

Status Report

Total Records: 1089

Top 3 County Records		Top 3 Log Type Records		Top 3 Coal Records		Top 3 Member Records	
Randolph	1089	Drillers Log	1069	HERRIN	749	HERRIN COAL	749
		Electric Log	11	SPRINGFIELD	180	BRERETON LIMESTONE	369
		Survey Core Study	9	DANVILLE	80	ANNA BLACK SHALE	249

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
CARLINVILLE	LIMESTONE	56.5	49.5	63.5	1.0	0.5	1.5
CHAPEL	COAL	61.0	55.0	67.0	1.4	1.0	1.7
TRIVOLI	SANDSTONE	23.7	16.2	31.2	63.3	28.4	98.2
PIASA	LIMESTONE	103.6	27.9	254.0	9.4	0.3	28.3
DANVILLE	COAL	110.7	19.9	264.0	1.9	0.2	4.7
GALUM	LIMESTONE	154.1	36.3	241.5	1.7	0.4	3.1
BANKSTON FORK	LIMESTONE	115.4	13.9	272.5	7.8	1.3	19.4
ANVIL ROCK	SANDSTONE	61.0	61.0	61.0	1.1	1.1	1.1
LAWSON	SHALE	99.9	19.0	235.7	5.3	0.4	34.0
CONANT	LIMESTONE	124.0	21.8	276.5	5.4	0.3	18.2
JAMESTOWN	COAL	54.4	26.4	117.5	0.5	0.2	2.5
BRERETON	LIMESTONE	69.3	10.7	291.5	4.5	0.3	17.0
ANNA	SHALE	73.8	1.3	294.5	2.2	0.1	9.1
ENERGY	SHALE	52.4	43.0	61.8	2.6	2.3	3.0
HERRIN	COAL	64.0	2.3	308.0	5.5	0.1	12.0
HIGGINSVILLE	LIMESTONE	170.6	112.4	283.2	4.3	0.8	9.4
ST. DAVID	LIMESTONE	69.4	33.0	203.1	2.8	0.5	7.0
TURNER MINE	SHALE	89.2	27.0	241.0	1.8	0.2	4.4
SPRINGFIELD	COAL	64.9	14.0	242.8	3.3	0.3	8.0
EXCELLO	SHALE	248.5	248.5	248.5	3.8	3.8	3.8
HOUCHIN CREEK	COAL	206.0	92.8	252.3	3.1	0.8	6.0
OAK GROVE	LIMESTONE	238.0	176.5	299.4	1.2	1.1	1.3
MECCA QUARRY	SHALE	239.2	177.6	300.7	4.2	3.7	4.7
COLCHESTER	COAL	243.4	182.3	304.4	1.3	1.2	1.4
DEKOVEN	COAL	116.0	99.0	125.0	2.9	1.0	5.0
DAVIS	COAL	154.0	136.0	160.0	4.2	2.0	6.0
					Net Coal	24.0	

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: 15790002000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 4S 5W **SECTION:** 1 **QUARTERS/FOOTAGES:**
QUADRANGLE: COULTERVILLE **LONGITUDE:** -89.610272 **GEOLOGIST:** C TREWORY
CONFIDENTIAL: N **LATITUDE:** 38.214194 **DATE COLLECTED:** 2 / 18 / 1975
SURFACE ELEVATION (FT.): 492.9 **LOGGED (FT.):** 300.0 **LOG TYPE:** Drillers Log
SOURCE: PEABODY COAL CO. 16109C **WELL TYPE:** Coal Test
COMMENT: FROM PERMIT 48, REVISION 4

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
492.9			UNCLASSIFIED	31.2	0.0	
461.7	MODESTO	TRIVOLI	SANDSTONE	98.2	31.2	
363.5	MODESTO	PIASA	LIMESTONE	9.8	129.4	
353.7	MODESTO		GRAY SHALE	10.6	139.2	
343.1	CARBONDALE	BANKSTON FORK	LIMESTONE	2.2	149.8	BANKSTON FORK LS UPPER
340.9	CARBONDALE	BANKSTON FORK	GRAY SHALE	5.2	152.0	
335.7	CARBONDALE	BANKSTON FORK	LIMESTONE	2.0	157.2	BANKSTON FORK LS LOWER
333.7	CARBONDALE	LAWSON	GRAY SHALE	4.4	159.2	
329.3	CARBONDALE	CONANT	LIMESTONE	1.0	163.6	
328.3	CARBONDALE		DARK SHALE	7.5	164.6	
320.8	CARBONDALE	BRERETON	LIMESTONE	3.9	172.1	
316.9	CARBONDALE	ANNA	SILTSTONE	0.0	176.0	
316.9	CARBONDALE	HERRIN	COAL	6.0	176.0	
310.9	CARBONDALE		UNDERCLAY	1.8	182.0	
309.1	CARBONDALE	HIGGINSVILLE	LIMESTONE	9.4	183.8	
299.7	CARBONDALE		GRAY SHALE	19.5	193.2	
280.2	CARBONDALE		GRAY SHALE	28.3	212.7	
251.9	CARBONDALE	TURNER MINE	DARK SHALE	1.8	241.0	

250.1	CARBONDALE	SPRINGFIELD	COAL	0.8	242.8
249.3	CARBONDALE		GRAY SHALE	56.4	243.6

MAPID: 15790020000C **VERSION:** 1 **PROJECT:** LUMP97
COUNTY: RANDOLPH **TWP/RNG:** 4S 5W **SECTION:** 1 **QUARTERS/FOOTAGES:** SW SW SE
QUADRANGLE: COULTERVILLE **LONGITUDE:** -89.600767 **GEOLOGIST:** D NORTH
CONFIDENTIAL: N **LATITUDE:** 38.205926 **DATE COLLECTED:** 2 / 25 / 1975
SURFACE ELEVATION (FT.): 485.9 **LOGGED (FT.):** 189.0 **LOG TYPE:** Drillers Log
SOURCE: PEABODY COAL CO. 16110C **WELL TYPE:** Coal Test
COMMENT: PERMIT # 48 SWANWICK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
485.9	PLEISTOCENE		UNCONSOLIDATED	32.6	0.0
453.3	MODESTO		GRAY SHALE	104.6	32.6
348.7	MODESTO	PIASA	LIMESTONE	9.9	137.2
338.8	MODESTO		GRAY SHALE	1.7	147.1
337.1	CARBONDALE	DANVILLE	COAL	1.1	148.8
336.0	CARBONDALE		GRAY SHALE	4.8	149.9
331.2	CARBONDALE	BANKSTON FORK	LIMESTONE	3.6	154.7
327.6	CARBONDALE	BANKSTON FORK	SHALE	5.0	158.3
322.6	CARBONDALE	BANKSTON FORK	LIMESTONE	3.1	163.3
319.5	CARBONDALE		DARK SHALE	5.9	166.4
313.6	CARBONDALE		BLACK SHALE	2.2	172.3
311.4	CARBONDALE	BRERETON	LIMESTONE	3.1	174.5
308.3	CARBONDALE	ANNA	BLACK SHALE	2.0	177.6
306.3	CARBONDALE	HERRIN	COAL	6.3	179.6
300.0	CARBONDALE		UNDERCLAY	1.6	185.9
298.4	CARBONDALE	HIGGINSVILLE	LIMESTONE	1.5	187.5

MAPID: 15790022000C VERSION: 1

PROJECT: LUMP97

COUNTY: RANDOLPH TWP/RNG: 4S 5W SECTION: 1 QUARTERS/FOOTAGES: 650' S line, 50' W line of NW

QUADRANGLE: COULTERVILLE LONGITUDE: -89.610257 GEOLOGIST: D NORTH

CONFIDENTIAL: N LATITUDE: 38.213995 DATE COLLECTED: 2 / 18 / 1975

SURFACE ELEVATION (FT.): 492.9 LOGGED (FT.): 300.0 LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO. 16109C WELL TYPE: Coal Test

COMMENT: PERMIT # 48 SWANWICK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
492.9	PLEISTOCENE		UNCONSOLIDATED	31.2	0.0	
461.7	MODESTO		SANDSTONE	98.2	31.2	
363.5	MODESTO	PIASA	LIMESTONE	9.8	129.4	
353.7			GRAY SHALE	10.6	139.2	
343.1	CARBONDALE	BANKSTON FORK	LIMESTONE	2.2	149.8	
340.9	CARBONDALE	BANKSTON FORK	GRAY SHALE	5.2	152.0	
335.7	CARBONDALE	BANKSTON FORK	LIMESTONE	2.0	157.2	
333.7	CARBONDALE		GRAY SHALE	4.4	159.2	
329.3	CARBONDALE	CONANT	LIMESTONE	1.0	163.6	BLACK
328.3	CARBONDALE		DARK SHALE	7.5	164.6	
320.8	CARBONDALE	BRERETON	LIMESTONE	3.9	172.1	
316.9	CARBONDALE	HERRIN	COAL	6.0	176.0	
310.9	CARBONDALE		UNDERCLAY	1.8	182.0	
309.1	CARBONDALE	HIGGINSVILLE	LIMESTONE	9.4	183.8	
299.7	CARBONDALE		SHALE	49.6	193.2	
250.1	CARBONDALE	HOUCHIN CREEK	COAL	0.8	242.8	
249.3	CARBONDALE		GRAY SHALE	56.4	243.6	

MAPID: 15701921000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: RANDOLPH TWP/RNG: 4S 5W SECTION: 2 QUARTERS/FOOTAGES: 330' N line, 1650' E line

QUADRANGLE: COULTERVILLE LONGITUDE: -89.616178 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.218404 DATE COLLECTED:

SURFACE ELEVATION (FT.): 523.0 LOGGED (FT.): 200.0 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	
375.0	MODESTO	PIASA	LIMESTONE	8.0	148.0	
367.0	MODESTO		SHALE	3.0	156.0	
364.0	CARBONDALE	DANVILLE	COAL	2.5	159.0	
361.5	CARBONDALE		SHALE	5.0	161.5	
356.5	CARBONDALE	BANKSTON FORK	LIMESTONE	5.0	166.5	
351.5	CARBONDALE	CONANT	CALCAREOUS SHALE	12.0	171.5	
339.5	CARBONDALE	BRERETON	LIMESTONE	3.0	183.5	
336.5	CARBONDALE	ANNA	BLACK SHALE	2.5	186.5	
328.0	CARBONDALE	HERRIN	COAL	5.0	195.0	

MAPID: 15790001000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 4S 5W SECTION: 2 QUARTERS/FOOTAGES:

QUADRANGLE: TILDEN LONGITUDE: -89.628601

GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.212844

DATE COLLECTED: 2 / 6 / 1975

SURFACE ELEVATION (FT.): 547.3 LOGGED (FT.): 209.5

LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO. 16107C

WELL TYPE: Coal Test

COMMENT: FROM PERMIT 48, REVISION 4

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
547.3			UNCLASSIFIED	16.2	0.0	
531.1	MODESTO	TRIVOLI	SANDSTONE	28.4	16.2	
502.7	MODESTO		GRAY SHALE	71.4	44.6	
431.3	MODESTO		SHALE	28.8	116.0	
402.5	MODESTO		SHALE	1.6	144.8	
400.9	MODESTO		GRAY SHALE	1.1	146.4	
399.8	MODESTO		SHALE	0.5	147.5	
399.3	MODESTO		GRAY SHALE	3.9	148.0	
395.4	MODESTO	PIASA	LIMESTONE	8.9	151.9	
386.5	MODESTO		DARK SHALE	1.8	160.8	
384.7	CARBONDALE	DANVILLE	COAL	2.1	162.6	
382.6	CARBONDALE		GRAY SHALE	6.2	164.7	
376.4	CARBONDALE	BANKSTON FORK	LIMESTONE	3.0	170.9	BANKSTON FORK LS UPPER
373.4	CARBONDALE	BANKSTON FORK	GRAY SHALE	4.6	173.9	
368.8	CARBONDALE	BANKSTON FORK	LIMESTONE	3.0	178.5	BANKSTON FORK LS LOWER
365.8	CARBONDALE	LAWSON	DARK SHALE	3.9	181.5	
361.9	CARBONDALE	LAWSON	LIMESTONE	0.9	185.4	
361.0	CARBONDALE	LAWSON	DARK SHALE	1.6	186.3	
359.4	CARBONDALE	CONANT	LIMESTONE	1.4	187.9	
358.0	CARBONDALE		SHALE	2.5	189.3	
355.5	CARBONDALE	BRERETON	LIMESTONE	3.1	191.8	
352.4	CARBONDALE	ANNA	SILTSTONE	1.8	194.9	
350.6	CARBONDALE	HERRIN	COAL	6.4	196.7	
344.2	CARBONDALE		UNDERCLAY	1.8	203.1	
342.4	CARBONDALE	HIGGINSVILLE	SHALE	4.6	204.9	

MAPID: 15790021000C VERSION: 1

PROJECT: LUMP97

COUNTY: RANDOLPH TWP/RNG: 4S 5W SECTION: 2 QUARTERS/FOOTAGES: SE SE NW

QUADRANGLE: COULTERVILLE LONGITUDE: -89.621041 GEOLOGIST: D NORTH

CONFIDENTIAL: N LATITUDE: 38.213446 DATE COLLECTED: 7 / 4 / 1995

SURFACE ELEVATION (FT.): 534.6 LOGGED (FT.): 224.0 LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO. 17032C WELL TYPE: Coal Test

COMMENT: PERMIT # 48 MARISSA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
534.6	PLEISTOCENE		UNCONSOLIDATED	62.0	0.0
472.6	MODESTO		COAL	1.0	62.0
471.6	MODESTO		GRAY SHALE	70.0	63.0
401.6	MODESTO		SANDSTONE	1.0	133.0
400.6	MODESTO		GRAY SHALE	5.0	134.0
395.6	MODESTO		BLACK SHALE	3.0	139.0
392.6	MODESTO		SANDSTONE	15.0	142.0
377.6	MODESTO		GRAY SHALE	4.0	157.0
373.6	MODESTO	PIASA	LIMESTONE	11.0	161.0
362.6	CARBONDALE	DANVILLE	COAL	1.5	172.0
361.1	CARBONDALE		GRAY SHALE	7.5	173.5
353.6	CARBONDALE	BANKSTON FORK	LIMESTONE	1.0	181.0
352.6	CARBONDALE	BANKSTON FORK	SHALE	7.3	182.0
345.3	CARBONDALE	BANKSTON FORK	LIMESTONE	2.4	189.3
343.0	CARBONDALE		DARK SHALE	5.4	191.6
337.6	CARBONDALE	CONANT	LIMESTONE	1.5	197.0
336.1	CARBONDALE		SHALE	6.6	198.5
329.5	CARBONDALE	BRERETON	LIMESTONE	3.0	205.1
326.5	CARBONDALE	ANNA	DARK SHALE	0.9	208.1
325.6	CARBONDALE	HERRIN	COAL	5.8	209.0
319.9	CARBONDALE		UNDERCLAY	4.1	214.7
315.8	CARBONDALE	HIGGINSVILLE	LIMESTONE	3.6	218.8
312.2	CARBONDALE		SHALE	1.6	222.4

MAPID: 15701833000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: RANDOLPH TWP/RNG: 4S 5W SECTION: 3 QUARTERS/FOOTAGES: 330' S line, 1650' W line

QUADRANGLE: TILDEN

LONGITUDE: -89.641825

GEOLOGIST:

CONFIDENTIAL: N

LATITUDE: 38.206369

DATE COLLECTED:

SURFACE ELEVATION (FT.): 529.0

LOGGED (FT.): 215.5

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
376.0	MODESTO	PIASA	LIMESTONE	7.5	153.0
368.5	MODESTO		SHALE	3.0	160.5
365.5	CARBONDALE	DANVILLE	COAL	2.5	163.5
363.0	CARBONDALE		SHALE	7.0	166.0
356.0	CARBONDALE	BANKSTON FORK	LIMESTONE	3.0	173.0
353.0	CARBONDALE	CONANT	CALCAREOUS SHALE	14.0	176.0
339.0	CARBONDALE	BRERETON	LIMESTONE	6.0	190.0
333.0	CARBONDALE	ANNA	BLACK SHALE	3.0	196.0
319.0	CARBONDALE	HERRIN	COAL	5.5	210.0

MAPID: 15790025000C VERSION: 1

PROJECT: LUMP97

COUNTY: RANDOLPH TWP/RNG: 4S 5W SECTION: 3 QUARTERS/FOOTAGES: 125' S line, 100' W line of NW

QUADRANGLE: TILDEN LONGITUDE: -89.647139 GEOLOGIST: D NORTH

CONFIDENTIAL: N LATITUDE: 38.21277 DATE COLLECTED: 9 / 2 / 1975

SURFACE ELEVATION (FT.): 502.9 LOGGED (FT.): 202.9 LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO. 16275C WELL TYPE: Coal Test

COMMENT: PERMIT # 48 MARISSA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
502.9	PLEISTOCENE		UNCONSOLIDATED	23.0	0.0	
479.9	MODESTO		SANDSTONE	48.0	23.0	BROWN
431.9	MODESTO		GRAY SHALE	27.0	71.0	
404.9	MODESTO		SHALE W/ LIME NODULES	21.5	98.0	
383.4	MODESTO		SANDSTONE	0.9	119.5	GRAY
382.5	MODESTO		GRAY SHALE	7.6	120.4	
374.9	MODESTO		SANDSTONE	10.5	128.0	
364.4	MODESTO		GRAY SHALE	2.5	138.5	
361.9	MODESTO	PIASA	LIMESTONE	11.2	141.0	
350.7	MODESTO		GRAY SHALE	1.2	152.2	
349.5	MODESTO		DARK SHALE	1.6	153.4	
347.9	CARBONDALE		GRAY SHALE	7.0	155.0	
340.9	CARBONDALE	BANKSTON FORK	LIMESTONE	3.4	162.0	
337.5	CARBONDALE	BANKSTON FORK	SHALE W/ LIME NODULES	4.2	165.4	
333.3	CARBONDALE	BANKSTON FORK	LIMESTONE	1.4	169.6	
331.9	CARBONDALE		DARK SHALE	5.2	171.0	
326.7	CARBONDALE	CONANT	LIMESTONE	1.0	176.2	
325.7	CARBONDALE	CONANT	DARK SHALE & BLACK SHALE	2.1	177.2	
323.6	CARBONDALE	CONANT	LIMESTONE	0.3	179.3	
323.3	CARBONDALE		DARK SHALE & BLACK SHALE	4.1	179.6	
319.2	CARBONDALE	BRERETON	LIMESTONE	3.6	183.7	
315.6	CARBONDALE	HERRIN	COAL	6.0	187.3	
309.6	CARBONDALE		UNDERCLAY	1.8	193.3	
307.8	CARBONDALE		SHALE W/ LIME NODULES	0.9	195.1	
306.9	CARBONDALE	HIGGINSVILLE	LIMESTONE	1.7	196.0	
305.2	CARBONDALE	HIGGINSVILLE	GRAY SHALE	0.6	197.7	
304.6	CARBONDALE	HIGGINSVILLE	SHALY LIMESTONE	4.6	198.3	

MAPID: 15790034000C VERSION: 1

PROJECT: LUMP97

COUNTY: RANDOLPH TWP/RNG: 4S 5W SECTION: 3 QUARTERS/FOOTAGES: 550' S line, 500' W line of NW SW

QUADRANGLE: TILDEN

LONGITUDE: -89.645777

GEOLOGIST: D NORTH

CONFIDENTIAL: N

LATITUDE: 38.210596

DATE COLLECTED: 9 / 10 / 1987

SURFACE ELEVATION (FT.): 499.7

LOGGED (FT.): 194.4

LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO. 16841C

WELL TYPE: Coal Test

COMMENT: PERMIT # 176 BALDWIN

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
499.7	PLEISTOCENE		UNCONSOLIDATED	22.2	0.0	
477.5	MODESTO		GRAY SHALE	94.0	22.2	WITH LIMESTONE
383.5	MODESTO		SANDSTONE	9.8	116.2	
373.7	MODESTO	PIASA	LIMESTONE	10.4	126.0	
363.3			GRAY SHALE	9.7	136.4	
353.6	CARBONDALE	BANKSTON FORK	LIMESTONE	1.4	146.1	
352.2	CARBONDALE	BANKSTON FORK	GRAY SHALE	1.8	147.5	
350.4	CARBONDALE	BANKSTON FORK	SHALE	2.0	149.3	LAMINATED, LIMESTONE
348.4	CARBONDALE	BANKSTON FORK	SHALE	2.0	151.3	
346.4	CARBONDALE	BANKSTON FORK	LIMESTONE	2.6	153.3	
343.8	CARBONDALE		SHALE	5.2	155.9	
338.6	CARBONDALE	CONANT	LIMESTONE	1.4	161.1	
337.1	CARBONDALE		SHALE	5.0	162.6	
332.1	CARBONDALE	BRERETON	LIMESTONE	4.3	167.6	
327.8	CARBONDALE	HERRIN	COAL	5.1	171.9	
322.7	CARBONDALE		UNDERCLAY	2.0	177.0	
320.7	CARBONDALE		LIMESTONE	1.2	179.0	
319.5	CARBONDALE		UNKNOWN	0.8	180.2	LOST CORE
318.7	CARBONDALE		SHALE	2.1	181.0	LAMINATED LIMESTONE
316.6	CARBONDALE	HIGGINSVILLE	LIMESTONE	4.0	183.1	
312.6	CARBONDALE		MUDSTONE	1.8	187.1	
310.8	CARBONDALE		LIMESTONE	0.7	188.9	
310.1	CARBONDALE		MUDSTONE	2.4	189.6	
307.7	CARBONDALE		SILTSTONE	2.4	192.0	

MAPID: 15790023000C VERSION: 1

PROJECT: LUMP97

COUNTY: RANDOLPH TWP/RNG: 4S 5W SECTION: 4 QUARTERS/FOOTAGES: 175' S line, 250' E line of NW

QUADRANGLE: TILDEN LONGITUDE: -89.657637 GEOLOGIST: D NORTH

CONFIDENTIAL: N LATITUDE: 38.213244 DATE COLLECTED: 10 / 25 / 1975

SURFACE ELEVATION (FT.): 504.3 LOGGED (FT.): 206.1 LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO. 16287C WELL TYPE: Coal Test

COMMENT: PERMIT # 48 MERISSA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
504.3	PLEISTOCENE		UNCONSOLIDATED	65.0	0.0
439.3	MODESTO		GRAY SHALE	15.0	65.0
424.3	MODESTO		GRAY SHALE	38.4	80.0
385.9	MODESTO		SANDSTONE	1.6	118.4
384.3	MODESTO		GRAY SHALE	16.0	120.0
368.3	MODESTO		SILTSTONE	13.0	136.0
355.3	MODESTO	PIASA	LIMESTONE	7.0	149.0
348.3	MODESTO		GRAY SHALE	4.0	156.0
344.3	CARBONDALE		DARK SHALE	1.0	160.0
343.3	CARBONDALE	BANKSTON FORK	LIMESTONE	2.0	161.0
341.3	CARBONDALE	BANKSTON FORK	GRAY SHALE	2.4	163.0
338.9	CARBONDALE	BANKSTON FORK	LIMESTONE	1.1	165.4
337.8	CARBONDALE	BANKSTON FORK	GRAY SHALE	9.1	166.5
328.7	CARBONDALE	BANKSTON FORK	LIMESTONE	2.2	175.6
326.5	CARBONDALE		GRAY SHALE	2.6	177.8
323.9	CARBONDALE		DARK SHALE	3.2	180.4
320.7	CARBONDALE	CONANT	LIMESTONE	1.8	183.6
318.9	CARBONDALE		DARK SHALE	3.8	185.4
315.1	CARBONDALE		CALCAREOUS SHALE	1.5	189.2
313.6	CARBONDALE	BRERETON	LIMESTONE	4.2	190.7
309.4	CARBONDALE	ANNA	GRAY SHALE	0.2	194.9
309.2	CARBONDALE	HERRIN	COAL	4.9	195.1
304.4	CARBONDALE		UNDERCLAY	1.9	199.9
302.5	CARBONDALE		SHALE W/ LIME NODULES	1.8	201.8
300.8	CARBONDALE	HIGGINSVILLE	LIMESTONE	2.6	203.5

MAPID: 15790024000C VERSION: 1

PROJECT: LUMP97

COUNTY: RANDOLPH TWP/RNG: 4S 5W SECTION: 4 QUARTERS/FOOTAGES: 5' N line, 1300' W line of NW

QUADRANGLE: TILDEN LONGITUDE: -89.66143 GEOLOGIST: D NORTH

CONFIDENTIAL: N LATITUDE: 38.219415 DATE COLLECTED: 10 / 8 / 1975

SURFACE ELEVATION (FT.): 491.1 LOGGED (FT.): 192.7 LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO. 16284C WELL TYPE: Coal Test

COMMENT: PERMIT # 48 MARISSA

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
491.1	PLEISTOCENE		UNCONSOLIDATED	36.0	0.0
455.1	MODESTO		GRAY SHALE	86.0	36.0
369.1	MODESTO		SILTSTONE	8.0	122.0
361.1	MODESTO		GRAY SHALE	2.6	130.0
358.5	MODESTO	PIASA	LIMESTONE	11.8	132.6
346.7	MODESTO		GRAY SHALE	1.6	144.4
345.1	MODESTO		SANDSTONE	3.4	146.0
341.7	CARBONDALE		GRAY SHALE	6.6	149.4
335.1	CARBONDALE	BANKSTON FORK	LIMESTONE	3.0	156.0
332.1	CARBONDALE	BANKSTON FORK	SHALE W/ LIME NODULES	3.4	159.0
328.7	CARBONDALE	BANKSTON FORK	LIMESTONE	2.6	162.4
326.1	CARBONDALE		DARK SHALE	8.0	165.0
318.1	CARBONDALE	CONANT	LIMESTONE	1.0	173.0
317.2	CARBONDALE		CALCAREOUS SHALE	2.4	173.9
314.8	CARBONDALE		DARK SHALE	1.2	176.3
313.6	CARBONDALE	BRERETON	LIMESTONE	2.2	177.5
311.4	CARBONDALE		GRAY SHALE	0.1	179.7
311.3	CARBONDALE	HERRIN	COAL	6.4	179.8
304.9	CARBONDALE		UNDERCLAY	2.2	186.2
302.7	CARBONDALE	HIGGINSVILLE	LIMESTONE	4.3	188.4

MAPID: 15701922000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: RANDOLPH TWP/RNG: 4S 5W SECTION: 5 QUARTERS/FOOTAGES: 330' N line, 330' E line

QUADRANGLE: TILDEN LONGITUDE: -89.667143

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.218518

DATE COLLECTED:

SURFACE ELEVATION (FT.): 498.0

LOGGED (FT.): 203.0

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
358.0	MODESTO	PIASA	LIMESTONE	10.0	140.0
348.0	MODESTO		SHALE	2.0	150.0
346.0	CARBONDALE	DANVILLE	COAL	3.0	152.0
343.0	CARBONDALE		SHALE	7.5	155.0
335.5	CARBONDALE	BANKSTON FORK	LIMESTONE	4.0	162.5
331.5	CARBONDALE	CONANT	CALCAREOUS SHALE	12.0	166.5
319.5	CARBONDALE	BRERETON	LIMESTONE	4.0	178.5
315.5	CARBONDALE	ANNA	BLACK SHALE	2.0	182.5
300.0	CARBONDALE	HERRIN	COAL	5.0	198.0

MAPID: 15702457000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: RANDOLPH TWP/RNG: 4S 5W SECTION: 6 QUARTERS/FOOTAGES: 1650' N line, 990' E line

QUADRANGLE: TILDEN LONGITUDE: -89.687653

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.214864

DATE COLLECTED:

SURFACE ELEVATION (FT.): 512.0

LOGGED (FT.): 192.0

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	8.0	132.0
372.0	MODESTO		SHALE	2.0	140.0
370.0	CARBONDALE	DANVILLE	COAL	3.0	142.0
367.0	CARBONDALE		SHALE	6.0	145.0
361.0	CARBONDALE	BANKSTON FORK	LIMESTONE	3.0	151.0
358.0	CARBONDALE	CONANT	CALCAREOUS SHALE	12.0	154.0
346.0	CARBONDALE	BRERETON	LIMESTONE	6.0	166.0
340.0	CARBONDALE	ANNA	BLACK SHALE	3.0	172.0
325.0	CARBONDALE	HERRIN	COAL	5.0	187.0

MAPID: 15701923000C VERSION: 1

PROJECT: IDMM-GWQX

COUNTY: RANDOLPH TWP/RNG: 4S 5W SECTION: 7 QUARTERS/FOOTAGES: 330' S line, 330' W line of SW

QUADRANGLE: TILDEN LONGITUDE: -89.702345 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.191809 DATE COLLECTED: 4 / 0 / 1952

SURFACE ELEVATION (FT.): 473.0 LOGGED (FT.): 163.0 LOG TYPE: Electric Log

SOURCE: MURVIN & STEBER DRLG WELL TYPE: Producer-Oil

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

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
326.0	CARBONDALE	HERRIN	UNCLASSIFIED	-	147.0
310.0	CARBONDALE	SPRINGFIELD	UNCLASSIFIED	2.5	163.0

MAPID: 15790040000C VERSION: 1

PROJECT: LUMP97

COUNTY: RANDOLPH TWP/RNG: 4S 5W SECTION: 7 QUARTERS/FOOTAGES: 125' S line, 300' W line of SE SW

QUADRANGLE: TILDEN LONGITUDE: -89.697729 GEOLOGIST: D NORTH

CONFIDENTIAL: N LATITUDE: 38.191187 DATE COLLECTED: 6 / 16 / 1971

SURFACE ELEVATION (FT.): 454.9 LOGGED (FT.): 142.3 LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO. 12659C WELL TYPE: Coal Test

COMMENT: PERMIT # 176 BALDWIN

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
454.9	PLEISTOCENE		UNCONSOLIDATED	57.7	0.0
397.2	MODESTO		GRAY SHALE	10.8	57.7
386.4	MODESTO		LIMESTONE	2.1	68.5
384.3	MODESTO		GRAY SHALE	4.9	70.6
379.4	MODESTO		LIMESTONE	1.0	75.5
378.4	MODESTO		GRAY SHALE	13.3	76.5
365.1	MODESTO	PIASA	LIMESTONE	10.9	89.8
354.2	MODESTO		GRAY SHALE	2.7	100.7
351.5	CARBONDALE	DANVILLE	COAL	1.0	103.4
350.5	CARBONDALE		GRAY SHALE	3.5	104.4
347.0	CARBONDALE	BANKSTON FORK	LIMESTONE	0.6	107.9
346.4	CARBONDALE	BANKSTON FORK	GRAY SHALE	8.2	108.5
338.2	CARBONDALE	BANKSTON FORK	LIMESTONE	2.4	116.7
335.8	CARBONDALE		DARK SHALE	5.0	119.1
330.8	CARBONDALE	CONANT	LIMESTONE	1.5	124.1
329.3	CARBONDALE		BLACK SHALE	0.9	125.6
328.4	CARBONDALE		SHALE	0.9	126.5
327.5	CARBONDALE		DARK SHALE	1.3	127.4
326.2	CARBONDALE	BRERETON	LIMESTONE	6.8	128.7
319.3	CARBONDALE	ANNA	BLACK SHALE	0.1	135.6
319.2	CARBONDALE	HERRIN	COAL	5.9	135.7
313.4	CARBONDALE		UNDERCLAY	0.8	141.5

WITH
LIMESTONE

MAPID: 15790042000C VERSION: 1

PROJECT: LUMP97

COUNTY: RANDOLPH TWP/RNG: 4S 5W SECTION: 7 QUARTERS/FOOTAGES: 25' N line, 25' E line of SE

QUADRANGLE: TILDEN LONGITUDE: -89.684573 GEOLOGIST: D NORTH

CONFIDENTIAL: N LATITUDE: 38.197943 DATE COLLECTED: 5 / 17 / 1971

SURFACE ELEVATION (FT.): 478.0 LOGGED (FT.): 160.0 LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO. 12710C WELL TYPE: Coal Test

COMMENT: PERMIT # 176 BALDWIN

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
478.0	PLEISTOCENE		UNCONSOLIDATED	32.3	0.0
445.7	MODESTO		SHALE	78.4	32.3
367.3	MODESTO	PIASA	LIMESTONE	10.0	110.7
357.3			SHALE	14.0	120.7
343.3	CARBONDALE	BANKSTON FORK	LIMESTONE	2.6	134.7
340.7	CARBONDALE	BANKSTON FORK	SHALE	6.1	137.3
334.6	CARBONDALE	BANKSTON FORK	LIMESTONE	2.6	143.4
332.0	CARBONDALE		BLACK SHALE	3.6	146.0
328.4	CARBONDALE	BRERETON	LIMESTONE	3.1	149.6
325.3	CARBONDALE	HERRIN	COAL	5.9	152.7
319.4	CARBONDALE		UNDERCLAY	1.4	158.6

MAPID: 15790043000C VERSION: 1

PROJECT: LUMP97

COUNTY: RANDOLPH TWP/RNG: 4S 5W SECTION: 7 QUARTERS/FOOTAGES: 150' N line, 450' E line of NW SW

QUADRANGLE: TILDEN LONGITUDE: -89.700273 GEOLOGIST: D NORTH

CONFIDENTIAL: N LATITUDE: 38.197695 DATE COLLECTED: 6 / 3 / 1971

SURFACE ELEVATION (FT.): 472.7 LOGGED (FT.): 152.5 LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO. 12714C WELL TYPE: Coal Test

COMMENT: PERMIT # 176 BALDWIN

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
472.7	PLEISTOCENE		UNCONSOLIDATED	36.3	0.0
436.4	MODESTO		GRAY SHALE	42.2	36.3
394.2	MODESTO		SANDSTONE	2.5	78.5
391.7	MODESTO		GRAY SHALE	20.8	81.0
370.9	MODESTO	PIASA	LIMESTONE	7.3	101.8
363.6			GRAY SHALE	27.9	109.1
335.7	CARBONDALE	BRERETON	LIMESTONE	3.0	137.0
332.7	CARBONDALE	ANNA	BLACK SHALE	4.6	140.0
328.1	CARBONDALE	HERRIN	COAL	6.0	144.6
322.1	CARBONDALE		UNDERCLAY	1.9	150.6

MAPID: 15790045000C VERSION: 1

PROJECT: LUMP97

COUNTY: RANDOLPH TWP/RNG: 4S 5W SECTION: 8 QUARTERS/FOOTAGES: 25' S line, 25' W line of SW

QUADRANGLE: TILDEN LONGITUDE: -89.684516 GEOLOGIST: D NORTH

CONFIDENTIAL: N LATITUDE: 38.190751 DATE COLLECTED: 5 / 13 / 1971

SURFACE ELEVATION (FT.): 462.8 LOGGED (FT.): 134.1 LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO. 12512C WELL TYPE: Coal Test

COMMENT: PERMIT # 176 BALDWIN

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
462.8	PLEISTOCENE		UNCONSOLIDATED	56.1	0.0	
406.7	MODESTO		GRAY SHALE	14.6	56.1	
392.1	MODESTO		LIMESTONE	1.1	70.7	
391.0	MODESTO		GRAY SHALE	11.0	71.8	
380.0	MODESTO	PIASA	LIMESTONE	11.8	82.8	
368.2	MODESTO		GRAY SHALE	13.5	94.6	
354.7	CARBONDALE	BANKSTON FORK	LIMESTONE	2.4	108.1	
352.3	CARBONDALE	BANKSTON FORK	SHALE	5.9	110.5	
346.4	CARBONDALE	BANKSTON FORK	LIMESTONE	1.3	116.4	
345.1	CARBONDALE		SHALE	2.1	117.7	CALCAREOUS
343.0	CARBONDALE	CONANT	LIMESTONE	0.6	119.8	
342.4	CARBONDALE		SHALE	2.9	120.4	CALCAREOUS
339.5	CARBONDALE	BRERETON	LIMESTONE	2.5	123.3	
337.0	CARBONDALE	HERRIN	COAL	5.9	125.8	
331.2	CARBONDALE		UNDERCLAY	2.5	131.6	

MAPID: 15790049000C VERSION: 1

PROJECT: LUMP97

COUNTY: RANDOLPH TWP/RNG: 4S 5W SECTION: 9 QUARTERS/FOOTAGES: 250' N line, 50' W line of NW SW

QUADRANGLE: TILDEN LONGITUDE: -89.665936 GEOLOGIST: D NORTH

CONFIDENTIAL: N LATITUDE: 38.197386 DATE COLLECTED: 5 / 13 / 1971

SURFACE ELEVATION (FT.): 481.1 LOGGED (FT.): 149.0 LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO. 12754C WELL TYPE: Coal Test

COMMENT: PERMIT # 176 BALDWIN

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
481.1	PLEISTOCENE		UNCONSOLIDATED	60.9	0.0
420.2	MODESTO		SANDY SHALE	5.8	60.9
414.4	MODESTO		COAL	0.4	66.7
414.0	MODESTO		GRAY SHALE	10.6	67.1
403.4	MODESTO		LIMESTONE	2.1	77.7
401.3	MODESTO	PIASA	LIMESTONE	18.0	79.8
383.3	MODESTO	PIASA	LIMESTONE	10.3	97.8
373.0	MODESTO		GRAY SHALE	1.5	108.1
371.5	MODESTO		DARK SHALE	1.1	109.6
370.4	CARBONDALE	DANVILLE	COAL	0.6	110.7
369.8	CARBONDALE		SANDY SHALE	5.1	111.3
364.7	CARBONDALE	BANKSTON FORK	LIMESTONE	1.0	116.4
363.7	CARBONDALE	BANKSTON FORK	SANDY SHALE	8.0	117.4
355.7	CARBONDALE	BANKSTON FORK	LIMESTONE	2.5	125.4
353.2	CARBONDALE		DARK SHALE	7.1	127.9
346.1	CARBONDALE		GRAY SHALE	3.7	135.0
342.4	CARBONDALE	BRERETON	LIMESTONE	1.7	138.7
340.7	CARBONDALE	ANNA	DARK SHALE	0.9	140.4
339.8	CARBONDALE	HERRIN	COAL	6.0	141.3
333.8	CARBONDALE		GRAY SHALE	1.7	147.3

MAPID: 15702028000C VERSION: 1

PROJECT: IDMM-GWQX

COUNTY: RANDOLPH TWP/RNG: 4S 5W SECTION: 11 QUARTERS/FOOTAGES: 390' N line, 990' W line

QUADRANGLE: TILDEN LONGITUDE: -89.625661 GEOLOGIST: C TREWORYG

CONFIDENTIAL: N LATITUDE: 38.204375 DATE COLLECTED: 6 / 0 / 1963

SURFACE ELEVATION (FT.): 535.0 LOGGED (FT.): 247.0 LOG TYPE: Electric Log

SOURCE: MITCHELL ROBERT J WELL TYPE: Producer-Oil

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

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
345.0	CARBONDALE	HERRIN	UNCLASSIFIED	0.0	190.0
-	CARBONDALE	SPRINGFIELD	UNCLASSIFIED	0.0	THIN OR ABSENT
288.0	CARBONDALE	HOUCHIN CREEK	UNCLASSIFIED	0.0	247.0

MAPID: 15702028000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: RANDOLPH TWP/RNG: 4S 5W SECTION: 11 QUARTERS/FOOTAGES: 390' N line, 990' W line

QUADRANGLE: TILDEN LONGITUDE: -89.625661

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.204375

DATE COLLECTED:

SURFACE ELEVATION (FT.): 535.0

LOGGED (FT.): 187.0

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
391.0	MODESTO	PIASA	LIMESTONE	5.0	144.0
386.0	MODESTO		SHALE	2.0	149.0
384.0	CARBONDALE	DANVILLE	COAL	2.0	151.0
382.0	CARBONDALE		SHALE	4.0	153.0
378.0	CARBONDALE	BANKSTON FORK	LIMESTONE	3.5	157.0
374.5	CARBONDALE	CONANT	CALCAREOUS SHALE	14.0	160.5
360.5	CARBONDALE	BRERETON	LIMESTONE	4.0	174.5
356.5	CARBONDALE	ANNA	BLACK SHALE	2.0	178.5
353.0	CARBONDALE	HERRIN	COAL	5.0	182.0

MAPID: 15701934000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: RANDOLPH TWP/RNG: 4S 5W SECTION: 14 QUARTERS/FOOTAGES: 2310' S line, 705' E line

QUADRANGLE: COULTERVILLE LONGITUDE: -89.613311

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.182172

DATE COLLECTED:

SURFACE ELEVATION (FT.): 562.0

LOGGED (FT.): 313.0

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
308.0	MODESTO	PIASA	LIMESTONE	8.0	254.0
300.0	MODESTO		SHALE	2.0	262.0
298.0	CARBONDALE	DANVILLE	COAL	2.0	264.0
296.0	CARBONDALE		SHALE	6.5	266.0
289.5	CARBONDALE	BANKSTON FORK	LIMESTONE	4.0	272.5
285.5	CARBONDALE	CONANT	CALCAREOUS SHALE	15.0	276.5
270.5	CARBONDALE	BRERETON	LIMESTONE	3.0	291.5
267.5	CARBONDALE	ANNA	BLACK SHALE	2.5	294.5
254.0	CARBONDALE	HERRIN	COAL	5.0	308.0

MAPID: 15701713000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: RANDOLPH TWP/RNG: 4S 5W SECTION: 15 QUARTERS/FOOTAGES: 3300' N line, 660' W line

QUADRANGLE: TILDEN LONGITUDE: -89.645564

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.181443

DATE COLLECTED:

SURFACE ELEVATION (FT.): 516.0 LOGGED (FT.): 191.5

LOG TYPE: Survey Core Study

SOURCE: SPARTA COAL COMPANY 2

WELL TYPE: Coal Test

COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
384.0	MODESTO	PIASA	LIMESTONE	9.2	132.0	
374.8	MODESTO		GRAY SHALE	2.3	141.2	
372.5	CARBONDALE	DANVILLE	COAL	1.3	143.5	
371.2	CARBONDALE		CLAYSTONE	6.3	144.8	
364.9	CARBONDALE	BANKSTON FORK	LIMESTONE/UNDERCLAY	2.8	151.1	UPPER BENCH
362.0	CARBONDALE	BANKSTON FORK	CALCAREOUS SHALE	1.5	154.0	SHALE PARTING
360.5	CARBONDALE	BANKSTON FORK	LIMESTONE/UNDERCLAY	4.3	155.5	LOWER BENCH
356.2	CARBONDALE	LAWSON	MOTTLED SHALE	1.4	159.8	
354.8	CARBONDALE	LAWSON	CALCAREOUS SHALE	1.9	161.2	
352.9	CARBONDALE	CONANT	CALCAREOUS SHALE	11.3	163.1	
341.5	CARBONDALE	BRERETON	LIMESTONE	7.3	174.5	
334.2	CARBONDALE	ANNA	BLACK SHALE	3.3	181.8	
331.0	CARBONDALE	HERRIN	COAL	6.5	185.0	

MAPID: 15726007000C VERSION: 1

PROJECT: LUMP

COUNTY: RANDOLPH TWP/RNG: 4S 5W SECTION: 15 QUARTERS/FOOTAGES: 1992' S line, 1395' E line

QUADRANGLE: TILDEN LONGITUDE: -89.634316

GEOLOGIST: J. MCBETH

CONFIDENTIAL: N LATITUDE: 38.181352

DATE COLLECTED: 1 / 7 / 1993

SURFACE ELEVATION (FT.): LOGGED (FT.): 31.0

LOG TYPE: Drillers Log

SOURCE: ZEIGLER COAL; MIDWEST ENG SVCSGWM-5

WELL TYPE: Water Well

COMMENT: PERMIT 225

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	PLEISTOCENE		SILTY CLAY	2.0	0.0	
-	PLEISTOCENE		SILT & CLAY	8.0	2.0	
-	PLEISTOCENE		SILTY CLAY	17.0	10.0	
-			SILTSTONE	4.0	27.0	

MAPID: 15726008000C **VERSION:** 1 **PROJECT:** LUMP
COUNTY: RANDOLPH **TWP/RNG:** 4S 5W **SECTION:** 15 **QUARTERS/FOOTAGES:** 2690' S line, 2391' W line
QUADRANGLE: TILDEN **LONGITUDE:** -89.639489 **GEOLOGIST:** J. MCBETH
CONFIDENTIAL: N **LATITUDE:** 38.18325 **DATE COLLECTED:** 1 / 6 / 1993
SURFACE ELEVATION (FT.): **LOGGED (FT.):** 46.0 **LOG TYPE:** Drillers Log
SOURCE: ZEIGLER COAL;MDWST ENG SVCS INGWM-6 **WELL TYPE:** Water Well
COMMENT: PERMIT 225

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-	PLEISTOCENE		SILTY CLAYSTONE	42.0	0.0
-			GRAY SHALE	4.0	42.0

MAPID: 15726009000C **VERSION:** 1 **PROJECT:** LUMP
COUNTY: RANDOLPH **TWP/RNG:** 4S 5W **SECTION:** 15 **QUARTERS/FOOTAGES:** 2590' S line, 797' W line
QUADRANGLE: TILDEN **LONGITUDE:** -89.645067 **GEOLOGIST:** J. MCBETH
CONFIDENTIAL: N **LATITUDE:** 38.182945 **DATE COLLECTED:** 1 / 5 / 1993
SURFACE ELEVATION (FT.): **LOGGED (FT.):** 46.0 **LOG TYPE:** Drillers Log
SOURCE: ZEIGLER COAL;MDWST ENG SVCS INGWM-7 **WELL TYPE:** Water Well
COMMENT: PERMIT 225

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-	PLEISTOCENE		SILTY CLAY	2.0	0.0
-	PLEISTOCENE		SILT & CLAY	10.0	2.0
-	PLEISTOCENE		SILTY CLAY	18.0	12.0
-	PLEISTOCENE		SILT	2.5	30.0
-	PLEISTOCENE		SILTY CLAY	8.5	32.5
-			SILTSTONE	5.0	41.0

MAPID: 15726010000C VERSION: 1

PROJECT: LUMP

COUNTY: RANDOLPH TWP/RNG: 4S 5W SECTION: 15 QUARTERS/FOOTAGES: 1395' S line, 598' W line
QUADRANGLE: TILDEN LONGITUDE: -89.645802 GEOLOGIST: J. MCBETH
CONFIDENTIAL: N LATITUDE: 38.179642 DATE COLLECTED: 1 / 5 / 1993
SURFACE ELEVATION (FT.): LOGGED (FT.): 28.5 LOG TYPE: Drillers Log
SOURCE: ZEIGLER COAL;MDWST ENG SVCS INGWM-8 WELL TYPE: Water Well
COMMENT: PERMIT 225

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-	PLEISTOCENE		CLAY	2.0	0.0
-	PLEISTOCENE		SILT	4.3	2.0
-	PLEISTOCENE		SILTY CLAY	3.8	6.3
-	PLEISTOCENE		SILT & CLAY	4.0	10.0
-	PLEISTOCENE		SILTY CLAY	4.5	14.0
-	PLEISTOCENE		SAND	1.0	18.5
-	PLEISTOCENE		SILTY CLAY	3.0	19.5
-			SILTSTONE	4.5	22.5
-			GRAY SHALE	1.5	27.0

MAPID: 15790047000C VERSION: 1

PROJECT: LUMP97

COUNTY: RANDOLPH TWP/RNG: 4S 5W SECTION: 16 QUARTERS/FOOTAGES: 125' S line, 850' W line of SW

QUADRANGLE: TILDEN LONGITUDE: -89.663372 GEOLOGIST: D NORTH

CONFIDENTIAL: N LATITUDE: 38.176099 DATE COLLECTED: 6 / 6 / 1985

SURFACE ELEVATION (FT.): 488.9 LOGGED (FT.): 126.7 LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO. 16793C WELL TYPE: Coal Test

COMMENT: PERMIT # 176 BALDWIN

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
488.9	PLEISTOCENE		UNCONSOLIDATED	33.8	0.0	
455.1	MODESTO		LIMESTONE	0.8	33.8	
454.3	MODESTO		GRAY SHALE	19.1	34.6	
435.2	MODESTO	PIASA	LIMESTONE	9.8	53.7	
425.4	MODESTO		BLACK SHALE	2.1	63.5	
423.3	CARBONDALE		SHALE	13.5	65.6	WITH LIMESTONE
409.8	CARBONDALE	BANKSTON FORK	LIMESTONE	3.2	79.1	
406.6	CARBONDALE		SHALE	0.5	82.3	
406.1	CARBONDALE		BLACK SHALE	4.5	82.8	
401.6	CARBONDALE	CONANT	LIMESTONE	2.0	87.3	
399.6	CARBONDALE	CONANT	SHALE	1.9	89.3	
397.7	CARBONDALE	CONANT	LIMESTONE	0.9	91.2	
396.8	CARBONDALE		BLACK SHALE	4.0	92.1	
392.8	CARBONDALE	BRERETON	LIMESTONE	3.1	96.1	
389.7	CARBONDALE	ANNA	BLACK SHALE	0.1	99.2	
389.6	CARBONDALE	HERRIN	COAL	6.1	99.3	
383.5	CARBONDALE		SHALE	2.3	105.4	WITH LIMESTONE NODULES
381.2	CARBONDALE		SHALE	3.9	107.7	WITH LIMESTONE
377.3	CARBONDALE		LIMESTONE	1.0	111.6	
376.3	CARBONDALE		SHALE	2.9	112.6	WITH LIMESTONE
373.4	CARBONDALE		LIMESTONE	3.7	115.5	
369.7	CARBONDALE		GRAY SHALE	3.3	119.2	
366.4	CARBONDALE		LIMESTONE	0.7	122.5	
365.7	CARBONDALE		SANDSTONE	3.5	123.2	

MAPID: 15790056000C VERSION: 1

PROJECT: LUMP97

COUNTY: RANDOLPH TWP/RNG: 4S 5W SECTION: 16 QUARTERS/FOOTAGES: 180' N line, 190' W line of NW

QUADRANGLE: TILDEN LONGITUDE: -89.66545 GEOLOGIST: D NORTH

CONFIDENTIAL: N LATITUDE: 38.19014 DATE COLLECTED: 5 / 28 / 1971

SURFACE ELEVATION (FT.): 498.8 LOGGED (FT.): 134.8 LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO. 12713C WELL TYPE: Coal Test

COMMENT: PERMIT # 176 BALDWIN

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
498.8	PLEISTOCENE		UNCONSOLIDATED	66.4	0.0	
432.4	MODESTO		SANDSTONE	5.3	66.4	WITH SHALE BOND
427.1	MODESTO		GRAY SHALE	12.6	71.7	
414.5	MODESTO	PIASA	LIMESTONE	11.6	84.3	
402.9	MODESTO		GRAY SHALE	16.2	95.9	
386.7	CARBONDALE		DARK SHALE	4.4	112.1	
382.3	CARBONDALE	BANKSTON FORK	LIMESTONE	4.5	116.5	
377.8	CARBONDALE		BLACK SHALE	2.2	121.0	
375.6	CARBONDALE	BRERETON	LIMESTONE	3.5	123.2	
372.1	CARBONDALE	HERRIN	COAL	5.6	126.7	
366.5	CARBONDALE		UNDERCLAY	2.5	132.3	

MAPID: 15790036000C VERSION: 1

PROJECT: LUMP97

COUNTY: RANDOLPH TWP/RNG: 4S 5W SECTION: 17 QUARTERS/FOOTAGES: 50' N line, 40' W line of NW SW

QUADRANGLE: TILDEN LONGITUDE: -89.684549 GEOLOGIST: D NORTH

CONFIDENTIAL: N LATITUDE: 38.183184 DATE COLLECTED: 5 / 4 / 1971

SURFACE ELEVATION (FT.): 457.3 LOGGED (FT.): 116.5 LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO. 12513C WELL TYPE: Coal Test

COMMENT: PERMIT # 176 BALDWIN

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
457.3	PLEISTOCENE		UNCONSOLIDATED	52.8	0.0	
404.5	MODESTO		GRAY SHALE	8.5	52.8	
396.0	MODESTO	PIASA	LIMESTONE	7.1	61.3	
388.9	MODESTO		SHALE	8.5	68.4	
380.4	CARBONDALE	DANVILLE	COAL	1.2	76.9	
379.2	CARBONDALE		SHALE	11.3	78.1	
367.9	CARBONDALE	BANKSTON FORK	LIMESTONE	2.6	89.4	
365.3	CARBONDALE		SHALE	8.0	92.0	
357.3	CARBONDALE	CONANT	LIMESTONE	0.6	100.0	
356.7	CARBONDALE		BLACK SHALE	1.3	100.6	
355.4	CARBONDALE	BRERETON	LIMESTONE	6.7	101.9	
348.7	CARBONDALE	ANNA	BLACK SHALE	0.5	108.6	
348.2	CARBONDALE	HERRIN	COAL	5.8	109.1	
342.4	CARBONDALE		UNDERCLAY	1.6	114.9	

MAPID: 15790053000C VERSION: 1

PROJECT: LUMP97

COUNTY: RANDOLPH TWP/RNG: 4S 5W SECTION: 17 QUARTERS/FOOTAGES: 500' N line, 500' W line of NW SE NE

QUADRANGLE: TILDEN

LONGITUDE: -89.66906

GEOLOGIST: D NORTH

CONFIDENTIAL: N

LATITUDE: 38.185552

DATE COLLECTED: 3 / 27 / 1955

SURFACE ELEVATION (FT.): 505.2

LOGGED (FT.): 142.7

LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO. 3024B

WELL TYPE: Coal Test

COMMENT: PERMIT # 176 BALDWIN

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
505.2	PLEISTOCENE		UNCONSOLIDATED	67.7	0.0
437.5	MODESTO		GRAY SHALE	6.2	67.7
431.3	MODESTO		LIMESTONE	3.1	73.9
428.2	MODESTO		GRAY SHALE	11.6	77.0
416.6	MODESTO	PIASA	LIMESTONE	11.8	88.6
404.8	MODESTO		BLACK SHALE	1.9	100.4
402.9	CARBONDALE	DANVILLE	COAL	1.4	102.3
401.5	CARBONDALE		UNDERCLAY	0.6	103.7
400.9	CARBONDALE		GRAY SHALE	10.4	104.3
390.5	CARBONDALE	BANKSTON FORK	LIMESTONE	2.9	114.7
387.6	CARBONDALE	BANKSTON FORK	SHALE	4.6	117.6
383.0	CARBONDALE	BANKSTON FORK	LIMESTONE	4.2	122.2
378.8	CARBONDALE		SHALE	0.9	126.4
377.9	CARBONDALE	BRERETON	LIMESTONE	6.5	127.3
371.4	CARBONDALE	ANNA	BLACK SHALE	0.8	133.8
370.6	CARBONDALE	HERRIN	COAL	6.2	134.6
364.4	CARBONDALE		UNDERCLAY	1.9	140.8

