 1320' W line

QUADRANGLE: SPRINGFIELD WEST LONGITUDE: -89.649804 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 39.863566 DATE COLLECTED: 7 / 0 / 1946

SURFACE ELEVATION (FT.): 555.0 LOGGED (FT.): 246.0 LOG TYPE: Drillers Log

SOURCE: CHARLES ROGER WELL TYPE: Misc. Borings 100 Ft. & Deeper

COMMENT: PANTHER CREEK FARM; ELEVATION NOT GIVEN

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
555.0			UNCONSOLIDATED	18.0	0.0
537.0			SHALE	76.0	18.0
461.0			SANDSTONE	18.0	94.0
443.0			SHALE	2.0	112.0
441.0	CARBONDALE		ROCK	2.5	114.0
438.5	CARBONDALE		CLAYSTONE & SHALE	7.0	116.5
431.5	CARBONDALE		SHALE	1.5	123.5
430.0	CARBONDALE	HERRIN	COAL	1.0	125.0
429.0	CARBONDALE		CLAYSTONE & SHALE	33.0	126.0
396.0	CARBONDALE	ST. DAVID	LIMESTONE	2.0	159.0
394.0	CARBONDALE	SPRINGFIELD	COAL	2.0	161.0
392.0	CARBONDALE		UNDERCLAY	3.0	163.0
389.0	CARBONDALE		CLAYSTONE & SHALE	38.0	166.0
351.0	CARBONDALE		ROCK	12.0	204.0
339.0	CARBONDALE		CLAYSTONE & SHALE	19.5	216.0
319.5	CARBONDALE		ROCK	1.5	235.5
318.0	CARBONDALE		CLAYSTONE & SHALE	7.0	237.0
311.0	CARBONDALE		ROCK	2.0	244.0

MAPID: 16700148000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 16N 5W SECTION: 3 QUARTERS/FOOTAGES: 1320' S line, 1320' W line

QUADRANGLE: SPRINGFIELD WEST LONGITUDE: -89.649804

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.863566

DATE COLLECTED:

SURFACE ELEVATION (FT.): 555.0

LOGGED (FT.): 126.0

LOG TYPE: Drillers Log

SOURCE:

WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
461.0	CARBONDALE		SHALE & SANDSTONE	20.0	94.0
441.0	CARBONDALE	BANKSTON FORK	LIMESTONE	2.5	114.0
438.5	CARBONDALE	LAWSON	CLAYSTONE & SHALE	7.0	116.5
431.5	CARBONDALE	ANNA	DARK GRAY SHALE	1.5	123.5
430.0	CARBONDALE	HERRIN	COAL	1.0	125.0

MAPID: 16701795000C VERSION: 1

PROJECT: NCRDS87

COUNTY: SANGAMON TWP/RNG: 16N 5W SECTION: 5 QUARTERS/FOOTAGES: 1320' N line, 0' E line

QUADRANGLE: SPRINGFIELD WEST LONGITUDE: -89.673232

GEOLOGIST: WEIBEL

CONFIDENTIAL: N LATITUDE: 39.869816

DATE COLLECTED:

SURFACE ELEVATION (FT.): 520.0

LOGGED (FT.): 260.0

LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO.

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
520.0			UNCONSOLIDATED	46.0	0.0
474.0	CARBONDALE		UNCLASSIFIED	32.8	46.0
441.2	CARBONDALE	ANNA	BLACK SHALE	0.3	78.8
441.0	CARBONDALE	HERRIN	COAL WITH SHALE PARTINGS	2.1	79.0
438.9	CARBONDALE		UNCLASSIFIED	36.4	81.1
402.5	CARBONDALE	ST. DAVID	LIMESTONE	1.6	117.5
400.9	CARBONDALE	TURNER MINE	BLACK SHALE	4.1	119.1
396.8	CARBONDALE	SPRINGFIELD	COAL	6.1	123.2
390.7	CARBONDALE		UNCLASSIFIED	20.8	129.3
370.0	CARBONDALE		SANDSTONE	7.0	150.0
363.0	CARBONDALE		SHALE	38.5	157.0
324.5	CARBONDALE		COAL WITH SHALE PARTINGS	2.9	195.5
321.6	CARBONDALE		UNCLASSIFIED	45.6	198.4
276.0	CARBONDALE		SHALE	6.3	244.0
269.7	CARBONDALE	HANOVER	LIMESTONE	1.2	250.3
268.6	CARBONDALE	EXCELLO	BLACK SHALE	2.2	251.4
266.4	CARBONDALE	HOUCHIN CREEK	COAL	2.4	253.6
264.0	CARBONDALE		UNCLASSIFIED	4.0	256.0

MAPID: 16701795000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 16N 5W SECTION: 5 QUARTERS/FOOTAGES: 1320' N line, 0' E line

QUADRANGLE: SPRINGFIELD WEST LONGITUDE: -89.673232 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.869816 DATE COLLECTED:

SURFACE ELEVATION (FT.): 520.0 LOGGED (FT.): 81.1 LOG TYPE: Drillers Log

SOURCE: WELL TYPE: Coal Test

COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
474.0	CARBONDALE	DANVILLE	DARK GRAY SHALE	2.0	46.0
472.0	CARBONDALE	LAWSON	GRAY SHALE	1.0	48.0
471.0	CARBONDALE	LAWSON	MOTTLED SHALE	15.5	49.0
455.5	CARBONDALE	LAWSON	CALCAREOUS SHALE	10.4	64.5
445.1	CARBONDALE	BRERETON	LIMESTONE	0.3	74.9
444.7	CARBONDALE	ENERGY	GRAY SHALE	3.5	75.3
441.2	CARBONDALE	ENERGY	BLACK SHALE	0.3	78.8
441.0	CARBONDALE	HERRIN	COAL	2.1	79.0

MAPID: 16700083000C VERSION: 1

PROJECT: NCRDS88

COUNTY: SANGAMON TWP/RNG: 16N 5W SECTION: 10 QUARTERS/FOOTAGES: 0' S line, 0' W line

QUADRANGLE: SPRINGFIELD WEST LONGITUDE: -89.654405 GEOLOGIST: R. SMITH

CONFIDENTIAL: N LATITUDE: 39.845433 DATE COLLECTED: 6 / 5 / 1919

SURFACE ELEVATION (FT.): 550.0 LOGGED (FT.): 167.0 LOG TYPE: Drillers Log

SOURCE: WM. E. DAWSON WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
550.0			UNCONSOLIDATED	66.0	0.0
484.0	MODESTO		BLACK SHALE	2.0	66.0
482.0	MODESTO		UNCLASSIFIED	18.0	68.0
464.0	MODESTO		BLACK SHALE	2.0	86.0
462.0	MODESTO		UNCLASSIFIED	14.0	88.0
448.0	CARBONDALE		SHALE	4.0	102.0
444.0	CARBONDALE		UNCLASSIFIED	6.0	106.0
438.0	CARBONDALE		UNCLASSIFIED	8.0	112.0
430.0	CARBONDALE	HERRIN	COAL	2.0	120.0
428.0	CARBONDALE		UNDERCLAY	4.0	122.0
424.0	CARBONDALE		SANDSTONE	16.0	126.0
408.0	CARBONDALE		SHALE	14.0	142.0
394.0	CARBONDALE		UNCLASSIFIED	1.0	156.0
393.0	CARBONDALE	TURNER MINE	BLACK SHALE	4.0	157.0
389.0	CARBONDALE	SPRINGFIELD	COAL	6.0	161.0

UNCERTAIN  
CORRELATION

MAPID: 16700083000C    VERSION: 2

PROJECT: ROOF STUDY

COUNTY: SANGAMON    TWP/RNG: 16N 5W    SECTION: 10    QUARTERS/FOOTAGES: 0' S line, 0' W line

QUADRANGLE: SPRINGFIELD WEST    LONGITUDE: -89.654405

GEOLOGIST:

CONFIDENTIAL: N    LATITUDE: 39.845433

DATE COLLECTED:

SURFACE ELEVATION (FT.): 550.0

LOGGED (FT.): 122.0

LOG TYPE: Drillers Log

SOURCE:

WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
460.0	CARBONDALE	DANVILLE	BLACK SHALE	2.0	90.0
458.0	CARBONDALE		MOTTLED SHALE	14.0	92.0
444.0	CARBONDALE	BANKSTON FORK	LIMESTONE	6.0	106.0
438.0	CARBONDALE	LAWSON	CALCAREOUS SHALE	8.0	112.0
430.0	CARBONDALE	HERRIN	COAL	2.0	120.0

---

MAPID: 16700089000C    VERSION: 1

PROJECT: NCRDS87

COUNTY: SANGAMON    TWP/RNG: 16N 5W    SECTION: 13    QUARTERS/FOOTAGES: 1320' S line, 1320' W line

QUADRANGLE: SPRINGFIELD EAST    LONGITUDE: -89.611113

GEOLOGIST: WEIBEL

CONFIDENTIAL: N    LATITUDE: 39.834684

DATE COLLECTED:

SURFACE ELEVATION (FT.): 586.0    LOGGED (FT.): 233.3

LOG TYPE: Drillers Log

SOURCE: PEERLESS COAL CO. (SPGFD. COLLIERY CO.)

WELL TYPE: Mine Shaft

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
586.0			UNCONSOLIDATED	23.0	0.0	
563.0	MODESTO		UNCLASSIFIED	21.5	23.0	
541.5	MODESTO		BLACK SHALE	1.5	44.5	
540.0	MODESTO		COAL	2.0	46.0	
538.0	MODESTO		UNDERCLAY	3.0	48.0	
535.0	MODESTO		UNCLASSIFIED	15.5	51.0	
519.5	MODESTO		LIMESTONE	0.5	66.5	
519.0	MODESTO		UNCLASSIFIED	67.0	67.0	
452.0	MODESTO		LIMESTONE	1.0	134.0	
451.0	MODESTO		BLACK SHALE	1.5	135.0	
449.5	CARBONDALE	DANVILLE	COAL	0.3	136.5	
449.2	CARBONDALE		UNDERCLAY	3.0	136.8	
446.2	CARBONDALE		UNCLASSIFIED	11.0	139.8	
435.2	CARBONDALE		BLACK SHALE	2.2	150.8	
433.0	CARBONDALE		UNDERCLAY	4.0	153.0	
429.0	CARBONDALE		UNCLASSIFIED	14.5	157.0	
414.5	CARBONDALE		LIMESTONE	3.0	171.5	
411.5	CARBONDALE		UNCLASSIFIED	2.0	174.5	
409.5	CARBONDALE	BRERETON	LIMESTONE	3.5	176.5	UNCERTAIN CORRELATION
406.0			UNCLASSIFIED	1.0	180.0	
405.0	CARBONDALE	ANNA	BLACK SHALE	0.3	181.0	
404.7	CARBONDALE	HERRIN	COAL	1.2	181.3	
403.5	CARBONDALE		UNDERCLAY	4.0	182.5	
399.5	CARBONDALE		UNCLASSIFIED	13.0	186.5	
386.5	CARBONDALE		LIMESTONE	0.5	199.5	
386.0	CARBONDALE		UNCLASSIFIED	11.0	200.0	
375.0	CARBONDALE		LIMESTONE	0.8	211.0	
374.2	CARBONDALE		UNCLASSIFIED	9.2	211.8	
365.0	CARBONDALE	ST. DAVID	LIMESTONE	0.8	221.0	
364.2	CARBONDALE	TURNER MINE	BLACK SHALE	3.6	221.8	
360.6	CARBONDALE	SPRINGFIELD	COAL	5.9	225.4	
354.7	CARBONDALE		UNDERCLAY	2.0	231.3	

MAPID: 16700089000C    VERSION: 2

PROJECT: ROOF STUDY

COUNTY: SANGAMON    TWP/RNG: 16N 5W    SECTION: 13    QUARTERS/FOOTAGES: 1320' S line, 1320' W line

QUADRANGLE: SPRINGFIELD EAST    LONGITUDE: -89.611113

GEOLOGIST:

CONFIDENTIAL: N    LATITUDE: 39.834684

DATE COLLECTED:

SURFACE ELEVATION (FT.): 585.0

LOGGED (FT.): 182.2

LOG TYPE: Drillers Log

SOURCE:

WELL TYPE: Coal Test

COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
445.6	MODESTO		GRAY SHALE	11.0	139.4
434.6	CARBONDALE	DANVILLE	BLACK SHALE	2.3	150.4
432.3	CARBONDALE		MOTTLED SHALE	18.5	152.7
413.8	CARBONDALE	BANKSTON FORK	LIMESTONE	3.0	171.2
410.8	CARBONDALE	LAWSON	GRAY SHALE	2.0	174.2
408.8	CARBONDALE	BRERETON	LIMESTONE	3.5	176.2
405.3	CARBONDALE	ANNA	DARK GRAY SHALE	1.3	179.7
404.0	CARBONDALE	HERRIN	COAL	1.2	181.0



MAPID: 16700091000C    VERSION: 1

PROJECT: NCRDS88

COUNTY: SANGAMON    TWP/RNG: 16N 5W    SECTION: 13    QUARTERS/FOOTAGES: NE NW SE

QUADRANGLE: SPRINGFIELD EAST    LONGITUDE: -89.602786    GEOLOGIST: R. SMITH

CONFIDENTIAL: N    LATITUDE: 39.837231    DATE COLLECTED:

SURFACE ELEVATION (FT.): 585.0    LOGGED (FT.): 224.1    LOG TYPE: Drillers Log

SOURCE: SPRINGFIELD COLLIERY CO.    WELL TYPE: Coal Test

COMMENT: NOW PEABODY COAL CO. MINE #59

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
585.0			UNCONSOLIDATED	26.0	0.0	
559.0	MODESTO		SANDY SHALE	8.0	26.0	
551.0	MODESTO		UNCLASSIFIED	23.0	34.0	
528.0	MODESTO		LIMESTONE	1.0	57.0	
527.0	MODESTO		UNDERCLAY	1.5	58.0	
525.5	MODESTO		SANDSTONE	11.0	59.5	
514.5	MODESTO		SANDSTONE/LIMESTONE	10.5	70.5	
504.0	MODESTO		BLACK SHALE	1.5	81.0	
502.5	MODESTO		COAL	0.3	82.5	
502.2	MODESTO		SANDSTONE	21.7	82.8	
480.5	MODESTO		COAL	1.3	104.5	
479.2	MODESTO		SANDSTONE	4.5	105.8	
474.7	MODESTO		BLACK SHALE	1.5	110.3	
473.2	MODESTO		UNDERCLAY	0.5	111.8	
472.7	MODESTO		DARK SHALE	29.0	112.3	
443.7	MODESTO		BLACK SHALE	1.7	141.3	
442.0	MODESTO		UNDERCLAY	4.0	143.0	
438.0	MODESTO		SHALE	7.0	147.0	
431.0	CARBONDALE	DANVILLE	BLACK SHALE	1.0	154.0	
430.0	CARBONDALE		UNDERCLAY	3.0	155.0	
427.0	CARBONDALE		BLUE SHALE	7.0	158.0	
420.0	CARBONDALE	BANKSTON FORK	LIMESTONE	2.3	165.0	UNCERTAIN CORRELATION
417.7	CARBONDALE		BLUE SHALE	1.0	167.3	
416.7	CARBONDALE	BRERETON	LIMESTONE	3.2	168.3	
413.5	CARBONDALE		BLUE SHALE	1.5	171.5	
412.0	CARBONDALE	ANNA	BLACK SHALE	1.0	173.0	
411.0	CARBONDALE	HERRIN	COAL	0.0	174.0	
411.0	CARBONDALE		UNDERCLAY	2.0	174.0	
409.0	CARBONDALE		SHALE	35.5	176.0	
373.5	CARBONDALE	ST. DAVID	LIMESTONE	1.7	211.5	
371.8	CARBONDALE	TURNER MINE	BLACK SHALE	4.3	213.2	
367.5	CARBONDALE	SPRINGFIELD	COAL	1.0	217.5	
366.5	CARBONDALE	SPRINGFIELD	COAL	0.5	218.5	
366.0	CARBONDALE	SPRINGFIELD	COAL	4.2	219.0	
361.8	CARBONDALE		UNDERCLAY	0.9	223.2	

MAPID: 16700906000C    VERSION: 1

PROJECT: NCRDS87

COUNTY: SANGAMON    TWP/RNG: 16N 5W    SECTION: 13    QUARTERS/FOOTAGES: 1460' S line, 90' W line

QUADRANGLE: SPRINGFIELD EAST    LONGITUDE: -89.615521    GEOLOGIST: WEIBEL

CONFIDENTIAL: N    LATITUDE: 39.835163    DATE COLLECTED: 11 / 18 / 1963

SURFACE ELEVATION (FT.): 590.0    LOGGED (FT.): 545.1    LOG TYPE: Survey Core Study

SOURCE: ALLEN S. CROWLEY    WELL TYPE: Structure Test

COMMENT: DRILLER'S LOG USED FOR 0-239'

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
590.0			UNCONSOLIDATED	23.0	0.0	
567.0			UNCLASSIFIED	150.0	23.0	
417.0			LIMESTONE	2.0	173.0	
415.0			UNCLASSIFIED	64.3	175.0	
350.7	CARBONDALE	HANOVER	LIMESTONE	0.6	239.3	
350.1	CARBONDALE		UNCLASSIFIED	1.5	239.9	
348.6	CARBONDALE	EXCELLO	BLACK SHALE	0.9	241.4	
347.7	CARBONDALE		LIMESTONE	0.8	242.3	
346.9	CARBONDALE	HOUCHIN CREEK	BONE COAL	0.3	243.1	
346.6	CARBONDALE		UNDERCLAY	1.9	243.4	
344.7	CARBONDALE		UNCLASSIFIED	57.9	245.3	
286.8	CARBONDALE		COAL WITH SHALE PARTINGS	2.4	303.2	
284.4	CARBONDALE		UNDERCLAY	0.8	305.6	
283.6	CARBONDALE		UNCLASSIFIED	6.4	306.4	
277.2	CARBONDALE		SILTSTONE	3.1	312.8	
274.1	CARBONDALE		UNCLASSIFIED	42.9	315.9	
231.2	CARBONDALE	OAK GROVE	LIMESTONE	0.5	358.8	
230.7	CARBONDALE	MECCA QUARRY	BLACK SHALE	3.3	359.3	
227.4	CARBONDALE	COLCHESTER	COAL	2.6	362.6	
224.8			UNDERCLAY	1.9	365.2	
222.9			UNCLASSIFIED	3.8	367.1	
219.1	SPOON	DEKOVEN	COAL	1.2	370.9	
217.9			UNDERCLAY	0.7	372.1	
217.2			UNCLASSIFIED	16.3	372.8	
200.9			DARK GRAY SHALE	3.5	389.1	
197.4	SPOON	DAVIS	COAL	0.8	392.6	
196.6			UNCLASSIFIED	18.5	393.4	
178.1			DARK SHALE	2.2	411.9	
175.9			UNCLASSIFIED	8.0	414.1	
167.9			COAL	1.6	422.1	
166.3			UNCLASSIFIED	3.5	423.7	
162.8			BLACK SHALE	1.1	427.2	
161.7	SPOON	MT. RORAH	COAL	3.1	428.3	
158.6			UNCLASSIFIED	2.9	431.4	
155.7	SPOON	MURPHYSBORO	COAL	1.0	434.3	UNCERTAIN CORRELATION
154.7			UNDERCLAY	0.5	435.3	
154.2			UNCLASSIFIED	59.5	435.8	
94.7			DARK GRAY SHALE	7.2	495.3	

87.5	SPOON	ROCK ISLAND	COAL	2.2	502.5
85.3			UNCLASSIFIED	26.3	504.7
59.0	ABBOTT	TARTER	COAL	2.1	531.0
56.9			UNCLASSIFIED	8.0	533.1

**MAPID:** 16726053000C    **VERSION:** 1    **PROJECT:**  
**COUNTY:** SANGAMON    **TWP/RNG:** 16N 5W    **SECTION:** 15    **QUARTERS/FOOTAGES:** 1502' S, 2404' E, NW/c  
**QUADRANGLE:** SPRINGFIELD WEST    **LONGITUDE:** -89.645806    **GEOLOGIST:** NORTH  
**CONFIDENTIAL:** N    **LATITUDE:** 39.841451    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 581.7    **LOGGED (FT.):** 236.5    **LOG TYPE:** Drillers Log  
**SOURCE:** ILLINOIS DNR BUILDING SD-1    **WELL TYPE:** Coal Test  
**COMMENT:** CORE AVAIL; SP CORDS GIVEN IN NAD27

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			UNCONSOLIDATED	34.0		
547.7			SILTY SHALE	8.0	34.0	
539.7			CARBONACEOUS SHALE	1.5	42.0	
538.2	PATOKA	CHAPEL	COAL	1.5	43.5	
536.7			UNDERCLAY	8.0	45.0	
528.7			CLAYSTONE & SILTSTONE	1.6	53.0	
527.1			LIMESTONE	0.9	54.6	
526.2			SILTY SHALE	10.5	55.5	
515.7			LIMESTONE	0.4	66.0	
515.3			SILTY SHALE	20.6	66.4	
494.7			GRAY SHALE	15.0	87.0	
479.7			SILTY SHALE	19.0	102.0	
460.7			GRAY SHALE	12.8	121.0	
447.9	SHELburn		BLACK SHALE	0.9	133.8	
447.0	SHELburn		GRAY SHALE	2.3	134.7	
444.7	SHELburn	PIASA	LIMESTONE	0.7	137.0	
444.0	SHELburn		GRAY SHALE	8.7	137.7	
436.7	SHELburn		BLACK SHALE	1.0	145.0	
435.7	SHELburn		GRAY SHALE	23.0	146.0	
412.7	SHELburn	BRERETON	LIMESTONE	4.9	169.0	
407.8	SHELburn		GRAY SHALE	3.6	173.9	
404.2	CARBONDALE	ANNA	BLACK SHALE	1.0	177.5	
403.2	CARBONDALE	HERRIN	COAL	2.0	178.5	
401.2	CARBONDALE	HERRIN	COAL WITH SHALE	0.9	180.5	
400.3	CARBONDALE		UNDERCLAY	6.2	181.4	
394.1	CARBONDALE	HIGGINSVILLE	LIMESTONE	0.9	187.6	
393.2	CARBONDALE		SILTSTONE	16.0	188.5	
377.2	CARBONDALE		UNKNOWN	22.8	204.5	BROKEN, RUBBLE AND VOIDS
354.4	CARBONDALE		GRAY SHALE	9.2	227.3	

MAPID: 16726054000C    VERSION: 1

PROJECT:

COUNTY: SANGAMON    TWP/RNG: 16N 5W    SECTION: 15    QUARTERS/FOOTAGES: 1482' S, 2404' E, NW/c

QUADRANGLE: SPRINGFIELD WEST    LONGITUDE: -89.645805

GEOLOGIST: NORTH

CONFIDENTIAL: N    LATITUDE: 39.841506

DATE COLLECTED:

SURFACE ELEVATION (FT.): 581.6    LOGGED (FT.): 250.0

LOG TYPE: Drillers Log

SOURCE: ILLINOIS DNR BUILDING    SD-2

WELL TYPE: Coal Test

COMMENT: SP CORDS GIVEN IN NAD27

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
581.6			UNCONSOLIDATED	33.0	0.0
548.6			SILTY SHALE	8.0	33.0
540.6			DARK SHALE	2.0	41.0
538.6	PATOKA	CHAPEL	COAL	1.0	43.0
537.6			SILTY SHALE	19.0	44.0
518.6			SILTSTONE	0.2	63.0
518.4			SILTY SHALE	154.8	63.2
363.6	CARBONDALE		LIMESTONE	1.0	218.0
362.6	CARBONDALE	SPRINGFIELD	COAL	3.5	219.0
359.1	CARBONDALE		SHALE	16.0	222.5
343.1	CARBONDALE		LIMESTONE	10.0	238.5
342.1	CARBONDALE		SHALE	10.5	239.5

MAPID: 16726055000C    VERSION: 1

PROJECT:

COUNTY: SANGAMON    TWP/RNG: 16N 5W    SECTION: 15    QUARTERS/FOOTAGES: 1483' S, 2424' E, NW/c

QUADRANGLE: SPRINGFIELD WEST    LONGITUDE: -89.645734

GEOLOGIST: NORTH

CONFIDENTIAL: N    LATITUDE: 39.841506

DATE COLLECTED:

SURFACE ELEVATION (FT.): 582.0    LOGGED (FT.): 240.0

LOG TYPE: Drillers Log

SOURCE: ILLINOIS DNR BUILDING    SD-3

WELL TYPE: Coal Test

COMMENT: SP CORDS GIVEN IN NAD27

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
582.0			UNCONSOLIDATED	31.0	0.0	
551.0			DARK GRAY SHALE	11.0	31.0	
540.0	PATOKA	CHAPEL	COAL	1.5	42.0	
538.5			DARK SHALE	9.5	43.5	
529.0			SILTSTONE	1.8	53.0	
527.2			GRAY SHALE	31.0	54.8	
496.0			SILTY SHALE	2.5	86.0	
493.5			GRAY SHALE	4.5	88.5	
489.0			SILTY SHALE	1.0	93.0	
488.0			GRAY SHALE	18.0	94.0	
470.0			SILTY SHALE	1.0	112.0	
469.0			GRAY SHALE	26.7	113.0	
442.3			CARBONACEOUS SHALE	2.3	139.7	
440.0			GRAY SHALE	6.0	142.0	
434.0			BLACK SHALE	1.0	148.0	
433.0			GRAY SHALE	2.0	149.0	
431.0			BROWN SHALE	5.0	151.0	
426.0			SILTSTONE	0.3	156.0	BLACK, HARD
425.7	SHELburn		GRAY SHALE	11.2	156.3	
414.5	SHELburn	BRERETON	LIMESTONE	0.4	167.5	
414.1	SHELburn	BRERETON	GRAY SHALE	1.1	167.9	
413.0	SHELburn	BRERETON	LIMESTONE	0.8	169.0	
412.2	CARBONDALE		GRAY SHALE	8.4	169.8	
403.8	CARBONDALE	HERRIN	COAL	1.0	178.2	
402.8	CARBONDALE		SILTSTONE	0.7	179.2	
402.1	CARBONDALE		GRAY SHALE	13.6	179.9	
388.5	CARBONDALE		SILTSTONE	13.5	193.5	
375.0	CARBONDALE		GRAY SHALE	3.0	207.0	
372.0	CARBONDALE		SILTSTONE	9.6	210.0	
362.4	CARBONDALE		LIMESTONE	0.4	219.6	
362.0	CARBONDALE		SHALE	1.0	220.0	
361.0	CARBONDALE	SPRINGFIELD	MINE OPENING	8.0	221.0	VOIDS WITH RUBBLE
353.0	CARBONDALE		SHALE	9.0	229.0	
344.0	CARBONDALE		LIMESTONE	1.0	238.0	
343.0	CARBONDALE		SHALE	1.0	239.0	

MAPID: 16726056000C    VERSION: 1

PROJECT:

COUNTY: SANGAMON    TWP/RNG: 16N 5W    SECTION: 15    QUARTERS/FOOTAGES: 1632' S, 2234' E, NW/c

QUADRANGLE: SPRINGFIELD WEST    LONGITUDE: -89.646408

GEOLOGIST: NORTH

CONFIDENTIAL: N    LATITUDE: 39.841085

DATE COLLECTED:

SURFACE ELEVATION (FT.): 578.5    LOGGED (FT.): 234.0

LOG TYPE: Drillers Log

SOURCE: ILLINOIS DNR BUILDING    SD-4

WELL TYPE: Coal Test

COMMENT: SP CORDS GIVEN IN NAD27

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
578.5			UNCONSOLIDATED	27.0	0.0
551.5			GRAY SHALE	13.0	27.0
538.5	PATOKA	CHAPEL	COAL	1.6	40.0
536.9			GRAY SHALE	4.7	41.6
532.2			SILTY SHALE	4.7	46.3
527.5			GRAY SHALE	55.0	51.0
472.5			SILTY SHALE	3.5	106.0
469.0			GRAY SHALE	3.8	109.5
465.2			SILTY SHALE	5.2	113.3
460.0			GRAY SHALE	7.0	118.5
453.0			SILTY SHALE	9.5	125.5
443.5	SHELBURN		SHALE	20.5	135.0
413.0	SHELBURN	BANKSTON FORK	LIMESTONE	2.6	165.5
410.4	SHELBURN		GRAY SHALE	1.7	168.1
408.7	SHELBURN		SIDERITE	0.2	169.8
408.5	SHELBURN		GRAY SHALE	1.8	170.0
406.7	SHELBURN	BRERETON	LIMESTONE	1.2	171.8
405.5	CARBONDALE		SILTY SHALE	0.5	173.0
405.0	CARBONDALE	HERRIN	COAL	0.5	173.5
404.5	CARBONDALE		GRAY SHALE	7.0	174.0
397.5	CARBONDALE		SILTSTONE	0.5	181.0
397.0	CARBONDALE		SILTY SHALE	1.0	181.5
396.0	CARBONDALE		GRAY SHALE	0.7	182.5
395.3	CARBONDALE		SILTSTONE	0.8	183.2
394.5	CARBONDALE		GRAY SHALE	0.5	184.0
394.0	CARBONDALE		SILTSTONE	1.5	184.5
392.5	CARBONDALE		SILTY SHALE	17.5	186.0
375.0	CARBONDALE		SHALE	1.5	203.5
374.5	CARBONDALE		SILTY SHALE	13.5	204.0
361.0	CARBONDALE		BLACK SHALE	3.8	217.5
357.2	CARBONDALE	SPRINGFIELD	COAL	5.3	221.3
351.9	CARBONDALE		UNDERCLAY	1.5	226.6
350.4	CARBONDALE		SILTY SHALE	5.9	228.1

MAPID: 16726057000C    VERSION: 1

PROJECT:

COUNTY: SANGAMON    TWP/RNG: 16N 5W    SECTION: 15    QUARTERS/FOOTAGES: 1633' S, 2254' E, NW/c

QUADRANGLE: SPRINGFIELD WEST    LONGITUDE: -89.646337    GEOLOGIST: NORTH

CONFIDENTIAL: N    LATITUDE: 39.841085    DATE COLLECTED:

SURFACE ELEVATION (FT.): 579.2    LOGGED (FT.): 240.0    LOG TYPE: Drillers Log

SOURCE: ILLINOIS DNR BUILDING    SD-5    WELL TYPE: Coal Test

COMMENT: SP CORDS GIVEN IN NAD27

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			UNCONSOLIDATED	29.0		
550.2			GRAY SHALE	17.0	29.0	
533.2			GRAY SHALE	4.0	46.0	
529.2			SILTSTONE	0.5	50.0	BLACK
528.7			GRAY SHALE	17.7	50.5	
511.0			SILTY SHALE	0.4	68.2	
510.6			GRAY SHALE	12.5	68.6	
498.1			SILTY SHALE	44.9	81.1	
453.2			SILTY SHALE	7.0	126.0	SOME SIDERITE BANDS
446.2			GRAY SHALE	31.5	133.0	
414.7	SHELBURN	BANKSTON FORK	LIMESTONE	3.0	164.5	
411.7	SHELBURN		GRAY SHALE	1.0	167.5	
410.7	SHELBURN		LIMESTONE	0.2	168.5	
410.5	SHELBURN		GRAY SHALE	4.3	168.7	
406.2	SHELBURN	BRERETON	LIMESTONE	0.4	173.0	
405.8	CARBONDALE	HERRIN	COAL	2.0	173.4	
403.8	CARBONDALE		SILTY SHALE	7.6	175.4	
396.2	CARBONDALE		SILTSTONE	1.0	183.0	
395.2	CARBONDALE		SANDY SILTSTONE	0.5	184.0	BLACK
394.7	CARBONDALE		GRAY SHALE	5.0	184.5	
389.7	CARBONDALE		SILTSTONE	0.8	189.5	
388.9	CARBONDALE		SILTY SHALE	15.4	190.3	
373.5	CARBONDALE		SILTSTONE	1.1	205.7	
372.4	CARBONDALE		GRAY SHALE	0.1	206.8	
372.3	CARBONDALE		SILTSTONE	2.5	206.9	
369.8	CARBONDALE		GRAY SHALE	6.6	209.4	
363.2	CARBONDALE		SILTSTONE	1.3	216.0	
361.9	CARBONDALE	ST. DAVID	LIMESTONE	0.7	217.3	
361.2	CARBONDALE	SPRINGFIELD	MINE OPENING	10.0	218.0	VOID AND RUBBLE
351.2	CARBONDALE		GRAY SHALE	8.8	228.0	
342.4	CARBONDALE		LIMESTONE	0.7	236.8	
341.7	CARBONDALE		GRAY SHALE	1.3	237.5	
340.4	CARBONDALE		BLACK SHALE	1.2	238.8	

MAPID: 16726058000C    VERSION: 1

PROJECT:

COUNTY: SANGAMON    TWP/RNG: 16N 5W    SECTION: 15    QUARTERS/FOOTAGES: 1823' S, 2038' E, NW/c

QUADRANGLE: SPRINGFIELD WEST    LONGITUDE: -89.6471    GEOLOGIST: NORTH

CONFIDENTIAL: N    LATITUDE: 39.840549    DATE COLLECTED:

SURFACE ELEVATION (FT.): 561.9    LOGGED (FT.): 223.5    LOG TYPE: Drillers Log

SOURCE: ILLINOIS DNR BUILDING    SD-6    WELL TYPE: Coal Test

COMMENT: SP CORDS GIVEN IN NAD27

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
561.9			UNCONSOLIDATED	17.5	0.0	
544.4			BLACK SHALE	5.5	17.5	
538.9	PATOKA	CHAPEL	COAL	1.5	23.0	
537.4			SILTY SHALE	20.0	24.5	
517.4			GRAY SHALE	13.5	44.5	
503.9			SILTY SHALE	61.5	58.0	
442.4			SHALE	34.5	119.5	
407.9	SHELBURN	BRERETON	LIMESTONE	1.2	154.0	
405.1			GRAY SHALE	1.2	156.8	WITH COAL STREAKS
403.9	CARBONDALE	HERRIN	COAL	1.4	158.0	
402.5	CARBONDALE		UNDERCLAY	2.1	159.4	
400.4	CARBONDALE		GRAY SHALE	11.5	161.5	
388.9	CARBONDALE		SILTSTONE	0.2	173.0	BLACK
388.7	CARBONDALE		GRAY SHALE	6.8	173.2	
381.9	CARBONDALE		SILTSTONE	12.5	180.0	
369.4	CARBONDALE		GRAY SHALE	4.8	192.5	
364.6	CARBONDALE	SPRINGFIELD	MINE OPENING	14.6	197.3	VOID RUBBLE
350.0	CARBONDALE		GRAY SHALE	3.3	211.9	HARD
346.7	CARBONDALE		SILTY SHALE	0.7	215.2	SOFT
346.0	CARBONDALE		GRAY SHALE	3.2	215.9	
342.8	CARBONDALE		SILTY SHALE	0.9	219.1	
341.9	CARBONDALE		LIMESTONE	0.6	220.0	
341.3	CARBONDALE		CARBONACEOUS SHALE	1.6	220.6	
339.7	CARBONDALE		BLACK SHALE	0.8	222.2	



MAPID: 16726059000C VERSION: 1

PROJECT:

COUNTY: SANGAMON TWP/RNG: 16N 5W SECTION: 15 QUARTERS/FOOTAGES: 1823' S, 2018' E, NW/c

QUADRANGLE: SPRINGFIELD WEST LONGITUDE: -89.647171

GEOLOGIST: NORTH

CONFIDENTIAL: N LATITUDE: 39.840549

DATE COLLECTED:

SURFACE ELEVATION (FT.): 560.5 LOGGED (FT.): 223.0

LOG TYPE: Drillers Log

SOURCE: ILLINOIS DNR BUILDING SD-7

WELL TYPE: Coal Test

COMMENT: SP CORDS GIVEN IN NAD27

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
560.5			UNCONSOLIDATED	16.0	0.0	
544.5			SILTY SHALE	3.0	16.0	
541.5			SANDY SHALE	1.0	19.0	
540.5			GRAY SHALE	2.0	20.0	
538.5	PATOKA	CHAPEL	COAL	1.0	22.0	
537.5			GRAY SHALE	10.5	23.0	
527.0			SILTY SHALE	8.0	33.5	
519.0			GRAY SHALE	64.0	41.5	
455.0			SILTY SHALE	4.5	105.5	
450.5			GRAY SHALE	41.6	110.0	SOME MULTI-COLORED
408.9			SILTSTONE	0.2	151.6	RED
408.7			GRAY SHALE	1.3	151.8	
407.4	SHELBURN	BRERETON	LIMESTONE	3.0	153.1	
404.4			GRAY SHALE	2.1	156.1	
402.3	CARBONDALE	HERRIN	COAL	1.5	158.2	
400.8	CARBONDALE		DARK SHALE	5.8	159.7	
395.0	CARBONDALE		SILTSTONE	2.0	165.5	
393.0	CARBONDALE		GRAY SHALE	4.0	167.5	
389.0	CARBONDALE		CARBONACEOUS SILTSTONE	0.6	171.5	
388.4	CARBONDALE		GRAY SHALE	5.9	172.1	
382.5	CARBONDALE		SILTSTONE	6.0	178.0	
366.5	CARBONDALE		SILTY SHALE	9.0	194.0	
357.5	CARBONDALE	SPRINGFIELD	COAL	7.5	203.0	
350.0	CARBONDALE		UNDERCLAY	0.5	210.5	
349.5	CARBONDALE		GRAY SHALE	6.8	211.0	
342.7	CARBONDALE		SILTY SHALE	0.8	217.8	
341.9	CARBONDALE		LIMESTONE	0.7	218.6	
341.2	CARBONDALE		CARBONACEOUS SHALE	3.7	219.3	

MAPID: 1672606000C VERSION: 1

PROJECT:

COUNTY: SANGAMON TWP/RNG: 16N 5W SECTION: 15 QUARTERS/FOOTAGES: 1989' S, 2304' E, NW/c

QUADRANGLE: SPRINGFIELD WEST LONGITUDE: -89.64615 GEOLOGIST: NORTH

CONFIDENTIAL: N LATITUDE: 39.840109 DATE COLLECTED:

SURFACE ELEVATION (FT.): 562.8 LOGGED (FT.): 218.5 LOG TYPE: Drillers Log

SOURCE: ILLINOIS DNR BUILDING SD-8 WELL TYPE: Coal Test

COMMENT: SP CORDS GIVEN IN NAD27

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
562.8			UNCONSOLIDATED	22.5	0.0	
540.3			GRAY SHALE	11.5	22.5	
528.8			SILTSTONE	1.3	34.0	
527.5			GRAY SHALE	41.7	35.3	
485.8			SILTY SHALE	1.0	77.0	
484.8			GRAY SHALE	41.0	78.0	
443.8			GRAY SHALE	24.0	119.0	MULTI-COLORED
419.8	SHELBURN		SILTSTONE	3.5	143.0	
416.3	SHELBURN	BRERETON	LIMESTONE	0.9	146.5	
415.4			DARK SHALE	2.6	147.4	
412.8	CARBONDALE	HERRIN	COAL	2.5	150.0	
410.3	CARBONDALE		GRAY SHALE	6.0	152.5	GREENISH
403.3	CARBONDALE		SILTY SHALE	19.5	159.5	
383.8	CARBONDALE		SILTSTONE	9.3	179.0	
374.5	CARBONDALE		SILTY SHALE	6.7	188.3	
367.8	CARBONDALE		SILTSTONE	1.5	195.0	
366.3	CARBONDALE		CARBONACEOUS SHALE	7.2	196.5	
359.1	CARBONDALE	SPRINGFIELD	COAL	2.0	203.7	
357.1	CARBONDALE		GRAY SHALE	1.8	205.7	
355.3	CARBONDALE		SILTY SHALE	6.8	207.5	
348.5	CARBONDALE		LIMESTONE	1.4	214.3	
347.1	CARBONDALE		GRAY SHALE	1.2	215.7	
345.9	CARBONDALE		CARBONACEOUS SHALE	1.6	216.9	

MAPID: 16726061000C    VERSION: 1

PROJECT:

COUNTY: SANGAMON    TWP/RNG: 16N 5W    SECTION: 15    QUARTERS/FOOTAGES: 1995' S, 2284' E, NW/c

QUADRANGLE: SPRINGFIELD WEST    LONGITUDE: -89.646219    GEOLOGIST: NORTH

CONFIDENTIAL: N    LATITUDE: 39.840091    DATE COLLECTED:

SURFACE ELEVATION (FT.): 562.0    LOGGED (FT.): 217.0    LOG TYPE: Drillers Log

SOURCE: ILLINOIS DNR BUILDING    SD-9    WELL TYPE: Coal Test

COMMENT: SP CORDS GIVEN IN NAD27

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
562.0			UNCONSOLIDATED	24.0	0.0
538.0			GRAY SHALE	8.0	24.0
530.0			SILTSTONE	1.2	32.0
528.8			GRAY SHALE	42.8	33.2
486.0			SILTY SHALE	1.0	76.0
485.0			GRAY SHALE	51.0	77.0
434.0			SILTY SHALE	1.5	128.0
432.5			GRAY SHALE	10.5	129.5
422.0			RED SHALE	4.0	140.0
418.0			SILTSTONE	3.1	144.0
414.9	SHELBURN		GRAY SHALE	1.9	147.1
413.0	SHELBURN	BRERETON	LIMESTONE	0.2	149.0
412.8	SHELBURN	BRERETON	GRAY SHALE	2.3	149.2
410.5	SHELBURN	BRERETON	LIMESTONE	0.8	151.5
409.7	CARBONDALE	HERRIN	COAL	3.2	152.3
406.5	CARBONDALE		UNDERCLAY	3.5	155.5
403.0	CARBONDALE		SILTSTONE	3.0	159.0
400.0	CARBONDALE		GRAY SHALE	6.0	162.0
394.0	CARBONDALE		SILTSTONE	4.0	168.0
390.0	CARBONDALE		GRAY SHALE	7.0	172.0
383.0	CARBONDALE		SILTSTONE	12.2	179.0
370.8	CARBONDALE		SILTY SHALE	5.3	191.2
365.5	CARBONDALE	ST. DAVID	LIMESTONE	0.4	196.5
365.1	CARBONDALE	TURNER MINE	BLACK SHALE	3.0	196.9
362.1	CARBONDALE	SPRINGFIELD	COAL	4.6	199.9
357.5	CARBONDALE		UNDERCLAY	2.5	204.5
355.0	CARBONDALE		SILTY SHALE	7.0	207.0
348.0	CARBONDALE		LIMESTONE	0.9	214.0
347.1	CARBONDALE		GRAY SHALE	1.4	214.9
345.7	CARBONDALE		BLACK SHALE	0.7	216.3

MAPID: 16700096000C VERSION: 1

PROJECT: NCRDS98

COUNTY: SANGAMON TWP/RNG: 16N 5W SECTION: 17 QUARTERS/FOOTAGES:

QUADRANGLE: SPRINGFIELD WEST LONGITUDE: -89.682912

GEOLOGIST: J. MCBETH

CONFIDENTIAL: N LATITUDE: 39.837882

DATE COLLECTED: 2 / 0 / 1935

SURFACE ELEVATION (FT.): LOGGED (FT.): 187.0

LOG TYPE: Drillers Log

SOURCE: WOOLEN BROS. CO.

WELL TYPE: Coal Test

COMMENT: EXACT LOCATION UNKNOWN;POOR DESC.

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	PLEISTOCENE		CLAY	20.0	0.0	
-	MODESTO		SHALE	102.0	20.0	
-	CARBONDALE		UNDERCLAY	1.0	122.0	
-	CARBONDALE		SHALE	13.0	123.0	
-	CARBONDALE		ROCK	2.0	136.0	
-	CARBONDALE		SHALE	2.0	138.0	
-	CARBONDALE		LIMESTONE	8.0	140.0	
-	CARBONDALE		GRAY SHALE	37.0	148.0	
-	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	185.0	COAL AT 187'
-	CARBONDALE	SPRINGFIELD	COAL	-	187.0	

MAPID: 16700036000C VERSION: 1

PROJECT: NCRDS87

COUNTY: SANGAMON TWP/RNG: 16N 5W SECTION: 19 QUARTERS/FOOTAGES: NW NE SE

QUADRANGLE: SPRINGFIELD WEST LONGITUDE: -89.695646

GEOLOGIST: WEIBEL

CONFIDENTIAL: N LATITUDE: 39.822276

DATE COLLECTED:

SURFACE ELEVATION (FT.): 540.0 LOGGED (FT.): 177.0

LOG TYPE: Drillers Log

SOURCE: SPRING CREEK COAL CO.

WELL TYPE: Mine Shaft

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
540.0			UNCONSOLIDATED	6.0	0.0	
534.0			UNCLASSIFIED	62.0	6.0	
472.0			COAL	0.3	68.0	
471.7			UNCLASSIFIED	40.0	68.3	
431.7	CARBONDALE		LIMESTONE	10.0	108.3	UNCERTAIN CORRELATION
421.7	CARBONDALE		UNCLASSIFIED	6.0	118.3	
415.7	CARBONDALE	HERRIN	COAL	1.0	124.3	
414.7	CARBONDALE		UNDERCLAY	6.7	125.3	
408.0	CARBONDALE		LIMESTONE	7.0	132.0	
401.0	CARBONDALE		UNCLASSIFIED	27.0	139.0	
374.0	CARBONDALE	ST. DAVID	LIMESTONE	1.0	166.0	
373.0	CARBONDALE	TURNER MINE	BLACK SHALE	4.0	167.0	
369.0	CARBONDALE	SPRINGFIELD	COAL	6.0	171.0	

MAPID: 16701241000C VERSION: 1

PROJECT: NCRDS87

COUNTY: SANGAMON TWP/RNG: 16N 5W SECTION: 19 QUARTERS/FOOTAGES: 2310' S line, 990' E line

QUADRANGLE: SPRINGFIELD WEST LONGITUDE: -89.695646 GEOLOGIST: WEIBEL

CONFIDENTIAL: N LATITUDE: 39.822306 DATE COLLECTED:

SURFACE ELEVATION (FT.): 540.0 LOGGED (FT.): 173.0 LOG TYPE: Drillers Log

SOURCE: SPRING CREEK COAL CO. WELL TYPE: Mine Shaft

COMMENT: LOCATION AND ELEVATION APPROX.

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
540.0			UNCONSOLIDATED	19.3	0.0	
520.7	MODESTO		UNCLASSIFIED	57.0	19.3	
463.7	MODESTO		LIMESTONE	0.3	76.3	
463.4	MODESTO		BLACK SHALE	2.3	76.6	UNCERTAIN CORRELATION
461.1	MODESTO	CHAPEL	COAL	0.2	78.9	UNCERTAIN CORRELATION
460.9	MODESTO		UNDERCLAY	5.2	79.1	
455.7	MODESTO		UNCLASSIFIED	16.0	84.3	
439.7	MODESTO		LIMESTONE	2.0	100.3	
437.7	MODESTO		SANDSTONE	7.0	102.3	
430.7	CARBONDALE		BLACK SHALE	0.0	109.3	UNCERTAIN CORRELATION
430.7	CARBONDALE		UNDERCLAY	3.0	109.3	
427.7	CARBONDALE		LIMESTONE	10.0	112.3	
417.7	CARBONDALE		UNCLASSIFIED	4.0	122.3	
413.7	CARBONDALE	HERRIN	COAL	0.3	126.3	
413.4	CARBONDALE		UNDERCLAY	6.0	126.6	
407.4	CARBONDALE		UNCLASSIFIED	31.0	132.6	
376.4	CARBONDALE	ST. DAVID	LIMESTONE	0.7	163.6	
375.7	CARBONDALE	TURNER MINE	BLACK SHALE	2.8	164.3	
372.9	CARBONDALE	SPRINGFIELD	COAL	5.9	167.1	

MAPID: 16701241000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 16N 5W SECTION: 19 QUARTERS/FOOTAGES: 2310' S line, 990' E line

QUADRANGLE: SPRINGFIELD WEST LONGITUDE: -89.695646 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.822306 DATE COLLECTED:

SURFACE ELEVATION (FT.): 538.0 LOGGED (FT.): 126.3 LOG TYPE: Drillers Log

SOURCE: WELL TYPE: Coal Test

COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
438.0	MODESTO	PIASA	LIMESTONE	2.0	100.0	
436.0	MODESTO		SANDSTONE	5.0	102.0	
431.0	CARBONDALE	DANVILLE	BLACK SHALE	2.0	107.0	
429.0	CARBONDALE	LAWSON	CLAYSTONE	3.0	109.0	
426.0	CARBONDALE	BRERETON	LIMESTONE	10.0	112.0	
416.0	CARBONDALE	ANNA	CALCAREOUS SHALE	4.0	122.0	
412.0	CARBONDALE	HERRIN	COAL	0.3	126.0	

MAPID: 16701252000C    VERSION: 1

PROJECT: NCRDS88

COUNTY: SANGAMON    TWP/RNG: 16N 5W    SECTION: 20    QUARTERS/FOOTAGES: SE NE SE

QUADRANGLE: SPRINGFIELD WEST    LONGITUDE: -89.674384    GEOLOGIST: R. SMITH

CONFIDENTIAL: N    LATITUDE: 39.820644    DATE COLLECTED:

SURFACE ELEVATION (FT.):    LOGGED (FT.): 178.0    LOG TYPE: Drillers Log

SOURCE: COAL COMPANY #12    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-			UNCONSOLIDATED	60.0	0.0
-	MODESTO		SHALE	20.0	60.0
-	MODESTO		SANDY SHALE	10.0	80.0
-	CARBONDALE	DANVILLE	COAL	0.2	90.0
-	CARBONDALE		SHALE	10.0	90.2
-	CARBONDALE		SHALE	10.0	100.2
-	CARBONDALE		UNCLASSIFIED	1.8	110.2
-	CARBONDALE		BLACK SHALE	1.0	112.0
-	CARBONDALE	HERRIN	COAL	0.0	113.0
-	CARBONDALE		UNDERCLAY	2.0	113.0
-	CARBONDALE		SHALE	5.0	115.0
-	CARBONDALE		LIMESTONE	4.0	120.0
-	CARBONDALE		SANDSTONE	1.0	124.0
-	CARBONDALE		SHALE	2.0	125.0
-	CARBONDALE		UNCLASSIFIED	10.0	127.0
-	CARBONDALE		SANDSTONE	10.0	137.0
-	CARBONDALE		SHALE	16.0	147.0
-	CARBONDALE		UNCLASSIFIED	5.0	163.0
-	CARBONDALE	TURNER MINE	BLACK SHALE	4.0	168.0
-	CARBONDALE	SPRINGFIELD	COAL	6.0	172.0

MAPID: 16700038000C    VERSION: 1

PROJECT: NCRDS88

COUNTY: SANGAMON    TWP/RNG: 16N 5W    SECTION: 32    QUARTERS/FOOTAGES: 1000' N line, 500' W line

QUADRANGLE: SPRINGFIELD WEST    LONGITUDE: -89.689804    GEOLOGIST: R. SMITH

CONFIDENTIAL: N    LATITUDE: 39.798642    DATE COLLECTED:

SURFACE ELEVATION (FT.): 590.0    LOGGED (FT.): 175.7    LOG TYPE: Drillers Log

SOURCE: CITIZENS COAL MINING CO    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
590.0			UNCONSOLIDATED	22.0	0.0	
568.0	MODESTO		SANDY SHALE	2.0	22.0	
566.0	MODESTO		SANDSTONE	1.5	24.0	
564.5	MODESTO		SANDY SHALE	17.5	25.5	
547.0			GRAY SHALE	52.0	43.0	
495.0	CARBONDALE	ANNA	DARK SHALE	1.5	95.0	CORRELATION UNCERTAIN
493.5	CARBONDALE	HERRIN	COAL	0.3	96.5	UNCERTAIN CORRELATION - ABOVE HERRIN?
493.2	CARBONDALE		UNDERCLAY	1.3	96.8	
492.0	CARBONDALE		SHALE	29.0	98.0	
463.0	CARBONDALE		UNCLASSIFIED	6.0	127.0	
457.0	CARBONDALE		SHALE	0.5	133.0	
456.5	CARBONDALE		UNCLASSIFIED	0.5	133.5	
456.0	CARBONDALE		SHALE	6.0	134.0	
450.0	CARBONDALE		SHALE	10.0	140.0	
440.0	CARBONDALE		SANDSTONE	4.0	150.0	
436.0	CARBONDALE		GRAY SHALE	3.7	154.0	
432.3	CARBONDALE		UNCLASSIFIED	2.0	157.7	
430.3	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	159.7	
428.3	CARBONDALE	SPRINGFIELD	COAL	5.8	161.7	
422.5	CARBONDALE		UNDERCLAY	2.3	167.5	
420.2	CARBONDALE		SANDSTONE	0.8	169.8	
419.3	CARBONDALE		LIGHT SHALE	5.0	170.7	

MAPID: 16700642000C VERSION: 1

PROJECT: NCRDS87

COUNTY: SANGAMON TWP/RNG: 16N 5W SECTION: 35 QUARTERS/FOOTAGES: 850' N line, 2125' W line

QUADRANGLE: SPRINGFIELD WEST LONGITUDE: -89.626954 GEOLOGIST: WEIBEL

CONFIDENTIAL: N LATITUDE: 39.799496 DATE COLLECTED:

SURFACE ELEVATION (FT.): 601.8 LOGGED (FT.): 225.9 LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO. WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
601.8			UNCONSOLIDATED	28.0	0.0	
573.8	MODESTO		UNCLASSIFIED	20.0	28.0	
553.8	MODESTO		LIMESTONE	2.7	48.0	
551.1	MODESTO		BLACK SHALE	4.0	50.7	
547.1	MODESTO		COAL	2.0	54.7	
545.1	MODESTO		UNCLASSIFIED	55.0	56.7	
490.1	MODESTO		LIMESTONE	3.0	111.7	
487.1	MODESTO		UNCLASSIFIED	32.0	114.7	
455.1	MODESTO		BLACK SHALE	4.0	146.7	
451.1	CARBONDALE	DANVILLE	COAL	0.2	150.7	UNCERTAIN CORRELATION
450.9	CARBONDALE		UNCLASSIFIED	63.5	150.9	
387.5	CARBONDALE	ST. DAVID	LIMESTONE	2.0	214.3	
385.5	CARBONDALE	TURNER MINE	BLACK SHALE	3.6	216.3	
381.9	CARBONDALE	SPRINGFIELD	COAL	6.0	219.9	

MAPID: 16700642000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 16N 5W SECTION: 35 QUARTERS/FOOTAGES: 850' N line, 2125' W line

QUADRANGLE: SPRINGFIELD WEST LONGITUDE: -89.626954 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.799496 DATE COLLECTED:

SURFACE ELEVATION (FT.): 602.0 LOGGED (FT.): 193.6 LOG TYPE: Drillers Log

SOURCE: WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
433.1	MODESTO		BLACK SHALE	4.0	168.9	
429.1	CARBONDALE	DANVILLE	COAL	0.2	172.9	
428.9	CARBONDALE	LAWSON	CLAYSTONE & SHALE	15.5	173.1	
413.4	CARBONDALE	BRERETON	LIMESTONE	5.0	188.6	



MAPID: 16700051000C VERSION: 1

PROJECT: NCRDS88

COUNTY: SANGAMON TWP/RNG: 16N 6W SECTION: 1 QUARTERS/FOOTAGES: 990' N line, 330' E line

QUADRANGLE: SPRINGFIELD WEST LONGITUDE: -89.713082 GEOLOGIST: R. SMITH

CONFIDENTIAL: N LATITUDE: 39.870469 DATE COLLECTED: 0 / 0 / 1921

SURFACE ELEVATION (FT.): 550.0 LOGGED (FT.): 213.0 LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO. WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
550.0			UNCONSOLIDATED	45.0	0.0
505.0	CARBONDALE		SHALE	15.0	45.0
490.0	CARBONDALE	BANKSTON FORK	LIMESTONE	2.3	60.0
487.7	CARBONDALE		SHALE	16.7	62.3
471.0	CARBONDALE		LIMESTONE	4.7	79.0
466.3	CARBONDALE		SHALE	0.5	83.7
465.8	CARBONDALE	BRERETON	LIMESTONE	1.0	84.2
464.8	CARBONDALE	ANNA	DARK SHALE	4.8	85.2
460.1	CARBONDALE	HERRIN	COAL	0.8	89.9
459.3	CARBONDALE		SHALE	2.0	90.7
457.3	CARBONDALE		SANDSTONE	21.3	92.7
436.0	CARBONDALE		SANDY SHALE	12.0	114.0
424.0	CARBONDALE		SHALE	7.3	126.0
416.7	CARBONDALE	ST. DAVID	LIMESTONE	0.7	133.3
416.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	134.0
414.0	CARBONDALE	SPRINGFIELD	COAL	6.2	136.0
407.8	CARBONDALE		UNDERCLAY	2.8	142.2
405.0	CARBONDALE		CALCAREOUS SHALE	2.3	145.0
402.7	CARBONDALE		LIMESTONE	1.9	147.3
400.7	CARBONDALE		SHALE	6.8	149.3
394.0	CARBONDALE		SANDY SHALE	37.0	156.0
357.0	CARBONDALE		SHALE	14.0	193.0
343.0	CARBONDALE	SURVANT	COAL	0.5	207.0
342.5	CARBONDALE	SURVANT	COAL	1.3	207.5
341.2	CARBONDALE	SURVANT	SANDY SHALE	0.1	208.8
341.1	CARBONDALE	SURVANT	COAL	0.2	208.9
340.9	CARBONDALE		SANDY SHALE	1.0	209.1
339.9	CARBONDALE		BLUE SHALE	3.2	210.1

MAPID: 16700051000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 16N 6W SECTION: 1 QUARTERS/FOOTAGES: 990' N line, 330' E line

QUADRANGLE: SPRINGFIELD WEST LONGITUDE: -89.713082

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.870469

DATE COLLECTED:

SURFACE ELEVATION (FT.): 550.0

LOGGED (FT.): 91.8

LOG TYPE: Drillers Log

SOURCE:

WELL TYPE: Coal Test

COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
490.0	MODESTO	PIASA	LIMESTONE	2.3	60.0
487.7	CARBONDALE	LAWSON	MOTTLED SHALE	16.7	62.3
471.0	CARBONDALE	BRERETON	LIMESTONE & SHALE	6.2	79.0
464.8	CARBONDALE	ANNA	DARK GRAY SHALE	4.8	85.2
459.0	CARBONDALE	HERRIN	COAL	0.8	91.0

MAPID: 16722407000C VERSION: 1

PROJECT: NCRDS89

COUNTY: SANGAMON TWP/RNG: 16N 6W SECTION: 4 QUARTERS/FOOTAGES: 160' S line, 674' E line

QUADRANGLE: FARMINGDALE LONGITUDE: -89.770947

GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 39.859371

DATE COLLECTED: 9 / 18 / 1975

SURFACE ELEVATION (FT.): 545.0

LOGGED (FT.): 102.0

LOG TYPE: Multiple log types

SOURCE: MOBIL OIL SI-49

WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENSITY, DRILL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
545.0			UNCONSOLIDATED	72.0	0.0
-	CARBONDALE	HERRIN	COAL	0.0	
473.0	CARBONDALE		GRAY SHALE	9.5	72.0
463.5	CARBONDALE	ST. DAVID	LIMESTONE	1.0	81.5
462.5	CARBONDALE	TURNER MINE	BLACK SHALE	4.0	82.5
458.5	CARBONDALE	SPRINGFIELD	COAL	5.5	86.5
453.0	CARBONDALE		GRAY SHALE	9.0	92.0
444.0	CARBONDALE		BLACK SHALE	1.0	101.0

MAPID: 16722408000C VERSION: 1

PROJECT: NCRDS89

COUNTY: SANGAMON TWP/RNG: 16N 6W SECTION: 4 QUARTERS/FOOTAGES: 2388' N line, 1956' W line

QUADRANGLE: FARMINGDALE LONGITUDE: -89.780521 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 39.866748 DATE COLLECTED: 9 / 19 / 1975

SURFACE ELEVATION (FT.): 595.0 LOGGED (FT.): 242.0 LOG TYPE: Multiple log types

SOURCE: MOBIL OIL SI-50 WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENSITY, DRILL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
595.0			UNCONSOLIDATED	167.0	0.0	
-	CARBONDALE	HERRIN	COAL	0.0		
428.0	CARBONDALE		SHALE	5.0	167.0	
423.0	CARBONDALE	SPRINGFIELD	BLACK SHALE	2.5	172.0	
420.5	CARBONDALE		GRAY SHALE	52.5	174.5	
368.0	CARBONDALE	HOUCHIN CREEK	COAL	1.8	227.0	
366.2	CARBONDALE		SHALE	8.2	228.8	
358.0	CARBONDALE		LIMESTONE	1.0	237.0	
357.0	CARBONDALE		SANDSTONE	4.0	238.0	

MAPID: 16722409000C VERSION: 1

PROJECT: NCRDS92

COUNTY: SANGAMON TWP/RNG: 16N 6W SECTION: 8 QUARTERS/FOOTAGES: 30' S line, 2700' W line

QUADRANGLE: FARMINGDALE LONGITUDE: -89.796497 GEOLOGIST: C TREWORYG

CONFIDENTIAL: N LATITUDE: 39.844283 DATE COLLECTED: 10 / 7 / 1975

SURFACE ELEVATION (FT.): 587.0 LOGGED (FT.): 221.0 LOG TYPE: Drillers Log

SOURCE: MOBIL OIL SI-47 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
374.5	CARBONDALE	HOUCHIN CREEK	COAL	2.0	212.5	

MAPID: 16722409000C VERSION: 2

PROJECT: NCRDS89

COUNTY: SANGAMON TWP/RNG: 16N 6W SECTION: 8 QUARTERS/FOOTAGES: 30' S line, 2700' W line

QUADRANGLE: FARMINGDALE LONGITUDE: -89.796497 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 39.844283 DATE COLLECTED: 10 / 7 / 1975

SURFACE ELEVATION (FT.): 587.0 LOGGED (FT.): 221.0 LOG TYPE: Multiple log types

SOURCE: WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENSITY, DRILL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
587.0			UNCONSOLIDATED	150.0	0.0
-	CARBONDALE	HERRIN	COAL	0.0	
437.0	CARBONDALE		GRAY SHALE	2.5	150.0
434.5	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	152.5
432.5	CARBONDALE	SPRINGFIELD	COAL	0.0	154.5
432.5	CARBONDALE		GRAY SHALE	58.0	154.5
374.5	CARBONDALE	SURVANT	COAL	2.0	212.5
372.5	CARBONDALE		SHALE	6.5	214.5

MAPID: 16722410000C VERSION: 1

PROJECT: NCRDS89

COUNTY: SANGAMON TWP/RNG: 16N 6W SECTION: 8 QUARTERS/FOOTAGES: 18' N line, 2628' E line

QUADRANGLE: FARMINGDALE LONGITUDE: -89.796776 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 39.858701 DATE COLLECTED: 9 / 22 / 1975

SURFACE ELEVATION (FT.): 575.0 LOGGED (FT.): 160.0 LOG TYPE: Multiple log types

SOURCE: MOBIL OIL SI-48 WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENSITY, DRILL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
575.0			UNCONSOLIDATED	135.0	0.0
-	CARBONDALE	HERRIN	COAL	0.0	
440.0	CARBONDALE		SHALE	4.0	135.0
436.0	CARBONDALE	ST. DAVID	LIMESTONE	2.5	139.0
433.5	CARBONDALE	TURNER MINE	BLACK SHALE	2.5	141.5
431.0	CARBONDALE	SPRINGFIELD	COAL	4.5	144.0
426.5	CARBONDALE		GRAY SHALE	6.5	148.5
420.0	CARBONDALE		SHALY LIMESTONE	3.0	155.0
417.0	CARBONDALE		SHALE	2.0	158.0