MAPID: 15790027000C VERSION: 1

PROJECT: LUMP97

COUNTY: RANDOLPH TWP/RNG: 4S 5W SECTION: 18 QUARTERS/FOOTAGES: 35' S line, 30' W line of SE SW

QUADRANGLE: TILDEN LONGITUDE: -89.698719 GEOLOGIST: D NORTH

CONFIDENTIAL: N LATITUDE: 38.176156 DATE COLLECTED: 3 / 23 / 1985

SURFACE ELEVATION (FT.): 489.4 LOGGED (FT.): 156.6 LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO. 3018B WELL TYPE: Coal Test

COMMENT: PERMIT # 176 BALDWIN

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
489.4	PLEISTOCENE		UNCONSOLIDATED	17.2	0.0	
472.2	MODESTO		SANDY SHALE	42.5	17.2	
429.7	MODESTO		GRAY SHALE	32.9	59.7	
396.8	MODESTO		LIMESTONE	1.4	92.6	
395.4	MODESTO		GRAY SHALE	13.3	94.0	
382.1	MODESTO	PIASA	LIMESTONE	7.8	107.3	
374.3	MODESTO		BLACK SHALE	1.8	115.1	
372.5	CARBONDALE		GRAY SHALE	3.0	116.9	
369.5	CARBONDALE	BANKSTON FORK	LIMESTONE	1.7	119.9	
367.8	CARBONDALE	BANKSTON FORK	GRAY SHALE	8.4	121.6	
359.4	CARBONDALE	BANKSTON FORK	LIMESTONE	4.1	130.0	
355.3	CARBONDALE		GRAY SHALE	5.4	134.1	
349.9	CARBONDALE	BRERETON	ROCK	2.6	139.5	BLACK
347.3	CARBONDALE	BRERETON	BLACK SHALE	0.5	142.1	
346.8	CARBONDALE	BRERETON	ROCK	2.4	142.6	BLACK
344.4	CARBONDALE	ANNA	BLACK SHALE	1.7	145.0	
342.7	CARBONDALE	ANNA	ROCK	2.1	146.7	BLACK
340.6	CARBONDALE	HERRIN	COAL	6.1	148.8	
334.5	CARBONDALE		UNDERCLAY	1.7	154.9	

MAPID: 15790037000C VERSION: 1

PROJECT: LUMP97

COUNTY: RANDOLPH TWP/RNG: 4S 5W SECTION: 18 QUARTERS/FOOTAGES: 275' N line, 50' E line of NE SW

QUADRANGLE: TILDEN LONGITUDE: -89.694278 GEOLOGIST: D NORTH

CONFIDENTIAL: N LATITUDE: 38.182654 DATE COLLECTED: 6 / 10 / 1971

SURFACE ELEVATION (FT.): 458.2 LOGGED (FT.): 132.2 LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO. 12521C WELL TYPE: Coal Test

COMMENT: PERMIT # 176 BALDWIN

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
458.2	PLEISTOCENE		UNCONSOLIDATED	28.8	0.0
429.4	MODESTO		GRAY SHALE	52.7	28.8
376.7	MODESTO	PIASA	LIMESTONE	10.7	81.5
366.0	MODESTO		SHALE	1.9	92.2
364.1	CARBONDALE	DANVILLE	COAL	1.4	94.1
362.7	CARBONDALE		GRAY SHALE	11.9	95.5
350.8	CARBONDALE	BANKSTON FORK	LIMESTONE	2.2	107.4
348.6	CARBONDALE	BANKSTON FORK	SHALE	5.3	109.6
343.3	CARBONDALE	BANKSTON FORK	LIMESTONE	1.6	114.9
341.7	CARBONDALE		SHALE	0.9	116.5
340.8	CARBONDALE	CONANT	LIMESTONE	0.6	117.4
340.2	CARBONDALE		SHALE	0.3	118.0
339.9	CARBONDALE	BRERETON	LIMESTONE	5.3	118.3
334.6	CARBONDALE	ANNA	DARK SHALE	1.6	123.6
333.0	CARBONDALE	HERRIN	COAL	6.0	125.2
327.0	CARBONDALE		UNDERCLAY	1.0	131.2

MAPID: 15790029000C VERSION: 1

PROJECT: LUMP97

COUNTY: RANDOLPH TWP/RNG: 4S 5W SECTION: 19 QUARTERS/FOOTAGES: 1050' N line, 100' W line of SW

QUADRANGLE: TILDEN LONGITUDE: -89.70317 GEOLOGIST: D NORTH

CONFIDENTIAL: N LATITUDE: 38.165848 DATE COLLECTED: 10 / 28 / 1986

SURFACE ELEVATION (FT.): 477.6 LOGGED (FT.): 126.8 LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO. 16827C WELL TYPE: Coal Test

COMMENT: PERMIT # 176 BALDWIN

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
477.6	PLEISTOCENE		UNCONSOLIDATED	32.3	0.0	
445.3	MODESTO		SHALE	3.7	32.3	
441.6	MODESTO		SANDSTONE	1.2	36.0	
440.4	MODESTO		SHALE	5.8	37.2	
434.6	MODESTO		LIMESTONE	1.2	43.0	
433.4	MODESTO		GRAY SHALE	13.6	44.2	
419.8	MODESTO	PIASA	LIMESTONE	10.8	57.8	
409.0	CARBONDALE		SHALE	2.5	68.6	WITH SOME COAL
406.5	CARBONDALE		GRAY SHALE	6.1	71.1	
400.4	CARBONDALE		MUDSTONE	7.2	77.2	
393.2	CARBONDALE	BANKSTON FORK	LIMESTONE	2.5	84.4	
390.7	CARBONDALE		SHALE	3.8	86.9	
386.9	CARBONDALE	CONANT	LIMESTONE	1.0	90.7	
385.9	CARBONDALE		SHALE	2.0	91.7	LAMINATCO WITH LIMESTONE
383.9	CARBONDALE	BRERETON	LIMESTONE	3.9	93.7	
380.0	CARBONDALE	ANNA	BLACK SHALE	2.8	97.6	
377.2	CARBONDALE	HERRIN	COAL	6.1	100.4	
371.1	CARBONDALE		MUDSTONE	5.9	106.5	
365.2	CARBONDALE	HIGGINSVILLE	LIMESTONE	4.0	112.4	
361.2	CARBONDALE		MUDSTONE	2.2	116.4	
359.0	CARBONDALE		LIMESTONE	1.6	118.6	
357.4	CARBONDALE		MUDSTONE	3.1	120.2	
354.3	CARBONDALE		SANDSTONE	3.3	123.3	

MAPID: 15790050000C VERSION: 1

PROJECT: LUMP97

COUNTY: RANDOLPH TWP/RNG: 4S 5W SECTION: 19 QUARTERS/FOOTAGES: 75' N line, 125' W line of NW NE NW

QUADRANGLE: TILDEN

LONGITUDE: -89.698386

GEOLOGIST: D NORTH

CONFIDENTIAL: N

LATITUDE: 38.17585

DATE COLLECTED: 5 / 21 / 1971

SURFACE ELEVATION (FT.): 488.6

LOGGED (FT.): 147.9

LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO. 12516C

WELL TYPE: Coal Test

COMMENT: PERMIT # 176 BALDWIN

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
488.6	PLEISTOCENE		UNCONSOLIDATED	25.4	0.0	
463.2	MODESTO		SANDSTONE	5.5	25.4	
457.7	MODESTO		CLAYSTONE	4.9	30.9	
452.8	MODESTO		GRAY SHALE	65.8	35.8	
387.0	MODESTO	PIASA	LIMESTONE	8.4	101.6	
378.6	MODESTO		SHALE	2.0	110.0	
376.6	CARBONDALE	DANVILLE	COAL	0.6	112.0	
376.0	CARBONDALE		SANDSTONE	1.0	112.6	
375.0	CARBONDALE		SHALE	9.4	113.6	
365.6	CARBONDALE	BANKSTON FORK	LIMESTONE	3.4	123.0	
362.2	CARBONDALE		SHALE	7.7	126.4	
354.5	CARBONDALE	BRERETON	LIMESTONE	1.9	134.1	
352.6	CARBONDALE	ANNA	SHALE	0.8	136.0	FOSSILS
351.9	CARBONDALE	ANNA	LIMESTONE	0.5	136.7	
351.4	CARBONDALE	ANNA	DARK SHALE	1.5	137.2	
349.9	CARBONDALE	ANNA	BLACK SHALE	0.8	138.7	
349.1	CARBONDALE	HERRIN	COAL	6.2	139.5	
342.9	CARBONDALE		UNDERCLAY	2.2	145.7	

MAPID: 15701714000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: RANDOLPH TWP/RNG: 4S 5W SECTION: 20 QUARTERS/FOOTAGES: 0' S line, 2640' W line

QUADRANGLE: TILDEN LONGITUDE: -89.675563

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.161211

DATE COLLECTED:

SURFACE ELEVATION (FT.): 496.0 LOGGED (FT.): 155.7

LOG TYPE: Survey Core Study

SOURCE: SPARTA COAL COMPANY 3

WELL TYPE: Coal Test

COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
393.0	MODESTO	PIASA	LIMESTONE	5.0	103.0
388.0	MODESTO		MOTTLED SHALE	4.8	108.0
383.3	CARBONDALE	DANVILLE	COAL	3.4	112.7
379.9	CARBONDALE		CLAYSTONE	1.3	116.1
378.7	CARBONDALE	GALUM	NODULAR LIMESTONE	0.4	117.3
378.2	CARBONDALE		CLAYSTONE	5.3	117.8
373.0	CARBONDALE	BANKSTON FORK	NODULAR LIMESTONE	2.2	123.0 UPPER BENCH
370.8	CARBONDALE	BANKSTON FORK	MOTTLED SHALE	5.0	125.2 SHALE PARTING
365.7	CARBONDALE	BANKSTON FORK	NODULAR LIMESTONE	2.6	130.3 LOWER BENCH
363.2	CARBONDALE	LAWSON	MOTTLED SHALE	0.7	132.8
362.5	CARBONDALE	CONANT	CALCAREOUS SHALE	15.1	133.5
347.3	CARBONDALE	BRERETON	LIMESTONE/UNDERCLAY	1.0	148.7
346.4	CARBONDALE	HERRIN	COAL	6.1	149.6

MAPID: 15790052000C VERSION: 1

PROJECT: LUMP97

COUNTY: RANDOLPH TWP/RNG: 4S 5W SECTION: 20 QUARTERS/FOOTAGES: 375' N line, 375' W line of NE NW NW

QUADRANGLE: TILDEN LONGITUDE: -89.681156 GEOLOGIST: D NORTH

CONFIDENTIAL: N LATITUDE: 38.174885 DATE COLLECTED: 5 / 9 / 1971

SURFACE ELEVATION (FT.): 475.5 LOGGED (FT.): 112.2 LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO. 12515C WELL TYPE: Coal Test

COMMENT: PERMIT # 176 BALDWIN

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
475.5	PLEISTOCENE		UNCONSOLIDATED	30.0	0.0	
445.5	MODESTO		SHALE	32.9	30.0	
412.6	MODESTO	PIASA	LIMESTONE	11.0	62.9	
401.6	MODESTO		SHALE	4.0	73.9	DARK
397.6	CARBONDALE	DANVILLE	COAL	0.7	77.9	
396.9	CARBONDALE		SHALE	9.1	78.6	WITH LIMESTONE BAND
387.8	CARBONDALE	BANKSTON FORK	LIMESTONE	3.4	87.7	
384.4	CARBONDALE	BANKSTON FORK	DARK SHALE	4.9	91.1	
379.5	CARBONDALE	BANKSTON FORK	LIMESTONE	0.3	96.0	
379.2	CARBONDALE		SHALE	0.6	96.3	WITH LIMESTONE
378.6	CARBONDALE	CONANT	LIMESTONE	0.3	96.9	
378.4	CARBONDALE		SHALE	0.5	97.1	WITH LIMESTONE
377.8	CARBONDALE	BRERETON	LIMESTONE	3.0	97.7	
374.8	CARBONDALE	ANNA	DARK SHALE	3.0	100.7	
371.8	CARBONDALE	HERRIN	COAL	6.4	103.7	
365.4	CARBONDALE		UNDERCLAY	2.1	110.1	

MAPID: 15700006000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 5W SECTION: 21 QUARTERS/FOOTAGES: NW SE SE SE

QUADRANGLE: TILDEN LONGITUDE: -89.649711 GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.162394 DATE COLLECTED: 3 / 0 / 1923

SURFACE ELEVATION (FT.): 523.0 LOGGED (FT.): 317.0 LOG TYPE: Drillers Log

SOURCE: M. W. BORDERS 2 WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
523.0	PLEISTOCENE		CLAY	40.0	0.0	GRAVELLY
483.0	MODESTO		SANDY SHALE	10.0	40.0	SANDY
473.0	MODESTO		SHALE	32.0	50.0	WITH HARD BANDS
441.0	MODESTO		SHALE	29.0	82.0	WITH HARD BANDS
412.0	MODESTO		SHALE	24.0	111.0	WITH HARD BANDS; GRAY
388.0	MODESTO		GRAY SHALE	10.0	135.0	GRAY AND STICKY
378.0	MODESTO		SHALE	0.5	145.0	RED
377.5	MODESTO		SHALE WITH LIMESTONE	8.5	145.5	
369.0	MODESTO		SHALE	9.0	154.0	WITH HARD BANDS
360.0	MODESTO		SHALE	5.5	163.0	STICKY
354.5	MODESTO		LIMESTONE	10.2	168.5	
344.3	MODESTO		SHALE	1.0	178.7	DARK
343.3	CARBONDALE	DANVILLE	COAL	1.3	179.7	
342.0	CARBONDALE		SHALE	7.0	181.0	WITH HARD BANDS
335.0	CARBONDALE		LIMESTONE	2.0	188.0	
333.0	CARBONDALE		LIMESTONE & SHALE	5.0	190.0	
328.0	CARBONDALE		LIMESTONE	4.0	195.0	
324.0	CARBONDALE		SHALE	5.0	199.0	DARK
319.0	CARBONDALE		LIMESTONE	1.0	204.0	
318.0	CARBONDALE		SHALE	4.0	205.0	DARK
314.0	CARBONDALE	BRERETON	LIMESTONE	4.0	209.0	
310.0	CARBONDALE	ANNA	SHALE	2.0	213.0	DARK
308.0	CARBONDALE	HERRIN	COAL	6.8	215.0	
301.2	CARBONDALE		UNDERCLAY	2.0	221.8	HARD CHUNKS
299.2	CARBONDALE		LIMESTONE & SHALE	1.0	223.8	
298.2	CARBONDALE		LIMESTONE	4.5	224.8	
293.7	CARBONDALE		LIMESTONE & SHALE	12.7	229.3	
281.0	CARBONDALE		SHALE	7.0	242.0	STICKY
274.0	CARBONDALE		LIMESTONE	3.0	249.0	
271.0	CARBONDALE		SANDY SHALE	6.0	252.0	SANDY
265.0	CARBONDALE		SHALE	3.0	258.0	DARK
262.0	CARBONDALE		SHALE	27.0	261.0	WITH HARD BANDS
235.0	CARBONDALE		SHALE	10.5	288.0	WITH HARD BANDS; GRAY
224.5	CARBONDALE		LIMESTONE	0.5	298.5	
224.0	CARBONDALE		SHALE	8.5	299.0	BLACK
215.5	CARBONDALE		LIMESTONE	1.0	307.5	
214.5	CARBONDALE		SHALE	1.6	308.5	DARK
212.9	CARBONDALE		COAL	3.0	310.1	

MAPID: 15701728000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: RANDOLPH TWP/RNG: 4S 5W SECTION: 21 QUARTERS/FOOTAGES: 660' S line, 1320' E line

QUADRANGLE: TILDEN

LONGITUDE: -89.652594

GEOLOGIST:

CONFIDENTIAL: N

LATITUDE: 38.162851

DATE COLLECTED:

SURFACE ELEVATION (FT.): 511.0

LOGGED (FT.): 209.9

LOG TYPE: Survey Core Study

SOURCE: MIDWEST UTILITIES COAL CORP. 1

WELL TYPE: Coal Test

COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
356.6	MODESTO	PIASA	LIMESTONE/UNDERCLAY	11.1	154.4	
345.6	MODESTO		DARK GRAY SHALE	2.9	165.4	
342.6	CARBONDALE	DANVILLE	COAL	2.2	168.4	
340.5	CARBONDALE		CLAYSTONE	2.3	170.5	
338.1	CARBONDALE	GALUM	NODULAR LIMESTONE	1.0	172.9	
337.1	CARBONDALE		CLAYSTONE	3.4	173.9	
333.7	CARBONDALE	BANKSTON FORK	NODULAR LIMESTONE	1.8	177.3	UPPER BENCH
332.0	CARBONDALE	BANKSTON FORK	NODULAR LIMESTONE	6.3	179.0	SHALE PARTING
325.7	CARBONDALE	BANKSTON FORK	LIMESTONE/UNDERCLAY	3.1	185.3	LOWER BENCH
322.7	CARBONDALE	LAWSON	MOTTLED SHALE	2.2	188.3	
320.5	CARBONDALE	CONANT	CALCAREOUS SHALE	6.0	190.5	
314.5	CARBONDALE	BRERETON	LIMESTONE/UNDERCLAY	5.5	196.5	
309.0	CARBONDALE	ANNA	BLACK SHALE	1.0	202.0	
308.0	CARBONDALE	HERRIN	COAL	6.9	203.0	

MAPID: 15790051000C VERSION: 1

PROJECT: LUMP97

COUNTY: RANDOLPH TWP/RNG: 4S 5W SECTION: 21 QUARTERS/FOOTAGES: 450' N line, 175' W line of NW

QUADRANGLE: TILDEN

LONGITUDE: -89.665747

GEOLOGIST: D NORTH

CONFIDENTIAL: N

LATITUDE: 38.174508

DATE COLLECTED: 3 / 28 / 1955

SURFACE ELEVATION (FT.): 495.5

LOGGED (FT.): 91.1

LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO. 3026B

WELL TYPE: Coal Test

COMMENT: PERMIT # 176 BALDWIN

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
495.5	PLEISTOCENE		UNCONSOLIDATED	37.7	0.0
457.8	MODESTO	PIASA	LIMESTONE	8.1	37.7
449.7	MODESTO		GRAY SHALE	1.2	45.8
448.5	MODESTO		BLACK SHALE	2.5	47.0
446.0	CARBONDALE	DANVILLE	COAL	2.8	49.5
443.2	CARBONDALE		UNDERCLAY	0.9	52.3
442.3	CARBONDALE		GRAY SHALE	10.3	53.2
432.0	CARBONDALE	BANKSTON FORK	LIMESTONE	3.5	63.5
428.5	CARBONDALE	BANKSTON FORK	SHALE	4.3	67.0
424.2	CARBONDALE	BANKSTON FORK	LIMESTONE	2.5	71.3
421.7	CARBONDALE		SHALE	1.1	73.8
420.6	CARBONDALE	CONANT	LIMESTONE	1.2	74.9
419.4	CARBONDALE		SHALE	1.8	76.1
417.6	CARBONDALE	BRERETON	LIMESTONE	7.1	77.9
410.5	CARBONDALE	HERRIN	COAL	6.1	85.0

MAPID: 15701715000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: RANDOLPH TWP/RNG: 4S 5W SECTION: 22 QUARTERS/FOOTAGES: 2570' S line, 430' W line

QUADRANGLE: TILDEN

LONGITUDE: -89.646457

GEOLOGIST:

CONFIDENTIAL: N

LATITUDE: 38.168102

DATE COLLECTED:

SURFACE ELEVATION (FT.): 542.0

LOGGED (FT.): 264.7

LOG TYPE: Survey Core Study

SOURCE: SPARTA COAL COMPANY 1

WELL TYPE: Coal Test

COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
334.5	MODESTO	PIASA	LIMESTONE/UNDERCLAY	10.3	207.5	
324.2	MODESTO		MOTTLED SHALE	1.5	217.8	
322.7	CARBONDALE	DANVILLE	COAL	1.0	219.3	
321.7	CARBONDALE		CLAYSTONE	7.3	220.3	
314.4	CARBONDALE	BANKSTON FORK	LIMESTONE W/ SHALE	6.5	227.6	UPPER BENCH
307.9	CARBONDALE	BANKSTON FORK	CALCAREOUS SHALE	1.2	234.1	SHALE PARTING
306.8	CARBONDALE	BANKSTON FORK	LIMESTONE/UNDERCLAY	0.5	235.2	LOWER BENCH
306.3	CARBONDALE	LAWSON	MOTTLED SHALE	1.3	235.7	
304.9	CARBONDALE	LAWSON	GRAY SHALE	2.5	237.1	
302.4	CARBONDALE	LAWSON	MOTTLED SHALE	2.8	239.6	
299.7	CARBONDALE	CONANT	LIMESTONE W/ SHALE	6.7	242.3	
293.0	CARBONDALE	BRERETON	LIMESTONE/UNDERCLAY	4.8	249.0	
288.2	CARBONDALE	ANNA	BLACK SHALE	3.2	253.8	
285.0	CARBONDALE	HERRIN	COAL	7.7	257.0	

MAPID: 15701716000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: RANDOLPH TWP/RNG: 4S 5W SECTION: 23 QUARTERS/FOOTAGES: 2750' S line, 700' W line

QUADRANGLE: TILDEN LONGITUDE: -89.627068 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.168716 DATE COLLECTED:

SURFACE ELEVATION (FT.): 517.0 LOGGED (FT.): 260.9 LOG TYPE: Survey Core Study

SOURCE: SPARTA COAL COMPANY 4 WELL TYPE: Coal Test

COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
314.8	MODESTO	PIASA	LIMESTONE	2.9	202.2	
311.9	MODESTO		DARK GRAY SHALE	1.8	205.1	
310.1	CARBONDALE	DANVILLE	COAL	1.7	206.9	
308.4	CARBONDALE		CLAYSTONE	2.5	208.6	
305.9	CARBONDALE	GALUM	NODULAR LIMESTONE	1.3	211.1	
304.7	CARBONDALE		SHALE	7.8	212.3	
296.9	CARBONDALE	BANKSTON FORK	LIMESTONE	1.3	220.1	UPPER BENCH
295.7	CARBONDALE	BANKSTON FORK	LIMESTONE W/ SHALE	10.7	221.3	SHALE PARTING
285.0	CARBONDALE	BANKSTON FORK	LIMESTONE/UNDERCLAY	3.3	232.0	LOWER BENCH
281.7	CARBONDALE	LAWSON	MOTTLED SHALE	0.4	235.3	
281.2	CARBONDALE	CONANT	CALCAREOUS SHALE	12.1	235.8	
269.2	CARBONDALE	BRERETON	LIMESTONE/UNDERCLAY	3.8	247.8	
265.4	CARBONDALE	ANNA	BLACK SHALE	2.4	251.6	
263.0	CARBONDALE	HERRIN	COAL	6.9	254.0	

MAPID: 15790011000C VERSION: 1

PROJECT: LUMP

COUNTY: RANDOLPH TWP/RNG: 4S 5W SECTION: 23 QUARTERS/FOOTAGES: 49' S line, 70' W line of SE SW NE

QUADRANGLE: COULTERVILLE

LONGITUDE: -89.617654

GEOLOGIST: NORTH

CONFIDENTIAL: N

LATITUDE: 38.168607

DATE COLLECTED: 7 / 21 / 1983

SURFACE ELEVATION (FT.): 520.0

LOGGED (FT.): 282.3

LOG TYPE: Drillers Log

SOURCE: OLD BEN COAL CO. #98

WELL TYPE: Coal Test

COMMENT: PERMIT 51; MINE #11

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
520.0	PLEISTOCENE		UNCONSOLIDATED	28.0	0.0	
492.0	PLEISTOCENE		UNCONSOLIDATED	20.0	28.0	
472.0	MODESTO		GRAY SHALE	1.5	48.0	
470.5	MODESTO	CARLINVILLE	LIMESTONE	1.5	49.5	DARK GRAY
469.0	MODESTO		DARK GRAY SHALE	4.0	51.0	
465.0	MODESTO	CHAPEL	COAL	1.0	55.0	
464.0	MODESTO		UNDERCLAY	1.2	56.0	
462.8	MODESTO		SILTY SHALE	13.8	57.2	WITH SIDERITE
449.0	MODESTO		SANDY SHALE	97.0	71.0	WITH SANDSTONE SEAMS
352.0	MODESTO		GRAY SHALE	14.0	168.0	
338.0	MODESTO		CALCAREOUS SANDSTONE	1.3	182.0	GRAY
336.7	MODESTO		CALCAREOUS SHALE	12.7	183.3	
324.0	MODESTO		GRAY SHALE	2.4	196.0	
321.6	MODESTO		SILTY SHALE	6.4	198.4	
315.2	MODESTO		GRAY SHALE	3.3	204.8	
311.9	MODESTO	PIASA	LIMESTONE	9.1	208.1	GRAY
302.8	MODESTO	PIASA	LIMESTONE	1.0	217.2	DARK GRAY
301.8	MODESTO		DARK GRAY SHALE	2.4	218.2	
299.4	MODESTO		GRAY SHALE	0.3	220.6	
299.1	CARBONDALE	DANVILLE	COAL	1.8	220.9	
297.3	CARBONDALE		UNDERCLAY	0.9	222.7	
296.4	CARBONDALE		CALCAREOUS SHALE	7.8	223.6	
288.6	CARBONDALE		CALCAREOUS SHALE	0.6	231.4	
288.0	CARBONDALE	GALUM	LIMESTONE	2.6	232.0	GRAY
285.4	CARBONDALE		CALCAREOUS SHALE	5.3	234.6	
280.1	CARBONDALE	BANKSTON FORK	LIMESTONE	2.4	239.9	GRAY
277.7	CARBONDALE		DARK GRAY SHALE	2.5	242.3	
275.2	CARBONDALE		CALCAREOUS SHALE	2.6	244.8	
272.6	CARBONDALE	CONANT	LIMESTONE	1.3	247.4	DARK GRAY
271.3	CARBONDALE	CONANT	DARK GRAY SHALE	2.1	248.7	
269.2	CARBONDALE	CONANT	LIMESTONE	1.0	250.8	DARK GRAY
268.2	CARBONDALE		CALCAREOUS SHALE	6.0	251.8	
262.2	CARBONDALE	BRERETON	LIMESTONE & SHALE	5.4	257.8	DARK GRAY
256.8	CARBONDALE	BRERETON	LIMESTONE	2.1	263.2	GRAY
254.7	CARBONDALE	HERRIN	COAL	7.1	265.3	
247.6	CARBONDALE		UNDERCLAY	2.2	272.4	
245.4	CARBONDALE		UNDERCLAY & LIMESTONE	0.6	274.6	
244.8	CARBONDALE	HIGGINSVILLE	LIMESTONE	2.5	275.2	GRAY

242.3	CARBONDALE	CLAYSTONE & LIMESTONE	3.0	277.7	
239.3	CARBONDALE	SHALEY CLAYSTONE	0.5	280.7	GREEN-GRAY
238.8	CARBONDALE	GRAY SHALE	1.2	281.2	

MAPID: 15790012000C VERSION: 1

PROJECT: LUMP

COUNTY: RANDOLPH TWP/RNG: 4S 5W SECTION: 23 QUARTERS/FOOTAGES: 6' S line, 70' W line of NE SW NE

QUADRANGLE: COULTERVILLE LONGITUDE: -89.617643

GEOLOGIST: NORTH

CONFIDENTIAL: N LATITUDE: 38.170324

DATE COLLECTED: 7 / 20 / 1983

SURFACE ELEVATION (FT.): 530.0

LOGGED (FT.): 289.9

LOG TYPE: Drillers Log

SOURCE: OLD BEN COAL CO. #97

WELL TYPE: Coal Test

COMMENT: PERMIT 51; MINE #11

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
530.0	PLEISTOCENE		UNCONSOLIDATED	22.4	0.0	
507.6			ROCK	1.6	22.4	
506.0			SANDY SHALE	3.5	24.0	
502.5			SILTY SHALE	36.0	27.5	
466.5	MODESTO	CARLINVILLE	LIMESTONE	0.5	63.5	DARK GRAY
466.0			DARK GRAY SHALE	3.0	64.0	
463.0	MODESTO	CHAPEL	COAL	1.7	67.0	
461.3			UNDERCLAY	0.8	68.7	
460.5			SANDY SHALE	9.5	69.5	
451.0	MODESTO		SILTY SHALE	9.0	79.0	
442.0	MODESTO		SANDY DARK SHALE	90.0	88.0	WITH SANDSTONE LENS
352.0	MODESTO		GRAY SHALE	10.0	178.0	
342.0	MODESTO		DARK GRAY SHALE	0.3	188.0	
341.7	MODESTO		SILTY SHALE	4.2	188.3	
337.5	MODESTO		SHALY SANDSTONE	0.6	192.5	GRAY
336.9	MODESTO		SANDY SHALE	12.4	193.1	WITH SANDSTONE LENS
324.5	MODESTO		SILTY SHALE	11.1	205.5	WITH SANDSTONE LENS
313.4	MODESTO	PIASA	LIMESTONE & SHALE	11.8	216.6	GRAY
301.6	MODESTO		DARK GRAY SHALE	0.8	228.4	
300.8	MODESTO		GRAY SHALE	0.6	229.2	
300.2	CARBONDALE	DANVILLE	COAL	2.7	229.8	
297.5	CARBONDALE		UNDERCLAY	0.7	232.5	
296.8	CARBONDALE		SANDSTONE	0.6	233.2	DARK GRAY
296.2	CARBONDALE		SILTY SHALE	2.2	233.8	
294.0	CARBONDALE		GRAY SHALE	5.5	236.0	
288.5	CARBONDALE	GALUM	LIMESTONE	2.5	241.5	GRAY
286.0	CARBONDALE		CALCAREOUS SHALE	4.0	244.0	
282.0	CARBONDALE		DARK GRAY SHALE	1.1	248.0	
280.9	CARBONDALE	BANKSTON FORK	LIMESTONE	3.0	249.1	GRAY
277.9	CARBONDALE		DARK SHALE & LIMESTONE	3.7	252.1	
274.2	CARBONDALE		LIMESTONE	2.4	255.8	DARK
271.8	CARBONDALE		DARK GRAY SHALE	1.9	258.2	
269.9	CARBONDALE	CONANT	LIMESTONE	1.0	260.1	DARK GRAY
268.9	CARBONDALE		DARK GRAY SHALE	3.7	261.1	
265.2	CARBONDALE	BRERETON	LIMESTONE	2.2	264.8	DARK GRAY
263.0	CARBONDALE	BRERETON	CALCAREOUS SHALE	2.0	267.0	
261.0	CARBONDALE	BRERETON	LIMESTONE	4.3	269.0	DARK GRAY
256.7	CARBONDALE		DARK GRAY SHALE	0.7	273.3	

256.0	CARBONDALE	HERRIN	COAL	6.4	274.0	
249.6	CARBONDALE		UNDERCLAY	2.8	280.4	
246.8	CARBONDALE	HIGGINSVILLE	LIMESTONE & CLAY	1.4	283.2	GRAY
245.4	CARBONDALE	HIGGINSVILLE	CLAYSTONE & LIMESTONE	3.0	284.6	GREEN-GRAY
242.4	CARBONDALE	HIGGINSVILLE	NODULAR LIMESTONE	2.4	287.6	GRAY

MAPID: 15701824000C **VERSION:** 1 **PROJECT:** ROOF STUDY
COUNTY: RANDOLPH **TWP/RNG:** 4S 5W **SECTION:** 25 **QUARTERS/FOOTAGES:** 561' N line, 477' E line
QUADRANGLE: COULTERVILLE **LONGITUDE:** -89.594073 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.159574 **DATE COLLECTED:** 12 / 21 / 1956
SURFACE ELEVATION (FT.): 515.0 **LOGGED (FT.):** 247.1 **LOG TYPE:** Survey Core Study
SOURCE: MOFFAT COAL CO. 2 **WELL TYPE:** Coal Test
COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
331.5	MODESTO	PIASA	LIMESTONE	12.8	183.5	
318.7	MODESTO		DARK GRAY SHALE	1.0	196.3	
317.7	CARBONDALE	DANVILLE	COAL	1.7	197.3	USED DEPTH FOR THK CALC
316.0	CARBONDALE		CLAYSTONE	1.7	199.0	
314.3	CARBONDALE		NO RECORD	8.3	200.7	
306.0	CARBONDALE	BANKSTON FORK	NODULAR LIMESTONE	5.3	209.0	UPPER BENCH
300.7	CARBONDALE	BANKSTON FORK	MOTTLED SHALE	3.7	214.3	SHALE PARTING
297.1	CARBONDALE	BANKSTON FORK	LIMESTONE	3.3	217.9	LOWER BENCH
293.8	CARBONDALE	CONANT	CALCAREOUS SHALE	13.2	221.2	
280.7	CARBONDALE	BRERETON	LIMESTONE/UNDERCLAY	1.9	234.3	
278.7	CARBONDALE	ANNA	BLACK SHALE	3.1	236.3	
275.7	CARBONDALE		NO RECORD	0.7	239.3	
275.0	CARBONDALE	HERRIN	COAL	7.1	240.0	

MAPID: 15790018000C VERSION: 1

PROJECT: LUMP

COUNTY: RANDOLPH TWP/RNG: 4S 5W SECTION: 25 QUARTERS/FOOTAGES: 286' N line, 49' E line of NE NW SW

QUADRANGLE: COULTERVILLE

LONGITUDE: -89.606497

GEOLOGIST: NORTH

CONFIDENTIAL: N

LATITUDE: 38.153155

DATE COLLECTED: 4 / 11 / 1972

SURFACE ELEVATION (FT.): 514.0

LOGGED (FT.): 221.3

LOG TYPE: Drillers Log

SOURCE: OLD BEN COAL CO. #74

WELL TYPE: Coal Test

COMMENT: PERMIT #51; MINE #11

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
514.0	PLEISTOCENE		UNCONSOLIDATED	15.0	0.0	
499.0	PLEISTOCENE		SAND	4.0	15.0	
495.0	PLEISTOCENE		CLAY	21.0	19.0	BROWN
474.0	MODESTO		SILTY SHALE	10.0	40.0	
464.0	MODESTO		SILTY SHALE	17.6	50.0	
446.4	MODESTO		SANDY SHALE	35.9	67.6	
410.5	MODESTO		SANDY SHALE	8.5	103.5	WITH SIDERITE
402.0	MODESTO		SANDSTONE	3.5	112.0	
398.5	MODESTO		SILTY SHALE	11.4	115.5	
387.1	MODESTO		SILTY SHALE	4.1	126.9	
383.0	MODESTO		SANDSTONE	8.0	131.0	
375.0	MODESTO		SANDY SHALE	6.0	139.0	
369.0	MODESTO		SHALE	7.0	145.0	
362.0	MODESTO		SILTY SHALE	5.0	152.0	
357.0	MODESTO		SILTY SHALE	1.8	157.0	
355.2	MODESTO	PIASA	LIMESTONE	9.1	158.8	
346.1	MODESTO	PIASA	SANDSTONE	0.7	167.9	
345.4	MODESTO	PIASA	LIMESTONE	1.6	168.6	
343.8	MODESTO		BLACK SHALE	2.1	170.2	
341.7	CARBONDALE	DANVILLE	COAL	2.2	172.3	
339.5	CARBONDALE		CLAYSTONE	2.2	174.5	
337.3	CARBONDALE		SHALE WITH LIMESTONE	5.4	176.7	
331.9	CARBONDALE	GALUM	LIMESTONE	1.4	182.1	
330.5	CARBONDALE		SHALE WITH LIMESTONE	7.0	183.5	
323.5	CARBONDALE	BANKSTON FORK	LIMESTONE	3.8	190.5	
319.7	CARBONDALE		BLACK SHALE	3.7	194.3	
316.0	CARBONDALE	CONANT	LIMESTONE	2.8	198.0	DARK
313.2	CARBONDALE		DARK SHALE	4.3	200.8	
308.9	CARBONDALE	BRERETON	LIMESTONE	3.6	205.1	DARK
305.3	CARBONDALE	ANNA	BLACK SHALE	2.8	208.7	
302.5	CARBONDALE	HERRIN	COAL	6.6	211.5	
295.9	CARBONDALE		UNDERCLAY	1.4	218.1	
294.5	CARBONDALE	HIGGINSVILLE	LIMESTONE & CONGLOMERATE	1.8	219.5	

MAPID: 15701722000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: RANDOLPH TWP/RNG: 4S 5W SECTION: 26 QUARTERS/FOOTAGES: 3960' N line, 1320' E line

QUADRANGLE: COULTERVILLE LONGITUDE: -89.615579

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.150195

DATE COLLECTED:

SURFACE ELEVATION (FT.): 510.0 LOGGED (FT.): 190.5

LOG TYPE: Drillers Log

SOURCE: SOUTHWESTERN ILLINOIS COAL CO.8

WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
375.0	MODESTO	PIASA	LIMESTONE	9.0	135.0	
366.0	MODESTO		DARK GRAY SHALE	7.7	144.0	
358.3	CARBONDALE	DANVILLE	COAL	3.4	151.7	
354.9	CARBONDALE		GRAY SHALE	6.9	155.1	
348.0	CARBONDALE	BANKSTON FORK	LIMESTONE	3.0	162.0	UPPER BENCH
345.0	CARBONDALE	BANKSTON FORK	DARK GRAY SHALE	5.0	165.0	SHALE PARTING
340.0	CARBONDALE	BANKSTON FORK	LIMESTONE	2.0	170.0	LOWER BENCH
338.0	CARBONDALE	CONANT	CALCAREOUS SHALE	7.0	172.0	
331.0	CARBONDALE	BRERETON	LIMESTONE	4.8	179.0	
326.2	CARBONDALE	ANNA	BLACK SHALE	0.5	183.8	
326.0	CARBONDALE	HERRIN	COAL	6.5	184.0	

MAPID: 15790016000C VERSION: 1

PROJECT: LUMP

COUNTY: RANDOLPH TWP/RNG: 4S 5W SECTION: 26 QUARTERS/FOOTAGES: NE SE

QUADRANGLE: COULTERVILLE LONGITUDE: -89.613292 GEOLOGIST: NORTH

CONFIDENTIAL: N LATITUDE: 38.152155 DATE COLLECTED: 5 / 5 / 1975

SURFACE ELEVATION (FT.): 499.5 LOGGED (FT.): 212.5 LOG TYPE: Drillers Log

SOURCE: OLD BEN COAL CO. #87 WELL TYPE: Coal Test

COMMENT: PERMIT 51; MINE #11

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
499.5	PLEISTOCENE		CLAY	9.5	0.0	
490.0	MODESTO		SHALE	16.5	9.5	
473.5	MODESTO		SANDY SHALE	70.0	26.0	
403.5	MODESTO		SANDY SHALE	5.5	96.0	
398.0	MODESTO		SHALE	4.5	101.5	
393.5	MODESTO		SANDY SHALE	4.0	106.0	
389.5	MODESTO		SHALE	5.5	110.0	GREEN-GRAY
384.0	MODESTO		SANDY SHALE	10.5	115.5	
373.5	MODESTO		SILTY SHALE	4.5	126.0	
369.0	MODESTO		SANDY SHALE	3.0	130.5	
366.0	MODESTO		SHALE	3.5	133.5	GREEN-GRAY
362.5	MODESTO	PIASA	LIMESTONE	10.5	137.0	
352.0	MODESTO		BLACK SHALE	6.5	147.5	
345.5	CARBONDALE	DANVILLE	COAL	2.5	154.0	
343.0	CARBONDALE		UNDERCLAY	1.5	156.5	
341.5	CARBONDALE		SILTSTONE	2.5	158.0	
339.0	CARBONDALE	BANKSTON FORK	LIMESTONE	7.5	160.5	
331.5	CARBONDALE		CALCAREOUS SHALE	4.1	168.0	
327.4	CARBONDALE	CONANT	LIMESTONE	3.2	172.1	
324.2	CARBONDALE		DARK SHALE	8.1	175.3	
316.1	CARBONDALE	BRERETON	LIMESTONE	3.6	183.4	
312.5	CARBONDALE		SHALE	0.4	187.0	
312.1	CARBONDALE	HERRIN	COAL	6.0	187.4	
306.1	CARBONDALE		UNDERCLAY	1.8	193.4	
304.4	CARBONDALE		SHALE & CONGLOMERATE	1.3	195.1	
303.1	CARBONDALE		SHALE WITH LIMESTONE	6.7	196.4	
296.4	CARBONDALE	ST. DAVID	LIMESTONE	3.0	203.1	
293.5	CARBONDALE		SHALE WITH LIMESTONE	0.4	206.0	
293.1	CARBONDALE		GRAY SHALE	0.2	206.4	
292.9	CARBONDALE	SPRINGFIELD	COAL	0.7	206.6	
292.3	CARBONDALE	SPRINGFIELD	CARBONACEOUS SHALE	0.3	207.2	
292.0	CARBONDALE	SPRINGFIELD	COAL	0.5	207.5	
291.5	CARBONDALE		UNDERCLAY	2.4	208.0	
289.1	CARBONDALE		LIMESTONE	0.3	210.4	
288.8	CARBONDALE		SILTSTONE	0.6	210.7	
288.2	CARBONDALE		UNKNOWN	1.2	211.3	LOST

MAPID: 15701723000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: RANDOLPH TWP/RNG: 4S 5W SECTION: 27 QUARTERS/FOOTAGES: 2640' N line, 2640' E line

QUADRANGLE: TILDEN LONGITUDE: -89.638789 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.153769 DATE COLLECTED:

SURFACE ELEVATION (FT.): 525.0 LOGGED (FT.): 233.3 LOG TYPE: Drillers Log

SOURCE: SOUTHWESTERN ILLINOIS COAL CO.7 WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
351.0	MODESTO	PIASA	LIMESTONE	10.0	174.0	
341.0	MODESTO		DARK GRAY SHALE	3.7	184.0	
337.3	CARBONDALE	DANVILLE	COAL	1.3	187.7	
336.0	CARBONDALE		DARK GRAY SHALE	6.0	189.0	
330.0	CARBONDALE	BANKSTON FORK	LIMESTONE	4.0	195.0	UPPER BENCH
326.0	CARBONDALE	BANKSTON FORK	GRAY SHALE	3.5	199.0	SHALE PARTING
322.5	CARBONDALE	BANKSTON FORK	LIMESTONE	2.5	202.5	LOWER BENCH
320.0	CARBONDALE	CONANT	DARK GRAY SHALE	10.5	205.0	
309.5	CARBONDALE		GRAY SHALE	4.5	215.5	
305.0	CARBONDALE	BRERETON	LIMESTONE	4.8	220.0	
298.0	CARBONDALE	HERRIN	COAL	6.3	227.0	

MAPID: 15701717000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: RANDOLPH TWP/RNG: 4S 5W SECTION: 28 QUARTERS/FOOTAGES: 1820' S line, 3020' E line

QUADRANGLE: TILDEN LONGITUDE: -89.658632 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.151712 DATE COLLECTED: 0 / 0 / 1950

SURFACE ELEVATION (FT.): 507.0 LOGGED (FT.): 186.2 LOG TYPE: Survey Core Study

SOURCE: SPARTA COAL COMPANY 5 WELL TYPE: Coal Test

COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
359.0	MODESTO	PIASA	LIMESTONE	8.5	148.0	
350.5	MODESTO		GRAY SHALE	1.3	156.5	
349.2	CARBONDALE	DANVILLE	COAL	2.8	157.8	
346.4	CARBONDALE		CLAYSTONE	1.0	160.6	
345.4	CARBONDALE		CLAYSTONE	4.4	161.6	
341.0	CARBONDALE	BANKSTON FORK	NODULAR LIMESTONE	3.3	166.0	UPPER BENCH
337.8	CARBONDALE	BANKSTON FORK	LIMESTONE W/ SHALE	4.5	169.2	SHALE PARTING
333.3	CARBONDALE	BANKSTON FORK	LIMESTONE/UNDERCLAY	2.4	173.7	LOWER BENCH
330.8	CARBONDALE	CONANT	CALCAREOUS SHALE	15.6	176.2	
315.3	CARBONDALE	BRERETON	LIMESTONE/UNDERCLAY	5.3	191.7	
310.0	CARBONDALE	ANNA	BLACK SHALE	1.2	197.0	
327.0	CARBONDALE	HERRIN	COAL	6.2	180.0	

MAPID: 15701717000C VERSION: 2

PROJECT: NCRDS87

COUNTY: RANDOLPH TWP/RNG: 4S 5W SECTION: 28 QUARTERS/FOOTAGES: 1820' S line, 3020' E line

QUADRANGLE: TILDEN LONGITUDE: -89.658632 GEOLOGIST: WEIBEL

CONFIDENTIAL: N LATITUDE: 38.151712 DATE COLLECTED: 4 / 0 / 1950

SURFACE ELEVATION (FT.): 506.9 LOGGED (FT.): 410.2 LOG TYPE: Survey Core Study

SOURCE: SPARTA COAL COMPANY WELL TYPE: Diamond Drill

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
506.9			UNKNOWN	46.0	0.0	
460.9			SHALE	47.3	46.0	
413.6			SHALE	1.0	93.3	
412.7			COAL	0.1	94.2	
412.6			UNDERCLAY	3.0	94.3	
409.6			SHALE	5.7	97.3	
404.0			BLACK SHALE	0.8	102.9	
403.2			CLAYSTONE	2.9	103.7	
400.3			LIMESTONE	4.5	106.6	
395.8			UNKNOWN	0.5	111.1	
395.3			SHALE	0.8	111.6	
394.6			LIMESTONE	1.5	112.3	
393.1			SHALE	12.7	113.8	
380.4	MODESTO	PIASA	LIMESTONE	10.8	126.5	
369.6			SHALE	11.2	137.3	
358.5	CARBONDALE	GALUM	LIMESTONE	3.1	148.4	
355.4			SHALE	4.5	151.5	
350.9			LIMESTONE	3.2	156.0	
347.7			SHALE	4.6	159.2	
343.1			LIMESTONE	1.9	163.8	
341.2			BLACK SHALE	3.0	165.7	
338.2			SHALE	5.7	168.7	
332.6	CARBONDALE	BRERETON	LIMESTONE	5.0	174.3	
327.6	CARBONDALE	ANNA	BLACK SHALE	1.2	179.3	
326.4	CARBONDALE	HERRIN	COAL	6.3	180.5	
320.1	CARBONDALE		UNDERCLAY	7.4	186.8	
312.7	CARBONDALE		LIMESTONE	5.4	194.2	
307.3	CARBONDALE	TURNER MINE	SHALE	0.2	199.6	UNCERTAIN CORRELATION
307.1	CARBONDALE	SPRINGFIELD	COAL	0.7	199.8	
306.4	CARBONDALE		UNDERCLAY	5.1	200.5	
301.3	CARBONDALE		SILTSTONE	5.4	205.6	
295.9	CARBONDALE		SHALE	36.5	211.0	
259.4	CARBONDALE		BLACK SHALE	0.5	247.5	
259.0	CARBONDALE		LIMESTONE	0.5	247.9	
258.4	CARBONDALE	EXCELLO	BLACK SHALE	3.8	248.5	
254.6	CARBONDALE	HOUCHIN CREEK	COAL	2.3	252.3	
252.3	CARBONDALE		UNDERCLAY	6.8	254.6	
245.6	CARBONDALE		SANDSTONE	8.6	261.3	
237.0	CARBONDALE		SHALE	2.3	269.9	

234.7	CARBONDALE		SANDSTONE	0.7	272.2	
234.1	CARBONDALE		UNCLASSIFIED	6.4	272.8	
227.6	CARBONDALE		SHALE	20.2	279.3	
207.5	CARBONDALE	OAK GROVE	LIMESTONE	1.3	299.4	UNCERTAIN CORRELATION
206.2	CARBONDALE	MECCA QUARRY	BLACK SHALE	3.7	300.7	UNCERTAIN CORRELATION
202.5	CARBONDALE	COLCHESTER	COAL	1.4	304.4	UNCERTAIN CORRELATION
201.1			UNDERCLAY	0.8	305.8	
200.2			LIMESTONE	4.1	306.7	
196.1			SHALE	2.0	310.8	
194.1			BLACK SHALE	0.1	312.8	
194.0			SHALE	1.6	312.9	
192.4			SANDSTONE	5.0	314.5	
187.4			SHALE	1.0	319.5	
186.4			COAL	1.3	320.5	
185.1			UNDERCLAY	1.0	321.8	
184.2			LIMESTONE	0.2	322.7	
183.9			SHALE	0.2	323.0	
183.7			COAL	0.4	323.2	
183.3			UNDERCLAY	1.6	323.6	
181.7			SILTSTONE	3.3	325.2	
178.4			BLACK SHALE	0.2	328.5	
178.3			SHALE	4.6	328.6	
173.7			LIMESTONE	2.6	333.2	
171.1			SHALE	1.2	335.8	
169.9			BLACK SHALE	0.1	337.0	
169.8			SHALE	1.0	337.1	
168.9			SILTSTONE	2.6	338.0	
166.3			SHALE	7.5	340.6	
158.8			SANDSTONE	4.9	348.1	
153.9			SHALE	3.0	353.0	
150.9			SANDSTONE	8.2	356.0	
142.7			SHALE	1.1	364.2	
141.6			SANDSTONE	3.6	365.3	
138.1			BLACK SHALE	7.8	368.8	
130.3			SANDSTONE	33.6	376.6	

MAPID: 15701725000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: RANDOLPH TWP/RNG: 4S 5W SECTION: 29 QUARTERS/FOOTAGES: 2640' N line, 2640' E line

QUADRANGLE: TILDEN

LONGITUDE: -89.675814

GEOLOGIST:

CONFIDENTIAL: N

LATITUDE: 38.153926

DATE COLLECTED:

SURFACE ELEVATION (FT.): 515.0

LOGGED (FT.): 178.2

LOG TYPE: Drillers Log

SOURCE: SOUTHWESTERN ILLINOIS COAL CO.5

WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
395.0	MODESTO	PIASA	LIMESTONE	9.0	120.0	
386.0	MODESTO		COAL	1.0	129.0	
385.0	CARBONDALE	DANVILLE	COAL	2.9	130.0	
382.1	CARBONDALE		GRAY SHALE	9.6	132.9	
372.5	CARBONDALE	BANKSTON FORK	LIMESTONE	2.3	142.5	UPPER BENCH
370.2	CARBONDALE	BANKSTON FORK	LIMESTONE W/ SHALE	5.2	144.8	SHALE PARTING
365.0	CARBONDALE	BANKSTON FORK	LIMESTONE	2.5	150.0	LOWER BENCH
362.5	CARBONDALE	LAWSON	GRAY SHALE	1.5	152.5	
361.0	CARBONDALE	CONANT	LIMESTONE W/ SHALE	15.6	154.0	
345.4	CARBONDALE	ANNA	BLACK SHALE	2.4	169.6	
343.0	CARBONDALE	HERRIN	COAL	6.2	172.0	

MAPID: 15724977000C VERSION: 1

PROJECT: LUMP

COUNTY: RANDOLPH TWP/RNG: 4S 5W SECTION: 29 QUARTERS/FOOTAGES: 38' N line, 62' W line of NW SE

QUADRANGLE: TILDEN LONGITUDE: -89.675524 GEOLOGIST: J. MCBETH

CONFIDENTIAL: N LATITUDE: 38.15384 DATE COLLECTED: 4 / 9 / 1985

SURFACE ELEVATION (FT.): LOGGED (FT.): 188.7 LOG TYPE: Drillers Log

SOURCE: ZEIGLER COAL CO. 102 WELL TYPE: Coal Test

COMMENT: PERMIT 207; SPARTAN MINE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	PLEISTOCENE		CLAY	29.4	0.0	
-			SANDY SHALE	57.6	29.4	
-	MODESTO		SHALE	13.5	87.0	GREEN GRAY W/ SS
-	MODESTO		SHALE	5.5	100.5	GREEN GRAY WITH LIMESTONE NODULES
-	MODESTO		SHALE	3.0	106.0	MULTICOLOR
-	MODESTO		SILTY SHALE	11.0	109.0	
-	MODESTO		LIMESTONE	3.3	120.0	
-	MODESTO		GRAY SHALE	0.7	123.3	
-	MODESTO	PIASA	LIMESTONE	4.5	124.0	
-	MODESTO		BLACK SHALE	2.4	128.5	
-	CARBONDALE	DANVILLE	COAL	2.1	130.9	
-	CARBONDALE		SHALEY CLAYSTONE	2.5	133.0	
-	CARBONDALE		SILTY SHALE	4.6	135.5	WITH LIMESTONE NODULES
-	CARBONDALE		LIMESTONE	2.4	140.1	
-	CARBONDALE		SANDY SHALE	5.9	142.5	
-	CARBONDALE		LIMESTONE	2.7	148.4	CORING BEGAN
-	CARBONDALE		BLACK SHALE	1.6	151.1	
-	CARBONDALE		CALCAREOUS SHALE	5.5	152.7	
-	CARBONDALE		LIMESTONE	0.3	158.2	
-	CARBONDALE		CALCAREOUS SHALE	1.7	158.5	
-	CARBONDALE	ANNA	BLACK SHALE	8.2	160.1	
-	CARBONDALE		CALCAREOUS SHALE	1.1	168.3	
-	CARBONDALE	HERRIN	COAL	5.7	169.4	
-	CARBONDALE	HERRIN	PYRITE	0.1	175.1	
-	CARBONDALE	HERRIN	COAL	0.5	175.2	
-	CARBONDALE		SHALEY CLAYSTONE	1.4	175.8	
-	CARBONDALE		SHALEY CLAYSTONE	3.1	177.1	WITH LIMESTONE NODULES
-	CARBONDALE		ARGILLACEOUS LIMESTONE	1.2	180.2	
-	CARBONDALE		LIMESTONE	1.7	181.4	
-	CARBONDALE		CALCAREOUS SHALE	1.8	183.1	GREEN GRAY
-	CARBONDALE		LIMESTONE	2.4	184.9	W/ SH BANDS
-	CARBONDALE	SPRINGFIELD	COAL	0.3	187.3	
-	CARBONDALE		CORE LOSS	1.1	187.6	CORE LOSS