MAPID: 1672238600C VERSION: 1

PROJECT: NCRDS89

COUNTY: SANGAMON TWP/RNG: 16N 6W SECTION: 9 QUARTERS/FOOTAGES: 20' S line, 60' W line

QUADRANGLE: FARMINGDALE LONGITUDE: -89.786804

GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 39.844365

DATE COLLECTED: 9 / 6 / 1975

SURFACE ELEVATION (FT.): 570.0 LOGGED (FT.): 222.0

LOG TYPE: Multiple log types

SOURCE: MOBIL OIL SI-3

WELL TYPE: Coal Test

COMMENT: GAMMA, S.P., RESIST, DRILL LOG, CORE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
570.0			UNCONSOLIDATED	120.0	0.0
450.0	CARBONDALE	BRERETON	LIMESTONE	10.0	120.0
440.0	CARBONDALE	ANNA	BLACK SHALE	2.0	130.0
438.0	CARBONDALE	HERRIN	COAL	2.0	132.0
436.0	CARBONDALE		GRAY SHALE	7.0	134.0
429.0	CARBONDALE		CALCAREOUS SHALE	1.6	141.0
427.4	CARBONDALE	TURNER MINE	BLACK SHALE	1.4	142.6
426.0	CARBONDALE	SPRINGFIELD	UNKNOWN	2.0	144.0
424.0	CARBONDALE		CLAYSTONE	3.0	146.0
421.0	CARBONDALE		SILTSTONE	12.0	149.0
409.0	CARBONDALE		SHALE	40.0	161.0
369.0	CARBONDALE	HOUCHIN CREEK	COAL	1.0	201.0
368.0	CARBONDALE		GRAY SHALE	20.0	202.0

MAPID: 16722411000C VERSION: 1

PROJECT: NCRDS89

COUNTY: SANGAMON TWP/RNG: 16N 6W SECTION: 9 QUARTERS/FOOTAGES: 1312' N line, 126' W line

QUADRANGLE: FARMINGDALE LONGITUDE: -89.786831

GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 39.855292

DATE COLLECTED: 9 / 19 / 1975

SURFACE ELEVATION (FT.): 592.0 LOGGED (FT.): 222.0

LOG TYPE: Multiple log types

SOURCE: MOBIL OIL SI-45

WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENSITY, DRILL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
592.0			UNCONSOLIDATED	196.0	0.0
460.0	CARBONDALE	HERRIN	COAL	0.0	132.0
446.0	CARBONDALE	SPRINGFIELD	COAL	0.0	146.0
396.0	CARBONDALE		SHALE	2.0	196.0
394.0	CARBONDALE		GRAY SHALE	24.0	198.0

MAPID: 16722412000C VERSION: 1

PROJECT: NCRDS89

COUNTY: SANGAMON TWP/RNG: 16N 6W SECTION: 9 QUARTERS/FOOTAGES: 2620' N line, 2530' W line

QUADRANGLE: FARMINGDALE LONGITUDE: -89.778137 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 39.851692 DATE COLLECTED: 9 / 22 / 1975

SURFACE ELEVATION (FT.): 530.0 LOGGED (FT.): 162.0 LOG TYPE: Multiple log types

SOURCE: MOBIL OIL SI-46 WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENSITY, DRILL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
530.0			UNCONSOLIDATED	117.0	0.0
-	CARBONDALE	HERRIN	COAL	0.0	
-	CARBONDALE	SPRINGFIELD	COAL	0.0	
413.0	CARBONDALE		SHALE	1.0	117.0
412.0	CARBONDALE		SANDSTONE	5.0	118.0
407.0	CARBONDALE		GRAY SHALE	39.0	123.0

MAPID: 16722413000C VERSION: 1

PROJECT: NCRDS89

COUNTY: SANGAMON TWP/RNG: 16N 6W SECTION: 10 QUARTERS/FOOTAGES: 8' S line, 1260' W line

QUADRANGLE: FARMINGDALE LONGITUDE: -89.7637 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 39.844574 DATE COLLECTED: 9 / 17 / 1975

SURFACE ELEVATION (FT.): 580.0 LOGGED (FT.): 162.0 LOG TYPE: Multiple log types

SOURCE: MOBIL OIL SI-51 WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENSITY, DRILL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
580.0			UNCONSOLIDATED	81.0	0.0
499.0	CARBONDALE		GRAY SHALE	4.0	81.0
495.0	CARBONDALE	ANVIL ROCK	SANDSTONE	17.0	85.0
478.0	CARBONDALE		SANDY SHALE	18.5	102.0
459.5	CARBONDALE	TURNER MINE	BLACK SHALE	3.0	120.5
456.5	CARBONDALE	SPRINGFIELD	COAL	5.5	123.5
451.0	CARBONDALE		GRAY SHALE	8.5	129.0
442.5	CARBONDALE	EXCELLO	BLACK SHALE	1.5	137.5
441.0	CARBONDALE		GRAY SHALE	8.5	139.0
432.5	CARBONDALE		SHALE	14.5	147.5

MAPID: 16722414000C VERSION: 1

PROJECT: NCRDS89

COUNTY: SANGAMON TWP/RNG: 16N 6W SECTION: 10 QUARTERS/FOOTAGES: 8' S line, 1275' W line

QUADRANGLE: FARMINGDALE LONGITUDE: -89.763646

GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 39.844574

DATE COLLECTED: 9 / 17 / 1975

SURFACE ELEVATION (FT.): 580.0 LOGGED (FT.): 134.0

LOG TYPE: Multiple log types

SOURCE: MOBIL OIL SI-51C

WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENSITY, DRILL LOG, CORE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
580.0			UNCONSOLIDATED	81.0	0.0
499.0	CARBONDALE		GRAY SHALE	5.2	81.0
493.8	CARBONDALE		SHALE	0.2	86.2
493.5	CARBONDALE	ANVIL ROCK	SANDSTONE	19.0	86.5
474.6	CARBONDALE		GRAY SHALE	8.3	105.4
466.3	CARBONDALE		SHALE	1.4	113.7
465.0	CARBONDALE		CORE LOSS	4.0	115.0
461.0	CARBONDALE		LIMESTONE	0.8	119.0
460.2	CARBONDALE		CORE LOSS	0.2	119.8
460.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.5	120.0
457.5	CARBONDALE	SPRINGFIELD	COAL	5.4	122.5
452.2	CARBONDALE		UNDERCLAY	1.4	127.8
450.8	CARBONDALE		CORE LOSS	4.8	129.2

MAPID: 16701112000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 16N 6W SECTION: 12 QUARTERS/FOOTAGES: 990' S line, 990' W line

QUADRANGLE: SPRINGFIELD WEST LONGITUDE: -89.727016

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.847584

DATE COLLECTED:

SURFACE ELEVATION (FT.): 520.0 LOGGED (FT.): 61.5

LOG TYPE: Survey Core Study

SOURCE: CONCRETE MATERIALS CO. 2

WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
486.0	MODESTO	PIASA	NODULAR LIMESTONE	3.0	34.0
483.0	CARBONDALE		MOTTLED SHALE	13.4	37.0
469.6	CARBONDALE	BANKSTON FORK	NODULAR LIMESTONE	4.1	50.4
465.5	CARBONDALE	LAWSON	MOTTLED SHALE	1.9	54.5
463.6	CARBONDALE	BRERETON	LIMESTONE/UNDERCLAY	2.3	56.4
461.3	CARBONDALE	ANNA	MOTTLED SHALE	1.1	58.7
459.0	CARBONDALE	HERRIN	BONE COAL	0.5	61.0

MAPID: 16700052000C VERSION: 1

PROJECT: NCRDS98

COUNTY: SANGAMON TWP/RNG: 16N 6W SECTION: 25 QUARTERS/FOOTAGES: SW SW

QUADRANGLE: SPRINGFIELD WEST LONGITUDE: -89.727455 GEOLOGIST: J. MCBETH

CONFIDENTIAL: N LATITUDE: 39.803188 DATE COLLECTED: 0 / 0 / 1935

SURFACE ELEVATION (FT.): LOGGED (FT.): 188.0 LOG TYPE: Drillers Log

SOURCE: CENTRAL ILLINOIS COAL CO. WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	PLEISTOCENE		CLAY	15.0	0.0	
-	MODESTO		SANDSTONE	39.0	15.0	
-	MODESTO		SHALE	42.0	54.0	
-	CARBONDALE		BLACK SHALE	5.0	96.0	#7 HORIZON?
-	CARBONDALE		SHALE	19.0	101.0	
-	CARBONDALE		LIMESTONE	3.0	120.0	
-	CARBONDALE		SHALE	6.0	123.0	
-	CARBONDALE		BLACK SHALE	3.0	129.0	#6 HORIZON ?
-	CARBONDALE		SHALE	2.0	132.0	
-	CARBONDALE		LIMESTONE	6.0	134.0	
-	CARBONDALE		SHALE	6.0	140.0	
-	CARBONDALE		ROCK	2.0	146.0	
-	CARBONDALE		SHALE	2.0	148.0	
-	CARBONDALE		SANDSTONE	8.0	150.0	
-	CARBONDALE		SHALE	23.0	158.0	
-	CARBONDALE	TURNER MINE	BLACK SHALE	3.0	181.0	
-	CARBONDALE	SPRINGFIELD	COAL	4.0	184.0	

MAPID: 16722192000C VERSION: 1

PROJECT: NCRDS96

COUNTY: SANGAMON TWP/RNG: 16N 7W SECTION: 3 QUARTERS/FOOTAGES: 5' S line, 5' E line

QUADRANGLE: FARMINGDALE LONGITUDE: -89.862717 GEOLOGIST: MCCRACKEN

CONFIDENTIAL: N LATITUDE: 39.85845 DATE COLLECTED: 8 / 14 / 1970

SURFACE ELEVATION (FT.): 612.0 LOGGED (FT.): 154.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON T409 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
612.0	PLEISTOCENE		UNCONSOLIDATED	101.0	0.0	
511.0	CARBONDALE		LIMESTONE	3.0	101.0	
508.0	CARBONDALE		SHALE	35.0	104.0	
473.0	CARBONDALE	ST. DAVID	LIMESTONE	6.5	139.0	
466.5	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	145.5	W/GRY SH
464.5	CARBONDALE	SPRINGFIELD	COAL	3.3	147.5	
461.2	CARBONDALE		UNDERCLAY	3.2	150.8	



MAPID: 16722193000C VERSION: 1

PROJECT: NCRDS96

COUNTY: SANGAMON TWP/RNG: 16N 7W SECTION: 3 QUARTERS/FOOTAGES: 330' S line, 2640' E line

QUADRANGLE: FARMINGDALE LONGITUDE: -89.872148 GEOLOGIST: MCCRACKEN

CONFIDENTIAL: N LATITUDE: 39.859306 DATE COLLECTED: 5 / 28 / 1970

SURFACE ELEVATION (FT.): 605.0 LOGGED (FT.): 146.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON T405C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
605.0	PLEISTOCENE		UNCONSOLIDATED	51.5	0.0	
553.5			SHALE	39.0	51.5	
514.5	CARBONDALE	HERRIN	BLACK SHALE	0.5	90.5	WITH COAL
514.0	CARBONDALE		LIMESTONE	2.5	91.0	
511.5	CARBONDALE		SHALE	10.2	93.5	
501.3	CARBONDALE		LIMESTONE	3.0	103.7	
498.3	CARBONDALE		SHALE	11.5	106.7	
486.8	CARBONDALE		LIMESTONE	12.1	118.2	
474.7	CARBONDALE	TURNER MINE	DARK SHALE	6.0	130.3	
468.7	CARBONDALE	SPRINGFIELD	COAL	3.0	136.3	
465.7	CARBONDALE		UNDERCLAY	6.7	139.3	

MAPID: 16722194000C VERSION: 1

PROJECT: NCRDS96

COUNTY: SANGAMON TWP/RNG: 16N 7W SECTION: 3 QUARTERS/FOOTAGES: 660' N line, 5' E line

QUADRANGLE: FARMINGDALE LONGITUDE: -89.862606 GEOLOGIST: MCCRACKEN

CONFIDENTIAL: N LATITUDE: 39.870777 DATE COLLECTED: 5 / 28 / 1970

SURFACE ELEVATION (FT.): 604.0 LOGGED (FT.): 140.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON T584 WELL TYPE: Coal Test

COMMENT: DEPTHS & THICKNESS ARE FAINT

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
604.0	PLEISTOCENE		UNCONSOLIDATED	58.0	0.0	
546.0	CARBONDALE		LIMESTONE	3.5	58.0	
542.5	CARBONDALE		SHALE	24.5	61.5	
518.0	CARBONDALE		LIMESTONE	7.7	86.0	
510.3	CARBONDALE		SHALE	32.2	93.7	
478.1	CARBONDALE	ST. DAVID	LIMESTONE	2.0	125.9	
476.1	CARBONDALE	TURNER MINE	DARK SHALE	0.4	127.9	
475.7	CARBONDALE	SPRINGFIELD	COAL	4.7	128.3	
471.0	CARBONDALE		UNDERCLAY	7.0	133.0	

MAPID: 16723348000C VERSION: 1

PROJECT: NCRDS91

COUNTY: SANGAMON TWP/RNG: 16N 7W SECTION: 3 QUARTERS/FOOTAGES: 114' N line, 905' E line  
 QUADRANGLE: FARMINGDALE LONGITUDE: -89.865816 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 39.872271 DATE COLLECTED: 10 / 2 / 1981  
 SURFACE ELEVATION (FT.): 605.0 LOGGED (FT.): 264.0 LOG TYPE: Drillers Log  
 SOURCE: PHILLIPS COAL CO. SA-10 WELL TYPE: Coal Test  
 COMMENT: ONLY LOGGED COAL

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
475.0	CARBONDALE	SPRINGFIELD	COAL	5.3	130.0
350.9	CARBONDALE	COLCHESTER	COAL	2.0	254.1

MAPID: 16722195000C VERSION: 1

PROJECT: NCRDS96

COUNTY: SANGAMON TWP/RNG: 16N 7W SECTION: 4 QUARTERS/FOOTAGES: 2640' S line, 1720' E line  
 QUADRANGLE: PLEASANT PLAINS LONGITUDE: -89.887722 GEOLOGIST: MCCRACKEN  
 CONFIDENTIAL: N LATITUDE: 39.865613 DATE COLLECTED: 8 / 13 / 1970  
 SURFACE ELEVATION (FT.): 590.0 LOGGED (FT.): 118.0 LOG TYPE: Drillers Log  
 SOURCE: COMMONWEALTH EDISON S522N WELL TYPE: Coal Test  
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
590.0	PLEISTOCENE		UNCONSOLIDATED	60.0	0.0
530.0	CARBONDALE		SHALE	5.0	60.0
525.0	CARBONDALE	ANNA	BLACK SHALE	3.0	65.0
522.0	CARBONDALE		SHALE	3.0	68.0
519.0	CARBONDALE		LIMESTONE	2.0	71.0
517.0	CARBONDALE		SHALE	37.0	73.0
480.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.5	110.0
478.5	CARBONDALE	SPRINGFIELD	COAL	6.0	111.5
472.5	CARBONDALE		UNDERCLAY	0.5	117.5

MAPID: 16722196000C    VERSION: 1

PROJECT: NCRDS96

COUNTY: SANGAMON    TWP/RNG: 16N 7W    SECTION: 6    QUARTERS/FOOTAGES: 5' S line, 1980' W line

QUADRANGLE: PLEASANT PLAINS    LONGITUDE: -89.930579    GEOLOGIST: MCCRACKEN

CONFIDENTIAL: N    LATITUDE: 39.85837    DATE COLLECTED: 9 / 27 / 1970

SURFACE ELEVATION (FT.): 600.0    LOGGED (FT.): 104.0    LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON    S404    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
600.0	PLEISTOCENE		UNCONSOLIDATED	20.0	0.0
580.0	CARBONDALE		SHALE	32.0	20.0
548.0	CARBONDALE	ANNA	BLACK SHALE	1.0	52.0
547.0	CARBONDALE	HERRIN	COAL	2.0	53.0
545.0	CARBONDALE		SHALE	2.0	55.0
543.0	CARBONDALE		LIMESTONE	5.0	57.0
538.0	CARBONDALE		SHALE	33.0	62.0
505.0	CARBONDALE	ST. DAVID	LIMESTONE	0.5	95.0
504.5	CARBONDALE	TURNER MINE	BLACK SHALE	2.2	95.5
502.3	CARBONDALE	SPRINGFIELD	COAL	0.2	97.7 BONE,FOSSIL,LIME, PYRITE
502.1	CARBONDALE	SPRINGFIELD	COAL	5.7	97.9 SHALE INCLUSION
496.4	CARBONDALE		UNDERCLAY	0.4	103.6

MAPID: 16725542000C    VERSION: 1

PROJECT: NCRDS95

COUNTY: SANGAMON    TWP/RNG: 16N 7W    SECTION: 6    QUARTERS/FOOTAGES:

QUADRANGLE: PLEASANT PLAINS    LONGITUDE: -89.928447    GEOLOGIST: C TREWORY

CONFIDENTIAL: N    LATITUDE: 39.859474    DATE COLLECTED: 0 / 0 / 1981

SURFACE ELEVATION (FT.): 613.0    LOGGED (FT.): 254.0    LOG TYPE: Drillers Log

SOURCE: UTAH INTERNATIONAL    SAN8101    WELL TYPE: Coal Test

COMMENT: UTM COORDS SURVEYED BY CO.

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
613.0			UNKNOWN	50.0	0.0
563.0	CARBONDALE		SHALE	3.0	50.0
560.0	CARBONDALE		GRAY SHALE	12.0	53.0
548.0	CARBONDALE		BLACK SHALE	2.0	65.0
546.0	CARBONDALE		GRAY SHALE	3.0	67.0
543.0	CARBONDALE		GRAY SHALE	2.0	70.0
541.0	CARBONDALE		LIMESTONE	4.0	72.0
537.0	CARBONDALE		GRAY SHALE	5.0	76.0
532.0	CARBONDALE		SANDSTONE	7.0	81.0
525.0	CARBONDALE		LIMESTONE	2.5	88.0
522.5	CARBONDALE		SHALE & SANDSTONE	16.5	90.5
506.0	CARBONDALE	ST. DAVID	LIMESTONE	1.0	107.0
505.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.1	108.0
502.9	CARBONDALE	SPRINGFIELD	COAL	0.9	110.1
502.0	CARBONDALE	SPRINGFIELD	BONE COAL	0.2	111.0
501.8	CARBONDALE	SPRINGFIELD	COAL	1.6	111.2
500.2	CARBONDALE	SPRINGFIELD	BONE COAL	0.4	112.8
499.8	CARBONDALE	SPRINGFIELD	COAL	1.6	113.2
498.2	CARBONDALE		UNDERCLAY	6.2	114.8
492.0	CARBONDALE		LIMESTONE	3.0	121.0
489.0	CARBONDALE	EXCELLO	BLACK SHALE	2.5	124.0
486.5	CARBONDALE		SHALE	1.5	126.5
485.0	CARBONDALE		LIMESTONE	4.0	128.0
481.0	CARBONDALE		SANDY SHALE	7.0	132.0
474.0	CARBONDALE		SANDY SHALE	59.0	139.0
415.0	CARBONDALE		LIMESTONE	6.0	198.0
409.0	CARBONDALE		SANDY SHALE	23.0	204.0
386.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	3.4	227.0
382.6	CARBONDALE	COLCHESTER	COAL	2.2	230.4
380.4			UNDERCLAY	3.4	232.6
377.0			LIMESTONE	2.0	236.0
375.0			GRAY SHALE	1.0	238.0
374.0			SANDY SHALE	3.5	239.0
370.5			LIMESTONE	4.0	242.5
366.5			GRAY SHALE	2.5	246.5
364.0			LIMESTONE	5.0	249.0

MAPID: 16722197000C VERSION: 1

PROJECT: NCRDS96

COUNTY: SANGAMON TWP/RNG: 16N 7W SECTION: 7 QUARTERS/FOOTAGES: 1980' S line, 300' E line

QUADRANGLE: PLEASANT PLAINS LONGITUDE: -89.91989 GEOLOGIST: MCCracken

CONFIDENTIAL: N LATITUDE: 39.849072 DATE COLLECTED: 7 / 22 / 1970

SURFACE ELEVATION (FT.): 620.0 LOGGED (FT.): 128.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON S496B WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
620.0	PLEISTOCENE		UNCONSOLIDATED	35.0	0.0
585.0			LIMESTONE	3.0	35.0
582.0			SHALE	38.0	38.0
544.0	CARBONDALE	HERRIN	BLACK SHALE & COAL	2.0	76.0
542.0	CARBONDALE		SHALE	4.0	78.0
538.0	CARBONDALE		SHALE WITH LIMESTONE	9.0	82.0
529.0	CARBONDALE		SHALE	11.0	91.0
518.0	CARBONDALE		LIMESTONE	2.0	102.0
516.0	CARBONDALE		SHALE	15.5	104.0
500.5	CARBONDALE	TURNER MINE	BLACK SHALE	2.5	119.5
498.0	CARBONDALE	SPRINGFIELD	COAL	5.4	122.0
492.6	CARBONDALE		UNDERCLAY	0.6	127.4

MAPID: 16722198000C VERSION: 1

PROJECT: NCRDS96

COUNTY: SANGAMON TWP/RNG: 16N 7W SECTION: 7 QUARTERS/FOOTAGES: 600' N line, 50' E line

QUADRANGLE: PLEASANT PLAINS LONGITUDE: -89.919062 GEOLOGIST: MCCracken

CONFIDENTIAL: N LATITUDE: 39.856629 DATE COLLECTED: 4 / 23 / 1970

SURFACE ELEVATION (FT.): 615.0 LOGGED (FT.): 130.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON S384 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
615.0	PLEISTOCENE		UNCONSOLIDATED	50.0	0.0
565.0			SHALE	24.0	50.0
541.0	CARBONDALE	HERRIN	SHALE/COAL	3.0	74.0
538.0	CARBONDALE		SHALE	4.0	77.0
534.0	CARBONDALE		LIMESTONE	4.5	81.0
529.5	CARBONDALE		SHALE	11.0	85.5
518.5	CARBONDALE		LIMESTONE	3.5	96.5
515.0	CARBONDALE		SHALE	21.0	100.0
494.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.5	121.0
492.5	CARBONDALE	SPRINGFIELD	COAL	6.5	122.5
486.0	CARBONDALE		UNDERCLAY	1.0	129.0

MAPID: 16722199000C VERSION: 1

PROJECT: NCRDS96

COUNTY: SANGAMON TWP/RNG: 16N 7W SECTION: 8 QUARTERS/FOOTAGES: 2640' S line, 1320' E line

QUADRANGLE: PLEASANT PLAINS LONGITUDE: -89.90474 GEOLOGIST: MCCRACKEN

CONFIDENTIAL: N LATITUDE: 39.851032 DATE COLLECTED: 4 / 24 / 1970

SURFACE ELEVATION (FT.): 629.0 LOGGED (FT.): 149.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON S315 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
629.0	PLEISTOCENE		UNCONSOLIDATED	34.0	0.0
595.0			LIMESTONE	30.0	34.0
565.0			SHALE	14.0	64.0
551.0			LIMESTONE	3.0	78.0
548.0			SHALE	17.0	81.0
531.0	CARBONDALE	HERRIN	SHALE/COAL	1.0	98.0
530.0	CARBONDALE		LIMESTONE	6.0	99.0
524.0	CARBONDALE		SHALE	10.0	105.0
514.0	CARBONDALE		LIMESTONE	5.5	115.0
508.5	CARBONDALE		SHALE	19.5	120.5
489.0	CARBONDALE	ST. DAVID	LIMESTONE	1.0	140.0
488.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.5	141.0
486.5	CARBONDALE	SPRINGFIELD	COAL	5.5	142.5
481.0	CARBONDALE		UNDERCLAY	1.0	148.0

MAPID: 16722200000C VERSION: 1

PROJECT: NCRDS96

COUNTY: SANGAMON TWP/RNG: 16N 7W SECTION: 9 QUARTERS/FOOTAGES: 1320' N line, 2640' W line

QUADRANGLE: PLEASANT PLAINS LONGITUDE: -89.890591 GEOLOGIST: MCCRACKEN

CONFIDENTIAL: N LATITUDE: 39.854671 DATE COLLECTED: 8 / 12 / 1970

SURFACE ELEVATION (FT.): 620.0 LOGGED (FT.): 129.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON S371 WELL TYPE: Coal Test

COMMENT: HOLE # MAYBE S363

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
620.0	PLEISTOCENE		UNCONSOLIDATED	61.0	0.0
559.0			LIMESTONE	2.0	61.0
557.0			SHALE	18.0	63.0
539.0	CARBONDALE	ANNA	BLACK SHALE	0.5	81.0
538.5	CARBONDALE		SHALE	4.5	81.5
534.0	CARBONDALE		LIMESTONE	3.0	86.0
531.0	CARBONDALE		SHALE	32.0	89.0
499.0	CARBONDALE	ST. DAVID	LIMESTONE	0.5	121.0
498.5	CARBONDALE	TURNER MINE	BLACK SHALE	1.5	121.5
497.0	CARBONDALE	SPRINGFIELD	COAL	5.0	123.0
492.0	CARBONDALE		UNDERCLAY	1.0	128.0

MAPID: 16722201000C VERSION: 1

PROJECT: NCRDS96

COUNTY: SANGAMON TWP/RNG: 16N 7W SECTION: 14 QUARTERS/FOOTAGES: 1240' N line, 1075' W line

QUADRANGLE: FARMINGDALE LONGITUDE: -89.858579 GEOLOGIST: MCCRACKEN

CONFIDENTIAL: N LATITUDE: 39.840547 DATE COLLECTED: 5 / 27 / 1970

SURFACE ELEVATION (FT.): 605.0 LOGGED (FT.): 184.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON T160B WELL TYPE: Coal Test

COMMENT: DEPTHS & THICKNESSES ARE FAINT

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
605.0	PLEISTOCENE		UNCONSOLIDATED	75.0	0.0
530.0			SHALE	13.9	75.0
516.1			LIMESTONE	1.3	88.9
514.8			SHALE	20.0	90.2
494.8			LIMESTONE	1.2	110.2
493.6			SHALE	10.6	111.4
483.0			LIMESTONE	2.2	122.0
480.8			SHALE	16.0	124.2
464.8			BLACK LIMESTONE	1.3	140.2
463.5			LIMESTONE	10.3	141.5
453.2	CARBONDALE	TURNER MINE	BLACK SHALE	2.1	151.8
451.1	CARBONDALE	SPRINGFIELD	COAL	1.0	153.9
450.1	CARBONDALE		SHALE	11.1	154.9
439.0	CARBONDALE		LIMESTONE	11.0	166.0
428.0	CARBONDALE		SHALE	7.0	177.0

MAPID: 16722202000C VERSION: 1

PROJECT: NCRDS96

COUNTY: SANGAMON TWP/RNG: 16N 7W SECTION: 16 QUARTERS/FOOTAGES: 5' N line, 1330' E line

QUADRANGLE: PLEASANT PLAINS LONGITUDE: -89.886047 GEOLOGIST: MCCRACKEN

CONFIDENTIAL: N LATITUDE: 39.843836 DATE COLLECTED: 5 / 27 / 1970

SURFACE ELEVATION (FT.): 622.0 LOGGED (FT.): 150.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON S223 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
622.0	PLEISTOCENE		UNCONSOLIDATED	51.0	0.0
571.0			SHALE	51.0	51.0
520.0			LIMESTONE	1.5	102.0
518.5			SHALE	19.0	103.5
499.5			SANDY SHALE	19.4	122.5
480.1	CARBONDALE	SPRINGFIELD	COAL	4.3	141.9
475.8	CARBONDALE		CLAYSTONE & SHALE	3.8	146.2

MAPID: 16722203000C    VERSION: 1

PROJECT: NCRDS96

COUNTY: SANGAMON    TWP/RNG: 16N 7W    SECTION: 16    QUARTERS/FOOTAGES: 50' S line, 1320' E line

QUADRANGLE: PLEASANT PLAINS    LONGITUDE: -89.885825    GEOLOGIST: MCCRACKEN

CONFIDENTIAL: N    LATITUDE: 39.829437    DATE COLLECTED:

SURFACE ELEVATION (FT.): 618.0    LOGGED (FT.): 147.0    LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON    S23    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
618.0	PLEISTOCENE		UNCONSOLIDATED	77.0	0.0
541.0			SHALE	2.0	77.0
539.0			LIMESTONE	1.0	79.0
538.0			SHALE	19.0	80.0
519.0			LIMESTONE	4.0	99.0
515.0			SHALE	15.0	103.0
500.0			LIMESTONE	4.0	118.0
496.0			SHALE	9.0	122.0
487.0			LIMESTONE	9.5	131.0
477.5			SHALE	1.6	140.5
475.9	CARBONDALE	TURNER MINE	DARK SHALE	0.6	142.1
475.3	CARBONDALE	SPRINGFIELD	COAL	3.1	142.7
472.2	CARBONDALE		UNDERCLAY	1.2	145.8



MAPID: 16725544000C    VERSION: 1

PROJECT: NCRDS95

COUNTY: SANGAMON    TWP/RNG: 16N 7W    SECTION: 16    QUARTERS/FOOTAGES:

QUADRANGLE: PLEASANT PLAINS    LONGITUDE: -89.894937

GEOLOGIST: C TREWORYG

CONFIDENTIAL: N    LATITUDE: 39.843652

DATE COLLECTED: 0 / 0 / 1981

SURFACE ELEVATION (FT.): 624.0    LOGGED (FT.): 269.0

LOG TYPE: Drillers Log

SOURCE: UTAH INTERNATIONAL    SAN8103

WELL TYPE: Coal Test

COMMENT: UTM COORDS SURVEYED BY CO.

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
624.0			UNKNOWN	45.0	0.0
579.0			SANDY SHALE	10.0	45.0
569.0			SHALE WITH LIMESTONE	7.0	55.0
562.0			GRAY SHALE	5.0	62.0
554.0			BLACK SHALE	2.0	70.0
552.0			GRAY SHALE	12.0	72.0
540.0			LIMESTONE	3.0	84.0
537.0			SHALE	11.0	87.0
526.0			GRAY SHALE	2.0	98.0
524.0	CARBONDALE		BLACK SHALE	2.0	100.0
522.0	CARBONDALE		GRAY SHALE	2.0	102.0
520.0	CARBONDALE		LIMESTONE	2.0	104.0
518.0	CARBONDALE		GRAY SHALE	3.0	106.0
515.0	CARBONDALE		LIMESTONE	1.0	109.0
514.0	CARBONDALE		SANDY SHALE	3.0	110.0
511.0	CARBONDALE		SANDY SHALE	7.0	113.0
504.0	CARBONDALE		SANDY SHALE	3.0	120.0
501.0	CARBONDALE		GRAY SHALE	10.0	123.0
491.0	CARBONDALE		SHALE	7.2	133.0
483.8	CARBONDALE		UNDERCLAY	1.7	140.2
482.1	CARBONDALE		BLACK SHALE	1.1	141.9
481.0	CARBONDALE		LIMESTONE	1.0	143.0
480.0	CARBONDALE	SPRINGFIELD	COAL	2.4	144.0
477.6	CARBONDALE	SPRINGFIELD	COAL W/ PYRITE	0.5	146.4
477.1	CARBONDALE	SPRINGFIELD	COAL	1.7	146.9
475.4	CARBONDALE		UNDERCLAY	1.5	148.6
473.9	CARBONDALE		SANDY CLAYSTONE	2.9	150.1
471.0	CARBONDALE		GRAY SHALE	3.0	153.0
468.0	CARBONDALE	EXCELLO	BLACK SHALE	3.0	156.0
465.0	CARBONDALE		SANDY SHALE	27.0	159.0
438.0	CARBONDALE		SANDY SHALE	15.0	186.0
423.0	CARBONDALE		GRAY SHALE	21.0	201.0
402.0	CARBONDALE		LIMESTONE	1.0	222.0
401.0	CARBONDALE		GRAY SHALE	4.0	223.0
397.0	CARBONDALE		LIMESTONE	3.0	227.0
394.0	CARBONDALE		SHALE	6.0	230.0
388.0	CARBONDALE		LIMESTONE	3.0	236.0
385.0	CARBONDALE		SHALE & SANDSTONE	20.0	239.0
365.0	CARBONDALE		GRAY SHALE	2.0	259.0

363.0	CARBONDALE	OAK GROVE	LIMESTONE	1.0	261.0
362.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	3.0	262.0
359.0	CARBONDALE	MECCA QUARRY	LIMESTONE	0.8	265.0
358.2	CARBONDALE	COLCHESTER	COAL	2.1	265.8
356.1			UNDERCLAY	1.1	267.9

---

MAPID: 16725545000C    VERSION: 1

PROJECT: NCRDS95

COUNTY: SANGAMON    TWP/RNG: 16N 7W    SECTION: 16    QUARTERS/FOOTAGES:

QUADRANGLE: PLEASANT PLAINS    LONGITUDE: -89.894905

GEOLOGIST: C TREWORYG

CONFIDENTIAL: N    LATITUDE: 39.843652

DATE COLLECTED: 0 / 0 / 1981

SURFACE ELEVATION (FT.): 624.0    LOGGED (FT.): 150.0

LOG TYPE: Drillers Log

SOURCE: UTAH INTERNATIONAL    SAN8103C

WELL TYPE: Coal Test

COMMENT: UTM COORDS SURVEYED BY CO.

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
624.0			UNKNOWN	47.0	0.0
577.0			SANDY SHALE	14.0	47.0
563.0			GRAY SHALE	5.0	61.0
558.0			SANDY SHALE	4.5	66.0
553.5			BLACK SHALE	2.5	70.5
551.0			LIMESTONE	1.0	73.0
550.0			SANDY SHALE	3.0	74.0
547.0			LIMESTONE	2.0	77.0
545.0			SANDY SHALE	5.0	79.0
540.0			LIMESTONE	2.0	84.0
538.0			GRAY SHALE	5.0	86.0
533.0			SANDY SHALE	2.0	91.0
531.0			GRAY SHALE	6.5	93.0
524.5			BLACK SHALE	3.0	99.5
521.5			GRAY SHALE	1.5	102.5
520.0			LIMESTONE	3.0	104.0
517.0			GRAY SHALE	2.5	107.0
514.5			LIMESTONE	1.0	109.5
513.5			SANDY SHALE	4.5	110.5
509.0			SANDY SHALE	4.0	115.0
505.0			SANDY SHALE	1.0	119.0
504.0			LIMESTONE	1.0	120.0
503.0			SANDY SHALE	4.0	121.0
499.0			SANDY SHALE	3.0	125.0
496.0			GRAY SHALE	3.0	128.0
493.0			SHALE	9.2	131.0
483.8			UNDERCLAY	1.7	140.2
482.1			BLACK SHALE	1.1	141.9
481.0			LIMESTONE	1.0	143.0
480.0	CARBONDALE	SPRINGFIELD	COAL	2.4	144.0
477.6	CARBONDALE	SPRINGFIELD	COAL W/ PYRITE	0.5	146.4
477.1	CARBONDALE	SPRINGFIELD	COAL	1.8	146.9
475.3	CARBONDALE	SPRINGFIELD	CANNEL COAL	0.2	148.7
475.1	CARBONDALE	SPRINGFIELD	COAL	0.3	148.9
474.8			UNDERCLAY	0.8	149.2

MAPID: 16722204000C VERSION: 1

PROJECT: NCRDS96

COUNTY: SANGAMON TWP/RNG: 16N 7W SECTION: 17 QUARTERS/FOOTAGES: 250' N line, 50' W line

QUADRANGLE: PLEASANT PLAINS LONGITUDE: -89.918578 GEOLOGIST: MCCRACKEN

CONFIDENTIAL: N LATITUDE: 39.842913 DATE COLLECTED: 4 / 25 / 1970

SURFACE ELEVATION (FT.): 600.0 LOGGED (FT.): 160.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON S184CC WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
600.0	PLEISTOCENE		UNCONSOLIDATED	60.0	0.0
540.0	CARBONDALE		SHALE	10.0	60.0
530.0	CARBONDALE		LIMESTONE	4.0	70.0
526.0	CARBONDALE		SHALE	36.0	74.0
490.0	CARBONDALE	ST. DAVID	LIMESTONE	2.0	110.0
488.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.0	112.0
487.0	CARBONDALE	SPRINGFIELD	COAL	1.0	113.0
486.0	CARBONDALE		SHALE	12.0	114.0
474.0	CARBONDALE		BLACK SHALE	1.0	126.0
473.0	CARBONDALE		SHALE	6.0	127.0
467.0	CARBONDALE		LIMESTONE	4.0	133.0
463.0	CARBONDALE		SHALE	23.0	137.0

MAPID: 16722205000C VERSION: 1

PROJECT: NCRDS96

COUNTY: SANGAMON TWP/RNG: 16N 7W SECTION: 17 QUARTERS/FOOTAGES: 1320' S line, 5' W line

QUADRANGLE: PLEASANT PLAINS LONGITUDE: -89.918625 GEOLOGIST: MCCRACKEN

CONFIDENTIAL: N LATITUDE: 39.8328 DATE COLLECTED: 4 / 23 / 1970

SURFACE ELEVATION (FT.): 628.0 LOGGED (FT.): 129.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON S59 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
628.0	PLEISTOCENE		UNCONSOLIDATED	50.0	0.0
578.0			SHALE	26.0	50.0
552.0	CARBONDALE	ANNA	BLACK SHALE	1.0	76.0
551.0	CARBONDALE		SHALE	23.0	77.0
528.0	CARBONDALE		LIMESTONE	5.0	100.0
523.0	CARBONDALE		SHALE	10.0	105.0
513.0	CARBONDALE	ST. DAVID	LIMESTONE	8.0	115.0
505.0	CARBONDALE	SPRINGFIELD	COAL	4.5	123.0
500.5	CARBONDALE		SHALE	1.5	127.5

MAPID: 16722206000C    VERSION: 1

PROJECT: NCRDS96

COUNTY: SANGAMON    TWP/RNG: 16N 7W    SECTION: 18    QUARTERS/FOOTAGES: 50' S line, 1731' W line

QUADRANGLE: PLEASANT PLAINS    LONGITUDE: -89.931266    GEOLOGIST: MCCRACKEN

CONFIDENTIAL: N    LATITUDE: 39.829357    DATE COLLECTED: 8 / 25 / 1970

SURFACE ELEVATION (FT.): 628.0    LOGGED (FT.): 133.0    LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON    S3B    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
628.0	PLEISTOCENE		UNCONSOLIDATED	30.0	0.0
598.0			SHALE	51.0	30.0
547.0	CARBONDALE	ANNA	BLACK SHALE	0.5	81.0
546.5	CARBONDALE	HERRIN	COAL	1.0	81.5
545.5	CARBONDALE		SHALE	10.5	82.5
535.0	CARBONDALE		LIMESTONE	3.5	93.0
531.5	CARBONDALE		SHALE	2.0	96.5
529.5	CARBONDALE		LIMESTONE	2.5	98.5
527.0	CARBONDALE		SHALE	21.5	101.0
505.5	CARBONDALE	ST. DAVID	LIMESTONE	6.0	122.5
499.5	CARBONDALE	SPRINGFIELD	COAL	3.5	128.5
496.0	CARBONDALE		UNDERCLAY	1.0	132.0

MAPID: 16725543000C    VERSION: 1

PROJECT: NCRDS95

COUNTY: SANGAMON    TWP/RNG: 16N 7W    SECTION: 18    QUARTERS/FOOTAGES:

QUADRANGLE: PLEASANT PLAINS    LONGITUDE: -89.918393

GEOLOGIST: C TREWORYG

CONFIDENTIAL: N    LATITUDE: 39.84009

DATE COLLECTED: 0 / 0 / 1981

SURFACE ELEVATION (FT.): 610.0    LOGGED (FT.): 256.0

LOG TYPE: Drillers Log

SOURCE: UTAH INTERNATIONAL    SAN8102

WELL TYPE: Coal Test

COMMENT: UTM COORDS SURVEYED BY CO.

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
610.0			UNKNOWN	24.0	0.0
586.0			SHALE	2.0	24.0
584.0			BLACK SHALE	3.0	26.0
581.0			SANDY SHALE	14.0	29.0
567.0	CARBONDALE		LIMESTONE	3.0	43.0
564.0	CARBONDALE		SANDY SHALE	16.0	46.0
548.0	CARBONDALE		BLACK SHALE	2.0	62.0
546.0	CARBONDALE		GRAY SHALE	1.0	64.0
545.0	CARBONDALE		LIMESTONE	1.0	65.0
544.0	CARBONDALE		SANDY SHALE	8.0	66.0
536.0	CARBONDALE		LIMESTONE	1.0	74.0
535.0	CARBONDALE		GRAY SHALE	3.0	75.0
532.0	CARBONDALE		SHALE & SANDSTONE	5.0	78.0
527.0	CARBONDALE		SHALE	2.0	83.0
525.0	CARBONDALE		LIMESTONE	4.0	85.0
521.0	CARBONDALE		GRAY SHALE	11.0	89.0
510.0	CARBONDALE	ST. DAVID	LIMESTONE	4.0	100.0
506.0	CARBONDALE	ST. DAVID	IRONSTONE	2.0	104.0
504.0	CARBONDALE	ST. DAVID	LIMESTONE	1.1	106.0
502.9	CARBONDALE	SPRINGFIELD	BONE COAL	1.1	107.1
501.8	CARBONDALE	SPRINGFIELD	COAL	0.3	108.2
501.5	CARBONDALE	SPRINGFIELD	BONE COAL	0.5	108.5
501.0	CARBONDALE	SPRINGFIELD	COAL	0.4	109.0
500.6	CARBONDALE		UNDERCLAY	1.6	109.4
499.0	CARBONDALE		SANDY SHALE	3.0	111.0
496.0	CARBONDALE		SANDY SHALE	1.0	114.0
495.0	CARBONDALE		SANDY SHALE	1.0	115.0
494.0	CARBONDALE		GRAY SHALE	1.5	116.0
492.5	CARBONDALE	EXCELLO	BLACK SHALE	2.5	117.5
490.0	CARBONDALE		UNDERCLAY	3.0	120.0
487.0	CARBONDALE		SHALE & SANDSTONE	4.0	123.0
483.0	CARBONDALE		GRAY SHALE	2.0	127.0
481.0	CARBONDALE		LIMESTONE	3.0	129.0
478.0	CARBONDALE		SHALE	2.0	132.0
476.0	CARBONDALE		SANDY SHALE	26.0	134.0
450.0	CARBONDALE		SHALE & SANDSTONE	17.0	160.0
433.0	CARBONDALE		SANDY SHALE	10.0	177.0
423.0	CARBONDALE		LIMESTONE	1.0	187.0
422.0	CARBONDALE		SANDY SHALE	6.0	188.0

416.0	CARBONDALE		LIMESTONE	6.0	194.0
410.0	CARBONDALE		SANDY SHALE	3.0	200.0
407.0	CARBONDALE		SHALE & SANDSTONE	13.0	203.0
394.0	CARBONDALE		SHALE & SANDSTONE	7.0	216.0
387.0	CARBONDALE		GRAY SHALE	2.0	223.0
385.0	CARBONDALE	OAK GROVE	LIMESTONE	2.0	225.0
383.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	1.6	227.0
381.4	CARBONDALE	COLCHESTER	COAL	1.0	228.6
380.4	CARBONDALE	COLCHESTER	BONE COAL	0.2	229.6
380.2	CARBONDALE	COLCHESTER	COAL	0.6	229.8
379.6	CARBONDALE	COLCHESTER	BONE COAL	0.6	230.4
379.0			UNDERCLAY	3.0	231.0
376.0			SANDY SHALE	4.0	234.0
372.0			LIMESTONE	4.0	238.0
368.0			SANDY SHALE	2.0	242.0
366.0			SANDY SHALE	1.0	244.0
365.0			GRAY SHALE	3.0	245.0
362.0			SHALE & SANDSTONE	8.0	248.0

**MAPID:** 16722207000C    **VERSION:** 1    **PROJECT:** NCRDS96  
**COUNTY:** SANGAMON    **TWP/RNG:** 16N 7W    **SECTION:** 19    **QUARTERS/FOOTAGES:** 5' S line, 5' W line  
**QUADRANGLE:** PLEASANT PLAINS    **LONGITUDE:** -89.937332    **GEOLOGIST:** MCCRACKEN  
**CONFIDENTIAL:** N    **LATITUDE:** 39.814706    **DATE COLLECTED:** 8 / 25 / 1970  
**SURFACE ELEVATION (FT.):** 632.0    **LOGGED (FT.):** 146.0    **LOG TYPE:** Drillers Log  
**SOURCE:** COMMONWEALTH EDISON    W401    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
632.0	PLEISTOCENE		UNCONSOLIDATED	25.0	0.0	
607.0			SANDSTONE	27.0	25.0	SOFT
580.0			SHALE	42.0	52.0	
538.0	CARBONDALE	ANNA	DARK SHALE	3.0	94.0	
535.0	CARBONDALE	HERRIN	COAL	2.0	97.0	
533.0	CARBONDALE		SHALE	5.0	99.0	
528.0	CARBONDALE		LIMESTONE	4.0	104.0	
524.0	CARBONDALE		SHALE	29.0	108.0	
495.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.5	137.0	
493.5	CARBONDALE	SPRINGFIELD	COAL	6.5	138.5	
487.0	CARBONDALE		UNDERCLAY	1.0	145.0	

MAPID: 16722208000C VERSION: 1

PROJECT: NCRDS96

COUNTY: SANGAMON TWP/RNG: 16N 7W SECTION: 19 QUARTERS/FOOTAGES: 2590' S line, 300' E line

QUADRANGLE: PLEASANT PLAINS LONGITUDE: -89.919591 GEOLOGIST: MCCRACKEN

CONFIDENTIAL: N LATITUDE: 39.82188 DATE COLLECTED: 5 / 11 / 1970

SURFACE ELEVATION (FT.): 620.0 LOGGED (FT.): 138.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON W503B WELL TYPE: Coal Test

COMMENT: DEPTHS AND THICKNESS ARE FAINT

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
620.0	PLEISTOCENE		UNCONSOLIDATED	40.5	0.0
579.5			SHALE	47.5	40.5
532.0	CARBONDALE	ANNA	BLACK SHALE	2.4	88.0
529.6	CARBONDALE		SHALE	36.7	90.4
492.9	CARBONDALE	ST. DAVID	LIMESTONE	0.8	127.1
492.1	CARBONDALE	TURNER MINE	BLACK SHALE	0.2	127.9
491.9	CARBONDALE	SPRINGFIELD	COAL	7.1	128.1
484.8	CARBONDALE		UNDERCLAY	2.8	135.2

MAPID: 16722209000C VERSION: 1

PROJECT: NCRDS96

COUNTY: SANGAMON TWP/RNG: 16N 7W SECTION: 19 QUARTERS/FOOTAGES: 5' S line, 5' E line

QUADRANGLE: PLEASANT PLAINS LONGITUDE: -89.918456 GEOLOGIST: MCCRACKEN

CONFIDENTIAL: N LATITUDE: 39.814747 DATE COLLECTED: 8 / 26 / 1970

SURFACE ELEVATION (FT.): 616.0 LOGGED (FT.): 128.5 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON W409 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
616.0	PLEISTOCENE		UNCONSOLIDATED	40.0	0.0
576.0			SHALE	13.0	40.0
563.0			LIMESTONE & SHALE	7.0	53.0
556.0			SHALE	20.0	60.0
536.0	CARBONDALE	HERRIN	BLACK SHALE & COAL	2.0	80.0
534.0	CARBONDALE		SHALE	7.0	82.0
527.0	CARBONDALE		LIMESTONE	2.5	89.0
524.5	CARBONDALE		SHALE	29.5	91.5
495.0	CARBONDALE	ST. DAVID	LIMESTONE	0.5	121.0
494.5	CARBONDALE	TURNER MINE	BLACK SHALE	1.0	121.5
493.5	CARBONDALE	SPRINGFIELD	COAL	0.6	122.5
492.9	CARBONDALE	SPRINGFIELD	COAL	4.9	123.1
488.0	CARBONDALE		UNDERCLAY	0.5	128.0

WITH THIN SHALE PARTINGS



MAPID: 1672221000C VERSION: 1

PROJECT: NCRDS96

COUNTY: SANGAMON TWP/RNG: 16N 7W SECTION: 22 QUARTERS/FOOTAGES: 250' S line, 1370' E line

QUADRANGLE: FARMINGDALE LONGITUDE: -89.866951 GEOLOGIST: MCCRACKEN

CONFIDENTIAL: N LATITUDE: 39.815601 DATE COLLECTED: 5 / 26 / 1970

SURFACE ELEVATION (FT.): 593.0 LOGGED (FT.): 150.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON X407C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
593.0	PLEISTOCENE		UNCONSOLIDATED	95.5	0.0
497.5	CARBONDALE		SHALE	9.5	95.5
488.0	CARBONDALE		LIMESTONE	2.6	105.0
485.4	CARBONDALE		SHALE	25.3	107.6
460.1	CARBONDALE	ST. DAVID	LIMESTONE	3.6	132.9
456.5	CARBONDALE	TURNER MINE	BLACK SHALE	1.6	136.5
454.9	CARBONDALE	SPRINGFIELD	COAL	5.2	138.1
449.7	CARBONDALE		CLAYSTONE & SHALE	6.7	143.3

MAPID: 16722211000C VERSION: 1

PROJECT: NCRDS96

COUNTY: SANGAMON TWP/RNG: 16N 7W SECTION: 22 QUARTERS/FOOTAGES: 1320' N line, 20' E line

QUADRANGLE: FARMINGDALE LONGITUDE: -89.862254 GEOLOGIST: MCCRACKEN

CONFIDENTIAL: N LATITUDE: 39.825814 DATE COLLECTED: 5 / 20 / 1970

SURFACE ELEVATION (FT.): 590.0 LOGGED (FT.): 185.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON X559 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
590.0	PLEISTOCENE		UNCONSOLIDATED	66.0	0.0
524.0			SHALE	12.0	66.0
512.0			LIMESTONE	4.2	78.0
507.8			SHALE	6.8	82.2
501.0			LIMESTONE	3.5	89.0
497.5			SHALE	16.5	92.5
481.0			LIMESTONE	11.0	109.0
470.0			SHALE	4.5	120.0
465.5	CARBONDALE	SPRINGFIELD	COAL	2.5	124.5
463.0			SHALE	58.0	127.0

**MAPID:** 16722212000C    **VERSION:** 1    **PROJECT:** NCRDS96  
**COUNTY:** SANGAMON    **TWP/RNG:** 16N 7W    **SECTION:** 26    **QUARTERS/FOOTAGES:** 2640' N line, 20' W line  
**QUADRANGLE:** FARMINGDALE    **LONGITUDE:** -89.86187    **GEOLOGIST:** MCCRACKEN  
**CONFIDENTIAL:** N    **LATITUDE:** 39.807645    **DATE COLLECTED:** 5 / 27 / 1970  
**SURFACE ELEVATION (FT.):** 607.0    **LOGGED (FT.):** 165.0    **LOG TYPE:** Drillers Log  
**SOURCE:** COMMONWEALTH EDISON    X308    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
607.0	PLEISTOCENE		UNCONSOLIDATED	111.0	0.0
496.0			LIMESTONE	1.0	111.0
495.0			SHALE	4.9	112.0
490.1	CARBONDALE		LIMESTONE	8.0	116.9
482.1	CARBONDALE		SHALE	27.2	124.9
454.9	CARBONDALE	TURNER MINE	BLACK SHALE	2.2	152.1
452.7	CARBONDALE	SPRINGFIELD	COAL	4.9	154.3
447.8	CARBONDALE		CLAYSTONE & SHALE	5.8	159.2

**MAPID:** 16723349000C    **VERSION:** 1    **PROJECT:** NCRDS91  
**COUNTY:** SANGAMON    **TWP/RNG:** 16N 7W    **SECTION:** 29    **QUARTERS/FOOTAGES:** 10' N line, 20' E line  
**QUADRANGLE:** PLEASANT PLAINS    **LONGITUDE:** -89.899634    **GEOLOGIST:** C TREWORYG  
**CONFIDENTIAL:** N    **LATITUDE:** 39.814782    **DATE COLLECTED:** 10 / 4 / 1981  
**SURFACE ELEVATION (FT.):** 620.0    **LOGGED (FT.):** 172.0    **LOG TYPE:** Drillers Log  
**SOURCE:** PHILLIPS COAL CO.    SA-14    **WELL TYPE:** Coal Test  
**COMMENT:** ONLY LOGGED COAL

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
470.0	CARBONDALE	SPRINGFIELD	COAL	5.4	150.0

**MAPID:** 16723350000C    **VERSION:** 1    **PROJECT:** NCRDS91  
**COUNTY:** SANGAMON    **TWP/RNG:** 16N 7W    **SECTION:** 30    **QUARTERS/FOOTAGES:** 25' N line, 50' E line  
**QUADRANGLE:** PLEASANT PLAINS    **LONGITUDE:** -89.918617    **GEOLOGIST:** C TREWORYG  
**CONFIDENTIAL:** N    **LATITUDE:** 39.814663    **DATE COLLECTED:** 10 / 4 / 1981  
**SURFACE ELEVATION (FT.):** 620.0    **LOGGED (FT.):** 171.0    **LOG TYPE:** Drillers Log  
**SOURCE:** PHILLIPS COAL CO.    SA-17    **WELL TYPE:** Coal Test  
**COMMENT:** ONLY LOGGED COAL

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
474.9	CARBONDALE	SPRINGFIELD	COAL	0.8	145.1

MAPID: 16700053000C VERSION: 1

PROJECT: NCRDS87

COUNTY: SANGAMON TWP/RNG: 16N 7W SECTION: 32 QUARTERS/FOOTAGES: 1' S line, 1' E line of SW NW

QUADRANGLE: PLEASANT PLAINS LONGITUDE: -89.913571 GEOLOGIST: WEIBEL

CONFIDENTIAL: N LATITUDE: 39.793006 DATE COLLECTED: 0 / 0 / 1933

SURFACE ELEVATION (FT.): 635.0 LOGGED (FT.): 491.0 LOG TYPE: Survey Sample Study

SOURCE: L. H. WAIBEL WELL TYPE: Dry Hole

COMMENT: ALSO LOG-TYPE 11 USED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
635.0			UNCONSOLIDATED	23.0	0.0
612.0			UNCLASSIFIED	74.0	23.0
538.0			LIMESTONE	8.0	97.0
530.0			UNCLASSIFIED	31.0	105.0
499.0			LIMESTONE	18.0	136.0
481.0			BLACK SHALE	4.0	154.0
477.0			UNCLASSIFIED	112.0	158.0
365.0	CARBONDALE		LIMESTONE	5.0	270.0
360.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	5.0	275.0
355.0	CARBONDALE	COLCHESTER	COAL	4.0	280.0
351.0			UNCLASSIFIED	4.0	284.0
347.0			LIMESTONE	4.0	288.0
343.0			UNCLASSIFIED	35.0	292.0
308.0			BLACK SHALE	6.0	327.0
302.0			UNCLASSIFIED	41.0	333.0
261.0			BLACK SHALE	6.0	374.0
255.0			UNCLASSIFIED	111.0	380.0

MAPID: 16723351000C VERSION: 1

PROJECT: NCRDS91

COUNTY: SANGAMON TWP/RNG: 16N 7W SECTION: 34 QUARTERS/FOOTAGES: 10' N line, 660' E line

QUADRANGLE: FARMINGDALE LONGITUDE: -89.864205 GEOLOGIST: C TREWORYG

CONFIDENTIAL: N LATITUDE: 39.800346 DATE COLLECTED: 10 / 3 / 1981

SURFACE ELEVATION (FT.): 620.0 LOGGED (FT.): 191.0 LOG TYPE: Drillers Log

SOURCE: PHILLIPS COAL CO. SA-13 WELL TYPE: Coal Test

COMMENT: ONLY LOGGED COAL

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
452.8	CARBONDALE	SPRINGFIELD	COAL	2.8	167.2

MAPID: 16722213000C VERSION: 1

PROJECT: NCRDS96

COUNTY: SANGAMON TWP/RNG: 16N 8W SECTION: 1 QUARTERS/FOOTAGES: 2632' N line, 1062' E line

QUADRANGLE: PLEASANT PLAINS LONGITUDE: -89.941533 GEOLOGIST: MCCRACKEN

CONFIDENTIAL: N LATITUDE: 39.865597 DATE COLLECTED: 8 / 17 / 1970

SURFACE ELEVATION (FT.): 620.0 LOGGED (FT.): 125.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON R523B WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
620.0	PLEISTOCENE		UNCONSOLIDATED	52.0	0.0
568.0	CARBONDALE		SHALE	19.0	52.0
549.0	CARBONDALE	ANNA	BLACK SHALE	1.0	71.0
548.0	CARBONDALE	HERRIN	COAL	2.0	72.0
546.0	CARBONDALE		SHALE	37.0	74.0
509.0	CARBONDALE	ST. DAVID	LIMESTONE	6.0	111.0
503.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	117.0
501.0	CARBONDALE	SPRINGFIELD	COAL	5.0	119.0
496.0	CARBONDALE		UNDERCLAY	1.0	124.0

MAPID: 16722214000C VERSION: 1

PROJECT: NCRDS96

COUNTY: SANGAMON TWP/RNG: 16N 8W SECTION: 2 QUARTERS/FOOTAGES: 100' N line, 2240' W line

QUADRANGLE: PLEASANT PLAINS LONGITUDE: -89.967432 GEOLOGIST: MCCRACKEN

CONFIDENTIAL: N LATITUDE: 39.872593 DATE COLLECTED: 8 / 17 / 1970

SURFACE ELEVATION (FT.): 622.0 LOGGED (FT.): 119.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON R6128 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
622.0	PLEISTOCENE		UNCONSOLIDATED	40.0	0.0
582.0	CARBONDALE		SHALE	26.0	40.0
556.0	CARBONDALE	ANNA	BLACK SHALE	4.0	66.0
552.0	CARBONDALE	HERRIN	COAL	2.0	70.0
550.0	CARBONDALE		SHALE	5.0	72.0
545.0	CARBONDALE		LIMESTONE	5.0	77.0
540.0	CARBONDALE		SHALE	28.0	82.0
512.0	CARBONDALE	ST. DAVID	LIMESTONE	1.0	110.0
511.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.0	111.0
510.0	CARBONDALE	SPRINGFIELD	COAL	6.0	112.0
504.0	CARBONDALE		UNDERCLAY	1.0	118.0

MAPID: 16722215000C    VERSION: 1

PROJECT: NCRDS96

COUNTY: SANGAMON    TWP/RNG: 16N 8W    SECTION: 2    QUARTERS/FOOTAGES: 30' S line, 2612' E line

QUADRANGLE: PLEASANT PLAINS    LONGITUDE: -89.965997    GEOLOGIST: MCCRACKEN

CONFIDENTIAL: N    LATITUDE: 39.858318    DATE COLLECTED: 5 / 0 / 1969

SURFACE ELEVATION (FT.): 627.0    LOGGED (FT.): 127.0    LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON    R413    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
627.0	PLEISTOCENE		UNCONSOLIDATED	48.0	0.0
579.0	CARBONDALE		LIMESTONE	1.0	48.0
578.0	CARBONDALE		SHALE	27.0	49.0
551.0	CARBONDALE	HERRIN	COAL	2.0	76.0
549.0	CARBONDALE	HERRIN	COAL	1.4	78.0
547.6	CARBONDALE		SHALE	7.6	79.4
540.0	CARBONDALE		LIMESTONE	5.0	87.0
535.0	CARBONDALE		SHALE	8.0	92.0
527.0	CARBONDALE		LIMESTONE & SHALE	5.0	100.0
522.0	CARBONDALE		SHALE	14.5	105.0
507.5	CARBONDALE	ST. DAVID	LIMESTONE	0.5	119.5
507.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.0	120.0
506.0	CARBONDALE	SPRINGFIELD	COAL	4.9	121.0
501.1	CARBONDALE		UNDERCLAY	1.1	125.9

MAPID: 16722216000C VERSION: 1

PROJECT: NCRDS96

COUNTY: SANGAMON TWP/RNG: 16N 8W SECTION: 3 QUARTERS/FOOTAGES: 300' S line, 120' E line  
 QUADRANGLE: PLEASANT PLAINS LONGITUDE: -89.975844 GEOLOGIST: MCCracken  
 CONFIDENTIAL: N LATITUDE: 39.859038 DATE COLLECTED: 8 / 27 / 1970  
 SURFACE ELEVATION (FT.): 623.0 LOGGED (FT.): 112.0 LOG TYPE: Drillers Log  
 SOURCE: COMMONWEALTH EDISON R408I WELL TYPE: Coal Test  
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
623.0	PLEISTOCENE		UNCONSOLIDATED	30.0	0.0	
593.0	CARBONDALE		SHALE	31.0	30.0	
562.0	CARBONDALE	ANNA	BLACK SHALE	2.0	61.0	
560.0	CARBONDALE	HERRIN	COAL	2.0	63.0	
558.0	CARBONDALE		SHALE	13.0	65.0	
545.0	CARBONDALE		LIMESTONE	7.0	78.0	
538.0	CARBONDALE		SHALE	18.5	85.0	
519.5	CARBONDALE	TURNER MINE	BLACK SHALE	1.0	103.5	
518.5	CARBONDALE	SPRINGFIELD	COAL	1.0	104.5	BONE
517.5	CARBONDALE	SPRINGFIELD	COAL	4.0	105.5	
513.5	CARBONDALE	SPRINGFIELD	BONE COAL	0.5	109.5	
513.0	CARBONDALE	SPRINGFIELD	COAL	1.3	110.0	
511.7	CARBONDALE		UNDERCLAY	0.7	111.3	

MAPID: 16723352000C VERSION: 1

PROJECT: NCRDS91

COUNTY: SANGAMON TWP/RNG: 16N 8W SECTION: 3 QUARTERS/FOOTAGES: 13' N line, 20' E line  
 QUADRANGLE: PLEASANT PLAINS LONGITUDE: -89.975529 GEOLOGIST: C TREWORGY  
 CONFIDENTIAL: N LATITUDE: 39.872845 DATE COLLECTED: 9 / 30 / 1981  
 SURFACE ELEVATION (FT.): 627.0 LOGGED (FT.): 252.0 LOG TYPE: Drillers Log  
 SOURCE: PHILLIPS COAL CO. SA-3 WELL TYPE: Coal Test  
 COMMENT: ONLY LOGGED COAL

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
568.5	CARBONDALE		COAL	2.0	58.5	
520.7	CARBONDALE	SPRINGFIELD	COAL	1.8	106.3	
402.0	CARBONDALE	COLCHESTER	COAL	1.0	225.0	
401.0	CARBONDALE	COLCHESTER	SHALE	0.4	226.0	PARTING
400.6	CARBONDALE	COLCHESTER	COAL	1.0	226.4	

MAPID: 16722217000C VERSION: 1

PROJECT: NCRDS96

COUNTY: SANGAMON TWP/RNG: 16N 8W SECTION: 12 QUARTERS/FOOTAGES: 540' N line, 2454' W line

QUADRANGLE: PLEASANT PLAINS LONGITUDE: -89.947849 GEOLOGIST: MCCRACKEN

CONFIDENTIAL: N LATITUDE: 39.856884 DATE COLLECTED: 5 / 23 / 1969

SURFACE ELEVATION (FT.): 620.0 LOGGED (FT.): 118.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON R395M WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
620.0	PLEISTOCENE		UNCONSOLIDATED	32.0	0.0	
588.0			LIMESTONE	1.0	32.0	
587.0			SHALE	10.0	33.0	
577.0	CARBONDALE		LIMESTONE	2.0	43.0	
575.0	CARBONDALE		SHALE	23.0	45.0	
552.0	CARBONDALE	ANNA	BLACK SHALE	1.0	68.0	
551.0	CARBONDALE	HERRIN	COAL	2.0	69.0	
549.0	CARBONDALE		SHALE	3.0	71.0	
546.0	CARBONDALE		LIMESTONE	4.5	74.0	
541.5	CARBONDALE		SHALE	8.5	78.5	
533.0	CARBONDALE		LIMESTONE	3.0	87.0	
530.0	CARBONDALE		SHALE	19.0	90.0	
511.0	CARBONDALE	ST. DAVID	LIMESTONE	1.0	109.0	
510.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.5	110.0	
508.5	CARBONDALE	SPRINGFIELD	COAL	1.5	111.5	
507.0	CARBONDALE	SPRINGFIELD	CLAYSTONE & SILTSTONE	0.5	113.0	CLAY DIKE
506.5	CARBONDALE	SPRINGFIELD	COAL	3.0	113.5	
503.5	CARBONDALE		UNDERCLAY	1.5	116.5	

MAPID: 16723353000C VERSION: 1

PROJECT: NCRDS91

COUNTY: SANGAMON TWP/RNG: 16N 8W SECTION: 12 QUARTERS/FOOTAGES: 610' S line, 327' W line

QUADRANGLE: PLEASANT PLAINS LONGITUDE: -89.955413 GEOLOGIST: C TREWORYG

CONFIDENTIAL: N LATITUDE: 39.845401 DATE COLLECTED: 10 / 4 / 1981

SURFACE ELEVATION (FT.): 615.0 LOGGED (FT.): 138.0 LOG TYPE: Drillers Log

SOURCE: PHILLIPS COAL CO. SA-16 WELL TYPE: Coal Test

COMMENT: ONLY LOGGED COAL

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
546.0	CARBONDALE	HERRIN	COAL	1.2	69.0	
505.4	CARBONDALE	SPRINGFIELD	COAL	3.9	109.6	
501.5	CARBONDALE	SPRINGFIELD	SHALE	0.4	113.5	PARTING
501.1	CARBONDALE	SPRINGFIELD	COAL	0.8	113.9	

MAPID: 16722218000C VERSION: 1

PROJECT: NCRDS96

COUNTY: SANGAMON TWP/RNG: 16N 8W SECTION: 13 QUARTERS/FOOTAGES: 1320' N line, 1320' W line

QUADRANGLE: PLEASANT PLAINS LONGITUDE: -89.951826 GEOLOGIST: MCCRACKEN

CONFIDENTIAL: N LATITUDE: 39.84008 DATE COLLECTED:

SURFACE ELEVATION (FT.): 638.0 LOGGED (FT.): 132.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON R169 WELL TYPE: Coal Test

COMMENT: DEPTHS UNCERTAIN-LOG IS FAINT

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
638.0	PLEISTOCENE		UNCONSOLIDATED	33.0	0.0	
605.0	CARBONDALE	DANVILLE	COAL	0.5	33.0	SHALEY
604.5	CARBONDALE		SHALE	4.0	33.5	
600.5	CARBONDALE		LIMESTONE	11.0	37.5	
589.5	CARBONDALE		SHALE	31.5	48.5	
558.0	CARBONDALE	ANNA	BLACK SHALE	1.2	80.0	
556.8	CARBONDALE	HERRIN	COAL	2.5	81.2	
554.3	CARBONDALE		SHALE	4.6	83.7	
549.7	CARBONDALE		LIMESTONE	32.6	88.3	
517.1	CARBONDALE	TURNER MINE	BLACK SHALE	3.6	120.9	
513.5	CARBONDALE	SPRINGFIELD	COAL	4.8	124.5	
508.7	CARBONDALE		SHALE	2.7	129.3	

MAPID: 16722219000C VERSION: 1

PROJECT: NCRDS96

COUNTY: SANGAMON TWP/RNG: 16N 8W SECTION: 13 QUARTERS/FOOTAGES: 940' N line, 2571' E line

QUADRANGLE: PLEASANT PLAINS LONGITUDE: -89.946824 GEOLOGIST: MCCRACKEN

CONFIDENTIAL: N LATITUDE: 39.841139 DATE COLLECTED: 5 / 5 / 1970

SURFACE ELEVATION (FT.): 637.0 LOGGED (FT.): 200.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON R171C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
637.0	PLEISTOCENE		UNCONSOLIDATED	35.6	0.0	
601.4			SHALE	4.0	35.6	
597.4			LIMESTONE	5.0	39.6	
592.4			SHALE	39.7	44.6	
552.7			DARK SHALE	8.3	84.3	
544.4			SHALE	1.4	92.6	
543.0			LIMESTONE	3.0	94.0	
540.0			SHALE	20.0	97.0	
520.0			LIMESTONE	16.0	117.0	
504.0	CARBONDALE	SPRINGFIELD	COAL	2.0	133.0	
502.0	CARBONDALE		SHALE	65.0	135.0	



MAPID: 16722220000C VERSION: 1

PROJECT: NCRDS96

COUNTY: SANGAMON TWP/RNG: 16N 8W SECTION: 13 QUARTERS/FOOTAGES: 1435' S line, 2310' W line

QUADRANGLE: PLEASANT PLAINS LONGITUDE: -89.948241 GEOLOGIST: MCCRACKEN

CONFIDENTIAL: N LATITUDE: 39.83319 DATE COLLECTED:

SURFACE ELEVATION (FT.): 635.0 LOGGED (FT.): 129.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON R70B WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
635.0	PLEISTOCENE		UNCONSOLIDATED	38.0	0.0	
597.0			LIMESTONE	4.0	38.0	
593.0			SHALE	13.0	42.0	
580.0			LIMESTONE & SHALE	7.0	55.0	
573.0			SHALE	22.0	62.0	
551.0			BLACK SHALE	0.5	84.0	
550.5			SHALE	5.5	84.5	
545.0			LIMESTONE	4.0	90.0	
541.0			SHALE	27.0	94.0	
514.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.0	121.0	
513.0	CARBONDALE	SPRINGFIELD	COAL	0.8	122.0	BONE
512.2	CARBONDALE	SPRINGFIELD	COAL	5.3	122.8	
506.9	CARBONDALE		UNDERCLAY	0.9	128.1	

MAPID: 16723354000C VERSION: 1

PROJECT: NCRDS91

COUNTY: SANGAMON TWP/RNG: 16N 8W SECTION: 13 QUARTERS/FOOTAGES: 25' S line, 16' E line

QUADRANGLE: PLEASANT PLAINS LONGITUDE: -89.93752 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 39.82932 DATE COLLECTED: 10 / 7 / 1981

SURFACE ELEVATION (FT.): 633.0 LOGGED (FT.): 151.0 LOG TYPE: Drillers Log

SOURCE: PHILLIPS COAL CO. SA-19 WELL TYPE: Coal Test

COMMENT: ONLY LOGGED COAL

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
503.0	CARBONDALE	SPRINGFIELD	COAL	2.6	130.0	

MAPID: 16722221000C VERSION: 1

PROJECT: NCRDS96

COUNTY: SANGAMON TWP/RNG: 16N 8W SECTION: 14 QUARTERS/FOOTAGES: 1655' N line, 2565' W line

QUADRANGLE: PLEASANT PLAINS LONGITUDE: -89.966181 GEOLOGIST: MCCRACKEN

CONFIDENTIAL: N LATITUDE: 39.83916 DATE COLLECTED: 7 / 28 / 1970

SURFACE ELEVATION (FT.): 638.0 LOGGED (FT.): 136.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON R138C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
638.0	PLEISTOCENE		UNCONSOLIDATED	55.0	0.0
583.0			LIMESTONE & SHALE	7.0	55.0
576.0			SHALE	26.0	62.0
550.0	CARBONDALE	HERRIN	SHALE/COAL	1.0	88.0
549.0	CARBONDALE		SHALE	7.0	89.0
542.0	CARBONDALE		LIMESTONE	3.5	96.0
538.5	CARBONDALE		SHALE	9.5	99.5
529.0	CARBONDALE		LIMESTONE	2.5	109.0
526.5	CARBONDALE		SHALE	16.5	111.5
510.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.5	128.0
508.5	CARBONDALE	SPRINGFIELD	COAL	5.3	129.5
503.2	CARBONDALE		UNDERCLAY	1.2	134.8

MAPID: 16722222000C VERSION: 1

PROJECT: NCRDS96

COUNTY: SANGAMON TWP/RNG: 16N 8W SECTION: 15 QUARTERS/FOOTAGES: 1295' N line, 1332' E line

QUADRANGLE: PLEASANT PLAINS LONGITUDE: -89.980133 GEOLOGIST: MCCRACKEN

CONFIDENTIAL: N LATITUDE: 39.840128 DATE COLLECTED: 7 / 23 / 1970

SURFACE ELEVATION (FT.): 637.0 LOGGED (FT.): 130.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON R157 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
637.0	PLEISTOCENE		UNCONSOLIDATED	65.0	0.0
572.0	CARBONDALE		SHALE	14.0	65.0
558.0	CARBONDALE	ANNA	BLACK SHALE	1.5	79.0
556.5	CARBONDALE	HERRIN	COAL	2.5	80.5
554.0	CARBONDALE		SHALE	5.0	83.0
549.0	CARBONDALE		LIMESTONE	7.0	88.0
542.0	CARBONDALE		SHALE	26.0	95.0
516.0	CARBONDALE	ST. DAVID	LIMESTONE	0.5	121.0
515.5	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	121.5
513.5	CARBONDALE	SPRINGFIELD	COAL	3.5	123.5
510.0	CARBONDALE		CALCAREOUS SHALE	3.0	127.0

MAPID: 16722223000C VERSION: 1

PROJECT: NCRDS96

COUNTY: SANGAMON TWP/RNG: 16N 8W SECTION: 15 QUARTERS/FOOTAGES: 20' N line, 1340' E line

QUADRANGLE: PLEASANT PLAINS LONGITUDE: -89.980161 GEOLOGIST: MCCRACKEN

CONFIDENTIAL: N LATITUDE: 39.843647 DATE COLLECTED: 0 / 0 / 1970

SURFACE ELEVATION (FT.): 637.0 LOGGED (FT.): 133.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON R307 WELL TYPE: Coal Test

COMMENT: LOG IS FAINT

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
637.0			NO RECORD	128.3	0.0	LOG TOO FAINT TO READ
508.7	CARBONDALE	TURNER MINE	BLACK SHALE	1.0	128.3	
507.7	CARBONDALE	SPRINGFIELD	COAL	1.7	129.3	
506.0	CARBONDALE		SHALE	2.0	131.0	

MAPID: 16722224000C VERSION: 1

PROJECT: NCRDS96

COUNTY: SANGAMON TWP/RNG: 16N 8W SECTION: 15 QUARTERS/FOOTAGES: 135' N line, 39' W line

QUADRANGLE: PLEASANT PLAINS LONGITUDE: -89.994176 GEOLOGIST: MCCRACKEN

CONFIDENTIAL: N LATITUDE: 39.843216 DATE COLLECTED:

SURFACE ELEVATION (FT.): 635.0 LOGGED (FT.): 135.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON R201 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
635.0	PLEISTOCENE		UNCONSOLIDATED	65.0	0.0	
570.0	CARBONDALE		LIMESTONE	2.5	65.0	
567.5	CARBONDALE		SHALE	3.5	67.5	
564.0	CARBONDALE		LIMESTONE	2.0	71.0	
562.0	CARBONDALE		CLAYSTONE & SHALE	19.0	73.0	
543.0	CARBONDALE	ANNA	BLACK SHALE	1.5	92.0	
541.5	CARBONDALE	HERRIN	COAL	1.0	93.5	
540.5	CARBONDALE		SHALE	2.5	94.5	
538.0	CARBONDALE		LIMESTONE	4.5	97.0	
533.5	CARBONDALE		SHALE	9.5	101.5	
524.0	CARBONDALE		LIMESTONE	3.0	111.0	
521.0	CARBONDALE		SHALE	13.0	114.0	
508.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.0	127.0	
507.0	CARBONDALE	SPRINGFIELD	COAL	1.0	128.0	BONE
506.0	CARBONDALE	SPRINGFIELD	COAL	5.5	129.0	
500.5	CARBONDALE		UNDERCLAY	0.5	134.5	

MAPID: 16722225000C VERSION: 1

PROJECT: NCRDS96

COUNTY: SANGAMON TWP/RNG: 16N 8W SECTION: 22 QUARTERS/FOOTAGES: 200' S line, 2605' E line

QUADRANGLE: PLEASANT PLAINS LONGITUDE: -89.984489 GEOLOGIST: MCCRACKEN

CONFIDENTIAL: N LATITUDE: 39.81512 DATE COLLECTED: 7 / 25 / 1970

SURFACE ELEVATION (FT.): 642.0 LOGGED (FT.): 135.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON V405J WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
642.0	PLEISTOCENE		UNCONSOLIDATED	40.0	0.0	
602.0			LIMESTONE	6.0	40.0	
596.0			SHALE	43.0	46.0	
553.0	CARBONDALE	ANNA	BLACK SHALE	2.0	89.0	
551.0	CARBONDALE		LIMESTONE	4.0	91.0	
547.0	CARBONDALE		SHALE	7.0	95.0	
540.0	CARBONDALE		LIMESTONE & SHALE	10.0	102.0	
530.0	CARBONDALE		SHALE	16.5	112.0	
513.5	CARBONDALE	TURNER MINE	BLACK SHALE	1.5	128.5	
512.0	CARBONDALE	SPRINGFIELD	COAL	0.5	130.0	BONEY
511.5	CARBONDALE	SPRINGFIELD	COAL	4.0	130.5	
507.5	CARBONDALE		UNDERCLAY	0.5	134.5	

MAPID: 16722226000C VERSION: 1

PROJECT: NCRDS96

COUNTY: SANGAMON TWP/RNG: 16N 8W SECTION: 22 QUARTERS/FOOTAGES: 1560' S line, 2510' E line

QUADRANGLE: PLEASANT PLAINS LONGITUDE: -89.984204 GEOLOGIST: MCCRACKEN

CONFIDENTIAL: N LATITUDE: 39.818875 DATE COLLECTED: 7 / 27 / 1970

SURFACE ELEVATION (FT.): 638.0 LOGGED (FT.): 150.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON V455J WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
638.0	PLEISTOCENE		UNCONSOLIDATED	40.0	0.0	
598.0			LIMESTONE	3.5	40.0	
594.5			SHALE	15.5	43.5	
579.0			LIMESTONE	2.0	59.0	
577.0			SHALE	31.0	61.0	
546.0			LIMESTONE	13.0	92.0	
533.0			SHALE	21.0	105.0	
512.0			LIMESTONE	8.0	126.0	
504.0	CARBONDALE	TURNER MINE	BLACK SHALE	0.5	134.0	
503.5	CARBONDALE	SPRINGFIELD	COAL	0.5	134.5	
503.0	CARBONDALE		SHALE	15.0	135.0	W/LIME STREAKS

MAPID: 1672227000C VERSION: 1

PROJECT: NCRDS96

COUNTY: SANGAMON TWP/RNG: 16N 8W SECTION: 23 QUARTERS/FOOTAGES: 1320' N line, 5' W line

QUADRANGLE: PLEASANT PLAINS LONGITUDE: -89.9753 GEOLOGIST: MCCRACKEN

CONFIDENTIAL: N LATITUDE: 39.825455 DATE COLLECTED: 0 / 0 / 1970

SURFACE ELEVATION (FT.): 635.0 LOGGED (FT.): 136.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON V459 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
635.0	PLEISTOCENE		UNCONSOLIDATED	42.0	0.0	
593.0	PLEISTOCENE		CLAY	45.0	42.0	
548.0	CARBONDALE	HERRIN	BLACK SHALE	1.0	87.0	WITH COAL
547.0	CARBONDALE		LIMESTONE	8.0	88.0	
539.0	CARBONDALE		SHALE	27.0	96.0	
512.0	CARBONDALE	ST. DAVID	LIMESTONE	6.0	123.0	
506.0	CARBONDALE	TURNER MINE	SHALE	1.0	129.0	
505.0	CARBONDALE	SPRINGFIELD	COAL	2.5	130.0	
502.5			UNDERCLAY	3.5	132.5	W/SH

MAPID: 1672228000C VERSION: 1

PROJECT: NCRDS96

COUNTY: SANGAMON TWP/RNG: 16N 8W SECTION: 23 QUARTERS/FOOTAGES: 2625' S line, 40' W line

QUADRANGLE: PLEASANT PLAINS LONGITUDE: -89.975122 GEOLOGIST: MCCRACKEN

CONFIDENTIAL: N LATITUDE: 39.821849 DATE COLLECTED: 7 / 23 / 1970

SURFACE ELEVATION (FT.): 638.0 LOGGED (FT.): 135.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON V509 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
638.0	PLEISTOCENE		UNCONSOLIDATED	41.0	0.0	
597.0	PLEISTOCENE		CLAY	43.0	41.0	
554.0	CARBONDALE	HERRIN	COAL WITH SHALE	1.5	84.0	
552.5	CARBONDALE		SHALE	5.5	85.5	
547.0	CARBONDALE		LIMESTONE	4.0	91.0	
543.0	CARBONDALE		SHALE	16.0	95.0	
527.0	CARBONDALE		LIMESTONE	3.0	111.0	
524.0	CARBONDALE		SHALE	7.5	114.0	
516.5	CARBONDALE	ST. DAVID	LIMESTONE	7.5	121.5	
509.0	CARBONDALE	SPRINGFIELD	COAL	1.5	129.0	
507.5	CARBONDALE		SHALE	4.5	130.5	

MAPID: 1672229000C VERSION: 1

PROJECT: NCRDS96

COUNTY: SANGAMON TWP/RNG: 16N 8W SECTION: 23 QUARTERS/FOOTAGES: 2640' S line, 1320' W line

QUADRANGLE: PLEASANT PLAINS LONGITUDE: -89.97054 GEOLOGIST: MCCracken

CONFIDENTIAL: N LATITUDE: 39.8219 DATE COLLECTED: 7 / 25 / 1970

SURFACE ELEVATION (FT.): 637.0 LOGGED (FT.): 133.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON V511 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
637.0	PLEISTOCENE		UNCONSOLIDATED	60.0	0.0
577.0			LIMESTONE & SHALE	6.0	60.0
571.0			SHALE	22.0	66.0
549.0	CARBONDALE	ANNA	BLACK SHALE	2.0	88.0
547.0	CARBONDALE		SHALE	6.0	90.0
541.0	CARBONDALE		LIMESTONE	5.0	96.0
536.0	CARBONDALE		SHALE	21.0	101.0
515.0	CARBONDALE	ST. DAVID	LIMESTONE	5.0	122.0
510.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.5	127.0
508.5	CARBONDALE	SPRINGFIELD	COAL	3.5	128.5
505.0	CARBONDALE		UNDERCLAY	1.0	132.0

MAPID: 16722230000C VERSION: 1

PROJECT: NCRDS96

COUNTY: SANGAMON TWP/RNG: 16N 8W SECTION: 23 QUARTERS/FOOTAGES: 2640' N line, 2640' W line

QUADRANGLE: PLEASANT PLAINS LONGITUDE: -89.965815 GEOLOGIST: MCCracken

CONFIDENTIAL: N LATITUDE: 39.821869 DATE COLLECTED: 0 / 0 / 1970

SURFACE ELEVATION (FT.): 638.0 LOGGED (FT.): 134.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON V513 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
638.0	PLEISTOCENE		UNCONSOLIDATED	57.0	0.0
581.0			SHALE	26.0	57.0
555.0	CARBONDALE	ANNA	BLACK SHALE	2.0	83.0
553.0	CARBONDALE		SHALE	6.0	85.0
547.0	CARBONDALE		LIMESTONE	5.5	91.0
541.5	CARBONDALE		SHALE	32.5	96.5
509.0	CARBONDALE	SPRINGFIELD	COAL	1.5	129.0
507.5			UNDERCLAY	3.5	130.5 W/SH

MAPID: 16722231000C VERSION: 1

PROJECT: NCRDS96

COUNTY: SANGAMON TWP/RNG: 16N 8W SECTION: 23 QUARTERS/FOOTAGES: 2320' N line, 42' E line  
 QUADRANGLE: PLEASANT PLAINS LONGITUDE: -89.956604 GEOLOGIST: MCCRACKEN  
 CONFIDENTIAL: N LATITUDE: 39.822805 DATE COLLECTED: 8 / 24 / 1970  
 SURFACE ELEVATION (FT.): 637.0 LOGGED (FT.): 130.0 LOG TYPE: Drillers Log  
 SOURCE: COMMONWEALTH EDISON V517C WELL TYPE: Coal Test  
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
637.0	PLEISTOCENE		UNCONSOLIDATED	56.0	0.0	
581.0			LIMESTONE & SHALE	4.0	56.0	
577.0			SHALE	17.0	60.0	
560.0	CARBONDALE	ANNA	BLACK SHALE	3.0	77.0	
557.0	CARBONDALE	HERRIN	COAL	1.5	80.0	
555.5	CARBONDALE		SHALE	11.5	81.5	LIME BANDS
544.0	CARBONDALE		LIMESTONE	3.0	93.0	
541.0	CARBONDALE		SHALE	22.5	96.0	
518.5	CARBONDALE	ST. DAVID	LIMESTONE	4.0	118.5	
514.5	CARBONDALE	TURNER MINE	DARK SHALE	2.5	122.5	
512.0	CARBONDALE	SPRINGFIELD	COAL	3.5	125.0	
508.5	CARBONDALE		UNDERCLAY	1.5	128.5	

MAPID: 16722232000C VERSION: 1

PROJECT: NCRDS96

COUNTY: SANGAMON TWP/RNG: 16N 8W SECTION: 23 QUARTERS/FOOTAGES: 55' N line, 30' W line  
 QUADRANGLE: PLEASANT PLAINS LONGITUDE: -89.975263 GEOLOGIST: MCCRACKEN  
 CONFIDENTIAL: N LATITUDE: 39.828947 DATE COLLECTED: 7 / 27 / 1970  
 SURFACE ELEVATION (FT.): 638.0 LOGGED (FT.): 131.0 LOG TYPE: Drillers Log  
 SOURCE: COMMONWEALTH EDISON V609 WELL TYPE: Coal Test  
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
638.0	PLEISTOCENE		UNCONSOLIDATED	68.0	0.0	
570.0			LIMESTONE	7.0	68.0	
563.0			SHALE	5.0	75.0	
558.0	CARBONDALE	HERRIN	COAL	1.5	80.0	
556.5	CARBONDALE		SHALE	7.5	81.5	
549.0	CARBONDALE		LIMESTONE	5.0	89.0	
544.0	CARBONDALE		SHALE	22.0	94.0	
522.0	CARBONDALE		LIMESTONE	11.0	116.0	
511.0	CARBONDALE	SPRINGFIELD	COAL	3.0	127.0	
508.0	CARBONDALE		UNDERCLAY	1.0	130.0	

MAPID: 16722233000C VERSION: 1

PROJECT: NCRDS96

COUNTY: SANGAMON TWP/RNG: 16N 8W SECTION: 23 QUARTERS/FOOTAGES: 5' N line, 2640' E line

QUADRANGLE: PLEASANT PLAINS LONGITUDE: -89.965939 GEOLOGIST: MCCRACKEN

CONFIDENTIAL: N LATITUDE: 39.829142 DATE COLLECTED: 0 / 0 / 1970

SURFACE ELEVATION (FT.): 638.0 LOGGED (FT.): 128.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON V613 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
638.0	PLEISTOCENE		UNCONSOLIDATED	55.0	0.0	
583.0			LIMESTONE	3.0	55.0	
580.0			SHALE	21.0	58.0	
559.0	CARBONDALE	ANNA	BLACK SHALE	1.0	79.0	
558.0	CARBONDALE	HERRIN	COAL	2.0	80.0	
556.0	CARBONDALE		SHALE	5.0	82.0	
551.0	CARBONDALE		LIMESTONE	5.0	87.0	
546.0	CARBONDALE		SHALE	28.0	92.0	
518.0	CARBONDALE	ST. DAVID	LIMESTONE	0.5	120.0	
517.5	CARBONDALE	TURNER MINE	BLACK SHALE	1.5	120.5	BONEY
516.0	CARBONDALE	SPRINGFIELD	COAL	5.4	122.0	
510.6	CARBONDALE		UNDERCLAY	0.6	127.4	

MAPID: 16722234000C VERSION: 1

PROJECT: NCRDS96

COUNTY: SANGAMON TWP/RNG: 16N 8W SECTION: 23 QUARTERS/FOOTAGES: 200' S line, 20' W line

QUADRANGLE: PLEASANT PLAINS LONGITUDE: -89.975094 GEOLOGIST: MCCRACKEN

CONFIDENTIAL: N LATITUDE: 39.815155 DATE COLLECTED: 0 / 0 / 1970

SURFACE ELEVATION (FT.): 632.0 LOGGED (FT.): 146.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON V409J WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
632.0	PLEISTOCENE		UNCONSOLIDATED	72.0	0.0	
560.0			LIMESTONE	4.0	72.0	
556.0			SHALE	20.0	76.0	
536.0	CARBONDALE	ANNA	DARK SHALE	2.5	96.0	
533.5	CARBONDALE	HERRIN	COAL	2.0	98.5	
531.5	CARBONDALE		SHALE	17.5	100.5	
514.0	CARBONDALE		LIMESTONE	3.0	118.0	
511.0	CARBONDALE		SHALE	18.0	121.0	
493.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.0	139.0	
492.0	CARBONDALE	SPRINGFIELD	COAL	5.2	140.0	
486.8	CARBONDALE		UNDERCLAY	0.8	145.2	



MAPID: 16723355000C    VERSION: 1

PROJECT: NCRDS91

COUNTY: SANGAMON    TWP/RNG: 16N 8W    SECTION: 23    QUARTERS/FOOTAGES: 75' S line, 17' E line

QUADRANGLE: PLEASANT PLAINS    LONGITUDE: -89.956452    GEOLOGIST: C TREWORY

CONFIDENTIAL: N    LATITUDE: 39.814857    DATE COLLECTED: 9 / 30 / 1981

SURFACE ELEVATION (FT.): 637.0    LOGGED (FT.): 282.0    LOG TYPE: Drillers Log

SOURCE: PHILLIPS COAL CO.    SA-2    WELL TYPE: Coal Test

COMMENT: ONLY LOGGED COAL

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
510.4	CARBONDALE	SPRINGFIELD	COAL	1.2	126.6	
392.8	CARBONDALE	COLCHESTER	COAL	0.6	244.2	
392.2	CARBONDALE	COLCHESTER	SHALE	0.4	244.8	PARTING
391.8	CARBONDALE	COLCHESTER	COAL	1.3	245.2	

---

MAPID: 16700636000C    VERSION: 1

PROJECT: NCRDS96

COUNTY: SANGAMON    TWP/RNG: 16N 8W    SECTION: 24    QUARTERS/FOOTAGES: 50' N line, 1600' E line

QUADRANGLE: PLEASANT PLAINS    LONGITUDE: -89.943189    GEOLOGIST: MCCRACKEN

CONFIDENTIAL: N    LATITUDE: 39.8291    DATE COLLECTED: 12 / 13 / 1958

SURFACE ELEVATION (FT.): 632.0    LOGGED (FT.): 136.0    LOG TYPE: Drillers Log

SOURCE: DONAN    TP-15    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
632.0	PLEISTOCENE		UNCONSOLIDATED	35.0	0.0	
597.0			SHALE	1.3	35.0	
595.7			LIMESTONE	1.6	36.3	
594.1			SHALE	1.7	37.9	
592.4			COAL	0.2	39.6	
592.2			CLAYSTONE & SILTSTONE	4.8	39.8	
587.4			LIMESTONE	2.8	44.6	
584.6			CLAYSTONE & SILTSTONE	2.1	47.4	
582.5			SHALE	0.1	49.5	
582.4			CLAYSTONE & SILTSTONE	13.3	49.6	
569.1			LIMESTONE	1.3	62.9	
567.7			CLAYSTONE & SILTSTONE	23.0	64.3	
544.7			CLAYSTONE & SILTSTONE	0.3	87.3	W/COAL INTERBEDS
544.5			COAL	0.3	87.5	
544.2			UNDERCLAY	0.6	87.8	
543.7			LIMESTONE	0.8	88.3	
542.9			CLAYSTONE & SILTSTONE	0.7	89.1	
542.2			LIMESTONE	0.3	89.8	
541.9			CLAYSTONE & SILTSTONE	0.6	90.1	
541.3			BLACK SHALE	0.3	90.7	
541.1			CLAYSTONE & SILTSTONE	3.6	90.9	
537.5			LIMESTONE	2.0	94.5	
535.5			CLAYSTONE & SILTSTONE	0.3	96.5	
535.2			LIMESTONE	2.3	96.8	
532.9			CLAYSTONE & SILTSTONE	1.4	99.1	
531.5			CLAYSTONE & SILTSTONE	0.3	100.5	DARK GREEN & BLACK
531.2			LIMESTONE	0.3	100.8	
531.0			CLAYSTONE & SILTSTONE	0.1	101.0	
530.9			BLACK SHALE	0.1	101.1	
530.8			SHALE	6.3	101.2	
524.5			LIMESTONE & SHALE	7.3	107.5	
517.2			LIMESTONE	2.3	114.8	
514.8			CLAYSTONE & SILTSTONE	1.8	117.2	BLACK STREAKS
513.0			SHALE	3.0	119.0	
510.0			LIMESTONE	9.0	122.0	
501.0	CARBONDALE	HERRIN	COAL	2.8	131.0	
498.2			SHALE	2.3	133.8	

MAPID: 16700636000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 16N 8W SECTION: 24 QUARTERS/FOOTAGES: 50' N line, 1600' E line

QUADRANGLE: PLEASANT PLAINS LONGITUDE: -89.943189

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.8291

DATE COLLECTED:

SURFACE ELEVATION (FT.): 632.0

LOGGED (FT.): 133.8

LOG TYPE: Drillers Log

SOURCE: D.C. DONAN TP-15

WELL TYPE: Coal Test

COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
535.1	MODESTO	PIASA	LIMESTONE/UNDERCLAY	2.3	96.9
532.8	MODESTO		DARK GRAY SHALE	2.0	99.2
530.8	CARBONDALE		MOTTLED SHALE	13.7	101.2
517.2	CARBONDALE	BANKSTON FORK	NODULAR LIMESTONE	2.3	114.8
514.8	CARBONDALE	LAWSON	MOTTLED SHALE	1.8	117.2
513.0	CARBONDALE	LAWSON	CALCAREOUS SHALE	3.0	119.0
510.0	CARBONDALE	BRERETON	LIMESTONE	9.0	122.0
501.0	CARBONDALE	HERRIN	COAL	2.8	131.0

MAPID: 16722235000C VERSION: 1

PROJECT: NCRDS96

COUNTY: SANGAMON TWP/RNG: 16N 8W SECTION: 24 QUARTERS/FOOTAGES: 25' N line, 2320' W line

QUADRANGLE: PLEASANT PLAINS LONGITUDE: -89.94818

GEOLOGIST: MCCRACKEN

CONFIDENTIAL: N LATITUDE: 39.829161

DATE COLLECTED: 0 / 0 / 1970

SURFACE ELEVATION (FT.): 632.0

LOGGED (FT.): 127.0

LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON V620

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
632.0	PLEISTOCENE		UNCONSOLIDATED	32.0	0.0
600.0			LIMESTONE	8.0	32.0
592.0			SHALE	12.0	40.0
580.0			LIMESTONE	8.0	52.0
572.0			SHALE	20.0	60.0
552.0	CARBONDALE		LIMESTONE	6.0	80.0
546.0	CARBONDALE		SHALE	12.0	86.0
534.0	CARBONDALE		LIMESTONE	3.0	98.0
531.0	CARBONDALE		SHALE	15.0	101.0
516.0	CARBONDALE	ST. DAVID	LIMESTONE	1.5	116.0
514.5	CARBONDALE	TURNER MINE	BLACK SHALE	2.5	117.5
512.0	CARBONDALE	SPRINGFIELD	COAL	1.5	120.0
510.5	CARBONDALE	SPRINGFIELD	COAL	3.0	121.5
507.5	CARBONDALE		SHALE	2.5	124.5

VERY BONEY  
W/LIME

MAPID: 16722236000C VERSION: 1

PROJECT: NCRDS96

COUNTY: SANGAMON TWP/RNG: 16N 8W SECTION: 24 QUARTERS/FOOTAGES: 2640' N line, 2640' E line

QUADRANGLE: PLEASANT PLAINS LONGITUDE: -89.946856 GEOLOGIST: MCCRACKEN

CONFIDENTIAL: N LATITUDE: 39.821946 DATE COLLECTED: 8 / 25 / 1970

SURFACE ELEVATION (FT.): 634.0 LOGGED (FT.): 131.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON V521 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
634.0	PLEISTOCENE		UNCONSOLIDATED	48.0	0.0
586.0			SHALE	6.0	48.0
580.0			LIMESTONE & SHALE	6.0	54.0
574.0			SHALE	19.0	60.0
555.0	CARBONDALE	ANNA	DARK SHALE	2.0	79.0
553.0	CARBONDALE	HERRIN	COAL	0.5	81.0
552.5	CARBONDALE		SHALE	7.5	81.5
545.0	CARBONDALE		LIMESTONE	4.0	89.0
541.0	CARBONDALE		SHALE	32.0	93.0
509.0	CARBONDALE	ST. DAVID	LIMESTONE	0.5	125.0
508.5	CARBONDALE	TURNER MINE	BLACK SHALE	1.0	125.5
507.5	CARBONDALE	SPRINGFIELD	COAL	4.0	126.5
503.5	CARBONDALE		UNDERCLAY	0.5	130.5

MAPID: 16723356000C VERSION: 1

PROJECT: NCRDS91

COUNTY: SANGAMON TWP/RNG: 16N 8W SECTION: 24 QUARTERS/FOOTAGES: 201' S line, 8' W line

QUADRANGLE: PLEASANT PLAINS LONGITUDE: -89.956365 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 39.815202 DATE COLLECTED: 9 / 30 / 1981

SURFACE ELEVATION (FT.): 630.0 LOGGED (FT.): 281.0 LOG TYPE: Drillers Log

SOURCE: PHILLIPS COAL CO. SA-4 WELL TYPE: Coal Test

COMMENT: ONLY LOGGED COAL

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
506.8	CARBONDALE	SPRINGFIELD	COAL	3.4	123.2
387.5	CARBONDALE	COLCHESTER	COAL	1.9	242.5

MAPID: 16722237000C VERSION: 1

PROJECT: NCRDS96

COUNTY: SANGAMON TWP/RNG: 16N 8W SECTION: 25 QUARTERS/FOOTAGES: 5' N line, 2640' E line  
 QUADRANGLE: PLEASANT PLAINS LONGITUDE: -89.946798 GEOLOGIST: MCCRACKEN  
 CONFIDENTIAL: N LATITUDE: 39.814656 DATE COLLECTED: 5 / 5 / 1970  
 SURFACE ELEVATION (FT.): 633.0 LOGGED (FT.): 136.0 LOG TYPE: Drillers Log  
 SOURCE: COMMONWEALTH EDISON V421 WELL TYPE: Coal Test  
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
633.0	PLEISTOCENE		UNCONSOLIDATED	53.0	0.0
580.0			LIMESTONE	1.0	53.0
579.0	CARBONDALE		CALCAREOUS SHALE	30.0	54.0
549.0	CARBONDALE	ANNA	BLACK SHALE	0.9	84.0
548.1	CARBONDALE	HERRIN	COAL	0.6	84.9 W/SH
547.5	CARBONDALE		SHALE	9.5	85.5
538.0	CARBONDALE		LIMESTONE	4.5	95.0
533.5	CARBONDALE		SHALE	28.8	99.5
504.7	CARBONDALE	TURNER MINE	BLACK SHALE	1.4	128.3
503.3	CARBONDALE	SPRINGFIELD	COAL	4.6	129.7
498.7	CARBONDALE		UNDERCLAY	1.7	134.3

MAPID: 16723357000C VERSION: 1

PROJECT: NCRDS91

COUNTY: SANGAMON TWP/RNG: 16N 8W SECTION: 25 QUARTERS/FOOTAGES: 65' S line, 1318' E line  
 QUADRANGLE: PLEASANT PLAINS LONGITUDE: -89.942002 GEOLOGIST: C TREWORGY  
 CONFIDENTIAL: N LATITUDE: 39.800363 DATE COLLECTED: 10 / 4 / 1981  
 SURFACE ELEVATION (FT.): 630.0 LOGGED (FT.): 242.0 LOG TYPE: Drillers Log  
 SOURCE: PHILLIPS COAL CO. SA-15 WELL TYPE: Coal Test  
 COMMENT: ONLY LOGGED COAL

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
485.4	CARBONDALE	SPRINGFIELD	COAL	2.8	144.6

MAPID: 16723358000C VERSION: 1

PROJECT: NCRDS91

COUNTY: SANGAMON TWP/RNG: 16N 8W SECTION: 25 QUARTERS/FOOTAGES: 65' N line, 1317' W line  
 QUADRANGLE: PLEASANT PLAINS LONGITUDE: -89.951675 GEOLOGIST: C TREWORGY  
 CONFIDENTIAL: N LATITUDE: 39.81448 DATE COLLECTED: 10 / 6 / 1981  
 SURFACE ELEVATION (FT.): 632.0 LOGGED (FT.): 152.0 LOG TYPE: Drillers Log  
 SOURCE: PHILLIPS COAL CO. SA-18 WELL TYPE: Coal Test  
 COMMENT: ONLY LOGGED COAL

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
501.9	CARBONDALE	SPRINGFIELD	COAL	3.1	130.1

MAPID: 16725546000C    VERSION: 1

PROJECT: NCRDS95

COUNTY: SANGAMON    TWP/RNG: 16N 8W    SECTION: 25    QUARTERS/FOOTAGES:

QUADRANGLE: PLEASANT PLAINS    LONGITUDE: -89.947099

GEOLOGIST: C TREWORYG

CONFIDENTIAL: N    LATITUDE: 39.814592

DATE COLLECTED: 0 / 0 / 1981

SURFACE ELEVATION (FT.): 632.0    LOGGED (FT.): 260.0

LOG TYPE: Drillers Log

SOURCE: UTAH INTERNATIONAL    SAN8104

WELL TYPE: Coal Test

COMMENT: UTM COORDS SURVEYED BY CO.

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
632.0			UNKNOWN	52.0	0.0
580.0			SANDY SHALE	8.0	52.0
572.0			SHALE WITH LIMESTONE	2.0	60.0
570.0	CARBONDALE		SHALE W/ COAL STREAKS	3.0	62.0
567.0	CARBONDALE		GRAY SHALE	16.0	65.0
551.0	CARBONDALE		BLACK SHALE	3.0	81.0
548.0	CARBONDALE		LIMESTONE	1.0	84.0
547.0	CARBONDALE		DARK CLAYSTONE	3.0	85.0
544.0	CARBONDALE		SANDY SHALE	2.0	88.0
542.0	CARBONDALE		SANDY SHALE	4.0	90.0
538.0	CARBONDALE		SANDY SHALE	1.0	94.0
537.0	CARBONDALE		LIMESTONE	3.0	95.0
534.0	CARBONDALE		GRAY SHALE	3.0	98.0
531.0	CARBONDALE		SANDY SHALE	8.0	101.0
523.0	CARBONDALE		SANDY SHALE	4.0	109.0
519.0	CARBONDALE		SANDY SHALE	4.0	113.0
515.0	CARBONDALE		SANDY SHALE	11.0	117.0
504.0	CARBONDALE		GRAY SHALE	3.0	128.0
501.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	131.0
499.0	CARBONDALE	SPRINGFIELD	COAL	0.5	133.0
498.5	CARBONDALE	SPRINGFIELD	COAL W/ PYRITE	0.4	133.5
498.1	CARBONDALE	SPRINGFIELD	COAL	0.8	133.9
497.3	CARBONDALE		SANDY SHALE	4.3	134.7
493.0	CARBONDALE		SANDY SHALE	4.0	139.0
489.0	CARBONDALE	EXCELLO	BLACK SHALE	2.0	143.0
487.0	CARBONDALE		GRAY SHALE	3.0	145.0
484.0	CARBONDALE		SANDY SHALE	3.0	148.0
481.0	CARBONDALE		SANDY SHALE	33.0	151.0
448.0	CARBONDALE		SANDY SHALE	28.0	184.0
420.0	CARBONDALE		LIMESTONE	1.0	212.0
419.0	CARBONDALE		GRAY SHALE	3.0	213.0
416.0	CARBONDALE		SANDY SHALE	3.0	216.0
413.0	CARBONDALE		SANDY SHALE	9.0	219.0
404.0	CARBONDALE		GRAY SHALE	9.0	228.0
395.0	CARBONDALE		SANDY SHALE	5.0	237.0
390.0	CARBONDALE		GRAY SHALE	2.0	242.0
388.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	3.4	244.0
384.6	CARBONDALE	COLCHESTER	COAL	2.1	247.4
382.5			SANDY CLAYSTONE	2.5	249.5

380.0	CLAYSTONE & LIMESTONE	1.0	252.0
379.0	SANDY SHALE	3.0	253.0
376.0	LIMESTONE	1.0	256.0
375.0	GRAY SHALE	3.0	257.0

**MAPID:** 16722238000C    **VERSION:** 1    **PROJECT:** NCRDS96  
**COUNTY:** SANGAMON    **TWP/RNG:** 16N 8W    **SECTION:** 26    **QUARTERS/FOOTAGES:** 1710' S line, 2590' W line  
**QUADRANGLE:** PLEASANT PLAINS    **LONGITUDE:** -89.965806    **GEOLOGIST:** MCCRACKEN  
**CONFIDENTIAL:** N    **LATITUDE:** 39.804826    **DATE COLLECTED:** 8 / 27 / 1970  
**SURFACE ELEVATION (FT.):** 620.0    **LOGGED (FT.):** 122.0    **LOG TYPE:** Drillers Log  
**SOURCE:** COMMONWEALTH EDISON    V263C    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
620.0	PLEISTOCENE		UNCONSOLIDATED	32.0	0.0	
588.0			SHALE	10.0	32.0	
578.0	CARBONDALE		BLACK SHALE	1.0	42.0	
577.0	CARBONDALE		SHALE	6.0	43.0	
571.0	CARBONDALE		LIMESTONE	33.0	49.0	
538.0	CARBONDALE		SHALE	18.0	82.0	LIMEBEDS
520.0	CARBONDALE		SHALE	16.0	100.0	
504.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.0	116.0	
503.0	CARBONDALE	SPRINGFIELD	COAL	4.0	117.0	
499.0	CARBONDALE		UNDERCLAY	1.0	121.0	

MAPID: 16722239000C VERSION: 1

PROJECT: NCRDS96

COUNTY: SANGAMON TWP/RNG: 16N 8W SECTION: 27 QUARTERS/FOOTAGES: 2640' S line, 2640' E line

QUADRANGLE: PLEASANT PLAINS LONGITUDE: -89.984546 GEOLOGIST: MCCRACKEN

CONFIDENTIAL: N LATITUDE: 39.807314 DATE COLLECTED: 0 / 0 / 1970

SURFACE ELEVATION (FT.): 628.0 LOGGED (FT.): 123.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON V305 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
628.0	PLEISTOCENE		UNCONSOLIDATED	48.0	0.0	
580.0			SHALE	30.0	48.0	
550.0	CARBONDALE	ANNA	BLACK SHALE	1.5	78.0	
548.5	CARBONDALE	HERRIN	COAL	1.0	79.5	
547.5	CARBONDALE		SHALE	3.5	80.5	
544.0	CARBONDALE		LIMESTONE	2.5	84.0	
541.5	CARBONDALE		SHALE	29.5	86.5	
512.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.0	116.0	
511.0	CARBONDALE	SPRINGFIELD	COAL	0.2	117.0	BONEY
510.8	CARBONDALE	SPRINGFIELD	COAL	5.1	117.2	
505.7	CARBONDALE		UNDERCLAY	0.8	122.3	

MAPID: 16723359000C VERSION: 1

PROJECT: NCRDS91

COUNTY: SANGAMON TWP/RNG: 16N 8W SECTION: 27 QUARTERS/FOOTAGES: 251' N line, 325' W line

QUADRANGLE: PLEASANT PLAINS LONGITUDE: -89.99288 GEOLOGIST: C TREWORYG

CONFIDENTIAL: N LATITUDE: 39.81384 DATE COLLECTED: 9 / 30 / 1981

SURFACE ELEVATION (FT.): 635.0 LOGGED (FT.): 262.0 LOG TYPE: Drillers Log

SOURCE: PHILLIPS COAL CO. SA-1 WELL TYPE: Coal Test

COMMENT: ONLY LOGGED COAL

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
504.2	CARBONDALE	SPRINGFIELD	COAL	1.4	130.8	
386.0	CARBONDALE	COLCHESTER	COAL	2.2	249.0	



MAPID: 16722274000C VERSION: 1

PROJECT: NCRDS96

COUNTY: SANGAMON TWP/RNG: 16N 8W SECTION: 34 QUARTERS/FOOTAGES: 575' N line, 2514' E line

QUADRANGLE: PLEASANT PLAINS LONGITUDE: -89.984012 GEOLOGIST: MCCRACKEN

CONFIDENTIAL: N LATITUDE: 39.798442 DATE COLLECTED: 5 / 6 / 1970

SURFACE ELEVATION (FT.): 640.0 LOGGED (FT.): 135.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON V180DA WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		UNCONSOLIDATED	44.0	0.0	
596.0			SHALE	9.5	44.0	
586.5			LIMESTONE	2.7	53.5	
583.8			SHALE	26.8	56.2	
557.0	CARBONDALE	ANNA	BLACK SHALE	2.4	83.0	
554.6	CARBONDALE	HERRIN	COAL	2.8	85.4	
551.8	CARBONDALE		SHALE	9.7	88.2	
542.1	CARBONDALE		LIMESTONE	1.6	97.9	
540.5	CARBONDALE		SHALE	26.2	99.5	
514.3	CARBONDALE	TURNER MINE	BLACK SHALE	0.9	125.7	
513.4	CARBONDALE	SPRINGFIELD	COAL	5.3	126.6	
508.1	CARBONDALE		UNDERCLAY	3.1	131.9	

MAPID: 16722277000C VERSION: 1

PROJECT: NCRDS96

COUNTY: SANGAMON TWP/RNG: 16N 8W SECTION: 34 QUARTERS/FOOTAGES: 5' S line, 2620' W line

QUADRANGLE: PLEASANT PLAINS LONGITUDE: -89.984266 GEOLOGIST: MCCRACKEN

CONFIDENTIAL: N LATITUDE: 39.785469 DATE COLLECTED: 0 / 0 / 1970

SURFACE ELEVATION (FT.): 632.0 LOGGED (FT.): 133.6 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON V4 WELL TYPE: Coal Test

COMMENT: DEPTHS AND THICKNESSES ILLEGIBLE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
632.0			UNKNOWN	133.6	0.0	SEE ORIGINAL LOG

MAPID: 16722281000C VERSION: 1

PROJECT: NCRDS96

COUNTY: SANGAMON TWP/RNG: 16N 8W SECTION: 36 QUARTERS/FOOTAGES: SW NW NW

QUADRANGLE: PLEASANT PLAINS LONGITUDE: -89.954972 GEOLOGIST: MCCRACKEN

CONFIDENTIAL: N LATITUDE: 39.797427 DATE COLLECTED: 5 / 7 / 1970

SURFACE ELEVATION (FT.): 648.0 LOGGED (FT.): 159.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON V142C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
648.0	PLEISTOCENE		UNCONSOLIDATED	23.0	0.0
625.0			SHALE	54.2	23.0
570.8			LIMESTONE	0.3	77.2
570.5			BLACK SHALE	1.4	77.5
569.1			SHALE	31.3	78.9
537.8			BLACK SHALE	2.5	110.2
535.3			SHALE	12.3	112.7
523.0			BLACK SHALE	0.8	125.0
522.2			SHALE	18.5	125.8
503.7	CARBONDALE	ST. DAVID	LIMESTONE	9.6	144.3
494.1	CARBONDALE	TURNER MINE	BLACK SHALE	0.8	153.9
493.3	CARBONDALE	SPRINGFIELD	COAL	0.6	154.7
492.7	CARBONDALE		SHALE	3.7	155.3

MAPID: 16701183000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 17N 1W SECTION: 19 QUARTERS/FOOTAGES: 1000' S line, 420' E line

QUADRANGLE: LATHAM LONGITUDE: -89.237987 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.905005 DATE COLLECTED:

SURFACE ELEVATION (FT.): 606.0 LOGGED (FT.): 317.0 LOG TYPE: Drillers Log

SOURCE: WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
374.0	MODESTO	PIASA	LIMESTONE	6.0	232.0
368.0	MODESTO		MOTTLED SHALE	50.0	238.0
318.0	CARBONDALE	DANVILLE	COAL	3.0	288.0
315.0	CARBONDALE	LAWSON	GRAY SHALE	12.0	291.0
303.0	CARBONDALE	LAWSON	SANDSTONE	1.0	303.0
302.0	CARBONDALE	LAWSON	GRAY SHALE	11.0	304.0
291.0	CARBONDALE	HERRIN	COAL	2.0	315.0

MAPID: 16701184000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 17N 1W SECTION: 30 QUARTERS/FOOTAGES: 25' S line, 25' W line

QUADRANGLE: LAKE FORK LONGITUDE: -89.254825

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.887952

DATE COLLECTED:

SURFACE ELEVATION (FT.): 604.0

LOGGED (FT.): 317.0

LOG TYPE: Drillers Log

SOURCE:

WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
394.0	MODESTO	PIASA	LIMESTONE	4.0	210.0	
390.0	MODESTO		MOTTLED SHALE	51.0	214.0	
339.0	CARBONDALE	DANVILLE	COAL	2.0	265.0	
337.0	CARBONDALE	LAWSON	GRAY SHALE	13.0	267.0	
324.0	CARBONDALE	LAWSON	SILTY SHALE	12.0	280.0	

MAPID: 16701185000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 17N 1W SECTION: 31 QUARTERS/FOOTAGES: 25' N line, 25' E line

QUADRANGLE: LATHAM LONGITUDE: -89.2366

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.887675

DATE COLLECTED:

SURFACE ELEVATION (FT.): 601.0

LOGGED (FT.): 294.0

LOG TYPE: Drillers Log

SOURCE:

WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
385.0	MODESTO	PIASA	LIMESTONE	5.0	216.0	
380.0	MODESTO		MOTTLED SHALE	46.0	221.0	
334.0	CARBONDALE	LAWSON	SILTY SHALE	13.0	267.0	
321.0	CARBONDALE	LAWSON	SHALE & SANDSTONE	5.0	280.0	
316.0	CARBONDALE	LAWSON	SILTY SHALE	4.0	285.0	
312.0	CARBONDALE	BRERETON	LIMESTONE AND SANDSTONE	2.0	289.0	
310.0	CARBONDALE	HERRIN	COAL	3.0	291.0	

MAPID: 16701898000C VERSION: 1

PROJECT: ISGS88

COUNTY: SANGAMON TWP/RNG: 17N 1W SECTION: 32 QUARTERS/FOOTAGES: NE NE NE

QUADRANGLE: LATHAM LONGITUDE: -89.219292 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 39.886898 DATE COLLECTED: 3 / 19 / 1973

SURFACE ELEVATION (FT.): 600.0 LOGGED (FT.): 326.0 LOG TYPE: Multiple log types

SOURCE: SANGAMON COUNTY LAND COMPANY WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, S.P.

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
600.0			UNCONSOLIDATED	80.0	0.0	
520.0	MODESTO		SHALE	30.0	80.0	
490.0	MODESTO	CHAPEL	COAL	2.0	110.0	CORRELATION UNCERTAIN
488.0	MODESTO		SHALE	30.0	112.0	
458.0	MODESTO		LIMESTONE	2.0	142.0	
456.0	MODESTO		SHALE	40.0	144.0	
416.0	MODESTO		LIMESTONE	12.0	184.0	
404.0	MODESTO		BLACK SHALE	4.0	196.0	
400.0	MODESTO		SHALE	10.0	200.0	
390.0	MODESTO		LIMESTONE	6.0	210.0	
384.0	MODESTO		SHALE	34.0	216.0	
350.0	CARBONDALE	DANVILLE	COAL	3.0	250.0	
347.0	CARBONDALE		SHALE	11.0	253.0	
336.0	CARBONDALE		LIMESTONE	4.0	264.0	
332.0	CARBONDALE	HERRIN	BLACK SHALE	2.0	268.0	
330.0	CARBONDALE		SHALE	44.0	270.0	
286.0	CARBONDALE	ST. DAVID	LIMESTONE	2.0	314.0	
284.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	316.0	
282.0	CARBONDALE	SPRINGFIELD	COAL	2.0	318.0	
280.0	CARBONDALE		UNCLASSIFIED	6.0	320.0	

MAPID: 16701967000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 17N 1W SECTION: 32 QUARTERS/FOOTAGES: 350' N line, 75' E line

QUADRANGLE: LATHAM LONGITUDE: -89.218414

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.886843

DATE COLLECTED:

SURFACE ELEVATION (FT.): 596.0 LOGGED (FT.): 274.0

LOG TYPE: Drillers Log

SOURCE: PIAMCO INC. 19

WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
406.0	MODESTO	PIASA	LIMESTONE/UNDERCLAY	7.0	190.0
399.0	MODESTO		LIMESTONE W/ SHALE	56.0	197.0
343.0	CARBONDALE	DANVILLE	COAL	2.0	253.0
341.0	CARBONDALE		GRAY SHALE	8.0	255.0
333.0	CARBONDALE	BANKSTON FORK	LIMESTONE	1.0	263.0
332.0	CARBONDALE	LAWSON	SILTY SHALE	2.0	264.0
330.0	CARBONDALE	BRERETON	LIMESTONE AND SANDSTONE	7.0	266.0
323.0	CARBONDALE	HERRIN	BLACK SHALE	1.0	273.0

MAPID: 16701967000C    VERSION: 2

PROJECT: ISGS88

COUNTY: SANGAMON    TWP/RNG: 17N 1W    SECTION: 32    QUARTERS/FOOTAGES: 350' N line, 75' E line

QUADRANGLE: LATHAM    LONGITUDE: -89.218414    GEOLOGIST: SROKA

CONFIDENTIAL: N    LATITUDE: 39.886843    DATE COLLECTED: 3 / 0 / 1973

SURFACE ELEVATION (FT.): 596.0    LOGGED (FT.): 326.0    LOG TYPE: Drillers Log

SOURCE: PIAMCO    WELL TYPE: Coal Test

COMMENT: DRILLERS LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
596.0			UNCONSOLIDATED	79.0	0.0	
517.0	MODESTO		SHALE	67.0	79.0	
450.0	MODESTO		SANDSTONE	10.0	146.0	
440.0	MODESTO		SHALE	2.0	156.0	
438.0	MODESTO		SANDSTONE	9.0	158.0	
429.0	MODESTO		SHALE	11.0	167.0	
418.0	MODESTO		SANDSTONE	12.0	178.0	
406.0	MODESTO		LIMESTONE	2.0	190.0	
404.0	MODESTO		SHALE	1.0	192.0	
403.0	MODESTO		LIMESTONE	4.0	193.0	
399.0	MODESTO		SHALE	2.0	197.0	
397.0	MODESTO		SHALE	2.0	199.0	
395.0	MODESTO		SHALE	4.0	201.0	
391.0	MODESTO		SHALE	5.0	205.0	
386.0	MODESTO		SHALE	2.0	210.0	
384.0	MODESTO		SHALE	1.0	212.0	
383.0	MODESTO		LIMESTONE	4.0	213.0	
379.0	MODESTO		SHALE	9.0	217.0	
370.0	MODESTO		LIMESTONE	2.0	226.0	
368.0	MODESTO		SHALE	4.0	228.0	
364.0	MODESTO		SHALE	7.0	232.0	
357.0	MODESTO		SHALE	2.0	239.0	
355.0	MODESTO		SHALE	2.0	241.0	
353.0	MODESTO		LIMESTONE	1.0	243.0	
352.0	MODESTO		SHALE	9.0	244.0	
343.0	CARBONDALE	DANVILLE	COAL	2.0	253.0	
341.0	CARBONDALE		SHALE	8.0	255.0	
333.0	CARBONDALE	BANKSTON FORK	LIMESTONE	1.0	263.0	
332.0	CARBONDALE		SHALE	2.0	264.0	
330.0	CARBONDALE	BRERETON	LIMESTONE	7.0	266.0	
323.0	CARBONDALE	HERRIN	BLACK SHALE	1.0	273.0	#6 COAL NOT PRESENT; CORREL. UNCERTAIN
322.0	CARBONDALE		SHALE	28.0	274.0	
294.0	CARBONDALE		SHALE	15.5	302.0	
278.5	CARBONDALE		LIMESTONE AND BLACK SHALE	3.0	317.5	
275.5	CARBONDALE	SPRINGFIELD	COAL	2.2	320.5	
273.3	CARBONDALE		SHALE/COAL	3.3	322.7	

MAPID: 16701968000C VERSION: 1

PROJECT: ISGS88

COUNTY: SANGAMON TWP/RNG: 17N 1W SECTION: 32 QUARTERS/FOOTAGES: 1650' N line, 40' E line

QUADRANGLE: LATHAM LONGITUDE: -89.218181 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 39.883257 DATE COLLECTED: 3 / 21 / 1973

SURFACE ELEVATION (FT.): 599.0 LOGGED (FT.): 339.2 LOG TYPE: Drillers Log

SOURCE: PIAMCO WELL TYPE: Coal Test

COMMENT: DRILLERS LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
599.0			UNCONSOLIDATED	91.0	0.0	
508.0	MODESTO		SHALE	27.0	91.0	
481.0	MODESTO		SHALE	28.0	118.0	
453.0	MODESTO	CHAPEL	COAL	1.5	146.0	
451.5	MODESTO		SHALE	45.5	147.5	
406.0	MODESTO		LIMESTONE	0.5	193.0	
405.5	MODESTO		SHALE	7.5	193.5	
398.0	MODESTO		LIMESTONE	5.5	201.0	
392.5	MODESTO		SHALE	4.5	206.5	
388.0	MODESTO		SHALE	17.0	211.0	
371.0	MODESTO		SHALE	3.0	228.0	
368.0	MODESTO		SANDSTONE/LIMESTONE	4.0	231.0	
364.0	MODESTO		SHALE	4.0	235.0	
360.0	MODESTO		LIMESTONE	0.5	239.0	
359.5	MODESTO		SHALE	23.5	239.5	
336.0	CARBONDALE	DANVILLE	COAL	3.0	263.0	
333.0	CARBONDALE		SHALE	5.0	266.0	
328.0	CARBONDALE	BANKSTON FORK	LIMESTONE	2.0	271.0	
326.0	CARBONDALE		SHALE	3.0	273.0	
323.0	CARBONDALE		LIMESTONE	5.0	276.0	
318.0	CARBONDALE		SHALE	6.0	281.0	
312.0	CARBONDALE		LIMESTONE	1.0	287.0	
311.0	CARBONDALE		SHALE	38.0	288.0	HERRIN COAL CUTOUT BY CHANNEL?
273.0	CARBONDALE	ST. DAVID	LIMESTONE	1.0	326.0	
272.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.5	327.0	
269.5	CARBONDALE	SPRINGFIELD	COAL	5.5	329.5	
264.0	CARBONDALE		SHALE	4.0	335.0	
260.0	CARBONDALE		LIMESTONE	0.2	339.0	

MAPID: 16701188000C    VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON    TWP/RNG: 17N 2W    SECTION: 19    QUARTERS/FOOTAGES: 990' S line, 400' E line

QUADRANGLE: LAKE FORK    LONGITUDE: -89.349972

GEOLOGIST:

CONFIDENTIAL: N    LATITUDE: 39.905933

DATE COLLECTED:

SURFACE ELEVATION (FT.): 594.0

LOGGED (FT.): 279.0

LOG TYPE: Drillers Log

SOURCE:

WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
386.0	MODESTO	PIASA	LIMESTONE	1.0	208.0
385.0	MODESTO		CALCAREOUS SHALE	46.0	209.0
339.0	CARBONDALE	BANKSTON FORK	LIMESTONE AND SANDSTONE	3.0	255.0
336.0	CARBONDALE	LAWSON	SANDSTONE	15.0	258.0
319.0	CARBONDALE	HERRIN	COAL	4.0	275.0

---



MAPID: 16701943000C VERSION: 1

PROJECT: ISGS88

COUNTY: SANGAMON TWP/RNG: 17N 2W SECTION: 20 QUARTERS/FOOTAGES: 2575' N line, 680' W line

QUADRANGLE: LAKE FORK LONGITUDE: -89.346067

GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 39.91052

DATE COLLECTED: 9 / 26 / 1973

SURFACE ELEVATION (FT.): 593.0

LOGGED (FT.): 335.0

LOG TYPE: Drillers Log

SOURCE: PIAMCO

WELL TYPE: Coal Test

COMMENT: DRILLERS LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
593.0			UNCONSOLIDATED	142.0	0.0	
451.0	MODESTO		SANDSTONE	3.0	142.0	
448.0	MODESTO	CHAPEL	COAL	2.0	145.0	
446.0	MODESTO		SHALE	17.0	147.0	
429.0	MODESTO		LIMESTONE	1.0	164.0	
428.0	MODESTO		SHALE	44.5	165.0	
383.5	MODESTO		LIMESTONE	1.5	209.5	
382.0	MODESTO		SHALE	4.0	211.0	
378.0	MODESTO		SHALE	2.0	215.0	
376.0	MODESTO		SHALE	6.5	217.0	
369.5	MODESTO		LIMESTONE	2.5	223.5	
367.0	MODESTO		SHALE	12.0	226.0	
355.0	MODESTO		LIMESTONE	1.0	238.0	
354.0	MODESTO		SHALE	4.0	239.0	
350.0	MODESTO		SHALE	4.0	243.0	
346.0	MODESTO		SHALE	3.0	247.0	
343.0	CARBONDALE	DANVILLE	BLACK SHALE	2.0	250.0	DANVILLE COAL HORIZON
341.0	CARBONDALE		SHALE	12.0	252.0	
329.0	CARBONDALE	BANKSTON FORK	LIMESTONE	3.5	264.0	
325.5	CARBONDALE		SHALE	7.5	267.5	
318.0	CARBONDALE		LIMESTONE	2.0	275.0	
316.0	CARBONDALE		SHALE	2.5	277.0	
313.5	CARBONDALE	BRERETON	LIMESTONE	1.5	279.5	
312.0	CARBONDALE	HERRIN	COAL	2.0	281.0	
310.0	CARBONDALE		SHALE	36.0	283.0	
274.0	CARBONDALE	ST. DAVID	LIMESTONE	2.0	319.0	
272.0	CARBONDALE		SHALE	1.0	321.0	
271.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.0	322.0	
270.0	CARBONDALE	SPRINGFIELD	COAL	7.0	323.0	CLAY LAYERS; INCLUDES SOME BKSH
263.0	CARBONDALE		SHALE	4.0	330.0	
259.0	CARBONDALE		LIMESTONE	1.0	334.0	

MAPID: 16701970000C    VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON    TWP/RNG: 17N 2W    SECTION: 20    QUARTERS/FOOTAGES: 2605' N line, 730' W line

QUADRANGLE: LAKE FORK    LONGITUDE: -89.345888

GEOLOGIST:

CONFIDENTIAL: N    LATITUDE: 39.910434

DATE COLLECTED:

SURFACE ELEVATION (FT.): 593.0

LOGGED (FT.): 283.0

LOG TYPE: Drillers Log

SOURCE: PIAMCO INC.    D1

WELL TYPE: Coal Test

COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
383.0	MODESTO	PIASA	LIMESTONE	1.0	210.0
382.0	MODESTO		CALCAREOUS SHALE	35.0	211.0
347.0	CARBONDALE	DANVILLE	BLACK SHALE	5.0	246.0
342.0	CARBONDALE		GRAY SHALE	10.0	251.0
332.0	CARBONDALE	BANKSTON FORK	LIMESTONE	3.0	261.0
329.0	CARBONDALE	LAWSON	SILTY SHALE	9.0	264.0
320.0	CARBONDALE	BRERETON	LIMESTONE	5.0	273.0
315.0	CARBONDALE	ANNA	SHALE	1.0	278.0
312.0	CARBONDALE	HERRIN	COAL	2.0	281.0

---

MAPID: 16701970000C    VERSION: 2

PROJECT: ISGS88

COUNTY: SANGAMON    TWP/RNG: 17N 2W    SECTION: 20    QUARTERS/FOOTAGES: 2605' N line, 730' W line

QUADRANGLE: LAKE FORK    LONGITUDE: -89.345888    GEOLOGIST: SROKA

CONFIDENTIAL: N    LATITUDE: 39.910434    DATE COLLECTED: 10 / 24 / 1973

SURFACE ELEVATION (FT.): 593.0    LOGGED (FT.): 334.0    LOG TYPE: Multiple log types