MAPID: 15724978000C VERSION: 1

PROJECT: LUMP

COUNTY: RANDOLPH TWP/RNG: 4S 5W SECTION: 29 QUARTERS/FOOTAGES: 422' S line, 50' E line of SE SW

QUADRANGLE: TILDEN LONGITUDE: -89.676005 GEOLOGIST: J. MCBETH

CONFIDENTIAL: N LATITUDE: 38.147846 DATE COLLECTED: 4 / 15 / 1985

SURFACE ELEVATION (FT.): LOGGED (FT.): 183.7 LOG TYPE: Drillers Log

SOURCE: ZEIGLER COAL CO. 103 WELL TYPE: Coal Test

COMMENT: PERMIT 207; SPARTAN MINE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	PLEISTOCENE		CLAY	43.9	0.0	
-	PLEISTOCENE		ROCK	9.1	43.9	WEATHERED
-	MODESTO		SANDY SHALE	30.0	53.0	
-	MODESTO		SHALE	19.0	83.0	GREEN GRAY WITH LIMESTONE NODULES
-	MODESTO		SHALE	2.0	102.0	MULTICOLOR
-	MODESTO		SILTY SHALE	9.0	104.0	
-	MODESTO	PIASA	LIMESTONE	10.7	113.0	
-	MODESTO		BLACK SHALE	2.3	123.7	
-	CARBONDALE	DANVILLE	COAL	2.0	126.0	
-	CARBONDALE		SHALEY CLAYSTONE	3.0	128.0	
-	CARBONDALE		SILTY SHALE	4.2	131.0	WITH LIMESTONE NODULES
-	CARBONDALE	BANKSTON FORK	LIMESTONE	2.7	135.2	
-	CARBONDALE		SILTY SHALE	5.1	137.9	WITH LIMESTONE NODULES
-	CARBONDALE		LIMESTONE	3.0	143.0	
-	CARBONDALE		LIMESTONE	0.5	146.0	W/ BK SH
-	CARBONDALE		BLACK SHALE	3.7	146.5	
-	CARBONDALE		BLACK SHALE	7.3	150.2	
-	CARBONDALE	BRERETON	LIMESTONE	3.9	157.5	
-	CARBONDALE	ANNA	BLACK SHALE	1.7	161.4	
-	CARBONDALE	ANNA	BLACK SHALE	0.5	163.1	W/ COAL
-	CARBONDALE	HERRIN	COAL	4.6	163.6	
-	CARBONDALE	HERRIN	SHALE	0.1	168.2	BLUE BAND
-	CARBONDALE	HERRIN	COAL	1.0	168.3	
-	CARBONDALE		SHALEY CLAYSTONE	1.5	169.3	
-	CARBONDALE		SHALE	0.4	170.8	WITH LIMESTONE NODULES
-	CARBONDALE		LIMESTONE	9.1	171.1	W/ SH PARTINGS
-	CARBONDALE	TURNER MINE	BLACK SHALE	1.0	180.2	
-	CARBONDALE	SPRINGFIELD	COAL	2.1	181.2	
-	CARBONDALE		SHALEY CLAYSTONE	0.2	183.3	
-	CARBONDALE		CORE LOSS	0.3	183.4	

MAPID: 15700019000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 5W SECTION: 31 QUARTERS/FOOTAGES: 2725' S line, 550' E line

QUADRANGLE: TILDEN LONGITUDE: -89.687007 GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.139806 DATE COLLECTED: 0 / 0 / 1938

SURFACE ELEVATION (FT.): 498.4 LOGGED (FT.): 200.0 LOG TYPE: Drillers Log

SOURCE: LEON BEATTIE ET AL 1 WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
498.4	PLEISTOCENE		MUD	18.0	0.0	BLUE
480.4	PLEISTOCENE		GRAVEL	10.0	18.0	
470.4			SHALE	80.0	28.0	BLUE
390.4	CARBONDALE		SHALE	8.0	108.0	WHITE
382.4	CARBONDALE		LIMESTONE	8.0	116.0	GRAY
374.4	CARBONDALE	HERRIN	COAL	6.0	124.0	
368.4	CARBONDALE		SHALE	20.0	130.0	LIGHT
348.4	CARBONDALE		LIMESTONE	22.0	150.0	BLACK
326.4	CARBONDALE		BLACK SHALE	6.0	172.0	
320.4	CARBONDALE		SHALE	4.0	178.0	LIGHT
316.4	CARBONDALE		LIMESTONE	7.0	182.0	
309.4	CARBONDALE		SHALE	5.0	189.0	DARK
304.4	CARBONDALE		BLACK SHALE	6.0	194.0	

MAPID: 15701411000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: RANDOLPH TWP/RNG: 4S 5W SECTION: 31 QUARTERS/FOOTAGES: 1375' S line, 450' E line

QUADRANGLE: TILDEN LONGITUDE: -89.686708 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.136077 DATE COLLECTED:

SURFACE ELEVATION (FT.): 506.0 LOGGED (FT.): 176.0 LOG TYPE: Drillers Log

SOURCE: WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
373.0	MODESTO	PIASA	LIMESTONE	11.0	133.0	
362.0	MODESTO		CALCAREOUS SHALE	2.0	144.0	
360.0	CARBONDALE	DANVILLE	COAL	4.0	146.0	
356.0	CARBONDALE		GRAY SHALE	11.0	150.0	
345.0	CARBONDALE	BANKSTON FORK	LIMESTONE	3.0	161.0	
342.0	CARBONDALE	BANKSTON FORK	SHALE	5.0	164.0	
337.0	CARBONDALE	BANKSTON FORK	LIMESTONE	4.0	169.0	
333.0	CARBONDALE	CONANT	CALCAREOUS SHALE	3.0	173.0	
330.0	CARBONDALE	BRERETON	LIMESTONE	5.0	176.0	
325.0	CARBONDALE	ANNA	BLACK SHALE	2.0	181.0	
336.0	CARBONDALE	HERRIN	COAL	6.0	170.0	

MAPID: 15701988000C VERSION: 1

PROJECT: IDMM-GWQX

COUNTY: RANDOLPH TWP/RNG: 4S 5W SECTION: 33 QUARTERS/FOOTAGES: 990' N line, 990' W line

QUADRANGLE: TILDEN LONGITUDE: -89.663324 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.143956 DATE COLLECTED: 5 / 0 / 1960

SURFACE ELEVATION (FT.): 504.0 LOGGED (FT.): 240.0 LOG TYPE: Electric Log

SOURCE: KEWANEE OIL & GAS WELL TYPE: Producer-Oil

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

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
391.0	MODESTO	PIASA	UNCLASSIFIED	-	113.0
343.0	CARBONDALE	HERRIN	UNCLASSIFIED	-	161.0
325.0	CARBONDALE	SPRINGFIELD	UNCLASSIFIED	4.0	179.0
264.0	CARBONDALE	HOUCHIN CREEK	UNCLASSIFIED	-	240.0

MAPID: 15701988000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: RANDOLPH TWP/RNG: 4S 5W SECTION: 33 QUARTERS/FOOTAGES: 990' N line, 990' W line

QUADRANGLE: TILDEN LONGITUDE: -89.663324 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.143956 DATE COLLECTED:

SURFACE ELEVATION (FT.): 504.0 LOGGED (FT.): 167.5 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
392.0	MODESTO	PIASA	LIMESTONE	8.0	112.0
384.0	MODESTO		SHALE	2.0	120.0
382.0	CARBONDALE	DANVILLE	COAL	3.0	122.0
379.0	CARBONDALE		SHALE	10.0	125.0
369.0	CARBONDALE	BANKSTON FORK	LIMESTONE	4.0	135.0
365.0	CARBONDALE	CONANT	LIMESTONE W/ SHALE	12.0	139.0
353.0	CARBONDALE	BRERETON	LIMESTONE	4.0	151.0
349.0	CARBONDALE	ANNA	BLACK SHALE	2.0	155.0
342.0	CARBONDALE	HERRIN	COAL	5.5	162.0

MAPID: 15702336000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: RANDOLPH TWP/RNG: 4S 5W SECTION: 35 QUARTERS/FOOTAGES: 30' S line, 1720' E line

QUADRANGLE: COULTERVILLE LONGITUDE: -89.617168

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.132103

DATE COLLECTED:

SURFACE ELEVATION (FT.): 495.0

LOGGED (FT.): 143.0

LOG TYPE: Electric Log

SOURCE:

WELL TYPE: Oil and Gas Test

COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
405.0	MODESTO	PIASA	LIMESTONE	12.0	90.0	
393.0	MODESTO		SHALE	2.0	102.0	
391.0	CARBONDALE	DANVILLE	COAL	1.0	104.0	
390.0	CARBONDALE		SHALE	8.0	105.0	
382.0	CARBONDALE	BANKSTON FORK	LIMESTONE	4.0	113.0	
378.0	CARBONDALE	CONANT	CALCAREOUS SHALE	11.0	117.0	
367.0	CARBONDALE	BRERETON	LIMESTONE & SHALE	3.8	128.0	
363.2	CARBONDALE	ANNA	BLACK SHALE	2.0	131.8	
358.0	CARBONDALE	HERRIN	COAL	6.0	137.0	

MAPID: 15701823000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: RANDOLPH TWP/RNG: 4S 5W SECTION: 36 QUARTERS/FOOTAGES: 270' N line, 1470' W line

QUADRANGLE: COULTERVILLE LONGITUDE: -89.60583

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.146003

DATE COLLECTED: 12 / 7 / 1956

SURFACE ELEVATION (FT.): 500.0

LOGGED (FT.): 199.0

LOG TYPE: Survey Core Study

SOURCE: MOFFAT COAL CO. 1

WELL TYPE: Coal Test

COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
358.5	MODESTO	PIASA	LIMESTONE	11.0	141.5	
347.5	MODESTO		DARK GRAY SHALE	2.4	152.5	
345.1	CARBONDALE	DANVILLE	COAL	2.7	154.9	
342.4	CARBONDALE		CLAYSTONE	7.9	157.6	
334.5	CARBONDALE	BANKSTON FORK	NODULAR LIMESTONE	3.5	165.5	UPPER BENCH
331.0	CARBONDALE	BANKSTON FORK	LIMESTONE W/ SHALE	4.3	169.0	SHALE PARTING
326.7	CARBONDALE	BANKSTON FORK	LIMESTONE	4.0	173.3	LOWER BENCH
322.7	CARBONDALE	CONANT	CALCAREOUS SHALE	9.1	177.3	
313.6	CARBONDALE	BRERETON	LIMESTONE/UNDERCLAY	2.6	186.4	
311.0	CARBONDALE	ANNA	BLACK SHALE	3.5	189.0	
307.5	CARBONDALE	HERRIN	COAL	6.5	192.5	

MAPID: 15790035000C VERSION: 1

PROJECT: LUMP97

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 2 QUARTERS/FOOTAGES: 100' S line, 50' W line of SE SW

QUADRANGLE: TILDEN LONGITUDE: -89.73628 GEOLOGIST: D NORTH

CONFIDENTIAL: N LATITUDE: 38.204973 DATE COLLECTED: 4 / 21 / 1971

SURFACE ELEVATION (FT.): 534.7 LOGGED (FT.): 207.3 LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO. 9719C WELL TYPE: Coal Test

COMMENT: PERMIT # 176 BALDWIN

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
534.7	PLEISTOCENE		UNCONSOLIDATED	40.3	0.0
494.4	MODESTO		LIMESTONE	3.2	40.3
491.2	MODESTO		SANDSTONE	16.6	43.5
474.6	MODESTO		SHALE	75.2	60.1
399.4	MODESTO		LIMESTONE	1.7	135.3
397.7	MODESTO		SHALE	7.4	137.0
390.3	MODESTO		LIMESTONE	1.1	144.4
389.2	MODESTO		GRAY SHALE	11.7	145.5
377.5	MODESTO	PIASA	LIMESTONE	9.0	157.2
368.5	MODESTO		SHALE	3.0	166.2
365.5	CARBONDALE	DANVILLE	COAL	0.9	169.2
364.6	CARBONDALE		GRAY SHALE	3.5	170.1
361.1	CARBONDALE	BANKSTON FORK	LIMESTONE	3.7	173.6
357.4	CARBONDALE	BANKSTON FORK	GRAY SHALE	5.0	177.3
352.4	CARBONDALE	BANKSTON FORK	LIMESTONE	4.3	182.3
348.1	CARBONDALE		SHALE	4.9	186.6
343.2	CARBONDALE	BRERETON	LIMESTONE	5.0	191.5
338.3	CARBONDALE	ANNA	DARK SHALE	2.8	196.4
335.5	CARBONDALE	HERRIN	COAL	6.3	199.2
329.2	CARBONDALE		GRAY SHALE	1.0	205.5
328.2	CARBONDALE		LIMESTONE	0.8	206.5

MAPID: 15790038000C VERSION: 1

PROJECT: LUMP97

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 3 QUARTERS/FOOTAGES: 100' S line, 75' W line of SW

QUADRANGLE: BALDWIN

LONGITUDE: -89.759698

GEOLOGIST: D NORTH

CONFIDENTIAL: N

LATITUDE: 38.205116

DATE COLLECTED: 4 / 7 / 1971

SURFACE ELEVATION (FT.): 495.6

LOGGED (FT.): 139.0

LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO. 12651C

WELL TYPE: Coal Test

COMMENT: PERMIT # 176 BALDWIN

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
495.6	PLEISTOCENE		UNCONSOLIDATED	57.8	0.0
437.8	PLEISTOCENE		CLAY	23.5	57.8
414.3	MODESTO	PIASA	LIMESTONE	12.4	81.3
401.9	MODESTO		GRAY SHALE	2.4	93.7
399.5	CARBONDALE	DANVILLE	COAL	2.3	96.1
397.2	CARBONDALE		UNDERCLAY	1.6	98.4
395.6	CARBONDALE		GRAY SHALE	6.9	100.0
388.7	CARBONDALE	BANKSTON FORK	LIMESTONE	1.4	106.9
387.3	CARBONDALE		GRAY SHALE	5.6	108.3
381.7	CARBONDALE	CONANT	LIMESTONE	2.4	113.9
379.3	CARBONDALE		SHALE	5.6	116.3
373.7	CARBONDALE	BRERETON	LIMESTONE	4.6	121.9
369.1	CARBONDALE	ANNA	BLACK SHALE	3.3	126.5
365.9	CARBONDALE	HERRIN	COAL	7.3	129.7
358.6	CARBONDALE		UNDERCLAY	2.0	137.0

MAPID: 15790039000C VERSION: 1

PROJECT: LUMP97

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 3 QUARTERS/FOOTAGES: 100' S line, 25' E line of SW

QUADRANGLE: BALDWIN LONGITUDE: -89.750667 GEOLOGIST: D NORTH

CONFIDENTIAL: N LATITUDE: 38.205036 DATE COLLECTED: 4 / 13 / 1971

SURFACE ELEVATION (FT.): 510.4 LOGGED (FT.): 172.0 LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO. 12652C WELL TYPE: Coal Test

COMMENT: PERMIT # 176 BALDWIN

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
510.4	PLEISTOCENE		UNCONSOLIDATED	77.3	0.0
433.1	MODESTO		GRAY SHALE	11.8	77.3
421.3	MODESTO		LIMESTONE	0.5	89.1
420.8	MODESTO		GRAY SHALE	15.8	89.6
405.0	MODESTO	PIASA	LIMESTONE	11.0	105.4
394.0	MODESTO		GRAY SHALE	2.5	116.4
391.5	CARBONDALE	DANVILLE	COAL	1.4	118.9
390.1	CARBONDALE		SHALE	12.7	120.3
377.4	CARBONDALE	BANKSTON FORK	LIMESTONE	1.8	133.0
375.6	CARBONDALE	BANKSTON FORK	SHALE	6.3	134.8
369.3	CARBONDALE	BANKSTON FORK	LIMESTONE	1.2	141.1
368.1	CARBONDALE		GRAY SHALE	11.3	142.3
356.8	CARBONDALE	CONANT	LIMESTONE	0.6	153.6
356.2	CARBONDALE		SHALE	9.1	154.2
347.1	CARBONDALE	BRERETON	LIMESTONE	1.3	163.3
345.7	CARBONDALE	HERRIN	COAL	6.0	164.7
339.8	CARBONDALE		UNDERCLAY	1.4	170.6

MAPID: 15790046000C VERSION: 1

PROJECT: LUMP97

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 3 QUARTERS/FOOTAGES: 125' N line, 500' E line of SE

QUADRANGLE: TILDEN LONGITUDE: -89.743035 GEOLOGIST: D NORTH

CONFIDENTIAL: N LATITUDE: 38.211773 DATE COLLECTED: 4 / 4 / 1971

SURFACE ELEVATION (FT.): 528.2 LOGGED (FT.): 198.7 LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO. 12751C WELL TYPE: Coal Test

COMMENT: PERMIT # 176 BALDWIN

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
528.2	PLEISTOCENE		UNCONSOLIDATED	28.0	0.0	
500.2	MODESTO		SANDSTONE	5.5	28.0	BROWN
494.7	MODESTO		SANDSTONE	4.0	33.5	
490.7	MODESTO		SANDY SHALE	19.3	37.5	
471.4	MODESTO		SHALE	60.2	56.8	
411.2	MODESTO		SANDY SHALE	17.0	117.0	
394.2	MODESTO		SANDY SHALE	1.8	134.0	
392.4	MODESTO		SHALE	10.5	135.8	
381.9	MODESTO	PIASA	LIMESTONE	7.6	146.3	
374.3	MODESTO		SHALE	7.7	153.9	
366.6	CARBONDALE	DANVILLE	COAL	0.7	161.6	
365.9	CARBONDALE		SHALE	5.2	162.3	
360.7	CARBONDALE	BANKSTON FORK	LIMESTONE	2.1	167.5	
358.6	CARBONDALE	BANKSTON FORK	SHALE	3.5	169.6	
355.1	CARBONDALE	BANKSTON FORK	LIMESTONE	2.3	173.1	
352.8	CARBONDALE		SHALE	5.6	175.4	
347.2	CARBONDALE	CONANT	LIMESTONE	1.1	181.0	
346.1	CARBONDALE	BRERETON	LIMESTONE	1.2	182.1	
344.8	CARBONDALE	BRERETON	LIMESTONE	3.9	183.4	
341.0	CARBONDALE	ANNA	DARK SHALE	2.9	187.2	
338.1	CARBONDALE	HERRIN	COAL	6.7	190.1	
331.5	CARBONDALE		GRAY SHALE	2.0	196.7	

MAPID: 15726011000C **VERSION:** 1 **PROJECT:** LUMP
COUNTY: RANDOLPH **TWP/RNG:** 4S 6W **SECTION:** 4 **QUARTERS/FOOTAGES:** 2310' N line, 2640' W line
QUADRANGLE: BALDWIN **LONGITUDE:** -89.770246 **GEOLOGIST:** J. MCBETH
CONFIDENTIAL: N **LATITUDE:** 38.213366 **DATE COLLECTED:** 6 / 9 / 1980
SURFACE ELEVATION (FT.): 492.1 **LOGGED (FT.):** 68.5 **LOG TYPE:** Drillers Log
SOURCE: PEABODY COAL WM-1 **WELL TYPE:** Water Well
COMMENT: PERMIT 63; PEABODY LOCATION I-8

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
492.1	PLEISTOCENE		UNCLASSIFIED	24.6	0.0	
467.5	PLEISTOCENE		UNCONSOLIDATED	15.4	24.6	BLUE, SOFT
452.1			GRAY SHALE	2.9	40.0	
449.2			SANDY SHALE	10.4	42.9	
438.8			DARK SHALE	1.0	53.3	
437.8			GRAY SHALE	13.8	54.3	
424.0			LIMESTONE	0.4	68.1	

MAPID: 15726012000C **VERSION:** 1 **PROJECT:** LUMP
COUNTY: RANDOLPH **TWP/RNG:** 4S 6W **SECTION:** 4 **QUARTERS/FOOTAGES:** 0' S line, 1320' E line of SE
QUADRANGLE: BALDWIN **LONGITUDE:** -89.764578 **GEOLOGIST:** J. MCBETH
CONFIDENTIAL: N **LATITUDE:** 38.204934 **DATE COLLECTED:** 6 / 5 / 1980
SURFACE ELEVATION (FT.): 499.6 **LOGGED (FT.):** 139.3 **LOG TYPE:** Drillers Log
SOURCE: PEABODY COAL WM#3 **WELL TYPE:** Water Well
COMMENT: PERMIT 63; PEABODY LOCATION M-17

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
499.6	PLEISTOCENE		CLAY	65.6	0.0	
434.0	CARBONDALE		GRAY SHALE	18.1	65.6	
415.9	CARBONDALE		LIMESTONE	13.0	83.7	
402.9	CARBONDALE		DARK SHALE	3.5	96.7	
399.4	CARBONDALE		GRAY SHALE	4.2	100.2	
395.2	CARBONDALE		LIMESTONE	3.7	104.4	
391.5	CARBONDALE		GRAY SHALE	9.5	108.1	
382.0	CARBONDALE		DARK SHALE	2.2	117.6	
379.8	CARBONDALE	BRERETON	LIMESTONE	3.8	119.8	
376.0	CARBONDALE	ANNA	DARK SHALE	9.1	123.6	
366.9	CARBONDALE	HERRIN	COAL	6.5	132.7	
360.4	CARBONDALE		UNDERCLAY	0.1	139.2	

MAPID: 15726013000C VERSION: 1

PROJECT: LUMP

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 4 QUARTERS/FOOTAGES: 2989' S line, 2263' W line
 QUADRANGLE: BALDWIN LONGITUDE: -89.771565 GEOLOGIST: J. MCBETH
 CONFIDENTIAL: N LATITUDE: 38.213318 DATE COLLECTED: 4 / 15 / 1982
 SURFACE ELEVATION (FT.): LOGGED (FT.): 44.2 LOG TYPE: Drillers Log
 SOURCE: PEABODY COAL M-W-5 WELL TYPE: Water Well
 COMMENT: PERMIT 63

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	PLEISTOCENE		UNCLASSIFIED	2.3	0.0	
-	PLEISTOCENE		CLAY	6.4	2.3	
-	PLEISTOCENE		SANDY CLAY	6.1	8.7	
-	PLEISTOCENE		SAND & GRAVEL	4.4	14.8	SAND & GRAVEL
-	PLEISTOCENE		CLAY	24.3	19.2	
-	PLEISTOCENE		SANDY SHALE	0.7	43.5	

MAPID: 15726026000C VERSION: 1

PROJECT: NCRDS95

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 4 QUARTERS/FOOTAGES: 2380' N line, 1' W line
 QUADRANGLE: BALDWIN LONGITUDE: -89.779193 GEOLOGIST: KOROSE
 CONFIDENTIAL: N LATITUDE: 38.213411 DATE COLLECTED: 9 / 25 / 1943
 SURFACE ELEVATION (FT.): LOGGED (FT.): 64.0 LOG TYPE: Drillers Log
 SOURCE: PITTSBURG & MIDWAY 74-D WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	PLEISTOCENE		CLAY	46.0	0.0	
-	CARBONDALE		LIMESTONE	10.5	46.0	
-	CARBONDALE		BLACK SHALE	2.5	56.5	
-	CARBONDALE		COAL	2.0	59.0	
-	CARBONDALE		UNDERCLAY	3.0	61.0	

MAPID: 15726027000C VERSION: 1

PROJECT: NCRDS95

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 4 QUARTERS/FOOTAGES: 2380' N line, 1320' W line

QUADRANGLE: BALDWIN LONGITUDE: -89.77486 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 38.213184 DATE COLLECTED: 9 / 28 / 1943

SURFACE ELEVATION (FT.): LOGGED (FT.): 74.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 76-D WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-	PLEISTOCENE		CLAY	52.0	0.0
-	CARBONDALE		LIMESTONE	8.5	52.0
-	CARBONDALE		BLUE SHALE	8.5	60.5
-	CARBONDALE		COAL	2.3	69.0
-	CARBONDALE		UNDERCLAY	2.7	71.3

MAPID: 15790055000C VERSION: 1

PROJECT: LUMP97

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 4 QUARTERS/FOOTAGES: 150' S line, 325' E line of SW NE SE

QUADRANGLE: BALDWIN LONGITUDE: -89.763539

GEOLOGIST: D NORTH

CONFIDENTIAL: N LATITUDE: 38.20903

DATE COLLECTED: 2 / 16 / 1971

SURFACE ELEVATION (FT.): 483.8 LOGGED (FT.): 112.8

LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO. 12501C

WELL TYPE: Coal Test

COMMENT: PERMIT # 176 BALDWIN

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
483.8	PLEISTOCENE		UNCONSOLIDATED	39.8	0.0
444.0	MODESTO		GRAY SHALE	4.6	39.8
439.4	MODESTO		SANDSTONE	0.4	44.4
439.0	MODESTO		SHALE	1.0	44.8
438.0	MODESTO		SANDSTONE	1.2	45.8
436.8	MODESTO		SHALE	11.7	47.0
425.1	MODESTO		GRAY SHALE	1.8	58.7
423.3	MODESTO	PIASA	LIMESTONE	10.5	60.5
412.8	MODESTO		SHALE	4.8	71.0
408.0	MODESTO		BLACK SHALE	0.4	75.8
407.7	CARBONDALE	DANVILLE	COAL	1.5	76.1
406.2	CARBONDALE		GRAY SHALE	4.9	77.6
401.3	CARBONDALE	BANKSTON FORK	LIMESTONE	2.7	82.5
398.7	CARBONDALE	BANKSTON FORK	SHALE	4.5	85.1
394.2	CARBONDALE	BANKSTON FORK	LIMESTONE	2.6	89.6
391.6	CARBONDALE		SHALE	5.5	92.2
386.1	CARBONDALE	CONANT	LIMESTONE	0.3	97.7
385.8	CARBONDALE		SHALE	0.7	98.0
385.1	CARBONDALE	BRERETON	LIMESTONE	2.9	98.7
382.2	CARBONDALE	ANNA	BLACK SHALE	4.0	101.6
378.2	CARBONDALE	HERRIN	COAL	6.6	105.6
371.6	CARBONDALE		UNDERCLAY	0.6	112.2

MAPID: 15700111000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 5 QUARTERS/FOOTAGES: 500' N line, 500' E line of NW NW

QUADRANGLE: BALDWIN LONGITUDE: -89.795159 GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.218382 DATE COLLECTED:

SURFACE ELEVATION (FT.): 450.0 LOGGED (FT.): 34.4 LOG TYPE: Drillers Log

SOURCE: H. E. WILLSON 67 WELL TYPE:

COMMENT: ELEV. COAL ABOVE SEA LEVEL 418.28

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
450.0	PLEISTOCENE		UNCONSOLIDATED	17.0	0.0	
433.0	PLEISTOCENE		CLAY	3.0	17.0	GRAY AND SHALEY
430.0	PLEISTOCENE		GRAVEL	1.5	20.0	
428.5	PLEISTOCENE		CLAY	5.2	21.5	WITH BOULDERS
423.3	CARBONDALE		LIMESTONE	1.8	26.7	
421.5	CARBONDALE		SHALE	3.2	28.5	DARK
418.3	CARBONDALE	SPRINGFIELD	COAL	2.8	31.7	SOFT

MAPID: 15701496000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 5 QUARTERS/FOOTAGES: 343' S line, 60' E line of SW SW

QUADRANGLE: BALDWIN LONGITUDE: -89.793402 GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.206322 DATE COLLECTED: 5 / 0 / 1947

SURFACE ELEVATION (FT.): 477.6 LOGGED (FT.): 78.0 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 7Y WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
477.6	PLEISTOCENE		SOIL	18.0	0.0	CLAYEY
459.6	PLEISTOCENE		SAND	9.0	18.0	WITH CLAY
450.6	CARBONDALE		BLACK SHALE	8.0	27.0	
442.6	CARBONDALE		GRAY SANDSTONE	10.0	35.0	
432.6	CARBONDALE		BLACK SHALE	22.0	45.0	
410.6	CARBONDALE		LIMESTONE	4.0	67.0	
406.6	CARBONDALE		BLACK SHALE	2.2	71.0	
404.4	CARBONDALE	HERRIN	COAL	3.8	73.2	
400.6	CARBONDALE		UNDERCLAY	1.0	77.0	

MAPID: 15701497000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 5 QUARTERS/FOOTAGES: 733' S line, 175' W line of SW SW

QUADRANGLE: BALDWIN

LONGITUDE: -89.797231

GEOLOGIST: UITEMP

CONFIDENTIAL: N

LATITUDE: 38.207441

DATE COLLECTED: 5 / 0 / 1947

SURFACE ELEVATION (FT.): 470.2

LOGGED (FT.): 63.0

LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 8Y

WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
470.2	PLEISTOCENE		SOIL	10.0	0.0	CLAYEY
460.2	PLEISTOCENE		SAND	9.0	10.0	
451.2			BLACK SHALE	8.0	19.0	
443.2			SANDSTONE/SILTSTONE	12.5	27.0	GRAY
430.7			LIMESTONE	23.5	39.5	

MAPID: 15701498000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 5 QUARTERS/FOOTAGES: 333' S line, 195' W line of SW SW

QUADRANGLE: BALDWIN

LONGITUDE: -89.797139

GEOLOGIST: UITEMP

CONFIDENTIAL: N

LATITUDE: 38.206334

DATE COLLECTED: 5 / 0 / 1947

SURFACE ELEVATION (FT.): 479.0

LOGGED (FT.): 72.0

LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 9Y

WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
479.0	PLEISTOCENE		SOIL	8.0	0.0	CLAYEY
471.0	PLEISTOCENE		SAND	15.0	8.0	BROWN
456.0			BLACK SHALE	7.0	23.0	
449.0			GRAY SANDSTONE	20.0	30.0	
429.0			SANDSTONE/SILTSTONE	20.0	50.0	GRAY
409.0			LIMESTONE	2.0	70.0	

MAPID: 15701499000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 5 QUARTERS/FOOTAGES: 325' S line, 393' W line of SW SW

QUADRANGLE: BALDWIN LONGITUDE: -89.796446

GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.206306

DATE COLLECTED: 5 / 0 / 1947

SURFACE ELEVATION (FT.): 482.8 LOGGED (FT.): 71.0

LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 10Y

WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
482.8	PLEISTOCENE		SOIL	22.0	0.0	CLAYEY
460.8	PLEISTOCENE		SAND	13.0	22.0	BROWN
447.8	PLEISTOCENE		SAND	25.0	35.0	GRAY
422.8	CARBONDALE		LIMESTONE	3.5	60.0	
419.3	CARBONDALE	ANNA	BLACK SHALE	1.0	63.5	
418.3	CARBONDALE	HERRIN	COAL	5.5	64.5	
412.8	CARBONDALE		SANDSTONE	1.0	70.0	

MAPID: 15701527000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 5 QUARTERS/FOOTAGES: 150' S line, 660' W line

QUADRANGLE: BALDWIN LONGITUDE: -89.795503

GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.205811

DATE COLLECTED:

SURFACE ELEVATION (FT.): 485.0 LOGGED (FT.): 84.5

LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT 1W

WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
485.0	PLEISTOCENE		CLAY	17.0	0.0	
468.0	PLEISTOCENE		SAND & GRAVEL	13.0	17.0	
455.0	PLEISTOCENE		CLAY	40.0	30.0	SANDY AND BLUE
415.0	CARBONDALE		LIMESTONE	0.8	70.0	
414.2	CARBONDALE		SHALE	0.7	70.8	
413.5	CARBONDALE	BRERETON	LIMESTONE	4.5	71.5	
409.0	CARBONDALE		SMUT	0.3	76.0	
408.7	CARBONDALE	HERRIN	COAL	5.7	76.3	
403.0	CARBONDALE		UNDERCLAY	2.5	82.0	

MAPID: 15701528000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 5 QUARTERS/FOOTAGES:

QUADRANGLE: BALDWIN LONGITUDE: -89.788679

GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.212532

DATE COLLECTED:

SURFACE ELEVATION (FT.): 330.0 LOGGED (FT.): 74.5

LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT 2W

WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
330.0	PLEISTOCENE		SOIL	5.0	0.0	
325.0	PLEISTOCENE		CLAY	20.0	5.0	GRAVELLY
305.0	PLEISTOCENE		SAND & GRAVEL	20.0	25.0	
285.0	PLEISTOCENE		SAND	14.7	45.0	
270.3	CARBONDALE	BRERETON	LIMESTONE	6.0	59.7	
264.3	CARBONDALE		SMUT	0.2	65.7	
264.2	CARBONDALE	HERRIN	COAL	5.3	65.8	
258.8	CARBONDALE		UNDERCLAY	3.3	71.2	

MAPID: 15701529000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 5 QUARTERS/FOOTAGES: 20' S line, 69' W line

QUADRANGLE: BALDWIN LONGITUDE: -89.797565

GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.205477

DATE COLLECTED:

SURFACE ELEVATION (FT.): 480.0 LOGGED (FT.): 79.0

LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT 3W

WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
480.0	PLEISTOCENE		CLAY	15.0	0.0	
465.0	PLEISTOCENE		CLAY	10.0	15.0	SANDY
455.0	PLEISTOCENE		MUD	10.0	25.0	BLUE
445.0	CARBONDALE		SHALE	28.0	35.0	GRAVELLY
417.0	CARBONDALE		UNDERCLAY	0.5	63.0	SANDY
416.5	CARBONDALE		LIMESTONE	1.0	63.5	
415.5	CARBONDALE		CALCAREOUS SHALE	6.3	64.5	
409.2	CARBONDALE	HERRIN	COAL	5.3	70.8	
403.8	CARBONDALE		UNDERCLAY	2.8	76.2	

MAPID: 15701531000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 5 QUARTERS/FOOTAGES: SW NW

QUADRANGLE: BALDWIN LONGITUDE: -89.79565 GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.214375 DATE COLLECTED:

SURFACE ELEVATION (FT.): 470.0 LOGGED (FT.): 72.0 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT 5W WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
470.0	PLEISTOCENE		CLAY	23.0	0.0	
447.0	PLEISTOCENE		MUD	29.5	23.0	SANDY AND BLUE
417.5	PLEISTOCENE		BOULDER	0.3	52.5	
417.2	PLEISTOCENE		MUD	7.2	52.8	SANDY AND BLUE
410.0	CARBONDALE	BRERETON	LIMESTONE	3.5	60.0	
406.5	CARBONDALE	HERRIN	COAL	6.0	63.5	
400.5	CARBONDALE		UNDERCLAY	2.5	69.5	

MAPID: 15701532000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 5 QUARTERS/FOOTAGES: 30' N line, 330' W line of SW SW

QUADRANGLE: BALDWIN LONGITUDE: -89.796712 GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.208917 DATE COLLECTED:

SURFACE ELEVATION (FT.): 460.0 LOGGED (FT.): 65.0 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT 6W WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
460.0	PLEISTOCENE		CLAY	23.0	0.0	
437.0	PLEISTOCENE		MUD	18.5	23.0	BLUE
418.5	PLEISTOCENE		BOULDER	2.3	41.5	BROKEN
416.2	PLEISTOCENE		CLAY	0.3	43.8	
415.8	PLEISTOCENE		BOULDER	0.7	44.2	
415.2	PLEISTOCENE		MUD	16.8	44.8	BLUE
398.3	CARBONDALE	SPRINGFIELD	COAL	2.3	61.7	TOP ERODED
396.1	CARBONDALE		UNDERCLAY	1.1	63.9	

MAPID: 15701533000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 5 QUARTERS/FOOTAGES: 1290' N line, 1340' E line

QUADRANGLE: BALDWIN LONGITUDE: -89.78419 GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.21617 DATE COLLECTED:

SURFACE ELEVATION (FT.): 470.0 LOGGED (FT.): 79.5 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT 9W WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
470.0	PLEISTOCENE		CLAY	22.0	0.0	
448.0	PLEISTOCENE		MUD	15.9	22.0	SANDY AND BLUE
432.1	PLEISTOCENE		BOULDER	0.3	37.9	
431.8	PLEISTOCENE		CLAY	4.3	38.2	
427.5	CARBONDALE	HERRIN	COAL/CLAYSTONE	2.5	42.5	TOP ERODED
425.0	CARBONDALE		CLAYSTONE	2.5	45.0	
422.5	CARBONDALE		SHALE	2.5	47.5	YELLOW
420.0	CARBONDALE		CLAYSTONE	4.5	50.0	
415.5	CARBONDALE		SHALE	0.7	54.5	DARK
414.8	CARBONDALE		LIMESTONE	2.8	55.2	HARD
412.1	CARBONDALE		SHALE	9.1	57.9	DARK
403.0	CARBONDALE		LIMESTONE	5.4	67.0	
397.6	CARBONDALE		SHALE	5.8	72.4	
391.7	CARBONDALE		UNDERCLAY	1.3	78.3	

MAPID: 15701533000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 5 QUARTERS/FOOTAGES: 1290' N line, 1340' E line

QUADRANGLE: BALDWIN LONGITUDE: -89.78419 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.21617 DATE COLLECTED:

SURFACE ELEVATION (FT.): 470.0 LOGGED (FT.): 77.8 LOG TYPE: Drillers Log

SOURCE: WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
432.6	MODESTO	PIASA	LIMESTONE	0.3	37.4	
432.3	MODESTO		CLAYSTONE	4.3	37.7	
428.0	CARBONDALE	DANVILLE	BONE COAL	2.5	42.0	
425.5	CARBONDALE		CLAYSTONE	5.0	44.5	
420.5	CARBONDALE		CLAYSTONE	4.5	49.5	
416.0	CARBONDALE		DARK GRAY SHALE	0.7	54.0	
415.3	CARBONDALE	BANKSTON FORK	LIMESTONE	2.8	54.7	
412.6	CARBONDALE	CONANT	DARK GRAY SHALE	9.1	57.4	
403.5	CARBONDALE	BRERETON	LIMESTONE	1.0	66.5	
402.5	CARBONDALE	ANNA	BLACK SHALE	4.5	67.5	
398.0	CARBONDALE	HERRIN	COAL	5.8	72.0	

MAPID: 15701534000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 5 QUARTERS/FOOTAGES: 90' N line, 81' W line of NW NE

QUADRANGLE: BALDWIN

LONGITUDE: -89.788528

GEOLOGIST: UITEMP

CONFIDENTIAL: N

LATITUDE: 38.219495

DATE COLLECTED:

SURFACE ELEVATION (FT.): 450.0

LOGGED (FT.): 49.5

LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT 10W

WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
450.0	PLEISTOCENE		CLAY	13.0	0.0	
437.0	PLEISTOCENE		SAND & GRAVEL	12.8	13.0	
424.2	CARBONDALE		LIMESTONE	0.3	25.8	
423.9	CARBONDALE		CALCAREOUS SHALE	0.9	26.1	
423.0	CARBONDALE		SHALE	8.5	27.0	DARK
414.5	CARBONDALE		LIMESTONE	1.5	35.5	
413.0	CARBONDALE		SHALE	0.8	37.0	DARK
412.2	CARBONDALE	BRERETON	LIMESTONE	1.2	37.8	
411.1	CARBONDALE	ANNA	BLACK SHALE	2.1	38.9	
409.0	CARBONDALE	HERRIN	COAL	6.7	41.0	
402.3	CARBONDALE		UNDERCLAY	1.8	47.7	

MAPID: 15701535000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 5 QUARTERS/FOOTAGES: NW NE

QUADRANGLE: BALDWIN LONGITUDE: -89.786472 GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.217932 DATE COLLECTED:

SURFACE ELEVATION (FT.): 420.0 LOGGED (FT.): 64.5 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT 11W WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
420.0	PLEISTOCENE		CLAY	17.0	0.0	
403.0	PLEISTOCENE		MUD	3.5	17.0	BLUE
399.5	CARBONDALE		LIMESTONE	3.0	20.5	
396.5	CARBONDALE		SHALE	1.8	23.5	DARK
394.7	CARBONDALE		LIMESTONE	0.5	25.3	
394.2	CARBONDALE		SHALE	5.3	25.8	BLUE
389.0	CARBONDALE		SHALE	8.5	31.0	LIGHT, HARD
380.5	CARBONDALE		LIMESTONE	2.5	39.5	
378.0	CARBONDALE		SHALE	3.0	42.0	DARK
375.0	CARBONDALE		SHALE	1.8	45.0	HARD
373.2	CARBONDALE		LIMESTONE	2.0	46.8	
371.2	CARBONDALE		LIMESTONE	8.0	48.8	DARK; WITH SHALE
363.2	CARBONDALE		BLACK SHALE	0.3	56.8	
362.9	CARBONDALE		LIMESTONE	0.4	57.1	
362.5	CARBONDALE	HERRIN	COAL	6.3	57.5	
356.2	CARBONDALE		UNDERCLAY	0.7	63.8	

MAPID: 15701544000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 5 QUARTERS/FOOTAGES: 25' N line, 202' E line of NW SW

QUADRANGLE: BALDWIN LONGITUDE: -89.794011 GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.212499 DATE COLLECTED:

SURFACE ELEVATION (FT.): 470.0 LOGGED (FT.): 74.5 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT 20W WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
470.0	PLEISTOCENE		SOIL	20.0	0.0	CLAYEY
450.0	PLEISTOCENE		SAND	17.9	20.0	GRAVELLY
432.1	PLEISTOCENE		BOULDER	0.3	37.9	
431.8	PLEISTOCENE		MUD	12.2	38.2	BLUE
419.7	PLEISTOCENE		BOULDER	0.3	50.3	
419.3	PLEISTOCENE		MUD	23.8	50.7	BLUE

MAPID: 15701545000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 5 QUARTERS/FOOTAGES: 660' S line, 330' W line of NW

QUADRANGLE: BALDWIN LONGITUDE: -89.796808 GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.21441 DATE COLLECTED:

SURFACE ELEVATION (FT.): 470.0 LOGGED (FT.): 84.5 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT 21W WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
470.0	PLEISTOCENE		CLAY	14.0	0.0	
456.0	PLEISTOCENE		SAND & GRAVEL	10.0	14.0	
446.0	PLEISTOCENE		CLAY	18.0	24.0	BLUE
428.0	PLEISTOCENE		SAND	12.0	42.0	
416.0	PLEISTOCENE		CLAY	9.2	54.0	BLUE
406.8	PLEISTOCENE		BOULDER	0.3	63.2	
406.7	PLEISTOCENE		CLAY	14.3	63.3	
392.3	PLEISTOCENE		BOULDER	3.4	77.7	
388.9	PLEISTOCENE		CLAY	3.4	81.1	

MAPID: 15701546000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 5 QUARTERS/FOOTAGES: 420' N line, 8' E line of NW SW

QUADRANGLE: BALDWIN LONGITUDE: -89.793311 GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.211405 DATE COLLECTED:

SURFACE ELEVATION (FT.): 475.0 LOGGED (FT.): 82.5 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT 22W WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
475.0	PLEISTOCENE		CLAY	17.0	0.0	
458.0	PLEISTOCENE		MUD	20.0	17.0	BLUE
438.0	PLEISTOCENE		SAND	14.6	37.0	
423.4	PLEISTOCENE		BOULDER	1.7	51.6	
421.7	PLEISTOCENE		MUD	17.0	53.3	SANDY AND BLUE
404.7			LIMESTONE	4.8	70.3	
400.0			SHALE	7.5	75.0	LIGHT

MAPID: 15701547000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 5 QUARTERS/FOOTAGES: 595' N line, 30' E line of NW SW

QUADRANGLE: BALDWIN LONGITUDE: -89.793379 GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.210921 DATE COLLECTED:

SURFACE ELEVATION (FT.): 475.0 LOGGED (FT.): 74.5 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT 23W WELL TYPE:

COMMENT: NO COAL

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
475.0	PLEISTOCENE		CLAY	25.0	0.0	
450.0	PLEISTOCENE		CLAY	10.0	25.0	SANDY
440.0	PLEISTOCENE		SAND	23.0	35.0	
417.0	PLEISTOCENE		BOULDER	0.7	58.0	
416.3	PLEISTOCENE		MUD	15.8	58.7	BLUE

MAPID: 15701548000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 5 QUARTERS/FOOTAGES: 770' N line, 30' E line of NW SW

QUADRANGLE: BALDWIN LONGITUDE: -89.79337 GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.210438 DATE COLLECTED:

SURFACE ELEVATION (FT.): 480.0 LOGGED (FT.): 84.5 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT 24W WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
480.0	PLEISTOCENE		CLAY	15.0	0.0	
465.0	PLEISTOCENE		GRAVEL	15.0	15.0	
450.0	PLEISTOCENE		MUD	12.5	30.0	BLUE
437.5	PLEISTOCENE		SAND	17.5	42.5	
420.0	PLEISTOCENE		MUD	24.5	60.0	BLUE

MAPID: 15701549000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 5 QUARTERS/FOOTAGES: NW

QUADRANGLE: BALDWIN LONGITUDE: -89.793369 GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.216161 DATE COLLECTED:

SURFACE ELEVATION (FT.): 480.0 LOGGED (FT.): 94.5 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT 25W WELL TYPE:

COMMENT: 3

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
480.0	PLEISTOCENE		CLAY	21.0	0.0	
459.0	PLEISTOCENE		SAND & GRAVEL	19.0	21.0	
440.0	PLEISTOCENE		CLAY & GRAVEL	7.0	40.0	
433.0	PLEISTOCENE		MUD	3.0	47.0	BLUE
430.0	PLEISTOCENE		SAND	34.5	50.0	
395.5	CARBONDALE		LIMESTONE	2.3	84.5	BROKEN
393.2	CARBONDALE	HERRIN	COAL	2.8	86.8	SOFT
390.5	CARBONDALE	HERRIN	COAL	3.8	89.5	
386.7	CARBONDALE		UNDERCLAY	1.3	93.3	

MAPID: 15701550000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 5 QUARTERS/FOOTAGES: NW SW

QUADRANGLE: BALDWIN LONGITUDE: -89.795586 GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.210786 DATE COLLECTED:

SURFACE ELEVATION (FT.): 470.0 LOGGED (FT.): 79.5 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT 26W WELL TYPE:

COMMENT: 3

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
470.0	PLEISTOCENE		CLAY	25.0	0.0	
445.0	PLEISTOCENE		SILT & SAND	30.0	25.0	BLUE
415.0	PLEISTOCENE		SILT & SAND	18.7	55.0	BLUE
396.3	CARBONDALE		LIMESTONE	2.1	73.7	BROKEN
394.2	CARBONDALE		LIMESTONE	1.5	75.8	
392.7	CARBONDALE	SPRINGFIELD	COAL	1.5	77.3	
391.2	CARBONDALE		UNDERCLAY	0.8	78.8	

MAPID: 15701530000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 6 QUARTERS/FOOTAGES: 30' S line, 210' E line

QUADRANGLE: BALDWIN LONGITUDE: -89.798542 GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.205505 DATE COLLECTED:

SURFACE ELEVATION (FT.): 470.0 LOGGED (FT.): 54.5 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT 4W WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
470.0	PLEISTOCENE		CLAY	21.0	0.0	
449.0	PLEISTOCENE		CLAY	26.0	21.0	SANDY AND BLUE
423.0	CARBONDALE	HERRIN	SMUT	2.5	47.0	SANDY
420.5	CARBONDALE		UNDERCLAY	5.0	49.5	

MAPID: 15726014000C VERSION: 1

PROJECT: LUMP

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 6 QUARTERS/FOOTAGES: 1320' N line, 0' E line of SE

QUADRANGLE: BALDWIN LONGITUDE: -89.797867 GEOLOGIST: J. MCBETH

CONFIDENTIAL: N LATITUDE: 38.208952 DATE COLLECTED: 6 / 12 / 1980

SURFACE ELEVATION (FT.): 466.0 LOGGED (FT.): 67.8 LOG TYPE: Drillers Log

SOURCE: PEABODY COAL WM#2 WELL TYPE: Water Well

COMMENT: PERMIT 63; PEABODY LOCATION Q-13

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
466.0	PLEISTOCENE		CLAY	26.0	0.0	
440.0	PLEISTOCENE		CLAY & GRAVEL	21.8	26.0	
418.2			LIMESTONE	3.4	47.8	
414.8			CLAYSTONE & SHALE	16.6	51.2	CLAYSHALE

MAPID: 15726015000C VERSION: 1

PROJECT: LUMP

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 6 QUARTERS/FOOTAGES: 1218' S line, 104' E line

QUADRANGLE: BALDWIN LONGITUDE: -89.79823 GEOLOGIST: J. MCBETH

CONFIDENTIAL: N LATITUDE: 38.208786 DATE COLLECTED: 4 / 12 / 1982

SURFACE ELEVATION (FT.): 466.5 LOGGED (FT.): 51.8 LOG TYPE: Drillers Log

SOURCE: PEABODY COAL M-W-6 WELL TYPE: Water Well

COMMENT: PERMIT 63

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
466.5	PLEISTOCENE		UNCLASSIFIED	6.2	0.0
460.3	PLEISTOCENE		CLAY	13.7	6.2
446.6	PLEISTOCENE		SAND & GRAVEL	3.8	19.9
442.8	PLEISTOCENE		CLAY & GRAVEL	7.5	23.7
435.3	PLEISTOCENE		GRAVEL	0.9	31.2
434.4	PLEISTOCENE		CLAY	10.9	32.1
423.5	PLEISTOCENE		CLAY & GRAVEL	8.6	43.0
414.9			LIMESTONE	0.2	51.6

MAPID: 15701490000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 7 QUARTERS/FOOTAGES: 640' N line, 560' E line

QUADRANGLE: BALDWIN LONGITUDE: -89.799783 GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.203652 DATE COLLECTED: 5 / 0 / 1947

SURFACE ELEVATION (FT.): 472.0 LOGGED (FT.): 48.0 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT 1Y WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
472.0	PLEISTOCENE		SOIL	18.0	0.0 CLAYEY
454.0	PLEISTOCENE		SAND	17.0	18.0
437.0	CARBONDALE	BRERETON	LIMESTONE	6.0	35.0
431.0	CARBONDALE		CLAYSTONE	0.8	41.0
430.2	CARBONDALE	HERRIN	COAL	5.3	41.8 HARD
424.8	CARBONDALE		UNDERCLAY	0.8	47.2

MAPID: 15701491000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 7 QUARTERS/FOOTAGES: SE NW NE NE

QUADRANGLE: BALDWIN LONGITUDE: -89.800631 GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.204051 DATE COLLECTED: 5 / 0 / 1947

SURFACE ELEVATION (FT.): 473.3 LOGGED (FT.): 44.0 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT 2Y WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
473.3	PLEISTOCENE		SOIL	19.5	0.0	CLAYEY
453.8	PLEISTOCENE		SAND	10.5	19.5	
443.3	CARBONDALE		BLACK SHALE	10.0	30.0	
433.3	CARBONDALE	SPRINGFIELD	COAL	1.0	40.0	
432.3	CARBONDALE	SPRINGFIELD	COAL	1.8	41.0	HARD
430.5	CARBONDALE		UNDERCLAY	1.2	42.8	

MAPID: 15701492000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 7 QUARTERS/FOOTAGES: 258' S line, 555' E line of SW NE

QUADRANGLE: BALDWIN LONGITUDE: -89.804353 GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.198842 DATE COLLECTED: 5 / 0 / 1947

SURFACE ELEVATION (FT.): 469.5 LOGGED (FT.): 57.0 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT 3Y WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
469.5	PLEISTOCENE		SOIL	17.0	0.0	CLAYEY
452.5	PLEISTOCENE		GRAVEL	3.0	17.0	
449.5	CARBONDALE		BLACK SHALE	11.0	20.0	
438.5	CARBONDALE		SANDSTONE	10.0	31.0	
428.5	CARBONDALE	BRERETON	LIMESTONE	7.0	41.0	
421.5	CARBONDALE	ANNA	BLACK SHALE	1.5	48.0	
420.0	CARBONDALE	ANNA	BLACK SHALE	1.0	49.5	
419.0	CARBONDALE	HERRIN	COAL	6.0	50.5	
413.0	CARBONDALE		UNDERCLAY	0.5	56.5	

MAPID: 15701537000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 7 QUARTERS/FOOTAGES: NE NE SE

QUADRANGLE: BALDWIN LONGITUDE: -89.799022 GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.197219 DATE COLLECTED: 2 / 0 / 1947

SURFACE ELEVATION (FT.): 470.6 LOGGED (FT.): 39.5 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 13W WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
470.6	PLEISTOCENE		CLAY	17.0	0.0	
453.6	PLEISTOCENE		MUD	10.2	17.0	GRAVELLY AND BLUE
443.4	CARBONDALE		LIMESTONE	4.0	27.2	
439.4	CARBONDALE		SHALE	2.8	31.2	DARK
436.6	CARBONDALE	BRERETON	LIMESTONE	0.8	34.0	
435.8	CARBONDALE		SMUT	0.5	34.8	
435.3	CARBONDALE	HERRIN	COAL	2.3	35.3	
433.1	CARBONDALE		UNDERCLAY	2.0	37.5	

MAPID: 15701567000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 7 QUARTERS/FOOTAGES: NE NE NE NE

QUADRANGLE: BALDWIN LONGITUDE: -89.798372 GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.204967 DATE COLLECTED: 5 / 0 / 1947