SOURCE: PIAMCO    WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, SP, DRILL LOG, CORE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
593.0			UNCONSOLIDATED	142.0	0.0	
451.0	MODESTO		SHALE	3.0	142.0	
448.0	MODESTO	CHAPEL	COAL	2.0	145.0	
446.0	MODESTO		SHALE	16.5	147.0	
429.5	MODESTO		LIMESTONE	1.0	163.5	
428.5	MODESTO		SHALE	45.5	164.5	
383.0	MODESTO		LIMESTONE	2.5	210.0	
380.5	MODESTO		SHALE	3.5	212.5	
377.0	MODESTO		SHALE	2.0	216.0	
375.0	MODESTO		SHALE	6.0	218.0	
369.0	MODESTO		LIMESTONE	1.5	224.0	
367.5	MODESTO		SHALE	14.0	225.5	
353.5	MODESTO		LIMESTONE	1.0	239.5	
352.5	MODESTO		SHALE	3.5	240.5	
349.0	MODESTO		SHALE	4.0	244.0	
345.0	CARBONDALE	DANVILLE	BLACK SHALE	5.0	248.0	CORRELATION UNCERTAIN; #7 COAL NOT PRES.
340.0	CARBONDALE		SHALE	10.0	253.0	
330.0	CARBONDALE	BANKSTON FORK	LIMESTONE	3.0	263.0	
327.0	CARBONDALE		SHALE	9.0	266.0	
318.0	CARBONDALE	BRERETON	LIMESTONE	6.0	275.0	
312.0	CARBONDALE	HERRIN	COAL	2.0	281.0	
310.0	CARBONDALE		SHALE	36.5	283.0	
273.5	CARBONDALE	ST. DAVID	LIMESTONE	1.2	319.5	CORED 320-333.5; ISGS DESCRIPTION
272.3	CARBONDALE	TURNER MINE	BLACK SHALE	4.8	320.7	INCLUDES DARK SHALE
267.5	CARBONDALE	SPRINGFIELD	COAL	4.3	325.5	HORSEBACK
263.2	CARBONDALE		CLAYSTONE & SILTSTONE	1.6	329.8	STIGMARIAN ROOTLETS
261.6	CARBONDALE		CLAYSTONE & SILTSTONE	2.7	331.4	LS NODULES

MAPID: 16701189000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 17N 2W SECTION: 22 QUARTERS/FOOTAGES: 25' N line, 25' W line

QUADRANGLE: LAKE FORK LONGITUDE: -89.310904

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.917169

DATE COLLECTED:

SURFACE ELEVATION (FT.): 599.0 LOGGED (FT.): 296.0

LOG TYPE: Drillers Log

SOURCE: SUN PRODUCTION CO. Gulso 1

WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
388.0	MODESTO	PIASA	LIMESTONE	1.0	211.0
387.0	MODESTO		MOTTLED SHALE	56.0	212.0
331.0	CARBONDALE	BRERETON	LIMESTONE AND SANDSTONE	12.0	268.0
319.0	CARBONDALE	ENERGY	SILTY SHALE	11.0	280.0
308.0	CARBONDALE	ENERGY	BLACK SHALE	1.0	291.0
307.0	CARBONDALE	HERRIN	COAL	4.0	292.0

MAPID: 16701959000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 17N 2W SECTION: 26 QUARTERS/FOOTAGES: 2640' N line, 0' E line

QUADRANGLE: LAKE FORK LONGITUDE: -89.27384

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.895559

DATE COLLECTED:

SURFACE ELEVATION (FT.): 603.0 LOGGED (FT.): 308.0

LOG TYPE: Drillers Log

SOURCE: PIAMCO INC. I2

WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
371.0	MODESTO	PIASA	LIMESTONE	2.5	232.0
368.5	MODESTO		ROCK	43.0	234.5
325.5	CARBONDALE	DANVILLE	COAL	3.0	277.5
322.5	CARBONDALE	LAWSON	GRAY SHALE	8.5	280.5
314.0	CARBONDALE	BRERETON	LIMESTONE AND SANDSTONE	1.5	289.0
312.5	CARBONDALE	ENERGY	SILTY SHALE	17.0	290.5
296.0	CARBONDALE	HERRIN	COAL	1.0	307.0

MAPID: 16701959000C    VERSION: 2

PROJECT: ISGS88

COUNTY: SANGAMON    TWP/RNG: 17N 2W    SECTION: 26    QUARTERS/FOOTAGES: 2640' N line, 0' E line

QUADRANGLE: LAKE FORK    LONGITUDE: -89.27384    GEOLOGIST: SROKA

CONFIDENTIAL: N    LATITUDE: 39.895559    DATE COLLECTED: 2 / 26 / 1973

SURFACE ELEVATION (FT.): 602.0    LOGGED (FT.): 362.0    LOG TYPE: Drillers Log

SOURCE: PIAMCO    WELL TYPE: Coal Test

COMMENT: DRILLERS LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
602.0			UNCONSOLIDATED	68.0	0.0	
534.0	MODESTO		SHALE	38.0	68.0	
496.0	MODESTO		LIMESTONE	0.5	106.0	
495.5	MODESTO		SHALE	105.5	106.5	
390.0	MODESTO		SHALE	19.5	212.0	
370.5	MODESTO		LIMESTONE	2.5	231.5	
368.0	MODESTO		SHALE	9.0	234.0	
359.0	MODESTO		SHALE	2.0	243.0	
357.0	MODESTO		SANDSTONE	8.0	245.0	
349.0	MODESTO		SHALE	10.0	253.0	
339.0	MODESTO		SHALE	14.0	263.0	
325.0	CARBONDALE	DANVILLE	COAL	3.0	277.0	
322.0	CARBONDALE		SHALE	8.5	280.0	
313.5	CARBONDALE	BANKSTON FORK	LIMESTONE	1.5	288.5	
312.0	CARBONDALE		SHALE	17.0	290.0	
295.0	CARBONDALE	HERRIN	COAL	1.0	307.0	
294.0	CARBONDALE		SHALE	4.5	308.0	
289.5	CARBONDALE		LIMESTONE	4.5	312.5	
285.0	CARBONDALE		SHALE	30.0	317.0	
255.0	CARBONDALE	ST. DAVID	LIMESTONE	2.0	347.0	
253.0	CARBONDALE	TURNER MINE	BLACK SHALE	4.0	349.0	
249.0	CARBONDALE	SPRINGFIELD	COAL	4.5	353.0	
244.5	CARBONDALE		SHALE	4.5	357.5	

MAPID: 16701966000C    VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON    TWP/RNG: 17N 2W    SECTION: 27    QUARTERS/FOOTAGES: 500' S line, 100' W line

QUADRANGLE: LAKE FORK    LONGITUDE: -89.310817

GEOLOGIST:

CONFIDENTIAL: N    LATITUDE: 39.889514

DATE COLLECTED:

SURFACE ELEVATION (FT.): 595.0    LOGGED (FT.): 294.0

LOG TYPE: Drillers Log

SOURCE: PIAMCO INC.    18

WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
377.0	MODESTO	PIASA	LIMESTONE W/ SHALE	14.0	218.0
363.0	MODESTO		ROCK	29.0	232.0
334.0	CARBONDALE	BANKSTON FORK	LIMESTONE	1.0	261.0
333.0	CARBONDALE	ENERGY	SANDSTONE	15.0	262.0
318.0	CARBONDALE	ENERGY	DARK GRAY SHALE	13.0	277.0
304.0	CARBONDALE	HERRIN	COAL	3.0	291.0

MAPID: 16701966000C VERSION: 2

PROJECT: ISGS88

COUNTY: SANGAMON TWP/RNG: 17N 2W SECTION: 27 QUARTERS/FOOTAGES: 500' S line, 100' W line

QUADRANGLE: LAKE FORK LONGITUDE: -89.310817 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 39.889514 DATE COLLECTED: 3 / 14 / 1973

SURFACE ELEVATION (FT.): 595.0 LOGGED (FT.): 346.1 LOG TYPE: Drillers Log

SOURCE: PIAMCO WELL TYPE: Coal Test

COMMENT: DRILLERS LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
595.0			UNCONSOLIDATED	13.0	0.0	
582.0	MODESTO		SHALE	114.0	13.0	
468.0	MODESTO		LIMESTONE	5.0	127.0	
463.0	MODESTO		SHALE	10.5	132.0	
452.5	MODESTO		LIMESTONE	0.5	142.5	
452.0	MODESTO		SHALE	3.0	143.0	
449.0	MODESTO		SHALE	11.0	146.0	
438.0	MODESTO	CHAPEL	COAL	0.5	157.0	
437.5	MODESTO		SHALE	17.5	157.5	
420.0	MODESTO		SHALE	43.0	175.0	
377.0	MODESTO		LIMESTONE	1.0	218.0	
376.0	MODESTO		SHALE	4.0	219.0	
372.0	MODESTO		SHALE	4.0	223.0	
368.0	MODESTO		SHALE	3.0	227.0	
365.0	MODESTO		LIMESTONE	3.0	230.0	
362.0	MODESTO		SANDSTONE	5.0	233.0	
357.0	MODESTO		LIMESTONE	1.0	238.0	
356.0	MODESTO		SHALE	15.0	239.0	
341.0	MODESTO		SHALE	6.0	254.0	
335.0	CARBONDALE		SHALE	2.0	260.0	TOP OF CARBONDALE IN THIS INTERVAL
333.0	CARBONDALE	BANKSTON FORK	LIMESTONE	1.0	262.0	
332.0	CARBONDALE	ANVIL ROCK	SANDSTONE	15.0	263.0	
317.0	CARBONDALE		SHALE	13.0	278.0	
304.0	CARBONDALE	HERRIN	COAL	3.0	291.0	
301.0	CARBONDALE		SHALE	11.0	294.0	
290.0	CARBONDALE		SANDSTONE	8.0	305.0	
282.0	CARBONDALE		SHALE	22.0	313.0	
260.0	CARBONDALE	SPRINGFIELD	COAL	7.3	335.0	
252.7	CARBONDALE		SHALE	3.7	342.3	
249.0	CARBONDALE		LIMESTONE	0.1	346.0	

MAPID: 16701945000C    VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON    TWP/RNG: 17N 2W    SECTION: 29    QUARTERS/FOOTAGES: 2607' N line, 27' W line

QUADRANGLE: LAKE FORK

LONGITUDE: -89.34856

GEOLOGIST:

CONFIDENTIAL: N

LATITUDE: 39.895987

DATE COLLECTED:

SURFACE ELEVATION (FT.): 595.0

LOGGED (FT.): 272.5

LOG TYPE: Drillers Log

SOURCE: PIAMCO INC.    E

WELL TYPE: Coal Test

COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
391.0	MODESTO	PIASA	LIMESTONE	1.0	204.0
390.0	MODESTO		ROCK	36.0	205.0
354.0	CARBONDALE	DANVILLE	BLACK SHALE	1.0	241.0
353.0	CARBONDALE	LAWSON	GRAY SHALE	11.0	242.0
342.0	CARBONDALE	BRERETON	LIMESTONE	5.0	253.0
337.0	CARBONDALE	ANNA	BLACK SHALE	1.0	258.0
336.0	CARBONDALE	ENERGY	SILTY SHALE	10.0	259.0
326.0	CARBONDALE	ENERGY	DARK GRAY SHALE	1.0	269.0
325.0	CARBONDALE	HERRIN	COAL	2.5	270.0

---



MAPID: 16701945000C    VERSION: 2

PROJECT: ISGS88

COUNTY: SANGAMON    TWP/RNG: 17N 2W    SECTION: 29    QUARTERS/FOOTAGES: 2607' N line, 27' W line

QUADRANGLE: LAKE FORK    LONGITUDE: -89.34856    GEOLOGIST: SROKA

CONFIDENTIAL: N    LATITUDE: 39.895987    DATE COLLECTED: 9 / 27 / 1973

SURFACE ELEVATION (FT.): 595.0    LOGGED (FT.): 319.5    LOG TYPE: Multiple log types

SOURCE: PIAMCO    WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, SP, DRILL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
595.0			UNCONSOLIDATED	168.0	0.0	
427.0	MODESTO		SHALE	14.0	168.0	
413.0	MODESTO		LIMESTONE	2.0	182.0	
411.0	MODESTO		SHALE	20.0	184.0	
391.0	MODESTO		LIMESTONE	1.0	204.0	
390.0	MODESTO		SHALE	11.0	205.0	
379.0	MODESTO		LIMESTONE	4.5	216.0	
374.5	MODESTO		SHALE	8.5	220.5	
366.0	MODESTO		LIMESTONE	2.5	229.0	
363.5	MODESTO		SHALE	4.5	231.5	
359.0	MODESTO		SHALE	3.0	236.0	
356.0	MODESTO		SHALE	2.0	239.0	
354.0	CARBONDALE	DANVILLE	BLACK SHALE	1.0	241.0	DANVILLE COAL HORIZON
353.0	CARBONDALE		SHALE	11.0	242.0	
342.0	CARBONDALE	BANKSTON FORK	LIMESTONE	5.0	253.0	
337.0	CARBONDALE		SHALE	10.0	258.0	
327.0	CARBONDALE		SHALE	2.0	268.0	
325.0	CARBONDALE	HERRIN	COAL	2.5	270.0	
322.5	CARBONDALE		SHALE	4.5	272.5	
318.0	CARBONDALE		LIMESTONE	2.0	277.0	
316.0	CARBONDALE		SHALE	28.0	279.0	
288.0	CARBONDALE	ST. DAVID	LIMESTONE	3.7	307.0	
284.3	CARBONDALE	TURNER MINE	BLACK SHALE	3.3	310.7	
281.0	CARBONDALE	SPRINGFIELD	COAL	4.8	314.0	HORSEBACK
276.2	CARBONDALE		SHALE	0.7	318.8	CARBONACEOUS

MAPID: 16701944000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 17N 2W SECTION: 31 QUARTERS/FOOTAGES: 223' S line, 40' E line

QUADRANGLE: MT. AUBURN LONGITUDE: -89.349049

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.874603

DATE COLLECTED:

SURFACE ELEVATION (FT.): 604.0 LOGGED (FT.): 0.0

LOG TYPE: Drillers Log

SOURCE: PIAMCO INC. F

WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-	MODESTO		MOTTLED SHALE	40.0	
-	CARBONDALE	DANVILLE	BLACK SHALE	2.0	
-	CARBONDALE	LAWSON	GRAY SHALE	18.0	
-	CARBONDALE	BRERETON	LIMESTONE	3.5	
-	CARBONDALE	HERRIN	COAL	1.5	

MAPID: 16701944000C VERSION: 2

PROJECT: ISGS88

COUNTY: SANGAMON TWP/RNG: 17N 2W SECTION: 31 QUARTERS/FOOTAGES: 223' S line, 40' E line

QUADRANGLE: MT. AUBURN LONGITUDE: -89.349049

GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 39.874603

DATE COLLECTED: 0 / 0 / 1973

SURFACE ELEVATION (FT.): 604.0 LOGGED (FT.): 329.0

LOG TYPE: Drillers Log

SOURCE: PIAMCO

WELL TYPE: Coal Test

COMMENT: DRILLERS LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
604.0			UNCONSOLIDATED	198.0	0.0
406.0	MODESTO		SHALE	21.0	198.0
385.0	MODESTO		LIMESTONE	1.5	219.0
383.5	MODESTO		SHALE	8.5	220.5
375.0	MODESTO		SHALE	3.0	229.0
372.0	MODESTO		SHALE & SANDSTONE	6.0	232.0
366.0	MODESTO		LIMESTONE	1.0	238.0
365.0	MODESTO		SHALE	7.0	239.0
358.0	MODESTO		SHALE	4.0	246.0
354.0	MODESTO		SHALE	4.0	250.0
350.0	CARBONDALE	DANVILLE	BLACK SHALE	2.0	254.0
348.0	CARBONDALE		SHALE	18.0	256.0
330.0	CARBONDALE	BRERETON	LIMESTONE	4.5	274.0
325.5	CARBONDALE	HERRIN	COAL	1.5	278.5
324.0	CARBONDALE		SHALE	38.0	280.0
286.0	CARBONDALE	ST. DAVID	LIMESTONE	1.6	318.0
284.4	CARBONDALE	TURNER MINE	BLACK SHALE	2.2	319.6
282.2	CARBONDALE	SPRINGFIELD	COAL	5.3	321.8
276.9	CARBONDALE		SHALE	1.9	327.1 UNDERCLAY

MAPID: 16701196000C VERSION: 1

PROJECT: NCRDS87

COUNTY: SANGAMON TWP/RNG: 17N 2W SECTION: 36 QUARTERS/FOOTAGES: 1000' N line, 100' W line

QUADRANGLE: LAKE FORK LONGITUDE: -89.273493

GEOLOGIST: WEIBEL

CONFIDENTIAL: N LATITUDE: 39.885362

DATE COLLECTED: 11 / 3 / 1953

SURFACE ELEVATION (FT.): 600.0

LOGGED (FT.): 347.0

LOG TYPE: Drillers Log

SOURCE: SUN OIL COMPANY

WELL TYPE: Structure Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
600.0			UNCONSOLIDATED	210.0	0.0	
390.0	MODESTO		UNCLASSIFIED	12.0	210.0	
378.0	MODESTO		LIMESTONE	2.0	222.0	
376.0	MODESTO		UNCLASSIFIED	2.0	224.0	
374.0	MODESTO		BLACK SHALE	4.0	226.0	
370.0	MODESTO		UNCLASSIFIED	34.0	230.0	
336.0	CARBONDALE	DANVILLE	COAL	3.0	264.0	
333.0	CARBONDALE		UNCLASSIFIED	21.0	267.0	
312.0	CARBONDALE	HERRIN	COAL	4.0	288.0	
308.0	CARBONDALE		UNCLASSIFIED	38.0	292.0	
270.0	CARBONDALE	ST. DAVID	LIMESTONE	2.0	330.0	
268.0	CARBONDALE	TURNER MINE	BLACK SHALE	4.0	332.0	
264.0	CARBONDALE	SPRINGFIELD	COAL	6.0	336.0	
258.0	CARBONDALE		UNCLASSIFIED	4.0	342.0	
254.0	CARBONDALE		LIMESTONE	1.0	346.0	

MAPID: 16701196000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 17N 2W SECTION: 36 QUARTERS/FOOTAGES: 1000' N line, 100' W line

QUADRANGLE: LAKE FORK LONGITUDE: -89.273493

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.885362

DATE COLLECTED:

SURFACE ELEVATION (FT.): 600.0

LOGGED (FT.): 292.0

LOG TYPE: Drillers Log

SOURCE:

WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
378.0	MODESTO	PIASA	LIMESTONE	2.0	222.0	
376.0	MODESTO		MOTTLED SHALE	40.0	224.0	
336.0	CARBONDALE	DANVILLE	COAL	3.0	264.0	
333.0	CARBONDALE	LAWSON	GRAY SHALE	8.0	267.0	
325.0	CARBONDALE	LAWSON	SILTY SHALE	13.0	275.0	
312.0	CARBONDALE	HERRIN	COAL	4.0	288.0	

MAPID: 16722415000C    VERSION: 1

PROJECT: ISGS88

COUNTY: SANGAMON    TWP/RNG: 17N 3W    SECTION: 16    QUARTERS/FOOTAGES: 2500' S line, 1320' E line

QUADRANGLE: CORNLAND    LONGITUDE: -89.428609    GEOLOGIST: SROKA

CONFIDENTIAL: N    LATITUDE: 39.925467    DATE COLLECTED: 11 / 24 / 1975

SURFACE ELEVATION (FT.): 620.0    LOGGED (FT.): 326.0    LOG TYPE: Multiple log types

SOURCE: MOBIL OIL    WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENS, DRILLERS LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
620.0			UNCONSOLIDATED	199.0	0.0	
421.0	MODESTO		SHALE	4.0	199.0	
417.0	MODESTO	PIASA	LIMESTONE	2.0	203.0	
415.0	MODESTO		BLACK SHALE	1.0	205.0	
414.0	MODESTO		SHALE	13.0	206.0	
401.0	MODESTO		SHALE	11.5	219.0	
389.5	MODESTO		SHALE	15.5	230.5	
374.0	MODESTO		BLACK SHALE	3.0	246.0	
371.0	CARBONDALE	DANVILLE	COAL	1.0	249.0	UNCERTAIN CORRELATION
370.0	CARBONDALE		SHALE	12.5	250.0	
357.5	CARBONDALE		LIMESTONE	4.0	262.5	
353.5	CARBONDALE		SHALE	2.5	266.5	
351.0	CARBONDALE	HERRIN	COAL	0.0	269.0	
351.0	CARBONDALE		SHALE	11.5	269.0	
339.5	CARBONDALE		SHALE	7.0	280.5	
332.5	CARBONDALE		SHALE	14.5	287.5	
318.0	CARBONDALE	ST. DAVID	LIMESTONE	9.0	302.0	
309.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.5	311.0	
307.5	CARBONDALE	SPRINGFIELD	COAL	5.3	312.5	
302.2	CARBONDALE		UNDERCLAY	5.2	317.8	
297.0	CARBONDALE		SHALE	3.0	323.0	

MAPID: 16701432000C    VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON    TWP/RNG: 17N 3W    SECTION: 17    QUARTERS/FOOTAGES: 15' S line, 2490' E line

QUADRANGLE: CORNLAND    LONGITUDE: -89.45162

GEOLOGIST:

CONFIDENTIAL: N    LATITUDE: 39.918791

DATE COLLECTED:

SURFACE ELEVATION (FT.): 587.0

LOGGED (FT.): 236.0

LOG TYPE: Drillers Log

SOURCE:

WELL TYPE: Coal Test

COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
419.0	MODESTO	PIASA	LIMESTONE	2.0	168.0
417.0	MODESTO		LIMESTONE W/ SHALE	41.0	170.0
376.0	CARBONDALE	DANVILLE	BONE COAL	1.0	211.0
375.0	CARBONDALE		SHALE & SANDSTONE	11.0	212.0
364.0	CARBONDALE	BANKSTON FORK	LIMESTONE	2.0	223.0
362.0	CARBONDALE	LAWSON	GRAY SHALE	8.0	225.0
354.0	CARBONDALE	BRERETON	LIMESTONE	3.0	233.0

---

MAPID: 16723288000C    VERSION: 1

PROJECT: ISGS88

COUNTY: SANGAMON    TWP/RNG: 17N 3W    SECTION: 17    QUARTERS/FOOTAGES: 2559' N line, 450' E line

QUADRANGLE: CORNLAND    LONGITUDE: -89.444374    GEOLOGIST: SROKA

CONFIDENTIAL: N    LATITUDE: 39.926199    DATE COLLECTED: 7 / 7 / 1977

SURFACE ELEVATION (FT.): 627.0    LOGGED (FT.): 336.0    LOG TYPE: Multiple log types

SOURCE: MOBIL OIL    WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENS, DRILL LOG, CORE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
627.0			UNCONSOLIDATED	186.0	0.0	
441.0	MODESTO		SHALE	11.5	186.0	
429.5	MODESTO	PIASA	LIMESTONE	1.5	197.5	
428.0	MODESTO		BLACK SHALE	2.5	199.0	
425.5	MODESTO		SHALE	3.5	201.5	
422.0	MODESTO		SHALE	7.0	205.0	
415.0	MODESTO		SHALE	31.0	212.0	
384.0	MODESTO		BLACK SHALE	2.0	243.0	
382.0	CARBONDALE	DANVILLE	COAL	0.0	245.0	UNCERTAIN CORRELATION
382.0	CARBONDALE		SHALE	3.0	245.0	
379.0	CARBONDALE	BANKSTON FORK	LIMESTONE	0.5	248.0	
378.5	CARBONDALE		SHALE	6.0	248.5	
372.5	CARBONDALE	BRERETON	LIMESTONE	1.5	254.5	
371.0	CARBONDALE	ANNA	BLACK SHALE	2.0	256.0	
369.0	CARBONDALE	HERRIN	COAL	0.0	258.0	UNCERTAIN CORRELATION
369.0	CARBONDALE		SHALE	50.0	258.0	
319.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	308.0	
317.0	CARBONDALE	SPRINGFIELD	COAL	4.0	310.0	
313.0	CARBONDALE		UNDERCLAY	2.9	314.0	
310.1	CARBONDALE		CORE LOSS	0.1	316.9	
310.0	CARBONDALE		SHALE	19.0	317.0	

MAPID: 16722184000C    VERSION: 1

PROJECT: ISGS88

COUNTY: SANGAMON    TWP/RNG: 17N 3W    SECTION: 18    QUARTERS/FOOTAGES: 180' N line, 50' E line of SE SE NW

QUADRANGLE: CORNLAND    LONGITUDE: -89.472726

GEOLOGIST: SROKA

CONFIDENTIAL: N    LATITUDE: 39.927311

DATE COLLECTED: 4 / 13 / 1968

SURFACE ELEVATION (FT.): 595.0

LOGGED (FT.): 305.0

LOG TYPE: Multiple log types

SOURCE: CARTER OIL

WELL TYPE: Coal Test

COMMENT: DRILL LOG, ISGS CORE DESCRIPT.

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
595.0			UNCONSOLIDATED	97.0	0.0	
498.0	MODESTO		SHALE	18.0	97.0	
480.0	MODESTO		SHALE	30.0	115.0	
450.0	MODESTO		SHALE	36.0	145.0	
414.0	MODESTO		BLACK SHALE	2.0	181.0	
412.0	MODESTO		LIMESTONE	3.5	183.0	
408.5	MODESTO		BLACK SHALE	2.5	186.5	
406.0	MODESTO		SHALE	3.0	189.0	
403.0	MODESTO		SHALE	12.0	192.0	
391.0	MODESTO		SHALE	4.0	204.0	
387.0	MODESTO		SHALE	3.0	208.0	
384.0	MODESTO		SHALE	4.5	211.0	
379.5	MODESTO		LIMESTONE	1.5	215.5	
378.0	MODESTO		SHALE	5.0	217.0	
373.0	MODESTO		SHALE	3.0	222.0	
370.0	MODESTO		BLACK SHALE	1.5	225.0	
368.5	CARBONDALE	DANVILLE	COAL	1.0	226.5	
367.5	CARBONDALE		SHALE	4.6	227.5	WITH NODULES
363.0	CARBONDALE		SHALE	3.0	232.0	
360.0	CARBONDALE	DANVILLE SUMP	COAL	1.5	235.0	
358.5	CARBONDALE		SHALE	9.5	236.5	
349.0	CARBONDALE	BRERETON	LIMESTONE	1.5	246.0	
347.5	CARBONDALE	ANNA	BLACK SHALE	0.5	247.5	
347.0	CARBONDALE	HERRIN	COAL	0.0	248.0	HERRIN #6 COAL NOT PRESENT
347.0	CARBONDALE		SHALE	6.0	248.0	
341.0	CARBONDALE		SHALE	7.0	254.0	
334.0	CARBONDALE		LIMESTONE	2.0	261.0	
332.0	CARBONDALE		SHALE	6.0	263.0	
326.0	CARBONDALE		SILTSTONE	11.0	269.0	CORED 269-304.2; ISGS DESCRIPT.
315.0	CARBONDALE		SHALE	6.5	280.0	SIDERITE LENSES; PYRITE
308.5	CARBONDALE		SHALE	0.4	286.5	FOSSILIFEROUS
308.1	CARBONDALE	ST. DAVID	LIMESTONE	2.0	286.9	SHALEY/DOLOMITIC; SHARP BASAL CONTACT
306.1	CARBONDALE	TURNER MINE	SHALE	3.7	288.9	BANDED APPEARANCE; FOSSILIFL, BKSH?
302.4	CARBONDALE	SPRINGFIELD	COAL	5.1	292.6	
297.3	CARBONDALE		CLAYSTONE & SILTSTONE	4.6	297.7	CARBONIZED PLANT FRAGS; CAL. NODULES
292.7	CARBONDALE		SILTSTONE	2.7	302.3	POORLY LAMINATED

MAPID: 16723289000C    VERSION: 1

PROJECT: ISGS88

COUNTY: SANGAMON    TWP/RNG: 17N 3W    SECTION: 19    QUARTERS/FOOTAGES: 264' S line, 966' W line

QUADRANGLE: CORNLAND    LONGITUDE: -89.479843    GEOLOGIST: SROKA

CONFIDENTIAL: N    LATITUDE: 39.904973    DATE COLLECTED: 7 / 7 / 1977

SURFACE ELEVATION (FT.): 584.0    LOGGED (FT.): 300.0    LOG TYPE: Multiple log types

SOURCE: MOBIL OIL    WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENS, DRILL LOG, CORE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
584.0			UNCONSOLIDATED	107.0	0.0	
477.0	MODESTO		SHALE	49.0	107.0	
428.0	MODESTO		LIMESTONE	2.5	156.0	
425.5	MODESTO		SHALE	2.5	158.5	
423.0	MODESTO		LIMESTONE	2.0	161.0	
421.0	MODESTO		SHALE	6.5	163.0	
414.5	MODESTO		LIMESTONE	2.0	169.5	
412.5	MODESTO		BLACK SHALE	1.5	171.5	
411.0	MODESTO		SHALE	15.5	173.0	
395.5	MODESTO		LIMESTONE	7.5	188.5	
388.0	MODESTO		SHALE	5.0	196.0	
383.0	MODESTO		BLACK SHALE	3.5	201.0	
379.5	MODESTO		SHALE	8.0	204.5	
371.5	MODESTO		BLACK SHALE	1.0	212.5	
370.5	CARBONDALE	DANVILLE	COAL	1.0	213.5	UNCERTAIN CORRELATION
369.5	CARBONDALE		SHALE	9.5	214.5	
360.0	CARBONDALE	BRERETON	LIMESTONE	2.5	224.0	
357.5	CARBONDALE	ANNA	BLACK SHALE	2.5	226.5	
355.0	CARBONDALE	HERRIN	COAL	0.0	229.0	UNCERTAIN CORRELATION
355.0	CARBONDALE		SHALE	45.5	229.0	
309.5	CARBONDALE	TURNER MINE	BLACK SHALE	2.7	274.5	
306.7	CARBONDALE	SPRINGFIELD	COAL	5.0	277.3	
301.7	CARBONDALE		UNDERCLAY	1.3	282.3	
300.5	CARBONDALE		CORE LOSS	0.5	283.5	
300.0	CARBONDALE		SHALE	4.0	284.0	
296.0	CARBONDALE		LIMESTONE	2.0	288.0	
294.0	CARBONDALE		SHALE	10.0	290.0	



MAPID: 16723051000C    VERSION: 1

PROJECT: ISGS88

COUNTY: SANGAMON    TWP/RNG: 17N 3W    SECTION: 20    QUARTERS/FOOTAGES: 1600' N line, 1720' W line

QUADRANGLE: CORNLAND    LONGITUDE: -89.455712    GEOLOGIST: SROKA

CONFIDENTIAL: N    LATITUDE: 39.914355    DATE COLLECTED: 6 / 11 / 1979

SURFACE ELEVATION (FT.): 610.0    LOGGED (FT.): 330.0    LOG TYPE: Multiple log types

SOURCE: MOBIL OIL    WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENS, DRILL LOG, CORE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
610.0			UNCONSOLIDATED	194.0	0.0	
416.0	MODESTO		LIMESTONE	1.5	194.0	
414.5	MODESTO		BLACK SHALE	1.5	195.5	
413.0	MODESTO		SHALE	29.0	197.0	
384.0	MODESTO		LIMESTONE	2.0	226.0	
382.0	MODESTO		SHALE	6.0	228.0	
376.0	MODESTO		BLACK SHALE	2.0	234.0	
374.0	MODESTO		SHALE	10.5	236.0	
363.5	CARBONDALE	DANVILLE	COAL	1.0	246.5	UNCERTAIN CORRELATION
362.5	CARBONDALE		SHALE	5.5	247.5	
357.0	CARBONDALE	BANKSTON FORK	LIMESTONE	2.0	253.0	
355.0	CARBONDALE		SHALE	5.0	255.0	
350.0	CARBONDALE	BRERETON	LIMESTONE	1.0	260.0	
349.0	CARBONDALE	HERRIN	COAL	0.0	261.0	UNCERTAIN CORRELATION
349.0	CARBONDALE		SHALE	45.5	261.0	
303.5	CARBONDALE	ST. DAVID	LIMESTONE	0.5	306.5	
303.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.6	307.0	
301.4	CARBONDALE	SPRINGFIELD	COAL	5.1	308.6	
296.3	CARBONDALE		UNDERCLAY	0.4	313.7	
295.9	CARBONDALE		CORE LOSS	0.9	314.1	
295.0	CARBONDALE		CLAYSTONE & SHALE	5.0	315.0	
290.0	CARBONDALE		LIMESTONE	1.0	320.0	
289.0	CARBONDALE		SHALE	9.0	321.0	

MAPID: 16701197000C    VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON    TWP/RNG: 17N 3W    SECTION: 21    QUARTERS/FOOTAGES: 5' S line, 2590' E line

QUADRANGLE: CORNLAND    LONGITUDE: -89.433224

GEOLOGIST:

CONFIDENTIAL: N    LATITUDE: 39.904093

DATE COLLECTED:

SURFACE ELEVATION (FT.): 645.0    LOGGED (FT.): 275.0

LOG TYPE: Drillers Log

SOURCE:

WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
423.0	MODESTO	PIASA	LIMESTONE & SHALE	2.0	222.0
421.0	MODESTO		ROCK	27.0	224.0
394.0	CARBONDALE	DANVILLE	BONE COAL	1.0	251.0
393.0	CARBONDALE		MOTTLED SHALE	3.0	252.0
390.0	CARBONDALE	LAWSON	GRAY SHALE	18.0	255.0
372.0	CARBONDALE	BRERETON	LIMESTONE	2.0	273.0

MAPID: 16722185000C    VERSION: 1

PROJECT: ISGS88

COUNTY: SANGAMON    TWP/RNG: 17N 3W    SECTION: 21    QUARTERS/FOOTAGES: 25' N line, 250' E line of NW SE

QUADRANGLE: CORNLAND    LONGITUDE: -89.429515

GEOLOGIST: SROKA

CONFIDENTIAL: N    LATITUDE: 39.911245

DATE COLLECTED: 3 / 25 / 1968

SURFACE ELEVATION (FT.): 643.0

LOGGED (FT.): 334.0

LOG TYPE: Multiple log types

SOURCE: CARTER OIL

WELL TYPE: Coal Test

COMMENT: DRILL LOG, ISGS CORE DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
643.0			UNCONSOLIDATED	205.0	0.0	
438.0	MODESTO		SHALE	17.0	205.0	
421.0	MODESTO		LIMESTONE	1.5	222.0	
419.5	MODESTO		SHALE	6.2	223.5	
413.3	MODESTO		SHALE	6.3	229.7	
407.0	MODESTO		SHALE	13.5	236.0	
393.5	MODESTO		LIMESTONE	2.0	249.5	
391.5	MODESTO		SHALE	9.0	251.5	
382.5	MODESTO		SHALE	2.0	260.5	
380.5	MODESTO		BLACK SHALE	1.0	262.5	
379.5	MODESTO		SHALE	5.5	263.5	
374.0	CARBONDALE	DANVILLE	COAL	1.5	269.0	
372.5	CARBONDALE		SHALE	2.5	270.5	
370.0	CARBONDALE	BANKSTON FORK	LIMESTONE	1.0	273.0	
369.0	CARBONDALE		SHALE	16.0	274.0	
353.0	CARBONDALE		LIMESTONE	0.5	290.0	
352.5	CARBONDALE		SHALE	1.5	290.5	
351.0	CARBONDALE		SANDSTONE	3.0	292.0	
348.0	CARBONDALE		SHALE	5.0	295.0	
343.0	CARBONDALE		SHALE	7.0	300.0	CORED 300-333.8; ISGS DESCRIPTION
336.0	CARBONDALE		SHALE	5.2	307.0	LAMINATED, SIDERITE LENSES
330.8	CARBONDALE		LIMESTONE	0.9	312.2	BRACHIOPODS AND CRINOIDS
329.9	CARBONDALE		SILTSTONE	4.4	313.1	LIMEY, SHALEY, CARBONACEOUS IN PLACES
325.5	CARBONDALE		LIMESTONE	2.6	317.5	
322.9	CARBONDALE		SILTSTONE	1.9	320.1	ABUND CARB. PLANT FRAGS; BKSH INCLUSIONS
321.0	CARBONDALE	ST. DAVID	LIMESTONE	0.7	322.0	
320.3	CARBONDALE		SHALE	0.9	322.7	ORBICULOIDEA PRESENT
319.4	CARBONDALE	SPRINGFIELD	COAL	5.6	323.6	
313.8	CARBONDALE		CLAYSTONE & SILTSTONE	0.8	329.2	LARGE CARBONIZED PLANT FRAGS.
313.0	CARBONDALE		CLAYSTONE & SILTSTONE	1.5	330.0	WITH CALCAREOUS NODULES
311.5	CARBONDALE		CLAYSTONE & SILTSTONE	2.5	331.5	CALCAREOUS; PYRITE ZONE IN MIDDLE

MAPID: 16701958000C    VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON    TWP/RNG: 17N 3W    SECTION: 23    QUARTERS/FOOTAGES: 0' S line, 2640' E line

QUADRANGLE: CORNLAND    LONGITUDE: -89.395525

GEOLOGIST:

CONFIDENTIAL: N    LATITUDE: 39.903737

DATE COLLECTED:

SURFACE ELEVATION (FT.): 635.0    LOGGED (FT.): 294.0

LOG TYPE: Drillers Log

SOURCE: PIAMCO INC.    T

WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
396.0	MODESTO	PIASA	LIMESTONE	6.0	239.0
390.0	MODESTO		MOTTLED SHALE	22.0	245.0
368.0	CARBONDALE	DANVILLE	BLACK SHALE	3.0	267.0
365.0	CARBONDALE		GRAY SHALE	3.0	270.0
362.0	CARBONDALE	BANKSTON FORK	LIMESTONE	1.0	273.0
361.0	CARBONDALE	LAWSON	GRAY SHALE	13.5	274.0
347.5	CARBONDALE	BRERETON	LIMESTONE	2.5	287.5
345.0	CARBONDALE	ENERGY	GRAY SHALE	2.0	290.0
343.0	CARBONDALE	HERRIN	COAL	2.0	292.0

---

MAPID: 16701958000C    VERSION: 2

PROJECT: ISGS88

COUNTY: SANGAMON    TWP/RNG: 17N 3W    SECTION: 23    QUARTERS/FOOTAGES: 0' S line, 2640' E line

QUADRANGLE: CORNLAND    LONGITUDE: -89.395525    GEOLOGIST: SROKA

CONFIDENTIAL: N    LATITUDE: 39.903737    DATE COLLECTED: 10 / 15 / 1973

SURFACE ELEVATION (FT.): 635.0    LOGGED (FT.): 347.0    LOG TYPE: Multiple log types

SOURCE: PIAMCO    WELL TYPE: Coal Test

COMMENT: GAMMA, DRILLERS LOG, CORE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
635.0			UNCONSOLIDATED	192.0	0.0	
443.0	MODESTO		SHALE	36.0	192.0	
407.0	MODESTO		LIMESTONE	1.0	228.0	
406.0	MODESTO		SHALE	10.0	229.0	
396.0	MODESTO		LIMESTONE	6.0	239.0	
390.0	MODESTO		SHALE	2.0	245.0	
388.0	MODESTO		BLACK SHALE	3.0	247.0	
385.0	MODESTO		SHALE	8.0	250.0	
377.0	MODESTO		SHALE	6.0	258.0	
371.0	MODESTO		SHALE	3.0	264.0	
368.0	CARBONDALE	DANVILLE	BLACK SHALE	3.0	267.0	
365.0	CARBONDALE		SHALE	3.0	270.0	
362.0	CARBONDALE	BANKSTON FORK	LIMESTONE	1.0	273.0	
361.0	CARBONDALE		SHALE	13.5	274.0	
347.5	CARBONDALE	BRERETON	LIMESTONE	2.5	287.5	
345.0	CARBONDALE		SHALE	2.0	290.0	
343.0	CARBONDALE	HERRIN	COAL	2.0	292.0	
341.0	CARBONDALE		SHALE	3.0	294.0	
338.0	CARBONDALE		LIMESTONE	2.5	297.0	
335.5	CARBONDALE		SHALE	37.0	299.5	
298.5	CARBONDALE	ST. DAVID	LIMESTONE	1.5	336.5	
297.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.1	338.0	
295.9	CARBONDALE	SPRINGFIELD	COAL	4.8	339.1	
291.2	CARBONDALE		CLAYSTONE & SILTSTONE	1.5	343.8	CARBONACEOUS STIGMARIAN FRAGMENTS
289.7	CARBONDALE		CORE LOSS	1.7	345.3	

MAPID: 16701965000C    VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON    TWP/RNG: 17N 3W    SECTION: 24    QUARTERS/FOOTAGES: 30' S line, 1000' E line

QUADRANGLE: LAKE FORK    LONGITUDE: -89.370762

GEOLOGIST:

CONFIDENTIAL: N    LATITUDE: 39.903524

DATE COLLECTED:

SURFACE ELEVATION (FT.): 603.0    LOGGED (FT.): 275.0

LOG TYPE: Drillers Log

SOURCE: PIAMCO INC.    17

WELL TYPE: Coal Test

COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
399.0	MODESTO	PIASA	LIMESTONE	1.5	204.0
397.5	MODESTO		MOTTLED SHALE	37.5	205.5
360.0	CARBONDALE	DANVILLE	BLACK SHALE	2.0	243.0
358.0	CARBONDALE		SILTY SHALE	10.5	245.0
347.5	CARBONDALE	BANKSTON FORK	LIMESTONE	4.5	255.5
343.0	CARBONDALE	LAWSON	DARK GRAY SHALE	1.0	260.0
342.0	CARBONDALE	LAWSON	SILTY SHALE	7.0	261.0
335.0	CARBONDALE	BRERETON	LIMESTONE	3.0	268.0
332.0	CARBONDALE	ANNA	DARK GRAY SHALE	1.0	271.0
331.0	CARBONDALE	HERRIN	COAL	3.0	272.0

MAPID: 16701965000C    VERSION: 2

PROJECT: ISGS88

COUNTY: SANGAMON    TWP/RNG: 17N 3W    SECTION: 24    QUARTERS/FOOTAGES: 30' S line, 1000' E line

QUADRANGLE: LAKE FORK    LONGITUDE: -89.370762    GEOLOGIST: SROKA

CONFIDENTIAL: N    LATITUDE: 39.903524    DATE COLLECTED: 3 / 12 / 1973

SURFACE ELEVATION (FT.): 603.0    LOGGED (FT.): 359.0    LOG TYPE: Drillers Log

SOURCE: PIAMCO    WELL TYPE: Coal Test

COMMENT: DRILLERS LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
603.0			UNCONSOLIDATED	74.0	0.0	
529.0	MODESTO		SHALE	62.5	74.0	
466.5	MODESTO	CHAPEL	COAL	0.5	136.5	
466.0	MODESTO		SHALE	67.0	137.0	
399.0	MODESTO		SHALE	2.0	204.0	
397.0	MODESTO		LIMESTONE	1.5	206.0	
395.5	MODESTO		SHALE	4.5	207.5	
391.0	MODESTO		SHALE	3.0	212.0	
388.0	MODESTO		SHALE	6.0	215.0	
382.0	MODESTO		SHALE	15.0	221.0	
367.0	MODESTO		SHALE	5.0	236.0	
362.0	MODESTO		SHALE	4.0	241.0	
358.0	CARBONDALE	DANVILLE	BLACK SHALE	2.0	245.0	
356.0	CARBONDALE		SHALE	10.5	247.0	
345.5	CARBONDALE	BANKSTON FORK	LIMESTONE	2.5	257.5	
343.0	CARBONDALE		SHALE	1.0	260.0	
342.0	CARBONDALE		SHALE	7.0	261.0	
335.0	CARBONDALE	BRERETON	LIMESTONE	3.0	268.0	
332.0	CARBONDALE		SHALE	1.0	271.0	
331.0	CARBONDALE	HERRIN	COAL	3.0	272.0	
328.0	CARBONDALE		SHALE	14.0	275.0	
314.0	CARBONDALE		SHALE	2.0	289.0	
312.0	CARBONDALE		SHALE	4.0	291.0	
308.0	CARBONDALE		SHALE	13.0	295.0	
295.0	CARBONDALE		SHALE	6.0	308.0	
289.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.0	314.0	
288.0	CARBONDALE	SPRINGFIELD	COAL	6.5	315.0	
281.5	CARBONDALE		SHALE	4.0	321.5	
277.5	CARBONDALE		LIMESTONE	1.5	325.5	
276.0	CARBONDALE		SHALE	5.0	327.0	
271.0	CARBONDALE		SANDSTONE	6.0	332.0	
265.0	CARBONDALE		SHALE	10.0	338.0	
255.0	CARBONDALE		LIMESTONE	1.0	348.0	
254.0	CARBONDALE		SHALE	2.0	349.0	
252.0	CARBONDALE	HOUCHIN CREEK	COAL	2.5	351.0	
249.5	CARBONDALE		SHALE	3.5	353.5	
246.0	CARBONDALE		LIMESTONE	2.0	357.0	

MAPID: 16701953000C    VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON    TWP/RNG: 17N 3W    SECTION: 25    QUARTERS/FOOTAGES: 50' N line, 30' W line

QUADRANGLE: CORNLAND    LONGITUDE: -89.38596

GEOLOGIST:

CONFIDENTIAL: N    LATITUDE: 39.903446

DATE COLLECTED:

SURFACE ELEVATION (FT.): 601.0    LOGGED (FT.): 257.0

LOG TYPE: Drillers Log

SOURCE: PIAMCO INC.    S

WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
392.0	MODESTO	PIASA	LIMESTONE	3.5	209.0
388.5	MODESTO		MOTTLED SHALE	19.5	212.5
369.0	CARBONDALE	DANVILLE	BLACK SHALE	2.0	232.0
367.0	CARBONDALE	LAWSON	GRAY SHALE	12.0	234.0
355.0	CARBONDALE	BRERETON	LIMESTONE	3.0	246.0
352.0	CARBONDALE	ENERGY	GRAY SHALE	8.0	249.0
346.0	CARBONDALE	HERRIN	COAL	2.0	255.0

---



MAPID: 16701953000C    VERSION: 2

PROJECT: ISGS88

COUNTY: SANGAMON    TWP/RNG: 17N 3W    SECTION: 25    QUARTERS/FOOTAGES: 50' N line, 30' W line

QUADRANGLE: CORNLAND    LONGITUDE: -89.38596    GEOLOGIST: SROKA

CONFIDENTIAL: N    LATITUDE: 39.903446    DATE COLLECTED: 10 / 12 / 1973

SURFACE ELEVATION (FT.): 601.0    LOGGED (FT.): 308.5    LOG TYPE: Drillers Log

SOURCE: PIAMCO    WELL TYPE: Coal Test

COMMENT: DRILLERS LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
601.0			UNCONSOLIDATED	76.0	0.0
525.0	MODESTO		SANDSTONE	16.0	76.0
509.0	MODESTO		SHALE	25.0	92.0
484.0	MODESTO		SHALE	30.0	117.0
454.0	MODESTO		SHALE	48.0	147.0
406.0	MODESTO		LIMESTONE	2.0	195.0
404.0	MODESTO		SHALE	2.0	197.0
402.0	MODESTO		BLACK SHALE	1.0	199.0
401.0	MODESTO		SHALE	4.0	200.0
397.0	MODESTO		SHALE	5.0	204.0
392.0	MODESTO		LIMESTONE	3.5	209.0
388.5	MODESTO		SHALE	1.5	212.5
387.0	MODESTO		LIMESTONE	1.5	214.0
385.5	MODESTO		SHALE	1.5	215.5
384.0	MODESTO		SHALE	2.0	217.0
382.0	MODESTO		SHALE	5.0	219.0
377.0	MODESTO		SHALE	3.0	224.0
374.0	MODESTO		SHALE	3.0	227.0
371.0	CARBONDALE	DANVILLE	BLACK SHALE	2.0	230.0
369.0	CARBONDALE		SHALE	12.0	232.0
357.0	CARBONDALE		LIMESTONE	3.0	244.0
354.0	CARBONDALE		SHALE	8.0	247.0
346.0	CARBONDALE	HERRIN	COAL	2.0	255.0
344.0	CARBONDALE		SHALE	38.0	257.0
306.0	CARBONDALE	ST. DAVID	LIMESTONE	2.2	295.0
303.8	CARBONDALE	TURNER MINE	BLACK SHALE	1.8	297.2
302.0	CARBONDALE	SPRINGFIELD	COAL	5.3	299.0
296.7	CARBONDALE		SHALE	4.2	304.3

MAPID: 16722416000C    VERSION: 1

PROJECT: ISGS88

COUNTY: SANGAMON    TWP/RNG: 17N 3W    SECTION: 27    QUARTERS/FOOTAGES: 1985' S line, 1290' W line

QUADRANGLE: CORNLAND    LONGITUDE: -89.419455    GEOLOGIST: SROKA

CONFIDENTIAL: N    LATITUDE: 39.894935    DATE COLLECTED: 12 / 3 / 1975

SURFACE ELEVATION (FT.): 660.0    LOGGED (FT.): 350.0    LOG TYPE: Multiple log types

SOURCE: MOBIL OIL    WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENS, DRILLERS LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
660.0			UNCONSOLIDATED	213.0	0.0
447.0	MODESTO		SHALE	13.0	213.0
434.0	MODESTO		SHALE	7.0	226.0
427.0	MODESTO	WEST FRANKLIN	LIMESTONE	2.5	233.0
424.5	MODESTO		BLACK SHALE	2.0	235.5
422.5	MODESTO		SHALE	2.5	237.5
420.0	MODESTO		SHALE	4.5	240.0
415.5	MODESTO		SHALE	13.5	244.5
402.0	MODESTO	PIASA	LIMESTONE	1.0	258.0
401.0	MODESTO		SHALE	4.0	259.0
397.0	MODESTO		SHALE	6.0	263.0
391.0	MODESTO		BLACK SHALE	1.5	269.0
389.5	CARBONDALE	DANVILLE	COAL	0.0	270.5
389.5	CARBONDALE		SHALE	7.0	270.5
382.5	CARBONDALE	DANVILLE SUMP	COAL	1.0	277.5
381.5	CARBONDALE		SHALE	6.5	278.5
375.0	CARBONDALE	BRERETON	LIMESTONE	3.0	285.0
372.0	CARBONDALE	ANNA	BLACK SHALE	2.5	288.0
369.5	CARBONDALE	HERRIN	COAL	0.0	290.5
369.5	CARBONDALE		SHALE	4.0	290.5
365.5	CARBONDALE		LIMESTONE	3.5	294.5
362.0	CARBONDALE		SHALE	6.0	298.0
356.0	CARBONDALE		SHALE	27.0	304.0
329.0	CARBONDALE	ST. DAVID	LIMESTONE	1.5	331.0
327.5	CARBONDALE	TURNER MINE	BLACK SHALE	2.5	332.5
325.0	CARBONDALE	SPRINGFIELD	COAL	5.2	335.0
319.8	CARBONDALE		UNDERCLAY	4.8	340.2
315.0	CARBONDALE		SHALE	5.0	345.0

MAPID: 16723044000C    VERSION: 1

PROJECT: ISGS88

COUNTY: SANGAMON    TWP/RNG: 17N 3W    SECTION: 27    QUARTERS/FOOTAGES: 600' N line, 1270' W line

QUADRANGLE: CORNLAND    LONGITUDE: -89.419418    GEOLOGIST: SROKA

CONFIDENTIAL: N    LATITUDE: 39.902321    DATE COLLECTED: 6 / 6 / 1979

SURFACE ELEVATION (FT.): 660.0    LOGGED (FT.): 355.0    LOG TYPE: Multiple log types

SOURCE: MOBIL OIL    WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENS, DRILL LOG, CORE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
660.0			UNCONSOLIDATED	210.0	0.0	
450.0	MODESTO		SHALE	16.0	210.0	
434.0	MODESTO		LIMESTONE	0.5	226.0	
433.5	MODESTO		SHALE	5.0	226.5	
428.5	MODESTO	WEST FRANKLIN	LIMESTONE	1.5	231.5	
427.0	MODESTO		BLACK SHALE	2.0	233.0	
425.0	MODESTO		SHALE	6.0	235.0	
419.0	MODESTO		SHALE	17.5	241.0	
401.5	MODESTO	PIASA	LIMESTONE	1.5	258.5	
400.0	MODESTO		SHALE	8.0	260.0	
392.0	MODESTO		BLACK SHALE	2.0	268.0	
390.0	CARBONDALE	DANVILLE	COAL	0.0	270.0	
390.0	CARBONDALE		SHALE	7.0	270.0	
383.0	CARBONDALE	BANKSTON FORK	LIMESTONE	1.0	277.0	
382.0	CARBONDALE		SHALE	6.0	278.0	
376.0	CARBONDALE	BRERETON	LIMESTONE	3.5	284.0	
372.5	CARBONDALE	ANNA	BLACK SHALE	1.5	287.5	
371.0	CARBONDALE	HERRIN	COAL	0.0	289.0	
371.0	CARBONDALE		SHALE	5.0	289.0	
366.0	CARBONDALE		SHALE	6.0	294.0	
360.0	CARBONDALE		SHALE	29.5	300.0	
330.5	CARBONDALE	ST. DAVID	LIMESTONE	2.0	329.5	
328.5	CARBONDALE	TURNER MINE	BLACK SHALE	3.2	331.5	
325.3	CARBONDALE	SPRINGFIELD	COAL	5.0	334.7	
320.2	CARBONDALE		SHALE	5.3	339.8	
315.0	CARBONDALE		SHALE	10.0	345.0	

MAPID: 16723147000C    VERSION: 1

PROJECT: ISGS88

COUNTY: SANGAMON    TWP/RNG: 17N 3W    SECTION: 28    QUARTERS/FOOTAGES: 2070' S line, 1540' E line

QUADRANGLE: CORNLAND    LONGITUDE: -89.429592    GEOLOGIST: SROKA

CONFIDENTIAL: N    LATITUDE: 39.89524    DATE COLLECTED: 8 / 27 / 1979

SURFACE ELEVATION (FT.): 575.0    LOGGED (FT.): 335.0    LOG TYPE: Multiple log types

SOURCE: MOBIL OIL    WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENS, DRILL LOG, CORE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
575.0			UNCONSOLIDATED	118.0	0.0
457.0	MODESTO		SHALE	12.5	118.0
444.5	MODESTO		BLACK SHALE	1.5	130.5
443.0	MODESTO	CHAPEL	COAL	1.5	132.0
441.5	MODESTO		SHALE	84.5	133.5
357.0	MODESTO		LIMESTONE	1.5	218.0
355.5	MODESTO		BLACK SHALE	2.5	219.5
353.0	MODESTO		SHALE	15.0	222.0
338.0	MODESTO		LIMESTONE	2.0	237.0
336.0	MODESTO		SHALE	6.0	239.0
330.0	MODESTO		BLACK SHALE	2.0	245.0
328.0	CARBONDALE	DANVILLE	COAL	0.0	247.0
328.0	CARBONDALE		SHALE	5.5	247.0
322.5	CARBONDALE		LIMESTONE	0.5	252.5
322.0	CARBONDALE		SHALE	2.5	253.0
319.5	CARBONDALE	HERRIN	COAL	1.5	255.5
318.0	CARBONDALE		SHALE	5.0	257.0
313.0	CARBONDALE		LIMESTONE	2.0	262.0
311.0	CARBONDALE		SHALE	7.0	264.0
304.0	CARBONDALE		SHALE	37.0	271.0
267.0	CARBONDALE	ST. DAVID	LIMESTONE	2.0	308.0
265.0	CARBONDALE	TURNER MINE	BLACK SHALE	3.6	310.0
261.4	CARBONDALE	SPRINGFIELD	COAL	5.2	313.6
256.3	CARBONDALE		SHALE	0.7	318.7
255.6			CORE LOSS	0.1	319.4
255.5			UNCLASSIFIED	15.5	319.5

MAPID: 16722299000C    VERSION: 1

PROJECT: ISGS88

COUNTY: SANGAMON    TWP/RNG: 17N 3W    SECTION: 29    QUARTERS/FOOTAGES: 450' S line, 450' W line of SW SW SE

QUADRANGLE: CORNLAND    LONGITUDE: -89.451065

GEOLOGIST: SROKA

CONFIDENTIAL: N    LATITUDE: 39.890913

DATE COLLECTED: 5 / 23 / 1968

SURFACE ELEVATION (FT.): 606.0

LOGGED (FT.): 297.0

LOG TYPE: Multiple log types

SOURCE: CARTER OIL

WELL TYPE: Coal Test

COMMENT: DRILLERS LOG AND ISGS CORE DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
606.0			UNCONSOLIDATED	92.0	0.0	
514.0	MODESTO		SANDSTONE	14.0	92.0	
500.0	MODESTO		SHALE	8.0	106.0	
492.0	MODESTO	CHAPEL	COAL	0.3	114.0	
491.7	MODESTO		SHALE	55.7	114.3	
436.0	MODESTO		SHALE	2.0	170.0	
434.0	MODESTO		SHALE	12.0	172.0	
422.0	MODESTO		BLACK SHALE	2.0	184.0	
420.0	MODESTO		SHALE	2.0	186.0	
418.0	MODESTO		SHALE	9.0	188.0	
409.0	MODESTO		SANDSTONE	9.0	197.0	
400.0	MODESTO		SHALE	7.0	206.0	
393.0	MODESTO		BLACK SHALE	1.0	213.0	
392.0	MODESTO		SHALE	8.0	214.0	
384.0	CARBONDALE	DANVILLE	COAL	0.5	222.0	
383.5	CARBONDALE		SHALE	1.5	222.5	
382.0	CARBONDALE		LIMESTONE	3.0	224.0	
379.0	CARBONDALE		SHALE	9.0	227.0	
370.0	CARBONDALE		SHALE	5.0	236.0	
365.0	CARBONDALE	ANVIL ROCK	SANDSTONE	37.1	241.0	CORED 265-296.8; ISGS DESCRIPTION
327.9	CARBONDALE		SHALE	0.8	278.1	
327.1	CARBONDALE	ST. DAVID	LIMESTONE	1.7	278.9	CRINOIDS; CALCITE FILL. CAVITIES LOW .5
325.4	CARBONDALE	TURNER MINE	BLACK SHALE	3.0	280.6	INCL. DRL.GRAY SH; CLAMS & ORBICULOIDEA
322.4	CARBONDALE	SPRINGFIELD	COAL	5.1	283.6	
317.3	CARBONDALE		CLAYSTONE & SILTSTONE	6.3	288.7	PLANT FRAGS UPPER PART; CALC NODULES
311.0	CARBONDALE		SILTSTONE	2.0	295.0	

MAPID: 16701206000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 17N 3W SECTION: 31 QUARTERS/FOOTAGES: 150' S line, 1620' E line

QUADRANGLE: CORNLAND LONGITUDE: -89.468481

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.875504

DATE COLLECTED:

SURFACE ELEVATION (FT.): 585.0

LOGGED (FT.): 193.0

LOG TYPE: Drillers Log

SOURCE:

WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
422.0	MODESTO	PIASA	LIMESTONE	4.0	163.0
418.0	MODESTO		MOTTLED SHALE	17.0	167.0
401.0	CARBONDALE	DANVILLE	DARK GRAY SHALE	1.0	184.0
400.0	CARBONDALE	LAWSON	SILTY SHALE	4.0	185.0
396.0	CARBONDALE	BRERETON	LIMESTONE	3.0	189.0
393.0	CARBONDALE	HERRIN	DARK GRAY SHALE	1.0	192.0

MAPID: 16701207000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 17N 3W SECTION: 32 QUARTERS/FOOTAGES: 2625' N line, 2000' E line

QUADRANGLE: CORNLAND LONGITUDE: -89.450616

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.882428

DATE COLLECTED:

SURFACE ELEVATION (FT.): 605.0

LOGGED (FT.): 248.0

LOG TYPE: Drillers Log

SOURCE:

WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
422.0	MODESTO	PIASA	LIMESTONE W/ SHALE	11.0	183.0
411.0	MODESTO		GRAY SHALE	16.0	194.0
395.0	CARBONDALE	DANVILLE	BLACK SHALE	2.0	210.0
393.0	CARBONDALE	LAWSON	GRAY SHALE	14.0	212.0
379.0	CARBONDALE	LAWSON	BLACK SHALE	2.0	226.0
377.0	CARBONDALE	BRERETON	LIMESTONE	4.0	228.0

MAPID: 16722417000C    VERSION: 1

PROJECT: ISGS88

COUNTY: SANGAMON    TWP/RNG: 17N 3W    SECTION: 32    QUARTERS/FOOTAGES: 15' S line, 5' W line

QUADRANGLE: MECHANICSBURG    LONGITUDE: -89.462682    GEOLOGIST: SROKA

CONFIDENTIAL: N    LATITUDE: 39.875113    DATE COLLECTED: 11 / 25 / 1975

SURFACE ELEVATION (FT.): 598.0    LOGGED (FT.): 250.0    LOG TYPE: Multiple log types

SOURCE: MOBIL OIL    WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENS, DRILLERS LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
598.0			UNCONSOLIDATED	85.0	0.0	
513.0	MODESTO		SHALE	46.0	85.0	
467.0	MODESTO		LIMESTONE	1.0	131.0	
466.0	MODESTO		SHALE	3.0	132.0	
463.0	MODESTO		LIMESTONE	2.0	135.0	
461.0	MODESTO		SHALE	5.0	137.0	
456.0	MODESTO		BLACK SHALE	2.0	142.0	
454.0	MODESTO		SHALE	7.5	144.0	
446.5	MODESTO		SHALE	7.0	151.5	
439.5	MODESTO		SHALE	10.5	158.5	
429.0	MODESTO		BLACK SHALE	1.5	169.0	
427.5	MODESTO		SHALE	3.5	170.5	
424.0	CARBONDALE	DANVILLE	SHALE	2.0	174.0	
422.0	CARBONDALE		SHALE	3.0	176.0	
419.0	CARBONDALE	BANKSTON FORK	LIMESTONE	3.0	179.0	
416.0	CARBONDALE		CLAYSTONE & SILTSTONE	4.0	182.0	
412.0	CARBONDALE		SHALE	3.0	186.0	
409.0	CARBONDALE	HERRIN	COAL	0.0	189.0	UNCERTAIN CORRELATION
409.0	CARBONDALE		SANDSTONE/SHALE	41.0	189.0	
368.0	CARBONDALE	ST. DAVID	LIMESTONE	2.0	230.0	
366.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.0	232.0	
365.0	CARBONDALE	SPRINGFIELD	COAL	4.0	233.0	
361.0	CARBONDALE		UNDERCLAY	4.0	237.0	
357.0	CARBONDALE		LIMESTONE	2.0	241.0	
355.0	CARBONDALE		SHALE	7.0	243.0	

MAPID: 16723045000C    VERSION: 1

PROJECT: NCRDS89

COUNTY: SANGAMON    TWP/RNG: 17N 3W    SECTION: 32    QUARTERS/FOOTAGES: 2590' S line, 2400' E line

QUADRANGLE: CORNLAND    LONGITUDE: -89.452045    GEOLOGIST: SROKA

CONFIDENTIAL: N    LATITUDE: 39.882247    DATE COLLECTED: 6 / 6 / 1979

SURFACE ELEVATION (FT.): 605.0    LOGGED (FT.): 290.0    LOG TYPE: Multiple log types

SOURCE: MOBIL OIL SI-79-32-55C    WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENSITY, DRILL LOG, CORE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
605.0			UNCONSOLIDATED	67.0	0.0
538.0	MODESTO		SILTY SHALE	26.0	67.0
512.0	MODESTO		LIMESTONE	1.0	93.0
511.0	MODESTO		GRAY SHALE	2.0	94.0
509.0	MODESTO	CHAPEL	SHALE	1.0	96.0
508.0	MODESTO		SANDY SHALE	74.0	97.0
434.0	MODESTO		BLACK SHALE	1.5	171.0
432.5	MODESTO		SHALE	16.5	172.5
416.0	MODESTO		LIMESTONE	1.0	189.0
415.0	MODESTO		SHALE	8.0	190.0
407.0	MODESTO		BLACK SHALE	1.5	198.0
405.5	CARBONDALE	DANVILLE	COAL	0.0	199.5
405.5	CARBONDALE		GRAY SHALE	16.0	199.5
389.5	CARBONDALE	BRERETON	LIMESTONE	1.5	215.5
388.0	CARBONDALE	ANNA	BLACK SHALE	2.5	217.0
385.5	CARBONDALE	HERRIN	COAL	0.0	219.5
385.5	CARBONDALE		GRAY SHALE	16.5	219.5
369.0	CARBONDALE		LIMESTONE AND SANDSTONE	4.5	236.0
364.5	CARBONDALE		SANDY SHALE	24.5	240.5
340.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.6	265.0
337.4	CARBONDALE	SPRINGFIELD	COAL	4.9	267.6
332.5	CARBONDALE		CARBONACEOUS SHALE	0.3	272.5
332.2	CARBONDALE		CORE LOSS	0.0	272.8
332.2	CARBONDALE		CORE LOSS	0.2	272.8
332.0	CARBONDALE		CLAYSTONE	17.0	273.0



MAPID: 16723045000C    VERSION: 2

PROJECT: ISGS88

COUNTY: SANGAMON    TWP/RNG: 17N 3W    SECTION: 32    QUARTERS/FOOTAGES: 2590' S line, 2400' E line

QUADRANGLE: CORNLAND    LONGITUDE: -89.452045    GEOLOGIST: SROKA

CONFIDENTIAL: N    LATITUDE: 39.882247    DATE COLLECTED: 6 / 6 / 1979

SURFACE ELEVATION (FT.): 605.0    LOGGED (FT.): 290.0    LOG TYPE: Multiple log types

SOURCE: MOBIL OIL    WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENS, DRILL LOG, CORE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
605.0			UNCONSOLIDATED	67.0	0.0
538.0	MODESTO		SHALE	26.0	67.0
512.0	MODESTO		LIMESTONE	1.0	93.0
511.0	MODESTO		SHALE	2.0	94.0
509.0	MODESTO	CHAPEL	COAL	2.0	96.0
507.0	MODESTO		SHALE	73.0	98.0
434.0	MODESTO		BLACK SHALE	1.5	171.0
432.5	MODESTO		SHALE	16.5	172.5
416.0	MODESTO		LIMESTONE	3.0	189.0
413.0	MODESTO		SHALE	6.0	192.0
407.0	MODESTO		BLACK SHALE	1.5	198.0
405.5	CARBONDALE	DANVILLE	COAL	0.0	199.5
405.5	CARBONDALE		SHALE	16.0	199.5
389.5	CARBONDALE	BRERETON	LIMESTONE	2.5	215.5
387.0	CARBONDALE	ANNA	BLACK SHALE	1.5	218.0
385.5	CARBONDALE	HERRIN	COAL	0.0	219.5
385.5	CARBONDALE		SHALE	16.5	219.5
369.0	CARBONDALE		LIMESTONE	4.0	236.0
365.0	CARBONDALE		SHALE	25.0	240.0
340.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.6	265.0
337.4	CARBONDALE	SPRINGFIELD	COAL	4.9	267.6
332.5	CARBONDALE		UNDERCLAY	4.5	272.5
328.0	CARBONDALE		CLAYSTONE & SILTSTONE	13.0	277.0

MAPID: 16701984000C VERSION: 1

PROJECT: ISGS88

COUNTY: SANGAMON TWP/RNG: 17N 3W SECTION: 36 QUARTERS/FOOTAGES: NE NW SE

QUADRANGLE: LAKE FORK LONGITUDE: -89.373379 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 39.880693 DATE COLLECTED: 3 / 7 / 1973

SURFACE ELEVATION (FT.): 598.0 LOGGED (FT.): 351.0 LOG TYPE: Drillers Log

SOURCE: PIAMCO WELL TYPE: Coal Test

COMMENT: DRILLERS LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
598.0			UNCONSOLIDATED	94.0	0.0
504.0	MODESTO		SHALE	23.0	94.0
481.0	MODESTO		SILTSTONE	7.0	117.0
474.0	MODESTO		SHALE	6.0	124.0
468.0	MODESTO		SANDSTONE	7.0	130.0
461.0	MODESTO		SHALE	5.0	137.0
456.0	MODESTO		SANDSTONE	32.0	142.0
424.0	MODESTO		SHALE	52.0	174.0
372.0	MODESTO		LIMESTONE	0.5	226.0
371.5	MODESTO		SHALE	3.5	226.5
368.0	MODESTO		SHALE	7.0	230.0
361.0	MODESTO		SHALE	5.5	237.0
355.5	CARBONDALE	DANVILLE	COAL	2.5	242.5
353.0	CARBONDALE		SHALE	12.5	245.0
340.5	CARBONDALE	BANKSTON FORK	LIMESTONE	2.5	257.5
338.0	CARBONDALE		SHALE	12.0	260.0
326.0	CARBONDALE		LIMESTONE	2.0	272.0
324.0	CARBONDALE		SHALE	15.0	274.0
309.0	CARBONDALE		SANDSTONE	12.0	289.0
297.0	CARBONDALE		SHALE	6.0	301.0
291.0	CARBONDALE		SHALE	4.0	307.0
287.0	CARBONDALE	SPRINGFIELD	COAL	1.5	311.0
285.5	CARBONDALE		SHALE	9.5	312.5
276.0	CARBONDALE		LIMESTONE	4.0	322.0
272.0	CARBONDALE		SHALE	19.0	326.0
253.0	CARBONDALE	EXCELLO	BLACK SHALE	2.0	345.0
251.0	CARBONDALE	HOUCHIN CREEK	COAL	3.5	347.0
247.5	CARBONDALE		SHALE	0.5	350.5

MAPID: 16722179000C    VERSION: 1

PROJECT: ISGS88

COUNTY: SANGAMON    TWP/RNG: 17N 4W    SECTION: 1    QUARTERS/FOOTAGES: SW NW

QUADRANGLE: WILLIAMSVILLE

LONGITUDE: -89.500165

GEOLOGIST: SROKA

CONFIDENTIAL: N

LATITUDE: 39.956597

DATE COLLECTED: 6 / 28 / 1968

SURFACE ELEVATION (FT.): 585.0

LOGGED (FT.): 298.5

LOG TYPE: Multiple log types

SOURCE: CARTER OIL

WELL TYPE: Coal Test

COMMENT: DRILLERS LOG AND ISGS CORE DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
585.0			UNCONSOLIDATED	57.0	0.0	
528.0	MODESTO		SHALE	31.5	57.0	
496.5	MODESTO		LIMESTONE	0.5	88.5	
496.0	MODESTO		SANDSTONE	5.0	89.0	
491.0	MODESTO		SHALE	5.5	94.0	
485.5	MODESTO		LIMESTONE	1.0	99.5	
484.5	MODESTO		SHALE	2.5	100.5	
482.0	MODESTO		BLACK SHALE	1.5	103.0	
480.5	MODESTO	CHAPEL	COAL	0.5	104.5	
480.0	MODESTO		SHALE	40.0	105.0	
440.0	MODESTO		SHALE	21.0	145.0	
419.0	MODESTO		SHALE	1.0	166.0	WITH SIDERITE
418.0	MODESTO		LIMESTONE	0.5	167.0	
417.5	MODESTO		SHALE	5.5	167.5	
412.0	MODESTO		LIMESTONE	2.0	173.0	
410.0	MODESTO		SHALE	5.0	175.0	
405.0	MODESTO		BLACK SHALE	1.0	180.0	
404.0	MODESTO		SHALE	6.5	181.0	
397.5	MODESTO		LIMESTONE	1.0	187.5	
396.5	MODESTO		SHALE	21.5	188.5	
375.0	MODESTO		SHALE	5.0	210.0	
370.0	MODESTO		SHALE	6.0	215.0	
364.0	CARBONDALE	DANVILLE	COAL	1.0	221.0	CORRELATION UNCERTAIN
363.0	CARBONDALE		SHALE	3.5	222.0	
359.5	CARBONDALE	BANKSTON FORK	LIMESTONE	1.0	225.5	
358.5	CARBONDALE		SHALE	10.0	226.5	
348.5	CARBONDALE	HERRIN	COAL	0.5	236.5	
348.0	CARBONDALE		SHALE	7.5	237.0	
340.5	CARBONDALE		SANDSTONE	3.0	244.5	
337.5	CARBONDALE		LIMESTONE	2.5	247.5	
335.0	CARBONDALE		SANDSTONE	1.5	250.0	
333.5	CARBONDALE		SILTSTONE	15.9	251.5	CORED 259-298.5; ISGS DESCRIPTION
317.6	CARBONDALE		SHALE	12.4	267.4	SIDERITE NODULES
305.2	CARBONDALE	ST. DAVID	LIMESTONE	3.0	279.8	FOSSILIFEROUS
302.2	CARBONDALE	TURNER MINE	BLACK SHALE	3.3	282.8	ORBICULOIDEA, LINGULA, CLAMS
298.9	CARBONDALE	SPRINGFIELD	COAL	5.5	286.1	
293.4	CARBONDALE		CLAYSTONE & SHALE	4.2	291.6	PLANT FRAGS UPPER PART; CALC NODULES
289.2	CARBONDALE		SILTSTONE	2.1	295.8	CARBONACEOUS, PYRITE DEBRIS

287.1 CARBONDALE

SHALE

0.7 297.9 WITH LS  
NODULES

---

MAPID: 16722179000C    VERSION: 2

PROJECT: AVAIL

COUNTY: SANGAMON    TWP/RNG: 17N 4W    SECTION: 1    QUARTERS/FOOTAGES: SW NW

QUADRANGLE: WILLIAMSVILLE    LONGITUDE: -89.500165    GEOLOGIST: COATS

CONFIDENTIAL: N    LATITUDE: 39.956597    DATE COLLECTED: 6 / 28 / 1968

SURFACE ELEVATION (FT.): 585.0    LOGGED (FT.): 297.9    LOG TYPE: Multiple log types

SOURCE: CARTER OIL COMPANY    WELL TYPE: Coal Test

COMMENT: DRILLERS LOG & SURVEY CORE DESCRIPTIONS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
585.0			UNCONSOLIDATED	8.0	0.0
577.0			UNCONSOLIDATED	10.0	8.0
567.0			UNCONSOLIDATED	10.5	18.0
556.5			SAND	5.5	28.5
551.0			SANDY CLAY	23.0	34.0
528.0	MODESTO		SILTY SHALE	31.5	57.0
496.5	MODESTO		LIMESTONE	0.5	88.5
496.0	MODESTO		SANDSTONE	5.0	89.0
491.0	MODESTO		SANDY SHALE	5.5	94.0
485.5	MODESTO		LIMESTONE	1.0	99.5
484.5	MODESTO		SANDY SHALE	2.5	100.5
482.0	MODESTO		BLACK SHALE	1.5	103.0
480.5	MODESTO	CHAPEL	COAL	0.5	104.5
480.0	MODESTO		SILTY SHALE	62.0	105.0
418.0	MODESTO		LIMESTONE	0.5	167.0
417.5	MODESTO		SILTY SHALE	5.5	167.5
412.0	MODESTO	WEST FRANKLIN	LIMESTONE	2.0	173.0
410.0	MODESTO		GRAY SHALE	5.0	175.0
405.0	MODESTO		BLACK SHALE	1.0	180.0
404.0	MODESTO		VARRIGATED SHALE	6.5	181.0
397.5	MODESTO		LIMESTONE	1.0	187.5
396.5	MODESTO		SILTY, SANDY SHALE	32.5	188.5
364.0	CARBONDALE	DANVILLE	COAL	1.0	221.0
363.0	CARBONDALE		SILTY SHALE	3.5	222.0
359.5	CARBONDALE	BANKSTON FORK	LIMESTONE	1.0	225.5
358.5	CARBONDALE		CALCAREOUS SHALE	10.0	226.5
348.5	CARBONDALE	HERRIN	COAL	0.5	236.5
348.0	CARBONDALE		SILTY SHALE	7.5	237.0
340.5	CARBONDALE		SANDSTONE	3.0	244.5
337.5	CARBONDALE		LIMESTONE	2.5	247.5
335.0	CARBONDALE		CALCAREOUS SANDSTONE	1.5	250.0
333.5	CARBONDALE		SILTY SHALE	7.5	251.5
326.0	CARBONDALE		SILTSTONE	8.4	259.0
317.6	CARBONDALE		SILTY SHALE	12.4	267.4
305.2	CARBONDALE	ST. DAVID	FOSSILIFEROUS & ARG LIMESTONE	3.0	279.8
302.2	CARBONDALE	TURNER MINE	SILTY BLACK SHALE	3.3	282.8
298.9	CARBONDALE	SPRINGFIELD	COAL	5.5	286.1
293.4	CARBONDALE		SILTY CLAYSTONE	4.2	291.6



MAPID: 1672329000C    VERSION: 1

PROJECT: ISGS88

COUNTY: SANGAMON    TWP/RNG: 17N 4W    SECTION: 2    QUARTERS/FOOTAGES: 51' N line, 2523' E line

QUADRANGLE: WILLIAMSVILLE    LONGITUDE: -89.511599    GEOLOGIST: SROKA

CONFIDENTIAL: N    LATITUDE: 39.961819    DATE COLLECTED: 7 / 5 / 1977

SURFACE ELEVATION (FT.): 577.0    LOGGED (FT.): 300.0    LOG TYPE: Multiple log types

SOURCE: MOBIL OIL    WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENS, DRILL LOG, CORE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
577.0			UNCONSOLIDATED	43.0	0.0	
534.0	MODESTO		SHALE	47.0	43.0	
487.0	MODESTO	CHAPEL	COAL	2.0	90.0	
485.0	MODESTO		SHALE	3.0	92.0	
482.0	MODESTO		SHALE	5.0	95.0	
477.0	MODESTO		SHALE	40.0	100.0	
437.0	MODESTO		SHALE	15.0	140.0	
422.0	MODESTO		SHALE	6.5	155.0	
415.5	MODESTO		LIMESTONE	2.5	161.5	
413.0	MODESTO		BLACK SHALE	1.5	164.0	
411.5	MODESTO		SHALE	8.0	165.5	
403.5	MODESTO		LIMESTONE	2.5	173.5	
401.0	MODESTO		SHALE	12.0	176.0	
389.0	MODESTO		LIMESTONE	1.0	188.0	
388.0	MODESTO		SHALE	9.0	189.0	
379.0	MODESTO		SHALE	4.5	198.0	
374.5	MODESTO		BLACK SHALE	3.5	202.5	
371.0	CARBONDALE	DANVILLE	COAL	2.0	206.0	UNCERTAIN CORRELATION
369.0	CARBONDALE		SHALE	3.5	208.0	
365.5	CARBONDALE	DANVILLE SUMP	COAL	1.5	211.5	
364.0	CARBONDALE		SHALE	9.0	213.0	
355.0	CARBONDALE	BRERETON	LIMESTONE	1.5	222.0	
353.5	CARBONDALE	ANNA	BLACK SHALE	1.0	223.5	
352.5	CARBONDALE	HERRIN	COAL	1.0	224.5	UNCERTAIN CORRELATION
351.5	CARBONDALE		SHALE	5.5	225.5	
346.0	CARBONDALE		SHALE	4.5	231.0	
341.5	CARBONDALE		SHALE	11.5	235.5	
330.0	CARBONDALE		SHALE	19.5	247.0	
310.5	CARBONDALE	ST. DAVID	LIMESTONE	2.8	266.5	
307.7	CARBONDALE	TURNER MINE	BLACK SHALE	4.8	269.3	
302.9	CARBONDALE	SPRINGFIELD	COAL	5.8	274.1	
297.1	CARBONDALE		UNDERCLAY	2.6	279.9	
294.5	CARBONDALE		SHALE	3.0	282.5	
291.5	CARBONDALE		SHALE	3.0	285.5	
288.5	CARBONDALE		SHALE	2.5	288.5	
286.0	CARBONDALE	HOUCHIN CREEK	COAL	1.5	291.0	
284.5	CARBONDALE		SHALE	3.0	292.5	
281.5	CARBONDALE		SHALE	4.5	295.5	

MAPID: 16722156000C    VERSION: 1

PROJECT: ISGS88

COUNTY: SANGAMON    TWP/RNG: 17N 4W    SECTION: 3    QUARTERS/FOOTAGES: SW NW

QUADRANGLE: WILLIAMSVILLE    LONGITUDE: -89.537946

GEOLOGIST: SROKA

CONFIDENTIAL: N    LATITUDE: 39.956321

DATE COLLECTED: 5 / 22 / 1968

SURFACE ELEVATION (FT.): 585.0    LOGGED (FT.): 292.0

LOG TYPE: Multiple log types

SOURCE: CARTER OIL

WELL TYPE: Coal Test

COMMENT: DRILLERS LOG AND ISGS CORE DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
585.0			UNCONSOLIDATED	51.0	0.0	
534.0	MODESTO		SHALE	47.0	51.0	
487.0	MODESTO		BLACK SHALE	1.5	98.0	
485.5	MODESTO	CHAPEL	COAL	0.5	99.5	
485.0	MODESTO		SHALE	30.0	100.0	SANDY SHALE
455.0	MODESTO		LIMESTONE	1.0	130.0	
454.0	MODESTO		SHALE	36.0	131.0	SANDY SHALE
418.0	MODESTO		LIMESTONE	5.5	167.0	
412.5	MODESTO		SHALE	1.5	172.5	
411.0	MODESTO		SHALE	8.0	174.0	
403.0	MODESTO		SHALE	13.0	182.0	SANDY SH
390.0	MODESTO		SHALE	11.5	195.0	
378.5	MODESTO		BLACK SHALE	2.5	206.5	
376.0	CARBONDALE	DANVILLE	COAL	1.0	209.0	
375.0	CARBONDALE		SHALE	5.5	210.0	
369.5	CARBONDALE	DANVILLE SUMP	COAL	1.0	215.5	
368.5	CARBONDALE		SHALE	4.0	216.5	
364.5	CARBONDALE	BRERETON	LIMESTONE	4.0	220.5	
360.5	CARBONDALE	ANNA	BLACK SHALE	1.5	224.5	
359.0	CARBONDALE	HERRIN	COAL	0.0	226.0	
359.0	CARBONDALE		SHALE	9.0	226.0	
350.0	CARBONDALE		SANDSTONE	5.0	235.0	
345.0	CARBONDALE		SHALE	15.0	240.0	SANDY SHALE
330.0	CARBONDALE		SHALE	17.3	255.0	CORED 260-291.3; ISGS DESCRIPTION
312.7	CARBONDALE	ST. DAVID	LIMESTONE	2.0	272.3	
310.7	CARBONDALE	TURNER MINE	BLACK SHALE	2.5	274.3	LARGE PYRITIZED CLAMS; CALCAREOUS
308.2	CARBONDALE	SPRINGFIELD	COAL	5.7	276.8	
302.5	CARBONDALE		CLAYSTONE & SILTSTONE	2.4	282.5	CARBONIZED PLANT FRAGS; CALCAREOUS
300.1	CARBONDALE		LIMESTONE	2.1	284.9	
298.0	CARBONDALE		CLAYSTONE & SILTSTONE	1.8	287.0	
296.2	CARBONDALE		SILTSTONE	3.2	288.8	SANDY LENSES; PHOSPHATIC NODULES



MAPID: 16722156000C    VERSION: 2

PROJECT: AVAIL

COUNTY: SANGAMON    TWP/RNG: 17N 4W    SECTION: 3    QUARTERS/FOOTAGES: SW NW

QUADRANGLE: WILLIAMSVILLE    LONGITUDE: -89.537946    GEOLOGIST: COATS

CONFIDENTIAL: N    LATITUDE: 39.956321    DATE COLLECTED: 5 / 22 / 1968

SURFACE ELEVATION (FT.): 585.0    LOGGED (FT.): 291.3    LOG TYPE: Multiple log types

SOURCE: CARTER OIL COMPANY    WELL TYPE: Coal Test

COMMENT: DRILLERS LOG & SURVEY CORE DESCRIPTIONS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
585.0			UNCONSOLIDATED	15.0	0.0
570.0			UNCONSOLIDATED	36.0	15.0
534.0	MODESTO		SANDY SHALE	47.0	51.0
487.0	MODESTO		BLACK SHALE	1.5	98.0
485.5	MODESTO	CHAPEL	COAL	0.5	99.5
485.0	MODESTO		SANDY SHALE	30.0	100.0
455.0	MODESTO		LIMESTONE	1.0	130.0
454.0	MODESTO		SANDY SHALE	36.0	131.0
418.0	MODESTO	WEST FRANKLIN	LIMESTONE	5.5	167.0
412.5	MODESTO		GRAY SHALE	1.5	172.5
411.0	MODESTO		VARRIGATED SHALE	8.0	174.0
403.0	MODESTO		SANDY SHALE	13.0	182.0
390.0	MODESTO		VARRIGATED SHALE	11.5	195.0
378.5	MODESTO		BLACK SHALE	2.5	206.5
376.0	CARBONDALE	DANVILLE	COAL	1.0	209.0
375.0	CARBONDALE		SILTY SHALE	5.5	210.0
369.5	CARBONDALE	HERRIN	COAL	1.0	215.5
368.5	CARBONDALE		SILTY SHALE	4.0	216.5
364.5	CARBONDALE		LIMESTONE	4.0	220.5
360.5	CARBONDALE		SHALE	1.5	224.5
359.0	CARBONDALE		CALCAREOUS SHALE	9.0	226.0
350.0	CARBONDALE		SANDSTONE	5.0	235.0
345.0	CARBONDALE		SANDY SHALE	20.0	240.0
325.0	CARBONDALE		SILTY SHALE	6.0	260.0
319.0	CARBONDALE		GRAY SHALE	6.3	266.0
312.7	CARBONDALE	ST. DAVID	FOSSILIFEROUS & ARG LIMESTONE	2.0	272.3
310.7	CARBONDALE	TURNER MINE	SILTY BLACK SHALE	2.5	274.3
308.2	CARBONDALE	SPRINGFIELD	COAL	5.7	276.8
302.5	CARBONDALE		SILTY CLAYSTONE	2.4	282.5
300.1	CARBONDALE		ARGILLACEOUS LIMESTONE	2.1	284.9
298.0	CARBONDALE		SILTY CLAYSTONE	1.8	287.0
296.2	CARBONDALE		SILTSTONE	2.5	288.8

MAPID: 16723052000C    VERSION: 1

PROJECT: ISGS88

COUNTY: SANGAMON    TWP/RNG: 17N 4W    SECTION: 3    QUARTERS/FOOTAGES: 36' N line, 1840' E line

QUADRANGLE: WILLIAMSVILLE    LONGITUDE: -89.528205    GEOLOGIST: SROKA

CONFIDENTIAL: N    LATITUDE: 39.961725    DATE COLLECTED: 6 / 14 / 1979

SURFACE ELEVATION (FT.): 570.0    LOGGED (FT.): 280.0    LOG TYPE: Multiple log types

SOURCE: MOBIL OIL    WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENS, DRILL LOG, CORE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
570.0			UNCONSOLIDATED	29.0	0.0	
541.0	MODESTO		SHALE	45.5	29.0	
495.5	MODESTO	CHAPEL	COAL	1.5	74.5	
494.0	MODESTO		SHALE	10.0	76.0	
484.0	MODESTO		SHALE	15.0	86.0	
469.0	MODESTO		SHALE	47.0	101.0	
422.0	MODESTO		LIMESTONE	2.0	148.0	
420.0	MODESTO		BLACK SHALE	2.0	150.0	
418.0	MODESTO		SHALE	9.0	152.0	
409.0	MODESTO		LIMESTONE	2.5	161.0	
406.5	MODESTO		SHALE	11.0	163.5	
395.5	MODESTO		LIMESTONE	1.0	174.5	
394.5	MODESTO		SHALE	13.5	175.5	
381.0	MODESTO		BLACK SHALE	1.5	189.0	
379.5	CARBONDALE	DANVILLE	COAL	1.0	190.5	
378.5	CARBONDALE		SHALE	3.5	191.5	
375.0	CARBONDALE	DANVILLE SUMP	COAL	1.5	195.0	
373.5	CARBONDALE		SHALE	9.5	196.5	
364.0	CARBONDALE	BRERETON	LIMESTONE	2.0	206.0	
362.0	CARBONDALE	ANNA	BLACK SHALE	2.0	208.0	
360.0	CARBONDALE	HERRIN	COAL	0.0	210.0	UNCERTAIN CORRELATION
360.0	CARBONDALE		SHALE	5.0	210.0	
355.0	CARBONDALE		LIMESTONE	1.0	215.0	
354.0	CARBONDALE		SHALE	3.5	216.0	
350.5	CARBONDALE		LIMESTONE	1.0	219.5	
349.5	CARBONDALE		SHALE	22.0	220.5	
327.5	CARBONDALE		LIMESTONE	1.5	242.5	
326.0	CARBONDALE		SHALE	5.5	244.0	
320.5	CARBONDALE	ST. DAVID	LIMESTONE	0.5	249.5	
320.0	CARBONDALE	TURNER MINE	BLACK SHALE	3.0	250.0	
317.0	CARBONDALE	SPRINGFIELD	COAL	5.1	253.0	
311.9	CARBONDALE		UNDERCLAY	0.3	258.1	
311.6	CARBONDALE		CORE LOSS	0.7	258.4	
311.0	CARBONDALE		SHALE	4.5	259.0	
306.5	CARBONDALE		LIMESTONE	1.0	263.5	
305.5	CARBONDALE		SHALE	6.0	264.5	
299.5	CARBONDALE	HOUCHIN CREEK	COAL	1.0	270.5	
298.5	CARBONDALE		SHALE	3.0	271.5	
295.5	CARBONDALE		SHALE	5.5	274.5	

MAPID: 16700058000C    VERSION: 1

PROJECT: NCRDS88

COUNTY: SANGAMON    TWP/RNG: 17N 4W    SECTION: 4    QUARTERS/FOOTAGES:

QUADRANGLE: WILLIAMSVILLE    LONGITUDE: -89.549783

GEOLOGIST: R. SMITH

CONFIDENTIAL: N    LATITUDE: 39.954343

DATE COLLECTED: 4 / 0 / 1941

SURFACE ELEVATION (FT.): 590.0    LOGGED (FT.): 278.0

LOG TYPE: Drillers Log

SOURCE: WILLIAMSVILLE COAL CO.

WELL TYPE: Coal Test

COMMENT: NO LOCATION WITH IN SECTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
590.0			UNCONSOLIDATED	53.0	0.0
537.0	MODESTO		GRAY SHALE	37.0	53.0
500.0	MODESTO		COAL	2.5	90.0
497.5	MODESTO		GRAY SHALE	31.5	92.5
466.0	MODESTO		LIMESTONE	1.0	124.0
465.0	MODESTO		CLAYSTONE	23.0	125.0
442.0	MODESTO		GRAY SHALE	11.0	148.0
431.0	MODESTO	PIASA	LIMESTONE	9.0	159.0
422.0	CARBONDALE	DANVILLE	COAL	2.0	168.0
420.0	CARBONDALE		SHALE	5.0	170.0
415.0	CARBONDALE	BANKSTON FORK	LIMESTONE	9.0	175.0
406.0	CARBONDALE		CALCAREOUS SHALE	6.0	184.0
400.0	CARBONDALE		SHALE	15.0	190.0
385.0	CARBONDALE		CALCAREOUS SHALE	15.0	205.0
370.0	CARBONDALE		GRAY SHALE	10.0	220.0
360.0	CARBONDALE		LIMESTONE W/ SHALE	5.0	230.0
355.0	CARBONDALE		GRAY SHALE	20.0	235.0
335.0	CARBONDALE		SHALE	12.0	255.0
323.0	CARBONDALE	ST. DAVID	LIMESTONE	1.5	267.0
321.5	CARBONDALE	TURNER MINE	SHALE	1.5	268.5
320.0	CARBONDALE	SPRINGFIELD	COAL	7.0	270.0
313.0	CARBONDALE		UNDERCLAY	1.0	277.0

MAPID: 16722418000C    VERSION: 1

PROJECT: ISGS88

COUNTY: SANGAMON    TWP/RNG: 17N 4W    SECTION: 5    QUARTERS/FOOTAGES: 98' N line, 1450' W line

QUADRANGLE: WILLIAMSVILLE    LONGITUDE: -89.572992    GEOLOGIST: SROKA

CONFIDENTIAL: N    LATITUDE: 39.9612    DATE COLLECTED: 11 / 3 / 1975

SURFACE ELEVATION (FT.): 591.0    LOGGED (FT.): 295.0    LOG TYPE: Multiple log types

SOURCE: MOBIL OIL    WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENS, DRILLERS LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
591.0			UNCONSOLIDATED	86.0	0.0	
505.0	MODESTO		SHALE	4.0	86.0	
501.0	MODESTO		BLACK SHALE	2.0	90.0	
499.0	MODESTO	CHAPEL	COAL	1.5	92.0	
497.5	MODESTO		UNDERCLAY	2.5	93.5	
495.0	MODESTO		SHALE	56.0	96.0	
439.0	MODESTO		SHALE	3.0	152.0	
436.0	MODESTO		SHALE	7.0	155.0	
429.0	MODESTO		LIMESTONE	1.5	162.0	
427.5	MODESTO		BLACK SHALE	2.5	163.5	
425.0	MODESTO		SHALE	8.0	166.0	
417.0	MODESTO		SHALE	3.5	174.0	
413.5	MODESTO		LIMESTONE	2.5	177.5	
411.0	MODESTO		SHALE	10.0	180.0	
401.0	MODESTO		LIMESTONE	1.0	190.0	
400.0	MODESTO		SHALE	10.0	191.0	
390.0	MODESTO		BLACK SHALE	2.5	201.0	
387.5	CARBONDALE	DANVILLE	COAL	0.0	203.5	UNCERTAIN CORRELATION
387.5	CARBONDALE		SHALE	4.5	203.5	
383.0	CARBONDALE		BLACK SHALE	1.5	208.0	
381.5	CARBONDALE	DANVILLE SUMP	COAL	1.5	209.5	
380.0	CARBONDALE		CLAYSTONE & SHALE	6.0	211.0	
374.0	CARBONDALE	BRERETON	LIMESTONE	3.5	217.0	
370.5	CARBONDALE		SHALE	2.0	220.5	
368.5	CARBONDALE	HERRIN	COAL	0.0	222.5	UNCERTAIN CORRELATION
368.5	CARBONDALE		SHALE	4.5	222.5	
364.0	CARBONDALE		SHALE	42.5	227.0	
321.5	CARBONDALE	ST. DAVID	LIMESTONE	3.0	269.5	
318.5	CARBONDALE	TURNER MINE	BLACK SHALE	2.5	272.5	
316.0	CARBONDALE	SPRINGFIELD	COAL	5.5	275.0	
310.5	CARBONDALE		CLAYSTONE & SHALE	4.5	280.5	
306.0	CARBONDALE		LIMESTONE	1.0	285.0	
305.0	CARBONDALE		SHALE	3.0	286.0	
302.0	CARBONDALE	EXCELLO	BLACK SHALE	2.0	289.0	
300.0	CARBONDALE	HOUCHIN CREEK	COAL	1.0	291.0	
299.0	CARBONDALE		SHALE	3.0	292.0	

MAPID: 16722663000C    VERSION: 1

PROJECT: NCRDS89

COUNTY: SANGAMON    TWP/RNG: 17N 4W    SECTION: 5    QUARTERS/FOOTAGES: 60' S line, 150' E line

QUADRANGLE: WILLIAMSVILLE    LONGITUDE: -89.559885

GEOLOGIST: SROKA

CONFIDENTIAL: N    LATITUDE: 39.947025

DATE COLLECTED: 8 / 18 / 1978

SURFACE ELEVATION (FT.): 590.0

LOGGED (FT.): 280.0

LOG TYPE: Multiple log types

SOURCE: MOBIL OIL SI-78-55

WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENSITY, DRILL LOG, CORE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
590.0			UNCONSOLIDATED	55.0	0.0
535.0	MODESTO		GRAY SHALE	19.0	55.0
516.0	MODESTO	CHAPEL	COAL	1.5	74.0
514.5	MODESTO		GRAY SHALE	21.5	75.5
493.0	MODESTO		SHALY LIMESTONE	5.0	97.0
488.0	MODESTO		GRAY SHALE	12.0	102.0
476.0	MODESTO		LIMESTONE	0.5	114.0
475.5	MODESTO		GRAY SHALE	28.5	114.5
447.0	MODESTO		SHALE	4.0	143.0
443.0	MODESTO		GRAY SHALE	7.0	147.0
436.0	MODESTO		BLACK SHALE	1.5	154.0
434.5	MODESTO		SHALE	10.0	155.5
424.5	CARBONDALE	DANVILLE	COAL	0.0	165.5
424.5	CARBONDALE		CALCAREOUS SHALE	6.0	165.5
418.5	CARBONDALE		LIMESTONE	1.0	171.5
417.5	CARBONDALE		GRAY SHALE	2.5	172.5
415.0	CARBONDALE		LIMESTONE	1.5	175.0
413.5	CARBONDALE		GRAY SHALE	1.5	176.5
412.0	CARBONDALE		SHALE	9.0	178.0
403.0	CARBONDALE		BLACK SHALE	1.5	187.0
401.5	CARBONDALE		GRAY SHALE	8.0	188.5
393.5	CARBONDALE	HERRIN	COAL	2.0	196.5
391.5	CARBONDALE		GRAY SHALE	3.5	198.5
388.0	CARBONDALE		LIMESTONE	2.8	202.0
385.2	CARBONDALE		GRAY SHALE	5.2	204.8
380.0	CARBONDALE		GRAY SHALE	35.0	210.0
345.0	CARBONDALE		GRAY SHALE	11.2	245.0
333.8	CARBONDALE	ST. DAVID	LIMESTONE	1.8	256.2
332.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.5	258.0
330.5	CARBONDALE	SPRINGFIELD	COAL	6.0	259.5
324.5	CARBONDALE		SHALE	1.0	265.5
323.5	CARBONDALE		GRAY SHALE	9.5	266.5
314.0	CARBONDALE		LIMESTONE	0.5	276.0
313.5	CARBONDALE		GRAY SHALE	2.0	276.5
311.5	CARBONDALE	EXCELLO	BLACK SHALE	0.5	278.5
311.0	CARBONDALE		GRAY SHALE	1.0	279.0

MAPID: 16722663000C    VERSION: 2

PROJECT: ISGS88

COUNTY: SANGAMON    TWP/RNG: 17N 4W    SECTION: 5    QUARTERS/FOOTAGES: 60' S line, 150' E line

QUADRANGLE: WILLIAMSVILLE    LONGITUDE: -89.559885    GEOLOGIST: SROKA

CONFIDENTIAL: N    LATITUDE: 39.947025    DATE COLLECTED: 8 / 18 / 1978

SURFACE ELEVATION (FT.): 590.0    LOGGED (FT.): 280.0    LOG TYPE: Multiple log types

SOURCE: MOBIL OIL    WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENS, DRILL LOG, CORE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
590.0			UNCONSOLIDATED	55.0	0.0	
535.0	MODESTO		SHALE	9.0	55.0	
526.0	MODESTO		SHALE	10.0	64.0	
516.0	MODESTO	CHAPEL	COAL	1.5	74.0	
514.5	MODESTO		SHALE	25.5	75.5	
489.0	MODESTO		LIMESTONE	0.5	101.0	
488.5	MODESTO		SHALE	12.5	101.5	
476.0	MODESTO		LIMESTONE	0.5	114.0	
475.5	MODESTO		SHALE	26.0	114.5	
449.5	MODESTO		SHALE	2.5	140.5	
447.0	MODESTO		SHALE	11.0	143.0	
436.0	MODESTO		BLACK SHALE	1.5	154.0	
434.5	MODESTO		SHALE	10.5	155.5	
424.0	MODESTO		SHALE	5.5	166.0	
418.5	MODESTO		LIMESTONE	1.0	171.5	
417.5	MODESTO		SHALE	2.5	172.5	
415.0	MODESTO		LIMESTONE	1.5	175.0	
413.5	MODESTO		SHALE	10.5	176.5	
403.0	MODESTO		BLACK SHALE	1.5	187.0	
401.5	CARBONDALE	DANVILLE	COAL	0.0	188.5	UNCERTAIN CORRELATION
401.5	CARBONDALE		SHALE	8.0	188.5	
393.5	CARBONDALE	DANVILLE SUMP	COAL	2.0	196.5	
391.5	CARBONDALE		SHALE	3.5	198.5	
388.0	CARBONDALE	BRERETON	LIMESTONE	2.5	202.0	
385.5	CARBONDALE	ANNA	BLACK SHALE	1.5	204.5	
384.0	CARBONDALE	HERRIN	COAL	0.0	206.0	UNCERTAIN CORRELATION
384.0	CARBONDALE		SHALE	4.0	206.0	
380.0	CARBONDALE		SHALE	36.0	210.0	
344.0	CARBONDALE		SHALE	10.0	246.0	
334.0	CARBONDALE	ST. DAVID	LIMESTONE	2.0	256.0	
332.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.5	258.0	
330.5	CARBONDALE	SPRINGFIELD	COAL	6.0	259.5	
324.5	CARBONDALE		SHALE	10.5	265.5	
314.0	CARBONDALE		LIMESTONE	0.5	276.0	
313.5	CARBONDALE		SHALE	1.5	276.5	
312.0	CARBONDALE	EXCELLO	BLACK SHALE	1.0	278.0	
311.0	CARBONDALE		SHALE	1.0	279.0	

MAPID: 16722419000C    VERSION: 1

PROJECT: ISGS88

COUNTY: SANGAMON    TWP/RNG: 17N 4W    SECTION: 6    QUARTERS/FOOTAGES: 2607' S line, 2613' W line

QUADRANGLE: WILLIAMSVILLE    LONGITUDE: -89.589279    GEOLOGIST: SROKA

CONFIDENTIAL: N    LATITUDE: 39.953724    DATE COLLECTED: 11 / 6 / 1975

SURFACE ELEVATION (FT.): 590.0    LOGGED (FT.): 270.0    LOG TYPE: Multiple log types

SOURCE: MOBIL OIL    WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENS, DRILLERS LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
590.0			UNCONSOLIDATED	68.0	0.0	
522.0	MODESTO		SHALE	3.5	68.0	
518.5	MODESTO	CHAPEL	COAL	2.0	71.5	
516.5	MODESTO		UNDERCLAY	7.5	73.5	
509.0	MODESTO		SHALE	63.5	81.0	
445.5	MODESTO		LIMESTONE	2.5	144.5	
443.0	MODESTO		SHALE	1.0	147.0	
442.0	MODESTO		BLACK SHALE	1.5	148.0	
440.5	MODESTO		SHALE	20.0	149.5	
420.5	MODESTO		LIMESTONE	0.5	169.5	
420.0	MODESTO		SHALE	12.0	170.0	
408.0	MODESTO		BLACK SHALE	2.5	182.0	
405.5	CARBONDALE	DANVILLE	COAL	0.0	184.5	UNCERTAIN CORRELATION
405.5	CARBONDALE		SHALE	1.0	184.5	
404.5	CARBONDALE		LIMESTONE	0.5	185.5	
404.0	CARBONDALE		SHALE	5.0	186.0	
399.0	CARBONDALE	DANVILLE SUMP	COAL	1.0	191.0	
398.0	CARBONDALE		SHALE	9.0	192.0	
389.0	CARBONDALE	ANNA	BLACK SHALE	1.5	201.0	
387.5	CARBONDALE	HERRIN	COAL	0.0	202.5	UNCERTAIN CORRELATION
387.5	CARBONDALE		SHALE	3.5	202.5	
384.0	CARBONDALE		LIMESTONE	3.0	206.0	
381.0	CARBONDALE		SHALE	10.0	209.0	
371.0	CARBONDALE		SHALE	27.5	219.0	
343.5	CARBONDALE	ST. DAVID	LIMESTONE	1.5	246.5	
342.0	CARBONDALE	TURNER MINE	BLACK SHALE	4.0	248.0	
338.0	CARBONDALE	SPRINGFIELD	COAL	5.5	252.0	
332.5	CARBONDALE		UNDERCLAY	4.5	257.5	
328.0	CARBONDALE		LIMESTONE	0.5	262.0	
327.5	CARBONDALE		SHALE	5.5	262.5	
322.0	CARBONDALE	EXCELLO	BLACK SHALE	2.0	268.0	

MAPID: 16723198000C    VERSION: 1

PROJECT: ISGS88

COUNTY: SANGAMON    TWP/RNG: 17N 4W    SECTION: 7    QUARTERS/FOOTAGES: 2280' S line, 625' W line

QUADRANGLE: WILLIAMSVILLE    LONGITUDE: -89.596193    GEOLOGIST: SROKA

CONFIDENTIAL: N    LATITUDE: 39.938403    DATE COLLECTED: 8 / 21 / 1979

SURFACE ELEVATION (FT.): 555.0    LOGGED (FT.): 235.0    LOG TYPE: Multiple log types

SOURCE: MOBIL OIL    WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENS, DRILL LOG, CORE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
555.0			UNCONSOLIDATED	20.0	0.0	
535.0	MODESTO		SHALE	84.0	20.0	
451.0	MODESTO		LIMESTONE	1.0	104.0	
450.0	MODESTO		SHALE	1.0	105.0	
449.0	MODESTO		BLACK SHALE	1.5	106.0	
447.5	MODESTO		SHALE	4.5	107.5	
443.0	MODESTO		SHALE	6.0	112.0	
437.0	MODESTO		SHALE	5.0	118.0	
432.0	MODESTO		LIMESTONE	2.5	123.0	
429.5	MODESTO		SHALE	8.5	125.5	
421.0	MODESTO		SHALE	1.0	134.0	
420.0	MODESTO		BLACK SHALE	1.0	135.0	
419.0	MODESTO		SHALE	9.5	136.0	
409.5	MODESTO		BLACK SHALE	2.0	145.5	
407.5	CARBONDALE	DANVILLE	COAL	2.0	147.5	UNCERTAIN CORRELATION
405.5	CARBONDALE		SHALE	4.0	149.5	
401.5	CARBONDALE		LIMESTONE	4.0	153.5	
397.5	CARBONDALE		SHALE	2.0	157.5	
395.5	CARBONDALE		SHALE	17.5	159.5	
378.0	CARBONDALE	HERRIN	COAL	0.0	177.0	UNCERTAIN CORRELATION
378.0	CARBONDALE		SANDSTONE	4.0	177.0	
374.0	CARBONDALE		SHALE	14.0	181.0	
360.0	CARBONDALE		SHALE	13.5	195.0	
346.5	CARBONDALE	ST. DAVID	LIMESTONE	1.0	208.5	
345.5	CARBONDALE	TURNER MINE	BLACK SHALE	3.2	209.5	
342.3	CARBONDALE	SPRINGFIELD	COAL	5.4	212.7	
337.0	CARBONDALE		CLAYSTONE & SILTSTONE	1.8	218.0	
335.2	CARBONDALE		CORE LOSS	0.2	219.8	
335.0	CARBONDALE		SHALE	8.0	220.0	
327.0	CARBONDALE		SHALE	7.0	228.0	



MAPID: 16723149000C    VERSION: 1

PROJECT: ISGS88

COUNTY: SANGAMON    TWP/RNG: 17N 4W    SECTION: 8    QUARTERS/FOOTAGES: 37' S line, 2520' E line

QUADRANGLE: WILLIAMSVILLE    LONGITUDE: -89.568197    GEOLOGIST: SROKA

CONFIDENTIAL: N    LATITUDE: 39.932348    DATE COLLECTED: 8 / 22 / 1979

SURFACE ELEVATION (FT.): 585.0    LOGGED (FT.): 290.0    LOG TYPE: Multiple log types

SOURCE: MOBIL OIL    WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENS, DRILL LOG, CORE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
585.0			UNCONSOLIDATED	80.0	0.0	
505.0	MODESTO		SHALE	1.0	80.0	
504.0	MODESTO	CHAPEL	COAL	1.0	81.0	
503.0	MODESTO		SHALE	9.0	82.0	
494.0	MODESTO		SHALE	13.5	91.0	
480.5	MODESTO		SHALE	54.5	104.5	
426.0	MODESTO		SHALE	1.5	159.0	
424.5	MODESTO		LIMESTONE	1.5	160.5	
423.0	MODESTO		BLACK SHALE	2.0	162.0	
421.0	MODESTO		SHALE	4.0	164.0	
417.0	MODESTO		SHALE	7.0	168.0	
410.0	MODESTO		LIMESTONE	4.5	175.0	
405.5	MODESTO		SHALE	3.5	179.5	
402.0	MODESTO		LIMESTONE	3.0	183.0	
399.0	MODESTO		SHALE	2.0	186.0	
397.0	MODESTO		SHALE	4.5	188.0	
392.5	MODESTO		SHALE	2.0	192.5	
390.5	MODESTO		BLACK SHALE	2.0	194.5	
388.5	CARBONDALE	DANVILLE	COAL	2.0	196.5	UNCERTAIN CORRELATION
386.5	CARBONDALE		SHALE	22.5	198.5	
364.0	CARBONDALE		SHALE	4.0	221.0	
360.0	CARBONDALE	HERRIN	COAL	0.0	225.0	UNCERTAIN CORRELATION
360.0	CARBONDALE		SHALE	13.0	225.0	
347.0	CARBONDALE		SHALE	16.5	238.0	
330.5	CARBONDALE	ST. DAVID	LIMESTONE	5.0	254.5	
325.5	CARBONDALE	TURNER MINE	BLACK SHALE	2.5	259.5	
323.0	CARBONDALE	SPRINGFIELD	COAL	5.3	262.0	
317.7	CARBONDALE		SHALE	0.7	267.3	
317.0	CARBONDALE		SHALE	8.0	268.0	
309.0	CARBONDALE		SHALE	14.0	276.0	

MAPID: 16722664000C    VERSION: 1

PROJECT: ISGS88

COUNTY: SANGAMON    TWP/RNG: 17N 4W    SECTION: 9    QUARTERS/FOOTAGES: 2583' N line, 156' E line

QUADRANGLE: WILLIAMSVILLE    LONGITUDE: -89.540841    GEOLOGIST: SROKA

CONFIDENTIAL: N    LATITUDE: 39.939984    DATE COLLECTED: 8 / 18 / 1978

SURFACE ELEVATION (FT.): 586.0    LOGGED (FT.): 300.0    LOG TYPE: Multiple log types

SOURCE: MOBIL OIL    WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENS, DRILL LOG, CORE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
586.0			UNCONSOLIDATED	49.0	0.0	
537.0	MODESTO		SHALE	38.5	49.0	
498.5	MODESTO	CHAPEL	COAL	1.0	87.5	
497.5	MODESTO		SHALE	4.0	88.5	
493.5	MODESTO		SHALE	9.0	92.5	
484.5	MODESTO		LIMESTONE	1.5	101.5	
483.0	MODESTO		SHALE	15.0	103.0	
468.0	MODESTO		SANDSTONE	2.0	118.0	
466.0	MODESTO		SHALE	33.0	120.0	
433.0	MODESTO		SHALE	3.0	153.0	
430.0	MODESTO		BLACK SHALE	1.5	156.0	
428.5	MODESTO		SHALE	6.5	157.5	
422.0	MODESTO		LIMESTONE	2.0	164.0	
420.0	MODESTO		BLACK SHALE	2.0	166.0	
418.0	MODESTO		SHALE	9.0	168.0	
409.0	MODESTO		SHALE	3.0	177.0	
406.0	MODESTO		SHALE	6.5	180.0	
399.5	MODESTO		LIMESTONE	3.0	186.5	
396.5	MODESTO		SHALE	4.5	189.5	
392.0	MODESTO		SHALE	3.0	194.0	
389.0	MODESTO		BLACK SHALE	3.0	197.0	
386.0	MODESTO		SHALE	7.5	200.0	
378.5	CARBONDALE	DANVILLE	COAL	1.5	207.5	UNCERTAIN CORRELATION
377.0	CARBONDALE		UNDERCLAY	3.5	209.0	
373.5	CARBONDALE		SHALE	7.5	212.5	
366.0	CARBONDALE	BANKSTON FORK	LIMESTONE	4.5	220.0	
361.5	CARBONDALE		SHALE	7.5	224.5	
354.0	CARBONDALE	BRERETON	LIMESTONE	4.5	232.0	
349.5	CARBONDALE	HERRIN	COAL	0.0	236.5	UNCERTAIN CORRELATION
349.5	CARBONDALE		SHALE	33.5	236.5	
316.0	CARBONDALE	ST. DAVID	LIMESTONE	2.0	270.0	
314.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.2	272.0	
312.8	CARBONDALE	SPRINGFIELD	COAL	5.8	273.2	
307.0	CARBONDALE		UNDERCLAY	1.0	279.0	
306.1	CARBONDALE		CORE LOSS	0.1	279.9	
306.0	CARBONDALE		SHALE	9.0	280.0	
297.0	CARBONDALE	EXCELLO	BLACK SHALE	1.5	289.0	
295.5	CARBONDALE		SHALE	9.5	290.5	

---

MAPID: 16701981000C    VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON    TWP/RNG: 17N 4W    SECTION: 11    QUARTERS/FOOTAGES: 0' N line, 2310' W line

QUADRANGLE: WILLIAMSVILLE    LONGITUDE: -89.513217

GEOLOGIST:

CONFIDENTIAL: N    LATITUDE: 39.947235

DATE COLLECTED:

SURFACE ELEVATION (FT.): 586.0    LOGGED (FT.): 228.5

LOG TYPE: Drillers Log

SOURCE: CONSOLIDATION COAL CO.    P-9-L

WELL TYPE: Coal Test

COMMENT: GOOD DESCRIPTION

---

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
395.9	MODESTO	PIASA	LIMESTONE	1.5	190.1
394.4	MODESTO		MOTTLED SHALE	13.0	191.6
381.4	CARBONDALE	DANVILLE	COAL	2.3	204.6
379.1	CARBONDALE	LAWSON	GRAY SHALE	2.9	206.9
376.2	CARBONDALE	LAWSON	CALCAREOUS SHALE	0.8	209.8
375.4	CARBONDALE	LAWSON	COAL	0.8	210.6
374.6	CARBONDALE	LAWSON	DARK GRAY SHALE	0.7	211.4
373.9	CARBONDALE	LAWSON	CALCAREOUS SHALE	11.3	212.1
362.6	CARBONDALE	BRERETON	LIMESTONE	4.3	223.4
358.3	CARBONDALE	ANNA	DARK GRAY SHALE	0.3	227.7
358.0	CARBONDALE	HERRIN	BONE COAL	0.5	228.0

---

MAPID: 16701981000C    VERSION: 2

PROJECT: ISGS88

COUNTY: SANGAMON    TWP/RNG: 17N 4W    SECTION: 11    QUARTERS/FOOTAGES: 0' N line, 2310' W line

QUADRANGLE: WILLIAMSVILLE    LONGITUDE: -89.513217    GEOLOGIST: SROKA

CONFIDENTIAL: N    LATITUDE: 39.947235    DATE COLLECTED: 8 / 13 / 1972

SURFACE ELEVATION (FT.): 586.3    LOGGED (FT.): 288.9    LOG TYPE: Multiple log types

SOURCE: CONSOLIDATION COAL CO.    WELL TYPE: Coal Test

COMMENT: DRILLERS LOG, ISGS CORE DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
586.3			UNCONSOLIDATED	94.0	0.0	
492.3	MODESTO		SHALE	2.2	94.0	
490.1	MODESTO		SANDSTONE	3.4	96.2	
486.7	MODESTO		SHALE	10.3	99.6	SANDY SHALE
476.4	MODESTO		SHALE	8.1	109.9	
468.3	MODESTO		SHALE	21.0	118.0	WITH SIDERITE BANDS; SANDY SH
447.3	MODESTO		SHALE	19.4	139.0	SANDY SHALE
427.9	MODESTO		SHALE	1.7	158.4	WITH SIDERITE BANDS
426.2	MODESTO		SHALE	3.6	160.1	
422.6	MODESTO		LIMESTONE	2.3	163.7	
420.3	MODESTO		SHALE	1.2	166.0	
419.1	MODESTO		BLACK SHALE	1.7	167.2	DARK SHALE ON DRILL LOG
417.4	MODESTO		SHALE	10.2	168.9	
407.2	MODESTO		LIMESTONE	3.8	179.1	
403.4	MODESTO		SHALE	7.6	182.9	
395.8	MODESTO		LIMESTONE	1.5	190.5	
394.3	MODESTO		SHALE	7.5	192.0	WITH SIDERITE BANDS
386.8	MODESTO		SHALE	2.5	199.5	
384.3	MODESTO		BLACK SHALE	1.8	202.0	DARK SHALE ON DRILL LOG
382.5	MODESTO		SHALE	1.2	203.8	
381.3	CARBONDALE	DANVILLE	COAL	6.8	205.0	HORSEBACK
374.5	CARBONDALE		SHALE	0.7	211.8	
373.8	CARBONDALE		SHALE	11.3	212.5	
362.5	CARBONDALE	BRERETON	LIMESTONE	4.3	223.8	
358.2	CARBONDALE	HERRIN	BLACK SHALE	0.6	228.1	
357.6	CARBONDALE		CLAYSTONE & SILTSTONE	9.4	228.7	SILTY, SIDERITE NODULES LOWER 1.6
348.2	CARBONDALE		SHALE	20.1	238.1	PYRITIC
328.1	CARBONDALE		UNCLASSIFIED	19.1	258.2	#5 COAL IN THIS INTERVAL
309.0	CARBONDALE		SHALE	0.2	277.3	BASE OF #5 COAL
308.8	CARBONDALE		CLAYSTONE & SILTSTONE	2.1	277.5	STIGMARIAN ROOTLETS
306.7	CARBONDALE		LIMESTONE	0.9	279.6	CALCITE FILLED FRACTURES
305.8	CARBONDALE		SHALE	6.2	280.5	
299.6	CARBONDALE		SHALE	1.0	286.7	SILTY
298.6	CARBONDALE		LIMESTONE	0.7	287.7	FOSSILIFEROUS
297.9	CARBONDALE		SHALE	0.5	288.4	

MAPID: 16722665000C    VERSION: 1

PROJECT: ISGS88

COUNTY: SANGAMON    TWP/RNG: 17N 4W    SECTION: 11    QUARTERS/FOOTAGES: 1332' S line, 60' W line

QUADRANGLE: WILLIAMSVILLE    LONGITUDE: -89.521277    GEOLOGIST: SROKA

CONFIDENTIAL: N    LATITUDE: 39.936213    DATE COLLECTED: 8 / 17 / 1978

SURFACE ELEVATION (FT.): 585.0    LOGGED (FT.): 285.0    LOG TYPE: Multiple log types

SOURCE: MOBIL OIL    WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENS, DRILL LOG, CORE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
585.0			UNCONSOLIDATED	43.0	0.0
542.0	MODESTO		SHALE	42.0	43.0
500.0	MODESTO		BLACK SHALE	2.5	85.0
497.5	MODESTO	CHAPEL	COAL	1.5	87.5
496.0	MODESTO		SHALE	73.0	89.0
423.0	MODESTO		LIMESTONE	2.5	162.0
420.5	MODESTO		BLACK SHALE	2.5	164.5
418.0	MODESTO		SHALE	8.5	167.0
409.5	MODESTO		SHALE	14.5	175.5
395.0	MODESTO		SHALE	5.0	190.0
390.0	MODESTO		BLACK SHALE	2.5	195.0
387.5	MODESTO		SHALE	10.0	197.5
377.5	CARBONDALE	DANVILLE	COAL	1.0	207.5
376.5	CARBONDALE		SHALE	6.5	208.5
370.0	CARBONDALE	BRERETON	LIMESTONE	2.5	215.0
367.5	CARBONDALE	ANNA	BLACK SHALE	2.0	217.5
365.5	CARBONDALE	HERRIN	COAL	0.5	219.5
365.0	CARBONDALE		SHALE	10.5	220.0
354.5	CARBONDALE		LIMESTONE	1.0	230.5
353.5	CARBONDALE		SHALE	26.0	231.5
327.5	CARBONDALE	ST. DAVID	LIMESTONE	4.5	257.5
323.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	262.0
321.0	CARBONDALE	SPRINGFIELD	COAL	6.0	264.0
315.0	CARBONDALE		CLAYSTONE & SHALE	5.0	270.0
310.0	CARBONDALE		LIMESTONE	3.0	275.0
307.0	CARBONDALE		SHALE	2.5	278.0
304.5	CARBONDALE		LIMESTONE	1.0	280.5
303.5	CARBONDALE		SHALE	2.5	281.5
301.0	CARBONDALE	EXCELLO	BLACK SHALE	1.0	284.0

MAPID: 16701209000C    VERSION: 1

PROJECT: NCRDS89

COUNTY: SANGAMON    TWP/RNG: 17N 4W    SECTION: 12    QUARTERS/FOOTAGES: 50' S line, 330' W line

QUADRANGLE: WILLIAMSVILLE    LONGITUDE: -89.501182

GEOLOGIST: SROKA

CONFIDENTIAL: N    LATITUDE: 39.933003

DATE COLLECTED: 4 / 24 / 1957

SURFACE ELEVATION (FT.): 604.0

LOGGED (FT.): 305.0

LOG TYPE: Multiple log types

SOURCE: SUN OIL CO. SG-15-57 #1

WELL TYPE: Structure Test

COMMENT: E-LOG AND DRILLERS LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
604.0			UNCONSOLIDATED	95.0	0.0
509.0	MODESTO		GRAY SHALE	4.0	95.0
505.0	MODESTO	CHAPEL	COAL	2.0	99.0
503.0	MODESTO		GRAY SHALE	4.0	101.0
499.0	MODESTO		SANDY SHALE	70.0	105.0
429.0	MODESTO		LIMESTONE	2.0	175.0
427.0	MODESTO		BLACK SHALE	1.0	177.0
426.0	MODESTO		GRAY SHALE	5.0	178.0
421.0	MODESTO		SHALE	17.0	183.0
404.0	MODESTO		GRAY SHALE	5.0	200.0
399.0	MODESTO		LIMESTONE	5.0	205.0
394.0	MODESTO		SHALE	5.0	210.0
389.0	MODESTO		GRAY SHALE	13.0	215.0
376.0	CARBONDALE	DANVILLE	COAL	2.0	228.0
374.0	CARBONDALE		GRAY SHALE	9.0	230.0
365.0	CARBONDALE	BRERETON	LIMESTONE	1.0	239.0
364.0	CARBONDALE	HERRIN	COAL	1.0	240.0
363.0	CARBONDALE		GRAY SHALE	5.0	241.0
358.0	CARBONDALE		SANDSTONE	4.0	246.0
354.0	CARBONDALE		GRAY SHALE	35.0	250.0
319.0	CARBONDALE	ST. DAVID	LIMESTONE	2.0	285.0
317.0	CARBONDALE	TURNER MINE	BLACK SHALE	5.0	287.0
312.0	CARBONDALE	SPRINGFIELD	COAL	5.0	292.0
307.0	CARBONDALE		UNDERCLAY	7.0	297.0
300.0	CARBONDALE		GRAY SHALE	1.0	304.0

MAPID: 16701209000C    VERSION: 2

PROJECT: ROOF STUDY

COUNTY: SANGAMON    TWP/RNG: 17N 4W    SECTION: 12    QUARTERS/FOOTAGES: 50' S line, 330' W line

QUADRANGLE: WILLIAMSVILLE

LONGITUDE: -89.501182

GEOLOGIST:

CONFIDENTIAL: N

LATITUDE: 39.933003

DATE COLLECTED:

SURFACE ELEVATION (FT.): 604.0

LOGGED (FT.): 242.0

LOG TYPE: Drillers Log

SOURCE:

WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
399.0	MODESTO	PIASA	LIMESTONE	5.0	205.0
394.0	MODESTO		MOTTLED SHALE	20.0	210.0
374.0	CARBONDALE	DANVILLE	COAL	1.0	230.0
373.0	CARBONDALE	LAWSON	GRAY SHALE	9.0	231.0
364.0	CARBONDALE	BRERETON	LIMESTONE	2.0	240.0

---

MAPID: 16723053000C    VERSION: 1

PROJECT: ISGS88

COUNTY: SANGAMON    TWP/RNG: 17N 4W    SECTION: 12    QUARTERS/FOOTAGES: 2595' S line, 528' E line

QUADRANGLE: CORNLAND    LONGITUDE: -89.485328    GEOLOGIST: SROKA

CONFIDENTIAL: N    LATITUDE: 39.940318    DATE COLLECTED: 6 / 11 / 1979

SURFACE ELEVATION (FT.): 595.0    LOGGED (FT.): 315.0    LOG TYPE: Multiple log types

SOURCE: MOBIL OIL    WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENS, DRILL LOG, CORE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
595.0			UNCONSOLIDATED	90.0	0.0	
505.0	MODESTO		SHALE	19.0	90.0	
486.0	MODESTO		SHALE	1.0	109.0	
485.0	MODESTO		LIMESTONE	2.0	110.0	
483.0	MODESTO		BLACK SHALE	0.5	112.0	
482.5	MODESTO	CHAPEL	COAL	1.0	112.5	
481.5	MODESTO		SHALE	2.5	113.5	
479.0	MODESTO		SANDSTONE	4.0	116.0	
475.0	MODESTO		SHALE	12.0	120.0	
463.0	MODESTO		SHALE	45.5	132.0	
417.5	MODESTO		LIMESTONE	2.5	177.5	
415.0	MODESTO		COAL	1.0	180.0	
414.0	MODESTO		SHALE	4.0	181.0	
410.0	MODESTO		LIMESTONE	2.0	185.0	
408.0	MODESTO		BLACK SHALE	2.0	187.0	
406.0	MODESTO		SHALE	6.0	189.0	
400.0	MODESTO		SHALE	7.5	195.0	
392.5	MODESTO		LIMESTONE	6.5	202.5	
386.0	MODESTO		SHALE	4.0	209.0	
382.0	MODESTO		SHALE	7.0	213.0	
375.0	MODESTO		SHALE	6.0	220.0	
369.0	MODESTO		SHALE	3.0	226.0	
366.0	MODESTO		BLACK SHALE	2.0	229.0	
364.0	CARBONDALE	DANVILLE	COAL	2.0	231.0	
362.0	CARBONDALE		SHALE	3.0	233.0	
359.0	CARBONDALE		SHALE	15.0	236.0	
344.0	CARBONDALE	BRERETON	LIMESTONE	1.0	251.0	
343.0	CARBONDALE		SHALE	1.5	252.0	
341.5	CARBONDALE	ANNA	BLACK SHALE	1.5	253.5	
340.0	CARBONDALE	HERRIN	COAL	2.0	255.0	
338.0	CARBONDALE		SHALE	15.0	257.0	
323.0	CARBONDALE		LIMESTONE	1.5	272.0	
321.5	CARBONDALE		SHALE	18.0	273.5	
303.5	CARBONDALE	ST. DAVID	LIMESTONE	0.5	291.5	
303.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.9	292.0	
300.1	CARBONDALE	SPRINGFIELD	COAL	6.0	294.9	
294.1	CARBONDALE		UNDERCLAY	0.4	300.9	
293.7	CARBONDALE		CORE LOSS	0.7	301.3	
293.0	CARBONDALE		SHALE	4.0	302.0	



289.0	CARBONDALE	SHALE	6.0	306.0
283.0	CARBONDALE	SHALE	3.0	312.0

---

MAPID: 16723291000C    VERSION: 1

PROJECT: ISGS88

COUNTY: SANGAMON    TWP/RNG: 17N 4W    SECTION: 13    QUARTERS/FOOTAGES: 1740' N line, 2058' E line

QUADRANGLE: CORNLAND    LONGITUDE: -89.490685    GEOLOGIST: SROKA

CONFIDENTIAL: N    LATITUDE: 39.928255    DATE COLLECTED: 7 / 6 / 1977

SURFACE ELEVATION (FT.): 575.0    LOGGED (FT.): 300.0    LOG TYPE: Multiple log types

SOURCE: MOBIL OIL    WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENS, DRILL LOG, CORE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
575.0			UNCONSOLIDATED	66.0	0.0
509.0	MODESTO		SHALE	17.0	66.0
492.0	MODESTO	CHAPEL	COAL	2.0	83.0
490.0	MODESTO		SHALE	6.0	85.0
484.0	MODESTO		SHALE	9.0	91.0
475.0	MODESTO		SHALE	15.0	100.0
460.0	MODESTO		SHALE	38.0	115.0
422.0	MODESTO		COAL	1.0	153.0
421.0	MODESTO		SHALE	0.5	154.0
420.5	MODESTO		LIMESTONE	0.5	154.5
420.0	MODESTO		SHALE	7.0	155.0
413.0	MODESTO		LIMESTONE	3.0	162.0
410.0	MODESTO		BLACK SHALE	1.5	165.0
408.5	MODESTO		SHALE	10.5	166.5
398.0	MODESTO		SHALE	6.0	177.0
392.0	MODESTO		SHALE	6.0	183.0
386.0	MODESTO		LIMESTONE	1.0	189.0
385.0	MODESTO		SHALE	8.0	190.0
377.0	MODESTO		BLACK SHALE	1.5	198.0
375.5	MODESTO		SHALE	10.0	199.5
365.5	CARBONDALE	DANVILLE	COAL	1.0	209.5
364.5	CARBONDALE		SHALE	6.5	210.5
358.0	CARBONDALE	BRERETON	LIMESTONE	2.5	217.0
355.5	CARBONDALE	ANNA	BLACK SHALE	2.0	219.5
353.5	CARBONDALE	HERRIN	COAL	1.5	221.5
352.0	CARBONDALE		SHALE	3.0	223.0
349.0	CARBONDALE		SHALE	6.5	226.0
342.5	CARBONDALE		SHALE	34.5	232.5
308.0	CARBONDALE	ST. DAVID	LIMESTONE	2.5	267.0
305.5	CARBONDALE	TURNER MINE	BLACK SHALE	2.7	269.5
302.8	CARBONDALE	SPRINGFIELD	COAL	5.3	272.2
297.5	CARBONDALE		UNDERCLAY	0.7	277.5
296.8	CARBONDALE		CORE LOSS	0.4	278.2
296.5	CARBONDALE		SHALE	3.5	278.5
293.0	CARBONDALE		LIMESTONE	3.5	282.0
289.5	CARBONDALE		SHALE	6.5	285.5
283.0	CARBONDALE	EXCELLO	BLACK SHALE	2.0	292.0
281.0	CARBONDALE	HOUCHIN CREEK	COAL	1.5	294.0
279.5	CARBONDALE		SHALE	4.5	295.5