SURFACE ELEVATION (FT.): 472.0 LOGGED (FT.): 52.0 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 42W WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
472.0	PLEISTOCENE		CLAY	22.0	0.0	GRAVELLY
450.0	PLEISTOCENE		MUD	8.0	22.0	GRAVELLY AND BLUE
442.0	PLEISTOCENE		GRAVEL	5.0	30.0	SANDY
437.0	PLEISTOCENE		MUD	10.4	35.0	GRAVELLY AND BLUE
426.6	CARBONDALE	HERRIN	SMUT	1.3	45.4	
425.3	CARBONDALE	HERRIN	COAL	1.3	46.7	SOFT
424.1	CARBONDALE	HERRIN	COAL	3.8	47.9	
420.3	CARBONDALE		UNDERCLAY	0.3	51.7	

MAPID: 15701568000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 7 QUARTERS/FOOTAGES: NE NE NE NE

QUADRANGLE: BALDWIN LONGITUDE: -89.798372 GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.204967 DATE COLLECTED: 5 / 0 / 1947

SURFACE ELEVATION (FT.): 470.7 LOGGED (FT.): 52.0 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 43W WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
470.7	PLEISTOCENE		CLAY	24.0	0.0	
446.7	PLEISTOCENE		MUD	6.0	24.0	GRAVELLY AND BLUE
440.7	PLEISTOCENE		SAND & GRAVEL	15.5	30.0	
425.2	CARBONDALE	HERRIN	COAL	0.7	45.5	TOP ERODED
424.5	CARBONDALE	HERRIN	COAL	3.7	46.2	
420.9	CARBONDALE		UNDERCLAY	2.2	49.8	

MAPID: 15701569000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 7 QUARTERS/FOOTAGES: NE NE NE NE

QUADRANGLE: BALDWIN LONGITUDE: -89.798372 GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.204967 DATE COLLECTED: 5 / 0 / 1947

SURFACE ELEVATION (FT.): 470.4 LOGGED (FT.): 47.0 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 44W WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
470.4	PLEISTOCENE		CLAY	27.0	0.0	
443.4	PLEISTOCENE		MUD	3.0	27.0	BLUE
440.4	PLEISTOCENE		MUD	11.6	30.0	SANDY AND BLUE
428.8	CARBONDALE	HERRIN	SMUT	2.8	41.6	BLUE
426.1	CARBONDALE	HERRIN	COAL	1.3	44.3	SOFT
424.8	CARBONDALE	HERRIN	COAL	1.2	45.6	
423.6	CARBONDALE		UNDERCLAY	0.3	46.8	

MAPID: 1570157000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 7 QUARTERS/FOOTAGES: NE NE

QUADRANGLE: BALDWIN LONGITUDE: -89.800077 GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.203596 DATE COLLECTED: 5 / 0 / 1947

SURFACE ELEVATION (FT.): 470.7 LOGGED (FT.): 47.0 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 45W WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
470.7	PLEISTOCENE		CLAY	22.0	0.0	
448.7	PLEISTOCENE		SAND	3.0	22.0	
445.7	PLEISTOCENE		MUD	17.7	25.0	GRAVELLY AND BLUE
428.0	CARBONDALE	HERRIN	COAL	0.6	42.7	TOP ERODED
427.4	CARBONDALE	HERRIN	COAL	2.5	43.3	
424.9	CARBONDALE		UNDERCLAY	1.3	45.8	

MAPID: 15701575000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 7 QUARTERS/FOOTAGES: 10' S line, 264' E line of SE NE

QUADRANGLE: BALDWIN LONGITUDE: -89.798795 GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.198158 DATE COLLECTED: 5 / 0 / 1947

SURFACE ELEVATION (FT.): 423.0 LOGGED (FT.): 54.5 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 50W WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
423.0	PLEISTOCENE		CLAY	17.0	0.0	
406.0	PLEISTOCENE		SAND	23.2	17.0	
382.8	CARBONDALE		BLACK SHALE	1.4	40.2	SANDY
381.4	CARBONDALE	BRERETON	LIMESTONE	3.9	41.6	
377.5	CARBONDALE		SMUT	0.5	45.5	
377.0	CARBONDALE	HERRIN	COAL	5.8	46.0	
371.2	CARBONDALE		UNDERCLAY	2.7	51.8	

MAPID: 15701582000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 7 QUARTERS/FOOTAGES: 476' S line, 590' E line of NE SE

QUADRANGLE: BALDWIN LONGITUDE: -89.799957

GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.1958

DATE COLLECTED: 5 / 0 / 1947

SURFACE ELEVATION (FT.): 460.5 LOGGED (FT.): 74.5

LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 57W

WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
460.5	PLEISTOCENE		CLAY	20.8	0.0	
439.7	CARBONDALE		LIMESTONE	0.8	20.8	BROKEN
438.8	CARBONDALE		COAL	0.5	21.7	
438.3	CARBONDALE		CLAYSTONE	2.3	22.2	
436.0	CARBONDALE		SMUT	0.3	24.5	
435.7	CARBONDALE		COAL	1.3	24.8	SOFT
434.4	CARBONDALE		COAL	0.5	26.1	
433.9	CARBONDALE		UNDERCLAY	6.3	26.6	
427.7	CARBONDALE		CALCAREOUS SHALE	0.2	32.8	
427.5	CARBONDALE		SANDY SHALE	6.8	33.0	SANDY
420.7	CARBONDALE		LIMESTONE & SHALE	1.7	39.8	
419.1	CARBONDALE		SANDY SHALE	22.1	41.4	SANDY
397.0	CARBONDALE	BRERETON	LIMESTONE	3.3	63.5	
393.7	CARBONDALE	ANNA	BLACK SHALE	1.0	66.8	
392.7	CARBONDALE		LIMESTONE	1.3	67.8	
391.4	CARBONDALE		BLACK SHALE	2.7	69.1	
388.7	CARBONDALE		UNDERCLAY	2.7	71.8	

MAPID: 15701589000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 7 QUARTERS/FOOTAGES: 342' N line, 665' E line of NE SE

QUADRANGLE: BALDWIN LONGITUDE: -89.800207

GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.197186

DATE COLLECTED: 5 / 0 / 1947

SURFACE ELEVATION (FT.): 467.4 LOGGED (FT.): 34.5

LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 64W

WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
467.4	PLEISTOCENE		CLAY	20.0	0.0	
447.4	PLEISTOCENE		MUD	6.0	20.0	BLUE
441.4	CARBONDALE		LIMESTONE	1.5	26.0	
439.9	CARBONDALE		CLAYSTONE & LIMESTONE	3.1	27.5	BROKEN
436.8	CARBONDALE	HERRIN	COAL	2.3	30.6	
434.6	CARBONDALE		UNDERCLAY	1.7	32.8	

MAPID: 15701631000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 7 QUARTERS/FOOTAGES: NE NE

QUADRANGLE: BALDWIN LONGITUDE: -89.800077 GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.203596 DATE COLLECTED: 5 / 0 / 1947

SURFACE ELEVATION (FT.): 470.1 LOGGED (FT.): 55.0 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 1 WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
470.1	PLEISTOCENE		SOIL	22.0	0.0	CLAYEY
448.1	PLEISTOCENE		MUD	20.0	22.0	BLUE
428.1	PLEISTOCENE		GRAVEL	6.0	42.0	BROKEN
422.1	CARBONDALE	ANNA	BLACK SHALE	1.5	48.0	SOFT
420.6	CARBONDALE	HERRIN	COAL	4.5	49.5	
416.1	CARBONDALE		UNDERCLAY	1.0	54.0	

MAPID: 15701632000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 7 QUARTERS/FOOTAGES: NE NE

QUADRANGLE: BALDWIN LONGITUDE: -89.800077 GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.203596 DATE COLLECTED: 5 / 0 / 1947

SURFACE ELEVATION (FT.): 468.3 LOGGED (FT.): 52.0 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 2 WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
468.3	PLEISTOCENE		SOIL	23.0	0.0	CLAYEY
445.3	PLEISTOCENE		MUD	16.0	23.0	SANDY AND BLUE
429.3	PLEISTOCENE		GRAVEL	6.0	39.0	BROKEN
423.3	CARBONDALE		LIMESTONE	1.0	45.0	
422.3	CARBONDALE		SHALE	2.0	46.0	
420.3	CARBONDALE	SPRINGFIELD	COAL	3.0	48.0	
417.3	CARBONDALE		UNDERCLAY	1.0	51.0	

MAPID: 15701634000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 7 QUARTERS/FOOTAGES: SE NE

QUADRANGLE: BALDWIN LONGITUDE: -89.800124 GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.199952 DATE COLLECTED: 5 / 0 / 1947

SURFACE ELEVATION (FT.): 473.8 LOGGED (FT.): 49.0 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 4 WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
473.8	PLEISTOCENE		SOIL	20.0	0.0	CLAYEY
453.8	PLEISTOCENE		GRAVEL	24.0	20.0	SANDY
429.8	CARBONDALE	HERRIN	COAL	4.0	44.0	TOP ERODED
425.8	CARBONDALE		UNDERCLAY	1.0	48.0	

MAPID: 15701658000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 7 QUARTERS/FOOTAGES: 15' S line, 440' E line of SE NE SE SE

QUADRANGLE: BALDWIN LONGITUDE: -89.799461 GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.192704 DATE COLLECTED: 5 / 0 / 1947

SURFACE ELEVATION (FT.): 465.3 LOGGED (FT.): 57.5 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 28 WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
465.3	PLEISTOCENE		SOIL	26.5	0.0	CLAYEY
438.8	CARBONDALE		LIMESTONE	6.0	26.5	
432.8	CARBONDALE		SHALE	1.8	32.5	
431.0	CARBONDALE		LIMESTONE	1.5	34.3	
429.5	CARBONDALE		BLACK SHALE	0.7	35.8	BROKEN
428.8	CARBONDALE	SPRINGFIELD	COAL	1.0	36.5	
427.8	CARBONDALE		UNDERCLAY	5.0	37.5	
422.8	CARBONDALE		LIMESTONE	7.5	42.5	SANDY
415.3	CARBONDALE		SANDY SHALE	7.5	50.0	SANDY

MAPID: 1570166000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 7 QUARTERS/FOOTAGES: NE SE

QUADRANGLE: BALDWIN LONGITUDE: -89.800172 GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.196308 DATE COLLECTED: 5 / 0 / 1947

SURFACE ELEVATION (FT.): 458.7 LOGGED (FT.): 48.0 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 30 WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
458.7	PLEISTOCENE		CLAY	8.0	0.0	
450.7	PLEISTOCENE		GRAVEL	4.0	8.0	
446.7	PLEISTOCENE		CLAY	6.0	12.0	YELLOW
440.7	PLEISTOCENE		CLAY	5.5	18.0	GRAY
435.2	CARBONDALE	HERRIN	COAL	6.6	23.5	TOP ERODED
428.6	CARBONDALE		UNDERCLAY	4.9	30.1	
423.7	CARBONDALE		LIMESTONE	1.0	35.0	
422.7	CARBONDALE		SHALE	2.0	36.0	
420.7	CARBONDALE		LIMESTONE	4.5	38.0	
416.2	CARBONDALE		SHALE	1.3	42.5	
414.9	CARBONDALE	ST. DAVID	LIMESTONE	1.2	43.8	
413.7	CARBONDALE	SPRINGFIELD	COAL W/ BLACK SHALE	1.0	45.0	WITH SLATE
412.7	CARBONDALE		UNDERCLAY	2.0	46.0	

MAPID: 15701664000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 7 QUARTERS/FOOTAGES: 40' S line, 342' E line of NE SE

QUADRANGLE: BALDWIN LONGITUDE: -89.799098 GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.194593 DATE COLLECTED: 5 / 0 / 1947

SURFACE ELEVATION (FT.): 469.9 LOGGED (FT.): 48.0 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 34 WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
469.9	PLEISTOCENE		SOIL	26.0	0.0	CLAYEY
443.9	PLEISTOCENE		MUD	6.0	26.0	BLUE
437.9	PLEISTOCENE		CLAY	5.0	32.0	LIGHT
432.9	CARBONDALE		LIMESTONE	5.0	37.0	
427.9	CARBONDALE		SHALE	1.0	42.0	
426.9	CARBONDALE	ST. DAVID	LIMESTONE	1.0	43.0	
425.9	CARBONDALE		SHALE/COAL	0.7	44.0	
425.2	CARBONDALE	SPRINGFIELD	COAL	1.8	44.7	
423.4	CARBONDALE		UNDERCLAY	1.5	46.5	

MAPID: 15701687000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 7 QUARTERS/FOOTAGES: 2640' N line, 0' E line
 QUADRANGLE: BALDWIN LONGITUDE: -89.797871 GEOLOGIST: UITEMP
 CONFIDENTIAL: N LATITUDE: 38.198136 DATE COLLECTED: 6 / 0 / 1947
 SURFACE ELEVATION (FT.): 466.0 LOGGED (FT.): 36.5 LOG TYPE: Drillers Log
 SOURCE: MIDWEST RADIANT CO. 57 WELL TYPE:
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
466.0	PLEISTOCENE		SOIL	20.0	0.0	CLAYEY
446.0	PLEISTOCENE		MUD	7.5	20.0	BLUE
438.5	CARBONDALE	BRERETON	LIMESTONE	1.0	27.5	BLUE
437.5	CARBONDALE	ANNA	BLACK SHALE	5.5	28.5	
432.0	CARBONDALE	HERRIN	COAL	0.5	34.0	
431.5	CARBONDALE		UNDERCLAY	2.0	34.5	

MAPID: 15701687000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 7 QUARTERS/FOOTAGES: 2640' N line, 0' E line
 QUADRANGLE: BALDWIN LONGITUDE: -89.797871 GEOLOGIST:
 CONFIDENTIAL: N LATITUDE: 38.198136 DATE COLLECTED:
 SURFACE ELEVATION (FT.): 466.0 LOGGED (FT.): 34.0 LOG TYPE: Drillers Log
 SOURCE: WELL TYPE: Coal Test
 COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
446.5	CARBONDALE		GRAY SHALE	6.5	19.5	
440.0	CARBONDALE	BRERETON	LIMESTONE & SHALE	1.0	26.0	
439.0	CARBONDALE	ANNA	BLACK SHALE	1.0	27.0	
438.0	CARBONDALE	HERRIN	COAL	6.0	28.0	

MAPID: 15701688000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 7 QUARTERS/FOOTAGES: 330' S line, 330' E line of NE

QUADRANGLE: BALDWIN LONGITUDE: -89.799019 GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.199041 DATE COLLECTED: 6 / 0 / 1947

SURFACE ELEVATION (FT.): 462.0 LOGGED (FT.): 52.0 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 58 WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
462.0	PLEISTOCENE		SOIL	24.0	0.0	CLAYEY
438.0	PLEISTOCENE		SAND	8.0	24.0	
430.0	PLEISTOCENE		SAND	2.0	32.0	COAL OR CARBON TRACE
428.0	PLEISTOCENE		SAND	7.0	34.0	WITH CLAY; LIGHT
421.0	CARBONDALE	BRERETON	LIMESTONE	5.0	41.0	
416.0	CARBONDALE		SHALE	2.0	46.0	
414.0	CARBONDALE	HERRIN	COAL	2.0	48.0	
412.0	CARBONDALE		UNDERCLAY	2.0	50.0	

MAPID: 15700450000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 8 QUARTERS/FOOTAGES: SE NW

QUADRANGLE: BALDWIN LONGITUDE: -89.790878 GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.199896 DATE COLLECTED: 0 / 0 / 1934

SURFACE ELEVATION (FT.): 458.0 LOGGED (FT.): 60.5 LOG TYPE: Drillers Log

SOURCE: BALDWIN COAL CO WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
458.0	PLEISTOCENE		CLAY	9.0	0.0	GRAY
449.0	PLEISTOCENE		CLAY	8.0	9.0	YELLOW
441.0	PLEISTOCENE		CLAY	5.0	17.0	BLUE
436.0	PLEISTOCENE		CLAY	5.0	22.0	YELLOW AND BLUE
431.0	PLEISTOCENE		GRAVEL	2.0	27.0	WITH CLAY
429.0	CARBONDALE		SANDSTONE/SHALE	4.0	29.0	
425.0	CARBONDALE		LIMESTONE	2.0	33.0	
423.0	CARBONDALE		SHALE	8.0	35.0	BLACK
415.0	CARBONDALE		CHERT	1.0	43.0	
414.0	CARBONDALE		ROCK	9.0	44.0	BLACK
405.0	CARBONDALE		CHERT	1.0	53.0	
404.0	CARBONDALE		CLOD	0.5	54.0	WITH SLATE
403.5	CARBONDALE	HERRIN	COAL	6.0	54.5	

MAPID: 15701493000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 8 QUARTERS/FOOTAGES: 885' N line, 15' E line of SW SW

QUADRANGLE: BALDWIN LONGITUDE: -89.793298

GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.192016

DATE COLLECTED: 5 / 0 / 1947

SURFACE ELEVATION (FT.): 464.8 LOGGED (FT.): 37.0

LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT 4Y

WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
464.8	PLEISTOCENE		SOIL	19.0	0.0	CLAYEY
445.8	PLEISTOCENE		SAND	5.0	19.0	WITH CLAY
440.8	CARBONDALE		BLACK SHALE	5.0	24.0	
435.8	CARBONDALE		BLACK SHALE	0.5	29.0	
435.3	CARBONDALE	HERRIN	COAL	6.4	29.5	HARD
428.9	CARBONDALE		UNDERCLAY	1.1	35.9	

MAPID: 15701495000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 8 QUARTERS/FOOTAGES: 286' S line, 850' W line of SW SW

QUADRANGLE: BALDWIN LONGITUDE: -89.794958

GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.191614

DATE COLLECTED: 5 / 0 / 1947

SURFACE ELEVATION (FT.): 440.0 LOGGED (FT.): 26.0

LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 6Y

WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
440.0	PLEISTOCENE		SOIL	20.0	0.0	CLAYEY
420.0	CARBONDALE	HERRIN	COAL	1.3	20.0	TOP ERODED
418.7	CARBONDALE	HERRIN	COAL	3.8	21.3	HARD
415.0	CARBONDALE		UNDERCLAY	1.0	25.0	

MAPID: 15701501000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 8 QUARTERS/FOOTAGES: 725' N line, 354' W line of SE SE

QUADRANGLE: BALDWIN LONGITUDE: -89.782652 GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.192401 DATE COLLECTED: 5 / 0 / 1947

SURFACE ELEVATION (FT.): 462.8 LOGGED (FT.): 62.0 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 12Y WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
462.8	PLEISTOCENE		SOIL	11.0	0.0	CLAYEY
451.8	PLEISTOCENE		CLAY	14.0	11.0	GRAVELLY
437.8	CARBONDALE		BLACK SHALE	26.5	25.0	
411.3	CARBONDALE		SMUT	0.5	51.5	
410.8	CARBONDALE	HERRIN	COAL	3.8	52.0	FAIR
407.0	CARBONDALE		UNDERCLAY	6.3	55.8	

MAPID: 15701504000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 8 QUARTERS/FOOTAGES: 960' S line, 435' E line of SW SW

QUADRANGLE: BALDWIN LONGITUDE: -89.794759 GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.193475 DATE COLLECTED: 5 / 0 / 1947

SURFACE ELEVATION (FT.): 450.0 LOGGED (FT.): 43.0 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 15Y WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
450.0	PLEISTOCENE		SOIL	13.0	0.0	CLAYEY
437.0	PLEISTOCENE		SAND	8.0	13.0	
429.0	CARBONDALE		LIMESTONE	10.0	21.0	
419.0	CARBONDALE		CLAYSTONE	5.0	31.0	
414.0	CARBONDALE	HERRIN	COAL	1.3	36.0	SOFT
412.7	CARBONDALE	HERRIN	COAL	5.3	37.3	HARD
407.4	CARBONDALE		UNDERCLAY	0.4	42.6	

MAPID: 15701538000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 8 QUARTERS/FOOTAGES: 78' S line, 110' W line of NE SW

QUADRANGLE: BALDWIN LONGITUDE: -89.792847 GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.194673 DATE COLLECTED: 2 / 0 / 1947

SURFACE ELEVATION (FT.): 453.8 LOGGED (FT.): 49.5 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 14W WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
453.8	PLEISTOCENE		CLAY	17.0	0.0	
436.8	PLEISTOCENE		MUD	10.8	17.0	BLUE
426.0	PLEISTOCENE		BOULDER	0.5	27.8	
425.5	PLEISTOCENE		MUD	4.7	28.3	BLUE
420.8	CARBONDALE		LIMESTONE	1.5	33.0	
419.3	CARBONDALE		BLACK SHALE	0.8	34.5	
418.5	CARBONDALE	BRERETON	LIMESTONE	5.7	35.3	
412.8	CARBONDALE	ANNA	BLACK SHALE	0.6	41.0	
412.2	CARBONDALE	HERRIN	COAL	6.2	41.6	
406.0	CARBONDALE		UNDERCLAY	1.8	47.8	

MAPID: 15701539000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 8 QUARTERS/FOOTAGES: SE NE SW SW

QUADRANGLE: BALDWIN LONGITUDE: -89.793824 GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.193097 DATE COLLECTED: 2 / 0 / 1947

SURFACE ELEVATION (FT.): 469.7 LOGGED (FT.): 59.5 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 15W WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
469.7	PLEISTOCENE		CLAY	23.0	0.0	
446.7	PLEISTOCENE		MUD	4.0	23.0	BLUE
442.7	PLEISTOCENE		GRAVEL	4.0	27.0	WITH CLAY
438.7	PLEISTOCENE		CLAY & GRAVEL	18.3	31.0	BLUE
420.4	CARBONDALE		LIMESTONE	0.5	49.3	
419.9	CARBONDALE		SHALE	1.2	49.8	BLACK
418.7	CARBONDALE		BLACK SHALE	0.8	51.0	
417.9	CARBONDALE		LIMESTONE	0.3	51.8	
417.7	CARBONDALE	HERRIN	COAL	6.3	52.0	
411.4	CARBONDALE		UNDERCLAY	1.3	58.3	

MAPID: 15701540000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 8 QUARTERS/FOOTAGES: SE SE NE NE

QUADRANGLE: BALDWIN LONGITUDE: -89.779838

GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.202063

DATE COLLECTED: 2 / 0 / 1947

SURFACE ELEVATION (FT.): 480.9 LOGGED (FT.): 79.7

LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 16W

WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
480.9	PLEISTOCENE		SOIL	22.0	0.0	CLAYEY
458.9	PLEISTOCENE		MUD	8.0	22.0	BLUE
450.9	PLEISTOCENE		CLAY	18.3	30.0	
432.6	CARBONDALE		LIMESTONE	1.8	48.3	
430.9	CARBONDALE		SHALE	5.1	50.0	
425.8	CARBONDALE		LIMESTONE	2.8	55.1	
423.1	CARBONDALE		SHALE	8.5	57.8	DARK
414.6	CARBONDALE		LIMESTONE	3.8	66.3	
410.7	CARBONDALE	BRERETON	BLACK SHALE	1.9	70.2	
408.8	CARBONDALE	HERRIN	COAL	6.3	72.1	
402.6	CARBONDALE		UNDERCLAY	1.3	78.3	

MAPID: 15701541000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 8 QUARTERS/FOOTAGES: 72' N line, 15' E line of NE

QUADRANGLE: BALDWIN LONGITUDE: -89.779325 GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.205018 DATE COLLECTED: 2 / 0 / 1947

SURFACE ELEVATION (FT.): 476.1 LOGGED (FT.): 94.3 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 17W WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
476.1	PLEISTOCENE		CLAY	16.0	0.0	
460.1	PLEISTOCENE		CLAY & GRAVEL	24.2	16.0	BLUE WITH MUD
435.9	MODESTO		LIMESTONE	9.2	40.2	
426.8	MODESTO		SHALE	6.1	49.3	DARK
420.7	MODESTO		LIMESTONE	0.4	55.4	
420.3	CARBONDALE	DANVILLE	COAL	2.7	55.8	
417.6	CARBONDALE		UNDERCLAY	3.5	58.5	
414.1	CARBONDALE		SHALE	4.2	62.0	
409.9	CARBONDALE		LIMESTONE	3.3	66.2	
406.6	CARBONDALE		CALCAREOUS SHALE	5.0	69.5	
401.6	CARBONDALE		LIMESTONE	2.8	74.5	
398.8	CARBONDALE		SHALE	6.0	77.3	DARK
392.8	CARBONDALE		LIMESTONE	1.3	83.3	
391.4	CARBONDALE		BLACK SHALE	2.4	84.7	
389.0	CARBONDALE		LIMESTONE/SILTSTONE	0.8	87.1	
388.3	CARBONDALE	HERRIN	COAL	6.5	87.8	

MAPID: 15701581000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 8 QUARTERS/FOOTAGES: 475' S line, 10' W line of SW NW

QUADRANGLE: BALDWIN LONGITUDE: -89.797824 GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.199439 DATE COLLECTED: 5 / 0 / 1947

SURFACE ELEVATION (FT.): 473.5 LOGGED (FT.): 58.3 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 56W WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
473.5	PLEISTOCENE		CLAY	21.0	0.0	
452.5	PLEISTOCENE		SAND	20.5	21.0	
432.0	CARBONDALE		LIMESTONE	5.1	41.5	
426.9	CARBONDALE	BRERETON	LIMESTONE	5.8	46.6	HARD
421.2	CARBONDALE	HERRIN	COAL	5.4	52.3	
415.7	CARBONDALE		UNDERCLAY	0.5	57.8	

MAPID: 15701586000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 8 QUARTERS/FOOTAGES: 625' S line, 10' E line of SE SW

QUADRANGLE: BALDWIN LONGITUDE: -89.788602 GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.19253 DATE COLLECTED: 5 / 0 / 1947

SURFACE ELEVATION (FT.): 469.2 LOGGED (FT.): 85.9 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 61W WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
469.2	PLEISTOCENE		CLAY	22.0	0.0	
447.2	PLEISTOCENE		SAND & GRAVEL	2.0	22.0	
445.2	PLEISTOCENE		MUD	10.0	24.0	GRAVELLY AND BLUE
435.2	PLEISTOCENE		MUD	10.0	34.0	BLUE
425.2	PLEISTOCENE		CLAY, SAND & GRAVEL	8.6	44.0	
416.6	PLEISTOCENE		BOULDER	0.3	52.6	
416.4	PLEISTOCENE		CLAY	0.3	52.8	
416.1	CARBONDALE	HERRIN	COAL	1.0	53.1	SOFT; TOP ERODED
415.1	CARBONDALE	HERRIN	COAL	5.8	54.1	
409.3	CARBONDALE		UNDERCLAY	5.1	59.9	
404.2	CARBONDALE		LIMESTONE	0.9	65.0	
403.3	CARBONDALE		SHALE	7.0	65.9	
396.3	CARBONDALE		LIMESTONE	8.5	72.9	
387.8	CARBONDALE		BLACK SHALE & COAL	1.0	81.4	
386.8	CARBONDALE		UNDERCLAY	3.5	82.4	

MAPID: 15701588000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 8 QUARTERS/FOOTAGES: 530' S line, 10' E line of SE SW

QUADRANGLE: BALDWIN LONGITUDE: -89.788601 GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.192268 DATE COLLECTED: 5 / 0 / 1947

SURFACE ELEVATION (FT.): 468.9 LOGGED (FT.): 62.0 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 63W WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
468.9	PLEISTOCENE		CLAY	28.0	0.0	
440.9	PLEISTOCENE		MUD	12.0	28.0	BLUE
428.9	PLEISTOCENE		BOULDER	1.8	40.0	
427.1	PLEISTOCENE		MUD	15.2	41.8	WITH CLAY; BLUE
411.9	CARBONDALE	SPRINGFIELD	COAL	0.7	57.0	TOP ERODED
411.2	CARBONDALE	SPRINGFIELD	COAL	2.4	57.7	
408.8	CARBONDALE		UNDERCLAY	1.9	60.1	

MAPID: 15701636000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 8 QUARTERS/FOOTAGES: 275' S line, 528' E line of SE SW SW SW

QUADRANGLE: BALDWIN LONGITUDE: -89.797438

GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.191591

DATE COLLECTED: 5 / 0 / 1947

SURFACE ELEVATION (FT.): 447.3 LOGGED (FT.): 48.0

LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 6

WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
447.3	PLEISTOCENE		SOIL	36.0	0.0	CLAYEY
411.3	CARBONDALE		LIMESTONE	3.5	36.0	
407.8	CARBONDALE		SANDY SHALE	1.0	39.5	SANDY
406.8	CARBONDALE	BRERETON	LIMESTONE	1.0	40.5	
405.8	CARBONDALE		SHALE	1.5	41.5	
404.3	CARBONDALE	HERRIN	COAL	4.5	43.0	
399.8	CARBONDALE		UNDERCLAY	0.5	47.5	

MAPID: 15701637000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 8 QUARTERS/FOOTAGES: SW

QUADRANGLE: BALDWIN LONGITUDE: -89.793235

GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.194459

DATE COLLECTED: 5 / 0 / 1947

SURFACE ELEVATION (FT.): 446.6 LOGGED (FT.): 28.0

LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 7

WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
446.6	PLEISTOCENE		SOIL	12.0	0.0	CLAYEY
434.6	PLEISTOCENE		SAND	4.0	12.0	
430.6	CARBONDALE	BRERETON	LIMESTONE	2.0	16.0	
428.6	CARBONDALE		SHALE	2.7	18.0	
425.9	CARBONDALE	HERRIN	COAL	5.8	20.7	
420.1	CARBONDALE		UNDERCLAY	1.5	26.5	

MAPID: 15701638000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 8 QUARTERS/FOOTAGES: 15' S line, 655' W line of SW SW SW SW
 QUADRANGLE: BALDWIN LONGITUDE: -89.795644 GEOLOGIST: UITEMP
 CONFIDENTIAL: N LATITUDE: 38.19087 DATE COLLECTED: 5 / 0 / 1947
 SURFACE ELEVATION (FT.): 446.5 LOGGED (FT.): 28.0 LOG TYPE: Drillers Log
 SOURCE: MIDWEST RADIANT CO. 8 WELL TYPE:
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
446.5	PLEISTOCENE		SOIL	9.0	0.0	CLAYEY
437.5	PLEISTOCENE		SAND & GRAVEL	5.0	9.0	
432.5	PLEISTOCENE		CLAY	7.0	14.0	WITH SHALE
425.5	CARBONDALE	HERRIN	COAL	1.5	21.0	TOP ERODED
424.0	CARBONDALE	HERRIN	COAL	4.0	22.5	HARD
420.0	CARBONDALE		UNDERCLAY	1.5	26.5	

MAPID: 15701639000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 8 QUARTERS/FOOTAGES: 15' S line, 540' W line of SW SW SW SW
 QUADRANGLE: BALDWIN LONGITUDE: -89.796046 GEOLOGIST: UITEMP
 CONFIDENTIAL: N LATITUDE: 38.190872 DATE COLLECTED: 5 / 0 / 1947
 SURFACE ELEVATION (FT.): 447.5 LOGGED (FT.): 28.0 LOG TYPE: Drillers Log
 SOURCE: MIDWEST RADIANT CO. 9 WELL TYPE:
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
447.5	PLEISTOCENE		SOIL	9.0	0.0	CLAYEY
438.5	PLEISTOCENE		GRAVEL	12.0	9.0	SANDY
426.5	CARBONDALE	HERRIN	COAL	1.0	21.0	TOP ERODED
425.5	CARBONDALE	HERRIN	COAL	4.0	22.0	HARD
421.5	CARBONDALE		UNDERCLAY	2.0	26.0	

MAPID: 15701640000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 8 QUARTERS/FOOTAGES: 15' S line, 420' W line of SW SW SW SW
 QUADRANGLE: BALDWIN LONGITUDE: -89.796466 GEOLOGIST: UITEMP
 CONFIDENTIAL: N LATITUDE: 38.19087 DATE COLLECTED: 5 / 0 / 1947
 SURFACE ELEVATION (FT.): 454.5 LOGGED (FT.): 32.0 LOG TYPE: Drillers Log
 SOURCE: MIDWEST RADIANT CO. 10 WELL TYPE:
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
454.5	PLEISTOCENE		SOIL	18.0	0.0	CLAYEY
436.5	CARBONDALE		SANDSTONE/SHALE	10.0	18.0	
426.5	CARBONDALE	HERRIN	COAL	2.5	28.0	SOFT
424.0	CARBONDALE		UNDERCLAY	1.5	30.5	

MAPID: 15701642000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 8 QUARTERS/FOOTAGES: 400' S line, 210' W line of SW SW SW SW

QUADRANGLE: BALDWIN LONGITUDE: -89.797191

GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.191937

DATE COLLECTED: 5 / 0 / 1947

SURFACE ELEVATION (FT.): 464.7 LOGGED (FT.): 52.0

LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 12

WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
464.7	PLEISTOCENE		SOIL	28.0	0.0	CLAYEY
436.7	CARBONDALE		SANDY SHALE	10.0	28.0	SANDY
426.7	CARBONDALE	BRERETON	LIMESTONE	7.0	38.0	
419.7	CARBONDALE		SHALE	2.5	45.0	
417.2	CARBONDALE	HERRIN	COAL	3.0	47.5	
414.2	CARBONDALE		UNDERCLAY	1.5	50.5	

MAPID: 15701643000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 8 QUARTERS/FOOTAGES: 535' S line, 220' W line of SW SW SW SW

QUADRANGLE: BALDWIN LONGITUDE: -89.797154

GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.19231

DATE COLLECTED: 5 / 0 / 1947

SURFACE ELEVATION (FT.): 463.6 LOGGED (FT.): 54.5

LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 13

WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
463.6	PLEISTOCENE		SOIL	22.0	0.0	CLAYEY
441.6	PLEISTOCENE		GRAVEL	7.0	22.0	SANDY
434.6	CARBONDALE		SHALE	1.5	29.0	
433.1	CARBONDALE	HERRIN	COAL	0.5	30.5	SHELLY
432.6	CARBONDALE	HERRIN	COAL	4.0	31.0	HARD
428.6	CARBONDALE		UNDERCLAY	4.5	35.0	
424.1	CARBONDALE		LIMESTONE	3.5	39.5	
420.6	CARBONDALE		LIMESTONE	2.0	43.0	BROKEN
418.6	CARBONDALE	ST. DAVID	LIMESTONE	1.5	45.0	
417.1	CARBONDALE		SHALE	1.0	46.5	
416.1	CARBONDALE	SPRINGFIELD	COAL	3.3	47.5	
412.8	CARBONDALE		UNDERCLAY	3.3	50.8	
409.6	CARBONDALE		LIMESTONE	0.5	54.0	

MAPID: 15701645000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 8 QUARTERS/FOOTAGES: 710' S line, 15' E line of SE SW

QUADRANGLE: BALDWIN LONGITUDE: -89.788617 GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.192765 DATE COLLECTED: 5 / 0 / 1947

SURFACE ELEVATION (FT.): 460.8 LOGGED (FT.): 69.5 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 15 WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
460.8	PLEISTOCENE		CLAY	25.0	0.0	
435.8	PLEISTOCENE		MUD	22.0	25.0	BLUE
413.8	CARBONDALE	HERRIN	COAL	4.5	47.0	TOP ERODED
409.3	CARBONDALE		UNDERCLAY	2.5	51.5	
406.8	CARBONDALE		LIMESTONE	5.5	54.0	
401.3	CARBONDALE		SHALE	2.5	59.5	
398.8	CARBONDALE	ST. DAVID	LIMESTONE	1.0	62.0	
397.8	CARBONDALE		SHALE	1.5	63.0	
396.3	CARBONDALE	SPRINGFIELD	COAL	2.5	64.5	
393.8	CARBONDALE		UNDERCLAY	2.5	67.0	

MAPID: 15701649000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 8 QUARTERS/FOOTAGES: 10' S line, 385' E line of SE SW

QUADRANGLE: BALDWIN LONGITUDE: -89.789918 GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.190837 DATE COLLECTED: 5 / 0 / 1947

SURFACE ELEVATION (FT.): 463.0 LOGGED (FT.): 84.0 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 19 WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
463.0	PLEISTOCENE		SOIL	28.0	0.0	CLAYEY
435.0	PLEISTOCENE		GRAVEL	2.0	28.0	
433.0	PLEISTOCENE		MUD	30.0	30.0	BLUE
403.0	PLEISTOCENE		CLAY	19.0	60.0	BLUE
384.0	CARBONDALE	ST. DAVID	LIMESTONE	2.0	79.0	BROKEN
382.0	CARBONDALE		SHALE	1.0	81.0	
381.0	CARBONDALE	SPRINGFIELD	COAL	1.0	82.0	
380.0	CARBONDALE		UNDERCLAY	1.0	83.0	

MAPID: 15701651000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 8 QUARTERS/FOOTAGES: 355' S line, 660' E line of SE SW

QUADRANGLE: BALDWIN LONGITUDE: -89.790877 GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.191793 DATE COLLECTED: 5 / 0 / 1947

SURFACE ELEVATION (FT.): 662.0 LOGGED (FT.): 78.0 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 21 WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
662.0	PLEISTOCENE		SOIL	30.0	0.0	CLAYEY
632.0	PLEISTOCENE		MUD	25.0	30.0	BLUE
607.0	PLEISTOCENE		GRAVEL	11.0	55.0	WITH CLAY
596.0	CARBONDALE		LIMESTONE	10.0	66.0	
586.0	CARBONDALE	SPRINGFIELD	COAL	1.0	76.0	
585.0	CARBONDALE		UNDERCLAY	1.0	77.0	

MAPID: 15701653000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 8 QUARTERS/FOOTAGES: 685' S line, 970' E line of SE SW

QUADRANGLE: BALDWIN LONGITUDE: -89.791958 GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.192707 DATE COLLECTED: 5 / 0 / 1947

SURFACE ELEVATION (FT.): 465.0 LOGGED (FT.): 58.0 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 23 WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
465.0	PLEISTOCENE		SOIL	28.0	0.0	CLAYEY
437.0	PLEISTOCENE		MUD	24.5	28.0	BLUE
412.5	CARBONDALE	HERRIN	COAL	4.0	52.5	TOP ERODED
408.5	CARBONDALE		UNDERCLAY	1.5	56.5	

MAPID: 15701655000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 8 QUARTERS/FOOTAGES: 810' S line, 635' E line of SE SW

QUADRANGLE: BALDWIN LONGITUDE: -89.790787 GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.193049 DATE COLLECTED: 5 / 0 / 1947

SURFACE ELEVATION (FT.): 461.5 LOGGED (FT.): 57.0 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 25 WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
461.5	PLEISTOCENE		SOIL	29.0	0.0	CLAYEY
432.5	PLEISTOCENE		MUD	21.0	29.0	BLUE
411.5	CARBONDALE	HERRIN	COAL	1.3	50.0	TOP ERODED
410.2	CARBONDALE	HERRIN	COAL	4.2	51.3	HARD
406.0	CARBONDALE		UNDERCLAY	1.5	55.5	

MAPID: 15701656000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 8 QUARTERS/FOOTAGES: SW SW

QUADRANGLE: BALDWIN LONGITUDE: -89.795582 GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.192648 DATE COLLECTED: 5 / 0 / 1947

SURFACE ELEVATION (FT.): 452.3 LOGGED (FT.): 38.5 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 26 WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
452.3	PLEISTOCENE		CLAY	13.0	0.0	
439.3	PLEISTOCENE		SAND	4.0	13.0	
435.3	PLEISTOCENE		MUD	3.0	17.0	BLUE
432.3	PLEISTOCENE		GRAVEL	1.0	20.0	
431.3	CARBONDALE	BRERETON	LIMESTONE	2.7	21.0	
428.6	CARBONDALE	HERRIN	COAL	0.5	23.7	SHELLY
428.1	CARBONDALE	HERRIN	COAL	5.2	24.2	HARD
423.0	CARBONDALE		UNDERCLAY	8.7	29.3	
414.3	CARBONDALE		LIMESTONE	0.5	38.0	

MAPID: 15701657000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 8 QUARTERS/FOOTAGES: 35' N line, 660' E line of SW SW

QUADRANGLE: BALDWIN LONGITUDE: -89.795543 GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.194373 DATE COLLECTED: 5 / 0 / 1947

SURFACE ELEVATION (FT.): 449.6 LOGGED (FT.): 35.0 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 27 WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
449.6	PLEISTOCENE		SOIL	17.0	0.0	CLAYEY
432.6	PLEISTOCENE		BOULDER	2.0	17.0	
430.6	PLEISTOCENE		CLAY	5.0	19.0	
425.6	CARBONDALE		LIMESTONE	1.0	24.0	
424.6	CARBONDALE		SHALE	1.0	25.0	
423.6	CARBONDALE	BRERETON	LIMESTONE	0.5	26.0	
423.1	CARBONDALE	ANNA	BLACK SHALE	1.0	26.5	
422.1	CARBONDALE	HERRIN	COAL	5.0	27.5	
417.1	CARBONDALE	HERRIN	BLUE BAND	0.2	32.5	
416.9	CARBONDALE	HERRIN	COAL	1.1	32.7	
415.8	CARBONDALE		UNDERCLAY	1.3	33.8	

MAPID: 15701689000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 8 QUARTERS/FOOTAGES: 1500' S line, 10' E line of NW

QUADRANGLE: BALDWIN LONGITUDE: -89.788582

GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.202204

DATE COLLECTED: 6 / 0 / 1947

SURFACE ELEVATION (FT.): 470.3 LOGGED (FT.): 68.0

LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 59

WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
470.3	PLEISTOCENE		SOIL	20.0	0.0	CLAYEY
450.3	PLEISTOCENE		GRAVEL	20.0	20.0	SANDY
430.3	CARBONDALE		LIMESTONE	2.5	40.0	
427.8	CARBONDALE		SHALE	5.5	42.5	
422.3	CARBONDALE		LIMESTONE	2.5	48.0	
419.8	CARBONDALE		SHALE	7.5	50.5	BLUE
412.3	CARBONDALE	BRERETON	LIMESTONE	0.7	58.0	BLACK
411.6	CARBONDALE	ANNA	BLACK SHALE	2.3	58.7	
409.3	CARBONDALE	HERRIN	COAL	6.0	61.0	
403.3	CARBONDALE		UNDERCLAY	1.0	67.0	

MAPID: 15701690000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 8 QUARTERS/FOOTAGES: 200' N line, 100' E line of SE SE

QUADRANGLE: BALDWIN LONGITUDE: -89.779568

GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.193836

DATE COLLECTED: 6 / 0 / 1947

SURFACE ELEVATION (FT.): 478.9 LOGGED (FT.): 71.5

LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 60

WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
478.9	PLEISTOCENE		SOIL	22.0	0.0	CLAYEY
456.9	PLEISTOCENE		MUD	6.0	22.0	BLUE
450.9	PLEISTOCENE		CLAY	11.0	28.0	YELLOW
439.9	CARBONDALE		LIMESTONE	2.0	39.0	
437.9	CARBONDALE		LIMESTONE	7.0	41.0	WITH CLAY
430.9	CARBONDALE		LIMESTONE	3.0	48.0	
427.9	CARBONDALE		SHALE	5.0	51.0	BLUE
422.9	CARBONDALE	BRERETON	LIMESTONE	2.0	56.0	BLACK
420.9	CARBONDALE		BLACK SHALE	3.0	58.0	
417.9	CARBONDALE	ANNA	BLACK SHALE	1.0	61.0	
416.9	CARBONDALE	HERRIN	COAL	6.0	62.0	
410.9	CARBONDALE		UNDERCLAY	3.0	68.0	
407.9	CARBONDALE		LIMESTONE	0.5	71.0	

MAPID: 15701691000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 8 QUARTERS/FOOTAGES: 10' S line, 1320' W line of SE NE

QUADRANGLE: BALDWIN

LONGITUDE: -89.77928

GEOLOGIST: UITEMP

CONFIDENTIAL: N

LATITUDE: 38.198022

DATE COLLECTED: 6 / 0 / 1947

SURFACE ELEVATION (FT.): 471.0

LOGGED (FT.): 62.0

LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 61

WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
471.0	PLEISTOCENE		SOIL	20.0	0.0	CLAYEY
451.0	PLEISTOCENE		BOULDER	2.0	20.0	BROKEN
449.0	PLEISTOCENE		CLAY	7.5	22.0	LIGHT
441.5	CARBONDALE		LIMESTONE	2.5	29.5	
439.0	CARBONDALE		SHALE	4.5	32.0	
434.5	CARBONDALE		LIMESTONE	2.5	36.5	
432.0	CARBONDALE		SHALE	6.5	39.0	BLUE
425.5	CARBONDALE	BRERETON	LIMESTONE	5.5	45.5	BLACK
420.0	CARBONDALE	ANNA	BLACK SHALE	2.3	51.0	
417.7	CARBONDALE	HERRIN	COAL	6.3	53.3	
411.5	CARBONDALE		UNDERCLAY	2.5	59.5	

MAPID: 15700333000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 9 QUARTERS/FOOTAGES: 2640' N line, 2640' E line

QUADRANGLE: BALDWIN

LONGITUDE: -89.769193

GEOLOGIST: UITEMP

CONFIDENTIAL: N

LATITUDE: 38.197734

DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 474.2

LOGGED (FT.): 86.0

LOG TYPE: Drillers Log

SOURCE: H E WILLSON 1

WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
474.2	PLEISTOCENE		CLAY	42.0	0.0	
432.2	CARBONDALE		LIMESTONE	1.5	42.0	
430.7	CARBONDALE		BLACK SHALE	2.0	43.5	SOFT
428.7	CARBONDALE		COAL	3.0	45.5	POOR
425.7	CARBONDALE		SHALE	23.5	48.5	
402.2	CARBONDALE		LIMESTONE	3.0	72.0	
399.2	CARBONDALE		BLACK SHALE	4.0	75.0	SOFT
395.2	CARBONDALE	HERRIN	COAL	6.0	79.0	
389.2	CARBONDALE		UNDERCLAY	1.0	85.0	

MAPID: 15700333000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 9 QUARTERS/FOOTAGES: 2640' N line, 2640' E line

QUADRANGLE: BALDWIN LONGITUDE: -89.769193

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.197734

DATE COLLECTED:

SURFACE ELEVATION (FT.): 474.0 LOGGED (FT.): 85.0

LOG TYPE: Drillers Log

SOURCE:

WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
432.0	MODESTO	PIASA	LIMESTONE	1.5	42.0	
430.5	MODESTO		SHALE	2.0	43.5	
428.5	CARBONDALE	DANVILLE	COAL	3.0	45.5	
425.5	CARBONDALE		SHALE	23.5	48.5	
402.0	CARBONDALE	BRERETON	LIMESTONE	3.0	72.0	
399.0	CARBONDALE	ANNA	BLACK SHALE	4.0	75.0	
395.0	CARBONDALE	HERRIN	COAL	6.0	79.0	

MAPID: 15726016000C VERSION: 1

PROJECT: LUMP

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 10 QUARTERS/FOOTAGES: 0' S line, 330' W line of SE SW

QUADRANGLE: BALDWIN LONGITUDE: -89.754055

GEOLOGIST: J. MCBETH

CONFIDENTIAL: N LATITUDE: 38.190353

DATE COLLECTED: 6 / 9 / 1980

SURFACE ELEVATION (FT.): 493.8 LOGGED (FT.): 84.6

LOG TYPE: Drillers Log

SOURCE: PEABODY COAL WM#4

WELL TYPE: Water Well

COMMENT: PERMIT 63; PEABODY LOCATION F-17

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
493.8	PLEISTOCENE		CLAY	22.5	0.0	
471.3	PLEISTOCENE		SANDY CLAY	37.1	22.5	
434.2	PLEISTOCENE		CLAY	5.0	59.6	
429.2			LIMESTONE	9.2	64.6	
420.0			DARK SHALE	5.3	73.8	W/ COAL STREAKS
414.7			GRAY SHALE	5.5	79.1	

MAPID: 15790041000C **VERSION:** 1 **PROJECT:** LUMP97
COUNTY: RANDOLPH **TWP/RNG:** 4S 6W **SECTION:** 10 **QUARTERS/FOOTAGES:** 5' S line, 200' E line of NW SE
QUADRANGLE: TILDEN **LONGITUDE:** -89.746462 **GEOLOGIST:** D NORTH
CONFIDENTIAL: N **LATITUDE:** 38.193986 **DATE COLLECTED:** 8 / 9 / 1971
SURFACE ELEVATION (FT.): 492.2 **LOGGED (FT.):** 145.0 **LOG TYPE:** Drillers Log
SOURCE: PEABODY COAL CO. 12665C **WELL TYPE:** Coal Test
COMMENT: PERMIT # 176 BADLWIN

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
492.2	PLEISTOCENE		UNCONSOLIDATED	74.7	0.0	
417.5	MODESTO		GRAY SHALE	21.9	74.7	
395.6	MODESTO	PIASA	LIMESTONE	8.3	96.6	
387.3	MODESTO		DARK SHALE	6.6	104.9	
380.7	CARBONDALE	DANVILLE	COAL	3.4	111.5	
377.3	CARBONDALE		GRAY SHALE	0.8	114.9	
376.5	CARBONDALE	BANKSTON FORK	LIMESTONE	1.1	115.7	
375.4	CARBONDALE	BANKSTON FORK	GRAY SHALE	4.0	116.8	WITH LIMESTONE
371.4	CARBONDALE	BANKSTON FORK	LIMESTONE	2.9	120.8	
368.5	CARBONDALE		DARK SHALE	5.7	123.7	
362.8	CARBONDALE	CONANT	LIMESTONE	0.9	129.4	
361.9	CARBONDALE		DARK SHALE	0.3	130.3	
361.5	CARBONDALE	BRERETON	LIMESTONE	3.4	130.7	
358.2	CARBONDALE	ANNA	DARK SHALE	1.8	134.0	
356.4	CARBONDALE	ANNA	LIMESTONE	0.8	135.8	
355.5	CARBONDALE	ANNA	DARK SHALE	0.8	136.7	
354.7	CARBONDALE	HERRIN	COAL	6.4	137.5	
348.3	CARBONDALE		UNDERCLAY	1.1	143.9	

MAPID: 15723365000C **VERSION:** 1 **PROJECT:** NCRDS93
COUNTY: RANDOLPH **TWP/RNG:** 4S 6W **SECTION:** 11 **QUARTERS/FOOTAGES:** 1350' N line, 330' E line of NE
QUADRANGLE: TILDEN **LONGITUDE:** -89.723393 **GEOLOGIST:** UITEMP
CONFIDENTIAL: N **LATITUDE:** 38.201026 **DATE COLLECTED:** 2 / 20 / 1980
SURFACE ELEVATION (FT.): 467.0 **LOGGED (FT.):** 131.0 **LOG TYPE:** Drillers Log
SOURCE: EDWARD J KLOCKENKEMPER 1 **WELL TYPE:**
COMMENT: SAMPLE TOPS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
467.0			UNKNOWN	125.0	0.0	
342.0	CARBONDALE	HERRIN	COAL	6.0	125.0	

MAPID: 15790044000C VERSION: 1

PROJECT: LUMP97

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 12 QUARTERS/FOOTAGES: 400' N line, 25' E line of NW SW

QUADRANGLE: TILDEN LONGITUDE: -89.717645 GEOLOGIST: D NORTH

CONFIDENTIAL: N LATITUDE: 38.196485 DATE COLLECTED: 6 / 5 / 1975

SURFACE ELEVATION (FT.): 474.6 LOGGED (FT.): 137.2 LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO. 16206C WELL TYPE: Coal Test

COMMENT: PERMIT # 176 BALDWIN

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
474.6	PLEISTOCENE		UNCONSOLIDATED	30.6	0.0
444.0	MODESTO		GRAY SHALE	51.0	30.6
393.0	MODESTO	PIASA	LIMESTONE	10.1	81.6
382.9	MODESTO		SHALE	1.3	91.7
381.6	MODESTO		SANDSTONE	7.3	93.0
374.3	CARBONDALE		GRAY SHALE	9.8	100.3
364.5	CARBONDALE	BANKSTON FORK	LIMESTONE	2.5	110.1
362.0	CARBONDALE	BANKSTON FORK	GRAY SHALE	5.3	112.6
356.7	CARBONDALE	BANKSTON FORK	LIMESTONE	0.6	117.9
356.1	CARBONDALE		BLACK SHALE	7.2	118.5
348.9	CARBONDALE	BRERETON	LIMESTONE	3.3	125.7
345.6	CARBONDALE	HERRIN	COAL	5.8	129.0
339.8	CARBONDALE		SHALE	2.5	134.8

MAPID: 15701677000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 13 QUARTERS/FOOTAGES: 50' N line, 480' W line of NE NE

QUADRANGLE: TILDEN

LONGITUDE: -89.706527

GEOLOGIST: UITEMP

CONFIDENTIAL: N

LATITUDE: 38.190324

DATE COLLECTED: 6 / 0 / 1947

SURFACE ELEVATION (FT.): 440.0

LOGGED (FT.): 114.5

LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 47

WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
440.0	PLEISTOCENE		SOIL	39.0	0.0	CLAYEY
401.0	MODESTO		LIMESTONE	4.5	39.0	
396.5	MODESTO		SHALE	21.5	43.5	
375.0	MODESTO		LIMESTONE	9.5	65.0	
365.5	MODESTO		SHALE	1.5	74.5	LIGHT
364.0	MODESTO		SHALE	1.0	76.0	
363.0	CARBONDALE	DANVILLE	COAL	1.0	77.0	
362.0	CARBONDALE		UNDERCLAY	4.0	78.0	
358.0	CARBONDALE		SHALE	8.0	82.0	LIGHT
350.0	CARBONDALE		LIMESTONE	1.5	90.0	
348.5	CARBONDALE		BLACK SHALE	7.2	91.5	
341.3	CARBONDALE	BRERETON	LIMESTONE	4.3	98.7	
337.0	CARBONDALE		BLACK SHALE	3.5	103.0	
333.5	CARBONDALE	HERRIN	COAL	6.5	106.5	
327.0	CARBONDALE		UNDERCLAY	1.5	113.0	

MAPID: 15701677000C VERSION: 2

PROJECT: NCRDS87

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 13 QUARTERS/FOOTAGES: 50' N line, 480' W line of NE NE