MAPID: 16723054000C    VERSION: 1

PROJECT: ISGS88

COUNTY: SANGAMON    TWP/RNG: 17N 4W    SECTION: 15    QUARTERS/FOOTAGES: 40' N line, 2620' E line

QUADRANGLE: WILLIAMSVILLE    LONGITUDE: -89.530884    GEOLOGIST: SROKA

CONFIDENTIAL: N    LATITUDE: 39.932364    DATE COLLECTED: 6 / 15 / 1979

SURFACE ELEVATION (FT.): 600.0    LOGGED (FT.): 314.0    LOG TYPE: Multiple log types

SOURCE: MOBIL OIL    WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENS, DRILL LOG, CORE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
600.0			UNCONSOLIDATED	60.0	0.0	
540.0	MODESTO		SHALE	47.5	60.0	
492.5	MODESTO		BLACK SHALE	2.0	107.5	
490.5	MODESTO	CHAPEL	COAL	2.0	109.5	
488.5	MODESTO		SHALE	65.5	111.5	
423.0	MODESTO		LIMESTONE	2.5	177.0	
420.5	MODESTO		SHALE	1.0	179.5	
419.5	MODESTO		COAL	0.5	180.5	
419.0	MODESTO		SHALE	1.5	181.0	
417.5	MODESTO		SHALE	3.3	182.5	
414.2	MODESTO		LIMESTONE	2.7	185.8	
411.5	MODESTO		BLACK SHALE	1.5	188.5	
410.0	MODESTO		SHALE	5.5	190.0	
404.5	MODESTO		SHALE	6.0	195.5	
398.5	MODESTO		LIMESTONE	2.0	201.5	
396.5	MODESTO		SHALE	10.5	203.5	
386.0	MODESTO		SHALE	6.0	214.0	
380.0	MODESTO		SHALE	6.0	220.0	
374.0	MODESTO		SHALE	3.0	226.0	
371.0	MODESTO	PIASA	LIMESTONE	1.5	229.0	
369.5	MODESTO		BLACK SHALE	1.5	230.5	
368.0	CARBONDALE	DANVILLE	COAL	2.0	232.0	UNCERTAIN CORRELATION
366.0	CARBONDALE		SHALE	8.5	234.0	
357.5	CARBONDALE	BRERETON	LIMESTONE	2.5	242.5	
355.0	CARBONDALE	ANNA	BLACK SHALE	2.5	245.0	
352.5	CARBONDALE	HERRIN	COAL	0.5	247.5	
352.0	CARBONDALE		SHALE	19.0	248.0	
333.0	CARBONDALE		SANDSTONE	1.1	267.0	
331.9	CARBONDALE		SHALE	8.7	268.1	
323.2	CARBONDALE		CORE LOSS	0.2	276.8	
323.0	CARBONDALE		SHALE	12.3	277.0	
310.7	CARBONDALE	ST. DAVID	LIMESTONE	2.6	289.3	
308.1	CARBONDALE	TURNER MINE	BLACK SHALE	2.1	291.9	
306.0	CARBONDALE	SPRINGFIELD	COAL	5.6	294.0	
300.4	CARBONDALE		CLAYSTONE & SHALE	3.7	299.6	
296.8	CARBONDALE		LIMESTONE	3.0	303.2	
293.8	CARBONDALE		SHALE	0.7	306.2	
293.1	CARBONDALE		LIMESTONE	0.3	306.9	
292.8	CARBONDALE		SHALE	2.7	307.2	

290.1	CARBONDALE		LIMESTONE	1.2	309.9
288.9	CARBONDALE		SHALE	0.9	311.1
288.0	CARBONDALE	EXCELLO	BLACK SHALE	1.3	312.0
286.7	CARBONDALE	HOUCHIN CREEK	COAL	0.6	313.3
286.1	CARBONDALE		CORE LOSS	0.1	313.9

---

MAPID: 16722183000C    VERSION: 1

PROJECT: ISGS88

COUNTY: SANGAMON    TWP/RNG: 17N 4W    SECTION: 16    QUARTERS/FOOTAGES: 21' N line, 66' E line of NE NE SW

QUADRANGLE: WILLIAMSVILLE    LONGITUDE: -89.549829

GEOLOGIST: SROKA

CONFIDENTIAL: N    LATITUDE: 39.92503

DATE COLLECTED: 7 / 3 / 1968

SURFACE ELEVATION (FT.): 585.0    LOGGED (FT.): 311.0

LOG TYPE: Multiple log types

SOURCE: CARTER OIL

WELL TYPE: Coal Test

COMMENT: DRILLERS LOG AND ISGS CORE DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
585.0			UNCONSOLIDATED	54.0	0.0	
531.0	MODESTO		SHALE	10.0	54.0	
521.0	MODESTO		SHALE	41.0	64.0	
480.0	MODESTO		BLACK SHALE	1.0	105.0	
479.0	MODESTO	CHAPEL	COAL	1.5	106.0	
477.5	MODESTO		SHALE	6.5	107.5	
471.0	MODESTO		SHALE	16.0	114.0	SANDY SHALE
455.0	MODESTO		SHALE	40.0	130.0	
415.0	MODESTO		SHALE	17.0	170.0	WITH SIDERITE
398.0	MODESTO		SANDSTONE	3.0	187.0	
395.0	MODESTO		SHALE	3.0	190.0	
392.0	MODESTO		BLACK SHALE	1.0	193.0	
391.0	MODESTO		SHALE	2.0	194.0	
389.0	MODESTO		SHALE	9.0	196.0	
380.0	MODESTO		SANDSTONE	3.0	205.0	
377.0	MODESTO		SHALE	3.5	208.0	
373.5	MODESTO		LIMESTONE	1.5	211.5	
372.0	MODESTO		SHALE	7.0	213.0	
365.0	MODESTO		SHALE	3.0	220.0	
362.0	MODESTO		SHALE	1.0	223.0	
361.0	MODESTO		SHALE	2.5	224.0	
358.5	MODESTO		LIMESTONE	0.5	226.5	
358.0	MODESTO		SHALE	6.0	227.0	
352.0	CARBONDALE	DANVILLE	BLACK SHALE	1.5	233.0	
350.5	CARBONDALE		SHALE	0.5	234.5	
350.0	CARBONDALE		SHALE	10.0	235.0	
340.0	CARBONDALE		LIMESTONE	1.4	245.0	
338.6	CARBONDALE		SHALE	0.4	246.4	CORED 246.4-267
338.2	CARBONDALE	BRERETON	LIMESTONE	0.5	246.8	
337.7	CARBONDALE		SHALE	2.4	247.3	
335.3	CARBONDALE	HERRIN	COAL	0.1	249.7	
335.2	CARBONDALE		SHALE	6.5	249.8	
328.7	CARBONDALE		SHALE	2.7	256.3	SANDY SHALE
326.0	CARBONDALE		SANDSTONE	2.0	259.0	
324.0	CARBONDALE		SHALE	6.0	261.0	SILTY SHALE
318.0	CARBONDALE		UNCLASSIFIED	13.0	267.0	
305.0	CARBONDALE		SHALE	9.2	280.0	CORED 280-311; ISGS DESCRIPTION
295.8	CARBONDALE	ST. DAVID	LIMESTONE	2.2	289.2	FOSSILIFEROUS; DOLOMITIC
293.6	CARBONDALE	TURNER MINE	BLACK SHALE	3.4	291.4	

290.2	CARBONDALE	SPRINGFIELD	COAL	5.5	294.8	
284.7	CARBONDALE		CLAYSTONE & SILTSTONE	1.0	300.3	CARBONACEOUS; CALCAREOUS TOWARD
283.7	CARBONDALE		CLAYSTONE & SILTSTONE	4.7	301.3	CALCAREOUS NODULES
279.0	CARBONDALE		SILTSTONE	0.4	306.0	
278.6	CARBONDALE		SILTSTONE	2.2	306.4	CALCAREOUS LENSES
276.4	CARBONDALE		SILTSTONE	0.4	308.6	SHALEY
276.0	CARBONDALE		CLAYSTONE & SILTSTONE	2.0	309.0	CALCAREOUS NODULES

**MAPID:** 16700059000C    **VERSION:** 1    **PROJECT:** NCRDS87  
**COUNTY:** SANGAMON    **TWP/RNG:** 17N 4W    **SECTION:** 17    **QUARTERS/FOOTAGES:** 2310' N line, 1650' W line  
**QUADRANGLE:** WILLIAMSVILLE    **LONGITUDE:** -89.572194    **GEOLOGIST:** WEIBEL  
**CONFIDENTIAL:** N    **LATITUDE:** 39.92586    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 590.0    **LOGGED (FT.):** 271.8    **LOG TYPE:** Drillers Log  
**SOURCE:** CHICAGO-WILLIAMSVILLE COAL    **WELL TYPE:** Mine Shaft  
**COMMENT:** ELEVATION AND LOCATION APPROX

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
590.0			UNCONSOLIDATED	40.8	0.0	
549.2	MODESTO		UNCLASSIFIED	33.1	40.8	
516.2	MODESTO		BLACK SHALE	0.7	73.8	UNCERTAIN CORRELATION
515.5	MODESTO	CHAPEL	COAL	1.5	74.5	
514.0	MODESTO		UNCLASSIFIED	89.3	76.0	UNCERTAIN CORRELATION
424.7	MODESTO		LIMESTONE	1.2	165.3	
423.5	MODESTO		UNCLASSIFIED	3.0	166.5	
420.5	MODESTO	PIASA	LIMESTONE	4.0	169.5	
416.5	MODESTO		UNCLASSIFIED	18.5	173.5	UNCERTAIN CORRELATION
398.0	CARBONDALE	DANVILLE	COAL	1.5	192.0	
396.5	CARBONDALE		UNCLASSIFIED	10.8	193.5	
385.7	CARBONDALE	ANNA	BLACK SHALE	1.0	204.3	
384.7	CARBONDALE	HERRIN	COAL	0.5	205.3	
384.2	CARBONDALE		UNCLASSIFIED	57.2	205.8	
327.1	CARBONDALE	ST. DAVID	LIMESTONE	0.7	262.9	
326.4	CARBONDALE	TURNER MINE	BLACK SHALE	2.5	263.6	
323.9	CARBONDALE	SPRINGFIELD	COAL	5.7	266.1	

MAPID: 16700059000C    VERSION: 2

PROJECT: ROOF STUDY

COUNTY: SANGAMON    TWP/RNG: 17N 4W    SECTION: 17    QUARTERS/FOOTAGES: 2310' N line, 1650' W line

QUADRANGLE: WILLIAMSVILLE

LONGITUDE: -89.572194

GEOLOGIST:

CONFIDENTIAL: N

LATITUDE: 39.92586

DATE COLLECTED:

SURFACE ELEVATION (FT.): 590.0

LOGGED (FT.): 205.5

LOG TYPE: Drillers Log

SOURCE:

WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
420.7	MODESTO	PIASA	LIMESTONE	4.0	169.3
416.7	MODESTO		MOTTLED SHALE	18.5	173.3
398.2	CARBONDALE	DANVILLE	COAL	1.5	191.8
396.7	CARBONDALE		CLAYSTONE	0.8	193.3
396.0	CARBONDALE	LAWSON	SANDSTONE	3.5	194.0
392.5	CARBONDALE	LAWSON	CONGLOMERATE	6.5	197.5
386.0	CARBONDALE	ANNA	BLACK SHALE	1.0	204.0
385.0	CARBONDALE	HERRIN	COAL	0.5	205.0



MAPID: 16723292000C    VERSION: 1

PROJECT: ISGS88

COUNTY: SANGAMON    TWP/RNG: 17N 4W    SECTION: 18    QUARTERS/FOOTAGES: 1645' N line, 1352' W line

QUADRANGLE: WILLIAMSVILLE    LONGITUDE: -89.593389    GEOLOGIST: SROKA

CONFIDENTIAL: N    LATITUDE: 39.927587    DATE COLLECTED: 7 / 5 / 1977

SURFACE ELEVATION (FT.): 545.0    LOGGED (FT.): 240.0    LOG TYPE: Multiple log types

SOURCE: MOBIL OIL    WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENS, DRILL LOG, CORE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
545.0			UNCONSOLIDATED	44.0	0.0	
501.0	MODESTO		SHALE	53.0	44.0	
448.0	MODESTO		SHALE	2.0	97.0	
446.0	MODESTO		SHALE	7.0	99.0	
439.0	MODESTO		LIMESTONE	1.0	106.0	
438.0	MODESTO		BLACK SHALE	2.5	107.0	
435.5	MODESTO		SHALE	11.5	109.5	
424.0	MODESTO		LIMESTONE	1.0	121.0	
423.0	MODESTO		SHALE	1.5	122.0	
421.5	MODESTO		LIMESTONE	3.5	123.5	
418.0	MODESTO		SHALE	5.0	127.0	
413.0	MODESTO		SHALE	2.0	132.0	
411.0	MODESTO		BLACK SHALE	2.0	134.0	
409.0	MODESTO		SHALE	8.0	136.0	
401.0	MODESTO		LIMESTONE	2.0	144.0	
399.0	MODESTO		BLACK SHALE	1.0	146.0	
398.0	CARBONDALE	DANVILLE	COAL	1.0	147.0	UNCERTAIN CORRELATION
397.0	CARBONDALE		SHALE	7.5	148.0	
389.5	CARBONDALE		LIMESTONE	4.5	155.5	
385.0	CARBONDALE		SHALE	0.5	160.0	
384.5	CARBONDALE	ANNA	BLACK SHALE	2.5	160.5	
382.0	CARBONDALE	HERRIN	COAL	0.0	163.0	UNCERTAIN CORRELATION
382.0	CARBONDALE		SHALE	41.5	163.0	
340.5	CARBONDALE	ST. DAVID	LIMESTONE	1.4	204.5	
339.1	CARBONDALE	TURNER MINE	BLACK SHALE	3.3	205.9	
335.8	CARBONDALE	SPRINGFIELD	COAL	5.9	209.2	
330.0	CARBONDALE		UNDERCLAY	3.3	215.0	
326.7	CARBONDALE		CORE LOSS	0.2	218.3	
326.5	CARBONDALE		SHALE	5.5	218.5	
321.0	CARBONDALE		LIMESTONE	1.5	224.0	
319.5	CARBONDALE	EXCELLO	BLACK SHALE	1.5	225.5	
318.0	CARBONDALE	HOUCHIN CREEK	COAL	1.0	227.0	
317.0	CARBONDALE		SHALE	12.0	228.0	

MAPID: 16701817000C    VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON    TWP/RNG: 17N 4W    SECTION: 21    QUARTERS/FOOTAGES: 1304' S line, 34' E line

QUADRANGLE: WILLIAMSVILLE

LONGITUDE: -89.54015

GEOLOGIST:

CONFIDENTIAL: N

LATITUDE: 39.906914

DATE COLLECTED:

SURFACE ELEVATION (FT.): 580.0

LOGGED (FT.): 228.6

LOG TYPE: Survey Core Study

SOURCE: CONSOLIDATION COAL CO.    P-1-L

WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
401.0	MODESTO	PIASA	LIMESTONE/UNDERCLAY	0.3	179.0
400.7	MODESTO		CLAYSTONE & SHALE	32.4	179.3
368.3	CARBONDALE	DANVILLE	COAL	2.4	211.7
365.9	CARBONDALE		CLAYSTONE & SHALE	3.7	214.1
362.2	CARBONDALE	BANKSTON FORK	LIMESTONE/UNDERCLAY	0.8	217.8
361.4	CARBONDALE	LAWSON	CLAYSTONE & SHALE	2.1	218.6
359.3	CARBONDALE	BRERETON	NODULAR LIMESTONE	3.6	220.7
355.7	CARBONDALE	ANNA	BLACK SHALE	0.7	224.3
352.0	CARBONDALE	HERRIN	COAL	0.6	228.0

---

MAPID: 16701817000C    VERSION: 2

PROJECT: ISGS88

COUNTY: SANGAMON    TWP/RNG: 17N 4W    SECTION: 21    QUARTERS/FOOTAGES: 1304' S line, 34' E line

QUADRANGLE: WILLIAMSVILLE    LONGITUDE: -89.54015    GEOLOGIST: SROKA

CONFIDENTIAL: N    LATITUDE: 39.906914    DATE COLLECTED: 7 / 11 / 1972

SURFACE ELEVATION (FT.): 580.0    LOGGED (FT.): 289.2    LOG TYPE: Multiple log types

SOURCE: CONSOLIDATION COAL CO.    WELL TYPE: Coal Test

COMMENT: DRILLERS LOG, CORE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
580.0			UNCONSOLIDATED	99.0	0.0	
481.0	MODESTO		LIMESTONE	0.6	99.0	ISGS CORE DESCRIPTION TO T.D.
480.4	MODESTO		SHALE	0.6	99.6	
479.8	MODESTO		SHALE	2.2	100.2	PYRITIZED BIVALVES
477.6	MODESTO	CHAPEL	COAL	2.3	102.4	
475.3	MODESTO		CLAYSTONE & SILTSTONE	1.0	104.7	STIGMARIAN FOSSILS
474.3	MODESTO		SHALE	5.0	105.7	THIN 1 IN. SILTSTONE LENSES
469.3	MODESTO		SHALE	21.6	110.7	CARBONACEOUS
447.7	MODESTO		SHALE	9.8	132.3	FEW SLTST AND SIDERITE LENSES
437.9	MODESTO		SHALE	19.9	142.1	
418.0	MODESTO		SHALE	4.1	162.0	CARBONACEOUS, SILTY
413.9	MODESTO		SHALE	1.0	166.1	PYRITIC, FOSSILIFEROUS
412.9	MODESTO		LIMESTONE	0.7	167.1	FOSSILIF. CARBONACEOUS
412.2	MODESTO		BLACK SHALE	1.5	167.8	FOSSILIF. CARBON, INCLUDES DRK.GRAY SH
410.7	MODESTO		BLACK SHALE	0.1	169.3	
410.6	MODESTO		CLAYSTONE & SILTSTONE	0.6	169.4	CARBONIZED PLANT FRAGS
410.0	MODESTO		CLAYSTONE & SILTSTONE	3.4	170.0	LS NODULES
406.6	MODESTO		CLAYSTONE & SILTSTONE	2.6	173.4	
404.0	MODESTO		SHALE	3.1	176.0	LS NODULES
400.9	MODESTO		LIMESTONE	0.3	179.1	FOSSILIFEROUS
400.6	MODESTO		SHALE	0.6	179.4	
400.0	MODESTO		BLACK SHALE	1.6	180.0	SOME COAL AT BASE
398.4	MODESTO		CLAYSTONE & SILTSTONE	6.2	181.6	
392.2	MODESTO		CLAYSTONE & SILTSTONE	10.0	187.8	
382.2	MODESTO		CLAYSTONE & SILTSTONE	10.0	197.8	LS NODULES; BRACHIOPODS
372.2	MODESTO		SHALE	4.4	207.8	LS NODULES IN UPPER PART
367.8	CARBONDALE	DANVILLE	COAL	2.4	212.2	
365.4	CARBONDALE		CLAYSTONE & SILTSTONE	0.8	214.6	STIGMARIAN FOSSILS; LS NODULES AT BASE
364.6	CARBONDALE		CLAYSTONE & SILTSTONE	0.6	215.4	
364.0	CARBONDALE		SHALE	2.5	216.0	
361.5	CARBONDALE		LIMESTONE	0.8	218.5	
360.7	CARBONDALE		CLAYSTONE & SHALE	2.1	219.3	
358.6	CARBONDALE	BRERETON	LIMESTONE	3.6	221.4	SHALEY; CRINOIDS ABUNDANT
355.0	CARBONDALE		SHALE	0.6	225.0	
354.4	CARBONDALE	ANNA	BLACK SHALE	0.1	225.6	
354.3	CARBONDALE		UNCLASSIFIED	2.3	225.7	
352.0	CARBONDALE	HERRIN	COAL	0.6	228.0	
351.4	CARBONDALE		CLAYSTONE & SILTSTONE	1.3	228.6	STIGMARIAN FOSSILS

350.1	CARBONDALE		CLAYSTONE & SILTSTONE	6.0	229.9	
344.1	CARBONDALE		SILTSTONE	2.5	235.9	LS NODULES
341.6	CARBONDALE		SHALE	19.9	238.4	N SH SLTST UPPER 1 FT.
321.7	CARBONDALE		SHALE	4.4	258.3	
317.3	CARBONDALE	ST. DAVID	LIMESTONE	3.0	262.7	
314.3	CARBONDALE	TURNER MINE	BLACK SHALE	2.2	265.7	
312.1	CARBONDALE	SPRINGFIELD	COAL	5.8	267.9	
306.3	CARBONDALE		UNCLASSIFIED	1.8	273.7	
304.5	CARBONDALE		SILTSTONE	2.2	275.5	
302.3	CARBONDALE		LIMESTONE	4.5	277.7	CALCITE FILLED FRACTURES
297.8	CARBONDALE		SHALE	0.9	282.2	BIVALVES
296.9	CARBONDALE		LIMESTONE	0.5	283.1	
296.4	CARBONDALE		SHALE	2.3	283.6	
294.1	CARBONDALE		LIMESTONE	1.3	285.9	SHALEY
292.8	CARBONDALE		SHALE	0.2	287.2	
292.6	CARBONDALE	EXCELLO	BLACK SHALE	1.3	287.4	
291.3	CARBONDALE		SHALE	0.5	288.7	

---

MAPID: 16723293000C    VERSION: 1

PROJECT: ISGS88

COUNTY: SANGAMON    TWP/RNG: 17N 4W    SECTION: 22    QUARTERS/FOOTAGES: 16' N line, 1461' W line

QUADRANGLE: WILLIAMSVILLE    LONGITUDE: -89.534737    GEOLOGIST: SROKA

CONFIDENTIAL: N    LATITUDE: 39.91787    DATE COLLECTED: 7 / 11 / 1977

SURFACE ELEVATION (FT.): 585.0    LOGGED (FT.): 316.0    LOG TYPE: Multiple log types

SOURCE: MOBIL OIL    WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENS, DRILL LOG, CORE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
585.0			UNCONSOLIDATED	46.0	0.0
539.0	MODESTO		SHALE	56.5	46.0
482.5	MODESTO		BLACK SHALE	1.5	102.5
481.0	MODESTO	CHAPEL	COAL	2.0	104.0
479.0	MODESTO		UNDERCLAY	2.0	106.0
477.0	MODESTO		SHALE	21.0	108.0
456.0	MODESTO		SHALE	46.0	129.0
410.0	MODESTO		SHALE	2.0	175.0
408.0	MODESTO		SHALE	2.0	177.0
406.0	MODESTO		SHALE	3.0	179.0
403.0	MODESTO		LIMESTONE	1.5	182.0
401.5	MODESTO		BLACK SHALE	1.5	183.5
400.0	MODESTO		SHALE	16.5	185.0
383.5	MODESTO		LIMESTONE	2.0	201.5
381.5	MODESTO		SHALE	2.5	203.5
379.0	MODESTO		LIMESTONE	1.0	206.0
378.0	MODESTO		SHALE	6.0	207.0
372.0	MODESTO		SHALE	2.0	213.0
370.0	MODESTO		BLACK SHALE	2.5	215.0
367.5	MODESTO		SHALE	11.5	217.5
356.0	CARBONDALE	DANVILLE	COAL	1.5	229.0
354.5	CARBONDALE		SHALE	6.0	230.5
348.5	CARBONDALE	BRERETON	LIMESTONE	2.5	236.5
346.0	CARBONDALE	ANNA	BLACK SHALE	2.5	239.0
343.5	CARBONDALE	HERRIN	COAL	0.5	241.5
343.0	CARBONDALE		SHALE	7.0	242.0
336.0	CARBONDALE		LIMESTONE	2.0	249.0
334.0	CARBONDALE		SHALE	15.0	251.0
319.0	CARBONDALE		SHALE	7.5	266.0
311.5	CARBONDALE		LIMESTONE	2.0	273.5
309.5	CARBONDALE		SHALE	4.3	275.5
305.2	CARBONDALE	ST. DAVID	LIMESTONE	2.1	279.8
303.1	CARBONDALE	TURNER MINE	BLACK SHALE	3.1	281.9
300.0	CARBONDALE	SPRINGFIELD	COAL	5.6	285.0
294.4	CARBONDALE		UNDERCLAY	2.1	290.6
292.3	CARBONDALE		CORE LOSS	0.1	292.7
292.2	CARBONDALE		SHALE	23.2	292.8

MAPID: 1672218000C    VERSION: 1

PROJECT: ISGS88

COUNTY: SANGAMON    TWP/RNG: 17N 4W    SECTION: 23    QUARTERS/FOOTAGES: SW SW NW

QUADRANGLE: WILLIAMSVILLE    LONGITUDE: -89.520212    GEOLOGIST: SROKA

CONFIDENTIAL: N    LATITUDE: 39.911667    DATE COLLECTED: 8 / 19 / 1968

SURFACE ELEVATION (FT.): 540.0    LOGGED (FT.): 237.0    LOG TYPE: Multiple log types

SOURCE: CARTER OIL    WELL TYPE: Coal Test

COMMENT: DRILLERS LOG AND ISGS CORE DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
540.0			UNCONSOLIDATED	30.0	0.0	
510.0	MODESTO		SANDSTONE	5.0	30.0	
505.0	MODESTO		SHALE	12.0	35.0	
493.0	MODESTO	CHAPEL	COAL	2.0	47.0	
491.0	MODESTO		SHALE	6.0	49.0	
485.0	MODESTO		SANDSTONE	35.0	55.0	SANDY SHALE
450.0	MODESTO		SHALE	20.0	90.0	SANDY SHALE
430.0	MODESTO		SHALE	10.0	110.0	
420.0	MODESTO		SHALE	5.0	120.0	
415.0	MODESTO		SHALE	5.0	125.0	
410.0	MODESTO		SHALE	7.0	130.0	
403.0	MODESTO		LIMESTONE	3.0	137.0	
400.0	MODESTO		SHALE	6.0	140.0	
394.0	MODESTO		SHALE	9.0	146.0	
385.0	MODESTO		SHALE	11.0	155.0	
374.0	CARBONDALE	DANVILLE	COAL	1.5	166.0	
372.5	CARBONDALE		SHALE	9.5	167.5	
363.0	CARBONDALE	BRERETON	LIMESTONE	2.0	177.0	
361.0	CARBONDALE		SHALE	2.0	179.0	
359.0	CARBONDALE	HERRIN	COAL	1.0	181.0	
358.0	CARBONDALE		SHALE	11.0	182.0	
347.0	CARBONDALE		SANDSTONE	2.0	193.0	
345.0	CARBONDALE		SHALE	25.5	195.0	WITH NODULES
319.5	CARBONDALE	ST. DAVID	LIMESTONE	5.2	220.5	
314.3	CARBONDALE	TURNER MINE	SHALE	1.3	225.7	CLAMS; CORED 225.7-237; ISGS DESCRIP.
313.0	CARBONDALE	SPRINGFIELD	COAL	5.7	227.0	
307.3	CARBONDALE		CLAYSTONE & SILTSTONE	0.6	232.7	CARBONIZED PLANT FRAGMENTS
306.7	CARBONDALE		CLAYSTONE & SILTSTONE	2.2	233.3	CALCAREOUS NODULES
304.5	CARBONDALE		CLAYSTONE & SILTSTONE	1.5	235.5	

MAPID: 16770000000C    VERSION: 1

PROJECT: NCRDS

COUNTY: SANGAMON    TWP/RNG: 17N 4W    SECTION: 23    QUARTERS/FOOTAGES: 2390' S line, 1200' E line

QUADRANGLE: WILLIAMSVILLE    LONGITUDE: -89.506571    GEOLOGIST: LOUCHIOS

CONFIDENTIAL: N    LATITUDE: 39.910291    DATE COLLECTED: 0 / 0 / 1951

SURFACE ELEVATION (FT.): 570.0    LOGGED (FT.): 965.0    LOG TYPE: Drillers Log

SOURCE: UTAH INTERNATIONAL    04C208    WELL TYPE: Coal Test

COMMENT: CODED COAL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
570.0			UNCLASSIFIED	432.0	0.0
138.0	CARBONDALE	COLCHESTER		4.0	432.0
134.0			UNCLASSIFIED	74.0	436.0
60.0			COAL	5.0	510.0
55.0			UNCLASSIFIED	450.0	515.0

---

MAPID: 16722420000C    VERSION: 1

PROJECT: ISGS88

COUNTY: SANGAMON    TWP/RNG: 17N 4W    SECTION: 24    QUARTERS/FOOTAGES: 2575' N line, 550' W line

QUADRANGLE: WILLIAMSVILLE    LONGITUDE: -89.500307    GEOLOGIST: SROKA

CONFIDENTIAL: N    LATITUDE: 39.911229    DATE COLLECTED: 10 / 25 / 1975

SURFACE ELEVATION (FT.): 560.0    LOGGED (FT.): 285.0    LOG TYPE: Multiple log types

SOURCE: MOBIL OIL    WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENS, DRILLERS LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
560.0			UNCONSOLIDATED	45.0	0.0	
515.0	MODESTO		SHALE	22.5	45.0	
492.5	MODESTO		BLACK SHALE	1.5	67.5	
491.0	MODESTO	CHAPEL	COAL	2.0	69.0	
489.0	MODESTO		SHALE	6.5	71.0	
482.5	MODESTO		BLACK SHALE	1.5	77.5	
481.0	MODESTO		GRAY SHALE	6.0	79.0	
475.0	MODESTO		SHALE	52.5	85.0	
422.5	MODESTO		LIMESTONE	1.0	137.5	
421.5	MODESTO		BLACK SHALE	2.5	138.5	
419.0	MODESTO		SHALE	9.0	141.0	
410.0	MODESTO		SHALE	21.5	150.0	
388.5	MODESTO		BLACK SHALE	1.5	171.5	
387.0	MODESTO		SHALE	10.0	173.0	
377.0	CARBONDALE	DANVILLE	COAL	2.5	183.0	
374.5	CARBONDALE		SHALE	5.0	185.5	
369.5	CARBONDALE	BRERETON	LIMESTONE	3.0	190.5	
366.5	CARBONDALE		SHALE	2.5	193.5	
364.0	CARBONDALE	HERRIN	COAL	1.5	196.0	UNCERTAIN CORRELATION
362.5	CARBONDALE		SHALE	39.0	197.5	
323.5	CARBONDALE	ST. DAVID	LIMESTONE	2.0	236.5	
321.5	CARBONDALE	TURNER MINE	BLACK SHALE	3.5	238.5	
318.0	CARBONDALE	SPRINGFIELD	COAL	5.5	242.0	
312.5	CARBONDALE		UNDERCLAY	3.5	247.5	
309.0	CARBONDALE		SHALE	8.5	251.0	
300.5	CARBONDALE		LIMESTONE	1.0	259.5	
299.5	CARBONDALE	EXCELLO	BLACK SHALE	3.0	260.5	
296.5	CARBONDALE	HOUCHIN CREEK	COAL	2.0	263.5	
294.5	CARBONDALE		SHALE	19.5	265.5	



MAPID: 16723150000C VERSION: 1

PROJECT: ISGS88

COUNTY: SANGAMON TWP/RNG: 17N 4W SECTION: 24 QUARTERS/FOOTAGES: 40' N line, 546' E line

QUADRANGLE: CORNLAND LONGITUDE: -89.485371 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 39.918429 DATE COLLECTED: 8 / 23 / 1979

SURFACE ELEVATION (FT.): 580.0 LOGGED (FT.): 290.0 LOG TYPE: Multiple log types

SOURCE: MOBIL OIL WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENS, DRILL LOG, CORE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
580.0			UNCONSOLIDATED	50.0	0.0
530.0	MODESTO		SHALE	7.0	50.0
523.0	MODESTO	CHAPEL	COAL	2.5	57.0
520.5	MODESTO		SHALE	28.5	59.5
492.0	MODESTO		SANDSTONE	1.5	88.0
490.5	MODESTO		SHALE	64.5	89.5
426.0	MODESTO		LIMESTONE	2.5	154.0
423.5	MODESTO		BLACK SHALE	2.5	156.5
421.0	MODESTO		SHALE	15.0	159.0
406.0	MODESTO		LIMESTONE	4.0	174.0
402.0	MODESTO		SHALE	2.0	178.0
400.0	MODESTO		LIMESTONE	2.0	180.0
398.0	MODESTO		SHALE	6.0	182.0
392.0	MODESTO		BLACK SHALE	3.0	188.0
389.0	CARBONDALE	DANVILLE	COAL	2.0	191.0
387.0	CARBONDALE		SHALE	4.0	193.0
383.0	CARBONDALE		SHALE	5.0	197.0
378.0	CARBONDALE	HERRIN	COAL	2.0	202.0
376.0	CARBONDALE		SHALE	3.5	204.0
372.5	CARBONDALE		LIMESTONE	3.5	207.5
369.0	CARBONDALE		SHALE	4.0	211.0
365.0	CARBONDALE		LIMESTONE	2.0	215.0
363.0	CARBONDALE		SHALE	35.0	217.0
328.0	CARBONDALE		SHALE	11.2	252.0
316.8	CARBONDALE	ST. DAVID	LIMESTONE	1.6	263.2
315.2	CARBONDALE	TURNER MINE	BLACK SHALE	2.7	264.8
312.5	CARBONDALE	SPRINGFIELD	COAL	5.2	267.5
307.3	CARBONDALE		SHALE	0.4	272.7
306.9	CARBONDALE		CORE LOSS	1.0	273.1
306.0	CARBONDALE		SHALE	3.0	274.0
303.0	CARBONDALE		LIMESTONE	4.0	277.0
299.0	CARBONDALE		SHALE	9.0	281.0

MAPID: 16722181000C    VERSION: 1

PROJECT: ISGS88

COUNTY: SANGAMON    TWP/RNG: 17N 4W    SECTION: 25    QUARTERS/FOOTAGES: 45' S line, 9' W line of SW SW NW

QUADRANGLE: WILLIAMSVILLE

LONGITUDE: -89.502241

GEOLOGIST: SROKA

CONFIDENTIAL: N

LATITUDE: 39.896555

DATE COLLECTED: 6 / 27 / 1968

SURFACE ELEVATION (FT.): 580.0

LOGGED (FT.): 258.0

LOG TYPE: Multiple log types

SOURCE: CARTER OIL

WELL TYPE: Coal Test

COMMENT: DRILLERS LOG AND ISGS CORE DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
580.0			UNCONSOLIDATED	75.0	0.0	
505.0	MODESTO		SHALE	5.0	75.0	
500.0	MODESTO		SHALE	54.0	80.0	
446.0	MODESTO		SHALE	6.0	134.0	SILTY SHALE
440.0	MODESTO		SHALE	20.0	140.0	
420.0	MODESTO		SHALE	2.0	160.0	
418.0	MODESTO		LIMESTONE	2.0	162.0	
416.0	MODESTO		SHALE	14.0	164.0	
402.0	MODESTO		LIMESTONE	0.5	178.0	
401.5	MODESTO		SHALE	7.5	178.5	
394.0	CARBONDALE	DANVILLE	COAL	1.0	186.0	CORRELATION UNCERTAIN
393.0	CARBONDALE		SHALE	7.0	187.0	
386.0	CARBONDALE	BANKSTON FORK	LIMESTONE	1.5	194.0	
384.5	CARBONDALE		SHALE	34.5	195.5	SILTY SHALE
350.0	CARBONDALE		SHALE	8.5	230.0	SILTY
341.5	CARBONDALE	ST. DAVID	LIMESTONE	1.7	238.5	CORED 240-258.2; ISGS DESCRIPTION
339.8	CARBONDALE	TURNER MINE	BLACK SHALE	3.6	240.2	INCL. DRK. GRAY SH; ORBICULOIDEA
336.2	CARBONDALE	SPRINGFIELD	COAL	5.7	243.8	
330.5	CARBONDALE		CLAYSTONE & SILTSTONE	4.4	249.5	CARBONIZED PLANT FRAGS; CALC. NODULES
326.1	CARBONDALE		LIMESTONE	0.3	253.9	NODULAR
325.8	CARBONDALE		SILTSTONE	4.0	254.2	WITH LS LENSES

MAPID: 16723294000C    VERSION: 1

PROJECT: ISGS88

COUNTY: SANGAMON    TWP/RNG: 17N 4W    SECTION: 26    QUARTERS/FOOTAGES: 2577' S line, 1600' E line

QUADRANGLE: WILLIAMSVILLE    LONGITUDE: -89.508006    GEOLOGIST: SROKA

CONFIDENTIAL: N    LATITUDE: 39.896168    DATE COLLECTED: 7 / 7 / 1977

SURFACE ELEVATION (FT.): 579.0    LOGGED (FT.): 270.0    LOG TYPE: Multiple log types

SOURCE: MOBIL OIL    WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENS, DRILL LOG, CORE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
579.0			UNCONSOLIDATED	56.0	0.0
523.0	MODESTO	CHAPEL	COAL	2.0	56.0
521.0	MODESTO		SHALE	8.0	58.0
513.0	MODESTO		SANDSTONE	1.0	66.0
512.0	MODESTO		SHALE	3.0	67.0
509.0	MODESTO		SHALE	60.5	70.0
448.5	MODESTO		SHALE	2.0	130.5
446.5	MODESTO		SHALE	7.0	132.5
439.5	MODESTO		BLACK SHALE	2.0	139.5
437.5	MODESTO		SHALE	2.5	141.5
435.0	MODESTO		SHALE	7.0	144.0
428.0	MODESTO		SHALE	8.0	151.0
420.0	MODESTO		SHALE	2.0	159.0
418.0	MODESTO		LIMESTONE	3.0	161.0
415.0	MODESTO		SHALE	4.0	164.0
411.0	MODESTO		BLACK SHALE	2.5	168.0
408.5	MODESTO		SHALE	9.5	170.5
399.0	CARBONDALE	DANVILLE	COAL	1.5	180.0
397.5	CARBONDALE		SHALE	7.5	181.5
390.0	CARBONDALE	BRERETON	LIMESTONE	5.0	189.0
385.0	CARBONDALE	ANNA	BLACK SHALE	1.0	194.0
384.0	CARBONDALE	HERRIN	COAL	1.0	195.0
383.0	CARBONDALE		SHALE	4.0	196.0
379.0	CARBONDALE		LIMESTONE	1.5	200.0
377.5	CARBONDALE		SHALE	34.0	201.5
343.5	CARBONDALE	ST. DAVID	LIMESTONE	3.2	235.5
340.3	CARBONDALE	TURNER MINE	BLACK SHALE	3.8	238.7
336.5	CARBONDALE	SPRINGFIELD	COAL	5.7	242.5
330.8	CARBONDALE		UNDERCLAY	2.1	248.2
328.7	CARBONDALE		CORE LOSS	0.2	250.3
328.5	CARBONDALE		SHALE	1.5	250.5
327.0	CARBONDALE		SHALE	7.5	252.0
319.5	CARBONDALE		LIMESTONE	1.0	259.5
318.5	CARBONDALE	EXCELLO	BLACK SHALE	2.5	260.5
316.0	CARBONDALE	HOUCHIN CREEK	COAL	2.0	263.0
314.0	CARBONDALE		SHALE	5.0	265.0

MAPID: 16722421000C    VERSION: 1

PROJECT: ISGS88

COUNTY: SANGAMON    TWP/RNG: 17N 4W    SECTION: 27    QUARTERS/FOOTAGES: 75' S line, 1248' W line

QUADRANGLE: WILLIAMSVILLE    LONGITUDE: -89.535532    GEOLOGIST: SROKA

CONFIDENTIAL: N    LATITUDE: 39.889015    DATE COLLECTED: 6 / 11 / 1975

SURFACE ELEVATION (FT.): 575.0    LOGGED (FT.): 285.0    LOG TYPE: Multiple log types

SOURCE: MOBIL OIL    WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENS, DRILLERS LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
575.0			UNCONSOLIDATED	81.0	0.0	
494.0	MODESTO		SHALE	5.5	81.0	
488.5	MODESTO	CHAPEL	COAL	1.5	86.5	
487.0	MODESTO		SHALE	3.0	88.0	
484.0	MODESTO		SHALE	6.0	91.0	
478.0	MODESTO		SHALE	73.0	97.0	
405.0	MODESTO		SHALE	23.0	170.0	
382.0	MODESTO		LIMESTONE	1.5	193.0	
380.5	MODESTO		SHALE	4.5	194.5	
376.0	MODESTO		SHALE	2.0	199.0	
374.0	MODESTO		BLACK SHALE	1.5	201.0	
372.5	MODESTO		SHALE	2.0	202.5	
370.5	MODESTO		LIMESTONE	0.5	204.5	
370.0	MODESTO		SHALE	4.5	205.0	
365.5	CARBONDALE	DANVILLE	COAL	1.5	209.5	
364.0	CARBONDALE		SHALE	10.0	211.0	
354.0	CARBONDALE	BRERETON	LIMESTONE	2.5	221.0	
351.5	CARBONDALE	ANNA	BLACK SHALE	1.5	223.5	
350.0	CARBONDALE	HERRIN	COAL	0.5	225.0	UNCERTAIN CORRELATION
349.5	CARBONDALE		SHALE	4.5	225.5	
345.0	CARBONDALE		LIMESTONE	1.0	230.0	
344.0	CARBONDALE		SHALE	6.5	231.0	
337.5	CARBONDALE		LIMESTONE	0.5	237.5	
337.0	CARBONDALE		SHALE	26.0	238.0	
311.0	CARBONDALE	ST. DAVID	LIMESTONE	3.0	264.0	
308.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.5	267.0	
305.5	CARBONDALE	SPRINGFIELD	COAL	5.5	269.5	
300.0	CARBONDALE		UNDERCLAY	4.0	275.0	
296.0	CARBONDALE		SHALE	6.0	279.0	

MAPID: 16722182000C    VERSION: 1

PROJECT: ISGS88

COUNTY: SANGAMON    TWP/RNG: 17N 4W    SECTION: 29    QUARTERS/FOOTAGES: 70' N line, 330' W line of NW NE SE

QUADRANGLE: WILLIAMSVILLE

LONGITUDE: -89.562413

GEOLOGIST: SROKA

CONFIDENTIAL: N

LATITUDE: 39.895788

DATE COLLECTED: 5 / 27 / 1968

SURFACE ELEVATION (FT.): 575.0

LOGGED (FT.): 250.0

LOG TYPE: Multiple log types

SOURCE: CARTER OIL

WELL TYPE: Coal Test

COMMENT: DRILLERS LOG AND ISGS CORE DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
575.0			UNCONSOLIDATED	45.0	0.0	
530.0	MODESTO		SHALE	17.0	45.0	
513.0	MODESTO		BLACK SHALE	3.0	62.0	
510.0	MODESTO		COAL	0.7	65.0	
509.3	MODESTO		SHALE	14.3	65.7	
495.0	MODESTO		SHALE	52.0	80.0	SANDY SHALE
443.0	MODESTO		SHALE	5.5	132.0	
437.5	MODESTO		SHALE	5.5	137.5	
432.0	MODESTO		SHALE	5.0	143.0	
427.0	MODESTO		SHALE	7.0	148.0	
420.0	MODESTO		LIMESTONE	5.5	155.0	
414.5	MODESTO		SHALE	4.5	160.5	
410.0	MODESTO		BLACK SHALE	3.0	165.0	
407.0	MODESTO		SHALE	7.0	168.0	
400.0	CARBONDALE	DANVILLE	COAL	1.0	175.0	WITH BKSH; CORRELATION UNCERTAIN
399.0	CARBONDALE		SHALE	6.0	176.0	
393.0	CARBONDALE	BANKSTON FORK	LIMESTONE	3.0	182.0	
390.0	CARBONDALE	BANKSTON FORK	LIMESTONE	2.5	185.0	
387.5	CARBONDALE		SHALE	9.5	187.5	
378.0	CARBONDALE		LIMESTONE	1.0	197.0	
377.0	CARBONDALE		SHALE	20.0	198.0	
357.0	CARBONDALE		SHALE	11.6	218.0	CORED 225-250; ISGS DESCRIPTION
345.4	CARBONDALE	ST. DAVID	LIMESTONE	0.4	229.6	CARBONACEOUS
345.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.7	230.0	PYRITIC BIVALVES
342.3	CARBONDALE	SPRINGFIELD	COAL	5.9	232.7	
336.4	CARBONDALE		CLAYSTONE & SILTSTONE	1.8	238.6	SILTY
334.6	CARBONDALE		LIMESTONE	2.6	240.4	CALCITE FILLED VEINS AND CAVITIES
332.0	CARBONDALE		CLAYSTONE & SILTSTONE	1.7	243.0	
330.3	CARBONDALE		SILTSTONE	5.3	244.7	N SH SLTST SS; PYRITIC; LS NODULES

MAPID: 16723055000C    VERSION: 1

PROJECT: ISGS88

COUNTY: SANGAMON    TWP/RNG: 17N 4W    SECTION: 30    QUARTERS/FOOTAGES: 2574' S line, 9' E line

QUADRANGLE: WILLIAMSVILLE    LONGITUDE: -89.577802    GEOLOGIST: SROKA

CONFIDENTIAL: N    LATITUDE: 39.895726    DATE COLLECTED: 6 / 13 / 1979

SURFACE ELEVATION (FT.): 580.0    LOGGED (FT.): 245.0    LOG TYPE: Multiple log types

SOURCE: MOBIL OIL    WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENS, DRILL LOG, CORE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
580.0			UNCONSOLIDATED	30.0	0.0
550.0	MODESTO		SHALE	17.0	30.0
533.0	MODESTO		BLACK SHALE	2.5	47.0
530.5	MODESTO	CHAPEL	COAL	2.0	49.5
528.5	MODESTO		SHALE	5.5	51.5
523.0	MODESTO		SHALE	5.5	57.0
517.5	MODESTO		SANDSTONE	1.5	62.5
516.0	MODESTO		SHALE	58.0	64.0
458.0	MODESTO		SHALE	3.0	122.0
455.0	MODESTO		SHALE	5.0	125.0
450.0	MODESTO		BLACK SHALE	2.0	130.0
448.0	MODESTO		SHALE	9.0	132.0
439.0	MODESTO		SHALE	5.5	141.0
433.5	MODESTO		LIMESTONE	3.0	146.5
430.5	MODESTO		SHALE	5.5	149.5
425.0	MODESTO		SHALE	3.5	155.0
421.5	MODESTO		BLACK SHALE	1.5	158.5
420.0	CARBONDALE	DANVILLE	COAL	0.5	160.0
419.5	CARBONDALE		SHALE	4.0	160.5
415.5	CARBONDALE	DANVILLE SUMP	COAL	1.0	164.5
414.5	CARBONDALE		SHALE	3.5	165.5
411.0	CARBONDALE	BRERETON	LIMESTONE	4.0	169.0
407.0	CARBONDALE	ANNA	BLACK SHALE	2.0	173.0
405.0	CARBONDALE	HERRIN	COAL	0.0	175.0
405.0	CARBONDALE		SHALE	2.5	175.0
402.5	CARBONDALE		SHALE	4.5	177.5
398.0	CARBONDALE		SHALE	38.5	182.0
359.5	CARBONDALE	ST. DAVID	LIMESTONE	0.5	220.5
359.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.5	221.0
356.5	CARBONDALE	SPRINGFIELD	COAL	5.6	223.5
350.9	CARBONDALE		UNDERCLAY	1.0	229.1
349.9	CARBONDALE		CORE LOSS	0.5	230.1
349.5	CARBONDALE		GRAY SHALE	2.5	230.5
347.0	CARBONDALE		SANDY SHALE	5.0	233.0
342.0	CARBONDALE	HANOVER	LIMESTONE	1.5	238.0
340.5			BLACK SHALE	2.5	239.5
338.0			COAL	1.0	242.0
337.0			SHALE	2.0	243.0



MAPID: 16723151000C    VERSION: 1

PROJECT: ISGS88

COUNTY: SANGAMON    TWP/RNG: 17N 4W    SECTION: 32    QUARTERS/FOOTAGES:

QUADRANGLE: WILLIAMSVILLE

LONGITUDE: -89.568135

GEOLOGIST: SROKA

CONFIDENTIAL: N

LATITUDE: 39.881535

DATE COLLECTED: 8 / 24 / 1979

SURFACE ELEVATION (FT.): 575.0

LOGGED (FT.): 255.0

LOG TYPE: Multiple log types

SOURCE: MOBIL OIL

WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENS, DRILL LOG, CORE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
575.0			UNCONSOLIDATED	39.0	0.0	
536.0	MODESTO		SHALE	18.0	39.0	
518.0	MODESTO		LIMESTONE	1.0	57.0	
517.0	MODESTO		BLACK SHALE	2.5	58.0	
514.5	MODESTO	CHAPEL	COAL	2.0	60.5	
512.5	MODESTO		SHALE	43.5	62.5	
469.0	MODESTO		SHALE	23.0	106.0	
446.0	MODESTO		LIMESTONE	2.0	129.0	
444.0	MODESTO		SHALE	4.0	131.0	
440.0	MODESTO		SHALE	6.0	135.0	
434.0	MODESTO		LIMESTONE	3.0	141.0	
431.0	MODESTO		BLACK SHALE	2.0	144.0	
429.0	MODESTO		SHALE	10.5	146.0	
418.5	MODESTO		LIMESTONE	1.0	156.5	
417.5	MODESTO		SHALE	4.0	157.5	
413.5	MODESTO		SHALE	1.5	161.5	
412.0	MODESTO		BLACK SHALE	2.0	163.0	
410.0	CARBONDALE	DANVILLE	COAL	0.0	165.0	UNCERTAIN CORRELATION
410.0	CARBONDALE		SHALE	2.0	165.0	
408.0	CARBONDALE		LIMESTONE	1.0	167.0	
407.0	CARBONDALE		SHALE	2.0	168.0	
405.0	CARBONDALE	DANVILLE SUMP	COAL	1.0	170.0	
404.0	CARBONDALE		SHALE	6.0	171.0	
398.0	CARBONDALE	BRERETON	LIMESTONE	2.5	177.0	
395.5	CARBONDALE		SHALE	2.5	179.5	
393.0	CARBONDALE	HERRIN	COAL	0.0	182.0	UNCERTAIN CORRELATION
393.0	CARBONDALE		SHALE	8.5	182.0	
384.5	CARBONDALE		SHALE	2.5	190.5	
382.0	CARBONDALE		SANDSTONE	5.0	193.0	
377.0	CARBONDALE		SHALE	28.0	198.0	
349.0	CARBONDALE	ST. DAVID	LIMESTONE	1.5	226.0	
347.5	CARBONDALE	TURNER MINE	BLACK SHALE	3.0	227.5	
344.5	CARBONDALE	SPRINGFIELD	COAL	5.6	230.5	
338.9	CARBONDALE		SHALE	0.8	236.1	
338.2	CARBONDALE		CORE LOSS	0.2	236.8	
338.0	CARBONDALE		GRAY SHALE	5.0	237.0	
333.0	CARBONDALE		CALCAREOUS SHALE	8.0	242.0	
325.0	CARBONDALE	HANOVER	LIMESTONE	1.0	250.0	
324.0	CARBONDALE	EXCELLO	BLACK SHALE	4.0	251.0	



MAPID: 16723295000C    VERSION: 1

PROJECT: NCRDS89

COUNTY: SANGAMON    TWP/RNG: 17N 4W    SECTION: 33    QUARTERS/FOOTAGES: 1365' N line, 1040' W line

QUADRANGLE: WILLIAMSVILLE    LONGITUDE: -89.555051

GEOLOGIST: SROKA

CONFIDENTIAL: N    LATITUDE: 39.885013

DATE COLLECTED: 7 / 11 / 1975

SURFACE ELEVATION (FT.): 550.0    LOGGED (FT.): 231.0

LOG TYPE: Multiple log types

SOURCE: MOBIL OIL SI-77-66

WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENSITY, DRILL LOG, CORE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
550.0			UNCONSOLIDATED	29.0	0.0
521.0	MODESTO		BLACK SHALE	1.5	29.0
519.5	MODESTO	CHAPEL	COAL	1.5	30.5
518.0	MODESTO		GRAY SHALE	12.0	32.0
506.0	MODESTO		SANDY SHALE	66.0	44.0
440.0	MODESTO		GRAY SHALE	5.5	110.0
434.5	CARBONDALE	DANVILLE	SHALE	1.3	115.5
433.2	CARBONDALE		SHALE	18.2	116.8
415.0	CARBONDALE		LIMESTONE	3.0	135.0
412.0	CARBONDALE		SHALE	5.5	138.0
406.5	CARBONDALE	ANNA	BLACK SHALE	3.0	143.5
403.5	CARBONDALE	HERRIN	COAL	0.0	146.5
403.5	CARBONDALE		GRAY SHALE	11.0	146.5
392.5	CARBONDALE		SHALY LIMESTONE	5.0	157.5
387.5	CARBONDALE		GRAY SHALE	7.5	162.5
380.0	CARBONDALE		CALCAREOUS SHALE	2.5	170.0
377.5	CARBONDALE		SANDY SHALE	9.5	172.5
368.0	CARBONDALE		SILTY SHALE	19.5	182.0
348.5	CARBONDALE	ST. DAVID	LIMESTONE	5.0	201.5
343.5	CARBONDALE	TURNER MINE	BLACK SHALE	1.7	206.5
341.8	CARBONDALE	SPRINGFIELD	COAL	5.3	208.2
336.5	CARBONDALE		UNDERCLAY	1.2	213.5
335.3	CARBONDALE		CORE LOSS	0.3	214.7
335.0	CARBONDALE		UNDERCLAY	1.0	215.0
334.0	CARBONDALE		CALCAREOUS SHALE	10.8	216.0
323.2	CARBONDALE	EXCELLO	BLACK SHALE	2.2	226.8
321.0	CARBONDALE	HOUCHIN CREEK	COAL	1.0	229.0
320.0	CARBONDALE		SHALE	1.0	230.0

MAPID: 16723296000C    VERSION: 1

PROJECT: ISGS88

COUNTY: SANGAMON    TWP/RNG: 17N 4W    SECTION: 34    QUARTERS/FOOTAGES: 1803' N line, 1743' E line

QUADRANGLE: WILLIAMSVILLE    LONGITUDE: -89.527278    GEOLOGIST: SROKA

CONFIDENTIAL: N    LATITUDE: 39.883922    DATE COLLECTED: 7 / 8 / 1977

SURFACE ELEVATION (FT.): 573.0    LOGGED (FT.): 280.0    LOG TYPE: Multiple log types

SOURCE: MOBIL OIL    WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENS, DRILL LOG, CORE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
573.0			UNCONSOLIDATED	20.0	0.0	
553.0	MODESTO		SHALE	8.0	20.0	
545.0	MODESTO		LIMESTONE	1.5	28.0	UNCERTAIN CORRELATION
543.5	MODESTO		BLACK SHALE	1.0	29.5	
542.5	MODESTO	CHAPEL	COAL	1.5	30.5	
541.0	MODESTO		SHALE	12.5	32.0	
528.5	MODESTO		SHALE	65.5	44.5	
463.0	MODESTO		SHALE	2.5	110.0	
460.5	MODESTO		SHALE	2.5	112.5	
458.0	MODESTO		SHALE	2.0	115.0	
456.0	MODESTO		BLACK SHALE	1.0	117.0	
455.0	MODESTO		SHALE	15.5	118.0	
439.5	MODESTO		LIMESTONE	4.0	133.5	
435.5	MODESTO		SHALE	4.5	137.5	
431.0	MODESTO		SHALE	1.0	142.0	
430.0	MODESTO		BLACK SHALE	2.0	143.0	
428.0	CARBONDALE	DANVILLE	COAL	0.0	145.0	UNCERTAIN CORRELATION
428.0	CARBONDALE		SHALE	5.5	145.0	
422.5	CARBONDALE	DANVILLE SUMP	COAL	0.5	150.5	
422.0	CARBONDALE		SHALE	6.5	151.0	
415.5	CARBONDALE	BRERETON	LIMESTONE	4.5	157.5	
411.0	CARBONDALE	ANNA	BLACK SHALE	1.5	162.0	
409.5	CARBONDALE	HERRIN	COAL	0.0	163.5	UNCERTAIN CORRELATION
409.5	CARBONDALE		SHALE	4.5	163.5	
405.0	CARBONDALE		SHALE	3.0	168.0	
402.0	CARBONDALE		SHALE	11.0	171.0	
391.0	CARBONDALE		SHALE	19.0	182.0	
372.0	CARBONDALE		SHALE	1.5	201.0	
370.5	CARBONDALE	ST. DAVID	LIMESTONE	4.0	202.5	
366.5	CARBONDALE	TURNER MINE	BLACK SHALE	1.7	206.5	
364.8	CARBONDALE	SPRINGFIELD	COAL	5.3	208.2	
359.5	CARBONDALE		UNDERCLAY	1.2	213.5	
358.3	CARBONDALE		CORE LOSS	0.3	214.7	
358.0	CARBONDALE		SHALE	2.0	215.0	
356.0	CARBONDALE		SHALE	9.8	217.0	
346.2	CARBONDALE	EXCELLO	BLACK SHALE	2.2	226.8	
344.0	CARBONDALE	HOUCHIN CREEK	COAL	2.0	229.0	

MAPID: 16700057000C VERSION: 1

PROJECT: NCRDS87

COUNTY: SANGAMON TWP/RNG: 17N 4W SECTION: 35 QUARTERS/FOOTAGES: 800' S line, 1320' W line

QUADRANGLE: WILLIAMSVILLE LONGITUDE: -89.516117 GEOLOGIST: WEIBEL

CONFIDENTIAL: N LATITUDE: 39.876905 DATE COLLECTED:

SURFACE ELEVATION (FT.): 574.6 LOGGED (FT.): 267.3 LOG TYPE: Drillers Log

SOURCE: BARCLAY COAL MINING CO. SHAFT WELL TYPE: Mine Shaft

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
574.6			UNCONSOLIDATED	47.0	0.0
527.6			COAL	0.7	47.0
526.9	MODESTO		UNCLASSIFIED	71.0	47.7
455.9	MODESTO		BLACK SHALE	0.3	118.7
455.6	MODESTO	CHAPEL	COAL	2.0	119.0
453.6	MODESTO		UNCLASSIFIED	14.1	121.0
439.5	MODESTO		BLACK SHALE	3.0	135.1
436.5	MODESTO		COAL	0.8	138.1
435.7	MODESTO		UNCLASSIFIED	28.4	138.9
407.3	CARBONDALE	DANVILLE	COAL	0.1	167.3
407.2	CARBONDALE		UNCLASSIFIED	18.5	167.4
388.7	CARBONDALE	ANNA	BLACK SHALE	0.2	185.9
388.5	CARBONDALE	HERRIN	COAL	0.2	186.1
388.3	CARBONDALE		UNCLASSIFIED	44.0	186.3
344.3	CARBONDALE		LIMESTONE	15.0	230.3
329.3	CARBONDALE	TURNER MINE	BLACK SHALE	4.0	245.3
325.3	CARBONDALE	SPRINGFIELD	COAL	6.1	249.3
319.3	CARBONDALE		UNCLASSIFIED	12.1	255.3

MAPID: 16700057000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 17N 4W SECTION: 35 QUARTERS/FOOTAGES: 800' S line, 1320' W line

QUADRANGLE: WILLIAMSVILLE LONGITUDE: -89.516117 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.876905 DATE COLLECTED:

SURFACE ELEVATION (FT.): 575.0 LOGGED (FT.): 186.2 LOG TYPE: Drillers Log

SOURCE: WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
438.0	MODESTO	PIASA	CARBONACEOUS LIMESTONE	1.5	137.0
436.5	MODESTO		GRAY SHALE	28.5	138.5
408.0	CARBONDALE		CLAYSTONE	1.5	167.0
406.5	CARBONDALE	LAWSON	SANDSTONE	17.0	168.5
389.5	CARBONDALE	ANNA	BLACK SHALE	0.2	185.5
389.0	CARBONDALE	HERRIN	COAL	0.2	186.0

MAPID: 16701211000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 17N 4W SECTION: 36 QUARTERS/FOOTAGES: 25' S line, 2615' W line

QUADRANGLE: MECHANICSBURG LONGITUDE: -89.492489

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.875134

DATE COLLECTED:

SURFACE ELEVATION (FT.): 580.0

LOGGED (FT.): 201.5

LOG TYPE: Drillers Log

SOURCE:

WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
421.0	MODESTO	PIASA	LIMESTONE	4.0	159.0
417.0	MODESTO		ROCK	14.5	163.0
402.5	CARBONDALE	DANVILLE	DARK GRAY SHALE	1.0	177.5
401.5	CARBONDALE	LAWSON	GRAY SHALE	17.0	178.5
384.5	CARBONDALE	BRERETON	LIMESTONE & SHALE	6.0	195.5

MAPID: 16701964000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 17N 4W SECTION: 36 QUARTERS/FOOTAGES: 2640' S line, 1320' E line

QUADRANGLE: CORNLAND LONGITUDE: -89.487906

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.882387

DATE COLLECTED:

SURFACE ELEVATION (FT.): 598.0

LOGGED (FT.): 274.5

LOG TYPE: Drillers Log

SOURCE:

WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
372.0	MODESTO	PIASA	LIMESTONE	0.5	226.0
371.5	MODESTO		SILTY SHALE	16.0	226.5
355.5	CARBONDALE	DANVILLE	COAL	2.5	242.5
353.0	CARBONDALE		SILTY SHALE	12.5	245.0
340.5	CARBONDALE	BANKSTON FORK	LIMESTONE	2.5	257.5
338.0	CARBONDALE	LAWSON	SILTY SHALE	12.5	260.0
325.5	CARBONDALE	BRERETON	LIMESTONE	2.0	272.5

MAPID: 16722422000C    VERSION: 1

PROJECT: ISGS88

COUNTY: SANGAMON    TWP/RNG: 17N 4W    SECTION: 36    QUARTERS/FOOTAGES: 65' S line, 250' E line

QUADRANGLE: CORNLAND    LONGITUDE: -89.484085

GEOLOGIST: SROKA

CONFIDENTIAL: N    LATITUDE: 39.875309

DATE COLLECTED: 12 / 1 / 1975

SURFACE ELEVATION (FT.): 585.0

LOGGED (FT.): 250.0

LOG TYPE: Multiple log types

SOURCE: MOBIL OIL

WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENS, DRILLERS LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
585.0			UNCONSOLIDATED	126.0	0.0	
459.0	MODESTO		SHALE	9.0	126.0	
450.0	MODESTO		BLACK SHALE	1.0	135.0	
449.0	MODESTO		SHALE	9.0	136.0	
440.0	MODESTO		BLACK SHALE	2.0	145.0	
438.0	MODESTO		SHALE	13.0	147.0	
425.0	MODESTO		LIMESTONE	4.0	160.0	
421.0	MODESTO		SHALE	7.0	164.0	
414.0	MODESTO		BLACK SHALE	1.0	171.0	
413.0	CARBONDALE	DANVILLE	COAL	0.0	172.0	UNCERTAIN CORRELATION
413.0	CARBONDALE		SHALE	8.0	172.0	
405.0	CARBONDALE	DANVILLE SUMP	COAL	1.0	180.0	
404.0	CARBONDALE		SHALE	9.5	181.0	
394.5	CARBONDALE	HERRIN	COAL	1.0	190.5	UNCERTAIN CORRELATION
393.5	CARBONDALE		SHALE	37.5	191.5	
356.0	CARBONDALE	ST. DAVID	LIMESTONE	2.5	229.0	
353.5	CARBONDALE	TURNER MINE	BLACK SHALE	3.5	231.5	
350.0	CARBONDALE	SPRINGFIELD	COAL	5.2	235.0	
344.8	CARBONDALE		UNDERCLAY	4.8	240.2	
340.0	CARBONDALE		SHALE	3.0	245.0	
337.0	CARBONDALE		SHALE	2.0	248.0	

MAPID: 16723056000C    VERSION: 1

PROJECT: ISGS88

COUNTY: SANGAMON    TWP/RNG: 17N 4W    SECTION: 36    QUARTERS/FOOTAGES: 2622' N line, 2592' W line

QUADRANGLE: CORNLAND    LONGITUDE: -89.492807    GEOLOGIST: SROKA

CONFIDENTIAL: N    LATITUDE: 39.882216    DATE COLLECTED: 6 / 12 / 1979

SURFACE ELEVATION (FT.): 575.0    LOGGED (FT.): 255.0    LOG TYPE: Multiple log types

SOURCE: MOBIL OIL    WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENS, DRILL LOG, CORE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
575.0			UNCONSOLIDATED	102.0	0.0	
473.0	MODESTO		SHALE	25.0	102.0	
448.0	MODESTO		SHALE	3.0	127.0	
445.0	MODESTO		SHALE	4.0	130.0	
441.0	MODESTO		SHALE	4.0	134.0	
437.0	MODESTO		BLACK SHALE	1.5	138.0	
435.5	MODESTO		SHALE	15.5	139.5	
420.0	MODESTO		LIMESTONE	4.0	155.0	
416.0	MODESTO		SHALE	11.0	159.0	
405.0	MODESTO		SHALE	1.0	170.0	
404.0	MODESTO		SHALE	2.0	171.0	
402.0	MODESTO		BLACK SHALE	2.0	173.0	
400.0	CARBONDALE	DANVILLE	COAL	1.5	175.0	
398.5	CARBONDALE		SHALE	9.5	176.5	
389.0	CARBONDALE	BRERETON	LIMESTONE	0.5	186.0	
388.5	CARBONDALE	ANNA	BLACK SHALE	2.5	186.5	
386.0	CARBONDALE	HERRIN	COAL	1.0	189.0	UNCERTAIN CORRELATION
385.0	CARBONDALE		SHALE	3.0	190.0	
382.0	CARBONDALE		LIMESTONE	0.5	193.0	
381.5	CARBONDALE		SHALE	36.3	193.5	
345.2	CARBONDALE	ST. DAVID	LIMESTONE	2.7	229.8	
342.5	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	232.5	
340.5	CARBONDALE	SPRINGFIELD	COAL	5.7	234.5	
334.8	CARBONDALE		UNDERCLAY	1.6	240.2	
333.2	CARBONDALE		CORE LOSS	0.2	241.8	
333.0	CARBONDALE		SHALE	3.0	242.0	
330.0	CARBONDALE		SHALE	3.0	245.0	
327.0	CARBONDALE		SHALE	2.0	248.0	
325.0	CARBONDALE		SHALE	5.0	250.0	

MAPID: 16701819000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 17N 5W SECTION: 3 QUARTERS/FOOTAGES: 660' N line, 660' E line

QUADRANGLE: ATHENS LONGITUDE: -89.638937

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.959234

DATE COLLECTED:

SURFACE ELEVATION (FT.): 600.0 LOGGED (FT.): 19.1

LOG TYPE: Electric Log

SOURCE: CONSOLIDATION COAL CO. P-6-L

WELL TYPE: Oil and Gas Test

COMMENT: FAIR DESCRIPTION, DEPTHS CORRECTED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	MODESTO		SILTY SHALE	30.0		
-	CARBONDALE	DANVILLE	COAL	1.5		
-	CARBONDALE		CLAYSTONE & SHALE	5.0		
-	CARBONDALE	BANKSTON FORK	LIMESTONE	3.0		
-	CARBONDALE	LAWSON	SHALE	5.0		
-	CARBONDALE	BRERETON	LIMESTONE	3.5		
364.8	CARBONDALE	SPRINGFIELD	COAL	5.0	235.2	Unit added to db 2007 from log

MAPID: 16701819000C VERSION: 2

PROJECT: ISGS88

COUNTY: SANGAMON TWP/RNG: 17N 5W SECTION: 3 QUARTERS/FOOTAGES: 660' N line, 660' E line

QUADRANGLE: ATHENS LONGITUDE: -89.638937

GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 39.959234

DATE COLLECTED: 8 / 2 / 1972

SURFACE ELEVATION (FT.): 600.0 LOGGED (FT.): 249.0

LOG TYPE: Multiple log types

SOURCE: CONSOLIDATION COAL CO.

WELL TYPE: Coal Test

COMMENT: SP., RESIST, CORE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
600.0			UNCONSOLIDATED	100.0	0.0	
500.0			UNCLASSIFIED	114.0	100.0	
386.0	CARBONDALE		SHALE	8.5	214.0	ISGS CORE DESCRIPTION TO T.D.
377.5	CARBONDALE		LIMESTONE	0.4	222.5	FOSSILIFEROUS; CARBONACEOUS
377.1	CARBONDALE		SHALE	0.7	222.9	
376.4	CARBONDALE	ST. DAVID	LIMESTONE	7.6	223.6	
368.8	CARBONDALE		SHALE	2.0	231.2	
366.8	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	233.2	BRACHS, CLAMS, DUNBARELLA
364.8	CARBONDALE	SPRINGFIELD	COAL	5.0	235.2	CORRELATION UNCERTAIN
359.8	CARBONDALE		CLAYSTONE & SILTSTONE	0.5	240.2	CARBONACEOUS ROOTLETS
359.3	CARBONDALE		CLAYSTONE & SILTSTONE	3.9	240.7	CARBONACEOUS DEBRIS
355.4	CARBONDALE		LIMESTONE	0.9	244.6	SANDY, FOSSILIFEROUS
354.6	CARBONDALE		SHALE	3.1	245.4	CARBONACEOUS AND PYRITIC NEAR BASE
351.5	CARBONDALE		UNCLASSIFIED	0.5	248.5	

MAPID: 16700060000C    VERSION: 1

PROJECT: NCRDS88

COUNTY: SANGAMON    TWP/RNG: 17N 5W    SECTION: 6    QUARTERS/FOOTAGES: NE NE

QUADRANGLE: ATHENS    LONGITUDE: -89.6956    GEOLOGIST: R. SMITH

CONFIDENTIAL: N    LATITUDE: 39.958825    DATE COLLECTED:

SURFACE ELEVATION (FT.):    LOGGED (FT.): 184.0    LOG TYPE: Drillers Log

SOURCE: BARCLAY COAL MINING CO.    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-			UNCONSOLIDATED	60.0	0.0
-	MODESTO		SANDY SHALE	40.0	60.0
-	MODESTO		SANDSTONE	2.5	100.0
-	MODESTO		CLAYSTONE	8.0	102.5
-	MODESTO		SHALE	25.0	110.5
-	MODESTO		SANDSTONE	15.0	135.5
-	CARBONDALE		SHALE	20.0	150.5
-	CARBONDALE	ST. DAVID	LIMESTONE	2.0	170.5
-	CARBONDALE	TURNER MINE	BLACK SHALE	4.0	172.5
-	CARBONDALE	SPRINGFIELD	COAL	5.6	176.5
-	CARBONDALE		UNDERCLAY	1.9	182.1



MAPID: 16722423000C    VERSION: 1

PROJECT: ISGS88

COUNTY: SANGAMON    TWP/RNG: 17N 5W    SECTION: 11    QUARTERS/FOOTAGES: 2595' S line, 70' E line

QUADRANGLE: WILLIAMSVILLE    LONGITUDE: -89.617219    GEOLOGIST: SROKA

CONFIDENTIAL: N    LATITUDE: 39.939375    DATE COLLECTED: 11 / 11 / 1975

SURFACE ELEVATION (FT.): 590.0    LOGGED (FT.): 260.0    LOG TYPE: Multiple log types

SOURCE: MOBIL OIL    WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENS, DRILLERS LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
590.0			UNCONSOLIDATED	50.0	0.0	
540.0	MODESTO		SHALE	9.0	50.0	
531.0	MODESTO		BLACK SHALE	2.5	59.0	
528.5	MODESTO	CHAPEL	COAL	1.5	61.5	
527.0	MODESTO		SHALE	78.5	63.0	
448.5	MODESTO		LIMESTONE	2.0	141.5	
446.5	MODESTO		SHALE	1.0	143.5	
445.5	MODESTO		BLACK SHALE	2.0	144.5	
443.5	MODESTO		SHALE	6.5	146.5	
437.0	MODESTO		SHALE	6.0	153.0	
431.0	MODESTO		LIMESTONE	2.0	159.0	
429.0	MODESTO		SHALE	8.0	161.0	
421.0	MODESTO		SHALE	3.0	169.0	
418.0	MODESTO		BLACK SHALE	1.5	172.0	
416.5	MODESTO		SHALE	8.0	173.5	
408.5	CARBONDALE	DANVILLE	COAL	2.0	181.5	
406.5	CARBONDALE		SHALE	4.0	183.5	
402.5	CARBONDALE		LIMESTONE	3.0	187.5	
399.5	CARBONDALE		SHALE	1.0	190.5	
398.5	CARBONDALE		LIMESTONE	1.5	191.5	
397.0	CARBONDALE		SHALE	5.0	193.0	
392.0	CARBONDALE	BRERETON	LIMESTONE	1.5	198.0	
390.5	CARBONDALE	HERRIN	BLACK SHALE	1.0	199.5	UNCERTAIN CORRELATION
389.5	CARBONDALE		SHALE	39.5	200.5	
350.0	CARBONDALE	ST. DAVID	LIMESTONE	2.0	240.0	
348.0	CARBONDALE	TURNER MINE	BLACK SHALE	5.0	242.0	
343.0	CARBONDALE	SPRINGFIELD	COAL	6.0	247.0	
337.0	CARBONDALE		CLAYSTONE & SHALE	7.0	253.0	

MAPID: 1672266600C    VERSION: 1

PROJECT: ISGS88

COUNTY: SANGAMON    TWP/RNG: 17N 5W    SECTION: 11    QUARTERS/FOOTAGES: 45' N line, 2120' W line

QUADRANGLE: ATHENS    LONGITUDE: -89.628577    GEOLOGIST: SROKA

CONFIDENTIAL: N    LATITUDE: 39.946605    DATE COLLECTED: 8 / 22 / 1978

SURFACE ELEVATION (FT.): 592.0    LOGGED (FT.): 250.0    LOG TYPE: Multiple log types

SOURCE: MOBIL OIL    WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENS, DRILL LOG, CORE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
592.0			UNCONSOLIDATED	18.0	0.0	
574.0	MODESTO		SANDSTONE	23.0	18.0	
551.0	MODESTO		BLACK SHALE	1.4	41.0	
549.6	MODESTO	CHAPEL	COAL	1.4	42.4	
548.2	MODESTO		SHALE	65.7	43.8	
482.5	MODESTO		SHALE	3.5	109.5	
479.0	MODESTO		SHALE	4.5	113.0	
474.5	MODESTO		LIMESTONE	3.5	117.5	
471.0	MODESTO		BLACK SHALE	3.0	121.0	
468.0	MODESTO		SHALE	5.5	124.0	
462.5	MODESTO		SHALE	6.0	129.5	
456.5	MODESTO		SHALE	6.5	135.5	
450.0	MODESTO		SHALE	11.0	142.0	
439.0	MODESTO		BLACK SHALE	2.0	153.0	
437.0	MODESTO		SHALE	10.5	155.0	
426.5	CARBONDALE	DANVILLE	COAL	1.5	165.5	
425.0	CARBONDALE		SHALE	3.0	167.0	
422.0	CARBONDALE	BANKSTON FORK	LIMESTONE	4.0	170.0	
418.0	CARBONDALE		SHALE	6.5	174.0	
411.5	CARBONDALE	BRERETON	LIMESTONE	3.5	180.5	
408.0	CARBONDALE	HERRIN	COAL	0.0	184.0	UNCERTAIN CORRELATION
408.0	CARBONDALE		SHALE	33.0	184.0	
375.0	CARBONDALE		SHALE	7.5	217.0	
367.5	CARBONDALE	ST. DAVID	LIMESTONE	1.5	224.5	
366.0	CARBONDALE	TURNER MINE	BLACK SHALE	3.1	226.0	
362.9	CARBONDALE	SPRINGFIELD	COAL	6.1	229.1	
356.9	CARBONDALE		SHALE	1.0	235.1	
356.0	CARBONDALE		SHALE	6.0	236.0	
350.0	CARBONDALE		LIMESTONE	1.0	242.0	
349.0	CARBONDALE		SHALE	3.0	243.0	
346.0	CARBONDALE	EXCELLO	BLACK SHALE	1.0	246.0	
345.0	CARBONDALE		SHALE	3.0	247.0	

MAPID: 16723062000C    VERSION: 1

PROJECT: ISGS88

COUNTY: SANGAMON    TWP/RNG: 17N 5W    SECTION: 11    QUARTERS/FOOTAGES: 33' S line, 2170' E line

QUADRANGLE: WILLIAMSVILLE    LONGITUDE: -89.62465    GEOLOGIST: SROKA

CONFIDENTIAL: N    LATITUDE: 39.932242    DATE COLLECTED: 8 / 10 / 1979

SURFACE ELEVATION (FT.): 585.0    LOGGED (FT.): 265.0    LOG TYPE: Multiple log types

SOURCE: MOBIL OIL    WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENS, DRILL LOG, CORE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
585.0			UNCONSOLIDATED	25.0	0.0	
560.0	MODESTO		SHALE	9.0	25.0	
551.0	MODESTO		SANDSTONE	26.0	34.0	
525.0	MODESTO		SANDSTONE	46.0	60.0	
479.0	MODESTO		SHALE	36.0	106.0	
443.0	MODESTO		LIMESTONE	1.0	142.0	
442.0	MODESTO		BLACK SHALE	2.5	143.0	
439.5	MODESTO		SHALE	16.0	145.5	
423.5	MODESTO		SHALE	7.5	161.5	
416.0	MODESTO		SHALE	4.5	169.0	
411.5	MODESTO		BLACK SHALE	1.0	173.5	
410.5	CARBONDALE	DANVILLE	COAL	0.0	174.5	UNCERTAIN CORRELATION
410.5	CARBONDALE		SHALE	4.5	174.5	
406.0	CARBONDALE		SHALE	2.0	179.0	
404.0	CARBONDALE		BLACK SHALE	3.0	181.0	
401.0	CARBONDALE		SHALE	8.0	184.0	
393.0	CARBONDALE		SHALE	3.0	192.0	
390.0	CARBONDALE	BRERETON	LIMESTONE	2.0	195.0	
388.0	CARBONDALE	ANNA	BLACK SHALE	1.5	197.0	
386.5	CARBONDALE	HERRIN	COAL	3.5	198.5	
383.0	CARBONDALE		SHALE	9.0	202.0	
374.0	CARBONDALE		SHALE	11.0	211.0	
363.0	CARBONDALE		LIMESTONE	13.0	222.0	
350.0	CARBONDALE	ST. DAVID	LIMESTONE	6.5	235.0	
343.5	CARBONDALE	TURNER MINE	BLACK SHALE	2.5	241.5	
341.0	CARBONDALE	SPRINGFIELD	COAL	6.3	244.0	
334.7	CARBONDALE		SHALE	7.7	250.3	
327.0	CARBONDALE	HOUCHIN CREEK	COAL	1.7	258.0	
325.3	CARBONDALE		SHALE	5.3	259.7	

MAPID: 16722157000C    VERSION: 1

PROJECT: ISGS88

COUNTY: SANGAMON    TWP/RNG: 17N 5W    SECTION: 12    QUARTERS/FOOTAGES: 2000' N line, 2400' E line

QUADRANGLE: WILLIAMSVILLE    LONGITUDE: -89.607022    GEOLOGIST: SROKA

CONFIDENTIAL: N    LATITUDE: 39.941267    DATE COLLECTED: 4 / 11 / 1968

SURFACE ELEVATION (FT.): 594.0    LOGGED (FT.): 271.0    LOG TYPE: Multiple log types

SOURCE: CARTER OIL    WELL TYPE: Coal Test

COMMENT: DRILLERS LOG AND ISGS CORE DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
594.0			UNCONSOLIDATED	54.0	0.0	
540.0	MODESTO		SHALE	24.0	54.0	
516.0	MODESTO		SHALE	2.0	78.0	
514.0	MODESTO	CHAPEL	COAL	1.5	80.0	
512.5	MODESTO		SHALE	20.5	81.5	
492.0	MODESTO		SHALE	41.0	102.0	WITH NODULES
451.0	MODESTO		SHALE	9.0	143.0	
442.0	MODESTO		LIMESTONE	2.0	152.0	
440.0	MODESTO		SHALE	2.0	154.0	
438.0	MODESTO		UNCLASSIFIED	14.0	156.0	MISSING CORE SECTION
424.0	MODESTO		SHALE	2.0	170.0	
422.0	MODESTO		LIMESTONE	1.0	172.0	
421.0	MODESTO		UNCLASSIFIED	10.0	173.0	MISSING CORE SECTION
411.0	MODESTO		SHALE	4.0	183.0	
407.0	MODESTO		SHALE	11.0	187.0	
396.0	CARBONDALE	DANVILLE	COAL	1.0	198.0	
395.0	CARBONDALE		SHALE	4.0	199.0	
391.0	CARBONDALE	BANKSTON FORK	LIMESTONE	4.0	203.0	
387.0	CARBONDALE		SHALE	0.5	207.0	
386.5	CARBONDALE		LIMESTONE	3.5	207.5	
383.0	CARBONDALE		SHALE	0.5	211.0	
382.5	CARBONDALE		SHALE	3.5	211.5	
379.0	CARBONDALE		SANDSTONE	33.0	215.0	
346.0	CARBONDALE		SHALE	8.6	248.0	CORED 248-270.5; ISGS DESCRIPTION
337.4	CARBONDALE	ST. DAVID	LIMESTONE	1.3	256.6	BRACHS, CRINOIDS; CALC. FILLED FEATURES
336.1	CARBONDALE	TURNER MINE	BLACK SHALE	2.9	257.9	PYRITIZED BRACHIOPODS & BIVALVES
333.2	CARBONDALE	SPRINGFIELD	COAL	5.1	260.8	CLAY DIKES 263-263.3 & 263.8-265.5
328.1	CARBONDALE		CLAYSTONE & SILTSTONE	2.0	265.9	PYRITIC, CALCAREOUS, CARBONACEOUS
326.1	CARBONDALE		CLAYSTONE & SILTSTONE	3.1	267.9	CALCAREOUS NODULES

MAPID: 16722667000C    VERSION: 1

PROJECT: ISGS88

COUNTY: SANGAMON    TWP/RNG: 17N 5W    SECTION: 12    QUARTERS/FOOTAGES: 34' S line, 116' E line

QUADRANGLE: WILLIAMSVILLE    LONGITUDE: -89.598799    GEOLOGIST: SROKA

CONFIDENTIAL: N    LATITUDE: 39.93249    DATE COLLECTED: 8 / 21 / 1978

SURFACE ELEVATION (FT.): 585.0    LOGGED (FT.): 275.0    LOG TYPE: Multiple log types

SOURCE: MOBIL OIL    WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENS, DRILL LOG, CORE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
585.0			UNCONSOLIDATED	32.0	0.0	
553.0	MODESTO		SHALE	31.5	32.0	
521.5	MODESTO		LIMESTONE	3.3	63.5	
518.2	MODESTO	CHAPEL	COAL	1.2	66.8	
517.0	MODESTO		SHALE	20.5	68.0	
496.5	MODESTO		LIMESTONE	1.0	88.5	
495.5	MODESTO		SHALE	42.5	89.5	
453.0	MODESTO		LIMESTONE	1.0	132.0	
452.0	MODESTO		SHALE	14.5	133.0	
437.5	MODESTO		LIMESTONE	1.5	147.5	
436.0	MODESTO		BLACK SHALE	2.0	149.0	
434.0	MODESTO		SHALE	4.0	151.0	
430.0	MODESTO		SHALE	18.5	155.0	
411.5	MODESTO		SHALE	3.5	173.5	
408.0	MODESTO		BLACK SHALE	1.5	177.0	
406.5	MODESTO		SHALE	10.8	178.5	
395.7	CARBONDALE	DANVILLE	COAL	1.7	189.3	
394.0	CARBONDALE		SHALE	6.0	191.0	
388.0	CARBONDALE	BRERETON	LIMESTONE	5.0	197.0	
383.0	CARBONDALE	ANNA	BLACK SHALE	1.5	202.0	
381.5	CARBONDALE	HERRIN	COAL	0.0	203.5	UNCERTAIN CORRELATION
381.5	CARBONDALE		SHALE	4.5	203.5	
377.0	CARBONDALE		LIMESTONE	3.0	208.0	
374.0	CARBONDALE		SHALE	38.5	211.0	
335.5	CARBONDALE	ST. DAVID	LIMESTONE	1.0	249.5	
334.5	CARBONDALE	TURNER MINE	BLACK SHALE	2.9	250.5	
331.6	CARBONDALE	SPRINGFIELD	COAL	6.0	253.4	
325.5	CARBONDALE		CLAYSTONE & SHALE	1.0	259.5	
324.5	CARBONDALE		SHALE	9.5	260.5	
315.0	CARBONDALE		LIMESTONE	0.5	270.0	
314.5	CARBONDALE		SHALE	4.5	270.5	

MAPID: 16722424000C    VERSION: 1

PROJECT: ISGS88

COUNTY: SANGAMON    TWP/RNG: 17N 5W    SECTION: 13    QUARTERS/FOOTAGES: 25' S line, 475' E line

QUADRANGLE: WILLIAMSVILLE    LONGITUDE: -89.599663    GEOLOGIST: SROKA

CONFIDENTIAL: N    LATITUDE: 39.91788    DATE COLLECTED: 10 / 28 / 1975

SURFACE ELEVATION (FT.): 575.0    LOGGED (FT.): 265.0    LOG TYPE: Multiple log types

SOURCE: MOBIL OIL    WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENS, DRILLERS LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
575.0			UNCONSOLIDATED	26.0	0.0	
549.0	MODESTO		SHALE	21.0	26.0	
528.0	MODESTO	CHAPEL	COAL	1.5	47.0	
526.5	MODESTO		SHALE	78.5	48.5	
448.0	MODESTO		LIMESTONE	2.0	127.0	
446.0	MODESTO		SHALE	11.0	129.0	
435.0	MODESTO		BLACK SHALE	1.0	140.0	
434.0	MODESTO		SHALE	8.0	141.0	
426.0	MODESTO		LIMESTONE	2.5	149.0	
423.5	MODESTO		SHALE	7.0	151.5	
416.5	MODESTO		BLACK SHALE	1.5	158.5	
415.0	MODESTO		SHALE	9.5	160.0	
405.5	CARBONDALE	DANVILLE	COAL	1.5	169.5	
404.0	CARBONDALE		SHALE	5.0	171.0	
399.0	CARBONDALE	BRERETON	LIMESTONE	5.5	176.0	
393.5	CARBONDALE		SHALE	2.5	181.5	
391.0	CARBONDALE	HERRIN	COAL	0.0	184.0	UNCERTAIN CORRELATION
391.0	CARBONDALE		SHALE	11.0	184.0	
380.0	CARBONDALE		SHALE	33.5	195.0	
346.5	CARBONDALE	ST. DAVID	LIMESTONE	1.5	228.5	
345.0	CARBONDALE	TURNER MINE	BLACK SHALE	3.5	230.0	
341.5	CARBONDALE	SPRINGFIELD	COAL	6.0	233.5	
335.5	CARBONDALE		CLAYSTONE & SHALE	8.0	239.5	
327.5	CARBONDALE		LIMESTONE	1.0	247.5	
326.5	CARBONDALE	EXCELLO	BLACK SHALE	3.5	248.5	
323.0	CARBONDALE		SHALE	13.0	252.0	

MAPID: 16722520000C    VERSION: 1

PROJECT: ISGS88

COUNTY: SANGAMON    TWP/RNG: 17N 5W    SECTION: 14    QUARTERS/FOOTAGES: 1700' N line, 3000' W line

QUADRANGLE: WILLIAMSVILLE    LONGITUDE: -89.625096    GEOLOGIST: SROKA

CONFIDENTIAL: N    LATITUDE: 39.927455    DATE COLLECTED: 7 / 18 / 1972

SURFACE ELEVATION (FT.): 581.7    LOGGED (FT.): 254.2    LOG TYPE: Multiple log types

SOURCE: CONSOLIDATION COAL CO.    WELL TYPE: Coal Test

COMMENT: DRILLERS LOG,CORE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
581.7			UNCONSOLIDATED	23.8	0.0	
557.9	MODESTO		SANDSTONE	0.2	23.8	
557.7	MODESTO		SHALE	1.0	24.0	
556.7	MODESTO		SANDSTONE	94.6	25.0	
462.1	MODESTO		SHALE	2.0	119.6	
460.1	MODESTO		SHALE	3.1	121.6	
457.0	MODESTO		SHALE	9.0	124.7	
448.0	MODESTO		SHALE	7.3	133.7	
440.7	MODESTO		SHALE	3.0	141.0	
437.7	MODESTO		SHALE	3.8	144.0	
433.9	MODESTO		SHALE	15.1	147.8	
418.8	MODESTO		SHALE	6.0	162.9	
412.8	CARBONDALE	DANVILLE	COAL	1.0	168.9	WITH BLACK SHALE
411.8	CARBONDALE		SHALE	6.0	169.9	
405.8	CARBONDALE		LIMESTONE	1.3	175.9	
404.5	CARBONDALE		SHALE	3.8	177.2	
400.7	CARBONDALE		SHALE	5.0	181.0	
395.7	CARBONDALE		SHALE	2.0	186.0	
393.7	CARBONDALE		SHALE	22.0	188.0	WITH LS AND SS STREAKS
371.7	CARBONDALE		SILTSTONE	1.1	210.0	ISGS CORE DESCRIPTION TO T.D.
370.6	CARBONDALE		SHALE	8.9	211.1	
361.7	CARBONDALE		SHALE	6.0	220.0	WITH FEW PYRITIC NODS; CALC. BASE
355.7	CARBONDALE	ST. DAVID	LIMESTONE	3.0	226.0	FOSSILIFEROUS
352.7	CARBONDALE	TURNER MINE	BLACK SHALE	2.3	229.0	ORBICULOIDEA
350.5	CARBONDALE	SPRINGFIELD	COAL	5.8	231.2	
344.7	CARBONDALE		CLAYSTONE & SILTSTONE	2.0	237.0	CARBONACEOUS ROOTLETS
342.7	CARBONDALE		CLAYSTONE & SILTSTONE	1.8	239.0	CALCAREOUS AND PHOSPHATIC NODULES
340.9	CARBONDALE		LIMESTONE	2.0	240.8	PHOSPHATIC NODULES AND CALC. LENSES
338.9	CARBONDALE		SHALE	3.0	242.8	PHOSPHATIC NODULES AND CALC. LENSES
335.9	CARBONDALE	HOUCHIN CREEK	COAL	1.7	245.8	
334.2	CARBONDALE		CLAYSTONE & SILTSTONE	6.7	247.5	CARBONIZED STIGMARIA; CALC. NODS

MAPID: 16722158000C    VERSION: 1

PROJECT: ISGS88

COUNTY: SANGAMON    TWP/RNG: 17N 5W    SECTION: 24    QUARTERS/FOOTAGES: 35' S line, 240' E line

QUADRANGLE: WILLIAMSVILLE    LONGITUDE: -89.598653    GEOLOGIST: SROKA

CONFIDENTIAL: N    LATITUDE: 39.903416    DATE COLLECTED: 5 / 28 / 1975

SURFACE ELEVATION (FT.): 585.0    LOGGED (FT.): 244.0    LOG TYPE: Multiple log types

SOURCE: CARTER OIL    WELL TYPE: Coal Test

COMMENT: DRILLERS LOG AND ISGS CORE DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
585.0			UNCONSOLIDATED	29.0	0.0	
556.0	MODESTO		SHALE	18.0	29.0	
538.0	MODESTO	CHAPEL	BLACK SHALE	1.5	47.0	WITH COAL
536.5	MODESTO		SHALE	75.5	48.5	SANDY SH
461.0	MODESTO		SHALE	2.5	124.0	
458.5	MODESTO		SHALE	9.5	126.5	
449.0	MODESTO		SHALE	1.5	136.0	
447.5	MODESTO		BLACK SHALE	1.5	137.5	
446.0	MODESTO		SHALE	5.0	139.0	
441.0	MODESTO		LIMESTONE	1.0	144.0	
440.0	MODESTO		SHALE	2.5	145.0	
437.5	MODESTO		LIMESTONE	1.5	147.5	
436.0	MODESTO		SHALE	3.0	149.0	
433.0	MODESTO		SHALE	13.0	152.0	
420.0	MODESTO		BLACK SHALE	1.0	165.0	
419.0	CARBONDALE	DANVILLE	COAL	0.5	166.0	
418.5	CARBONDALE		SHALE	4.5	166.5	
414.0	CARBONDALE		SHALE	2.5	171.0	
411.5	CARBONDALE		SHALE	14.5	173.5	
397.0	CARBONDALE	ANVIL ROCK	SANDSTONE	3.0	188.0	
394.0	CARBONDALE	ANVIL ROCK	SHALE	11.0	191.0	SANDY SH
383.0	CARBONDALE	ANVIL ROCK	SANDSTONE	10.0	202.0	HERRIN COAL CUTOUT BY CHANNEL
373.0	CARBONDALE		SHALE	9.8	212.0	SIDERITE; CORED 216-243.2; ISGS DESCRIP.
363.2	CARBONDALE	ST. DAVID	LIMESTONE	1.9	221.8	BRACHIOPODS AND CRINOIDS
361.3	CARBONDALE	TURNER MINE	BLACK SHALE	4.4	223.7	BRACHIOPODS; INCL. DRK.GRAY SH
356.9	CARBONDALE	SPRINGFIELD	COAL	5.8	228.1	
351.1	CARBONDALE		CLAYSTONE & SILTSTONE	1.4	233.9	SILTY AND PYRITIC
349.7	CARBONDALE		CLAYSTONE & SILTSTONE	2.6	235.3	SILTY AND CALCAREOUS NODULES
347.1	CARBONDALE		LIMESTONE	2.4	237.9	SILTY AND CALCAREOUS NODULES
344.7	CARBONDALE		SHALE	0.9	240.3	LAMINATED, PHOSPHATIC NODULES
343.8	CARBONDALE		SHALE	1.6	241.2	CARBONIZED PLANT FRAGMENTS
342.2	CARBONDALE		BLACK SHALE	1.2	242.8	



MAPID: 16700062000C VERSION: 1

PROJECT: NCRDS88

COUNTY: SANGAMON TWP/RNG: 17N 5W SECTION: 27 QUARTERS/FOOTAGES: SE NE

QUADRANGLE: ATHENS LONGITUDE: -89.637824 GEOLOGIST: R. SMITH

CONFIDENTIAL: N LATITUDE: 39.897744 DATE COLLECTED: 0 / 0 / 1930

SURFACE ELEVATION (FT.): 582.9 LOGGED (FT.): 600.0 LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO. WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
582.9			UNCONSOLIDATED	70.0	0.0
512.9			SHALE	142.0	70.0
370.9			UNCLASSIFIED	8.0	212.0
362.9	CARBONDALE	TURNER MINE	SHALE	2.0	220.0
360.9	CARBONDALE	SPRINGFIELD	COAL	6.0	222.0
354.9	CARBONDALE		SHALE	72.0	228.0
282.9	CARBONDALE	SURVANT	COAL	2.3	300.0
280.6	CARBONDALE		SHALE	42.8	302.3
237.9			COAL	8.0	345.0
229.9			SHALE	75.0	353.0
154.9			LIMESTONE	92.0	428.0
62.9			SANDSTONE	10.0	520.0
52.9			LIMESTONE	50.0	530.0
2.9			UNCLASSIFIED	20.0	580.0

MAPID: 16700063000C VERSION: 1

PROJECT: NCRDS88

COUNTY: SANGAMON TWP/RNG: 17N 5W SECTION: 31 QUARTERS/FOOTAGES: SW

QUADRANGLE: ATHENS LONGITUDE: -89.706958 GEOLOGIST: R. SMITH

CONFIDENTIAL: N LATITUDE: 39.876891 DATE COLLECTED:

SURFACE ELEVATION (FT.): LOGGED (FT.): 189.0 LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO. WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-			UNCONSOLIDATED	18.0	0.0
-	MODESTO		SHALE	40.0	18.0
-	MODESTO		SHALE	25.0	58.0
-	MODESTO		CLAYSTONE	17.0	83.0
-	MODESTO		SANDSTONE	5.0	100.0
-	MODESTO		CLAYSTONE	5.0	105.0
-	MODESTO		SHALE	30.0	110.0
-	CARBONDALE		SHALE	20.0	140.0
-	CARBONDALE		UNCLASSIFIED	19.0	160.0
-	CARBONDALE	ST. DAVID	LIMESTONE	1.0	179.0
-	CARBONDALE	TURNER MINE	BLACK SHALE	3.0	180.0
-	CARBONDALE	SPRINGFIELD	COAL	6.0	183.0

MAPID: 16700064000C VERSION: 1

PROJECT: NCRDS88

COUNTY: SANGAMON TWP/RNG: 17N 5W SECTION: 31 QUARTERS/FOOTAGES: NE

QUADRANGLE: ATHENS LONGITUDE: -89.696931 GEOLOGIST: R. SMITH

CONFIDENTIAL: N LATITUDE: 39.884319 DATE COLLECTED:

SURFACE ELEVATION (FT.): LOGGED (FT.): 200.0 LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO. WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-			UNCONSOLIDATED	16.0	0.0
-	MODESTO		SANDSTONE	14.0	16.0
-	MODESTO		SANDY SHALE	50.0	30.0
-	MODESTO		GRAY SHALE	25.0	80.0
-	MODESTO		CLAYSTONE	10.0	105.0
-	MODESTO		UNCLASSIFIED	2.0	115.0
-	MODESTO		SHALE	15.0	117.0
-	MODESTO		UNCLASSIFIED	6.0	132.0
-	CARBONDALE		SHALE	38.0	138.0
-	CARBONDALE		CLAYSTONE	10.0	176.0
-	CARBONDALE		UNCLASSIFIED	2.1	186.0
-	CARBONDALE	TURNER MINE	SHALE	4.0	188.1
-	CARBONDALE	SPRINGFIELD	COAL	6.0	192.1
-	CARBONDALE		UNDERCLAY	1.9	198.1

MAPID: 16722387000C    VERSION: 1

PROJECT: ISGS88

COUNTY: SANGAMON    TWP/RNG: 17N 5W    SECTION: 31    QUARTERS/FOOTAGES:

QUADRANGLE: ATHENS

LONGITUDE: -89.70195

GEOLOGIST: SROKA

CONFIDENTIAL: N

LATITUDE: 39.880595

DATE COLLECTED: 9 / 2 / 1975

SURFACE ELEVATION (FT.): 592.0

LOGGED (FT.): 201.0

LOG TYPE: Multiple log types

SOURCE: MOBIL OIL

WELL TYPE: Coal Test

COMMENT: GAMMA, DENSITY, DRILLERS LOG, CORE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
592.0			UNCONSOLIDATED	36.0	0.0
556.0	MODESTO		SHALE	62.5	36.0
493.5	MODESTO		BLACK SHALE	1.5	98.5
492.0	MODESTO		SHALE	9.0	100.0
483.0	MODESTO		BLACK SHALE	2.0	109.0
481.0	MODESTO		SHALE	4.0	111.0
477.0	MODESTO		SHALE	2.0	115.0
475.0	MODESTO		LIMESTONE	2.0	117.0
473.0	MODESTO		SHALE	7.5	119.0
465.5	MODESTO		BLACK SHALE	1.5	126.5
464.0	CARBONDALE	DANVILLE	COAL	0.5	128.0
463.5	CARBONDALE		SHALE	9.5	128.5
454.0	CARBONDALE		LIMESTONE	3.0	138.0
451.0	CARBONDALE		SHALE	3.0	141.0
448.0	CARBONDALE	BRERETON	LIMESTONE	2.5	144.0
445.5	CARBONDALE	ANNA	BLACK SHALE	0.5	146.5
445.0	CARBONDALE	HERRIN	COAL	1.5	147.0
443.5	CARBONDALE		UNDERCLAY	1.5	148.5
442.0	CARBONDALE		SHALE	12.0	150.0
430.0	CARBONDALE		SILTSTONE	1.8	162.0
428.2	CARBONDALE		SILTSTONE	0.6	163.8
427.6	CARBONDALE		SILTSTONE	6.2	164.4
421.4	CARBONDALE		SILTSTONE	1.5	170.6
419.9	CARBONDALE		SHALE	2.0	172.1
417.9	CARBONDALE		SHALE	7.9	174.1
410.0	CARBONDALE	ST. DAVID	LIMESTONE	6.5	182.0
403.5	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	188.5
401.5	CARBONDALE	SPRINGFIELD	COAL	5.8	190.5
395.8	CARBONDALE		CLAYSTONE & SILTSTONE	4.8	196.2

MAPID: 16700066000C    VERSION: 1

PROJECT: NCRDS88

COUNTY: SANGAMON    TWP/RNG: 17N 5W    SECTION: 36    QUARTERS/FOOTAGES: SE SE

QUADRANGLE: WILLIAMSVILLE    LONGITUDE: -89.599799    GEOLOGIST: R. SMITH

CONFIDENTIAL: N    LATITUDE: 39.876064    DATE COLLECTED:

SURFACE ELEVATION (FT.):    LOGGED (FT.): 227.0    LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO.    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-			UNCONSOLIDATED	30.0	0.0
-	MODESTO		SHALE/COAL	3.0	30.0
-	MODESTO		UNDERCLAY	15.0	33.0
-	MODESTO		SANDSTONE	16.0	48.0
-	MODESTO		SHALE	54.0	64.0
-	MODESTO		SHALE	56.0	118.0
-	MODESTO		UNCLASSIFIED	7.0	174.0
-	CARBONDALE		SHALE	20.0	181.0
-	CARBONDALE		UNCLASSIFIED	14.0	201.0
-	CARBONDALE	ST. DAVID	LIMESTONE	2.0	215.0
-	CARBONDALE	TURNER MINE	SHALE	4.0	217.0
-	CARBONDALE	SPRINGFIELD	COAL	5.6	221.0
-	CARBONDALE		UNDERCLAY	0.4	226.6

MAPID: 16700067000C VERSION: 1

PROJECT: NCRDS88

COUNTY: SANGAMON TWP/RNG: 17N 5W SECTION: 36 QUARTERS/FOOTAGES: NE SW

QUADRANGLE: WILLIAMSVILLE LONGITUDE: -89.609233 GEOLOGIST: R. SMITH

CONFIDENTIAL: N LATITUDE: 39.879663 DATE COLLECTED:

SURFACE ELEVATION (FT.): LOGGED (FT.): 291.8 LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO. WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-			UNCONSOLIDATED	30.0	0.0
-	MODESTO		SANDY SHALE	54.0	30.0
-			SHALE	22.0	84.0
-	CARBONDALE		LIMESTONE	3.0	106.0
-	CARBONDALE		CLAYSTONE	15.0	109.0
-	CARBONDALE		SHALE	32.0	124.0
-	CARBONDALE		SANDSTONE	29.0	156.0
-	CARBONDALE	ST. DAVID	LIMESTONE	2.1	185.0
-	CARBONDALE	TURNER MINE	DARK SHALE	3.8	187.1
-	CARBONDALE	SPRINGFIELD	COAL	6.0	190.8
-	CARBONDALE		UNDERCLAY	6.0	196.8
-	CARBONDALE		SANDSTONE	5.0	202.8
-	CARBONDALE		SHALE	80.0	207.8
-	CARBONDALE	SURVANT	COAL	4.0	287.8

MAPID: 16722425000C VERSION: 1

PROJECT: NCRDS89

COUNTY: SANGAMON TWP/RNG: 17N 6W SECTION: 28 QUARTERS/FOOTAGES: 10' N line, 2500' E line

QUADRANGLE: SALISBURY LONGITUDE: -89.778195 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 39.90236 DATE COLLECTED: 10 / 7 / 1975

SURFACE ELEVATION (FT.): 594.0 LOGGED (FT.): 220.0 LOG TYPE: Multiple log types

SOURCE: MOBIL OIL SI-60 WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENSITY, DRILL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
594.0			UNCONSOLIDATED	220.0	0.0
-	CARBONDALE	HERRIN	COAL	0.0	
-	CARBONDALE	SPRINGFIELD	COAL	0.0	

MAPID: 16700077000C    VERSION: 1

PROJECT: NCRDS87

COUNTY: SANGAMON    TWP/RNG: 17N 6W    SECTION: 29    QUARTERS/FOOTAGES: NE SW

QUADRANGLE: SALISBURY    LONGITUDE: -89.799442    GEOLOGIST: WEIBEL

CONFIDENTIAL: N    LATITUDE: 39.893274    DATE COLLECTED:

SURFACE ELEVATION (FT.): 560.0    LOGGED (FT.): 150.0    LOG TYPE: Drillers Log

SOURCE: SALISBURY COAL CO.    WELL TYPE: Mine Shaft

COMMENT: LOCATION & ELEVATION ARE IMPRECISE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
560.0			UNCONSOLIDATED	34.0	0.0	
526.0	CARBONDALE		UNCLASSIFIED	110.0	34.0	
416.0	CARBONDALE	SPRINGFIELD	COAL	6.0	144.0	

MAPID: 16722240000C    VERSION: 1

PROJECT: NCRDS96

COUNTY: SANGAMON    TWP/RNG: 17N 6W    SECTION: 30    QUARTERS/FOOTAGES: 1320' S line, 1400' E line

QUADRANGLE: SALISBURY    LONGITUDE: -89.811523    GEOLOGIST: MCCracken

CONFIDENTIAL: N    LATITUDE: 39.891325    DATE COLLECTED: 8 / 11 / 1970

SURFACE ELEVATION (FT.): 590.0    LOGGED (FT.): 140.0    LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON    PE257    WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
590.0	PLEISTOCENE		UNCONSOLIDATED	83.0	0.0	
507.0	CARBONDALE		SHALE	9.0	83.0	
498.0	CARBONDALE	ANNA	BLACK SHALE	2.0	92.0	
496.0	CARBONDALE		SHALE	37.5	94.0	
458.5	CARBONDALE	ST. DAVID	LIMESTONE	0.9	131.5	
457.6	CARBONDALE	TURNER MINE	BLACK SHALE	2.1	132.4	BONEY
455.5	CARBONDALE	SPRINGFIELD	COAL	5.3	134.5	
450.2	CARBONDALE		UNDERCLAY	0.2	139.8	

MAPID: 16722241000C VERSION: 1

PROJECT: NCRDS96

COUNTY: SANGAMON TWP/RNG: 17N 6W SECTION: 30 QUARTERS/FOOTAGES: 5' N line, 1320' W line  
 QUADRANGLE: SALISBURY LONGITUDE: -89.821215 GEOLOGIST: MCCRACKEN  
 CONFIDENTIAL: N LATITUDE: 39.902187 DATE COLLECTED: 8 / 12 / 1970  
 SURFACE ELEVATION (FT.): 604.0 LOGGED (FT.): 173.0 LOG TYPE: Drillers Log  
 SOURCE: COMMONWEALTH EDISON PE403 WELL TYPE: Coal Test  
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
604.0	PLEISTOCENE		UNCONSOLIDATED	85.0	0.0	
519.0			SHALE	24.0	85.0	
495.0	CARBONDALE	HERRIN	BLACK SHALE	2.0	109.0	WITH COAL
493.0	CARBONDALE		SHALE	5.0	111.0	
488.0	CARBONDALE		LIMESTONE	5.5	116.0	
482.5	CARBONDALE		SHALE	37.5	121.5	
445.0	CARBONDALE	ST. DAVID	LIMESTONE	2.0	159.0	
443.0	CARBONDALE	TURNER MINE	BLACK SHALE	6.5	161.0	
436.5	CARBONDALE	SPRINGFIELD	COAL	4.5	167.5	
432.0	CARBONDALE		UNDERCLAY	1.0	172.0	

MAPID: 16722242000C VERSION: 1

PROJECT: NCRDS96

COUNTY: SANGAMON TWP/RNG: 17N 6W SECTION: 30 QUARTERS/FOOTAGES: 5' N line, 1320' E line  
 QUADRANGLE: SALISBURY LONGITUDE: -89.811489 GEOLOGIST: MCCRACKEN  
 CONFIDENTIAL: N LATITUDE: 39.902293 DATE COLLECTED: 8 / 12 / 1970  
 SURFACE ELEVATION (FT.): 602.0 LOGGED (FT.): 164.0 LOG TYPE: Drillers Log  
 SOURCE: COMMONWEALTH EDISON PE407 WELL TYPE: Coal Test  
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
602.0	PLEISTOCENE		UNCONSOLIDATED	108.0	0.0	
494.0	CARBONDALE		LIMESTONE	3.0	108.0	
491.0	CARBONDALE		SHALE	46.0	111.0	
445.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	157.0	
443.0	CARBONDALE	SPRINGFIELD	COAL	4.0	159.0	
439.0	CARBONDALE		UNDERCLAY	1.0	163.0	

**MAPID:** 16722388000C    **VERSION:** 1    **PROJECT:** NCRDS89  
**COUNTY:** SANGAMON    **TWP/RNG:** 17N 6W    **SECTION:** 31    **QUARTERS/FOOTAGES:** 2100' N line, 50' W line  
**QUADRANGLE:** SALISBURY    **LONGITUDE:** -89.825434    **GEOLOGIST:** SROKA  
**CONFIDENTIAL:** N    **LATITUDE:** 39.881768    **DATE COLLECTED:** 9 / 8 / 1975  
**SURFACE ELEVATION (FT.):** 580.0    **LOGGED (FT.):** 134.0    **LOG TYPE:** Multiple log types  
**SOURCE:** MOBIL OIL SI-13    **WELL TYPE:** Coal Test  
**COMMENT:** GAMMA, RESIST, DENSITY, DRILL LOG, CORE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
580.0			UNCONSOLIDATED	63.0	0.0
517.0	CARBONDALE		SHALE	4.0	63.0
513.0	CARBONDALE		SHALE	4.0	67.0
509.0	CARBONDALE	HERRIN	COAL	1.0	71.0
508.0	CARBONDALE		GRAY SHALE	4.5	72.0
503.5	CARBONDALE		SHALY LIMESTONE	4.5	76.5
499.0	CARBONDALE		GRAY SHALE	5.5	81.0
493.5	CARBONDALE		LIMESTONE	1.5	86.5
492.0	CARBONDALE		SHALY SANDSTONE	14.0	88.0
478.0	CARBONDALE		SHALE	17.8	102.0
460.2	CARBONDALE	ST. DAVID	LIMESTONE	0.9	119.8
459.3	CARBONDALE	TURNER MINE	BLACK SHALE	1.8	120.7
457.5	CARBONDALE	SPRINGFIELD	COAL	6.1	122.5
451.4	CARBONDALE		CLAYSTONE & SILTSTONE	0.2	128.6
451.2	CARBONDALE		CLAYSTONE	2.4	128.8
448.8	CARBONDALE		CORE LOSS	2.9	131.2

**MAPID:** 16722521000C    **VERSION:** 1    **PROJECT:** NCRDS89  
**COUNTY:** SANGAMON    **TWP/RNG:** 17N 6W    **SECTION:** 33    **QUARTERS/FOOTAGES:** 1320' S line, 1700' E line  
**QUADRANGLE:** SALISBURY    **LONGITUDE:** -89.77448    **GEOLOGIST:** SROKA  
**CONFIDENTIAL:** N    **LATITUDE:** 39.876985    **DATE COLLECTED:** 9 / 30 / 1975  
**SURFACE ELEVATION (FT.):** 580.0    **LOGGED (FT.):** 174.0    **LOG TYPE:** Multiple log types  
**SOURCE:** MOBIL OIL SI-59    **WELL TYPE:** Coal Test  
**COMMENT:** GAMMA, RESIST, DENSITY, DRILL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
580.0			UNCONSOLIDATED	150.0	0.0
-	CARBONDALE	HERRIN	COAL	0.0	
430.0	CARBONDALE	ST. DAVID	LIMESTONE	5.5	150.0
424.5	CARBONDALE	TURNER MINE	BLACK SHALE	3.0	155.5
421.5	CARBONDALE	SPRINGFIELD	COAL	6.0	158.5
415.5	CARBONDALE		CLAYSTONE & SILTSTONE	3.5	164.5
412.0	CARBONDALE	EXCELLO	BLACK SHALE	4.0	168.0
408.0	CARBONDALE		SHALE	2.0	172.0



MAPID: 16722389000C    VERSION: 1

PROJECT: NCRDS89

COUNTY: SANGAMON    TWP/RNG: 17N 6W    SECTION: 34    QUARTERS/FOOTAGES: 2610' N line, 2570' E line

QUADRANGLE: SALISBURY    LONGITUDE: -89.759258    GEOLOGIST: SROKA

CONFIDENTIAL: N    LATITUDE: 39.880566    DATE COLLECTED: 9 / 4 / 1975

SURFACE ELEVATION (FT.): 581.0    LOGGED (FT.): 163.0    LOG TYPE: Multiple log types

SOURCE: MOBIL OIL SI-14C    WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENSITY, DRILL LOG, CORE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
581.0			UNCONSOLIDATED	144.0	0.0
-	CARBONDALE	HERRIN	COAL	0.0	
437.0	CARBONDALE	ST. DAVID	FOSSILIFEROUS LIMESTONE	2.0	144.0
435.0	CARBONDALE	TURNER MINE	BLACK SHALE	3.3	146.0
431.7	CARBONDALE	SPRINGFIELD	COAL	5.8	149.3
426.0	CARBONDALE		CLAYSTONE	2.8	155.0
423.2	CARBONDALE		CORE LOSS	5.2	157.8

MAPID: 16722426000C    VERSION: 1

PROJECT: NCRDS89

COUNTY: SANGAMON    TWP/RNG: 17N 6W    SECTION: 34    QUARTERS/FOOTAGES: 2610' N line, 2580' E line

QUADRANGLE: SALISBURY    LONGITUDE: -89.759294    GEOLOGIST: SROKA

CONFIDENTIAL: N    LATITUDE: 39.880566    DATE COLLECTED: 9 / 3 / 1975

SURFACE ELEVATION (FT.): 580.0    LOGGED (FT.): 162.0    LOG TYPE: Multiple log types

SOURCE: MOBIL OIL SI-14    WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENSITY, DRILL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
580.0			UNCONSOLIDATED	144.0	0.0
-	CARBONDALE	HERRIN	COAL	0.0	
436.0	CARBONDALE	ST. DAVID	LIMESTONE	2.0	144.0
434.0	CARBONDALE		BLACK SHALE	4.0	146.0
430.0	CARBONDALE	SPRINGFIELD	COAL	5.8	150.0
424.2	CARBONDALE		CLAYSTONE & SILTSTONE	6.2	155.8

MAPID: 16722249000C VERSION: 1

PROJECT: NCRDS96

COUNTY: SANGAMON TWP/RNG: 17N 7W SECTION: 25 QUARTERS/FOOTAGES: 2640' N line, 1635' E line

QUADRANGLE: SALISBURY LONGITUDE: -89.831693 GEOLOGIST: MCCRACKEN

CONFIDENTIAL: N LATITUDE: 39.894714 DATE COLLECTED: 8 / 11 / 1970

SURFACE ELEVATION (FT.): 600.0 LOGGED (FT.): 166.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON P322P WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
600.0	PLEISTOCENE		UNCONSOLIDATED	57.0	0.0
543.0			DARK SHALE	3.0	57.0
540.0			SHALE	6.0	60.0
534.0			LIMESTONE	4.0	66.0
530.0			SHALE	40.0	70.0
490.0	CARBONDALE	ANNA	BLACK SHALE	1.0	110.0
489.0	CARBONDALE		SHALE	5.5	111.0
483.5	CARBONDALE		LIMESTONE	5.5	116.5
478.0	CARBONDALE		CALCAREOUS SHALE	30.0	122.0
448.0	CARBONDALE	ST. DAVID	LIMESTONE	8.0	152.0
440.0	CARBONDALE	SPRINGFIELD	COAL	5.5	160.0
434.5	CARBONDALE		UNDERCLAY	0.5	165.5

MAPID: 16722250000C VERSION: 1

PROJECT: NCRDS96

COUNTY: SANGAMON TWP/RNG: 17N 7W SECTION: 25 QUARTERS/FOOTAGES: 1275' N line, 2590' E line

QUADRANGLE: SALISBURY LONGITUDE: -89.835172 GEOLOGIST: MCCRACKEN

CONFIDENTIAL: N LATITUDE: 39.898392 DATE COLLECTED: 4 / 18 / 1970

SURFACE ELEVATION (FT.): 606.0 LOGGED (FT.): 116.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON N371 WELL TYPE: Coal Test

COMMENT: COMPANY ELEV = 628';TOPO SHOWS 606'

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
606.0	PLEISTOCENE		UNCONSOLIDATED	65.0	0.0
541.0	CARBONDALE	HERRIN	SHALE/COAL	2.0	65.0
539.0	CARBONDALE		SHALE	41.0	67.0
498.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.5	108.0
496.5	CARBONDALE	SPRINGFIELD	COAL	4.5	109.5
492.0	CARBONDALE		LIMESTONE	1.0	114.0
491.0	CARBONDALE		SHALE	1.0	115.0

MAPID: 16722251000C VERSION: 1

PROJECT: NCRDS96

COUNTY: SANGAMON TWP/RNG: 17N 7W SECTION: 26 QUARTERS/FOOTAGES: 1980' S line, 2240' W line

QUADRANGLE: SALISBURY LONGITUDE: -89.855388 GEOLOGIST: MCCRACKEN

CONFIDENTIAL: N LATITUDE: 39.892561 DATE COLLECTED: 8 / 10 / 1970

SURFACE ELEVATION (FT.): 603.0 LOGGED (FT.): 154.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON P287N WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
603.0	PLEISTOCENE		UNCONSOLIDATED	49.0	0.0	
554.0			LIMESTONE	5.0	49.0	
549.0			SHALE	45.0	54.0	
504.0	CARBONDALE	ANNA	BLACK SHALE	1.0	99.0	
503.0	CARBONDALE		SHALE	5.0	100.0	
498.0	CARBONDALE		LIMESTONE	5.0	105.0	
493.0	CARBONDALE		SHALE	38.0	110.0	
455.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.0	148.0	
454.0	CARBONDALE	SPRINGFIELD	COAL	1.0	149.0	BONEY
453.0	CARBONDALE	SPRINGFIELD	COAL	3.0	150.0	
450.0	CARBONDALE	SPRINGFIELD	COAL	0.5	153.0	BONEY
449.5	CARBONDALE		UNDERCLAY	0.5	153.5	

MAPID: 16722252000C VERSION: 1

PROJECT: NCRDS96

COUNTY: SANGAMON TWP/RNG: 17N 7W SECTION: 26 QUARTERS/FOOTAGES: 1300' N line, 1300' W line

QUADRANGLE: SALISBURY LONGITUDE: -89.858831 GEOLOGIST: MCCRACKEN

CONFIDENTIAL: N LATITUDE: 39.89801 DATE COLLECTED: 5 / 25 / 1970

SURFACE ELEVATION (FT.): 608.0 LOGGED (FT.): 175.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON P363 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
608.0	PLEISTOCENE		UNCONSOLIDATED	32.0	0.0	
576.0			SANDSTONE	21.0	32.0	
555.0			LIMESTONE	10.0	53.0	
545.0			SHALE	49.5	63.0	
495.5	CARBONDALE	ANNA	DARK SHALE	0.5	112.5	
495.0	CARBONDALE	HERRIN	COAL	0.3	113.0	
494.7	CARBONDALE		LIMESTONE	13.6	113.3	
481.1	CARBONDALE		BLACK SHALE	0.6	126.9	
480.5	CARBONDALE		SHALE	32.5	127.5	
447.9	CARBONDALE	ST. DAVID	LIMESTONE	0.7	160.1	
447.2	CARBONDALE	ST. DAVID	LIMESTONE	3.4	160.8	W/PYRITE
443.8	CARBONDALE	SPRINGFIELD	COAL	5.1	164.2	
438.7	CARBONDALE		UNDERCLAY	5.7	169.3	

**MAPID:** 16722268000C    **VERSION:** 1    **PROJECT:** NCRDS96  
**COUNTY:** SANGAMON    **TWP/RNG:** 17N 7W    **SECTION:** 26    **QUARTERS/FOOTAGES:** 1340' N line, 20' W line  
**QUADRANGLE:** SALISBURY    **LONGITUDE:** -89.975552    **GEOLOGIST:** MCCRACKEN  
**CONFIDENTIAL:** N    **LATITUDE:** 39.898245    **DATE COLLECTED:** 5 / 12 / 1970  
**SURFACE ELEVATION (FT.):** 630.0    **LOGGED (FT.):** 98.0    **LOG TYPE:** Drillers Log  
**SOURCE:** COMMONWEALTH EDISON    N359    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
630.0	PLEISTOCENE		UNCONSOLIDATED	76.1	0.0	
553.9	CARBONDALE		LIMESTONE	0.5	76.1	WEATHERED
553.4	CARBONDALE		SHALE	11.2	76.6	
542.2	CARBONDALE	ST. DAVID	LIMESTONE	0.5	87.8	
541.7	CARBONDALE	TURNER MINE	BLACK SHALE	1.4	88.3	
540.3	CARBONDALE	SPRINGFIELD	COAL	0.4	89.7	SHALEY
539.9	CARBONDALE	SPRINGFIELD	COAL	5.2	90.1	
534.7	CARBONDALE		SHALE	2.7	95.3	

**MAPID:** 16723380000C    **VERSION:** 1    **PROJECT:** NCRDS91  
**COUNTY:** SANGAMON    **TWP/RNG:** 17N 7W    **SECTION:** 26    **QUARTERS/FOOTAGES:** 1500' N line, 2400' E line  
**QUADRANGLE:** SALISBURY    **LONGITUDE:** -89.853353    **GEOLOGIST:** C TREWORGY  
**CONFIDENTIAL:** N    **LATITUDE:** 39.897483    **DATE COLLECTED:** 10 / 2 / 1981  
**SURFACE ELEVATION (FT.):** 610.0    **LOGGED (FT.):** 282.0    **LOG TYPE:** Drillers Log  
**SOURCE:** PHILLIPS COAL CO.    SA-9    **WELL TYPE:** Coal Test  
**COMMENT:** ONLY LOGGED COAL

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
448.8	CARBONDALE	SPRINGFIELD	COAL	4.4	161.2	

**MAPID:** 16722253000C    **VERSION:** 1    **PROJECT:** NCRDS96  
**COUNTY:** SANGAMON    **TWP/RNG:** 17N 7W    **SECTION:** 27    **QUARTERS/FOOTAGES:** 1650' S line, 1650' E line  
**QUADRANGLE:** SALISBURY    **LONGITUDE:** -89.869314    **GEOLOGIST:** MCCRACKEN  
**CONFIDENTIAL:** N    **LATITUDE:** 39.891591    **DATE COLLECTED:** 8 / 19 / 1970  
**SURFACE ELEVATION (FT.):** 580.0    **LOGGED (FT.):** 118.0    **LOG TYPE:** Drillers Log  
**SOURCE:** COMMONWEALTH EDISON    P255A    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
580.0	PLEISTOCENE		UNCONSOLIDATED	80.0	0.0	
500.0	CARBONDALE		SHALE	28.0	80.0	
472.0	CARBONDALE	ST. DAVID	LIMESTONE	2.0	108.0	
470.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.0	110.0	
469.0	CARBONDALE	SPRINGFIELD	COAL	6.5	111.0	
462.5	CARBONDALE		UNDERCLAY	0.5	117.5	

MAPID: 16722254000C VERSION: 1

PROJECT: NCRDS96

COUNTY: SANGAMON TWP/RNG: 17N 7W SECTION: 28 QUARTERS/FOOTAGES: 2640' S line, 1410' W line

QUADRANGLE: TALLULA LONGITUDE: -89.896432 GEOLOGIST: MCCRACKEN

CONFIDENTIAL: N LATITUDE: 39.894431 DATE COLLECTED: 8 / 4 / 1970

SURFACE ELEVATION (FT.): 619.0 LOGGED (FT.): 154.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON 0319 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
619.0	PLEISTOCENE		UNCONSOLIDATED	55.0	0.0
564.0			SHALE	38.0	55.0
526.0	CARBONDALE	ANNA	BLACK SHALE	3.0	93.0
523.0	CARBONDALE	HERRIN	COAL	1.0	96.0
522.0	CARBONDALE		SHALE	6.0	97.0
516.0	CARBONDALE		LIMESTONE	5.0	103.0
511.0	CARBONDALE		SHALE	38.0	108.0
473.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.5	146.0
471.5	CARBONDALE	SPRINGFIELD	COAL	5.5	147.5
466.0	CARBONDALE		UNDERCLAY	1.0	153.0

MAPID: 16722255000C VERSION: 1

PROJECT: NCRDS96

COUNTY: SANGAMON TWP/RNG: 17N 7W SECTION: 28 QUARTERS/FOOTAGES: 2640' S line, 1320' E line

QUADRANGLE: TALLULA LONGITUDE: -89.887215 GEOLOGIST: MCCRACKEN

CONFIDENTIAL: N LATITUDE: 39.894335 DATE COLLECTED: 8 / 6 / 1970

SURFACE ELEVATION (FT.): 614.0 LOGGED (FT.): 143.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON 0323 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
614.0	PLEISTOCENE		UNCONSOLIDATED	53.0	0.0
561.0			LIMESTONE & SHALE	12.0	53.0
549.0			SHALE	22.0	65.0
527.0	CARBONDALE	ANNA	BLACK SHALE	2.0	87.0
525.0	CARBONDALE		SHALE	4.0	89.0
521.0	CARBONDALE		LIMESTONE	3.0	93.0
518.0	CARBONDALE		SHALE	40.0	96.0
478.0	CARBONDALE	SPRINGFIELD	COAL	6.5	136.0
471.5	CARBONDALE		UNDERCLAY	0.5	142.5

MAPID: 16722257000C VERSION: 1

PROJECT: NCRDS96

COUNTY: SANGAMON TWP/RNG: 17N 7W SECTION: 28 QUARTERS/FOOTAGES: 5' S line, 1320' W line

QUADRANGLE: TALLULA LONGITUDE: -89.896702 GEOLOGIST: MCCRACKEN

CONFIDENTIAL: N LATITUDE: 39.887163 DATE COLLECTED: 8 / 3 / 1970

SURFACE ELEVATION (FT.): 610.0 LOGGED (FT.): 134.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON 0219 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
610.0	PLEISTOCENE		UNCONSOLIDATED	58.0	0.0
552.0	CARBONDALE		SHALE	18.0	58.0
534.0	CARBONDALE	ANNA	BLACK SHALE	2.0	76.0
532.0	CARBONDALE	HERRIN	COAL	1.0	78.0
531.0	CARBONDALE		SHALE	6.0	79.0
525.0	CARBONDALE		LIMESTONE	6.0	85.0
519.0	CARBONDALE		SHALE	17.0	91.0
502.0	CARBONDALE		LIMESTONE	4.0	108.0
498.0	CARBONDALE		SHALE	14.0	112.0
484.0	CARBONDALE	ST. DAVID	LIMESTONE	1.0	126.0
483.0	CARBONDALE	SPRINGFIELD	COAL	6.0	127.0
477.0	CARBONDALE		UNDERCLAY	1.0	133.0

MAPID: 16722256000C VERSION: 1

PROJECT: NCRDS96

COUNTY: SANGAMON TWP/RNG: 17N 7W SECTION: 29 QUARTERS/FOOTAGES: 2640' N line, 1320' W line

QUADRANGLE: TALLULA LONGITUDE: -89.915516 GEOLOGIST: MCCRACKEN

CONFIDENTIAL: N LATITUDE: 39.894484 DATE COLLECTED: 8 / 19 / 1970

SURFACE ELEVATION (FT.): 612.0 LOGGED (FT.): 122.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON 0311 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
612.0	PLEISTOCENE		UNCONSOLIDATED	78.0	0.0
534.0	CARBONDALE		LIMESTONE	6.0	78.0
528.0	CARBONDALE		SHALE	24.0	84.0
504.0	CARBONDALE	ST. DAVID	LIMESTONE	5.5	108.0
498.5	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	113.5
496.5	CARBONDALE	SPRINGFIELD	COAL	5.3	115.5
491.2	CARBONDALE		UNDERCLAY	1.2	120.8