QUADRANGLE: TILDEN LONGITUDE: -89.706527 GEOLOGIST: WEIBEL

CONFIDENTIAL: N LATITUDE: 38.190324 DATE COLLECTED: 6 / 0 / 1947

SURFACE ELEVATION (FT.): 440.0 LOGGED (FT.): 114.5 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT COMPANY WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
440.0			UNCONSOLIDATED	39.0	0.0	
401.0			LIMESTONE	4.5	39.0	
396.5			GRAY SHALE	21.5	43.5	
375.0			LIMESTONE	9.5	65.0	
365.5			SHALE	1.5	74.5	
364.0			DARK SHALE	1.0	76.0	
363.0			COAL	1.0	77.0	
362.0			UNDERCLAY	4.0	78.0	
358.0			SHALE	8.0	82.0	
350.0	CARBONDALE		LIMESTONE	1.5	90.0	
348.5	CARBONDALE		SHALE	7.2	91.5	
341.3	CARBONDALE	BRERETON	LIMESTONE	4.3	98.7	
337.0	CARBONDALE	ANNA	BLACK SHALE	3.5	103.0	
333.5	CARBONDALE	HERRIN	COAL	6.5	106.5	
327.0	CARBONDALE		UNDERCLAY	1.5	113.0	

MAPID: 15701678000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 13 QUARTERS/FOOTAGES: 50' S line, 680' W line of SW SW

QUADRANGLE: TILDEN LONGITUDE: -89.719839 GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.175833 DATE COLLECTED: 6 / 0 / 1947

SURFACE ELEVATION (FT.): 441.0 LOGGED (FT.): 92.5 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 48 WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
441.0	PLEISTOCENE		SOIL	18.0	0.0	CLAYEY
423.0	PLEISTOCENE		MUD	12.0	18.0	BLUE
411.0	PLEISTOCENE		SAND	30.0	30.0	
381.0	CARBONDALE		SHALE	4.0	60.0	LIGHT
377.0	CARBONDALE		LIMESTONE	5.5	64.0	
371.5	CARBONDALE		SHALE	6.5	69.5	BLACK
365.0	CARBONDALE	BRERETON	LIMESTONE	2.5	76.0	
362.5	CARBONDALE	ANNA	BLACK SHALE	2.5	78.5	
360.0	CARBONDALE	HERRIN	COAL	6.0	81.0	
354.0	CARBONDALE		UNDERCLAY	5.0	87.0	
349.0	CARBONDALE		LIMESTONE	0.5	92.0	

MAPID: 15726019000C **VERSION:** 1 **PROJECT:** LUMP
COUNTY: RANDOLPH **TWP/RNG:** 4S 6W **SECTION:** 13 **QUARTERS/FOOTAGES:** 684' S line, 1304' W line
QUADRANGLE: TILDEN **LONGITUDE:** -89.717662 **GEOLOGIST:** J. MCBETH
CONFIDENTIAL: N **LATITUDE:** 38.177593 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 442.4 **LOGGED (FT.):** 92.0 **LOG TYPE:** Drillers Log
SOURCE: PEABODY COAL 13929B **WELL TYPE:** Coal Test
COMMENT: PERMIT 156; RIVER KING #6

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
442.4	PLEISTOCENE		UNCONSOLIDATED	67.4	0.0
375.0	CARBONDALE		LIMESTONE	2.8	67.4
372.2	CARBONDALE		SHALE	6.5	70.2
365.7	CARBONDALE	BRERETON	LIMESTONE	8.0	76.7
357.7	CARBONDALE		SHALE	0.4	84.7
357.3	CARBONDALE	HERRIN	COAL	5.7	85.1
351.6	CARBONDALE		UNDERCLAY	1.2	90.8

MAPID: 15726020000C **VERSION:** 1 **PROJECT:** LUMP
COUNTY: RANDOLPH **TWP/RNG:** 4S 6W **SECTION:** 13 **QUARTERS/FOOTAGES:** 1611' S line, 2016' W line
QUADRANGLE: TILDEN **LONGITUDE:** -89.715186 **GEOLOGIST:** J. MCBETH
CONFIDENTIAL: N **LATITUDE:** 38.18016 **DATE COLLECTED:** 4 / 6 / 1972
SURFACE ELEVATION (FT.): 443.9 **LOGGED (FT.):** 98.0 **LOG TYPE:** Drillers Log
SOURCE: PEABODY COAL CO. 13937B **WELL TYPE:** Coal Test
COMMENT: PERMIT 156; RIVER KING #6

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
443.9	PLEISTOCENE		UNCONSOLIDATED	55.3	0.0
388.6	MODESTO	PIASA	LIMESTONE	3.0	55.3
385.6	MODESTO		CLAYSTONE	2.9	58.3
382.7	CARBONDALE	DANVILLE	COAL	0.2	61.2
382.5	CARBONDALE		SHALE	12.1	61.4
370.4	CARBONDALE		LIMESTONE	2.9	73.5
367.5	CARBONDALE		GRAY SHALE	7.3	76.4
360.2	CARBONDALE	BRERETON	LIMESTONE	5.2	83.7
355.0	CARBONDALE		GRAY SHALE	1.8	88.9
353.2	CARBONDALE	HERRIN	COAL	5.8	90.7
347.4	CARBONDALE		UNDERCLAY	1.5	96.5

MAPID: 15726021000C VERSION: 1

PROJECT: LUMP

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 13 QUARTERS/FOOTAGES: 933' S line, 553' W line
 QUADRANGLE: TILDEN LONGITUDE: -89.720294 GEOLOGIST: J. MCBETH
 CONFIDENTIAL: N LATITUDE: 38.17827 DATE COLLECTED: 5 / 16 / 1972
 SURFACE ELEVATION (FT.): 444.1 LOGGED (FT.): 94.0 LOG TYPE: Drillers Log
 SOURCE: PEABODY COAL 13983B WELL TYPE: Coal Test
 COMMENT: PERMIT 156; RIVER KING #6

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
444.1	PLEISTOCENE		UNCONSOLIDATED	51.2	0.0	
392.9	CARBONDALE	BANKSTON FORK	LIMESTONE	2.0	51.2	
390.9	CARBONDALE		GRAY SHALE	7.8	53.2	
383.1	CARBONDALE	ANVIL ROCK	SANDSTONE	1.1	61.0	
382.0	CARBONDALE		GRAY SHALE	2.8	62.1	
379.2	CARBONDALE		GRAY SHALE	6.2	64.9	WITH LIMESTONE BANDS
373.0	CARBONDALE		LIMESTONE	2.9	71.1	
370.1	CARBONDALE		GRAY SHALE	8.9	74.0	
361.2	CARBONDALE	BRERETON	LIMESTONE	4.2	82.9	
357.0	CARBONDALE	HERRIN	COAL	5.7	87.1	
351.3	CARBONDALE		UNDERCLAY	1.2	92.8	

MAPID: 15790026000C VERSION: 1

PROJECT: LUMP97

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 13 QUARTERS/FOOTAGES: 40' S line, 148' E line of SE
 QUADRANGLE: TILDEN LONGITUDE: -89.704024 GEOLOGIST: D NORTH
 CONFIDENTIAL: N LATITUDE: 38.175865 DATE COLLECTED: 3 / 18 / 1955
 SURFACE ELEVATION (FT.): 472.3 LOGGED (FT.): 127.1 LOG TYPE: Drillers Log
 SOURCE: PEABODY COAL CO. 3011B WELL TYPE: Coal Test
 COMMENT: PERMIT # 176 BALDWIN

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
472.3	PLEISTOCENE		UNCONSOLIDATED	60.7	0.0	
411.6	MODESTO		LIMESTONE	1.7	60.7	
409.9	MODESTO		GRAY SHALE	14.5	62.4	
395.4	MODESTO	PIASA	LIMESTONE	15.2	76.9	
380.2			GRAY SHALE	1.6	92.1	
378.6	CARBONDALE	BANKSTON FORK	LIMESTONE	0.7	93.7	
377.9	CARBONDALE	BANKSTON FORK	GRAY SHALE	7.0	94.4	
370.9	CARBONDALE	BANKSTON FORK	LIMESTONE	3.1	101.4	
367.8	CARBONDALE		GRAY SHALE	3.1	104.5	
364.7	CARBONDALE	BRERETON	ROCK	11.2	107.6	BLACK
353.5	CARBONDALE	ANNA	BLACK SHALE	1.3	118.8	
352.2	CARBONDALE	HERRIN	COAL	5.9	120.1	
346.3	CARBONDALE		UNDERCLAY	1.1	126.0	

MAPID: 15790054000C VERSION: 1

PROJECT: LUMP97

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 13 QUARTERS/FOOTAGES: 550' N line, 600' W line of NE NE

QUADRANGLE: TILDEN

LONGITUDE: -89.706107

GEOLOGIST: D NORTH

CONFIDENTIAL: N

LATITUDE: 38.188947

DATE COLLECTED: 12 / 22 / 1970

SURFACE ELEVATION (FT.): 449.4

LOGGED (FT.): 114.0

LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO. 10096C

WELL TYPE: Coal Test

COMMENT: PERMIT # 176 BALDWIN

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
449.4	PLEISTOCENE		UNCONSOLIDATED	40.8	0.0
408.6	MODESTO		SANDSTONE	4.6	40.8
404.0	MODESTO		GRAY SHALE	3.3	45.4
400.7	MODESTO		LIMESTONE	0.5	48.7
400.2	MODESTO		SHALE	14.1	49.2
386.1	MODESTO	PIASA	LIMESTONE	10.2	63.3
375.9	MODESTO		SHALE	2.0	73.5
373.9	MODESTO		GRAY SHALE	13.8	75.5
360.1	CARBONDALE	BANKSTON FORK	LIMESTONE	2.7	89.3
357.4	CARBONDALE	BANKSTON FORK	SHALE	6.9	92.0
350.5	CARBONDALE	BANKSTON FORK	LIMESTONE	1.3	98.9
349.2	CARBONDALE		SHALE	2.1	100.2
347.1	CARBONDALE	BRERETON	LIMESTONE	0.9	102.3
346.2	CARBONDALE	ANNA	BLACK SHALE	3.5	103.2
342.8	CARBONDALE	HERRIN	COAL	6.3	106.6
336.5	CARBONDALE		UNDERCLAY	1.1	112.9

MAPID: 15790065000C VERSION: 1

PROJECT: LUMP97

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 13 QUARTERS/FOOTAGES: 50' S line, 200' E line of SE

QUADRANGLE: TILDEN LONGITUDE: -89.704206 GEOLOGIST: D NORTH

CONFIDENTIAL: N LATITUDE: 38.175892 DATE COLLECTED: 2 / 24 / 1988

SURFACE ELEVATION (FT.): LOGGED (FT.): 148.2 LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO. 17521E WELL TYPE: Coal Test

COMMENT: PERMIT # 215 RIVERKING #6

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	PLEISTOCENE		UNCONSOLIDATED	50.0	0.0	
-	MODESTO		SHALE	22.2	50.0	
-	MODESTO	PIASA	LIMESTONE	13.2	72.2	
-	MODESTO		MUDSTONE	0.2	85.4	
-	CARBONDALE		SHALE	0.2	85.6	TRACES OF COAL
-	CARBONDALE		SANDSTONE	1.8	85.8	
-	CARBONDALE		MUDSTONE	6.5	87.6	
-	CARBONDALE		SHALE	3.5	94.1	
-	CARBONDALE	BANKSTON FORK	LIMESTONE	2.8	97.6	
-	CARBONDALE	BANKSTON FORK	SHALE	6.9	100.4	
-	CARBONDALE	BANKSTON FORK	LIMESTONE	1.3	107.3	
-	CARBONDALE		MUDSTONE	0.7	108.6	
-	CARBONDALE	CONANT	LIMESTONE	0.7	109.3	
-	CARBONDALE		SHALE	1.6	110.0	
-	CARBONDALE	BRERETON	LIMESTONE	3.0	111.6	
-	CARBONDALE	HERRIN	COAL	5.8	114.6	
-	CARBONDALE		UNDERCLAY	2.0	120.4	
-	CARBONDALE	HIGGINSVILLE	LIMESTONE	6.0	122.4	
-	CARBONDALE		MUDSTONE	8.0	128.4	
-	CARBONDALE		SANDSTONE	6.5	136.4	
-	CARBONDALE		SHALE	5.3	142.9	

MAPID: 15790066000C VERSION: 1

PROJECT: LUMP97

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 13 QUARTERS/FOOTAGES: 50' N line, 50' W line of SE SE SE

QUADRANGLE: TILDEN LONGITUDE: -89.705672 GEOLOGIST: D NORTH

CONFIDENTIAL: N LATITUDE: 38.17745 DATE COLLECTED: 9 / 9 / 1972

SURFACE ELEVATION (FT.): 455.8 LOGGED (FT.): 110.0 LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO. 15089B WELL TYPE: Coal Test

COMMENT: PERMIT # 215 RIVERKING #6

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
455.8	PLEISTOCENE		UNCONSOLIDATED	63.6	0.0
392.2	MODESTO	PIASA	LIMESTONE	8.4	63.6
383.8	MODESTO		GRAY SHALE	4.4	72.0
379.4	CARBONDALE	BANKSTON FORK	LIMESTONE	0.6	76.4
378.8	CARBONDALE	BANKSTON FORK	GRAY SHALE	9.5	77.0
369.3	CARBONDALE	BANKSTON FORK	LIMESTONE	3.1	86.5
366.2	CARBONDALE		DARK SHALE	5.5	89.6
360.7	CARBONDALE	BRERETON	LIMESTONE	8.2	95.1
352.5	CARBONDALE	ANNA	BLACK SHALE	0.5	103.3
352.0	CARBONDALE	HERRIN	COAL	6.0	103.8
346.0	CARBONDALE		UNDERCLAY	0.2	109.8

MAPID: 15790067000C VERSION: 1

PROJECT: LUMP97

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 13 QUARTERS/FOOTAGES: 50' N line, 300' E line of SE SW NE

QUADRANGLE: TILDEN LONGITUDE: -89.709247 GEOLOGIST: D NORTH

CONFIDENTIAL: N LATITUDE: 38.184792 DATE COLLECTED: 6 / 15 / 1976

SURFACE ELEVATION (FT.): 445.7 LOGGED (FT.): 110.0 LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO. 14853B WELL TYPE: Coal Test

COMMENT: PERMIT # 215 RIVERKING #6

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
445.7	PLEISTOCENE		SANDY CLAY	59.0	0.0
386.7	MODESTO	PIASA	LIMESTONE	10.3	59.0 GRAY
376.4	MODESTO		GRAY SHALE	12.2	69.3
364.2	CARBONDALE	BANKSTON FORK	LIMESTONE	3.5	81.5 GRAY
360.7	CARBONDALE		GRAY SHALE	5.3	85.0
355.4	CARBONDALE	BRERETON	LIMESTONE	3.7	90.3 BLACK
351.7	CARBONDALE	ANNA	BLACK SHALE	1.0	94.0
350.7	CARBONDALE	ANNA	LIMESTONE	4.8	95.0 BLACK
345.9	CARBONDALE	HERRIN	COAL	5.7	99.8
340.2	CARBONDALE		UNDERCLAY	2.5	105.5
337.7	CARBONDALE		GRAY SHALE	2.0	108.0

MAPID: 15790068000C VERSION: 1

PROJECT: LUMP97

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 13 QUARTERS/FOOTAGES: 250' S line, 20' W line of NE NW SE

QUADRANGLE: TILDEN

LONGITUDE: -89.710466

GEOLOGIST: D NORTH

CONFIDENTIAL: N

LATITUDE: 38.181938

DATE COLLECTED: 6 / 11 / 1976

SURFACE ELEVATION (FT.): 444.9

LOGGED (FT.): 105.0

LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO. 14850B

WELL TYPE: Coal Test

COMMENT: PERMIT # 215 RIVERKING #6

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
444.9	PLEISTOCENE		SANDY CLAY	54.5	0.0	
390.4	MODESTO	PIASA	LIMESTONE	11.5	54.5	DARK GRAY
378.9	MODESTO		GRAY SHALE	13.0	66.0	
365.9	CARBONDALE	BANKSTON FORK	LIMESTONE	3.5	79.0	GRAY
362.4	CARBONDALE		DARK SHALE	8.0	82.5	
354.4	CARBONDALE	BRERETON	LIMESTONE	2.5	90.5	BLACK
351.9	CARBONDALE	BRERETON	SANDSTONE	1.0	93.0	DARK
350.9	CARBONDALE	BRERETON	LIMESTONE	1.0	94.0	BLACK
349.9	CARBONDALE	HERRIN	COAL	6.3	95.0	
343.6	CARBONDALE		UNDERCLAY	3.7	101.3	

MAPID: 15790069000C VERSION: 1

PROJECT: LUMP97

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 13 QUARTERS/FOOTAGES: 340' S line, 300' E line of SE NE NE

QUADRANGLE: TILDEN LONGITUDE: -89.704561 GEOLOGIST: D NORTH

CONFIDENTIAL: N LATITUDE: 38.18773 DATE COLLECTED: 3 / 26 / 1975

SURFACE ELEVATION (FT.): 446.0 LOGGED (FT.): 115.0 LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO. 14446B WELL TYPE: Coal Test

COMMENT: PERMIT # 215 RIVERKING #6

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
446.0	PLEISTOCENE		UNCONSOLIDATED	51.4	0.0	
394.6	MODESTO		LIMESTONE	0.6	51.4	GRAY
394.0	MODESTO		CLAYSTONE	3.7	52.0	
390.3	MODESTO		GRAY SHALE	4.4	55.7	
385.9	MODESTO		CLAYSTONE	6.2	60.1	
379.7	MODESTO	PIASA	LIMESTONE	8.9	66.3	WHITE
370.8	MODESTO		CLAYSTONE	0.2	75.2	
370.6	MODESTO		CLAYSTONE	0.9	75.4	BLACK
369.7	MODESTO		GRAY SHALE	1.3	76.3	
368.4	CARBONDALE	DANVILLE	COAL	1.6	77.6	
366.8	CARBONDALE		UNDERCLAY	0.7	79.2	
366.1	CARBONDALE		SANDSTONE	0.8	79.9	GRAY
365.3	CARBONDALE		GRAY SHALE	1.1	80.7	
364.2	CARBONDALE		CLAYSTONE	3.3	81.8	
360.9	CARBONDALE		GRAY SHALE	6.8	85.1	
354.1	CARBONDALE	BANKSTON FORK	LIMESTONE	3.5	91.9	GRAY
350.6	CARBONDALE		DARK SHALE	7.7	95.4	
342.9	CARBONDALE	BRERETON	LIMESTONE	1.0	103.1	DARK
341.9	CARBONDALE	BRERETON	DARK SHALE	0.8	104.1	
341.1	CARBONDALE	BRERETON	LIMESTONE	0.5	104.9	DARK
340.6	CARBONDALE	ANNA	BLACK SHALE	1.9	105.4	
338.7	CARBONDALE	HERRIN	COAL	6.1	107.3	
332.6	CARBONDALE		UNDERCLAY	1.6	113.4	

MAPID: 15790070000C VERSION: 1

PROJECT: LUMP97

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 13 QUARTERS/FOOTAGES: 50' N line, 50' E line of NE SW SW

QUADRANGLE: TILDEN LONGITUDE: -89.717726 GEOLOGIST: D NORTH

CONFIDENTIAL: N LATITUDE: 38.179241 DATE COLLECTED: 3 / 22 / 1972

SURFACE ELEVATION (FT.): 446.7 LOGGED (FT.): 109.0 LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO. 13915B WELL TYPE: Coal Test

COMMENT: PERMIT # 215 RIVERKING #6

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
446.7	PLEISTOCENE		UNCONSOLIDATED	39.2	0.0	
407.5	MODESTO		LIMESTONE	2.0	39.2	
405.5	MODESTO		DARK SHALE	18.2	41.2	
387.3	MODESTO	PIASA	LIMESTONE	8.1	59.4	
379.2	MODESTO		DARK SHALE	3.0	67.5	
376.2	CARBONDALE	DANVILLE	COAL	0.9	70.5	
375.3	CARBONDALE		GRAY SHALE	10.3	71.4	
365.0	CARBONDALE	BANKSTON FORK	LIMESTONE	3.6	81.7	
361.4	CARBONDALE		DARK SHALE	5.0	85.3	
356.4	CARBONDALE	BRERETON	LIMESTONE	11.1	90.3	
345.3	CARBONDALE	HERRIN	COAL	5.8	101.4	
339.5	CARBONDALE		UNDERCLAY	1.8	107.2	

MAPID: 15701513000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 16 QUARTERS/FOOTAGES: 20' N line, 20' W line of NW NW

QUADRANGLE: BALDWIN LONGITUDE: -89.779133 GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.190718 DATE COLLECTED: 6 / 0 / 1947

SURFACE ELEVATION (FT.): 458.8 LOGGED (FT.): 60.0 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 24Y WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
458.8	PLEISTOCENE		SOIL	37.0	0.0	CLAYEY
421.8	CARBONDALE	BRERETON	LIMESTONE	12.0	37.0	SHELLY
409.8	CARBONDALE	ANNA	BLACK SHALE	3.0	49.0	
406.8	CARBONDALE	HERRIN	COAL	6.0	52.0	HARD
400.8	CARBONDALE		UNDERCLAY	2.0	58.0	

MAPID: 15701514000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 16 QUARTERS/FOOTAGES: 260' N line, 86' W line of NW SW

QUADRANGLE: BALDWIN LONGITUDE: -89.778899 GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.182803 DATE COLLECTED: 6 / 0 / 1947

SURFACE ELEVATION (FT.): 450.0 LOGGED (FT.): 52.0 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 25Y WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
450.0	PLEISTOCENE		SOIL	17.0	0.0	
433.0	PLEISTOCENE		CLAY	22.5	17.0	
410.5	CARBONDALE		LIMESTONE	3.0	39.5	
407.5	CARBONDALE		CLAYSTONE	1.0	42.5	
406.5	CARBONDALE	ANNA	BLACK SHALE	2.2	43.5	
404.3	CARBONDALE	HERRIN	COAL	5.3	45.7	
399.1	CARBONDALE		UNDERCLAY	1.1	50.9	

MAPID: 15701515000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 16 QUARTERS/FOOTAGES: 150' N line, 340' W line of NW SW

QUADRANGLE: BALDWIN LONGITUDE: -89.778012 GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.183087 DATE COLLECTED: 6 / 0 / 1947

SURFACE ELEVATION (FT.): 457.0 LOGGED (FT.): 56.0 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 26Y WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
457.0	PLEISTOCENE		SOIL	51.5	0.0	CLAYEY
405.5	CARBONDALE		SMUT	3.2	51.5	SOFT WITH COAL
402.3	CARBONDALE		UNDERCLAY	1.3	54.7	

MAPID: 15701516000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 16 QUARTERS/FOOTAGES: 325' S line, 485' W line of NW SW

QUADRANGLE: BALDWIN LONGITUDE: -89.777503

GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.180761

DATE COLLECTED: 6 / 0 / 1947

SURFACE ELEVATION (FT.): 460.0 LOGGED (FT.): 74.0

LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 27Y

WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
460.0	PLEISTOCENE		SOIL	35.0	0.0	SANDY
425.0	PLEISTOCENE		CLAY	27.0	35.0	BLUE
398.0	CARBONDALE		LIMESTONE	1.0	62.0	
397.0	CARBONDALE		CLAYSTONE	1.0	63.0	YELLOW
396.0	CARBONDALE	ANNA	BLACK SHALE	2.7	64.0	
393.3	CARBONDALE	HERRIN	COAL	0.7	66.7	SOFT
392.7	CARBONDALE	HERRIN	COAL	5.3	67.3	HARD
387.3	CARBONDALE		UNDERCLAY	1.3	72.7	

MAPID: 15701517000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 16 QUARTERS/FOOTAGES: 395' S line, 395' W line of SE SW

QUADRANGLE: BALDWIN LONGITUDE: -89.772918

GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.17721

DATE COLLECTED: 6 / 0 / 1947

SURFACE ELEVATION (FT.): 459.0 LOGGED (FT.): 68.0

LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 28Y

WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
459.0	PLEISTOCENE		SOIL	26.0	0.0	SANDY
433.0	PLEISTOCENE		CLAY	11.3	26.0	BLUE
421.7	CARBONDALE		LIMESTONE	10.7	37.3	
411.0	CARBONDALE		BLACK SHALE	5.0	48.0	
406.0	CARBONDALE	BRERETON	LIMESTONE	5.0	53.0	
401.0	CARBONDALE	ANNA	BLACK SHALE	3.0	58.0	
398.0	CARBONDALE	HERRIN	COAL	6.2	61.0	HARD
391.8	CARBONDALE		UNDERCLAY	0.8	67.2	

MAPID: 15701518000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 16 QUARTERS/FOOTAGES: 453' S line, 745' W line of SE SW

QUADRANGLE: BALDWIN LONGITUDE: -89.771695

GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.17734

DATE COLLECTED: 6 / 0 / 1947

SURFACE ELEVATION (FT.): 462.0 LOGGED (FT.): 36.0

LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 29Y

WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
462.0	PLEISTOCENE		SOIL	17.0	0.0	CLAYEY
445.0	PLEISTOCENE		CLAY	10.0	17.0	BLUE
435.0	CARBONDALE		LIMESTONE	2.3	27.0	
432.7	CARBONDALE	HERRIN	COAL	1.7	29.3	SHELLY
431.0	CARBONDALE		UNDERCLAY	4.0	31.0	
427.0	CARBONDALE		LIMESTONE	1.0	35.0	

MAPID: 15701519000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 16 QUARTERS/FOOTAGES: 580' S line, 225' E line of SE SW

QUADRANGLE: BALDWIN LONGITUDE: -89.770196

GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.177653

DATE COLLECTED: 6 / 0 / 1947

SURFACE ELEVATION (FT.): 553.0 LOGGED (FT.): 63.0

LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 30Y

WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
553.0	PLEISTOCENE		SOIL	39.5	0.0	CLAYEY
513.5	CARBONDALE		LIMESTONE	1.5	39.5	
512.0	CARBONDALE		BLACK SHALE	5.3	41.0	
506.7	CARBONDALE	BRERETON	LIMESTONE	3.5	46.3	
503.2	CARBONDALE	ANNA	BLACK SHALE	3.0	49.8	
500.2	CARBONDALE		ROCK	0.4	52.8	CAP
499.7	CARBONDALE	HERRIN	COAL	6.3	53.3	
493.5	CARBONDALE		UNDERCLAY	3.0	59.5	
490.5	CARBONDALE		LIMESTONE	0.5	62.5	

MAPID: 15701522000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 16 QUARTERS/FOOTAGES: 420' N line, 475' E line of NE NW

QUADRANGLE: BALDWIN LONGITUDE: -89.771226 GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.189428 DATE COLLECTED: 6 / 0 / 1947

SURFACE ELEVATION (FT.): 468.3 LOGGED (FT.): 88.0 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 1522 WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
468.3	PLEISTOCENE		CLAY	12.0	0.0	GRAVELLY
456.3	PLEISTOCENE		CLAY	9.0	12.0	BLUE
447.3	PLEISTOCENE		SAND	6.0	21.0	BLUE
441.3	PLEISTOCENE		CLAY	42.0	27.0	BLUE
399.3	CARBONDALE		LIMESTONE	5.0	69.0	
394.3	CARBONDALE		CLAYSTONE	3.0	74.0	YELLOW
391.3	CARBONDALE		BLACK SHALE	2.0	77.0	
389.3	CARBONDALE	BRERETON	LIMESTONE	1.0	79.0	
388.3	CARBONDALE	ANNA	BLACK SHALE	1.5	80.0	
386.8	CARBONDALE	HERRIN	COAL	5.3	81.5	
381.5	CARBONDALE		UNDERCLAY	1.3	86.8	

MAPID: 15701525000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 16 QUARTERS/FOOTAGES: 800' S line, 990' W line of NE

QUADRANGLE: BALDWIN LONGITUDE: -89.766048 GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.185412 DATE COLLECTED: 6 / 0 / 1947

SURFACE ELEVATION (FT.): 480.0 LOGGED (FT.): 88.0 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 36Y WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
480.0	PLEISTOCENE		SOIL	25.0	0.0	CLAYEY
455.0	PLEISTOCENE		CLAY	35.0	25.0	BLUE
420.0	CARBONDALE		LIMESTONE	3.0	60.0	
417.0	CARBONDALE		BLACK SHALE	5.0	63.0	
412.0	CARBONDALE		LIMESTONE	3.8	68.0	BLACK
408.2	CARBONDALE		BLACK SHALE	3.3	71.8	
405.0	CARBONDALE	BRERETON	LIMESTONE	4.7	75.0	
400.3	CARBONDALE	HERRIN	COAL	6.3	79.7	
394.0	CARBONDALE		UNDERCLAY	2.0	86.0	

MAPID: 15701542000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 16 QUARTERS/FOOTAGES: 40' S line, 260' W line of NW

QUADRANGLE: BALDWIN LONGITUDE: -89.778291 GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.183616 DATE COLLECTED: 2 / 0 / 1947

SURFACE ELEVATION (FT.): 458.0 LOGGED (FT.): 47.5 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 18W WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
458.0	PLEISTOCENE		CLAY	32.4	0.0
425.6	CARBONDALE		LIMESTONE	0.7	32.4
424.9	CARBONDALE		SHALE	0.5	33.1
424.4	CARBONDALE	BRERETON	LIMESTONE	4.8	33.6
419.7	CARBONDALE	ANNA	BLACK SHALE	1.9	38.3
417.7	CARBONDALE	HERRIN	COAL	6.2	40.3
411.6	CARBONDALE		UNDERCLAY	1.1	46.4

MAPID: 15701543000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 16 QUARTERS/FOOTAGES: 450' S line, 300' W line of NW SW

QUADRANGLE: BALDWIN LONGITUDE: -89.778151 GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.181124 DATE COLLECTED: 2 / 0 / 1947

SURFACE ELEVATION (FT.): 460.0 LOGGED (FT.): 87.5 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 19W WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
460.0	PLEISTOCENE		CLAY	12.0	0.0
448.0	PLEISTOCENE		SAND & GRAVEL	5.0	12.0
443.0	PLEISTOCENE		MUD	8.0	17.0 SANDY AND BLUE
435.0	PLEISTOCENE		CLAY	32.4	25.0
402.6	CARBONDALE	DANVILLE	COAL	2.0	57.4 TOP ERODED
400.6	CARBONDALE		UNDERCLAY	0.5	59.4
400.1	CARBONDALE		LIMESTONE	3.6	59.9
396.5	CARBONDALE		SHALE	5.8	63.5 DARK
390.7	CARBONDALE		LIMESTONE	1.3	69.3
389.5	CARBONDALE		SHALE	0.5	70.5
389.0	CARBONDALE		LIMESTONE	1.8	71.0
387.2	CARBONDALE		SHALE	0.8	72.8
386.3	CARBONDALE	BRERETON	LIMESTONE	1.3	73.7
385.0	CARBONDALE	ANNA	BLACK SHALE	2.8	75.0
382.2	CARBONDALE	HERRIN	COAL	8.0	77.8
374.2	CARBONDALE		UNDERCLAY	1.8	85.8

MAPID: 15701552000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 16 QUARTERS/FOOTAGES: NW SE NE NE

QUADRANGLE: BALDWIN LONGITUDE: -89.761703 GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.188092 DATE COLLECTED: 3 / 0 / 1947

SURFACE ELEVATION (FT.): 483.0 LOGGED (FT.): 74.5 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 28W WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
483.0	PLEISTOCENE		CLAY	50.0	0.0	
433.0	PLEISTOCENE		CLAY	12.3	50.0	SANDY
420.7	CARBONDALE		LIMESTONE	5.7	62.3	
415.1	CARBONDALE		SHALE	0.6	67.9	BLUE
414.5	CARBONDALE		LIMESTONE	0.3	68.5	
414.2	CARBONDALE	HERRIN	COAL	4.3	68.8	
410.0	CARBONDALE		UNDERCLAY	1.5	73.0	

MAPID: 15701553000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 16 QUARTERS/FOOTAGES: NW NW SW SW

QUADRANGLE: BALDWIN LONGITUDE: -89.778589 GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.179439 DATE COLLECTED: 3 / 0 / 1947

SURFACE ELEVATION (FT.): 462.0 LOGGED (FT.): 74.5 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 29W WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
462.0	PLEISTOCENE		CLAY	18.0	0.0	
444.0	PLEISTOCENE		GRAVEL	4.0	18.0	
440.0	PLEISTOCENE		CLAY	22.9	22.0	
417.1	PLEISTOCENE		BOULDER	0.2	44.9	
416.9	PLEISTOCENE		CLAY	23.9	45.1	
393.0	CARBONDALE		SMUT	1.1	69.0	
391.9	CARBONDALE	SPRINGFIELD	COAL	2.5	70.1	
389.4	CARBONDALE		UNDERCLAY	1.9	72.6	

MAPID: 15701554000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 16 QUARTERS/FOOTAGES: SW SW SE SE

QUADRANGLE: BALDWIN LONGITUDE: -89.763878 GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.17634 DATE COLLECTED:

SURFACE ELEVATION (FT.): 459.0 LOGGED (FT.): 55.0 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 30W WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
459.0	PLEISTOCENE		CLAY	23.0	0.0	
436.0	PLEISTOCENE		MUD	15.0	23.0	BLUE
421.0	CARBONDALE		LIMESTONE	0.8	38.0	
420.2	CARBONDALE		SMUT	0.5	38.8	
419.7	CARBONDALE		BLACK SHALE	0.3	39.3	
419.4	CARBONDALE	BRERETON	LIMESTONE	5.6	39.6	
413.8	CARBONDALE	ANNA	BLACK SHALE	2.2	45.2	
411.7	CARBONDALE	HERRIN	COAL	6.3	47.3	
405.3	CARBONDALE		UNDERCLAY	1.3	53.7	

MAPID: 15701587000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 16 QUARTERS/FOOTAGES: 135' N line, 10' W line of NE

QUADRANGLE: BALDWIN LONGITUDE: -89.769539 GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.190174 DATE COLLECTED: 5 / 27 / 1947

SURFACE ELEVATION (FT.): 484.9 LOGGED (FT.): 99.3 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT COMPANY 62W WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
484.9	PLEISTOCENE		CLAY	24.0	0.0	
460.9	PLEISTOCENE		MUD	43.0	24.0	BLUE
417.9	PLEISTOCENE		CLAY	6.0	67.0	YELLOW
411.9	PLEISTOCENE		CLAY	6.0	73.0	GRAVELLY
405.9	PLEISTOCENE		CLAY	3.8	79.0	BLUE
402.1	CARBONDALE	BRERETON	LIMESTONE	0.9	82.8	
401.1	CARBONDALE		SMUT	0.3	83.8	
400.8	CARBONDALE	HERRIN	COAL	5.8	84.1	
395.1	CARBONDALE		UNDERCLAY	3.8	89.8	
391.2	CARBONDALE		LIMESTONE	1.0	93.7	
390.2	CARBONDALE		SHALE	4.3	94.7	LIGHT
385.9	CARBONDALE		LIMESTONE	0.3	99.0	

MAPID: 15701595000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 16 QUARTERS/FOOTAGES: NE SW

QUADRANGLE: BALDWIN LONGITUDE: -89.771896 GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.181536 DATE COLLECTED: 6 / 0 / 1947

SURFACE ELEVATION (FT.): 472.5 LOGGED (FT.): 82.0 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 70W WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
472.5	PLEISTOCENE		CLAY	22.0	0.0	
450.5	PLEISTOCENE		SAND	5.0	22.0	
445.5	PLEISTOCENE		MUD	7.5	27.0	BLUE
438.0	PLEISTOCENE		SAND	1.5	34.5	
436.5	PLEISTOCENE		MUD	33.0	36.0	BLUE
403.5	CARBONDALE		SHALE	2.0	69.0	LIGHT
401.5	CARBONDALE		LIMESTONE	4.1	71.0	HARD
397.4	CARBONDALE		SHALE	0.5	75.1	LIGHT
396.9	CARBONDALE	BRERETON	LIMESTONE	0.3	75.6	
396.7	CARBONDALE		SMUT	0.5	75.8	
396.2	CARBONDALE	HERRIN	COAL	4.0	76.3	
392.2	CARBONDALE		UNDERCLAY	1.7	80.3	

MAPID: 15701596000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 16 QUARTERS/FOOTAGES: SE NW SW SW

QUADRANGLE: BALDWIN LONGITUDE: -89.777365 GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.1785 DATE COLLECTED: 6 / 0 / 1947

SURFACE ELEVATION (FT.): 472.7 LOGGED (FT.): 69.5 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 71W WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
472.7	PLEISTOCENE		CLAY	20.0	0.0	
452.7	PLEISTOCENE		MUD	33.1	20.0	BLUE
419.6	CARBONDALE		LIMESTONE	0.9	53.1	
418.7	CARBONDALE		CALCAREOUS SHALE	2.0	54.0	
416.7	CARBONDALE		SMUT	1.0	56.0	WITH SLATE
415.7	CARBONDALE		LIMESTONE/SILTSTONE	2.2	57.0	
413.5	CARBONDALE	BRERETON	LIMESTONE	3.0	59.2	
410.5	CARBONDALE		SMUT	0.2	62.2	
410.4	CARBONDALE	HERRIN	COAL	5.8	62.3	
404.6	CARBONDALE		CLAYSTONE	1.4	68.1	FINE

MAPID: 15701598000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 16 QUARTERS/FOOTAGES: 10' S line, 556' E line of SE NW

QUADRANGLE: BALDWIN LONGITUDE: -89.771427 GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.183365 DATE COLLECTED: 6 / 0 / 1947

SURFACE ELEVATION (FT.): 479.5 LOGGED (FT.): 94.5 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 73W WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
479.5	PLEISTOCENE		CLAY	22.0	0.0	
457.5	PLEISTOCENE		MUD	5.0	22.0	BLUE
452.5	PLEISTOCENE		SAND	10.0	27.0	
442.5	PLEISTOCENE		MUD	7.0	37.0	SANDY AND BLUE
435.5	PLEISTOCENE		MUD	3.0	44.0	BLUE
432.5	PLEISTOCENE		MUD	37.0	47.0	SANDY AND BLUE
395.5	CARBONDALE		SHALE	4.5	84.0	LIGHT
391.0	CARBONDALE	HERRIN	COAL	4.3	88.5	
386.7	CARBONDALE		UNDERCLAY	1.7	92.8	

MAPID: 15701599000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 16 QUARTERS/FOOTAGES: 10' N line, 332' E line of SE NW

QUADRANGLE: BALDWIN LONGITUDE: -89.770692 GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.18692 DATE COLLECTED: 6 / 0 / 1947

SURFACE ELEVATION (FT.): 482.4 LOGGED (FT.): 96.3 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 74W WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
482.4	PLEISTOCENE		CLAY	20.0	0.0	
462.4	PLEISTOCENE		MUD	7.0	20.0	BLUE
455.4	PLEISTOCENE		CLAY, SAND & GRAVEL	7.0	27.0	BLUE
448.4	PLEISTOCENE		MUD	30.0	34.0	BLUE
418.4	PLEISTOCENE		CLAY	18.5	64.0	BLUE
399.9	CARBONDALE	SPRINGFIELD	COAL	1.0	82.5	TOP ERODED
398.9	CARBONDALE	SPRINGFIELD	COAL	0.9	83.5	
398.0	CARBONDALE		UNDERCLAY	2.6	84.4	
395.4	CARBONDALE		LIMESTONE	1.5	87.0	WITH SHALE; LIGHT
393.9	CARBONDALE		LIMESTONE	2.8	88.5	
391.1	CARBONDALE		CALCAREOUS SHALE	4.8	91.3	
386.4	CARBONDALE		LIMESTONE	0.3	96.0	HARD

MAPID: 15701601000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 16 QUARTERS/FOOTAGES: 240' N line, 515' E line of NE SW

QUADRANGLE: BALDWIN LONGITUDE: -89.771278

GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.182672

DATE COLLECTED: 6 / 0 / 1947

SURFACE ELEVATION (FT.): 479.0 LOGGED (FT.): 79.5

LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 76W

WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
479.0	PLEISTOCENE		CLAY	22.0	0.0	
457.0	PLEISTOCENE		MUD	2.0	22.0	BLUE
455.0	PLEISTOCENE		MUD	44.3	24.0	SANDY AND BLUE
410.7	CARBONDALE	ANNA	BLACK SHALE	2.8	68.3	
408.0	CARBONDALE	HERRIN	COAL	5.5	71.0	
402.5	CARBONDALE		UNDERCLAY	3.0	76.5	

MAPID: 15701602000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 16 QUARTERS/FOOTAGES: 535' N line, 600' W line of NW SW

QUADRANGLE: BALDWIN LONGITUDE: -89.777102

GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.182001

DATE COLLECTED: 6 / 0 / 1947

SURFACE ELEVATION (FT.): 476.3 LOGGED (FT.): 79.0

LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 77W

WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
476.3	PLEISTOCENE		CLAY	22.0	0.0	
454.3	PLEISTOCENE		MUD	4.0	22.0	BLUE
450.3	PLEISTOCENE		SAND & GRAVEL	11.0	26.0	
439.3	PLEISTOCENE		MUD	27.0	37.0	SANDY
412.3	PLEISTOCENE		MUD	10.0	64.0	BLUE
402.3	PLEISTOCENE		UNCLASSIFIED	0.5	74.0	COAL TRACE
401.8	PLEISTOCENE		CLAY, SAND & GRAVEL	2.9	74.5	
398.9	CARBONDALE		LIMESTONE	0.8	77.4	
398.1	CARBONDALE		CALCAREOUS SHALE	0.8	78.2	

MAPID: 15701603000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 16 QUARTERS/FOOTAGES: SE SW

QUADRANGLE: BALDWIN LONGITUDE: -89.771858

GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.177909

DATE COLLECTED: 6 / 0 / 1947

SURFACE ELEVATION (FT.): 467.5 LOGGED (FT.): 69.5

LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 78W

WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
467.5	PLEISTOCENE		CLAY	17.0	0.0	
450.5	PLEISTOCENE		SAND & GRAVEL	6.0	17.0	
444.5	PLEISTOCENE		MUD	11.0	23.0	SANDY AND BLUE
433.5	PLEISTOCENE		SAND & GRAVEL	16.7	34.0	
416.8	CARBONDALE		LIMESTONE	2.1	50.7	WITH SHALE; LIGHT
414.7	CARBONDALE	BRERETON	LIMESTONE	4.3	52.8	
410.5	CARBONDALE	ANNA	BLACK SHALE	1.5	57.0	
409.0	CARBONDALE	HERRIN	COAL	6.0	58.5	
403.0	CARBONDALE		UNDERCLAY	3.0	64.5	
400.0	CARBONDALE		LIMESTONE	2.0	67.5	GRAY

MAPID: 15701604000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 16 QUARTERS/FOOTAGES: 1144' S line, 750' E line of SE SW

QUADRANGLE: BALDWIN LONGITUDE: -89.772052 GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.179258 DATE COLLECTED: 6 / 0 / 1947

SURFACE ELEVATION (FT.): 475.0 LOGGED (FT.): 84.5 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 79W WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
475.0	PLEISTOCENE		CLAY	17.0	0.0	
458.0	PLEISTOCENE		SAND & GRAVEL	6.0	17.0	
452.0	PLEISTOCENE		MUD	23.5	23.0	BLUE
428.5	PLEISTOCENE		BOULDER	0.5	46.5	
428.0	PLEISTOCENE		MUD	10.7	47.0	GRAVELLY AND BLUE
417.3	CARBONDALE	ANNA	BLACK SHALE	0.7	57.7	SOFT
416.7	CARBONDALE	HERRIN	COAL	1.2	58.3	SOFT
415.5	CARBONDALE	HERRIN	COAL	4.8	59.5	
410.7	CARBONDALE		UNDERCLAY	2.5	64.3	
408.2	CARBONDALE		LIMESTONE	3.4	66.8	
404.8	CARBONDALE		SHALE	0.3	70.2	LIGHT
404.5	CARBONDALE		LIMESTONE	0.5	70.5	
404.0	CARBONDALE		SHALE	2.0	71.0	LIGHT
402.0	CARBONDALE	ST. DAVID	LIMESTONE	1.5	73.0	
400.5	CARBONDALE	TURNER MINE	BLACK SHALE	2.3	74.5	
398.2	CARBONDALE	SPRINGFIELD	COAL	4.0	76.8	
394.2	CARBONDALE		UNDERCLAY	3.7	80.8	

MAPID: 15701605000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 16 QUARTERS/FOOTAGES: 850' S line, 755' E line of SE SW

QUADRANGLE: BALDWIN LONGITUDE: -89.772059 GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.178446 DATE COLLECTED: 6 / 0 / 1947

SURFACE ELEVATION (FT.): 460.0 LOGGED (FT.): 54.5 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 80W WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
460.0	PLEISTOCENE		CLAY	17.0	0.0	
443.0	PLEISTOCENE		SAND & GRAVEL	5.0	17.0	
438.0	PLEISTOCENE		MUD	20.0	22.0	SANDY AND BLUE
418.0	PLEISTOCENE		BOULDER	0.5	42.0	
417.5	PLEISTOCENE		MUD	0.7	42.5	BLUE
416.8	CARBONDALE	BRERETON	LIMESTONE	2.0	43.2	BLACK
414.8	CARBONDALE	ANNA	BLACK SHALE	2.8	45.2	
412.0	CARBONDALE	HERRIN	COAL	6.0	48.0	
406.0	CARBONDALE		UNDERCLAY	0.5	54.0	

MAPID: 15701606000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 16 QUARTERS/FOOTAGES: 533' S line, 825' E line of SE SW

QUADRANGLE: BALDWIN LONGITUDE: -89.772294 GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.177576 DATE COLLECTED: 6 / 0 / 1947

SURFACE ELEVATION (FT.): 457.0 LOGGED (FT.): 58.5 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 81W WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
457.0	PLEISTOCENE		CLAY	20.0	0.0	
437.0	PLEISTOCENE		MUD	16.6	20.0	SANDY AND BLUE
420.4	CARBONDALE		LIMESTONE	5.0	36.6	BLACK
415.4	CARBONDALE		BLACK SHALE	3.0	41.6	
412.4	CARBONDALE	BRERETON	LIMESTONE	1.3	44.6	
411.2	CARBONDALE	ANNA	BLACK SHALE	0.7	45.8	
410.5	CARBONDALE	HERRIN	COAL	6.2	46.5	
404.3	CARBONDALE		UNDERCLAY	1.6	52.7	
402.7	CARBONDALE		LIMESTONE & SHALE	4.3	54.3	

MAPID: 15701607000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 16 QUARTERS/FOOTAGES: 20' S line, 20' W line of SE SW

QUADRANGLE: BALDWIN LONGITUDE: -89.774223 GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.176211 DATE COLLECTED: 6 / 0 / 1947

SURFACE ELEVATION (FT.): 455.0 LOGGED (FT.): 59.5 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 82 WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
455.0	PLEISTOCENE		CLAY	21.0	0.0	
434.0	PLEISTOCENE		MUD	14.6	21.0	BLUE
419.4	CARBONDALE		LIMESTONE	0.5	35.6	
418.9	CARBONDALE		SHALE	0.3	36.1	BLACK
418.6	CARBONDALE	BRERETON	LIMESTONE	1.6	36.4	BLACK
417.0	CARBONDALE		BLACK SHALE	3.6	38.0	
413.4	CARBONDALE	HERRIN	COAL	5.8	41.6	
407.7	CARBONDALE		UNDERCLAY	5.3	47.3	
402.3	CARBONDALE		LIMESTONE	4.2	52.7	
398.2	CARBONDALE		SHALE	2.7	56.8	LIGHT

MAPID: 15701608000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 16 QUARTERS/FOOTAGES: 346' S line, 60' W line of SW SW

QUADRANGLE: BALDWIN LONGITUDE: -89.77899 GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.177235 DATE COLLECTED: 6 / 0 / 1947

SURFACE ELEVATION (FT.): 455.0 LOGGED (FT.): 54.5 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 83W WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
455.0	PLEISTOCENE		CLAY	20.0	0.0	
435.0	PLEISTOCENE		MUD	4.0	20.0	BLUE
431.0	PLEISTOCENE		SAND	5.0	24.0	
426.0	PLEISTOCENE		MUD	17.7	29.0	BLUE
408.3	CARBONDALE		SMUT	0.3	46.7	
408.0	CARBONDALE	HERRIN	COAL	1.0	47.0	SOFT
407.0	CARBONDALE	HERRIN	COAL	4.3	48.0	
402.7	CARBONDALE		UNDERCLAY	2.2	52.3	

MAPID: 15701609000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 16 QUARTERS/FOOTAGES: 20' S line, 495' E line of SE SW

QUADRANGLE: BALDWIN LONGITUDE: -89.77112 GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.17613 DATE COLLECTED: 6 / 0 / 1947

SURFACE ELEVATION (FT.): 450.0 LOGGED (FT.): 75.5 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 84W WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
450.0	PLEISTOCENE		CLAY	20.0	0.0	
430.0	PLEISTOCENE		CLAY	4.0	20.0	SANDY
426.0	PLEISTOCENE		MUD	9.5	24.0	BLUE
416.5	CARBONDALE		SMUT	0.2	33.5	
416.3	CARBONDALE		UNDERCLAY	2.3	33.7	
414.0	CARBONDALE		LIMESTONE & SHALE	2.2	36.0	
411.8	CARBONDALE		LIMESTONE	3.0	38.2	
408.8	CARBONDALE		SHALE	2.8	41.2	DARK
406.0	CARBONDALE		LIMESTONE	1.7	44.0	
404.3	CARBONDALE		SHALE	1.3	45.7	
403.0	CARBONDALE		LIMESTONE	3.0	47.0	
400.0	CARBONDALE		SHALE	8.0	50.0	BLACK
392.0	CARBONDALE	BRERETON	LIMESTONE	1.0	58.0	BLACK
391.0	CARBONDALE	ANNA	BLACK SHALE	2.8	59.0	
388.2	CARBONDALE	HERRIN	COAL	6.3	61.8	
381.8	CARBONDALE		UNDERCLAY	1.1	68.2	
380.7	CARBONDALE		LIMESTONE	3.3	69.3	
377.5	CARBONDALE		CALCAREOUS SHALE	3.0	72.5	

MAPID: 1570161000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 16 QUARTERS/FOOTAGES: 10' S line, 50' E line of SE SW

QUADRANGLE: BALDWIN LONGITUDE: -89.769564 GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.176061 DATE COLLECTED: 6 / 0 / 1947

SURFACE ELEVATION (FT.): 450.0 LOGGED (FT.): 49.5 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 85W WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
450.0	PLEISTOCENE		CLAY	20.0	0.0	
430.0	PLEISTOCENE		MUD	16.7	20.0	BLUE
413.3	CARBONDALE	BRERETON	LIMESTONE	0.3	36.7	BLACK
413.0	CARBONDALE		SHALE	3.5	37.0	SOFT
409.5	CARBONDALE	ANNA	BLACK SHALE	0.8	40.5	
408.7	CARBONDALE	HERRIN	COAL	1.3	41.3	
407.4	CARBONDALE	HERRIN	COAL	1.5	42.6	SHELLY
405.9	CARBONDALE	HERRIN	COAL	3.7	44.1	
402.2	CARBONDALE		UNDERCLAY	1.8	47.8	

MAPID: 15701611000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 16 QUARTERS/FOOTAGES: 332' S line, 320' E line of NW

QUADRANGLE: BALDWIN LONGITUDE: -89.770616 GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.184234 DATE COLLECTED: 6 / 0 / 1947

SURFACE ELEVATION (FT.): 476.5 LOGGED (FT.): 82.0 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 86W WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
476.5	PLEISTOCENE		CLAY	21.0	0.0	
455.5	PLEISTOCENE		MUD	3.0	21.0	BLUE
452.5	PLEISTOCENE		SAND	2.0	24.0	
450.5	PLEISTOCENE		MUD	50.6	26.0	BLUE
399.9	CARBONDALE	SPRINGFIELD	COAL	2.2	76.6	TOP ERODED
397.7	CARBONDALE		CLAYSTONE	3.3	78.8	FINE

MAPID: 15701647000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 16 QUARTERS/FOOTAGES: NE NE

QUADRANGLE: BALDWIN LONGITUDE: -89.762317 GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.188562 DATE COLLECTED: 6 / 0 / 1947

SURFACE ELEVATION (FT.): 479.0 LOGGED (FT.): 108.5 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 17 WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
479.0	PLEISTOCENE		SOIL	18.0	0.0	CLAYEY
461.0	PLEISTOCENE		MUD	33.0	18.0	BLUE
428.0	MODESTO		SHALE	6.0	51.0	LIGHT
422.0	MODESTO		LIMESTONE	10.5	57.0	
411.5	MODESTO		SHALE	1.0	67.5	
410.5	MODESTO		BLACK SHALE & COAL	1.0	68.5	
409.5	CARBONDALE		UNDERCLAY	4.5	69.5	
405.0	CARBONDALE		SHALE	3.0	74.0	
402.0	CARBONDALE		LIMESTONE	3.0	77.0	
399.0	CARBONDALE		LIMESTONE	5.0	80.0	BROKEN
394.0	CARBONDALE		LIMESTONE	2.5	85.0	
391.5	CARBONDALE		SHALE	2.0	87.5	DARK
389.5	CARBONDALE		LIMESTONE	3.5	89.5	
386.0	CARBONDALE	BRERETON	LIMESTONE	4.5	93.0	
381.5	CARBONDALE	ANNA	BLACK SHALE	2.5	97.5	SULP
379.0	CARBONDALE	HERRIN	COAL	6.5	100.0	
372.5	CARBONDALE		UNDERCLAY	2.0	106.5	

MAPID: 15701659000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 16 QUARTERS/FOOTAGES: SE NE SE SE

QUADRANGLE: BALDWIN LONGITUDE: -89.760247 GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.178065 DATE COLLECTED: 5 / 0 / 1947