MAPID: 16722258000C VERSION: 1

PROJECT: NCRDS96

COUNTY: SANGAMON TWP/RNG: 17N 7W SECTION: 30 QUARTERS/FOOTAGES: 50' S line, 2640' W line

QUADRANGLE: TALLULA LONGITUDE: -89.928529 GEOLOGIST: MCCRACKEN

CONFIDENTIAL: N LATITUDE: 39.887397 DATE COLLECTED: 0 / 0 / 1970

SURFACE ELEVATION (FT.): 620.0 LOGGED (FT.): 135.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON O203 WELL TYPE: Coal Test

COMMENT: DEPTHS UNCERTAIN-LOG IS FAINT

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
620.0	PLEISTOCENE		UNCONSOLIDATED	61.5	0.0	
558.5			SHALE	13.6	61.5	
544.9	CARBONDALE	ANNA	BLACK SHALE	1.6	75.1	
543.3	CARBONDALE		SHALE	5.3	76.7	
538.0	CARBONDALE		LIMESTONE	3.4	82.0	
534.6	CARBONDALE		SHALE	2.1	85.4	
532.5	CARBONDALE		LIMESTONE	3.8	87.5	
528.7	CARBONDALE		SHALE	5.1	91.3	
523.6	CARBONDALE		LIMESTONE	1.3	96.4	
522.3	CARBONDALE		ROCK	12.3	97.7	
510.0	CARBONDALE		SHALE	10.2	110.0	
499.8	CARBONDALE	TURNER MINE	BLACK SHALE	2.3	120.2	
497.5	CARBONDALE	SPRINGFIELD	COAL	4.8	122.5	
492.7	CARBONDALE		UNDERCLAY	7.7	127.3	W/SH

MAPID: 16722259000C VERSION: 1

PROJECT: NCRDS96

COUNTY: SANGAMON TWP/RNG: 17N 7W SECTION: 31 QUARTERS/FOOTAGES: 830' N line, 5' E line

QUADRANGLE: TALLULA LONGITUDE: -89.920206 GEOLOGIST: MCCRACKEN

CONFIDENTIAL: N LATITUDE: 39.885006 DATE COLLECTED: 4 / 22 / 1970

SURFACE ELEVATION (FT.): 580.0 LOGGED (FT.): 113.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON 0159D WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
580.0	PLEISTOCENE		UNCONSOLIDATED	54.0	0.0	
526.0	CARBONDALE	ANNA	BLACK SHALE	3.0	54.0	
523.0	CARBONDALE	HERRIN	COAL	2.0	57.0	
521.0	CARBONDALE		SHALE	13.0	59.0	
508.0	CARBONDALE		LIMESTONE	2.0	72.0	
506.0	CARBONDALE		SHALE	25.5	74.0	
480.5	CARBONDALE	ST. DAVID	LIMESTONE	3.5	99.5	
477.0	CARBONDALE	TURNER MINE	BLACK SHALE	3.0	103.0	
474.0	CARBONDALE	SPRINGFIELD	COAL	6.5	106.0	
467.5	CARBONDALE		UNDERCLAY	0.5	112.5	

**MAPID:** 16700212000C    **VERSION:** 1    **PROJECT:** CONTROL  
**COUNTY:** SANGAMON    **TWP/RNG:** 17N 7W    **SECTION:** 32    **QUARTERS/FOOTAGES:** NW NW  
**QUADRANGLE:** TALLULA    **LONGITUDE:** -89.917844    **GEOLOGIST:** HINES  
**CONFIDENTIAL:** N    **LATITUDE:** 39.885467    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):**    **LOGGED (FT.):** 108.0    **LOG TYPE:** Survey Sample Study  
**SOURCE:** HATFIELD WM & SON    **WELL TYPE:** Water Well  
**COMMENT:** OILWELLS LOGGED BY COAL SECT-LOGS IN GRU

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			NO RECORD	0.0	0.0	

**MAPID:** 16701797000C    **VERSION:** 1    **PROJECT:** NCRDS88  
**COUNTY:** SANGAMON    **TWP/RNG:** 17N 7W    **SECTION:** 32    **QUARTERS/FOOTAGES:** NE SW SW  
**QUADRANGLE:** TALLULA    **LONGITUDE:** -89.916488    **GEOLOGIST:** R. SMITH  
**CONFIDENTIAL:** N    **LATITUDE:** 39.875467    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 600.0    **LOGGED (FT.):** 82.2    **LOG TYPE:** Drillers Log  
**SOURCE:** CITIZENS COAL MINING CO.    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
600.0			UNCONSOLIDATED	42.0	0.0	
558.0	CARBONDALE		SHALE	2.0	42.0	
556.0	CARBONDALE	HERRIN	COAL	2.0	44.0	
554.0	CARBONDALE		UNDERCLAY	4.0	46.0	
550.0	CARBONDALE		UNCLASSIFIED	13.5	50.0	
536.5	CARBONDALE		SHALE	4.0	63.5	
532.5	CARBONDALE		LIMESTONE	1.5	67.5	
531.0	CARBONDALE		SHALE	3.0	69.0	
528.0	CARBONDALE		UNCLASSIFIED	1.0	72.0	
527.0	CARBONDALE	TURNER MINE	SHALE	3.0	73.0	
524.0	CARBONDALE	SPRINGFIELD	COAL	6.2	76.0	



MAPID: 1672226000C VERSION: 1

PROJECT: NCRDS96

COUNTY: SANGAMON TWP/RNG: 17N 7W SECTION: 32 QUARTERS/FOOTAGES: 5' S line, 2630' E line  
 QUADRANGLE: PLEASANT PLAINS LONGITUDE: -89.91049 GEOLOGIST: MCCRACKEN  
 CONFIDENTIAL: N LATITUDE: 39.872745 DATE COLLECTED: 8 / 15 / 1970  
 SURFACE ELEVATION (FT.): 590.0 LOGGED (FT.): 117.0 LOG TYPE: Drillers Log  
 SOURCE: COMMONWEALTH EDISON 013 WELL TYPE: Coal Test  
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
590.0	PLEISTOCENE		UNCONSOLIDATED	60.0	0.0	
530.0	CARBONDALE		SHALE	15.0	60.0	
515.0	CARBONDALE		LIMESTONE	4.0	75.0	
511.0	CARBONDALE		SHALE	28.0	79.0	
483.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.5	107.0	
480.5	CARBONDALE	SPRINGFIELD	COAL	6.5	109.5	
474.0	CARBONDALE		UNDERCLAY	1.0	116.0	

MAPID: 16723381000C VERSION: 1

PROJECT: NCRDS91

COUNTY: SANGAMON TWP/RNG: 17N 7W SECTION: 32 QUARTERS/FOOTAGES: 65' N line, 2300' E line  
 QUADRANGLE: TALLULA LONGITUDE: -89.909667 GEOLOGIST: C TREWORYG  
 CONFIDENTIAL: N LATITUDE: 39.887064 DATE COLLECTED: 10 / 1 / 1981  
 SURFACE ELEVATION (FT.): 605.0 LOGGED (FT.): 256.0 LOG TYPE: Drillers Log  
 SOURCE: PHILLIPS COAL CO. SA-8 WELL TYPE: Coal Test  
 COMMENT: ONLY LOGGED COAL

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
487.2	CARBONDALE	SPRINGFIELD	COAL	2.8	117.8	
484.4	CARBONDALE	SPRINGFIELD	SHALE	0.8	120.6	PARTING
483.6	CARBONDALE	SPRINGFIELD	COAL	0.6	121.4	
483.0	CARBONDALE	SPRINGFIELD	SHALE	0.5	122.0	PARTING
482.5	CARBONDALE	SPRINGFIELD	COAL	1.0	122.5	
366.6	CARBONDALE	COLCHESTER	COAL	2.4	238.4	

MAPID: 16722261000C VERSION: 1

PROJECT: NCRDS96

COUNTY: SANGAMON TWP/RNG: 17N 7W SECTION: 33 QUARTERS/FOOTAGES: 1770' N line, 920' W line

QUADRANGLE: TALLULA LONGITUDE: -89.898011 GEOLOGIST: MCCRACKEN

CONFIDENTIAL: N LATITUDE: 39.882279 DATE COLLECTED: 8 / 7 / 1970

SURFACE ELEVATION (FT.): 611.0 LOGGED (FT.): 131.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON 0143K WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
611.0	PLEISTOCENE		UNCONSOLIDATED	50.0	0.0	
561.0	CARBONDALE		SHALE	26.0	50.0	
535.0	CARBONDALE	HERRIN	BLACK SHALE	1.5	76.0	WITH COAL
533.5	CARBONDALE		SHALE	4.5	77.5	
529.0	CARBONDALE		LIMESTONE	6.0	82.0	
523.0	CARBONDALE		SHALE	8.0	88.0	
515.0	CARBONDALE		LIMESTONE	3.0	96.0	
512.0	CARBONDALE		SHALE	23.0	99.0	
489.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.5	122.0	
487.5	CARBONDALE	SPRINGFIELD	COAL	6.5	123.5	
481.0	CARBONDALE		UNDERCLAY	1.0	130.0	

MAPID: 16722262000C VERSION: 1

PROJECT: NCRDS96

COUNTY: SANGAMON TWP/RNG: 17N 7W SECTION: 33 QUARTERS/FOOTAGES: 320' S line, 1720' E line

QUADRANGLE: PLEASANT PLAINS LONGITUDE: -89.888475 GEOLOGIST: MCCRACKEN

CONFIDENTIAL: N LATITUDE: 39.87346 DATE COLLECTED: 8 / 13 / 1970

SURFACE ELEVATION (FT.): 595.0 LOGGED (FT.): 126.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON 023A WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
595.0	PLEISTOCENE		UNCONSOLIDATED	112.0	0.0	
483.0	CARBONDALE		SHALE	8.0	112.0	
475.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.0	120.0	
474.0	CARBONDALE	SPRINGFIELD	COAL	4.0	121.0	SHALE PARTING
470.0	CARBONDALE		UNDERCLAY	1.0	125.0	

MAPID: 16723382000C VERSION: 1

PROJECT: NCRDS91

COUNTY: SANGAMON TWP/RNG: 17N 7W SECTION: 33 QUARTERS/FOOTAGES: 2400' N line, 1450' E line

QUADRANGLE: TALLULA LONGITUDE: -89.887561 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 39.880429 DATE COLLECTED: 10 / 1 / 1981

SURFACE ELEVATION (FT.): 601.0 LOGGED (FT.): 266.0 LOG TYPE: Drillers Log

SOURCE: PHILLIPS COAL CO. SA-7 WELL TYPE: Coal Test

COMMENT: ONLY LOGGED COAL

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
478.1	CARBONDALE	SPRINGFIELD	COAL	6.1	122.9
348.4	CARBONDALE	COLCHESTER	COAL	2.0	252.6

MAPID: 16722263000C VERSION: 1

PROJECT: NCRDS96

COUNTY: SANGAMON TWP/RNG: 17N 7W SECTION: 34 QUARTERS/FOOTAGES: 2310' N line, 405' W line

QUADRANGLE: TALLULA LONGITUDE: -89.880917 GEOLOGIST: MCCRACKEN

CONFIDENTIAL: N LATITUDE: 39.880627 DATE COLLECTED: 8 / 7 / 1970

SURFACE ELEVATION (FT.): 585.0 LOGGED (FT.): 99.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON P101A WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
585.0	PLEISTOCENE		UNCONSOLIDATED	65.0	0.0
520.0	CARBONDALE		SHALE	21.0	65.0
499.0	CARBONDALE	ST. DAVID	LIMESTONE	7.0	86.0
492.0	CARBONDALE	SPRINGFIELD	COAL	5.0	93.0
487.0	CARBONDALE		UNDERCLAY	1.0	98.0

MAPID: 16722264000C VERSION: 1

PROJECT: NCRDS96

COUNTY: SANGAMON TWP/RNG: 17N 7W SECTION: 34 QUARTERS/FOOTAGES: 1920' N line, 1980' E line

QUADRANGLE: SALISBURY LONGITUDE: -89.870358 GEOLOGIST: MCCracken

CONFIDENTIAL: N LATITUDE: 39.881737 DATE COLLECTED: 8 / 7 / 1970

SURFACE ELEVATION (FT.): 560.0 LOGGED (FT.): 89.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON P131 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
560.0	PLEISTOCENE		UNCONSOLIDATED	36.0	0.0	
524.0	CARBONDALE		SHALE	2.0	36.0	
522.0	PLEISTOCENE		LIMESTONE	4.0	38.0	
518.0	CARBONDALE		SHALE	38.0	42.0	
480.0	CARBONDALE	ST. DAVID	LIMESTONE	1.0	80.0	
479.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.0	81.0	
478.0	CARBONDALE	SPRINGFIELD	COAL	4.0	82.0	
474.0	CARBONDALE	SPRINGFIELD	COAL	0.4	86.0	BONEY
473.6	CARBONDALE	SPRINGFIELD	COAL	2.1	86.4	
471.5	CARBONDALE		UNDERCLAY	0.5	88.5	

MAPID: 16701798000C VERSION: 1

PROJECT: NCRDS87

COUNTY: SANGAMON TWP/RNG: 17N 7W SECTION: 35 QUARTERS/FOOTAGES: NW SW

QUADRANGLE: SALISBURY LONGITUDE: -89.860899 GEOLOGIST: WEIBEL

CONFIDENTIAL: N LATITUDE: 39.878032 DATE COLLECTED:

SURFACE ELEVATION (FT.): 585.0 LOGGED (FT.): 119.8 LOG TYPE: Drillers Log

SOURCE: RICHLAND COAL CO. WELL TYPE: Coal Test

COMMENT: ELEVATION & LOCATION IMPRECISE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
585.0			UNCONSOLIDATED	77.0	0.0	
508.0	CARBONDALE		UNCLASSIFIED	31.0	77.0	
477.0	CARBONDALE	ST. DAVID	LIMESTONE	4.5	108.0	
472.5	CARBONDALE	TURNER MINE	BLACK SHALE	1.3	112.5	
471.2	CARBONDALE	SPRINGFIELD	COAL	6.0	113.8	

MAPID: 16722265000C VERSION: 1

PROJECT: NCRDS96

COUNTY: SANGAMON TWP/RNG: 17N 7W SECTION: 35 QUARTERS/FOOTAGES: 2392' N line, 2145' W line

QUADRANGLE: SALISBURY LONGITUDE: -89.855585 GEOLOGIST: MCCRACKEN

CONFIDENTIAL: N LATITUDE: 39.880494 DATE COLLECTED: 5 / 25 / 1970

SURFACE ELEVATION (FT.): 575.0 LOGGED (FT.): 170.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON P112C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
575.0	PLEISTOCENE		UNCONSOLIDATED	39.5	0.0	
535.5			SHALE	38.4	39.5	
497.1	CARBONDALE		LIMESTONE	4.2	77.9	
492.9	CARBONDALE		SHALE	27.9	82.1	
465.0	CARBONDALE		LIMESTONE	12.1	110.0	
452.9	CARBONDALE	TURNER MINE	DARK SHALE	0.5	122.1	
452.4	CARBONDALE	SPRINGFIELD	COAL	3.4	122.6	
449.0	CARBONDALE		SHALE	10.1	126.0	
438.9	CARBONDALE		BLACK SHALE	1.7	136.1	
437.2	CARBONDALE		SHALE	32.2	137.8	

MAPID: 16722266000C VERSION: 1

PROJECT: NCRDS96

COUNTY: SANGAMON TWP/RNG: 17N 7W SECTION: 36 QUARTERS/FOOTAGES: 2640' N line, 2640' E line

QUADRANGLE: SALISBURY LONGITUDE: -89.835063 GEOLOGIST: MCCRACKEN

CONFIDENTIAL: N LATITUDE: 39.880074 DATE COLLECTED: 8 / 10 / 1970

SURFACE ELEVATION (FT.): 540.0 LOGGED (FT.): 150.0 LOG TYPE:

SOURCE: COMMONWEALTH EDISON P121 WELL TYPE: Coal Test

COMMENT: LOCATION APPROXIMATE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
540.0	PLEISTOCENE		UNCONSOLIDATED	45.0	0.0	
495.0	CARBONDALE		LIMESTONE	5.0	45.0	
490.0	CARBONDALE		CALCAREOUS SHALE	28.5	50.0	
461.5	CARBONDALE		LIMESTONE	15.5	78.5	
446.0	CARBONDALE	SPRINGFIELD	COAL	1.5	94.0	CORRELATION UNCERTAIN
444.5	CARBONDALE		SHALE	12.5	95.5	
432.0	CARBONDALE		BLACK SHALE	1.0	108.0	
431.0	CARBONDALE		SHALE	9.0	109.0	
422.0	CARBONDALE		LIMESTONE	7.0	118.0	
415.0	CARBONDALE		SHALE	25.0	125.0	

MAPID: 16722282000C VERSION: 1

PROJECT: NCRDS96

COUNTY: SANGAMON TWP/RNG: 17N 7W SECTION: 36 QUARTERS/FOOTAGES: 5' N line, 2630' W line

QUADRANGLE: SALISBURY LONGITUDE: -89.835176 GEOLOGIST: MCCRACKEN

CONFIDENTIAL: N LATITUDE: 39.887343 DATE COLLECTED: 0 / 0 / 1970

SURFACE ELEVATION (FT.): 590.0 LOGGED (FT.): 115.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON N221 WELL TYPE: Coal Test

COMMENT: COMPANY SURFELV 615'; TOPO SHOWS 590'

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
590.0	PLEISTOCENE		UNCONSOLIDATED	50.5	0.0
539.5	CARBONDALE	ANNA	BLACK SHALE	1.9	50.5
537.6	CARBONDALE	HERRIN	COAL	2.4	52.4
535.2	CARBONDALE		UNCLASSIFIED	1.2	54.8
534.0	CARBONDALE		SHALE	5.5	56.0
528.5	CARBONDALE		LIMESTONE	5.4	61.5
523.1	CARBONDALE		LIMESTONE & SHALE	11.1	66.9
512.0	CARBONDALE		SHALE	6.6	78.0
505.4	CARBONDALE		ROCK	9.2	84.6
496.2	CARBONDALE		SHALE	3.3	93.8
492.9	CARBONDALE	TURNER MINE	BLACK SHALE	3.4	97.1
489.5	CARBONDALE	TURNER MINE	SHALE	0.7	100.5
488.8	CARBONDALE	SPRINGFIELD	COAL	3.7	101.2
485.1	CARBONDALE		CLAYSTONE & SHALE	10.1	104.9

MAPID: 16723383000C VERSION: 1

PROJECT: NCRDS91

COUNTY: SANGAMON TWP/RNG: 17N 8W SECTION: 25 QUARTERS/FOOTAGES: 55' N line, 450' E line

QUADRANGLE: TALLULA LONGITUDE: -89.939661 GEOLOGIST: C TREWORYG

CONFIDENTIAL: N LATITUDE: 39.901716 DATE COLLECTED: 10 / 1 / 1981

SURFACE ELEVATION (FT.): 595.0 LOGGED (FT.): 215.0 LOG TYPE: Drillers Log

SOURCE: PHILLIPS COAL CO. SA-5 WELL TYPE: Coal Test

COMMENT: ONLY LOGGED COAL

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
517.4	CARBONDALE	SPRINGFIELD	COAL	5.4	77.6
399.0	CARBONDALE	COLCHESTER	COAL	2.0	196.0

MAPID: 16723384000C    VERSION: 1

PROJECT: NCRDS91

COUNTY: SANGAMON    TWP/RNG: 17N 8W    SECTION: 25    QUARTERS/FOOTAGES: 475' S line, 1950' E line

QUADRANGLE: TALLULA    LONGITUDE: -89.944979    GEOLOGIST: C TREWORGY

CONFIDENTIAL: N    LATITUDE: 39.888683    DATE COLLECTED: 10 / 3 / 1981

SURFACE ELEVATION (FT.): 624.0    LOGGED (FT.): 254.0    LOG TYPE: Drillers Log

SOURCE: PHILLIPS COAL CO.    SA-12    WELL TYPE: Coal Test

COMMENT: ONLY LOGGED COAL

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
550.0	CARBONDALE	HERRIN	COAL	1.9	74.0	
503.3	CARBONDALE	SPRINGFIELD	COAL	5.3	120.7	
386.3	CARBONDALE	COLCHESTER	COAL	2.3	237.7	

MAPID: 16722267000C    VERSION: 1

PROJECT: NCRDS96

COUNTY: SANGAMON    TWP/RNG: 17N 8W    SECTION: 26    QUARTERS/FOOTAGES: 2640' N line, 2640' W line

QUADRANGLE: TALLULA    LONGITUDE: -89.966189    GEOLOGIST: MCCRACKEN

CONFIDENTIAL: N    LATITUDE: 39.894601    DATE COLLECTED: 5 / 0 / 1970

SURFACE ELEVATION (FT.): 610.0    LOGGED (FT.): 84.0    LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON    N313    WELL TYPE: Coal Test

COMMENT: DEPTHS UNCERTAIN-LOG IS FAINT

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
610.0	PLEISTOCENE		UNCONSOLIDATED	34.4	0.0	
575.6	CARBONDALE		SHALE	2.1	34.4	ACCORDING TO LOG
573.5	CARBONDALE		UNCONSOLIDATED	4.0	36.5	LOG SAYS "GLACIAL"
569.5	CARBONDALE		LIMESTONE	7.4	40.5	
562.1	CARBONDALE		UNCONSOLIDATED	9.1	47.9	LOG SAYS "GLACIAL"
553.0	CARBONDALE		SHALE	7.1	57.0	
545.9	CARBONDALE		LIMESTONE	0.5	64.1	
545.4	CARBONDALE	TURNER MINE	BLACK SHALE	1.3	64.6	
544.1	CARBONDALE	SPRINGFIELD	COAL	0.4	65.9	SHALEY
543.7	CARBONDALE	SPRINGFIELD	COAL	5.3	66.3	
538.4	CARBONDALE		SHALE	12.4	71.6	

**MAPID:** 16722269000C    **VERSION:** 1    **PROJECT:** NCRDS96  
**COUNTY:** SANGAMON    **TWP/RNG:** 17N 8W    **SECTION:** 26    **QUARTERS/FOOTAGES:** 1320' S line, 2640' W line  
**QUADRANGLE:** TALLULA    **LONGITUDE:** -89.966209    **GEOLOGIST:** MCCRACKEN  
**CONFIDENTIAL:** N    **LATITUDE:** 39.891076    **DATE COLLECTED:** 3 / 23 / 1972  
**SURFACE ELEVATION (FT.):** 625.0    **LOGGED (FT.):** 91.0    **LOG TYPE:** Drillers Log  
**SOURCE:** COMMONWEALTH EDISON    N263    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
625.0	PLEISTOCENE		UNCONSOLIDATED	62.0	0.0
563.0	CARBONDALE		LIMESTONE	2.0	62.0
561.0	CARBONDALE		CALCAREOUS SHALE	2.0	64.0
559.0	CARBONDALE		SHALE	20.0	66.0
539.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.0	86.0
538.0	CARBONDALE	SPRINGFIELD	COAL	3.0	87.0
535.0	CARBONDALE		UNDERCLAY	1.0	90.0

**MAPID:** 16722270000C    **VERSION:** 1    **PROJECT:** NCRDS96  
**COUNTY:** SANGAMON    **TWP/RNG:** 17N 8W    **SECTION:** 26    **QUARTERS/FOOTAGES:** 1340' S line, 20' W line  
**QUADRANGLE:** TALLULA    **LONGITUDE:** -89.975596    **GEOLOGIST:** MCCRACKEN  
**CONFIDENTIAL:** N    **LATITUDE:** 39.891135    **DATE COLLECTED:** 3 / 22 / 1972  
**SURFACE ELEVATION (FT.):** 628.0    **LOGGED (FT.):** 75.0    **LOG TYPE:** Drillers Log  
**SOURCE:** COMMONWEALTH EDISON    N259    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
628.0	PLEISTOCENE		UNCONSOLIDATED	69.0	0.0
559.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.0	69.0
558.0	CARBONDALE	SPRINGFIELD	COAL	4.0	70.0
554.0	CARBONDALE		UNDERCLAY	1.0	74.0

**MAPID:** 16722275000C    **VERSION:** 1    **PROJECT:** NCRDS96  
**COUNTY:** SANGAMON    **TWP/RNG:** 17N 8W    **SECTION:** 26    **QUARTERS/FOOTAGES:** 2620' N line, 20' W line  
**QUADRANGLE:** TALLULA    **LONGITUDE:** -89.975574    **GEOLOGIST:** MCCRACKEN  
**CONFIDENTIAL:** N    **LATITUDE:** 39.894712    **DATE COLLECTED:** 3 / 14 / 1972  
**SURFACE ELEVATION (FT.):** 620.0    **LOGGED (FT.):** 75.0    **LOG TYPE:** Drillers Log  
**SOURCE:** COMMONWEALTH EDISON    N309    **WELL TYPE:** Coal Test  
**COMMENT:** MAYBE LOCATED AT SEC.34

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
620.0	PLEISTOCENE		UNCONSOLIDATED	65.0	0.0
555.0	PLEISTOCENE		CLAY	5.0	65.0
550.0	CARBONDALE	SPRINGFIELD	COAL	3.0	70.0
547.0	CARBONDALE		UNDERCLAY	2.0	73.0



MAPID: 16722271000C VERSION: 1

PROJECT: NCRDS96

COUNTY: SANGAMON TWP/RNG: 17N 8W SECTION: 27 QUARTERS/FOOTAGES: 1300' N line, 1300' E line

QUADRANGLE: TALLULA LONGITUDE: -89.980286 GEOLOGIST: MCCRACKEN

CONFIDENTIAL: N LATITUDE: 39.89837 DATE COLLECTED: 3 / 22 / 1972

SURFACE ELEVATION (FT.): 636.0 LOGGED (FT.): 91.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON N355 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
636.0	PLEISTOCENE		UNCONSOLIDATED	76.0	0.0
560.0	CARBONDALE		LIMESTONE	2.0	76.0
558.0	CARBONDALE		SHALE	4.0	78.0
554.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	82.0
552.0	CARBONDALE	SPRINGFIELD	COAL	5.0	84.0
547.0	CARBONDALE		UNDERCLAY	2.0	89.0

MAPID: 16722272000C VERSION: 1

PROJECT: NCRDS96

COUNTY: SANGAMON TWP/RNG: 17N 8W SECTION: 27 QUARTERS/FOOTAGES: 822' S line, 1315' W line

QUADRANGLE: TALLULA LONGITUDE: -89.989836 GEOLOGIST: MCCRACKEN

CONFIDENTIAL: N LATITUDE: 39.889799 DATE COLLECTED:

SURFACE ELEVATION (FT.): 636.0 LOGGED (FT.): 140.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON N253DC WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN COMMENT	
636.0	PLEISTOCENE		UNCONSOLIDATED	96.0	0.0	
540.0			LIMESTONE	0.5	96.0	
539.5			BLACK SHALE	0.5	96.5	
539.0			BLACK LIMESTONE	0.5	97.0	
538.5	CARBONDALE	HOUCHIN CREEK	COAL	0.5	97.5	W/SHALE: CORRELATION UNCERTAIN
538.0			UNDERCLAY	14.0	98.0	
524.0			LIMESTONE	2.0	112.0	
522.0			SHALE	26.0	114.0	

**MAPID:** 16723385000C    **VERSION:** 1    **PROJECT:** NCRDS91  
**COUNTY:** SANGAMON    **TWP/RNG:** 17N 8W    **SECTION:** 27    **QUARTERS/FOOTAGES:** 1075' S line, 210' E line  
**QUADRANGLE:** TALLULA    **LONGITUDE:** -89.976423    **GEOLOGIST:** C TREWORGY  
**CONFIDENTIAL:** N    **LATITUDE:** 39.890409    **DATE COLLECTED:** 10 / 1 / 1981  
**SURFACE ELEVATION (FT.):** 630.0    **LOGGED (FT.):** 207.0    **LOG TYPE:** Drillers Log  
**SOURCE:** PHILLIPS COAL CO.    SA-6    **WELL TYPE:** Coal Test  
**COMMENT:** ONLY LOGGED COAL

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
555.5	CARBONDALE	SPRINGFIELD	COAL	5.2	74.5
437.8	CARBONDALE	COLCHESTER	COAL	2.1	192.2

**MAPID:** 16722273000C    **VERSION:** 1    **PROJECT:** NCRDS96  
**COUNTY:** SANGAMON    **TWP/RNG:** 17N 8W    **SECTION:** 34    **QUARTERS/FOOTAGES:** 330' N line, 5' E line  
**QUADRANGLE:** TALLULA    **LONGITUDE:** -89.975701    **GEOLOGIST:** MCCRACKEN  
**CONFIDENTIAL:** N    **LATITUDE:** 39.886526    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 633.0    **LOGGED (FT.):** 96.0    **LOG TYPE:** Drillers Log  
**SOURCE:** COMMONWEALTH EDISON    N184CC    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
633.0	PLEISTOCENE		UNCONSOLIDATED	83.0	0.0
550.0	CARBONDALE	TURNER MINE	BLACK SHALE	0.9	83.0
549.1	CARBONDALE	SPRINGFIELD	COAL	6.0	83.9
543.1	CARBONDALE		SHALE	6.1	89.9

**MAPID:** 16722276000C    **VERSION:** 1    **PROJECT:** NCRDS96  
**COUNTY:** SANGAMON    **TWP/RNG:** 17N 8W    **SECTION:** 34    **QUARTERS/FOOTAGES:** 1980' N line, 5' E line  
**QUADRANGLE:** TALLULA    **LONGITUDE:** -89.975681    **GEOLOGIST:** MCCRACKEN  
**CONFIDENTIAL:** N    **LATITUDE:** 39.881972    **DATE COLLECTED:** 3 / 14 / 1970  
**SURFACE ELEVATION (FT.):** 630.0    **LOGGED (FT.):** 96.0    **LOG TYPE:** Drillers Log  
**SOURCE:** COMMONWEALTH EDISON    N134    **WELL TYPE:** Coal Test  
**COMMENT:**

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
630.0	PLEISTOCENE		UNCONSOLIDATED	63.0	0.0
567.0	CARBONDALE		SHALE	10.0	63.0
557.0	CARBONDALE		LIMESTONE	2.0	73.0
555.0	CARBONDALE		SHALE	8.0	75.0
547.0	CARBONDALE		LIMESTONE	2.0	83.0
545.0	CARBONDALE		SHALE	3.0	85.0
542.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.0	88.0
541.0	CARBONDALE	SPRINGFIELD	COAL	6.0	89.0
535.0	CARBONDALE		UNDERCLAY	1.0	95.0

MAPID: 16722278000C VERSION: 1

PROJECT: NCRDS96

COUNTY: SANGAMON TWP/RNG: 17N 8W SECTION: 34 QUARTERS/FOOTAGES: 738' S line, 69' W line

QUADRANGLE: PLEASANT PLAINS LONGITUDE: -89.994153 GEOLOGIST: MCCRACKEN

CONFIDENTIAL: N LATITUDE: 39.874935 DATE COLLECTED:

SURFACE ELEVATION (FT.): 625.0 LOGGED (FT.): 109.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON N26 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
625.0	PLEISTOCENE		UNCONSOLIDATED	98.0	0.0
527.0	CARBONDALE		BLACK SHALE	2.0	98.0
525.0	CARBONDALE	ST. DAVID	LIMESTONE	2.0	100.0
523.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.0	102.0
522.0	CARBONDALE	SPRINGFIELD	COAL	3.5	103.0
518.5	CARBONDALE		UNDERCLAY	2.5	106.5

MAPID: 16722279000C VERSION: 1

PROJECT: NCRDS96

COUNTY: SANGAMON TWP/RNG: 17N 8W SECTION: 34 QUARTERS/FOOTAGES: 2640' N line, 2640' W line

QUADRANGLE: TALLULA LONGITUDE: -89.985005 GEOLOGIST: MCCRACKEN

CONFIDENTIAL: N LATITUDE: 39.880214 DATE COLLECTED: 8 / 21 / 1970

SURFACE ELEVATION (FT.): 630.0 LOGGED (FT.): 104.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON N105 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
630.0	PLEISTOCENE		UNCONSOLIDATED	78.0	0.0
552.0	CARBONDALE		CALCAREOUS SHALE	4.0	78.0
548.0	CARBONDALE		SHALE	14.0	82.0
534.0	CARBONDALE	ST. DAVID	LIMESTONE	0.5	96.0
533.5	CARBONDALE	TURNER MINE	BLACK SHALE	1.5	96.5
532.0	CARBONDALE	SPRINGFIELD	COAL	5.5	98.0
526.5	CARBONDALE		UNDERCLAY	0.4	103.5

MAPID: 1672228000C VERSION: 1

PROJECT: NCRDS96

COUNTY: SANGAMON TWP/RNG: 17N 8W SECTION: 35 QUARTERS/FOOTAGES: 2640' S line, 2640' E line

QUADRANGLE: TALLULA LONGITUDE: -89.966225 GEOLOGIST: MCCRACKEN

CONFIDENTIAL: N LATITUDE: 39.880166 DATE COLLECTED: 3 / 23 / 1972

SURFACE ELEVATION (FT.): 630.0 LOGGED (FT.): 110.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON N113 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
630.0	PLEISTOCENE		UNCONSOLIDATED	59.0	0.0
571.0	CARBONDALE	ANNA	BLACK SHALE	1.0	59.0
570.0	CARBONDALE	HERRIN	COAL	3.0	60.0
567.0	CARBONDALE		SHALE	4.0	63.0
563.0	CARBONDALE		LIMESTONE	3.0	67.0
560.0	CARBONDALE		SHALE	32.0	70.0
528.0	CARBONDALE	ST. DAVID	LIMESTONE	1.0	102.0
527.0	CARBONDALE	TURNER MINE	BLACK SHALE	2.2	103.0
524.8	CARBONDALE	SPRINGFIELD	COAL	3.7	105.2
521.1	CARBONDALE		UNDERCLAY	1.1	108.9

MAPID: 16722283000C VERSION: 1

PROJECT: NCRDS96

COUNTY: SANGAMON TWP/RNG: 17N 8W SECTION: 36 QUARTERS/FOOTAGES: 2640' N line, 5' E line

QUADRANGLE: TALLULA LONGITUDE: -89.937906 GEOLOGIST: MCCRACKEN

CONFIDENTIAL: N LATITUDE: 39.880051 DATE COLLECTED: 8 / 17 / 1970

SURFACE ELEVATION (FT.): 618.0 LOGGED (FT.): 125.0 LOG TYPE: Drillers Log

SOURCE: COMMONWEALTH EDISON N125 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
618.0	PLEISTOCENE		UNCONSOLIDATED	65.0	0.0
553.0	CARBONDALE		LIMESTONE	4.0	65.0
549.0	CARBONDALE	ANNA	BLACK SHALE	2.0	69.0
547.0	CARBONDALE	HERRIN	COAL	1.0	71.0
546.0	CARBONDALE		SHALE	7.0	72.0
539.0	CARBONDALE		LIMESTONE	5.0	79.0
534.0	CARBONDALE		SHALE	32.5	84.0
501.5	CARBONDALE	TURNER MINE	BLACK SHALE	1.5	116.5
500.0	CARBONDALE	SPRINGFIELD	COAL	6.5	118.0
493.5	CARBONDALE		UNDERCLAY	0.5	124.5

MAPID: 16723386000C VERSION: 1

PROJECT: NCRDS91

COUNTY: SANGAMON TWP/RNG: 17N 8W SECTION: 36 QUARTERS/FOOTAGES: 450' S line, 2450' E line

QUADRANGLE: PLEASANT PLAINS LONGITUDE: -89.946584 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 39.874106 DATE COLLECTED: 10 / 2 / 1981

SURFACE ELEVATION (FT.): 590.0 LOGGED (FT.): 121.0 LOG TYPE: Drillers Log

SOURCE: PHILLIPS COAL CO. SA-11 WELL TYPE: Coal Test

COMMENT: ONLY LOGGED COAL

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
500.8	CARBONDALE	SPRINGFIELD	COAL	5.1	89.2	

MAPID: 16701818000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON TWP/RNG: 18N 4W SECTION: 31 QUARTERS/FOOTAGES: 330' S line, 330' W line

QUADRANGLE: WILLIAMSVILLE LONGITUDE: -89.597619 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 39.962229 DATE COLLECTED:

SURFACE ELEVATION (FT.): 580.0 LOGGED (FT.): 188.2 LOG TYPE: Drillers Log

SOURCE: CONSOLIDATION COAL CO. P-4-L WELL TYPE: Coal Test

COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
459.8	MODESTO	PIASA	LIMESTONE/UNDERCLAY	2.9	120.2	
456.9	MODESTO		MOTTLED SHALE	41.8	123.1	
415.1	CARBONDALE	DANVILLE	BONE COAL	1.3	164.9	
413.8	CARBONDALE	LAWSON	SILTY SHALE	1.7	166.2	
412.1	CARBONDALE	LAWSON	CALCAREOUS SHALE	3.5	167.9	
408.6	CARBONDALE	LAWSON	BONE COAL	0.7	171.4	
407.9	CARBONDALE	LAWSON	GRAY SHALE	5.5	172.1	
402.4	CARBONDALE	BRERETON	LIMESTONE	3.6	177.6	
398.8	CARBONDALE	ENERGY	CALCAREOUS SHALE	6.8	181.2	
392.0	CARBONDALE	HERRIN	DARK GRAY SHALE	0.2	188.0	

MAPID: 16722668000C VERSION: 1

PROJECT: NCRDS89

COUNTY: SANGAMON TWP/RNG: 18N 4W SECTION: 31 QUARTERS/FOOTAGES: 41' N line, 2516' E line

QUADRANGLE: WILLIAMSVILLE

LONGITUDE: -89.587292

GEOLOGIST: SROKA

CONFIDENTIAL: N

LATITUDE: 39.975749

DATE COLLECTED: 8 / 22 / 1978

SURFACE ELEVATION (FT.): 602.0

LOGGED (FT.): 280.0

LOG TYPE: Multiple log types

SOURCE: MOBIL OIL SI-78-52

WELL TYPE: Coal Test

COMMENT: DRILLERS LOG AND CORE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
602.0			UNCONSOLIDATED	76.0	0.0
526.0	MODESTO		GRAY SHALE	60.0	76.0
466.0	MODESTO		CALCAREOUS SHALE	6.0	136.0
460.0	MODESTO		LIMESTONE	3.5	142.0
456.5	MODESTO		GRAY SHALE	2.5	145.5
454.0	MODESTO		SHALE	6.0	148.0
448.0	MODESTO		SHALE	11.0	154.0
437.0	MODESTO		SHALY LIMESTONE	3.0	165.0
434.0	MODESTO		GRAY SHALE	3.5	168.0
430.5	MODESTO		LIMESTONE	0.8	171.5
429.7	MODESTO		SHALE	6.7	172.3
423.0	CARBONDALE	DANVILLE	COAL	0.0	179.0
423.0	CARBONDALE		GRAY SHALE	9.0	179.0
414.0	CARBONDALE	ANNA	BLACK SHALE	4.0	188.0
410.0	CARBONDALE	HERRIN	COAL	3.0	192.0
407.0	CARBONDALE		CALCAREOUS SHALE	5.0	195.0
402.0	CARBONDALE		SHALY LIMESTONE	8.0	200.0
394.0	CARBONDALE		CALCAREOUS SHALE	4.0	208.0
390.0	CARBONDALE		SANDY SHALE	4.5	212.0
385.5	CARBONDALE		SHALY SANDSTONE	4.5	216.5
381.0	CARBONDALE		LIMESTONE	1.0	221.0
380.0	CARBONDALE		SANDY SHALE	28.0	222.0
352.0	CARBONDALE		GRAY SHALE	5.0	250.0
347.0	CARBONDALE	ST. DAVID	LIMESTONE	1.5	255.0
345.5	CARBONDALE	TURNER MINE	BLACK SHALE	1.4	256.5
344.1	CARBONDALE	SPRINGFIELD	COAL	6.1	257.9
338.0	CARBONDALE		UNDERCLAY	1.1	264.0
336.9	CARBONDALE		CORE LOSS	0.5	265.1
336.5	CARBONDALE		CLAYSTONE & SILTSTONE	8.5	265.5
328.0	CARBONDALE		SANDY SHALE	6.0	274.0

MAPID: 16723063000C    VERSION: 1

PROJECT: NCRDS89

COUNTY: SANGAMON    TWP/RNG: 18N 4W    SECTION: 31    QUARTERS/FOOTAGES: 1490' N line, 90' E line

QUADRANGLE: WILLIAMSVILLE    LONGITUDE: -89.578571

GEOLOGIST: SROKA

CONFIDENTIAL: N    LATITUDE: 39.971925

DATE COLLECTED: 8 / 7 / 1979

SURFACE ELEVATION (FT.): 590.0    LOGGED (FT.): 260.0

LOG TYPE: Multiple log types

SOURCE: MOBIL OIL SI-79-31-73C

WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENSITY, DRILL LOG, CORE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
590.0			UNCONSOLIDATED	97.0	0.0
493.0	MODESTO		GRAY SHALE	37.0	97.0
456.0	MODESTO		CALCAREOUS SHALE	14.0	134.0
442.0	MODESTO		SHALE	3.0	148.0
439.0	MODESTO		SHALY LIMESTONE	3.5	151.0
435.5	MODESTO		GRAY SHALE	5.5	154.5
430.0	MODESTO	PIASA	LIMESTONE	1.3	160.0
428.7	MODESTO		SHALE	6.7	161.3
422.0	MODESTO		SHALE	4.0	168.0
418.0	MODESTO		GRAY SHALE	4.7	172.0
413.3	CARBONDALE	DANVILLE	COAL	1.3	176.7
412.0	CARBONDALE	DANVILLE	SHALE	3.0	178.0
409.0	CARBONDALE	DANVILLE	COAL	1.5	181.0
407.5	CARBONDALE		GRAY SHALE	7.5	182.5
400.0	CARBONDALE	BRERETON	LIMESTONE	4.0	190.0
396.0	CARBONDALE	ANNA	BLACK SHALE	2.0	194.0
394.0	CARBONDALE	HERRIN	COAL	0.0	196.0
394.0	CARBONDALE		GRAY SHALE	6.0	196.0
388.0	CARBONDALE		LIMESTONE	3.5	202.0
384.5	CARBONDALE		GRAY SHALE	34.7	205.5
349.8	CARBONDALE	ST. DAVID	LIMESTONE	1.2	240.2
348.6	CARBONDALE	TURNER MINE	BLACK SHALE	2.3	241.4
346.3	CARBONDALE	SPRINGFIELD	COAL	3.3	243.7
343.0	CARBONDALE		GRAY SHALE	3.7	247.0
339.3	CARBONDALE		CORE LOSS	1.0	250.7
338.5	CARBONDALE		GRAY SHALE	3.5	251.5
335.0	CARBONDALE		LIMESTONE	0.5	255.0
334.5	CARBONDALE		GRAY SHALE	4.0	255.5
330.5	CARBONDALE	EXCELLO	BLACK SHALE	0.5	259.5

MAPID: 1672218600C    VERSION: 1

PROJECT: AVAIL

COUNTY: SANGAMON    TWP/RNG: 18N 4W    SECTION: 35    QUARTERS/FOOTAGES: 33' N line, 50' E line of NW

QUADRANGLE: WILLIAMSVILLE    LONGITUDE: -89.512463    GEOLOGIST: COATS

CONFIDENTIAL: N    LATITUDE: 39.976482    DATE COLLECTED: 3 / 22 / 1968

SURFACE ELEVATION (FT.): 581.0    LOGGED (FT.): 281.0    LOG TYPE: Multiple log types

SOURCE: CARTER OIL COMPANY    WELL TYPE: Coal Test

COMMENT: DRILLERS LOG & SURVEY CORE DESCRIPTIONS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
581.0			UNCONSOLIDATED	15.0	0.0
566.0			UNCONSOLIDATED	61.0	15.0
505.0	MODESTO		GRAY SHALE	11.8	76.0
493.2	MODESTO	CHAPEL	COAL	0.7	87.8
492.5	MODESTO		SILTY SHALE	2.5	88.5
490.0	MODESTO		SANDSTONE	3.0	91.0
487.0	MODESTO		SILTY SHALE	46.0	94.0
441.0	MODESTO		SHALE	16.0	140.0
425.0	MODESTO	WEST FRANKLIN	LIMESTONE	4.5	156.0
420.5	MODESTO		SANDY SHALE	25.0	160.5
395.5	MODESTO		LIMESTONE	1.0	185.5
394.5	MODESTO		SHALE	20.0	186.5
374.5	CARBONDALE	DANVILLE	SHALY COAL	1.0	206.5
373.5	CARBONDALE		GRAY SHALE	12.5	207.5
361.0	CARBONDALE		LIMESTONE	2.0	220.0
359.0	CARBONDALE		GRAY SHALE	2.0	222.0
357.0	CARBONDALE	ANNA	BLACK SHALE	1.0	224.0
356.0	CARBONDALE	HERRIN	COAL	1.5	225.0
354.5	CARBONDALE		GRAY SHALE	10.0	226.5
344.5	CARBONDALE		SANDSTONE	2.0	236.5
342.5	CARBONDALE		SILTY SHALE	10.5	238.5
332.0	CARBONDALE		SILTY SHALE	17.6	249.0
314.4	CARBONDALE	ST. DAVID	FOSSILIFEROUS & ARG LIMESTONE	1.8	266.6
312.6	CARBONDALE	TURNER MINE	BLACK SHALE, SILTY, FOSSILIFEROUS	3.3	268.4
309.3	CARBONDALE		FOSSILIFEROUS & ARG LIMESTONE	0.3	271.7
309.0	CARBONDALE	SPRINGFIELD	COAL	5.6	272.0
303.4	CARBONDALE		SILTY CLAYSTONE	3.4	277.6



MAPID: 16701397000C    VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON    TWP/RNG: 18N 4W    SECTION: 36    QUARTERS/FOOTAGES: 0' S line, 0' W line

QUADRANGLE: WILLIAMSVILLE

LONGITUDE: -89.50274

GEOLOGIST:

CONFIDENTIAL: N

LATITUDE: 39.962092

DATE COLLECTED:

SURFACE ELEVATION (FT.): 585.0

LOGGED (FT.): 246.0

LOG TYPE: Drillers Log

SOURCE: ATLANTIC RICHFIELD    S-5

WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
407.0	MODESTO	PIASA	LIMESTONE	8.0	178.0
399.0	MODESTO		MOTTLED SHALE	41.0	186.0
358.0	CARBONDALE	DANVILLE	BONE COAL	4.0	227.0
354.0	CARBONDALE		SHALE	2.0	231.0
352.0	CARBONDALE	BRERETON	LIMESTONE	6.0	233.0
346.0	CARBONDALE	ENERGY	GRAY SHALE	5.0	239.0
341.0	CARBONDALE	ENERGY	CARBONACEOUS SHALE	1.0	244.0
340.0	CARBONDALE	HERRIN	COAL	1.0	245.0

MAPID: 16722427000C VERSION: 1

PROJECT: NCRDS89

COUNTY: SANGAMON TWP/RNG: 18N 4W SECTION: 36 QUARTERS/FOOTAGES: 25' S line, 45' E line

QUADRANGLE: CORNLAND LONGITUDE: -89.484004 GEOLOGIST: SROKA

CONFIDENTIAL: N LATITUDE: 39.962204 DATE COLLECTED: 11 / 11 / 1975

SURFACE ELEVATION (FT.): 584.0 LOGGED (FT.): 319.0 LOG TYPE: Multiple log types

SOURCE: MOBIL OIL SI-105 WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENSITY, DRILL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
584.0			UNCONSOLIDATED	105.0	0.0
479.0	MODESTO		GRAY SHALE	8.0	105.0
471.0	MODESTO		BLACK SHALE	2.0	113.0
469.0	MODESTO	CHAPEL	COAL	1.5	115.0
467.5	MODESTO		GRAY SHALE	66.5	116.5
401.0	MODESTO		LIMESTONE	4.0	183.0
397.0	MODESTO		BLACK SHALE	3.0	187.0
394.0	MODESTO		SHALE	10.0	190.0
384.0	MODESTO		SHALE	14.0	200.0
370.0	MODESTO		LIMESTONE	1.0	214.0
369.0	MODESTO		GRAY SHALE	5.0	215.0
364.0	MODESTO		SHALE	10.0	220.0
354.0	MODESTO		BLACK SHALE	2.0	230.0
352.0	CARBONDALE	DANVILLE	COAL	2.0	232.0
350.0	CARBONDALE		UNDERCLAY	2.5	234.0
347.5	CARBONDALE		GRAY SHALE	5.0	236.5
342.5	CARBONDALE		SHALY LIMESTONE	3.0	241.5
339.5	CARBONDALE		GRAY SHALE	3.5	244.5
336.0	CARBONDALE	ANNA	BLACK SHALE	3.0	248.0
333.0	CARBONDALE	HERRIN	COAL	3.0	251.0
330.0	CARBONDALE		CLAYSTONE	5.5	254.0
324.5	CARBONDALE		LIMESTONE	1.5	259.5
323.0	CARBONDALE		GRAY SHALE	37.0	261.0
286.0	CARBONDALE	ST. DAVID	SHALY LIMESTONE	1.5	298.0
284.5	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	299.5
282.5	CARBONDALE	SPRINGFIELD	COAL	5.5	301.5
277.0	CARBONDALE		UNDERCLAY	2.5	307.0
274.5	CARBONDALE		SHALY LIMESTONE	3.0	309.5
271.5	CARBONDALE		GRAY SHALE	4.5	312.5
267.0	CARBONDALE		LIMESTONE	1.0	317.0
266.0	CARBONDALE		GRAY SHALE	1.0	318.0

MAPID: 16722187000C    VERSION: 1

PROJECT: AVAIL

COUNTY: SANGAMON    TWP/RNG: 18N 5W    SECTION: 32    QUARTERS/FOOTAGES: 42' S line, 900' W line of SE

QUADRANGLE: ATHENS    LONGITUDE: -89.680467    GEOLOGIST: COATS

CONFIDENTIAL: N    LATITUDE: 39.960828    DATE COLLECTED: 4 / 16 / 1968

SURFACE ELEVATION (FT.): 605.0    LOGGED (FT.): 239.5    LOG TYPE: Multiple log types

SOURCE: CARTER OIL COMPANY    WELL TYPE: Coal Test

COMMENT: DRILLERS LOG & SURVEY CORE DESCRIPTIONS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
605.0			CLAY	15.0	0.0
590.0			UNCONSOLIDATED	11.0	15.0
579.0	MODESTO		GRAY SHALE	3.0	26.0
576.0	MODESTO	CHAPEL	COAL	1.0	29.0
575.0	MODESTO		SANDY SHALE	10.0	30.0
565.0	MODESTO		SANDSTONE	30.0	40.0
535.0	MODESTO		CALCAREOUS SHALE	26.0	70.0
509.0	MODESTO	WEST FRANKLIN	LIMESTONE	5.5	96.0
503.5	MODESTO		GRAY SHALE	5.5	101.5
498.0	MODESTO		VARRIGATED SHALE	31.0	107.0
467.0			SANDY DARK SHALE	14.0	138.0
453.0	CARBONDALE		CALCAREOUS SANDSTONE	14.0	152.0
439.0	CARBONDALE		GRAY SHALE	4.0	166.0
435.0	CARBONDALE		SANDSTONE	27.0	170.0
408.0	CARBONDALE		SANDSTONE	1.5	197.0
406.5	CARBONDALE		SILTSTONE	7.2	198.5
399.3	CARBONDALE		SILTY SHALE	9.2	205.7
390.1	CARBONDALE	ST. DAVID	FOSSILIFEROUS & ARG LIMESTONE	0.8	214.9
389.3	CARBONDALE	TURNER MINE	BLACK SHALE	3.7	215.7
385.6	CARBONDALE	SPRINGFIELD	COAL	6.1	219.4
379.5	CARBONDALE		SILTY CLAYSTONE	6.5	225.5
373.0	CARBONDALE		SHALY SILTSTONE	1.8	232.0
371.2	CARBONDALE		SILTY SHALE	1.6	233.8
369.6	CARBONDALE		SILTY CLAYSTONE	4.1	235.4

MAPID: 16722188000C VERSION: 1

PROJECT: AVAIL

COUNTY: SANGAMON TWP/RNG: 18N 5W SECTION: 34 QUARTERS/FOOTAGES:

QUADRANGLE: ATHENS LONGITUDE: -89.646082

GEOLOGIST: COATS

CONFIDENTIAL: N LATITUDE: 39.968369

DATE COLLECTED: 4 / 9 / 1968

SURFACE ELEVATION (FT.): 600.0 LOGGED (FT.): 242.5

LOG TYPE: Multiple log types

SOURCE: CARTER OIL COMPANY

WELL TYPE: Coal Test

COMMENT: DRILLERS LOG & SURVEY CORE DESCRIPTIONS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
600.0			CLAY	15.0	0.0
585.0			UNCONSOLIDATED	23.0	15.0
562.0	MODESTO		SANDY DARK SHALE	11.0	38.0
551.0	MODESTO	CHAPEL	COAL	1.0	49.0
550.0	MODESTO		SANDY SHALE	67.0	50.0
483.0	MODESTO	WEST FRANKLIN	LIMESTONE	3.0	117.0
480.0	MODESTO		SANDY DARK SHALE	5.0	120.0
475.0	MODESTO		VARRIGATED SHALE	10.0	125.0
465.0	MODESTO		LIMESTONE	1.0	135.0
464.0	MODESTO		CALCAREOUS SHALE	4.0	136.0
460.0	MODESTO		VARRIGATED SHALE	20.0	140.0
440.0	MODESTO		DARK SHALE	2.0	160.0
438.0	CARBONDALE	DANVILLE	COAL	1.0	162.0
437.0	CARBONDALE		CALCAREOUS SHALE	4.0	163.0
433.0	CARBONDALE		COAL	1.0	167.0
432.0	CARBONDALE		SANDY SHALE	12.0	168.0
420.0	CARBONDALE	BANKSTON FORK	LIMESTONE	2.0	180.0
418.0	CARBONDALE	ANVIL ROCK	SANDSTONE	24.0	182.0
394.0	CARBONDALE		GRAY SHALE	6.0	206.0
388.0	CARBONDALE		GRAY SHALE	11.9	212.0
376.1	CARBONDALE	ST. DAVID	ARGILLACEOUS LIMESTONE	3.4	223.9
372.7	CARBONDALE	TURNER MINE	SILTY BLACK SHALE	1.9	227.3
370.8	CARBONDALE	SPRINGFIELD	COAL	5.9	229.2
364.9	CARBONDALE		SILTY CLAYSTONE	5.4	235.1
359.5	CARBONDALE		SILTSTONE	0.8	240.5
358.7	CARBONDALE		SILTY SHALE	1.2	241.3

MAPID: 16701396000C    VERSION: 1

PROJECT: ROOF STUDY

COUNTY: SANGAMON    TWP/RNG: 18N 5W    SECTION: 35    QUARTERS/FOOTAGES: 750' S line, 0' W line

QUADRANGLE: ATHENS

LONGITUDE: -89.636667

GEOLOGIST:

CONFIDENTIAL: N

LATITUDE: 39.963137

DATE COLLECTED:

SURFACE ELEVATION (FT.): 590.0

LOGGED (FT.): 195.9

LOG TYPE: Drillers Log

SOURCE: ATLANTIC RICHFIELD    S-4

WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
460.0	MODESTO	PIASA	LIMESTONE	9.0	130.0
451.0	MODESTO		MOTTLED SHALE	25.9	139.0
425.1	CARBONDALE	DANVILLE	BONE COAL	1.0	164.9
424.1	CARBONDALE	ENERGY	MOTTLED SHALE	5.0	165.9
419.1	CARBONDALE	ENERGY	DARK GRAY SHALE	25.0	170.9

---

MAPID: 16722669000C    VERSION: 1

PROJECT: NCRDS89

COUNTY: SANGAMON    TWP/RNG: 18N 5W    SECTION: 35    QUARTERS/FOOTAGES: 55' N line, 1340' W line

QUADRANGLE: ATHENS    LONGITUDE: -89.632111    GEOLOGIST: SROKA

CONFIDENTIAL: N    LATITUDE: 39.975625    DATE COLLECTED: 8 / 23 / 1978

SURFACE ELEVATION (FT.): 580.0    LOGGED (FT.): 230.0    LOG TYPE: Multiple log types

SOURCE: MOBIL OIL SI-78-51    WELL TYPE: Coal Test

COMMENT: GAMMA, DENSITY, DRILL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
580.0			UNCONSOLIDATED	31.0	0.0
549.0	MODESTO		SHALY SANDSTONE	9.0	31.0
540.0	MODESTO		SANDY SHALE	46.0	40.0
494.0	MODESTO		BLACK SHALE	1.0	86.0
493.0	MODESTO		GRAY SHALE	2.0	87.0
491.0	MODESTO		SHALY LIMESTONE	8.5	89.0
482.5	MODESTO		BLACK SHALE	1.5	97.5
481.0	MODESTO		GRAY SHALE	2.0	99.0
479.0	MODESTO		SHALE	7.0	101.0
472.0	MODESTO		CALCAREOUS SHALE	12.0	108.0
460.0	MODESTO		LIMESTONE	1.5	120.0
458.5	MODESTO		GRAY SHALE	14.0	121.5
444.5	MODESTO		SHALE	2.0	135.5
442.5	MODESTO		BLACK SHALE	2.0	137.5
440.5	CARBONDALE	DANVILLE	COAL	0.5	139.5
440.0	CARBONDALE	DANVILLE	GRAY SHALE	4.0	140.0
436.0	CARBONDALE	DANVILLE	COAL	1.0	144.0
435.0	CARBONDALE		CALCAREOUS SHALE	13.5	145.0
421.5	CARBONDALE		SANDSTONE	6.5	158.5
415.0	CARBONDALE		SANDSTONE/LIMESTONE	2.0	165.0
413.0	CARBONDALE		GRAY SHALE	7.0	167.0
406.0	CARBONDALE		SHALY SANDSTONE	18.0	174.0
388.0	CARBONDALE		GRAY SHALE	11.5	192.0
376.5	CARBONDALE		SHALE	0.5	203.5
376.0	CARBONDALE	ST. DAVID	LIMESTONE	0.5	204.0
375.5	CARBONDALE	TURNER MINE	BLACK SHALE	3.0	204.5
372.5	CARBONDALE	SPRINGFIELD	COAL	5.6	207.5
366.9	CARBONDALE		GRAY SHALE	0.6	213.1
366.2	CARBONDALE		CORE LOSS	0.3	213.8
366.0	CARBONDALE		GRAY SHALE	10.5	214.0
355.5	CARBONDALE	EXCELLO	BLACK SHALE	1.5	224.5
354.0	CARBONDALE		GRAY SHALE	4.0	226.0

MAPID: 16722428000C    VERSION: 1

PROJECT: NCRDS89

COUNTY: SANGAMON    TWP/RNG: 18N 5W    SECTION: 36    QUARTERS/FOOTAGES: 45' N line, 2675' W line

QUADRANGLE: WILLIAMSVILLE    LONGITUDE: -89.608428    GEOLOGIST: SROKA

CONFIDENTIAL: N    LATITUDE: 39.975497    DATE COLLECTED: 10 / 30 / 1975

SURFACE ELEVATION (FT.): 600.0    LOGGED (FT.): 285.0    LOG TYPE: Multiple log types

SOURCE: MOBIL OIL SI-115    WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENSITY, DRILL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
600.0			UNCONSOLIDATED	37.0	0.0
563.0	MODESTO		GRAY SHALE	48.0	37.0
515.0	MODESTO		BLACK SHALE	0.5	85.0
514.5	MODESTO	CHAPEL	COAL	2.3	85.5
512.2	MODESTO		GRAY SHALE	61.7	87.8
450.5	MODESTO		CALCAREOUS SHALE	12.5	149.5
438.0	MODESTO		GRAY SHALE	5.5	162.0
432.5	MODESTO		LIMESTONE W/ SHALE	14.0	167.5
418.5	MODESTO		GRAY SHALE	14.5	181.5
404.0	MODESTO		BLACK SHALE	1.0	196.0
403.0	MODESTO		BLACK SHALE	4.0	197.0
399.0	CARBONDALE	DANVILLE	COAL	1.8	201.0
397.2	CARBONDALE		GRAY SHALE	6.2	202.8
391.0	CARBONDALE		SHALY LIMESTONE	2.5	209.0
388.5	CARBONDALE		GRAY SHALE	1.5	211.5
387.0	CARBONDALE		SHALY LIMESTONE	2.5	213.0
384.5	CARBONDALE		SHALE	4.0	215.5
380.5	CARBONDALE		SANDSTONE	3.0	219.5
377.5	CARBONDALE		GRAY SHALE	36.5	222.5
341.0	CARBONDALE	ST. DAVID	LIMESTONE	1.3	259.0
339.7	CARBONDALE	TURNER MINE	BLACK SHALE	3.8	260.3
336.0	CARBONDALE	SPRINGFIELD	COAL	5.5	264.0
330.5	CARBONDALE		GRAY SHALE	7.0	269.5
323.5	CARBONDALE		LIMESTONE	2.5	276.5
321.0	CARBONDALE		SHALE	6.0	279.0

MAPID: 16723057000C    VERSION: 1

PROJECT: NCRDS89

COUNTY: SANGAMON    TWP/RNG: 18N 5W    SECTION: 36    QUARTERS/FOOTAGES: 36' S line, 2450' E line

QUADRANGLE: WILLIAMSVILLE    LONGITUDE: -89.607584

GEOLOGIST: SROKA

CONFIDENTIAL: N    LATITUDE: 39.961353

DATE COLLECTED: 6 / 19 / 1979

SURFACE ELEVATION (FT.): 597.0

LOGGED (FT.): 291.0

LOG TYPE: Multiple log types

SOURCE: MOBIL OIL SI-79-36-74C

WELL TYPE: Coal Test

COMMENT: GAMMA, RESIST, DENSITY, DRILL LOG, CORE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
597.0			UNCONSOLIDATED	88.0	0.0
509.0	MODESTO		SANDY SHALE	18.0	88.0
491.0	MODESTO		GRAY SHALE	45.0	106.0
446.0	MODESTO		SHALE	5.0	151.0
441.0	MODESTO		LIMESTONE	2.0	156.0
439.0	MODESTO		BLACK SHALE	2.0	158.0
437.0	MODESTO	CHAPEL	COAL	1.0	160.0
436.0	MODESTO		GRAY SHALE	7.0	161.0
429.0	MODESTO		SHALE	8.0	168.0
421.0	MODESTO		SHALE	6.5	176.0
414.5	MODESTO	PIASA	SHALY LIMESTONE	6.0	182.5
408.5	MODESTO		SHALE	1.5	188.5
407.0	MODESTO		SHALE	8.0	190.0
399.0	MODESTO		SHALE	2.5	198.0
396.5	MODESTO		BLACK SHALE	1.5	200.5
395.0	CARBONDALE	DANVILLE	COAL	1.0	202.0
394.0	CARBONDALE	DANVILLE	SHALE	5.3	203.0
388.7	CARBONDALE	DANVILLE	COAL	1.7	208.3
387.0	CARBONDALE		GRAY SHALE	10.5	210.0
376.5	CARBONDALE	BRERETON	LIMESTONE	2.0	220.5
374.5	CARBONDALE	ANNA	BLACK SHALE	1.0	222.5
373.5	CARBONDALE	HERRIN	COAL	1.0	223.5
372.5	CARBONDALE		GRAY SHALE	20.5	224.5
352.0	CARBONDALE		SHALE	21.7	245.0
330.3	CARBONDALE	ST. DAVID	SHALY LIMESTONE	0.3	266.7
330.1	CARBONDALE	TURNER MINE	BLACK SHALE	2.5	266.9
327.5	CARBONDALE	SPRINGFIELD	COAL	6.1	269.5
321.4	CARBONDALE		SHALE	1.5	275.6
319.9	CARBONDALE		SHALE	4.4	277.1
315.4	CARBONDALE		SHALE	1.7	281.6
313.8	CARBONDALE		LIMESTONE	0.9	283.2
312.9	CARBONDALE		SHALE	0.8	284.1
312.1	CARBONDALE		CORE LOSS	0.1	284.9
312.0	CARBONDALE		SHALE	1.3	285.0
310.7	CARBONDALE		SHALE & CLAYSTONE	4.7	286.3
306.0	CARBONDALE		CORE LOSS	0.1	291.0
306.0	CARBONDALE		UNCLASSIFIED	0.0	291.0