SURFACE ELEVATION (FT.): 463.0 LOGGED (FT.): 73.0 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 29 WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
463.0	PLEISTOCENE		SOIL	20.0	0.0	CLAYEY
443.0	PLEISTOCENE		MUD	14.0	20.0	BLUE
429.0	CARBONDALE		SHALE	4.0	34.0	SOFT
425.0	CARBONDALE		LIMESTONE	2.0	38.0	BROKEN
423.0	CARBONDALE		SHALE	5.0	40.0	SOFT
418.0	CARBONDALE		LIMESTONE	3.0	45.0	
415.0	CARBONDALE		SHALE	5.0	48.0	HARD
410.0	CARBONDALE	BRERETON	LIMESTONE	6.5	53.0	
403.5	CARBONDALE	ANNA	BLACK SHALE	2.5	59.5	
401.0	CARBONDALE	HERRIN	COAL	4.8	62.0	
396.2	CARBONDALE	HERRIN	BLUE BAND	0.2	66.8	
396.0	CARBONDALE	HERRIN	COAL	1.5	67.0	
394.5	CARBONDALE		UNDERCLAY	4.0	68.5	
390.5	CARBONDALE		LIMESTONE	0.5	72.5	

MAPID: 15701663000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 16 QUARTERS/FOOTAGES: 690' N line, 10' W line of SW NE

QUADRANGLE: BALDWIN LONGITUDE: -89.769471 GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.185012 DATE COLLECTED: 5 / 0 / 1947

SURFACE ELEVATION (FT.): 474.0 LOGGED (FT.): 82.0 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 33 WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
474.0	PLEISTOCENE		CLAY	14.0	0.0	
460.0	PLEISTOCENE		MUD	57.0	14.0	BLUE
403.0	CARBONDALE	ANNA	BLACK SHALE	3.5	71.0	
399.5	CARBONDALE	HERRIN	COAL	4.3	74.5	
395.2	CARBONDALE	HERRIN	BLUE BAND	0.2	78.8	
395.0	CARBONDALE	HERRIN	COAL	1.2	79.0	
393.8	CARBONDALE		UNDERCLAY	1.8	80.2	

MAPID: 15701667000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 16 QUARTERS/FOOTAGES: SW SW NW NW

QUADRANGLE: BALDWIN LONGITUDE: -89.778596 GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.187591 DATE COLLECTED: 6 / 0 / 1947

SURFACE ELEVATION (FT.): 462.0 LOGGED (FT.): 89.0 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 37 WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
462.0	PLEISTOCENE		SOIL	25.0	0.0	CLAYEY
437.0	PLEISTOCENE		GRAVEL	3.0	25.0	
434.0	PLEISTOCENE		MUD	40.0	28.0	BLUE
394.0	PLEISTOCENE		CLAY	7.0	68.0	LIGHT
387.0	PLEISTOCENE		GRAVEL	3.0	75.0	
384.0	CARBONDALE	BRERETON	LIMESTONE	5.5	78.0	
378.5	CARBONDALE		MINE OPENING	1.0	83.5	SPOIL
377.5	CARBONDALE	HERRIN	COAL	3.2	84.5	
374.3	CARBONDALE		UNDERCLAY	1.3	87.7	

MAPID: 15701668000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 16 QUARTERS/FOOTAGES: 670' S line, 685' E line of SW NW

QUADRANGLE: BALDWIN LONGITUDE: -89.776751 GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.185318 DATE COLLECTED: 6 / 0 / 1947

SURFACE ELEVATION (FT.): 475.0 LOGGED (FT.): 81.0 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 38 WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
475.0	PLEISTOCENE		SOIL	30.0	0.0	CLAYEY
445.0	PLEISTOCENE		MUD	24.0	30.0	BLUE
421.0	PLEISTOCENE		BOULDER	2.0	54.0	
419.0	PLEISTOCENE		CLAY	10.0	56.0	LIGHT
409.0	PLEISTOCENE		CLAY	6.0	66.0	YELLOW
403.0	PLEISTOCENE		CLAY	1.5	72.0	WITH SMUT
401.5	CARBONDALE	SPRINGFIELD	COAL	1.5	73.5	TOP ERODED
400.0	CARBONDALE		UNDERCLAY	4.0	75.0	
396.0	CARBONDALE		LIMESTONE	2.0	79.0	

MAPID: 15701669000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 16 QUARTERS/FOOTAGES: 35' S line, 40' E line of SE NW

QUADRANGLE: BALDWIN LONGITUDE: -89.769626 GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.183388 DATE COLLECTED: 6 / 0 / 1947

SURFACE ELEVATION (FT.): 460.0 LOGGED (FT.): 65.0 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 39 WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
460.0	PLEISTOCENE		SOIL	30.0	0.0	CLAYEY
430.0	PLEISTOCENE		BOULDER	1.5	30.0	
428.5	PLEISTOCENE		CLAY	14.5	31.5	YELLOW
414.0	CARBONDALE		SHALE	3.5	46.0	LIGHT
410.5	CARBONDALE	BRERETON	LIMESTONE	4.5	49.5	
406.0	CARBONDALE	HERRIN	COAL	6.0	54.0	
400.0	CARBONDALE		UNDERCLAY	4.0	60.0	
396.0	CARBONDALE		LIMESTONE	1.0	64.0	

MAPID: 15701670000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 16 QUARTERS/FOOTAGES: 980' S line, 290' E line of NE NW

QUADRANGLE: BALDWIN LONGITUDE: -89.77058 GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.18965 DATE COLLECTED: 6 / 0 / 1947

SURFACE ELEVATION (FT.): 460.0 LOGGED (FT.): 76.0 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 40 WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
460.0	PLEISTOCENE		CLAY	30.0	0.0	
430.0	PLEISTOCENE		MUD	28.0	30.0	BLUE
402.0	CARBONDALE		SHALE	3.0	58.0	LIGHT
399.0	CARBONDALE	BRERETON	LIMESTONE	3.5	61.0	
395.5	CARBONDALE		MINE OPENING	0.5	64.5	SPOIL
395.0	CARBONDALE	HERRIN	COAL	5.5	65.0	
389.5	CARBONDALE		UNDERCLAY	4.5	70.5	
385.0	CARBONDALE		LIMESTONE	1.0	75.0	

MAPID: 15701671000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 16 QUARTERS/FOOTAGES: 900' S line, 125' W line of NE NW

QUADRANGLE: BALDWIN LONGITUDE: -89.773944

GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.18951

DATE COLLECTED: 6 / 0 / 1947

SURFACE ELEVATION (FT.): 462.0 LOGGED (FT.): 96.0

LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 41

WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
462.0	PLEISTOCENE		SOIL	24.0	0.0	CLAYEY
438.0	PLEISTOCENE		MUD	32.0	24.0	BLUE
406.0	PLEISTOCENE		CLAY	15.0	56.0	YELLOW
391.0	PLEISTOCENE		GRAVEL	8.0	71.0	
383.0	CARBONDALE	BRERETON	LIMESTONE	5.0	79.0	BROKEN
378.0	CARBONDALE		MINE OPENING	1.0	84.0	SPOIL
377.0	CARBONDALE	HERRIN	COAL	4.8	85.0	
372.2	CARBONDALE		UNDERCLAY	4.2	89.8	
368.0	CARBONDALE		SANDSTONE	2.0	94.0	

MAPID: 15701673000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 16 QUARTERS/FOOTAGES: 30' N line, 265' W line of SE NW

QUADRANGLE: BALDWIN LONGITUDE: -89.773438

GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.18693

DATE COLLECTED: 6 / 0 / 1947

SURFACE ELEVATION (FT.): 460.0 LOGGED (FT.): 78.0

LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 43

WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
460.0	PLEISTOCENE		SOIL	30.0	0.0	CLAYEY
430.0	PLEISTOCENE		MUD	28.0	30.0	BLUE
402.0	PLEISTOCENE		CLAY	12.0	58.0	YELLOW
390.0	PLEISTOCENE		CLAY	4.5	70.0	LIGHT
385.5	CARBONDALE	SPRINGFIELD	COAL	1.5	74.5	TOP ERODED
384.0	CARBONDALE		UNDERCLAY	2.0	76.0	

MAPID: 15701674000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 16 QUARTERS/FOOTAGES: 460' S line, 230' W line of NW

QUADRANGLE: BALDWIN LONGITUDE: -89.778396

GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.184778

DATE COLLECTED: 8 / 0 / 1947

SURFACE ELEVATION (FT.): 475.0 LOGGED (FT.): 75.0

LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 44

WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
475.0	PLEISTOCENE		SOIL	48.0	0.0	CLAYEY
427.0	PLEISTOCENE		CLAY & SHALE	3.0	48.0	LIGHT
424.0	PLEISTOCENE		BOULDER	1.5	51.0	
422.5	PLEISTOCENE		MUD	18.0	52.5	BLUE
404.5	CARBONDALE	SPRINGFIELD	COAL	2.7	70.5	TOP ERODED
401.8	CARBONDALE		UNDERCLAY	1.8	73.2	

MAPID: 15701675000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 16 QUARTERS/FOOTAGES: 660' S line, 150' W line of NW

QUADRANGLE: BALDWIN LONGITUDE: -89.778675

GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.185338

DATE COLLECTED: 6 / 0 / 1947

SURFACE ELEVATION (FT.): 478.0 LOGGED (FT.): 86.5

LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 45

WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
478.0	PLEISTOCENE		SOIL	30.0	0.0	CLAYEY
448.0	PLEISTOCENE		MUD	18.0	30.0	BLUE
430.0	PLEISTOCENE		CLAY	21.5	48.0	GRAVELLY AND YELLOW
408.5	CARBONDALE	BRERETON	LIMESTONE	3.5	69.5	
405.0	CARBONDALE		MINE OPENING	0.5	73.0	SPOIL
404.5	CARBONDALE	HERRIN	COAL	5.7	73.5	
398.8	CARBONDALE		UNDERCLAY	6.8	79.2	
392.0	CARBONDALE		LIMESTONE	0.5	86.0	

MAPID: 15701681000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 16 QUARTERS/FOOTAGES: 660' S line, 225' E line of NW

QUADRANGLE: BALDWIN LONGITUDE: -89.770294 GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.185132 DATE COLLECTED: 6 / 0 / 1947

SURFACE ELEVATION (FT.): 473.5 LOGGED (FT.): 88.0 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 51 WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
473.5	PLEISTOCENE		CLAY	20.0	0.0	
453.5	PLEISTOCENE		MUD	52.0	20.0	BLUE
401.5	CARBONDALE		BLACK SHALE	2.5	72.0	
399.0	CARBONDALE	BRERETON	LIMESTONE	4.0	74.5	
395.0	CARBONDALE	ANNA	BLACK SHALE	1.5	78.5	
393.5	CARBONDALE	HERRIN	COAL	6.3	80.0	
387.2	CARBONDALE		UNDERCLAY	1.8	86.3	

MAPID: 15701682000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 16 QUARTERS/FOOTAGES: 727' N line, 440' E line of SE NW

QUADRANGLE: BALDWIN LONGITUDE: -89.771045 GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.18495 DATE COLLECTED: 6 / 0 / 1947

SURFACE ELEVATION (FT.): 473.0 LOGGED (FT.): 78.0 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 52 WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
473.0	PLEISTOCENE		SOIL	22.0	0.0	CLAYEY
451.0	PLEISTOCENE		MUD	50.0	22.0	BLUE
401.0	CARBONDALE	DANVILLE	COAL	1.0	72.0	TOP ERODED
400.0	CARBONDALE		UNDERCLAY	4.0	73.0	
396.0	CARBONDALE		LIMESTONE	1.0	77.0	

MAPID: 15701684000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 16 QUARTERS/FOOTAGES: 40' N line, 550' E line of SE NW

QUADRANGLE: BALDWIN LONGITUDE: -89.771454

GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.186854

DATE COLLECTED: 6 / 0 / 1947

SURFACE ELEVATION (FT.): 470.5 LOGGED (FT.): 91.0

LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 54

WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
470.5	PLEISTOCENE		SOIL	25.0	0.0	CLAYEY
445.5	PLEISTOCENE		MUD	45.0	25.0	BLUE
400.5	PLEISTOCENE		MUD	12.0	70.0	LIGHT
388.5	CARBONDALE		MINE OPENING	2.0	82.0	SPOIL WITH SLATE
386.5	CARBONDALE	HERRIN	COAL	4.7	84.0	
381.8	CARBONDALE		UNDERCLAY	2.3	88.7	

MAPID: 15701685000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 16 QUARTERS/FOOTAGES: SW SE SE SE

QUADRANGLE: BALDWIN LONGITUDE: -89.761426

GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.176276

DATE COLLECTED: 6 / 0 / 1947

SURFACE ELEVATION (FT.): 465.0 LOGGED (FT.): 77.5

LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 55

WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
465.0	PLEISTOCENE		SOIL	29.5	0.0	CLAYEY
435.5	CARBONDALE		LIMESTONE	6.5	29.5	
429.0	CARBONDALE		MINE OPENING	0.5	36.0	SPOIL
428.5	CARBONDALE		BLACK SHALE	2.0	36.5	SOFT
426.5	CARBONDALE		COAL	0.5	38.5	
426.0	CARBONDALE		UNDERCLAY	2.0	39.0	
424.0	CARBONDALE		SHALE	9.5	41.0	
414.5	CARBONDALE		LIMESTONE	2.0	50.5	
412.5	CARBONDALE		SHALE	5.5	52.5	BLUE
407.0	CARBONDALE	BRERETON	LIMESTONE	9.0	58.0	BLACK
398.0	CARBONDALE	ANNA	BLACK SHALE	3.0	67.0	
395.0	CARBONDALE	HERRIN	COAL	6.0	70.0	
389.0	CARBONDALE		UNDERCLAY	1.0	76.0	
388.0	CARBONDALE		LIMESTONE	0.5	77.0	

MAPID: 15701686000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 16 QUARTERS/FOOTAGES: 10' S line, 30' E line of SW NE

QUADRANGLE: BALDWIN

LONGITUDE: -89.764729

GEOLOGIST: UITEMP

CONFIDENTIAL: N

LATITUDE: 38.183198

DATE COLLECTED: 6 / 0 / 1947

SURFACE ELEVATION (FT.): 482.0

LOGGED (FT.): 80.5

LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 56

WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
482.0	PLEISTOCENE		SOIL	23.0	0.0	CLAYEY
459.0	PLEISTOCENE		GRAVEL	6.0	23.0	
453.0	PLEISTOCENE		MUD	20.5	29.0	SANDY AND BLUE
432.5	CARBONDALE		LIMESTONE	7.0	49.5	
425.5	CARBONDALE		MINE OPENING	1.0	56.5	SPOIL
424.5	CARBONDALE		SHALE	3.5	57.5	BLUE
421.0	CARBONDALE	HERRIN	COAL	2.8	61.0	
418.2	CARBONDALE		UNDERCLAY	2.2	63.8	
416.0	CARBONDALE		SANDY SHALE	4.0	66.0	SANDY
412.0	CARBONDALE		LIMESTONE	3.0	70.0	
409.0	CARBONDALE		SHALE	6.5	73.0	HARD
402.5	CARBONDALE		LIMESTONE	1.0	79.5	BLACK

MAPID: 15701505000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 17 QUARTERS/FOOTAGES: 80' N line, 690' W line of SE NE

QUADRANGLE: BALDWIN

LONGITUDE: -89.781479

GEOLOGIST: UITEMP

CONFIDENTIAL: N

LATITUDE: 38.186938

DATE COLLECTED: 5 / 0 / 1947

SURFACE ELEVATION (FT.): 472.2

LOGGED (FT.): 65.0

LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 16Y

WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
472.2	PLEISTOCENE		SOIL	45.0	0.0	CLAYEY
427.2	CARBONDALE		LIMESTONE	7.0	45.0	
420.2	CARBONDALE		BLACK SHALE	6.5	52.0	WITH LIMESTONE; BK
413.7	CARBONDALE	HERRIN	COAL	5.8	58.5	HARD
407.9	CARBONDALE		UNDERCLAY	0.7	64.3	

MAPID: 15701506000C **VERSION:** 1 **PROJECT:** NCRDS93
COUNTY: RANDOLPH **TWP/RNG:** 4S 6W **SECTION:** 17 **QUARTERS/FOOTAGES:** 91' N line, 535' W line of SE NE
QUADRANGLE: BALDWIN **LONGITUDE:** -89.782021 **GEOLOGIST:** UITEMP
CONFIDENTIAL: N **LATITUDE:** 38.186912 **DATE COLLECTED:** 5 / 0 / 1947
SURFACE ELEVATION (FT.): 469.8 **LOGGED (FT.):** 61.0 **LOG TYPE:** Drillers Log
SOURCE: MIDWEST RADIANT CO. 17Y **WELL TYPE:**
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
469.8	PLEISTOCENE		SOIL	14.0	0.0	CLAYEY
455.8	PLEISTOCENE		SAND	7.0	14.0	WITH CLAY
448.8	PLEISTOCENE		CLAY	35.0	21.0	
413.8	CARBONDALE		SMUT	3.0	56.0	WITH COAL
410.8	CARBONDALE		UNDERCLAY	2.0	59.0	

MAPID: 15701507000C **VERSION:** 1 **PROJECT:** NCRDS93
COUNTY: RANDOLPH **TWP/RNG:** 4S 6W **SECTION:** 17 **QUARTERS/FOOTAGES:** 430' N line, 945' W line of SE NE
QUADRANGLE: BALDWIN **LONGITUDE:** -89.780587 **GEOLOGIST:** UITEMP
CONFIDENTIAL: N **LATITUDE:** 38.185968 **DATE COLLECTED:** 5 / 0 / 1947
SURFACE ELEVATION (FT.): 466.3 **LOGGED (FT.):** 58.5 **LOG TYPE:** Drillers Log
SOURCE: MIDWEST RADIANT COMPANY 18Y **WELL TYPE:**
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
466.3	PLEISTOCENE		SOIL	41.0	0.0	CLAYEY
425.3	PLEISTOCENE		BOULDER	7.0	41.0	SHELLY
418.3	PLEISTOCENE		CLAY	1.5	48.0	
416.8	CARBONDALE	BRERETON	LIMESTONE	2.0	49.5	BLACK
414.8	CARBONDALE	ANNA	BLACK SHALE	0.7	51.5	
414.1	CARBONDALE	HERRIN	COAL	5.4	52.2	HARD
408.7	CARBONDALE		UNDERCLAY	0.9	57.6	

MAPID: 15701508000C **VERSION:** 1 **PROJECT:** NCRDS93
COUNTY: RANDOLPH **TWP/RNG:** 4S 6W **SECTION:** 17 **QUARTERS/FOOTAGES:** 590' N line, 810' W line of SE SE
QUADRANGLE: BALDWIN **LONGITUDE:** -89.781068 **GEOLOGIST:** UITEMP
CONFIDENTIAL: N **LATITUDE:** 38.178287 **DATE COLLECTED:** 6 / 0 / 1947
SURFACE ELEVATION (FT.): 454.7 **LOGGED (FT.):** 47.5 **LOG TYPE:** Drillers Log
SOURCE: MIDWEST RADIANT CO. 19Y **WELL TYPE:**
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
454.7	PLEISTOCENE		SOIL	43.0	0.0	
411.7	CARBONDALE		SMUT	3.8	43.0	MEDIUM HARD WITH COAL
407.9	CARBONDALE		UNDERCLAY	0.7	46.8	

MAPID: 15701509000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 17 QUARTERS/FOOTAGES: 100' S line, 240' E line of SE NE

QUADRANGLE: BALDWIN LONGITUDE: -89.78004 GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.183808 DATE COLLECTED: 6 / 0 / 1947

SURFACE ELEVATION (FT.): 449.1 LOGGED (FT.): 48.0 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 20Y WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
449.1	PLEISTOCENE		SOIL	34.5	0.0	CLAYEY
414.6	CARBONDALE		LIMESTONE	2.7	34.5	BLUE
411.9	CARBONDALE		CLAYSTONE	0.8	37.2	
411.1	CARBONDALE	BRERETON	LIMESTONE	1.5	38.0	
409.6	CARBONDALE	ANNA	BLACK SHALE	0.5	39.5	BLACK
409.1	CARBONDALE	HERRIN	COAL	6.0	40.0	SHELLY
403.1	CARBONDALE		UNDERCLAY	2.0	46.0	

MAPID: 15701510000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 17 QUARTERS/FOOTAGES: 330' S line, 380' E line of SE NE

QUADRANGLE: BALDWIN LONGITUDE: -89.780532 GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.184445 DATE COLLECTED: 6 / 0 / 1947

SURFACE ELEVATION (FT.): 449.8 LOGGED (FT.): 48.0 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 21Y WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
449.8	PLEISTOCENE		SOIL	18.0	0.0	GRAVELLY
431.8	PLEISTOCENE		CLAY	24.0	18.0	
407.8	PLEISTOCENE		UNCLASSIFIED	1.0	42.0	SMUT
406.8	PLEISTOCENE		CLAY	5.0	43.0	

MAPID: 15701511000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 17 QUARTERS/FOOTAGES: 15' S line, 380' E line of SE NE

QUADRANGLE: BALDWIN LONGITUDE: -89.780529 GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.183575 DATE COLLECTED: 6 / 0 / 1947

SURFACE ELEVATION (FT.): 449.0 LOGGED (FT.): 48.0 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 22Y WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
449.0	PLEISTOCENE		SOIL	21.0	0.0	GRAVELLY
428.0	PLEISTOCENE		CLAY	21.0	21.0	
407.0	PLEISTOCENE		UNCLASSIFIED	1.0	42.0	SMUT
406.0	PLEISTOCENE		CLAY	5.0	43.0	

MAPID: 15701512000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 17 QUARTERS/FOOTAGES: 140' N line, 298' E line of NE SE

QUADRANGLE: BALDWIN

LONGITUDE: -89.780244

GEOLOGIST: UITEMP

CONFIDENTIAL: N

LATITUDE: 38.183148

DATE COLLECTED: 6 / 0 / 1947

SURFACE ELEVATION (FT.): 448.0

LOGGED (FT.): 48.0

LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 23Y

WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
448.0	PLEISTOCENE		SOIL	19.0	0.0	GRAVELLY
429.0	PLEISTOCENE		CLAY	20.0	19.0	
409.0	CARBONDALE		LIMESTONE	3.0	39.0	SHELLY
406.0	CARBONDALE		SMUT	2.0	42.0	
404.0	CARBONDALE		CLAYSTONE	4.0	44.0	

MAPID: 15701551000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 17 QUARTERS/FOOTAGES: SE NW

QUADRANGLE: BALDWIN

LONGITUDE: -89.790931

GEOLOGIST: UITEMP

CONFIDENTIAL: N

LATITUDE: 38.185385

DATE COLLECTED: 2 / 28 / 1947

SURFACE ELEVATION (FT.): 465.0

LOGGED (FT.): 79.5

LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 27W

WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
465.0	PLEISTOCENE		CLAY	60.0	0.0	
405.0	PLEISTOCENE		MUD	9.8	60.0	BLUE
395.2	CARBONDALE		LIMESTONE	1.5	69.8	BROKEN
393.7	CARBONDALE	ST. DAVID	LIMESTONE	3.9	71.3	
389.7	CARBONDALE	SPRINGFIELD	COAL	1.3	75.3	
388.4	CARBONDALE		UNDERCLAY	2.9	76.6	

MAPID: 15701576000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 17 QUARTERS/FOOTAGES: 200' S line, 400' E line of SW NW NW

QUADRANGLE: BALDWIN LONGITUDE: -89.797006

GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.187769

DATE COLLECTED: 5 / 0 / 1947

SURFACE ELEVATION (FT.): 450.0 LOGGED (FT.): 72.0

LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 51W

WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
450.0	PLEISTOCENE		CLAY	13.0	0.0	
437.0	PLEISTOCENE		SAND	1.5	13.0	WITH CLAY
435.5	PLEISTOCENE		SAND	2.0	14.5	
433.5	PLEISTOCENE		SAND	1.5	16.5	WITH CLAY
432.0	PLEISTOCENE		CLAY	44.5	18.0	
387.5	CARBONDALE		LIMESTONE	3.5	62.5	
384.0	CARBONDALE		SHALE	1.0	66.0	LIGHT
383.0	CARBONDALE	ST. DAVID	LIMESTONE	1.0	67.0	
382.0	CARBONDALE		SHALE	0.8	68.0	LIGHT
381.2	CARBONDALE	SPRINGFIELD	COAL	0.8	68.8	
380.5	CARBONDALE		UNDERCLAY	2.5	69.5	

MAPID: 15701577000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 17 QUARTERS/FOOTAGES: 710' S line, 210' W line of NE NW

QUADRANGLE: BALDWIN LONGITUDE: -89.792528

GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.189161

DATE COLLECTED: 5 / 0 / 1947

SURFACE ELEVATION (FT.): 450.0 LOGGED (FT.): 72.0

LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 52W

WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
450.0	PLEISTOCENE		CLAY	42.0	0.0	
408.0	PLEISTOCENE		MUD	22.7	42.0	BLUE
385.3	CARBONDALE		LIMESTONE	5.2	64.7	
380.2	CARBONDALE		SMUT	0.3	69.8	
379.8	CARBONDALE	SPRINGFIELD	COAL	0.9	70.2	
378.9	CARBONDALE		UNDERCLAY	0.9	71.1	

MAPID: 15701578000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 17 QUARTERS/FOOTAGES: 250' N line, 20' W line of NE NW

QUADRANGLE: BALDWIN LONGITUDE: -89.793186

GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.190131

DATE COLLECTED: 5 / 0 / 1947

SURFACE ELEVATION (FT.): 450.0 LOGGED (FT.): 64.5

LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 53W

WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
450.0	PLEISTOCENE		CLAY	19.5	0.0	
430.5	PLEISTOCENE		CLAY	1.5	19.5	BROKEN
429.0	PLEISTOCENE		CLAY	33.0	21.0	
396.0	CARBONDALE		CALCAREOUS SHALE	1.5	54.0	
394.5	CARBONDALE		LIMESTONE	2.3	55.5	HARD
392.2	CARBONDALE		SHALE	0.6	57.8	LIGHT
391.7	CARBONDALE	ST. DAVID	LIMESTONE	0.7	58.3	
391.0	CARBONDALE		SMUT	0.5	59.0	
390.5	CARBONDALE	SPRINGFIELD	COAL	2.5	59.5	
388.0	CARBONDALE		UNDERCLAY	2.5	62.0	

MAPID: 15701579000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 17 QUARTERS/FOOTAGES:

QUADRANGLE: BALDWIN LONGITUDE: -89.788587

GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.183566

DATE COLLECTED: 5 / 0 / 1947

SURFACE ELEVATION (FT.): 450.0 LOGGED (FT.): 67.0

LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 54W

WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
450.0	PLEISTOCENE		CLAY	21.0	0.0	
429.0	PLEISTOCENE		SAND	2.5	21.0	
426.5	PLEISTOCENE		CLAY	31.6	23.5	
394.9	CARBONDALE		CALCAREOUS SHALE	3.3	55.1	
391.7	CARBONDALE		LIMESTONE	2.8	58.3	
388.8	CARBONDALE		CALCAREOUS SHALE	1.0	61.2	
387.8	CARBONDALE	ST. DAVID	LIMESTONE	1.6	62.2	
386.2	CARBONDALE		SMUT	0.7	63.8	
385.6	CARBONDALE	SPRINGFIELD	COAL	1.5	64.4	
384.1	CARBONDALE		UNDERCLAY	1.1	65.9	

MAPID: 1570158000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 17 QUARTERS/FOOTAGES: NE NW

QUADRANGLE: BALDWIN LONGITUDE: -89.790918 GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.189004 DATE COLLECTED: 5 / 0 / 1947

SURFACE ELEVATION (FT.): 438.0 LOGGED (FT.): 72.0 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 55W WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
438.0	PLEISTOCENE		CLAY	17.0	0.0	
421.0	PLEISTOCENE		CLAY	5.5	17.0	SANDY
415.5	CARBONDALE		SANDSTONE	1.5	22.5	WITH CLAY
414.0	CARBONDALE		SANDSTONE	0.5	24.0	
413.5	CARBONDALE		SANDSTONE	2.5	24.5	WITH CLAY
411.0	CARBONDALE		CLAYSTONE	7.5	27.0	
403.5	CARBONDALE		MUDSTONE	26.9	34.5	BLUE
376.6	CARBONDALE	ST. DAVID	LIMESTONE	5.3	61.4	
371.3	CARBONDALE		SMUT	0.4	66.7	
370.9	CARBONDALE	SPRINGFIELD	COAL	2.3	67.1	
368.6	CARBONDALE		UNDERCLAY	2.6	69.4	

MAPID: 1570159000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 17 QUARTERS/FOOTAGES: 96' N line, 340' W line of NE

QUADRANGLE: BALDWIN LONGITUDE: -89.787384 GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.190537 DATE COLLECTED: 5 / 0 / 1947

SURFACE ELEVATION (FT.): 470.1 LOGGED (FT.): 84.5 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 65W WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
470.1	PLEISTOCENE		CLAY	43.0	0.0	
427.1	PLEISTOCENE		BOULDER	0.3	43.0	
426.8	PLEISTOCENE		CLAY	14.8	43.3	
412.1	PLEISTOCENE		UNCLASSIFIED	0.5	58.0	STAIN
411.6	PLEISTOCENE		CLAY	6.5	58.5	
405.1	CARBONDALE	BRERETON	LIMESTONE	4.8	65.0	BROKEN
400.3	CARBONDALE		SMUT	0.3	69.8	
400.1	CARBONDALE	ANNA	BLACK SHALE & COAL	0.5	70.0	
399.6	CARBONDALE	HERRIN	COAL	4.5	70.5	
395.1	CARBONDALE		UNDERCLAY	4.0	75.0	
391.1	CARBONDALE		SANDY SHALE	5.5	79.0	SANDY

MAPID: 15701592000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 17 QUARTERS/FOOTAGES: 620' S line, 10' E line of NE

QUADRANGLE: BALDWIN LONGITUDE: -89.779238 GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.18524 DATE COLLECTED: 5 / 0 / 1947

SURFACE ELEVATION (FT.): 471.9 LOGGED (FT.): 74.5 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 67W WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
471.9	PLEISTOCENE		CLAY	12.0	0.0	
459.9	PLEISTOCENE		SAND	2.0	12.0	
457.9	PLEISTOCENE		CLAY	8.0	14.0	SANDY
449.9	PLEISTOCENE		SAND	22.0	22.0	
427.9	PLEISTOCENE		CLAY	17.3	44.0	
410.6	CARBONDALE		LIMESTONE	1.5	61.3	
409.1	CARBONDALE		SHALE	1.0	62.8	
408.1	CARBONDALE		LIMESTONE & SHALE	1.2	63.8	
406.9	CARBONDALE	BRERETON	LIMESTONE	5.7	65.0	HARD
401.2	CARBONDALE		SMUT	0.5	70.7	
400.7	CARBONDALE	HERRIN	COAL	2.3	71.2	
398.4	CARBONDALE		UNDERCLAY	1.0	73.5	

MAPID: 15701593000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 17 QUARTERS/FOOTAGES: NE

QUADRANGLE: BALDWIN LONGITUDE: -89.78389 GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.18717 DATE COLLECTED: 5 / 0 / 1947

SURFACE ELEVATION (FT.): 477.1 LOGGED (FT.): 64.5 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 68W WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
477.1	PLEISTOCENE		CLAY	62.4	0.0	
414.7	CARBONDALE		SMUT	0.2	62.4	SOFT WITH COAL
414.5	CARBONDALE		UNDERCLAY	1.9	62.6	

MAPID: 15701644000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 17 QUARTERS/FOOTAGES: 378' N line, 830' W line of NW

QUADRANGLE: BALDWIN LONGITUDE: -89.795038

GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.189781

DATE COLLECTED: 5 / 0 / 1947

SURFACE ELEVATION (FT.): 445.4 LOGGED (FT.): 45.0

LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 14

WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
445.4	PLEISTOCENE		SOIL	14.0	0.0	CLAYEY
431.4	PLEISTOCENE		GRAVEL	2.0	14.0	SANDY
429.4	PLEISTOCENE		CLAY	5.0	16.0	
424.4	CARBONDALE		SMUT	3.0	21.0	SOFT WITH COAL
421.4	CARBONDALE	HERRIN	COAL	1.0	24.0	
420.4	CARBONDALE		UNDERCLAY	4.0	25.0	
416.4	CARBONDALE		LIMESTONE	3.0	29.0	BROKEN
413.4	CARBONDALE		SHALE	1.0	32.0	
412.4	CARBONDALE		LIMESTONE	1.0	33.0	
411.4	CARBONDALE		SHALE	3.0	34.0	
408.4	CARBONDALE	ST. DAVID	LIMESTONE	3.0	37.0	
405.4	CARBONDALE		SHALE	1.5	40.0	
403.9	CARBONDALE	SPRINGFIELD	COAL	1.5	41.5	
402.4	CARBONDALE		UNDERCLAY	2.0	43.0	

MAPID: 15701666000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 17 QUARTERS/FOOTAGES: 30' S line, 498' E line of SE NE

QUADRANGLE: BALDWIN LONGITUDE: -89.780942

GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.183618

DATE COLLECTED: 6 / 0 / 1947

SURFACE ELEVATION (FT.): 447.8 LOGGED (FT.): 62.0

LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 36

WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
447.8	PLEISTOCENE		SOIL	42.0	0.0	CLAYEY
405.8	PLEISTOCENE		CLAY	4.0	42.0	COAL STAIN
401.8	PLEISTOCENE		CLAY	5.0	46.0	LIGHT
396.8	CARBONDALE		LIMESTONE	5.0	51.0	
391.8	CARBONDALE		SHALE/COAL	0.7	56.0	
391.1	CARBONDALE	SPRINGFIELD	COAL	2.0	56.7	
389.1	CARBONDALE		UNDERCLAY	3.3	58.7	

MAPID: 15722998000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 19 QUARTERS/FOOTAGES: 72' N line, 84' E line of NE SE

QUADRANGLE: BALDWIN LONGITUDE: -89.798222 GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.168855 DATE COLLECTED: 7 / 12 / 1976

SURFACE ELEVATION (FT.): 450.0 LOGGED (FT.): 34.0 LOG TYPE: Drillers Log

SOURCE: CLARENCE KOHNEN WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
450.0	PLEISTOCENE		SOIL	1.0	0.0	BROWN
449.0	PLEISTOCENE		CLAY	13.0	1.0	YELLOW
436.0	PLEISTOCENE		CLAY	6.0	14.0	SANDY; YELLOW
430.0	CARBONDALE		SANDSTONE	8.0	20.0	YELLOW
422.0	CARBONDALE		COAL	2.0	28.0	
420.0	CARBONDALE		SHALE	4.0	30.0	

MAPID: 15701524000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 21 QUARTERS/FOOTAGES: SW NE

QUADRANGLE: BALDWIN LONGITUDE: -89.76698 GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.170507 DATE COLLECTED: 6 / 0 / 1947

SURFACE ELEVATION (FT.): 471.0 LOGGED (FT.): 93.0 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 35Y WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
471.0	PLEISTOCENE		SOIL	21.0	0.0	
450.0	PLEISTOCENE		CLAY	39.0	21.0	BLUE
411.0	CARBONDALE		SHALE	13.3	60.0	BLUE
397.7	CARBONDALE		COAL	1.0	73.3	SOFT
396.7	CARBONDALE		UNDERCLAY	2.7	74.3	
394.0	CARBONDALE		BLACK SHALE	16.0	77.0	SANDY

MAPID: 15726022000C VERSION: 1

PROJECT: LUMP

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 24 QUARTERS/FOOTAGES: 323' N line, 1340' W line
 QUADRANGLE: TILDEN LONGITUDE: -89.717538 GEOLOGIST: J. MCBETH
 CONFIDENTIAL: N LATITUDE: 38.174813 DATE COLLECTED: 2 / 18 / 1972
 SURFACE ELEVATION (FT.): 442.4 LOGGED (FT.): 85.0 LOG TYPE: Drillers Log
 SOURCE: PEABODY COAL 13872B WELL TYPE: Coal Test
 COMMENT: PERMIT 156; RIVER KING #6

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
442.4	PLEISTOCENE		UNCONSOLIDATED	58.8	0.0
383.6	CARBONDALE		LIMESTONE	1.1	58.8
382.5	CARBONDALE		GRAY SHALE	1.0	59.9
381.5	CARBONDALE		LIMESTONE	3.4	60.9
378.1	CARBONDALE		GRAY SHALE	7.3	64.3
370.8	CARBONDALE	BRERETON	LIMESTONE	5.8	71.6
365.0	CARBONDALE	HERRIN	COAL	5.7	77.4
359.3	CARBONDALE		UNDERCLAY	1.9	83.1

MAPID: 15726023000C VERSION: 1

PROJECT: LUMP

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 24 QUARTERS/FOOTAGES: 1280' N line, 53' W line
 QUADRANGLE: TILDEN LONGITUDE: -89.722069 GEOLOGIST: J. MCBETH
 CONFIDENTIAL: N LATITUDE: 38.172154 DATE COLLECTED: 3 / 24 / 1972
 SURFACE ELEVATION (FT.): 446.6 LOGGED (FT.): 91.0 LOG TYPE: Drillers Log
 SOURCE: PEABODY COAL 13918B WELL TYPE: Coal Test
 COMMENT: PERMIT 156; RIVER KING #6

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
446.6	PLEISTOCENE		UNCONSOLIDATED	65.9	0.0
380.7	CARBONDALE		LIMESTONE	3.0	65.9
377.7	CARBONDALE		SHALE	5.8	68.9
371.9	CARBONDALE		LIMESTONE	1.5	74.7
370.4	CARBONDALE		GRAY SHALE	0.7	76.2
369.7	CARBONDALE		LIMESTONE	2.0	76.9
367.7	CARBONDALE		GRAY SHALE	2.3	78.9
365.4	CARBONDALE	BRERETON	LIMESTONE	3.1	81.2
362.3	CARBONDALE		GRAY SHALE	0.2	84.3
362.1	CARBONDALE	HERRIN	COAL	5.5	84.5
356.6	CARBONDALE		UNDERCLAY	1.0	90.0

MAPID: 15726024000C VERSION: 1

PROJECT: LUMP

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 24 QUARTERS/FOOTAGES: 50' N line, 1290' W line
 QUADRANGLE: TILDEN LONGITUDE: -89.717704 GEOLOGIST: J. MCBETH
 CONFIDENTIAL: N LATITUDE: 38.175567 DATE COLLECTED: 10 / 4 / 1984
 SURFACE ELEVATION (FT.): 443.1 LOGGED (FT.): 105.6 LOG TYPE: Drillers Log
 SOURCE: PEABODY COAL 17506E WELL TYPE: Coal Test
 COMMENT: PERMIT 156; RIVER KING #6

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
443.1	PLEISTOCENE		UNCONSOLIDATED	63.0	0.0	
380.1	CARBONDALE		SIDERITE	0.2	63.0	
379.9	CARBONDALE		MUDSTONE	0.8	63.2	WEATHERED, VERY WEAK
379.1	CARBONDALE		LIMESTONE	2.6	64.0	W/ CLAY STREAKS; HARD
376.5	CARBONDALE		BLACK SHALE	5.3	66.6	FISSILE, WEAK
371.2	CARBONDALE	BRERETON	LIMESTONE	8.0	71.9	
363.2	CARBONDALE	HERRIN	COAL	5.9	79.9	
357.3	CARBONDALE		UNDERCLAY	3.0	85.8	
354.3	CARBONDALE		LIMESTONE	11.7	88.8	
342.6	CARBONDALE		SHALE	2.8	100.5	SOFT
339.8	CARBONDALE		LIMESTONE AND SANDSTONE	2.3	103.3	

MAPID: 15726025000C VERSION: 1

PROJECT: LUMP

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 24 QUARTERS/FOOTAGES: 135' N line, 939' W line
 QUADRANGLE: TILDEN LONGITUDE: -89.718935 GEOLOGIST: J. MCBETH
 CONFIDENTIAL: N LATITUDE: 38.175327 DATE COLLECTED: 10 / 9 / 1984
 SURFACE ELEVATION (FT.): 442.2 LOGGED (FT.): 105.2 LOG TYPE: Drillers Log
 SOURCE: PEABODY COAL 17507E WELL TYPE: Coal Test
 COMMENT: PERMIT 156; RIVER KING #6

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
442.2	PLEISTOCENE		UNCONSOLIDATED	69.4	0.0	
372.8	CARBONDALE		LIMESTONE	2.5	69.4	
370.3	CARBONDALE		MUDSTONE	0.4	71.9	DARK GRAY
369.9	CARBONDALE	JAMESTOWN	BLACK SHALE	1.4	72.3	FISSILE; VERTICAL JOINTED
368.5	CARBONDALE	BRERETON	LIMESTONE	1.7	73.7	BLACK; CORR. FROM LOG
366.8	CARBONDALE	BRERETON	CALCAREOUS CLAYSTONE	4.0	75.4	
362.8	CARBONDALE	BRERETON	LIMESTONE	3.6	79.4	
359.2	CARBONDALE	HERRIN	COAL	5.7	83.0	
353.5	CARBONDALE		UNDERCLAY	2.6	88.7	
350.9	CARBONDALE		GRAY SHALE	2.3	91.3	
348.6	CARBONDALE		LIMESTONE	9.5	93.6	
339.1	CARBONDALE		GRAY SHALE	2.1	103.1	

MAPID: 15790028000C VERSION: 1

PROJECT: LUMP97

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 24 QUARTERS/FOOTAGES: 735' N line, 56' E line of SE NE

QUADRANGLE: TILDEN LONGITUDE: -89.70371 GEOLOGIST: D NORTH

CONFIDENTIAL: N LATITUDE: 38.170112 DATE COLLECTED: 3 / 19 / 1955

SURFACE ELEVATION (FT.): 486.4 LOGGED (FT.): 136.3 LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO. 3013B WELL TYPE: Coal Test

COMMENT: PERMIT # 176 BALDWIN

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
486.4	PLEISTOCENE		UNCONSOLIDATED	82.1	0.0	
404.3	MODESTO	PIASA	LIMESTONE	10.9	82.1	
393.4			GRAY SHALE	10.3	93.0	
383.1	CARBONDALE	BANKSTON FORK	LIMESTONE	2.5	103.3	
380.6	CARBONDALE	BANKSTON FORK	GRAY SHALE	4.7	105.8	
375.9	CARBONDALE	BANKSTON FORK	LIMESTONE	3.2	110.5	
372.7	CARBONDALE		GRAY SHALE	4.5	113.7	
368.2	CARBONDALE	CONANT	ROCK	1.8	118.2	BLACK
366.4	CARBONDALE		BLACK SHALE	0.9	120.0	
365.5	CARBONDALE	BRERETON	ROCK	6.7	120.9	BLACK
358.8	CARBONDALE	ANNA	BLACK SHALE	1.1	127.6	
357.7	CARBONDALE	HERRIN	COAL	6.5	128.7	
351.2	CARBONDALE		UNDERCLAY	1.1	135.2	

MAPID: 15790030000C VERSION: 1

PROJECT: LUMP97

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 24 QUARTERS/FOOTAGES: 350' N line, 300' E line of SE

QUADRANGLE: TILDEN LONGITUDE: -89.704567 GEOLOGIST: D NORTH

CONFIDENTIAL: N LATITUDE: 38.167563 DATE COLLECTED: 11 / 10 / 1980

SURFACE ELEVATION (FT.): 472.8 LOGGED (FT.): 139.4 LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO. 16829C WELL TYPE: Coal Test

COMMENT: PERMIT # 176 BALDWIN

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
472.8	PLEISTOCENE		UNCONSOLIDATED	60.3	0.0	
412.5	MODESTO		GRAY SHALE	5.3	60.3	
407.2	MODESTO	PIASA	LIMESTONE	12.8	65.6	
394.4	MODESTO		GRAY SHALE	6.7	78.4	
387.7	CARBONDALE		MUDSTONE	3.3	85.1	
384.4	CARBONDALE		SHALE	5.1	88.4	LAMINATED WITH LIMESTONE
379.3	CARBONDALE	BANKSTON FORK	LIMESTONE	2.6	93.5	
376.7	CARBONDALE		SHALE	0.7	96.1	
376.0	CARBONDALE		MUDSTONE	4.3	96.8	CALCAREOUS
371.7	CARBONDALE		SHALE	3.1	101.1	LAMINATED WITH LIMESTONE
368.6	CARBONDALE	BRERETON	LIMESTONE	4.5	104.2	
364.1	CARBONDALE	ANNA	BLACK SHALE	1.7	108.7	
362.4	CARBONDALE	HERRIN	COAL	6.1	110.4	
356.3	CARBONDALE		UNDERCLAY	0.7	116.5	
355.6	CARBONDALE		MUDSTONE	7.1	117.2	
348.5	CARBONDALE	HIGGINSVILLE	LIMESTONE	0.8	124.3	
347.7	CARBONDALE		MUDSTONE	3.9	125.1	
343.8	CARBONDALE		LIMESTONE	1.0	129.0	
342.8	CARBONDALE		MUDSTONE	1.4	130.0	
341.4	CARBONDALE		SHALE	2.0	131.4	
339.4	CARBONDALE		MUDSTONE	0.9	133.4	
338.5	CARBONDALE		LIMESTONE	0.4	134.3	
338.1	CARBONDALE		MUDSTONE	2.7	134.7	
335.4	CARBONDALE		SILTSTONE	2.0	137.4	LAMINATED WITH SHALE

MAPID: 15790032000C VERSION: 1

PROJECT: LUMP97

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 24 QUARTERS/FOOTAGES: 125' S line, 200' E line of SE

QUADRANGLE: TILDEN LONGITUDE: -89.704222 GEOLOGIST: D NORTH

CONFIDENTIAL: N LATITUDE: 38.161644 DATE COLLECTED: 11 / 25 / 1981

SURFACE ELEVATION (FT.): 501.5 LOGGED (FT.): 140.6 LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO. 16694C WELL TYPE: Coal Test

COMMENT: PERMIT # 176 BALDWIN

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
501.5	PLEISTOCENE		UNCONSOLIDATED	29.8	0.0
471.7	MODESTO		GRAY SHALE	39.4	29.8
432.3	MODESTO		LIMESTONE	2.1	69.2
430.2	MODESTO		SHALE	11.7	71.3
418.5	MODESTO	PIASA	LIMESTONE	10.6	83.0
407.9			SHALE	11.8	93.6
396.1	CARBONDALE	BANKSTON FORK	LIMESTONE	3.6	105.4
392.5	CARBONDALE		SHALE	4.7	109.0
387.8	CARBONDALE	CONANT	LIMESTONE	5.5	113.7
382.3	CARBONDALE		SHALE	1.9	119.2
380.4	CARBONDALE	BRERETON	LIMESTONE	2.8	121.1
377.6	CARBONDALE	ANNA	SHALE	0.1	123.9
377.5	CARBONDALE	HERRIN	COAL	5.6	124.0
371.9	CARBONDALE		UNDERCLAY	1.3	129.6
370.6	CARBONDALE		SHALE	3.1	130.9
367.5	CARBONDALE	HIGGINSVILLE	SHALY LIMESTONE	1.7	134.0
365.8	CARBONDALE	HIGGINSVILLE	LIMESTONE	4.9	135.7

MAPID: 15790048000C VERSION: 1

PROJECT: LUMP97

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 24 QUARTERS/FOOTAGES: 150' S line, 150' E line of NW NE SE

QUADRANGLE: TILDEN

LONGITUDE: -89.706391

GEOLOGIST: D NORTH

CONFIDENTIAL: N

LATITUDE: 38.167145

DATE COLLECTED: 8 / 15 / 1973

SURFACE ELEVATION (FT.): 463.8

LOGGED (FT.): 108.0

LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO. 14378B

WELL TYPE: Coal Test

COMMENT: PERMIT # 176 BALDWIN

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
463.8	PLEISTOCENE		UNCONSOLIDATED	40.7	0.0
423.1	MODESTO		LIMESTONE	2.6	40.7
420.5	MODESTO		SHALE	11.0	43.3
409.5	MODESTO	PIASA	LIMESTONE	9.2	54.3
400.3	MODESTO		SHALE	3.2	63.5
397.1	CARBONDALE	DANVILLE	COAL	1.0	66.7
396.1	CARBONDALE		SHALE	8.1	67.7
388.0	CARBONDALE	BANKSTON FORK	LIMESTONE	1.8	75.8
386.2	CARBONDALE	BANKSTON FORK	GRAY SHALE	5.0	77.6
381.2	CARBONDALE	BANKSTON FORK	LIMESTONE	2.2	82.6
379.0	CARBONDALE		GRAY SHALE	4.5	84.8
374.5	CARBONDALE	BRERETON	LIMESTONE	7.8	89.3
366.7	CARBONDALE		GRAY SHALE	3.4	97.1
363.3	CARBONDALE	HERRIN	COAL	6.2	100.5
357.1	CARBONDALE		UNDERCLAY	1.3	106.7

MAPID: 15790058000C VERSION: 1

PROJECT: LUMP97

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 24 QUARTERS/FOOTAGES: 600' N line, 350' E line of SW SE

QUADRANGLE: TILDEN LONGITUDE: -89.709454 GEOLOGIST: D NORTH

CONFIDENTIAL: N LATITUDE: 38.163289 DATE COLLECTED: 6 / 27 / 1990

SURFACE ELEVATION (FT.): 501.7 LOGGED (FT.): 154.6 LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO. 16885C WELL TYPE: Coal Test

COMMENT: PERMIT # 59 RIVERKING #6

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
501.7	PLEISTOCENE		UNCONSOLIDATED	27.3	0.0	
474.4	MODESTO		GRAY SHALE	60.5	27.3	
413.9	MODESTO	PIASA	LIMESTONE	8.1	87.8	
405.8	CARBONDALE	DANVILLE	BLACK SHALE	4.5	95.9	WITH COAL
401.3	CARBONDALE		SHALE	3.6	100.4	WITH LIMESTONE
397.7	CARBONDALE		MUDSTONE	7.9	104.0	
389.8	CARBONDALE	BANKSTON FORK	LIMESTONE	2.5	111.9	
387.3	CARBONDALE		SHALE	10.8	114.4	
376.5	CARBONDALE	BRERETON	LIMESTONE	2.7	125.2	
373.8	CARBONDALE	ANNA	BLACK SHALE	1.3	127.9	
372.5	CARBONDALE	HERRIN	COAL	5.6	129.2	
366.9	CARBONDALE		GRAY SHALE	0.4	134.8	
366.5	CARBONDALE		MUDSTONE	1.3	135.2	
365.2	CARBONDALE		GRAY SHALE	1.0	136.5	
364.2	CARBONDALE		MUDSTONE	1.7	137.5	
362.5	CARBONDALE	HIGGINSVILLE	LIMESTONE	4.6	139.2	
357.9	CARBONDALE		SHALE	0.6	143.8	CALCAREOUS
357.3	CARBONDALE		LIMESTONE	1.8	144.4	
355.5	CARBONDALE		MUDSTONE	5.3	146.2	
350.2	CARBONDALE		SANDSTONE	2.7	151.5	
347.5	CARBONDALE		SHALE	0.4	154.2	

MAPID: 15790063000C **VERSION:** 1 **PROJECT:** LUMP97
COUNTY: RANDOLPH **TWP/RNG:** 4S 6W **SECTION:** 24 **QUARTERS/FOOTAGES:** 950' N line, 100' E line of NE
QUADRANGLE: TILDEN **LONGITUDE:** -89.703859 **GEOLOGIST:** D NORTH
CONFIDENTIAL: N **LATITUDE:** 38.173132 **DATE COLLECTED:** 11 / 19 / 1986
SURFACE ELEVATION (FT.): 479.0 **LOGGED (FT.):** 158.0 **LOG TYPE:** Drillers Log
SOURCE: PEABODY COAL CO. 16830C **WELL TYPE:** Coal Test
COMMENT: PERMIT # 59 RIVERKING #6

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
479.0	PLEISTOCENE		UNCONSOLIDATED	37.9	0.0	
441.1	MODESTO		SHALE	43.4	37.9	
397.7	MODESTO	PIASA	LIMESTONE	12.0	81.3	
385.7	MODESTO		SHALE	7.7	93.3	
378.0	CARBONDALE		MUDSTONE	2.8	101.0	
375.2	CARBONDALE		SHALE	3.8	103.8	WITH LIMESTONE
371.4	CARBONDALE	BANKSTON FORK	LIMESTONE	2.8	107.6	
368.6	CARBONDALE		SHALE	5.2	110.4	
363.4	CARBONDALE		SHALE	5.6	115.6	CALCAREOUS
357.8	CARBONDALE	BRERETON	LIMESTONE	4.7	121.2	
353.1	CARBONDALE	ANNA	SHALE	0.5	125.9	CALCAREOUS
352.6	CARBONDALE	HERRIN	COAL	6.0	126.4	
346.6	CARBONDALE		MUDSTONE	7.0	132.4	
339.6	CARBONDALE	HIGGINSVILLE	LIMESTONE	3.0	139.4	
336.6	CARBONDALE		MUDSTONE	5.3	142.4	CALCAREOUS
331.3	CARBONDALE		MUDSTONE	3.5	147.7	
327.8	CARBONDALE		SILTSTONE	1.2	151.2	
326.6	CARBONDALE		SANDSTONE	5.6	152.4	

MAPID: 15701679000C **VERSION:** 1 **PROJECT:** NCRDS93
COUNTY: RANDOLPH **TWP/RNG:** 4S 6W **SECTION:** 25 **QUARTERS/FOOTAGES:** 1020' N line, 90' W line of NE NE
QUADRANGLE: TILDEN **LONGITUDE:** -89.707926 **GEOLOGIST:** UITEMP
CONFIDENTIAL: N **LATITUDE:** 38.158518 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 505.0 **LOGGED (FT.):** 76.0 **LOG TYPE:** Drillers Log
SOURCE: MIDWEST RADIANT 49 **WELL TYPE:**
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
505.0	PLEISTOCENE		SOIL	22.0	0.0	CLAYEY
483.0	PLEISTOCENE		MUD	40.0	22.0	BLUE
443.0	CARBONDALE	BRERETON	LIMESTONE	2.0	62.0	
441.0	CARBONDALE	ANNA	BLACK SHALE	3.0	64.0	
438.0	CARBONDALE	HERRIN	COAL	5.7	67.0	
432.3	CARBONDALE		UNDERCLAY	3.3	72.7	

MAPID: 1570248000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 25 QUARTERS/FOOTAGES: NE NE SE SE

QUADRANGLE: TILDEN LONGITUDE: -89.704158 GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.150146 DATE COLLECTED: 4 / 21 / 1971

SURFACE ELEVATION (FT.): 515.0 LOGGED (FT.): 368.0 LOG TYPE: Drillers Log

SOURCE: EVERETT D. NORMAN WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
515.0	PLEISTOCENE		CLAY	30.0	0.0	YELLOW
485.0	PLEISTOCENE		CLAY	10.0	30.0	SANDY
475.0	PLEISTOCENE		CLAY	50.0	40.0	BLUE; WITH SHALES
425.0	CARBONDALE		LIMESTONE	2.0	90.0	
423.0	CARBONDALE		SHALE	8.0	92.0	
415.0	CARBONDALE		LIMESTONE	14.0	100.0	
401.0	CARBONDALE		SHALE	6.0	114.0	
395.0	CARBONDALE		SHALE WITH LIMESTONE	27.0	120.0	
368.0	CARBONDALE	HERRIN	COAL	5.0	147.0	
363.0	CARBONDALE		LIMESTONE & SHALE	9.0	152.0	
354.0	CARBONDALE		SHALE WITH LIMESTONE	43.0	161.0	
311.0	CARBONDALE		BLACK SHALE & COAL	3.0	204.0	
308.0	CARBONDALE		SANDSTONE	158.0	207.0	
150.0	CARBONDALE		SHALE	3.0	365.0	

MAPID: 15790031000C VERSION: 1

PROJECT: LUMP97

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 25 QUARTERS/FOOTAGES: 100' S line, 100' E line of SE

QUADRANGLE: TILDEN LONGITUDE: -89.703933 GEOLOGIST: D NORTH

CONFIDENTIAL: N LATITUDE: 38.1473 DATE COLLECTED: 6 / 3 / 1971

SURFACE ELEVATION (FT.): 537.6 LOGGED (FT.): 170.1 LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO. 12519C WELL TYPE: Coal Test

COMMENT: PERMIT # 176 BALDWIN

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
537.6	PLEISTOCENE		UNCONSOLIDATED	28.0	0.0
509.6	MODESTO		SANDSTONE	10.0	28.0
499.6	MODESTO		SHALE	10.5	38.0
489.1	MODESTO		LIMESTONE	2.6	48.5
486.5	MODESTO		SANDY SHALE	15.1	51.1
471.4	MODESTO		GRAY SHALE	40.5	66.2
430.9	MODESTO		LIMESTONE	2.8	106.7
428.1	MODESTO		GRAY SHALE	7.9	109.5
420.2	MODESTO	PIASA	LIMESTONE	10.3	117.4
409.9	MODESTO		SHALE	2.0	127.7
407.9	CARBONDALE	DANVILLE	COAL	1.1	129.7
406.8	CARBONDALE		GRAY SHALE	4.9	130.8
401.9	CARBONDALE	BANKSTON FORK	LIMESTONE	4.5	135.7
397.4	CARBONDALE	BANKSTON FORK	GRAY SHALE	4.1	140.2
393.3	CARBONDALE	BANKSTON FORK	LIMESTONE	3.1	144.3
390.2	CARBONDALE		SHALE	5.9	147.4
384.3	CARBONDALE	CONANT	LIMESTONE	0.8	153.3
383.5	CARBONDALE	CONANT	SHALE	0.6	154.1
382.9	CARBONDALE	CONANT	LIMESTONE	0.9	154.7
382.0	CARBONDALE		SHALE	4.0	155.6
378.0	CARBONDALE	BRERETON	LIMESTONE	3.0	159.6
375.0	CARBONDALE	ANNA	DARK SHALE	0.1	162.6
374.9	CARBONDALE	HERRIN	COAL	6.8	162.7
368.1	CARBONDALE		UNDERCLAY	0.6	169.5

MAPID: 15790033000C VERSION: 1

PROJECT: LUMP97

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 25 QUARTERS/FOOTAGES: 50' S line, 150' E line of SE NW

QUADRANGLE: TILDEN LONGITUDE: -89.713462 GEOLOGIST: D NORTH

CONFIDENTIAL: N LATITUDE: 38.154328 DATE COLLECTED: 10 / 9 / 1981

SURFACE ELEVATION (FT.): 493.8 LOGGED (FT.): 129.7 LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO. 15937C WELL TYPE: Coal Test

COMMENT: PERMIT # 176 BALDWIN

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
493.8	PLEISTOCENE		UNCONSOLIDATED	51.2	0.0	
442.6	MODESTO		GRAY SHALE	16.2	51.2	
426.4	MODESTO	PIASA	LIMESTONE	8.1	67.4	
418.3			SHALE	13.2	75.5	
405.1	CARBONDALE	BANKSTON FORK	LIMESTONE	2.5	88.7	
402.6	CARBONDALE	BANKSTON FORK	SHALE	5.0	91.2	WITH LIMESTONE
397.6	CARBONDALE	BANKSTON FORK	LIMESTONE	3.2	96.2	
394.4	CARBONDALE		SHALE	4.5	99.4	
389.9	CARBONDALE	CONANT	LIMESTONE	0.9	103.9	
389.0	CARBONDALE		SHALE	1.8	104.8	
387.2	CARBONDALE	BRERETON	LIMESTONE	2.4	106.6	
384.8	CARBONDALE	ANNA	DARK SHALE	1.0	109.0	
383.8	CARBONDALE	ANNA	BLACK SHALE	2.6	110.0	
381.2	CARBONDALE	HERRIN	COAL	6.3	112.6	
374.9	CARBONDALE		SHALE	3.6	118.9	
371.4	CARBONDALE	HIGGINSVILLE	LIMESTONE	4.9	122.4	
366.5	CARBONDALE		SHALE	2.4	127.3	

MAPID: 15790057000C VERSION: 1

PROJECT: LUMP97

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 25 QUARTERS/FOOTAGES: 470' N line, 600' E line of SE

QUADRANGLE: TILDEN LONGITUDE: -89.705658 GEOLOGIST: D NORTH

CONFIDENTIAL: N LATITUDE: 38.152868 DATE COLLECTED: 7 / 13 / 1990

SURFACE ELEVATION (FT.): 526.4 LOGGED (FT.): 182.4 LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO. 16886C WELL TYPE: Coal Test

COMMENT: PERMIT # 59 RIVERKING #6

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
526.4	PLEISTOCENE		UNCONSOLIDATED	38.8	0.0	
487.6	MODESTO		GRAY SHALE	58.1	38.8	
429.5	MODESTO		LIMESTONE	1.6	96.9	
427.9	MODESTO		GRAY SHALE	8.3	98.5	WITH LIMESTONE
419.6	MODESTO	PIASA	LIMESTONE	10.7	106.8	
408.9	MODESTO		GRAY SHALE	4.4	117.5	
404.5	CARBONDALE		MUDSTONE	5.3	121.9	
399.2	CARBONDALE	BANKSTON FORK	LIMESTONE	1.6	127.2	
397.6	CARBONDALE	BANKSTON FORK	SHALE	4.1	128.8	
393.5	CARBONDALE	BANKSTON FORK	MUDSTONE	2.6	132.9	
390.9	CARBONDALE	BANKSTON FORK	LIMESTONE	1.1	135.5	
389.8	CARBONDALE		SHALE	5.4	136.6	
384.4	CARBONDALE	CONANT	LIMESTONE	1.0	142.0	
383.4	CARBONDALE		SHALE	9.6	143.0	
373.8	CARBONDALE	BRERETON	LIMESTONE	1.4	152.6	
372.4	CARBONDALE	HERRIN	COAL	6.0	154.0	
366.4	CARBONDALE		UNDERCLAY	1.2	160.0	
365.2	CARBONDALE		MUDSTONE	1.6	161.2	
363.6	CARBONDALE		SHALE	2.2	162.8	
361.4	CARBONDALE	HIGGINSVILLE	LIMESTONE	5.6	165.0	
355.8	CARBONDALE	SPRINGFIELD	COAL	0.5	170.6	
355.3	CARBONDALE		UNDERCLAY	2.0	171.1	
353.3	CARBONDALE		MUDSTONE	6.9	173.1	
346.4	CARBONDALE		SHALE	2.4	180.0	

MAPID: 15790059000C VERSION: 1

PROJECT: LUMP97

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 25 QUARTERS/FOOTAGES: 560' N line, 400' E line of NW NE

QUADRANGLE: TILDEN LONGITUDE: -89.709636 GEOLOGIST: D NORTH

CONFIDENTIAL: N LATITUDE: 38.159804 DATE COLLECTED: 6 / 27 / 1990

SURFACE ELEVATION (FT.): 512.9 LOGGED (FT.): 143.9 LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO. 16884C WELL TYPE: Coal Test

COMMENT: PERMIT # 59 RIVERKING #6

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
512.9	PLEISTOCENE		UNCONSOLIDATED	33.3	0.0	
479.6	MODESTO		SHALE	44.9	33.3	
434.7	MODESTO		LIMESTONE	2.1	78.2	
432.6	MODESTO		GRAY SHALE	8.9	80.3	
423.7	MODESTO	PIASA	LIMESTONE	9.8	89.2	
413.9	MODESTO	PIASA	GRAY SHALE	3.1	99.0	
410.8	MODESTO	PIASA	LIMESTONE	0.5	102.1	
410.3	CARBONDALE		GRAY SHALE	9.4	102.6	WITH LIMESTONE
400.9	CARBONDALE	BANKSTON FORK	LIMESTONE	3.0	112.0	
397.9	CARBONDALE	BANKSTON FORK	SHALE	4.0	115.0	
393.9	CARBONDALE	BANKSTON FORK	LIMESTONE	5.3	119.0	
388.6	CARBONDALE		SHALE	1.7	124.3	
386.9	CARBONDALE	BRERETON	LIMESTONE	3.0	126.0	
383.9	CARBONDALE	ANNA	BLACK SHALE	1.0	129.0	
382.9	CARBONDALE	HERRIN	COAL	6.0	130.0	
376.9	CARBONDALE		MUDSTONE	4.3	136.0	
372.6	CARBONDALE	HIGGINSVILLE	LIMESTONE	3.6	140.3	

MAPID: 15790060000C VERSION: 1

PROJECT: LUMP97

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 25 QUARTERS/FOOTAGES: 550' N line, 400' E line of NW NE

QUADRANGLE: TILDEN LONGITUDE: -89.709636 GEOLOGIST: D NORTH

CONFIDENTIAL: N LATITUDE: 38.159832 DATE COLLECTED: 6 / 14 / 1990

SURFACE ELEVATION (FT.): 513.1 LOGGED (FT.): 167.0 LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO. 16883C WELL TYPE: Coal Test

COMMENT: PERMIT # 59 RIVERKING #6

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
513.1	PLEISTOCENE		UNCONSOLIDATED	33.1	0.0	
480.0	MODESTO		GRAY SHALE	45.1	33.1	
434.9	MODESTO		LIMESTONE	2.0	78.2	
432.9	MODESTO		GRAY SHALE	9.0	80.2	
423.9	MODESTO	PIASA	LIMESTONE	9.8	89.2	
414.1	MODESTO	PIASA	GRAY SHALE	3.1	99.0	
411.0	MODESTO	PIASA	LIMESTONE	0.5	102.1	
410.5	MODESTO		SHALE	4.0	102.6	
406.5	CARBONDALE		MUDSTONE	2.0	106.6	CALCAREOUS
404.5	CARBONDALE		SHALE	1.1	108.6	WITH LIMESTONE
403.4	CARBONDALE		MUDSTONE	3.1	109.7	SOME LIMESTONE
400.3	CARBONDALE	BANKSTON FORK	LIMESTONE	2.2	112.8	
398.1	CARBONDALE	BANKSTON FORK	SHALE	4.2	115.0	
393.9	CARBONDALE	BANKSTON FORK	LIMESTONE	1.5	119.2	
392.4	CARBONDALE		SHALE	1.2	120.7	
391.2	CARBONDALE	CONANT	LIMESTONE	0.9	121.9	
390.3	CARBONDALE		SHALE	3.2	122.8	
387.1	CARBONDALE	BRERETON	LIMESTONE	3.0	126.0	
384.1	CARBONDALE	ANNA	BLACK SHALE	1.0	129.0	
383.1	CARBONDALE	HERRIN	COAL	5.7	130.0	
377.4	CARBONDALE		MUDSTONE	6.7	135.7	
370.7	CARBONDALE	HIGGINSVILLE	LIMESTONE	0.9	142.4	
369.8	CARBONDALE		MUDSTONE	2.4	143.3	CALCAREOUS
367.4	CARBONDALE		LIMESTONE	0.8	145.7	
366.6	CARBONDALE		MUDSTONE	2.8	146.5	
363.8	CARBONDALE		SHALE	17.7	149.3	

MAPID: 15790061000C VERSION: 1

PROJECT: LUMP97

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 25 QUARTERS/FOOTAGES: 620' S line, 150' E line of SE NW

QUADRANGLE: TILDEN LONGITUDE: -89.713464 GEOLOGIST: D NORTH

CONFIDENTIAL: N LATITUDE: 38.155902 DATE COLLECTED: 5 / 10 / 1990

SURFACE ELEVATION (FT.): 504.2 LOGGED (FT.): 157.0 LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO. 16882C WELL TYPE: Coal Test

COMMENT: PERMIT # 59 RIVERKING #6

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
504.2	PLEISTOCENE		UNCONSOLIDATED	21.4	0.0	
482.8	MODESTO		SANDSTONE	5.5	21.4	
477.3	MODESTO		CLAYSTONE	0.7	26.9	
476.6	MODESTO		SANDSTONE	15.5	27.6	
461.1	MODESTO		CLAYSTONE	3.4	43.1	
457.7	MODESTO		SHALE	13.8	46.5	
443.9	MODESTO		CLAYSTONE	6.4	60.3	
437.5	MODESTO		SHALE	3.1	66.7	
434.4	MODESTO		CLAYSTONE	3.5	69.8	
430.9	MODESTO		SHALE	0.6	73.3	
430.3	MODESTO		LIMESTONE	1.1	73.9	
429.2	MODESTO		SHALE	9.6	75.0	
419.6	MODESTO	PIASA	LIMESTONE	9.6	84.6	
410.0	MODESTO		SHALE	3.0	94.2	
407.0	CARBONDALE	DANVILLE	COAL	2.0	97.2	
405.0	CARBONDALE		MUDSTONE	5.3	99.2	
399.7	CARBONDALE	BANKSTON FORK	LIMESTONE	1.2	104.5	
398.5	CARBONDALE	BANKSTON FORK	SHALE	0.2	105.7	
398.3	CARBONDALE	BANKSTON FORK	LIMESTONE	0.9	105.9	
397.4	CARBONDALE	BANKSTON FORK	SHALE	5.3	106.8	
392.1	CARBONDALE	BANKSTON FORK	LIMESTONE	1.9	112.1	
390.2	CARBONDALE		SHALE	1.8	114.0	
388.4	CARBONDALE		MUDSTONE	3.8	115.8	CALCAREOUS
384.6	CARBONDALE	CONANT	LIMESTONE	1.1	119.6	
383.5	CARBONDALE	CONANT	MUDSTONE	0.5	120.7	CALCAREOUS
383.0	CARBONDALE	CONANT	LIMESTONE	0.8	121.2	
382.2	CARBONDALE		MUDSTONE	7.7	122.0	
374.5	CARBONDALE	BRERETON	LIMESTONE	1.4	129.7	
373.1	CARBONDALE	HERRIN	COAL	0.8	131.1	
372.3	CARBONDALE	HERRIN	COAL	3.3	131.9	WITH SHALE LAMINA
369.0	CARBONDALE	HERRIN	SHALE	0.1	135.2	WITH DYRITE
368.9	CARBONDALE	HERRIN	COAL	1.2	135.3	
367.7	CARBONDALE		UNDERCLAY	1.3	136.5	
366.4	CARBONDALE		MUDSTONE	5.3	137.8	
361.1	CARBONDALE	HIGGINSVILLE	LIMESTONE	1.7	143.1	ARGILACEOUS
359.4	CARBONDALE		MUDSTONE	3.0	144.8	
356.4	CARBONDALE		LIMESTONE	0.5	147.8	
355.9	CARBONDALE	SPRINGFIELD	COAL	0.3	148.3	
355.6	CARBONDALE		MUDSTONE	6.1	148.6	

349.5 CARBONDALE

SILTSTONE

2.3 154.7

MAPID: 15700012000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 4S 6W **SECTION:** 26 **QUARTERS/FOOTAGES:** NW NE
QUADRANGLE: TILDEN **LONGITUDE:** -89.729345 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 38.159678 **DATE COLLECTED:** 0 / 0 / 1914
SURFACE ELEVATION (FT.): 445.0 **LOGGED (FT.):** 64.0 **LOG TYPE:** Drillers Log
SOURCE: WILLISVILLE COAL AND MINING CO. **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
445.0	PLEISTOCENE		UNCONSOLIDATED	19.0	0.0	YELLOW WITH CLAY
426.0	PLEISTOCENE		UNCONSOLIDATED	6.0	19.0	YELLOW WITH CLAY
420.0	PLEISTOCENE		CLAY & GRAVEL	9.0	25.0	YELLOW
411.0	PLEISTOCENE		UNCONSOLIDATED	3.0	34.0	SANDY; YELLOW
408.0	CARBONDALE		LIMESTONE	1.5	37.0	GRAY
406.5	CARBONDALE		CLAYSTONE	1.0	38.5	SOFT, LIGHT
405.5	CARBONDALE		DARK SHALE	1.0	39.5	CLAYEY
404.5	CARBONDALE		CLAYSTONE	0.3	40.5	SOFT, LIGHT
404.2	CARBONDALE		DARK SHALE	1.0	40.8	CLAYEY
403.2	CARBONDALE		CLAYSTONE	0.3	41.8	LIGHT
403.0	CARBONDALE		DARK SHALE	3.0	42.0	CLAYEY
400.0	CARBONDALE		ROCK	4.0	45.0	HARD & DARK
396.0	CARBONDALE		SHALE	3.0	49.0	DARK
393.0	CARBONDALE	BRERETON	LIMESTONE	4.5	52.0	DARK GRAY
388.5	CARBONDALE	HERRIN	COAL	5.5	56.5	
383.0	CARBONDALE		UNDERCLAY	2.0	62.0	

MAPID: 15700117000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 4S 6W **SECTION:** 26 **QUARTERS/FOOTAGES:**
QUADRANGLE: TILDEN **LONGITUDE:** -89.731646 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 38.154235 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 450.0 **LOGGED (FT.):** 40.2 **LOG TYPE:** Drillers Log
SOURCE: MISSISSIPPI COAL CORP. **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
450.0	PLEISTOCENE		SOIL	15.0	0.0	CLAYEY
435.0	PLEISTOCENE		SAND	7.0	15.0	
428.0	PLEISTOCENE		MUD	12.0	22.0	BLUE
416.0	PLEISTOCENE		UNCLASSIFIED	0.2	34.0	COAL TRACE
415.8	PLEISTOCENE		BOULDER	1.0	34.2	
414.8	PLEISTOCENE		SAND & GRAVEL	5.0	35.2	

MAPID: 15701615000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 26 QUARTERS/FOOTAGES: 56' N line, 1335' E line
 QUADRANGLE: TILDEN LONGITUDE: -89.727039 GEOLOGIST: HOKE
 CONFIDENTIAL: N LATITUDE: 38.161331 DATE COLLECTED: 8 / 0 / 1947
 SURFACE ELEVATION (FT.): 445.0 LOGGED (FT.): 62.0 LOG TYPE: Drillers Log
 SOURCE: MIDWEST RADIANT CO. 91 WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
445.0	PLEISTOCENE		CLAY	9.0	0.0	
436.0	PLEISTOCENE		SAND	15.0	9.0	
421.0	PLEISTOCENE		SILT & SAND	14.3	24.0	BLUE
406.7	CARBONDALE		LIMESTONE	3.5	38.3	
403.2	CARBONDALE		SHALE	5.5	41.8	BLACK
397.7	CARBONDALE		LIMESTONE	4.0	47.3	
393.7	CARBONDALE		SHALE	0.7	51.3	DARK
393.1	CARBONDALE	BRERETON	LIMESTONE	0.5	51.9	
392.6	CARBONDALE	ANNA	BLACK SHALE	2.9	52.4	
389.7	CARBONDALE	HERRIN	COAL	6.2	55.3	
383.5	CARBONDALE		UNDERCLAY	0.5	61.5	

MAPID: 15701615000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 26 QUARTERS/FOOTAGES: 56' N line, 1335' E line
 QUADRANGLE: TILDEN LONGITUDE: -89.727039 GEOLOGIST:
 CONFIDENTIAL: N LATITUDE: 38.161331 DATE COLLECTED:
 SURFACE ELEVATION (FT.): 445.0 LOGGED (FT.): 61.2 LOG TYPE: Drillers Log
 SOURCE: WELL TYPE: Coal Test
 COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
407.1	CARBONDALE	BANKSTON FORK	LIMESTONE	3.5	37.9	
403.6	CARBONDALE	LAWSON	DARK GRAY SHALE	5.5	41.4	
398.1	CARBONDALE	CONANT	LIMESTONE	4.0	46.9	
394.1	CARBONDALE		DARK GRAY SHALE	0.7	50.9	
393.4	CARBONDALE	BRERETON	LIMESTONE	0.5	51.6	
392.9	CARBONDALE	ANNA	BLACK SHALE	2.9	52.1	
390.0	CARBONDALE	HERRIN	COAL	6.2	55.0	

MAPID: 15701616000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 26 QUARTERS/FOOTAGES: 205' S line, 20' E line of NW NE

QUADRANGLE: TILDEN LONGITUDE: -89.727079 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.158421 DATE COLLECTED: 8 / 0 / 1947

SURFACE ELEVATION (FT.): 440.0 LOGGED (FT.): 59.5 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 92 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
440.0	PLEISTOCENE		CLAY	12.0	0.0	
428.0	PLEISTOCENE		MUD	35.5	12.0	BLUE
392.5	CARBONDALE	BRERETON	LIMESTONE	2.5	47.5	BROKEN
390.0	CARBONDALE	BRERETON	LIMESTONE	0.4	50.0	
389.6	CARBONDALE	ANNA	BLACK SHALE	2.3	50.4	
387.2	CARBONDALE	HERRIN	COAL	6.0	52.8	
381.2	CARBONDALE		UNDERCLAY	0.8	58.8	

MAPID: 15701617000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 26 QUARTERS/FOOTAGES: 700' S line, 760' E line of NW NE

QUADRANGLE: TILDEN LONGITUDE: -89.729674 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.159796 DATE COLLECTED: 8 / 0 / 1947

SURFACE ELEVATION (FT.): 437.0 LOGGED (FT.): 63.3 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 93 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
437.0	PLEISTOCENE		CLAY	24.0	0.0	
413.0	PLEISTOCENE		SILT	10.0	24.0	SANDY
403.0	PLEISTOCENE		MUD	16.0	34.0	BLUE
387.0	PLEISTOCENE		GRAVEL	2.3	50.0	WITH CLAY
384.7	PLEISTOCENE		GRAVEL	6.7	52.3	WASH COAL
378.1			UNDERCLAY	4.4	58.9	

MAPID: 15701618000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 26 QUARTERS/FOOTAGES: 80' N line, 870' E line of NW NE

QUADRANGLE: TILDEN LONGITUDE: -89.730071 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.161275 DATE COLLECTED: 8 / 0 / 1947

SURFACE ELEVATION (FT.): 434.0 LOGGED (FT.): 49.5 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 94 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
434.0	PLEISTOCENE		CLAY	12.0	0.0
422.0	PLEISTOCENE		SAND & GRAVEL	27.4	12.0
394.6	CARBONDALE	BRERETON	LIMESTONE	0.6	39.4
394.0	CARBONDALE	ANNA	BLACK SHALE	2.3	40.0
391.7	CARBONDALE	HERRIN	COAL	6.4	42.3
385.3	CARBONDALE		UNDERCLAY	0.8	48.7

MAPID: 15701619000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 26 QUARTERS/FOOTAGES: 10' S line, 85' E line of NW NE

QUADRANGLE: TILDEN LONGITUDE: -89.727305 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.157885 DATE COLLECTED: 8 / 0 / 1947

SURFACE ELEVATION (FT.): 440.0 LOGGED (FT.): 64.5 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 95W WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
440.0	PLEISTOCENE		CLAY	24.0	0.0
416.0	PLEISTOCENE		MUD	32.3	24.0 BLUE
383.7	CARBONDALE	BRERETON	LIMESTONE	0.8	56.3 BROKEN
383.0	CARBONDALE	HERRIN	COAL	1.2	57.0 MEDIUM-HARD
381.8	CARBONDALE		SHALE	0.5	58.2
381.3	CARBONDALE	HERRIN	COAL	3.9	58.7
377.4	CARBONDALE		UNDERCLAY	1.9	62.6

MAPID: 15701622000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 26 QUARTERS/FOOTAGES: 65' N line, 990' E line of NW NE

QUADRANGLE: TILDEN LONGITUDE: -89.73049 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.161318 DATE COLLECTED: 8 / 0 / 1947

SURFACE ELEVATION (FT.): 435.0 LOGGED (FT.): 52.0 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 98W WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
435.0	PLEISTOCENE		CLAY	18.0	0.0	
417.0	PLEISTOCENE		MUD	5.0	18.0	BLUE
412.0	PLEISTOCENE		SAND & GRAVEL	4.0	23.0	
408.0	PLEISTOCENE		MUD	3.3	27.0	BLUE
404.7	PLEISTOCENE		BOULDER	0.4	30.3	
404.3	PLEISTOCENE		MUD	2.6	30.7	BLUE
401.7	PLEISTOCENE		BOULDER	0.7	33.3	
401.1	PLEISTOCENE		CLAY	5.6	33.9	SANDY; YELLOW
395.5	CARBONDALE		LIMESTONE	1.0	39.5	
394.5	CARBONDALE		BLACK SHALE	2.0	40.5	
392.5	CARBONDALE		MUDSTONE	2.0	42.5	WITH SLATE; BLK
390.5	CARBONDALE	HERRIN	COAL	6.1	44.5	
384.4	CARBONDALE		UNDERCLAY	1.4	50.6	

MAPID: 15701623000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 26 QUARTERS/FOOTAGES: 50' N line, 250' W line of NW NE

QUADRANGLE: TILDEN LONGITUDE: -89.730809 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.161362 DATE COLLECTED: 8 / 0 / 1947

SURFACE ELEVATION (FT.): 435.0 LOGGED (FT.): 52.0 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 99W WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
435.0	PLEISTOCENE		SANDY CLAY	20.0	0.0	
415.0	PLEISTOCENE		MUD	7.0	20.0	BLUE
408.0	PLEISTOCENE		SAND & GRAVEL	4.0	27.0	
404.0	PLEISTOCENE		MUD	7.2	31.0	SANDY AND BLUE
396.8	PLEISTOCENE		BOULDER	1.1	38.2	
395.7	PLEISTOCENE		CLAY	2.8	39.3	BLUE
393.0	CARBONDALE	ANNA	BLACK SHALE	1.8	42.0	
391.2	CARBONDALE	HERRIN	COAL	6.3	43.8	
384.9	CARBONDALE		UNDERCLAY	1.9	50.1	

MAPID: 15701694000C VERSION: 1

PROJECT: NCRDS93

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 26 QUARTERS/FOOTAGES: 120' N line, 10' W line of NW NE

QUADRANGLE: TILDEN LONGITUDE: -89.731647 GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 38.16117 DATE COLLECTED: 6 / 0 / 1947

SURFACE ELEVATION (FT.): 432.0 LOGGED (FT.): 68.0 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 64 WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
432.0	PLEISTOCENE		SOIL	28.0	0.0	CLAYEY
404.0	PLEISTOCENE		MUD	6.0	28.0	BLUE
398.0	PLEISTOCENE		GRAVEL	4.0	34.0	
394.0	PLEISTOCENE		MUD	13.0	38.0	SANDY AND BLUE
381.0	PLEISTOCENE		GRAVEL	2.0	51.0	
379.0	CARBONDALE		LIMESTONE	7.5	53.0	
371.5	CARBONDALE		UNCLASSIFIED	1.5	60.5	GOBB AND SLATE #5
370.0	CARBONDALE		UNDERCLAY	3.0	62.0	
367.0	CARBONDALE		SANDSTONE	3.0	65.0	

MAPID: 15700013000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 35 QUARTERS/FOOTAGES: SW SW SE SE

QUADRANGLE: TILDEN LONGITUDE: -89.726642 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.132805 DATE COLLECTED: 0 / 0 / 1914

SURFACE ELEVATION (FT.): 525.0 LOGGED (FT.): 84.0 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL AND MINING CO WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
525.0	PLEISTOCENE		CLAY & GRAVEL	30.0	0.0	YELLOW
495.0	PLEISTOCENE		CLAY & GRAVEL	30.0	30.0	
465.0	PLEISTOCENE		CLAY	5.0	60.0	DARK; WITH SHALES
460.0	PLEISTOCENE		BOULDER	1.5	65.0	HARD AND DARK
458.5	PLEISTOCENE		CLAY	1.0	66.5	DARK; WITH SHALES
457.5	PLEISTOCENE		BOULDER	2.8	67.5	HARD AND DARK
454.7	PLEISTOCENE		CLAY	1.0	70.3	DARK; WITH SHALES
453.7	PLEISTOCENE		BOULDER	2.0	71.3	CONGLOMERATE
451.7	PLEISTOCENE		BOULDER	2.5	73.3	HARD AND DARK
449.2	PLEISTOCENE		CLAY	1.0	75.8	DARK; WITH SHALES
448.2	CARBONDALE	HERRIN	COAL WITH SHALE PARTINGS	6.0	76.8	TOP ERODED
442.2	CARBONDALE		UNDERCLAY	1.3	82.8	

MAPID: 15700014000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 35 QUARTERS/FOOTAGES: NE NE

QUADRANGLE: TILDEN LONGITUDE: -89.724639 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.145141 DATE COLLECTED:

SURFACE ELEVATION (FT.): 480.0 LOGGED (FT.): 79.5 LOG TYPE: Drillers Log

SOURCE: WILLISVILLE COAL & MINING CO WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
480.0	PLEISTOCENE		CLAY & GRAVEL	18.0	0.0	YELLOW
462.0	PLEISTOCENE		CLAY & GRAVEL	23.0	18.0	
439.0	PLEISTOCENE		UNCONSOLIDATED	10.0	41.0	GRAY SOFT
429.0	CARBONDALE		LIMESTONE	2.3	51.0	GRAY
426.7	CARBONDALE		CLAYSTONE	1.8	53.3	LIGHT
425.0	CARBONDALE		CLAYSTONE & SHALE	3.5	55.0	DARK
421.5	CARBONDALE		SHALE	1.0	58.5	DARK
420.5	CARBONDALE		LIMESTONE	3.0	59.5	HARD AND DARK
417.5	CARBONDALE		SHALE	5.0	62.5	DARK
412.5	CARBONDALE		CLAYSTONE & SHALE	3.8	67.5	LIGHT
408.7	CARBONDALE		SHALE	0.5	71.3	DARK
408.2	CARBONDALE	HERRIN	COAL	5.8	71.8	
402.5	CARBONDALE		UNDERCLAY	2.0	77.5	LIGHT AND SANDY

MAPID: 15700015000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 35 QUARTERS/FOOTAGES: SE SE SW SW

QUADRANGLE: TILDEN LONGITUDE: -89.737135 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.132872 DATE COLLECTED: 0 / 0 / 1914

SURFACE ELEVATION (FT.): 515.0 LOGGED (FT.): 82.0 LOG TYPE: Drillers Log

SOURCE: WILLIEVILLE COAL & MINING CO WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
515.0	PLEISTOCENE		CLAY & GRAVEL	25.0	0.0	YELLOW
490.0	PLEISTOCENE		UNCONSOLIDATED	20.0	25.0	LIGHT, CLAY AND GRAVEL
470.0	CARBONDALE		SHALE	12.0	45.0	LIGHT
458.0	CARBONDALE		LIMESTONE/UNDERCLAY	0.5	57.0	GRAY
457.5	CARBONDALE		LIMESTONE	3.0	57.5	GRAY
454.5	CARBONDALE		SANDY SHALE	1.5	60.5	SANDY
453.0	CARBONDALE		ROCK	4.0	62.0	HARD AND DARK
449.0	CARBONDALE		SHALE	6.0	66.0	DARK
443.0	CARBONDALE		ROCK	3.0	72.0	HARD; GRAY
440.0	CARBONDALE		SHALE	0.3	75.0	SOFT
439.7	CARBONDALE	HERRIN	COAL	5.8	75.3	
434.0	CARBONDALE		UNDERCLAY	1.0	81.0	

MAPID: 15701624000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 35 QUARTERS/FOOTAGES: 30' N line, 40' W line of NW NE

QUADRANGLE: TILDEN LONGITUDE: -89.731472 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.146883 DATE COLLECTED: 11 / 0 / 1947

SURFACE ELEVATION (FT.): 480.0 LOGGED (FT.): 67.0 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 100 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
480.0	PLEISTOCENE		CLAY	10.0	0.0	
470.0	PLEISTOCENE		CLAY	15.0	10.0	SANDY
455.0	PLEISTOCENE		MUD	4.0	25.0	BLUE
451.0	PLEISTOCENE		CLAY	6.0	29.0	
445.0	PLEISTOCENE		MUD	5.0	35.0	BLUE
440.0	CARBONDALE		SHALE	1.0	40.0	LIGHT
439.0	CARBONDALE		LIMESTONE	2.0	41.0	
437.0	CARBONDALE		SHALE	4.5	43.0	DARK
432.5	CARBONDALE		LIMESTONE	2.3	47.5	BLACK
430.2	CARBONDALE		BLACK SHALE	8.2	49.8	WITH LIMESTONE; BLK
422.0	CARBONDALE	BRERETON	LIMESTONE	0.7	58.0	
421.3	CARBONDALE		SMUT	0.2	58.7	
421.2	CARBONDALE	HERRIN	COAL	6.1	58.8	
415.1	CARBONDALE		UNDERCLAY	2.1	64.9	

MAPID: 15701626000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 35 QUARTERS/FOOTAGES: 18' N line, 650' E line of NE NW

QUADRANGLE: TILDEN LONGITUDE: -89.733881 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.146917 DATE COLLECTED: 11 / 0 / 1947

SURFACE ELEVATION (FT.): 475.0 LOGGED (FT.): 27.0 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 102W WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
475.0	PLEISTOCENE		CLAY	10.0	0.0	
465.0	PLEISTOCENE		SAND	7.0	10.0	
458.0	PLEISTOCENE		MUD	5.0	17.0	SANDY AND BLUE
453.0	CARBONDALE		COAL	2.5	22.0	TOP ERODED
450.5	CARBONDALE		UNDERCLAY	2.5	24.5	

MAPID: 15701627000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 35 QUARTERS/FOOTAGES: 310' N line, 670' E line of NE NW

QUADRANGLE: TILDEN

LONGITUDE: -89.733969

GEOLOGIST: HOKE

CONFIDENTIAL: N

LATITUDE: 38.146111

DATE COLLECTED: 11 / 0 / 1947

SURFACE ELEVATION (FT.): 455.0

LOGGED (FT.): 20.0

LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 103W

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
455.0	PLEISTOCENE		CLAY	12.0	0.0	
443.0	PLEISTOCENE		SAND	2.5	12.0	
440.5	CARBONDALE	HERRIN	COAL	4.3	14.5	SOFT
436.2	CARBONDALE		CLAYSTONE	1.3	18.8	

MAPID: 15701628000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 35 QUARTERS/FOOTAGES: 630' N line, 400' E line of NE NW

QUADRANGLE: TILDEN

LONGITUDE: -89.73304

GEOLOGIST: HOKE

CONFIDENTIAL: N

LATITUDE: 38.145227

DATE COLLECTED: 11 / 0 / 1947

SURFACE ELEVATION (FT.): 456.0

LOGGED (FT.): 29.5

LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 104

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
456.0	PLEISTOCENE		CLAY	13.0	0.0	SANDY
443.0	CARBONDALE		DARK SHALE	2.3	13.0	
440.7	CARBONDALE		LIMESTONE	0.8	15.3	
439.9	CARBONDALE		DARK SHALE	0.7	16.1	
439.2	CARBONDALE	BRERETON	LIMESTONE	2.8	16.8	
436.4	CARBONDALE	ANNA	BLACK SHALE	3.3	19.6	
433.1	CARBONDALE	HERRIN	COAL	6.3	22.9	
426.7	CARBONDALE		UNDERCLAY	0.3	29.3	

MAPID: 15701629000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 35 QUARTERS/FOOTAGES: 560' N line, 630' E line of NE NW

QUADRANGLE: TILDEN

LONGITUDE: -89.733841

GEOLOGIST: HOKE

CONFIDENTIAL: N

LATITUDE: 38.145421

DATE COLLECTED: 11 / 0 / 1947

SURFACE ELEVATION (FT.): 455.0

LOGGED (FT.): 20.5

LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 105W

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
455.0	PLEISTOCENE		CLAY	7.0	0.0
448.0	PLEISTOCENE		SAND & GRAVEL	9.0	7.0
439.0	CARBONDALE		COAL	2.6	16.0
436.4	CARBONDALE		UNDERCLAY	1.9	18.6

MAPID: 15701630000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 35 QUARTERS/FOOTAGES: 10' S line, 946' W line of NE NW

QUADRANGLE: TILDEN

LONGITUDE: -89.733044

GEOLOGIST: HOKE

CONFIDENTIAL: N

LATITUDE: 38.143349

DATE COLLECTED: 11 / 0 / 1947

SURFACE ELEVATION (FT.): 453.0

LOGGED (FT.): 29.5

LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 106W

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
453.0	PLEISTOCENE		CLAY	11.5	0.0
441.5	CARBONDALE		LIMESTONE	0.5	11.5
441.0	CARBONDALE		DARK SHALE	0.8	12.0
440.2	CARBONDALE		LIMESTONE	7.5	12.8 BLACK
432.7	CARBONDALE	ANNA	BLACK SHALE	2.5	20.3
430.2	CARBONDALE	HERRIN	COAL	6.2	22.8
424.0	CARBONDALE		UNDERCLAY	0.5	29.0

MAPID: 15701697000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 35 QUARTERS/FOOTAGES: 700' S line, 20' E line of NE NW

QUADRANGLE: TILDEN LONGITUDE: -89.731711 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.145254 DATE COLLECTED: 11 / 0 / 1947

SURFACE ELEVATION (FT.): 455.0 LOGGED (FT.): 48.0 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 67 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
455.0	PLEISTOCENE		CLAY	12.0	0.0
443.0	CARBONDALE		LIMESTONE & CLAY	3.0	12.0
440.0	CARBONDALE	SPRINGFIELD	SMUT	0.5	15.0
439.5	CARBONDALE		UNDERCLAY	2.5	15.5
437.0	CARBONDALE		SANDSTONE	4.0	18.0
433.0	CARBONDALE		SANDY SHALE	26.0	22.0

MAPID: 15701698000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 35 QUARTERS/FOOTAGES: 30' S line, 20' E line of SW NW

QUADRANGLE: TILDEN LONGITUDE: -89.73649 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.139773 DATE COLLECTED: 11 / 0 / 1947

SURFACE ELEVATION (FT.): 475.0 LOGGED (FT.): 58.0 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 68 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
475.0	PLEISTOCENE		CLAY	20.0	0.0
455.0	PLEISTOCENE		SAND & GRAVEL	8.0	20.0
447.0	CARBONDALE		SHALE	8.0	28.0
439.0	CARBONDALE		LIMESTONE	4.5	36.0
434.5	CARBONDALE		MINE OPENING	0.5	40.5 SPOIL
434.0	CARBONDALE		BLACK SHALE & COAL	1.0	41.0
433.0	CARBONDALE		UNDERCLAY	4.0	42.0
429.0	CARBONDALE		SANDY SHALE	12.0	46.0 SANDY

MAPID: 15701699000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 35 QUARTERS/FOOTAGES: 15' S line, 340' W line of NE NW

QUADRANGLE: TILDEN LONGITUDE: -89.735163 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.143367 DATE COLLECTED: 11 / 0 / 1947

SURFACE ELEVATION (FT.): 483.0 LOGGED (FT.): 44.0 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 69 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
483.0	PLEISTOCENE		CLAY	10.0	0.0	
473.0	PLEISTOCENE		CLAY	16.0	10.0	GRAVELLY
457.0	CARBONDALE	BRERETON	LIMESTONE	1.5	26.0	
455.5	CARBONDALE	ANNA	BLACK SHALE	3.5	27.5	
452.0	CARBONDALE	HERRIN	COAL	6.0	31.0	
446.0	CARBONDALE		UNDERCLAY	6.0	37.0	WITH SHALE
440.0	CARBONDALE		LIMESTONE	1.0	43.0	

MAPID: 15701700000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 35 QUARTERS/FOOTAGES: SE NW

QUADRANGLE: TILDEN LONGITUDE: -89.734052 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.141503 DATE COLLECTED: 11 / 0 / 1947

SURFACE ELEVATION (FT.): 485.0 LOGGED (FT.): 58.0 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 70 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
485.0	PLEISTOCENE		CLAY	20.0	0.0	
465.0	PLEISTOCENE		SAND & GRAVEL	12.0	20.0	
453.0	PLEISTOCENE		MUD	8.0	32.0	BLUE
445.0	CARBONDALE	BRERETON	LIMESTONE	3.0	40.0	
442.0	CARBONDALE	HERRIN	COAL W/ BLACK SHALE	1.0	43.0	WITH SLATE
441.0	CARBONDALE		UNDERCLAY	3.0	44.0	
438.0	CARBONDALE		SANDY SHALE	11.0	47.0	SANDY

MAPID: 15701701000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 35 QUARTERS/FOOTAGES: NW NE

QUADRANGLE: TILDEN LONGITUDE: -89.72931 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.145143 DATE COLLECTED: 11 / 0 / 1947

SURFACE ELEVATION (FT.): 479.0 LOGGED (FT.): 36.0 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 71 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
479.0	PLEISTOCENE		CLAY	18.0	0.0
461.0	PLEISTOCENE		SAND & GRAVEL	17.0	18.0
444.0	CARBONDALE		LIMESTONE	1.0	35.0

MAPID: 15701702000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 35 QUARTERS/FOOTAGES: 0' N line, 1320' E line

QUADRANGLE: TILDEN LONGITUDE: -89.726879 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.14697 DATE COLLECTED: 11 / 0 / 1947

SURFACE ELEVATION (FT.): 475.0 LOGGED (FT.): 83.0 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 72 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
475.0	PLEISTOCENE		CLAY	18.0	0.0
457.0	PLEISTOCENE		SAND & GRAVEL	18.0	18.0
439.0	CARBONDALE		LIMESTONE	4.5	36.0
434.5	CARBONDALE		MINE OPENING	3.0	40.5 SPOIL
431.5	CARBONDALE	DANVILLE	COAL	2.5	43.5
429.0	CARBONDALE		UNDERCLAY	6.0	46.0
423.0	CARBONDALE		LIMESTONE	7.0	52.0 BROKEN
416.0	CARBONDALE		LIMESTONE	3.0	59.0
413.0	CARBONDALE		SLATY SHALE	4.0	62.0
409.0	CARBONDALE	BRERETON	LIMESTONE	4.0	66.0
405.0	CARBONDALE	ANNA	BLACK SHALE	2.0	70.0
403.0	CARBONDALE	HERRIN	COAL	6.0	72.0
397.0	CARBONDALE		UNDERCLAY	5.0	78.0

MAPID: 15701702000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 35 QUARTERS/FOOTAGES: 0' N line, 1320' E line

QUADRANGLE: TILDEN LONGITUDE: -89.726879 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.14697 DATE COLLECTED:

SURFACE ELEVATION (FT.): 475.0 LOGGED (FT.): 78.0 LOG TYPE: Drillers Log

SOURCE: WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
439.0	MODESTO	PIASA	LIMESTONE	4.5	36.0	
434.5	MODESTO		DARK GRAY SHALE	3.0	40.5	
431.5	CARBONDALE	DANVILLE	COAL	2.5	43.5	
429.0	CARBONDALE		CLAYSTONE	6.0	46.0	
423.0	CARBONDALE	BANKSTON FORK	LIMESTONE W/ SHALE	7.0	52.0	
416.0	CARBONDALE	CONANT	LIMESTONE	3.0	59.0	
413.0	CARBONDALE		SHALE	4.0	62.0	
409.0	CARBONDALE	BRERETON	LIMESTONE	4.0	66.0	
405.0	CARBONDALE	ANNA	BLACK SHALE	2.0	70.0	
403.0	CARBONDALE	HERRIN	COAL	6.0	72.0	

MAPID: 15701703000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 35 QUARTERS/FOOTAGES: SE NW NE NE

QUADRANGLE: TILDEN LONGITUDE: -89.725214 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.145598 DATE COLLECTED: 11 / 0 / 1947

SURFACE ELEVATION (FT.): 482.0 LOGGED (FT.): 78.0 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 73 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
482.0	PLEISTOCENE		SOIL	20.0	0.0	CLAYEY
462.0	PLEISTOCENE		SAND	8.0	20.0	
454.0	PLEISTOCENE		MUD	26.0	28.0	SANDY AND BLUE
428.0	CARBONDALE		LIMESTONE	3.0	54.0	BLACK
425.0	CARBONDALE		BLACK SHALE	2.5	57.0	DARK GRAY
422.5	CARBONDALE		LIMESTONE	1.5	59.5	BLK
421.0	CARBONDALE		BLACK SHALE	5.3	61.0	HARD
415.7	CARBONDALE	HERRIN	COAL	5.3	66.3	
410.4	CARBONDALE		UNDERCLAY	3.4	71.6	
407.0	CARBONDALE		LIMESTONE	3.0	75.0	

MAPID: 15700016000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 36 QUARTERS/FOOTAGES: NW NW NE NE

QUADRANGLE: TILDEN LONGITUDE: -89.707678 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.146556 DATE COLLECTED: 0 / 0 / 1914

SURFACE ELEVATION (FT.): 508.0 LOGGED (FT.): 120.0 LOG TYPE: Drillers Log

SOURCE: WILLISVILLE COAL & MINING CO. WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
508.0	PLEISTOCENE		UNCONSOLIDATED	55.0	0.0	YELLOW WITH CLAY
453.0	PLEISTOCENE		UNCONSOLIDATED	6.0	55.0	CLAY WITH BOULDERS; LIGHT
447.0	PLEISTOCENE		UNCONSOLIDATED	3.0	61.0	CLAY; PK
444.0	CARBONDALE		CLAYSTONE & SHALE	3.0	64.0	DARK
441.0	CARBONDALE		CLAYSTONE	6.5	67.0	
434.5	CARBONDALE		LIMESTONE	1.5	73.5	GRAY
433.0	CARBONDALE		CLAYSTONE	3.0	75.0	
430.0	CARBONDALE		SANDY SHALE	6.0	78.0	SANDY
424.0	CARBONDALE		LIMESTONE	11.0	84.0	GRAY
413.0	CARBONDALE		CLAYSTONE & SHALE	2.3	95.0	LIGHT
410.7	CARBONDALE		CLAYSTONE & SHALE	0.8	97.3	DARK
410.0	CARBONDALE	HERRIN	COAL	0.3	98.0	
409.7	CARBONDALE		UNDERCLAY	4.0	98.3	
405.7	CARBONDALE		CLAYSTONE	2.8	102.3	SANDY
403.0	CARBONDALE		LIMESTONE	2.5	105.0	GRAY
400.5	CARBONDALE		CLAYSTONE	3.5	107.5	SANDY
397.0	CARBONDALE		LIMESTONE	3.0	111.0	GRAY
394.0	CARBONDALE		CLAYSTONE & SHALE	6.0	114.0	DARK

MAPID: 15790062000C VERSION: 1

PROJECT: LUMP97

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 36 QUARTERS/FOOTAGES: 600' N line, 600' W line of NE NW

QUADRANGLE: TILDEN LONGITUDE: -89.715526 GEOLOGIST: D NORTH

CONFIDENTIAL: N LATITUDE: 38.145335 DATE COLLECTED: 9 / 26 / 1990

SURFACE ELEVATION (FT.): 505.5 LOGGED (FT.): 153.5 LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO. 16881C WELL TYPE: Coal Test

COMMENT: PERMIT # 59 RIVERKING #6

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
505.5	PLEISTOCENE		UNCONSOLIDATED	80.5	0.0	
425.0	MODESTO	PIASA	LIMESTONE	11.6	80.5	
413.4	MODESTO		SHALE	1.8	92.1	
411.6	CARBONDALE	DANVILLE	COAL	0.3	93.9	
411.3	CARBONDALE		UNDERCLAY	7.8	94.2	
403.5	CARBONDALE		MUDSTONE	0.2	102.0	
403.3	CARBONDALE	BANKSTON FORK	LIMESTONE	2.0	102.2	
401.3	CARBONDALE	BANKSTON FORK	MUDSTONE	2.2	104.2	WITH LIMESTONE
399.1	CARBONDALE	BANKSTON FORK	SHALE	3.6	106.4	
395.5	CARBONDALE	BANKSTON FORK	MUDSTONE	1.6	110.0	WITH LIMESTONE
393.9	CARBONDALE	BANKSTON FORK	LIMESTONE	1.2	111.6	
392.7	CARBONDALE		SHALE	3.7	112.8	
389.0	CARBONDALE	CONANT	LIMESTONE	0.3	116.5	
388.7	CARBONDALE		SHALE	2.0	116.8	
386.7	CARBONDALE	BRERETON	LIMESTONE	3.3	118.8	
383.4	CARBONDALE	ANNA	MUDSTONE	0.9	122.1	
382.5	CARBONDALE	ANNA	BLACK SHALE	2.6	123.0	
379.9	CARBONDALE	HERRIN	COAL	2.2	125.6	
377.7	CARBONDALE	HERRIN	PYRITE	0.1	127.8	
377.6	CARBONDALE	HERRIN	COAL	2.6	127.9	
374.9	CARBONDALE	HERRIN	BLACK SHALE	0.1	130.6	
374.8	CARBONDALE	HERRIN	COAL	1.1	130.7	
373.7	CARBONDALE		UNDERCLAY	1.1	131.8	
372.6	CARBONDALE		MUDSTONE	4.2	132.9	
368.4	CARBONDALE		LIMESTONE	0.2	137.1	
368.2	CARBONDALE		MUDSTONE	0.4	137.3	
367.8	CARBONDALE	HIGGINSVILLE	LIMESTONE	3.4	137.7	
364.4	CARBONDALE	HIGGINSVILLE	LIMESTONE	0.5	141.1	ARGILLACEOUS
363.9	CARBONDALE		MUDSTONE	0.8	141.6	
363.1	CARBONDALE		LIMESTONE	1.0	142.4	
362.1	CARBONDALE		SHALE	0.2	143.4	
361.9	CARBONDALE	SPRINGFIELD	COAL	0.6	143.6	
361.3	CARBONDALE		UNDERCLAY	4.0	144.2	
357.3	CARBONDALE		MUDSTONE	3.8	148.2	
353.5	CARBONDALE		SANDSTONE	0.7	152.0	
352.8	CARBONDALE		SHALE	0.8	152.7	

MAPID: 15790064000C VERSION: 1

PROJECT: LUMP97

COUNTY: RANDOLPH TWP/RNG: 4S 6W SECTION: 36 QUARTERS/FOOTAGES: 75' S line, 50' E line of NE SW

QUADRANGLE: TILDEN LONGITUDE: -89.713255 GEOLOGIST: D NORTH

CONFIDENTIAL: N LATITUDE: 38.136224 DATE COLLECTED: 10 / 6 / 1981

SURFACE ELEVATION (FT.): 503.2 LOGGED (FT.): 121.7 LOG TYPE: Drillers Log

SOURCE: PEABODY COAL CO. 16679C WELL TYPE: Coal Test

COMMENT: PERMIT # 59 RIVERKING #6

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
503.2	PLEISTOCENE		UNCONSOLIDATED	48.4	0.0	
454.8	MODESTO		SHALE	6.2	48.4	
448.6	MODESTO	PIASA	LIMESTONE	5.4	54.6	
443.2	MODESTO		GRAY SHALE	6.9	60.0	
436.3	CARBONDALE	DANVILLE	COAL	0.6	66.9	
435.7	CARBONDALE		SHALE	2.1	67.5	
433.6	CARBONDALE	BANKSTON FORK	LIMESTONE	1.5	69.6	
432.1	CARBONDALE	BANKSTON FORK	SHALE	8.9	71.1	
423.2	CARBONDALE	BANKSTON FORK	LIMESTONE	1.9	80.0	
421.3	CARBONDALE	BANKSTON FORK	SHALE	3.7	81.9	WITH LIMESTONE
417.6	CARBONDALE	BANKSTON FORK	LIMESTONE	3.4	85.6	
414.2	CARBONDALE		SHALE	3.4	89.0	
410.8	CARBONDALE	CONANT	LIMESTONE	1.0	92.4	
409.8	CARBONDALE		SHALE	4.2	93.4	
405.6	CARBONDALE		LIMESTONE	1.9	97.6	
403.7	CARBONDALE		SHALE	2.3	99.5	
401.4	CARBONDALE	BRERETON	LIMESTONE	3.9	101.8	
397.5	CARBONDALE		BLACK SHALE	0.1	105.7	
397.4	CARBONDALE	HERRIN	COAL	5.9	105.8	
391.5	CARBONDALE		UNDERCLAY	3.3	111.7	
388.2	CARBONDALE	HIGGINSVILLE	LIMESTONE	3.9	115.0	
384.3	CARBONDALE		SHALE	2.3	118.9	
382.0	CARBONDALE		SANDSTONE	0.4	121.2	
381.6	CARBONDALE		SHALE	0.1	121.6	

MAPID: 15701019000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 2 QUARTERS/FOOTAGES: 2640' N line, 0' W line

QUADRANGLE: STEELEVILLE

LONGITUDE: -89.63001

GEOLOGIST:

CONFIDENTIAL: N

LATITUDE: 38.124643

DATE COLLECTED:

SURFACE ELEVATION (FT.): 479.0

LOGGED (FT.): 111.3

LOG TYPE: Drillers Log

SOURCE:

WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
411.0	MODESTO		SHALE	0.5	68.0
410.5	CARBONDALE	DANVILLE	COAL	1.0	68.5
409.5	CARBONDALE		CLAYSTONE	6.8	69.5
402.7	CARBONDALE		SHALE	2.7	76.3
400.1	CARBONDALE	BANKSTON FORK	LIMESTONE W/ SHALE	7.3	78.9
392.8	CARBONDALE	LAWSON	DARK GRAY SHALE	6.3	86.2
386.6	CARBONDALE	CONANT	CALCAREOUS SHALE	3.3	92.4
383.2	CARBONDALE	BRERETON	LIMESTONE	6.3	95.8
377.0	CARBONDALE	ANNA	BLACK SHALE	3.0	102.0
374.0	CARBONDALE	HERRIN	COAL	6.3	105.0

MAPID: 15700955000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 3 QUARTERS/FOOTAGES: 2640' N line, 0' W line

QUADRANGLE: STEELEVILLE LONGITUDE: -89.648889 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.124725 DATE COLLECTED: 0 / 0 / 1939

SURFACE ELEVATION (FT.): 454.7 LOGGED (FT.): 84.6 LOG TYPE: Drillers Log

SOURCE: MOFFAT COAL CO. 5 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
454.7	PLEISTOCENE		CLAY	25.0	0.0	YELLOW
429.7	PLEISTOCENE		CLAY	5.0	25.0	BLUE
424.7	MODESTO		LIMESTONE	5.0	30.0	
419.7	MODESTO		MUDSTONE	0.3	35.0	BLACK
419.4	MODESTO		BLACK SHALE	1.2	35.3	
418.2	MODESTO		MUDSTONE	2.5	36.5	BLACK
415.7	CARBONDALE	DANVILLE	COAL	3.0	39.0	
412.7	CARBONDALE		UNDERCLAY	7.5	42.0	
405.2	CARBONDALE		ROCK	2.0	49.5	
403.2	CARBONDALE		CLAYSTONE	1.3	51.5	BLUE
401.9	CARBONDALE		ROCK	0.7	52.8	
401.3	CARBONDALE		SHALE	4.3	53.4	
396.9	CARBONDALE		ROCK	3.7	57.8	
393.3	CARBONDALE		SHALE	3.8	61.4	BLACK
389.5	CARBONDALE		ROCK	4.0	65.2	
385.5	CARBONDALE		BLACK SHALE	8.8	69.2	
376.8	CARBONDALE	HERRIN	COAL	6.0	77.9	
370.8	CARBONDALE		UNDERCLAY	0.7	83.9	

MAPID: 15700955000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 3 QUARTERS/FOOTAGES: 2640' N line, 0' W line

QUADRANGLE: STEELEVILLE

LONGITUDE: -89.648889

GEOLOGIST:

CONFIDENTIAL: N

LATITUDE: 38.124725

DATE COLLECTED:

SURFACE ELEVATION (FT.): 454.0

LOGGED (FT.): 82.0

LOG TYPE: Drillers Log

SOURCE:

WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
426.1	MODESTO	PIASA	LIMESTONE	5.0	27.9
421.1	MODESTO		DARK GRAY SHALE	4.0	32.9
417.1	CARBONDALE	DANVILLE	COAL	3.0	36.9
414.1	CARBONDALE		CLAYSTONE	7.5	39.9
406.6	CARBONDALE	BANKSTON FORK	LIMESTONE	2.0	47.4
404.6	CARBONDALE	BANKSTON FORK	SHALE	1.3	49.4
403.3	CARBONDALE	BANKSTON FORK	LIMESTONE	0.7	50.7
402.6	CARBONDALE	LAWSON	SHALE	4.3	51.4
398.3	CARBONDALE	CONANT	LIMESTONE	3.7	55.7
394.6	CARBONDALE		DARK GRAY SHALE	3.8	59.4
390.9	CARBONDALE	BRERETON	LIMESTONE	4.0	63.1
386.9	CARBONDALE	ANNA	BLACK SHALE	8.9	67.1
378.0	CARBONDALE	HERRIN	COAL	6.0	76.0

MAPID: 15701001000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 3 QUARTERS/FOOTAGES: SW SW

QUADRANGLE: STEELEVILLE LONGITUDE: -89.6463 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.119823 DATE COLLECTED: 0 / 0 / 1939

SURFACE ELEVATION (FT.): 447.6 LOGGED (FT.): 146.5 LOG TYPE: Drillers Log

SOURCE: MOFFAT COAL CO. 4 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
447.6	PLEISTOCENE		CLAY	23.0	0.0	YELLOW
424.6	PLEISTOCENE		CLAY	27.0	23.0	BLUE
397.6	PLEISTOCENE		GRAVEL	2.0	50.0	
395.6	CARBONDALE		COAL	0.3	52.0	
395.3	CARBONDALE		SHALE	3.3	52.3	GRAVELLY
392.1	CARBONDALE		ROCK	2.0	55.5	SOFT
390.1	CARBONDALE		ROCK	9.5	57.5	WITH LIMESTONE
380.6	CARBONDALE	HERRIN	COAL	2.0	67.0	
378.6	CARBONDALE		CLAYSTONE	4.0	69.0	BLUE
374.6	CARBONDALE		ROCK	10.3	73.0	
364.3	CARBONDALE		MUDSTONE	1.5	83.3	SOFT
362.8	CARBONDALE		SHALE	16.3	84.8	
346.6	CARBONDALE		SHALE	18.8	101.0	
327.8	CARBONDALE		ROCK	1.0	119.8	
326.8	CARBONDALE		BLACK SHALE	5.4	120.8	
321.3	CARBONDALE	SPRINGFIELD	COAL	2.3	126.3	
319.0	CARBONDALE		UNDERCLAY	3.3	128.6	
315.8	CARBONDALE		ROCK	14.7	131.8	

MAPID: 15701037000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 4 QUARTERS/FOOTAGES: 500' N line, 25' W line of SW SE

QUADRANGLE: STEELEVILLE LONGITUDE: -89.657833

GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.120221

DATE COLLECTED: 0 / 0 / 1939

SURFACE ELEVATION (FT.): 474.3

LOGGED (FT.): 98.1

LOG TYPE: Drillers Log

SOURCE: MOFFAT COAL CO., SPARTA

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
474.3	PLEISTOCENE		CLAY	37.0	0.0	YELLOW
437.3	CARBONDALE		LIMESTONE	8.5	37.0	
428.8	CARBONDALE		CLAYSTONE	1.5	45.5	BLUE
427.3	MODESTO		BLACK SHALE	1.5	47.0	
425.8	CARBONDALE	DANVILLE	COAL	3.0	48.5	
422.8	CARBONDALE		SHALE	8.5	51.5	BLUE
414.3	CARBONDALE		ROCK	4.0	60.0	
410.3	CARBONDALE		SHALE	4.5	64.0	
405.8	CARBONDALE		ROCK	4.3	68.5	
401.5	CARBONDALE		SHALE	1.0	72.8	BLACK
400.5	CARBONDALE		BLACK SHALE	6.3	73.8	
394.2	CARBONDALE		ROCK	5.8	80.1	
388.4	CARBONDALE	ANNA	BLACK SHALE	2.2	85.9	
386.2	CARBONDALE	HERRIN	COAL	6.0	88.1	
380.2	CARBONDALE		UNDERCLAY	4.0	94.1	

MAPID: 15701094000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 4 QUARTERS/FOOTAGES: 2690' N line, 1120' E line

QUADRANGLE: STEELEVILLE

LONGITUDE: -89.6528

GEOLOGIST: HOKE

CONFIDENTIAL: N

LATITUDE: 38.124618

DATE COLLECTED: 0 / 0 / 1939

SURFACE ELEVATION (FT.): 482.5

LOGGED (FT.): 113.0

LOG TYPE: Drillers Log

SOURCE: MOFFAT COAL CO. 2

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
482.5	PLEISTOCENE		CLAY & SHALE	53.0	0.0	NO CORE; DARK
429.5	PLEISTOCENE		BOULDER	10.0	53.0	WITH LIMESTONE; WT
419.5	PLEISTOCENE		MUD	2.0	63.0	NO CORE; BLK
417.5	MODESTO		BLACK SHALE	1.5	65.0	
416.0	CARBONDALE	DANVILLE	COAL	2.5	66.5	
413.5	CARBONDALE		UNDERCLAY	7.5	69.0	NO CORE
406.0	CARBONDALE		ROCK	2.5	76.5	GRAY WITH LIMESTONE
403.5	CARBONDALE		SHALE	3.5	79.0	SOFT, NO CORE
400.0	CARBONDALE		ROCK	4.0	82.5	GRAY WITH LIMESTONE
396.0	CARBONDALE		SHALE	7.5	86.5	WITH ROCK
388.5	CARBONDALE		COAL WITH SHALE	2.5	94.0	DARK
386.0	CARBONDALE		ROCK	4.5	96.5	GRAY WITH LIMESTONE
381.5	CARBONDALE	ANNA	BLACK SHALE	3.0	101.0	
378.5	CARBONDALE	HERRIN	COAL	6.0	104.0	
372.5	CARBONDALE		UNDERCLAY	3.0	110.0	NO CORE

MAPID: 15701094000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 4 QUARTERS/FOOTAGES: 2690' N line, 1120' E line

QUADRANGLE: STEELEVILLE LONGITUDE: -89.6528 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.124618 DATE COLLECTED:

SURFACE ELEVATION (FT.): 483.0 LOGGED (FT.): 110.0 LOG TYPE: Drillers Log

SOURCE: WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
430.0	MODESTO	PIASA	LIMESTONE	10.0	53.0	
420.0	MODESTO		DARK GRAY SHALE	3.5	63.0	
416.5	CARBONDALE	DANVILLE	COAL	2.5	66.5	
414.0	CARBONDALE		CLAYSTONE	7.5	69.0	
406.5	CARBONDALE	BANKSTON FORK	LIMESTONE & SHALE	2.5	76.5	
404.0	CARBONDALE	BANKSTON FORK	GRAY SHALE	3.5	79.0	
400.5	CARBONDALE	BANKSTON FORK	LIMESTONE & SHALE	4.0	82.5	
396.5	CARBONDALE	CONANT	CALCAREOUS SHALE	7.5	86.5	
389.0	CARBONDALE	JAMESTOWN	BONE COAL	2.5	94.0	
386.5	CARBONDALE	BRERETON	LIMESTONE & SHALE	4.0	96.5	
382.5	CARBONDALE	ANNA	BLACK SHALE	3.0	100.5	
379.0	CARBONDALE	HERRIN	COAL	6.0	104.0	

MAPID: 15700032000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 5 QUARTERS/FOOTAGES: 380' N line, 605' W line of SW

QUADRANGLE: STEELEVILLE LONGITUDE: -89.683766 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.124136 DATE COLLECTED: 6 / 18 / 1920

SURFACE ELEVATION (FT.): 505.1 LOGGED (FT.): 150.0 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MINING CO WELL TYPE: Coal Test

COMMENT: CASSED THROUGH WITH 6" PIPE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
505.1	PLEISTOCENE		CLAY	30.0	0.0	YELLOW
475.1	PLEISTOCENE		CLAY	55.0	30.0	BLUE
420.1	PLEISTOCENE		CLAY	17.0	85.0	GRAVELLY AND BLUE
403.1	CARBONDALE	BRERETON	LIMESTONE	9.0	102.0	GRAY
394.1	CARBONDALE		SHALE	4.0	111.0	DARK
390.1	CARBONDALE	HERRIN	COAL	2.0	115.0	
388.1	CARBONDALE		UNDERCLAY	3.0	117.0	
385.1	CARBONDALE		CALCAREOUS SHALE	20.0	120.0	
365.1	CARBONDALE		SHALE	4.0	140.0	DARK
361.1	CARBONDALE		LIMESTONE	4.0	144.0	
357.1	CARBONDALE		BLACK SHALE	2.0	148.0	

MAPID: 15700135000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 5 QUARTERS/FOOTAGES: 5' S line, 165' W line of SW

QUADRANGLE: STEELEVILLE LONGITUDE: -89.685428 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.118129 DATE COLLECTED: 6 / 5 / 1920

SURFACE ELEVATION (FT.): 494.6 LOGGED (FT.): 160.0 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MINING CO 14 WELL TYPE: Coal Test

COMMENT: CASSED ALL THROUGH WITH 6" PIPE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
494.6	PLEISTOCENE		CLAY	24.0	0.0	YELLOW
470.6	PLEISTOCENE		CLAY	40.0	24.0	BLUE
430.6	PLEISTOCENE		CLAY	21.0	64.0	GRAVELLY AND BLUE
409.6	PLEISTOCENE		CLAY	15.0	85.0	SANDY; YELLOW
394.6	PLEISTOCENE		CLAY	8.0	100.0	BLUE
386.6	CARBONDALE		LIMESTONE	9.0	108.0	GRAY
377.6	CARBONDALE		SHALE	7.0	117.0	DARK
370.6	CARBONDALE	HERRIN	COAL	1.0	124.0	
369.6	CARBONDALE		UNDERCLAY	3.0	125.0	
366.6	CARBONDALE		SHALE	11.0	128.0	
355.6	CARBONDALE		LIMESTONE	3.0	139.0	GRAY
352.6	CARBONDALE		CALCAREOUS SHALE	13.0	142.0	
339.6	CARBONDALE		LIMESTONE	5.0	155.0	GRAY

MAPID: 15702081000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 5 QUARTERS/FOOTAGES:

QUADRANGLE: STEELEVILLE LONGITUDE: -89.676618 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.125138 DATE COLLECTED: 0 / 0 / 1948

SURFACE ELEVATION (FT.): 520.0 LOGGED (FT.): 177.0 LOG TYPE: Drillers Log

SOURCE: L. W. ERVIN 1 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
520.0	PLEISTOCENE		CLAY	33.0	0.0	
487.0	CARBONDALE		SHALE	86.0	33.0	
401.0	CARBONDALE		LIMESTONE	13.0	119.0	
388.0	CARBONDALE		SHALE	13.0	132.0	
375.0	CARBONDALE		LIMESTONE	4.0	145.0	
371.0	CARBONDALE		SHALE	13.0	149.0	
358.0	CARBONDALE		LIMESTONE/SILTSTONE	8.0	162.0	
350.0	CARBONDALE		COAL	5.0	170.0	
345.0	CARBONDALE		CALCAREOUS SHALE	2.0	175.0	

MAPID: 15700036000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 6 QUARTERS/FOOTAGES: 1980' N line, 2640' E line

QUADRANGLE: TILDEN LONGITUDE: -89.69505 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.12687 DATE COLLECTED:

SURFACE ELEVATION (FT.): 506.8 LOGGED (FT.): 427.0 LOG TYPE: Drillers Log

SOURCE: SPARTA WELL WELL TYPE: Coal Test

COMMENT: TOTAL DEPTH 981'

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
506.8	PLEISTOCENE		UNCONSOLIDATED	116.0	0.0
390.8	MODESTO		LIMESTONE	10.0	116.0
380.8	CARBONDALE	DANVILLE	COAL	2.0	126.0
378.8	CARBONDALE		LIMESTONE	11.0	128.0
367.8	CARBONDALE		SHALE	2.0	139.0
365.8	CARBONDALE		SANDSTONE	3.0	141.0
362.8	CARBONDALE		BLACK SHALE	5.0	144.0
357.8	CARBONDALE		LIMESTONE	17.0	149.0
340.8	CARBONDALE	HERRIN	COAL	6.0	166.0
334.8	CARBONDALE		UNDERCLAY	2.0	172.0
332.8	CARBONDALE		LIMESTONE	10.0	174.0
322.8	CARBONDALE		COAL	4.0	184.0
318.8	CARBONDALE		LIMESTONE	40.0	188.0
278.8	CARBONDALE		BLACK SHALE	13.0	228.0
265.8	CARBONDALE		LIMESTONE	26.0	241.0
239.8	CARBONDALE		COAL	2.0	267.0
237.8	CARBONDALE		BLACK SHALE	10.0	269.0
227.8	CARBONDALE		LIMESTONE	2.0	279.0
225.8	CARBONDALE		COAL	5.0	281.0
220.8	CARBONDALE		UNDERCLAY	3.0	286.0
217.8	CARBONDALE		LIMESTONE	6.0	289.0
211.8	CARBONDALE		BLACK SHALE	30.0	295.0
181.8	CARBONDALE		LIMESTONE	20.0	325.0
161.8	CARBONDALE		BLACK SHALE	2.0	345.0
159.8	CARBONDALE		SANDSTONE	80.0	347.0

MAPID: 15700036000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 6 QUARTERS/FOOTAGES: 1980' N line, 2640' E line

QUADRANGLE: TILDEN

LONGITUDE: -89.69505

GEOLOGIST:

CONFIDENTIAL: N

LATITUDE: 38.12687

DATE COLLECTED:

SURFACE ELEVATION (FT.): 506.0

LOGGED (FT.): 172.0

LOG TYPE: Drillers Log

SOURCE:

WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
390.0	MODESTO	PIASA	LIMESTONE	10.0	116.0
380.0	CARBONDALE	DANVILLE	COAL	2.0	126.0
378.0	CARBONDALE	BANKSTON FORK	LIMESTONE	11.0	128.0
367.0	CARBONDALE	LAWSON	MOTTLED SHALE	2.0	139.0
365.0	CARBONDALE	LAWSON	SANDSTONE	3.0	141.0
362.0	CARBONDALE	LAWSON	DARK GRAY SHALE	5.0	144.0
357.0	CARBONDALE	BRERETON	LIMESTONE	17.0	149.0
340.0	CARBONDALE	HERRIN	COAL	6.0	166.0

MAPID: 15700037000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 6 QUARTERS/FOOTAGES: 400' N line, 10' W line of SW

QUADRANGLE: STEELEVILLE LONGITUDE: -89.703633

GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.124155

DATE COLLECTED: 0 / 0 / 1906

SURFACE ELEVATION (FT.): 518.8

LOGGED (FT.): 408.0

LOG TYPE: Drillers Log

SOURCE: SULLIVAN

WELL TYPE: Coal Test

COMMENT: TOTAL DEPTH 903'

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
518.8	PLEISTOCENE		SOIL	15.0	0.0	
503.8	MODESTO		BLACK SHALE	93.0	15.0	
410.8	MODESTO		LIMESTONE	12.0	108.0	HARD
398.8	CARBONDALE	DANVILLE	COAL	4.0	120.0	
394.8	CARBONDALE		LIMESTONE	11.0	124.0	
383.8	CARBONDALE		BLACK SHALE	10.0	135.0	
373.8	CARBONDALE		LIMESTONE	27.0	145.0	
346.8	CARBONDALE	HERRIN	COAL	6.0	172.0	
340.8	CARBONDALE		UNDERCLAY	2.0	178.0	
338.8	CARBONDALE	ST. DAVID	LIMESTONE	3.0	180.0	
335.8	CARBONDALE	SPRINGFIELD	COAL	4.0	183.0	
331.8	CARBONDALE		LIMESTONE	20.0	187.0	
311.8	CARBONDALE		BLACK SHALE	20.0	207.0	
291.8	CARBONDALE		BLACK SHALE	13.0	227.0	
278.8	CARBONDALE	HOUCHIN CREEK	COAL	6.0	240.0	
272.8	CARBONDALE		BLACK SHALE	75.0	246.0	VERY GRITTY
197.8	CARBONDALE		SANDSTONE	50.0	321.0	SHARP
147.8	CARBONDALE		LIMESTONE	7.0	371.0	
140.8	CARBONDALE		BLACK SHALE	19.0	378.0	
121.8	CARBONDALE		LIMESTONE	11.0	397.0	

MAPID: 15700500000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 7 QUARTERS/FOOTAGES: 870' S line, 4970' E line

QUADRANGLE: STEELEVILLE LONGITUDE: -89.703246 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.105841 DATE COLLECTED: 0 / 0 / 1931

SURFACE ELEVATION (FT.): 499.5 LOGGED (FT.): 275.0 LOG TYPE: Drillers Log

SOURCE: CITY TEST WELL, DRILLERS'S LOG1 WELL TYPE: Coal Test

COMMENT: TOTAL DEPTH IS 387'

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
499.5	PLEISTOCENE		UNCONSOLIDATED	12.0	0.0	
487.5	PLEISTOCENE		CLAY	8.0	12.0	SANDY
479.5	PLEISTOCENE		CLAY	5.0	20.0	YELLOW
474.5	PLEISTOCENE		CLAY	20.0	25.0	SANDY; YELLOW
454.5	PLEISTOCENE		MUD	10.0	45.0	YELLOW
444.5	PLEISTOCENE		BOULDER	10.0	55.0	YELLOW-RED
434.5	PLEISTOCENE		ROCK	5.0	65.0	
429.5	PLEISTOCENE		BOULDER	5.0	70.0	AT 73' WATER OVER TOP OF WELL; GRAY
424.5	PLEISTOCENE		MUD	3.0	75.0	BLUE
421.5	CARBONDALE	DANVILLE	COAL	2.0	78.0	TOP ERODED
419.5	CARBONDALE		SHALE	10.0	80.0	BLUE
409.5	CARBONDALE		LIMESTONE	5.0	90.0	HARD; GRAY
404.5	CARBONDALE		SHALE	3.0	95.0	BLACK
401.5	CARBONDALE	BRERETON	LIMESTONE	11.0	98.0	HARD
390.5	CARBONDALE	HERRIN	COAL	6.0	109.0	
384.5	CARBONDALE		UNDERCLAY	3.0	115.0	
381.5	CARBONDALE		LIMESTONE	2.0	118.0	
379.5	CARBONDALE		LIMESTONE	15.0	120.0	HARD
364.5	CARBONDALE	SPRINGFIELD	COAL	3.0	135.0	
361.5	CARBONDALE		LIMESTONE	12.0	138.0	WITH SHELLS
349.5	CARBONDALE		SHALE	15.0	150.0	BLACK
334.5	CARBONDALE		LIMESTONE	5.0	165.0	WHITE
329.5	CARBONDALE		LIMESTONE	10.0	170.0	HARD
319.5	CARBONDALE		SHALE	10.0	180.0	BLUE
309.5	CARBONDALE		LIMESTONE	5.0	190.0	HARD
304.5	CARBONDALE		SHALE	5.0	195.0	BLACK
299.5	CARBONDALE		SANDSTONE	5.0	200.0	
294.5	CARBONDALE		SHALE	10.0	205.0	WHITE
284.5	CARBONDALE		SHALE	3.0	215.0	BROWN
281.5	CARBONDALE		LIMESTONE	5.0	218.0	GRAY
276.5	CARBONDALE		SHALE	2.0	223.0	BLUE
274.5	CARBONDALE		LIMESTONE	5.0	225.0	HARD; GRAY
269.5	CARBONDALE		COAL	5.0	230.0	
264.5	CARBONDALE		SHALE	10.0	235.0	BROWN
254.5	CARBONDALE		SANDSTONE	5.0	245.0	SHARP
249.5	CARBONDALE		SANDY SHALE	10.0	250.0	SANDY
239.5	CARBONDALE		LIMESTONE	10.0	260.0	SANDY
229.5	CARBONDALE		SANDSTONE	5.0	270.0	WHITE

MAPID: 15700500000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 7 QUARTERS/FOOTAGES: 870' S line, 4970' E line

QUADRANGLE: STEELEVILLE LONGITUDE: -89.703246

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.105841

DATE COLLECTED:

SURFACE ELEVATION (FT.): 499.0 LOGGED (FT.): 115.0

LOG TYPE: Drillers Log

SOURCE:

WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
434.0	MODESTO	PIASA	LIMESTONE	10.0	65.0
424.0	MODESTO		GRAY SHALE	3.0	75.0
421.0	CARBONDALE	DANVILLE	COAL	2.0	78.0
419.0	CARBONDALE		CLAYSTONE	10.0	80.0
409.0	CARBONDALE	BANKSTON FORK	LIMESTONE	5.0	90.0
404.0	CARBONDALE	LAWSON	DARK GRAY SHALE	3.0	95.0
401.0	CARBONDALE	BRERETON	LIMESTONE	11.0	98.0
390.0	CARBONDALE	HERRIN	COAL	6.0	109.0

MAPID: 15700043000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 8 QUARTERS/FOOTAGES: 1100' N line, 740' W line

QUADRANGLE: STEELEVILLE LONGITUDE: -89.68339 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.115065 DATE COLLECTED: 0 / 0 / 1888

SURFACE ELEVATION (FT.): 492.5 LOGGED (FT.): 140.5 LOG TYPE: Drillers Log

SOURCE: VALLEY & GULF COAL CO WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
492.5	PLEISTOCENE		SOIL	3.0	0.0	CLAYEY
489.5	PLEISTOCENE		CLAY	17.0	3.0	YELLOW
472.5	PLEISTOCENE		CLAY	3.0	20.0	BLUE
469.5	PLEISTOCENE		SAND	4.0	23.0	
465.5	PLEISTOCENE		SILT	2.0	27.0	
463.5	PLEISTOCENE		GRAVEL	4.0	29.0	
459.5	PLEISTOCENE		SILT	3.5	33.0	
456.0	PLEISTOCENE		SAND	6.5	36.5	GRAVELLY
449.5	PLEISTOCENE		SILT	8.0	43.0	VERY PURE AND PALE
441.5	PLEISTOCENE		SILT	3.0	51.0	COARSER
438.5	PLEISTOCENE		HARD PAN	4.0	54.0	
434.5	PLEISTOCENE		SAND	6.0	58.0	FINE; GRAY
428.5	PLEISTOCENE		HARD PAN	6.5	64.0	SANDY
422.0	PLEISTOCENE		SILT	2.5	70.5	
419.5	PLEISTOCENE		CLAY	6.3	73.0	WITH BOULDERS
413.2	PLEISTOCENE		GRAVEL	4.0	79.3	FINE
409.2	PLEISTOCENE		CLAY	2.0	83.3	WITH BOULDERS
407.2	PLEISTOCENE		CLAY & GRAVEL	5.0	85.3	
402.2	MODESTO		NODULAR LIMESTONE	6.6	90.3	
395.7	MODESTO		CLAYSTONE & SHALE	0.8	96.8	
394.8	CARBONDALE	DANVILLE	COAL	1.6	97.7	
393.2	CARBONDALE		SANDSTONE	1.7	99.3	
391.6	CARBONDALE		UNDERCLAY	3.2	100.9	
388.4	CARBONDALE		CLAYSTONE & SHALE	5.9	104.1	BLUE
382.5	CARBONDALE		ROCK	2.0	110.0	BUFF
380.5	CARBONDALE		BLUE LIMESTONE	1.9	112.0	
378.6	CARBONDALE		SHALE	3.5	113.9	WITH SHALE
375.1	CARBONDALE		LIMESTONE	3.5	117.4	GRAY
371.5	CARBONDALE		UNDERCLAY	0.3	121.0	
371.2	CARBONDALE		BLACK SHALE	3.1	121.3	
368.1	CARBONDALE		LIMESTONE	2.0	124.4	BLACK
366.1	CARBONDALE		LIMESTONE	1.1	126.4	BLACK SPOTTED
365.0	CARBONDALE		LIMESTONE	1.0	127.5	BLACK AND GRAY BANDS
364.0	CARBONDALE	BRERETON	LIMESTONE	3.8	128.5	
360.2	CARBONDALE	ANNA	BLACK SHALE	1.7	132.3	
358.5	CARBONDALE	HERRIN	COAL	6.5	134.0	

MAPID: 15700043000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 8 QUARTERS/FOOTAGES: 1100' N line, 740' W line

QUADRANGLE: STEELEVILLE LONGITUDE: -89.68339 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.115065 DATE COLLECTED:

SURFACE ELEVATION (FT.): 492.0 LOGGED (FT.): 139.5 LOG TYPE: Drillers Log

SOURCE: WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
402.2	MODESTO	PIASA	NODULAR LIMESTONE	6.8	89.8	
395.4	MODESTO		CLAYSTONE	0.8	96.6	
394.5	CARBONDALE	DANVILLE	COAL	1.6	97.5	
393.0	CARBONDALE		CLAYSTONE	4.1	99.0	
388.9	CARBONDALE		CLAYSTONE	5.9	103.1	
382.9	CARBONDALE	BANKSTON FORK	LIMESTONE	2.0	109.1	
380.9	CARBONDALE	BANKSTON FORK	LIMESTONE W/ SHALE	5.4	111.1	
375.5	CARBONDALE	BANKSTON FORK	LIMESTONE & SHALE	3.5	116.5	
372.0	CARBONDALE	LAWSON	MOTTLED SHALE	3.4	120.0	
368.6	CARBONDALE	CONANT	CALCAREOUS SHALE	4.1	123.4	
364.5	CARBONDALE	BRERETON	LIMESTONE	3.8	127.5	
360.7	CARBONDALE	ANNA	BLACK SHALE	1.7	131.3	
359.0	CARBONDALE	HERRIN	COAL	6.5	133.0	

MAPID: 15700133000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 8 QUARTERS/FOOTAGES: SW SE

QUADRANGLE: STEELEVILLE LONGITUDE: -89.674106 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.105144 DATE COLLECTED: 10 / 0 / 1919

SURFACE ELEVATION (FT.): 480.4 LOGGED (FT.): 111.0 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MINING CO 1 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
480.4	PLEISTOCENE		UNCONSOLIDATED	12.0	0.0	YELLOW WITH CLAY
468.4	PLEISTOCENE		CLAY	53.0	12.0	SANDY
415.4	PLEISTOCENE		CLAY	24.0	65.0	SOFT
391.4	CARBONDALE		SHALE	5.0	89.0	SOFT
386.4	CARBONDALE	BRERETON	LIMESTONE	4.8	94.0	HARD AND DARK
381.6	CARBONDALE		BLACK SHALE	3.8	98.8	
377.9	CARBONDALE	HERRIN	COAL	5.7	102.5	
372.2	CARBONDALE		UNDERCLAY	2.8	108.2	

MAPID: 15702082000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 8 QUARTERS/FOOTAGES: 1300' N line, 800' W line of SW

QUADRANGLE: STEELEVILLE LONGITUDE: -89.6831 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.107065 DATE COLLECTED: 10 / 0 / 1921

SURFACE ELEVATION (FT.): 490.0 LOGGED (FT.): 132.3 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MINING COMPANY 7 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
490.0	PLEISTOCENE		SOIL	87.0	0.0	
403.0	PLEISTOCENE		SAND	1.5	87.0	
401.5	PLEISTOCENE		GRAVEL	2.0	88.5	
399.5	PLEISTOCENE		BOULDER	6.0	90.5	
393.5	PLEISTOCENE		MUD	0.2	96.5	
393.3	CARBONDALE	DANVILLE	COAL	1.0	96.7	TOP ERODED
392.3	CARBONDALE		CLAYSTONE	2.5	97.7	HARD AND FINE
389.8	CARBONDALE		UNDERCLAY	7.0	100.2	
382.8	CARBONDALE		LIMESTONE	3.5	107.2	
379.3	CARBONDALE		CLAYSTONE	3.7	110.7	
375.7	CARBONDALE		LIMESTONE	3.3	114.3	
372.3	CARBONDALE		CLAYSTONE	2.0	117.7	BLACK
370.3	CARBONDALE		BLACK SHALE	5.8	119.7	
364.6	CARBONDALE	HERRIN	COAL WITH SHALE	6.8	125.4	

MAPID: 15700050000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 9 QUARTERS/FOOTAGES: 330' S line, 2970' E line

QUADRANGLE: STEELEVILLE LONGITUDE: -89.658902 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.10402 DATE COLLECTED: 0 / 0 / 1903

SURFACE ELEVATION (FT.): 450.0 LOGGED (FT.): 60.0 LOG TYPE: Drillers Log

SOURCE: ILLINOIS FUEL CO 2 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
450.0	PLEISTOCENE		CLAY	32.0	0.0	YELLOW
418.0	PLEISTOCENE		BOULDER	3.5	32.0	LIMESTONE
414.5	PLEISTOCENE		CLAY	3.0	35.5	YELLOW
411.5	PLEISTOCENE		CLAY	4.0	38.5	BLUE
407.5	CARBONDALE		LIMESTONE	3.5	42.5	
404.0	CARBONDALE	ANNA	BLACK SHALE	3.5	46.0	
400.5	CARBONDALE		BLACK SHALE	2.0	49.5	LIGHT BLUE
398.5	CARBONDALE	HERRIN	COAL	6.2	51.5	
392.3	CARBONDALE		UNDERCLAY	2.3	57.7	

MAPID: 15700050000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 9 QUARTERS/FOOTAGES: 330' S line, 2970' E line

QUADRANGLE: STEELEVILLE LONGITUDE: -89.658902

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.10402

DATE COLLECTED:

SURFACE ELEVATION (FT.): 450.0 LOGGED (FT.): 57.0

LOG TYPE: Drillers Log

SOURCE:

WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
418.5	CARBONDALE	BANKSTON FORK	LIMESTONE	3.5	31.5	
415.0	CARBONDALE	LAWSON	CLAYSTONE	7.0	35.0	
408.0	CARBONDALE	BRERETON	LIMESTONE	3.5	42.0	
404.5	CARBONDALE	ANNA	BLACK SHALE	5.5	45.5	
399.0	CARBONDALE	HERRIN	COAL	6.0	51.0	

MAPID: 15700369000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 9 QUARTERS/FOOTAGES:

QUADRANGLE: STEELEVILLE LONGITUDE: -89.657798

GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.110542

DATE COLLECTED: 8 / 2 / 1927

SURFACE ELEVATION (FT.): 459.0 LOGGED (FT.): 65.0

LOG TYPE: Drillers Log

SOURCE: UNITED ELECT. COAL 461

WELL TYPE: Coal Test

COMMENT: NO COAL

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
459.0	PLEISTOCENE		UNCONSOLIDATED	18.0	0.0	
441.0	PLEISTOCENE		SAND & GRAVEL	22.0	18.0	
419.0	PLEISTOCENE		CLAY	7.0	40.0	
412.0	CARBONDALE		LIMESTONE	10.0	47.0	
402.0	CARBONDALE		SHALE	1.0	57.0	
401.0	CARBONDALE		LIMESTONE	3.0	58.0	
398.0	CARBONDALE		SHALE	4.0	61.0	BLUE

MAPID: 15700370000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 9 QUARTERS/FOOTAGES:

QUADRANGLE: STEELEVILLE LONGITUDE: -89.657798

GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.110542

DATE COLLECTED: 8 / 1 / 1927

SURFACE ELEVATION (FT.): 440.0 LOGGED (FT.): 60.0

LOG TYPE: Drillers Log

SOURCE: UNITED ELEC. COAL 411

WELL TYPE: Coal Test

COMMENT: NO COAL

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
440.0	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0	
434.0	PLEISTOCENE		SAND	20.0	6.0	
414.0	PLEISTOCENE		MUD	30.0	26.0	BLUE
384.0	PLEISTOCENE		SAND	4.0	56.0	

MAPID: 15700371000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 9 QUARTERS/FOOTAGES: SE

QUADRANGLE: STEELEVILLE LONGITUDE: -89.65316

GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.106695

DATE COLLECTED: 7 / 29 / 1927

SURFACE ELEVATION (FT.): 443.4 LOGGED (FT.): 50.0

LOG TYPE: Drillers Log

SOURCE: UNITED ELEC. COAL 463

WELL TYPE: Coal Test

COMMENT: NO COAL

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
443.4	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0	
433.4	PLEISTOCENE		SAND	12.0	10.0	
421.4	PLEISTOCENE		MUD	28.0	22.0	BLUE

MAPID: 15702083000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 9 QUARTERS/FOOTAGES: SE SW

QUADRANGLE: STEELEVILLE LONGITUDE: -89.660099 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.105007 DATE COLLECTED: 0 / 0 / 1908

SURFACE ELEVATION (FT.): 450.0 LOGGED (FT.): 82.0 LOG TYPE: Drillers Log

SOURCE: D M BISSONETTE WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
450.0	PLEISTOCENE		SOIL	1.0	0.0	
449.0	PLEISTOCENE		CLAY	9.0	1.0	YELLOW
440.0	PLEISTOCENE		HARD PAN	10.5	10.0	RED
429.5	PLEISTOCENE		SAND	9.0	20.5	WITH CLAY
420.5	PLEISTOCENE		CLAY	25.0	29.5	BLUE
395.5	PLEISTOCENE		SAND	8.0	54.5	
387.5	PLEISTOCENE		CLAY	3.0	62.5	BLUE
384.5	CARBONDALE		BLACK SHALE	3.0	65.5	
381.5	CARBONDALE		ROCK	3.0	68.5	BLUE
378.5	CARBONDALE	ANNA	BLACK SHALE	2.0	71.5	
376.5	CARBONDALE	HERRIN	COAL	5.5	73.5	
371.0	CARBONDALE		UNDERCLAY	3.0	79.0	

MAPID: 15700046000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 10 QUARTERS/FOOTAGES: 330' N line, 660' W line

QUADRANGLE: STEELEVILLE LONGITUDE: -89.646256 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.117092 DATE COLLECTED: 9 / 0 / 1918

SURFACE ELEVATION (FT.): 447.0 LOGGED (FT.): 66.2 LOG TYPE: Drillers Log

SOURCE: ILLINOIS FUEL CO 6 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
447.0	PLEISTOCENE		UNCONSOLIDATED	20.0	0.0	
427.0	PLEISTOCENE		SAND	11.0	20.0	BLUE
416.0	PLEISTOCENE		SAND	9.0	31.0	GRAY
407.0	PLEISTOCENE		CLAY	5.0	40.0	GRAY
402.0	PLEISTOCENE		SAND	5.0	45.0	GRAY
397.0	PLEISTOCENE		SAND	1.0	50.0	WITH GRAVEL
396.0	CARBONDALE		LIMESTONE & SHALE	6.0	51.0	
390.0	CARBONDALE		LIMESTONE	1.5	57.0	
388.5	CARBONDALE		CALCAREOUS SHALE	1.5	58.5	
387.0	CARBONDALE	BRERETON	LIMESTONE	1.3	60.0	
385.7	CARBONDALE	HERRIN	COAL	3.5	61.3	
382.3	CARBONDALE		UNDERCLAY	1.5	64.7	

MAPID: 15700046000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 10 QUARTERS/FOOTAGES: 330' N line, 660' W line

QUADRANGLE: STEELEVILLE LONGITUDE: -89.646256

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.117092

DATE COLLECTED:

SURFACE ELEVATION (FT.): 447.0 LOGGED (FT.): 64.5

LOG TYPE: Drillers Log

SOURCE:

WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
396.2	CARBONDALE	CONANT	LIMESTONE W/ SHALE	6.0	50.8	
390.2	CARBONDALE	BRERETON	LIMESTONE	1.5	56.8	
388.7	CARBONDALE	ANNA	CALCAREOUS SHALE	2.8	58.3	
386.0	CARBONDALE	HERRIN	COAL	3.5	61.0	

MAPID: 15700372000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 10 QUARTERS/FOOTAGES:

QUADRANGLE: STEELEVILLE LONGITUDE: -89.63922

GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.110431

DATE COLLECTED: 8 / 3 / 1927

SURFACE ELEVATION (FT.): 465.0 LOGGED (FT.): 56.8

LOG TYPE: Drillers Log

SOURCE: UNITED ELEC. COAL 413

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
465.0	PLEISTOCENE		UNCONSOLIDATED	27.0	0.0	
438.0	CARBONDALE		SHALE	3.0	27.0	
435.0	CARBONDALE		ROCK	4.0	30.0	
431.0	CARBONDALE		SHALE	3.0	34.0	
428.0	CARBONDALE	BRERETON	LIMESTONE	11.0	37.0	
417.0	CARBONDALE	ANNA	BLACK SHALE	2.8	48.0	
414.2	CARBONDALE	HERRIN	COAL	6.0	50.8	

MAPID: 15700375000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 13 QUARTERS/FOOTAGES: SW

QUADRANGLE: PERCY LONGITUDE: -89.606774 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.091757 DATE COLLECTED: 8 / 1 / 1927

SURFACE ELEVATION (FT.): 490.0 LOGGED (FT.): 64.5 LOG TYPE: Drillers Log

SOURCE: UNITED ELEC. COAL 321 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
490.0	PLEISTOCENE		UNCONSOLIDATED	20.0	0.0	
470.0	CARBONDALE		SHALE	6.0	20.0	BLACK
464.0	CARBONDALE		ROCK	2.0	26.0	
462.0	CARBONDALE		SHALE	7.0	28.0	
455.0	CARBONDALE		LIMESTONE	4.0	35.0	
451.0	CARBONDALE		SHALE	3.0	39.0	
448.0	CARBONDALE		ROCK	4.0	42.0	BLACK
444.0	CARBONDALE		SHALE	2.0	46.0	
442.0	CARBONDALE		BLACK SHALE	2.5	48.0	
439.5	CARBONDALE	BRERETON	LIMESTONE	6.0	50.5	
433.5	CARBONDALE	ANNA	BLACK SHALE	2.0	56.5	
431.5	CARBONDALE	HERRIN	COAL	6.0	58.5	

MAPID: 15700377000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 14 QUARTERS/FOOTAGES: SE SW

QUADRANGLE: PERCY LONGITUDE: -89.623119 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.090048 DATE COLLECTED: 7 / 29 / 1927

SURFACE ELEVATION (FT.): 465.0 LOGGED (FT.): 52.0 LOG TYPE: Drillers Log

SOURCE: UNITED ELEC. COAL 319 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
465.0	PLEISTOCENE		UNCONSOLIDATED	16.0	0.0	
449.0	PLEISTOCENE		SAND	18.5	16.0	
430.5	CARBONDALE		BLACK SHALE	3.0	34.5	
427.5	CARBONDALE	BRERETON	LIMESTONE	6.0	37.5	
421.5	CARBONDALE	ANNA	BLACK SHALE	2.0	43.5	
419.5	CARBONDALE	HERRIN	COAL	6.5	45.5	

MAPID: 15701489000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 14 QUARTERS/FOOTAGES:

QUADRANGLE: PERCY LONGITUDE: -89.620715

GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.095591

DATE COLLECTED: 7 / 21 / 1945

SURFACE ELEVATION (FT.): 485.0

LOGGED (FT.): 82.8

LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT 41

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
485.0	PLEISTOCENE		CLAY	29.0	0.0	
456.0	PLEISTOCENE		GRAVEL	23.0	29.0	YELLOW WITH CLAY
433.0	PLEISTOCENE		BOULDER	3.2	52.0	
429.8	CARBONDALE		BLACK SHALE	4.3	55.2	
425.5	CARBONDALE		LIMESTONE	2.2	59.5	BLUE
423.3	CARBONDALE		BLACK SHALE	2.5	61.7	
420.8	CARBONDALE	BRERETON	LIMESTONE	7.0	64.2	GRAY
413.8	CARBONDALE	ANNA	BLACK SHALE	3.7	71.2	
410.2	CARBONDALE	HERRIN	COAL	5.5	74.8	
404.7	CARBONDALE		UNDERCLAY	2.5	80.3	

MAPID: 15701738000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 14 QUARTERS/FOOTAGES: 6' S line, 0' E line

QUADRANGLE: PERCY LONGITUDE: -89.611488

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.088185

DATE COLLECTED:

SURFACE ELEVATION (FT.): 493.0

LOGGED (FT.): 0.0

LOG TYPE: Drillers Log

SOURCE: PYRAMID COAL CO. 8

WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION, DEPTHS CORRECTED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	CARBONDALE	BANKSTON FORK	LIMESTONE	3.6		LOWER BENCH
-	CARBONDALE	LAWSON	GRAY SHALE	0.8		
-	CARBONDALE	CONANT	CALCAREOUS SHALE	8.4		
-	CARBONDALE		SHALE	1.8		
-	CARBONDALE	BRERETON	LIMESTONE	4.9		
-	CARBONDALE	ANNA	BLACK SHALE	2.3		
-	CARBONDALE	HERRIN	COAL	6.8		

MAPID: 15790229000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 5W **SECTION:** 14 **QUARTERS/FOOTAGES:** NE SE
QUADRANGLE: PERCY **LONGITUDE:** -89.613725 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.093718 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 471.4 **LOGGED (FT.):** 78.9 **LOG TYPE:** Drillers Log
SOURCE: OTHER CO. RECS RECVD FROM AMAX6 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
471.4	PLEISTOCENE		UNCONSOLIDATED	22.5	0.0	
448.9			ROCK	50.3	22.5	
398.6	CARBONDALE	HERRIN	COAL	6.1	72.8	

MAPID: 15790230000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 5W **SECTION:** 14 **QUARTERS/FOOTAGES:** 40' N line, 50' E line of NE SE
QUADRANGLE: PERCY **LONGITUDE:** -89.61153 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.095446 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 459.4 **LOGGED (FT.):** 81.0 **LOG TYPE:** Drillers Log
SOURCE: OTHER CO. RECS RECVD FROM AMAX7 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
459.4	PLEISTOCENE		UNCONSOLIDATED	29.2	0.0	
430.2			ROCK	51.8	29.2	

MAPID: 15790231000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 5W **SECTION:** 14 **QUARTERS/FOOTAGES:** 30' S line, 25' E line of SE SE
QUADRANGLE: PERCY **LONGITUDE:** -89.611575 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.088252 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 492.0 **LOGGED (FT.):** 64.1 **LOG TYPE:** Drillers Log
SOURCE: OTHER CO. RECS RECVD FROM AMAX8 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
492.0	PLEISTOCENE		UNCONSOLIDATED	20.7	0.0	
471.3			ROCK	36.6	20.7	
434.7	CARBONDALE	HERRIN	COAL	6.8	57.3	

MAPID: 15790235000C VERSION: 1

PROJECT: AVAIL

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 14 QUARTERS/FOOTAGES:

QUADRANGLE: PERCY LONGITUDE: -89.620715 GEOLOGIST: LAWSON

CONFIDENTIAL: N LATITUDE: 38.095591 DATE COLLECTED:

SURFACE ELEVATION (FT.): 478.4 LOGGED (FT.): 73.1 LOG TYPE: Drillers Log

SOURCE: OTHER CO. RECS RECVD FROM AMAX12 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
478.4	PLEISTOCENE		UNCONSOLIDATED	39.5	0.0	
438.9			ROCK	10.3	39.5	
428.6			COAL	2.0	49.8	
426.6			ROCK	21.2	51.8	

MAPID: 15700378000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 15 QUARTERS/FOOTAGES: NW

QUADRANGLE: STEELEVILLE LONGITUDE: -89.643942 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.099151 DATE COLLECTED: 8 / 0 / 1927

SURFACE ELEVATION (FT.): 435.0 LOGGED (FT.): 49.7 LOG TYPE: Drillers Log

SOURCE: UNITED ELECTRIC COAL COMPANY 378 UE WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
435.0	PLEISTOCENE		UNCONSOLIDATED	13.0	0.0	
422.0	CARBONDALE		SANDSTONE	10.0	13.0	
412.0	CARBONDALE		LIMESTONE	2.0	23.0	
410.0	CARBONDALE		SHALE	3.0	25.0	
407.0	CARBONDALE		ROCK	4.0	28.0	BLACK
403.0	CARBONDALE		SHALE	2.0	32.0	
401.0	CARBONDALE		BLACK SHALE	2.0	34.0	
399.0	CARBONDALE		ROCK	5.0	36.0	
394.0	CARBONDALE	ANNA	BLACK SHALE	3.0	41.0	
391.0	CARBONDALE	HERRIN	COAL	5.7	44.0	

MAPID: 1570038000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 15 QUARTERS/FOOTAGES:

QUADRANGLE: STEELEVILLE LONGITUDE: -89.639348

GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.095518

DATE COLLECTED: 7 / 0 / 1927

SURFACE ELEVATION (FT.): 435.0 LOGGED (FT.): 40.1

LOG TYPE: Drillers Log

SOURCE: UNITED ELECTRIC COAL COMPANY

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
435.0	PLEISTOCENE		UNCONSOLIDATED	17.0	0.0	
418.0	PLEISTOCENE		BOULDER	1.0	17.0	
417.0	PLEISTOCENE		UNCONSOLIDATED	4.0	18.0	
413.0	PLEISTOCENE		BOULDER	2.0	22.0	
411.0	CARBONDALE		SHALE	5.0	24.0	
406.0	CARBONDALE		ROCK	6.0	29.0	BLACK
400.0	CARBONDALE	HERRIN	COAL	5.1	35.0	THIS MAY BE #5 COAL

MAPID: 15700381000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 15 QUARTERS/FOOTAGES: SE

QUADRANGLE: STEELEVILLE LONGITUDE: -89.634744

GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.091873

DATE COLLECTED: 8 / 0 / 1927

SURFACE ELEVATION (FT.): 496.0 LOGGED (FT.): 59.0

LOG TYPE: Drillers Log

SOURCE: UNITED ELECTRIC COAL COMPANY 381-315

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
496.0	PLEISTOCENE		UNCONSOLIDATED	16.0	0.0	
480.0	PLEISTOCENE		SAND & GRAVEL	20.0	16.0	
460.0	PLEISTOCENE		MUD	10.0	36.0	BLUE
450.0	CARBONDALE		LIMESTONE	8.0	46.0	
442.0	CARBONDALE		SHALE	3.0	54.0	
439.0	CARBONDALE		BLACK SHALE	1.0	57.0	
438.0	CARBONDALE		COAL	1.0	58.0	THIS MAY BE #5 COAL

MAPID: 15701741000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 15 QUARTERS/FOOTAGES: 4160' N line, 2790' E line

QUADRANGLE: STEELEVILLE LONGITUDE: -89.639854

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.091409

DATE COLLECTED:

SURFACE ELEVATION (FT.): 500.0

LOGGED (FT.): 64.9

LOG TYPE: Drillers Log

SOURCE: PYRAMID COAL CO. 11

WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
468.5	CARBONDALE	LAWSON	SHALE	6.3	31.5
462.2	CARBONDALE	CONANT	CALCAREOUS SHALE	18.2	37.8
444.0	CARBONDALE	BRERETON	LIMESTONE	4.0	56.0
440.0	CARBONDALE	HERRIN	COAL	4.9	60.0

MAPID: 15790234000C VERSION: 1

PROJECT: AVAIL

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 15 QUARTERS/FOOTAGES: 200' N line, 150' E line of SE SW

QUADRANGLE: STEELEVILLE LONGITUDE: -89.639916

GEOLOGIST: LAWSON

CONFIDENTIAL: N LATITUDE: 38.091265

DATE COLLECTED:

SURFACE ELEVATION (FT.): 515.4

LOGGED (FT.): 65.4

LOG TYPE: Drillers Log

SOURCE: OTHER CO. RECS RECVD FROM AMAX11

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
515.4	PLEISTOCENE		UNCONSOLIDATED	30.0	0.0
485.4			ROCK	15.8	30.0
469.6	CARBONDALE	JAMESTOWN	COAL	0.2	45.8
469.5	CARBONDALE		ROCK	14.6	45.9
454.9	CARBONDALE	HERRIN	COAL	4.9	60.5

MAPID: 15790265000C VERSION: 1

PROJECT: AVAIL

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 15 QUARTERS/FOOTAGES: SW SW

QUADRANGLE: STEELEVILLE LONGITUDE: -89.646372

GEOLOGIST: LAWSON

CONFIDENTIAL: N LATITUDE: 38.08991

DATE COLLECTED:

SURFACE ELEVATION (FT.): 503.5

LOGGED (FT.): 86.0

LOG TYPE: Drillers Log

SOURCE: OTHER CO. RECS RECVD FROM AMAX43

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
503.5	PLEISTOCENE		UNCONSOLIDATED	36.0	0.0
467.5			ROCK	50.0	36.0

MAPID: 15790266000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 5W **SECTION:** 15 **QUARTERS/FOOTAGES:** 400' S line, 20' W line of NW SW
QUADRANGLE: STEELEVILLE **LONGITUDE:** -89.648586 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.092834 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 466.9 **LOGGED (FT.):** 75.0 **LOG TYPE:** Drillers Log
SOURCE: OTHER CO. RECS RECVD FROM AMAX44 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
466.9	PLEISTOCENE		UNCONSOLIDATED	63.0	0.0
403.9			ROCK	12.0	63.0

MAPID: 15790267000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 5W **SECTION:** 15 **QUARTERS/FOOTAGES:** SW
QUADRANGLE: STEELEVILLE **LONGITUDE:** -89.644029 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.091777 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 489.3 **LOGGED (FT.):** 44.5 **LOG TYPE:** Drillers Log
SOURCE: OTHER CO. RECS RECVD FROM AMAX45 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
489.3	PLEISTOCENE		UNCONSOLIDATED	16.0	0.0
473.3			ROCK	24.0	16.0
449.3	CARBONDALE	HERRIN	COAL	4.5	40.0

MAPID: 15790271000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 5W **SECTION:** 15 **QUARTERS/FOOTAGES:** NW NW
QUADRANGLE: STEELEVILLE **LONGITUDE:** -89.646234 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.100964 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 459.2 **LOGGED (FT.):** 84.7 **LOG TYPE:** Drillers Log
SOURCE: OTHER CO. RECS RECVD FROM AMAX49 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
459.2	PLEISTOCENE		UNCONSOLIDATED	35.0	0.0
424.2			ROCK	49.7	35.0

MAPID: 15790288000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 5W **SECTION:** 15 **QUARTERS/FOOTAGES:** NE NW
QUADRANGLE: STEELEVILLE **LONGITUDE:** -89.641605 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.101025 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 481.9 **LOGGED (FT.):** 42.5 **LOG TYPE:** Drillers Log
SOURCE: OTHER CO. RECS RECVD FROM AMAX70 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
481.9	PLEISTOCENE		UNCONSOLIDATED	38.0	0.0	
443.9			ROCK	2.0	38.0	
441.9			COAL	2.5	40.0	

MAPID: 15790289000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 5W **SECTION:** 15 **QUARTERS/FOOTAGES:** NW NE
QUADRANGLE: STEELEVILLE **LONGITUDE:** -89.63698 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.101086 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 497.3 **LOGGED (FT.):** 60.8 **LOG TYPE:** Drillers Log
SOURCE: OTHER CO. RECS RECVD FROM AMAX71 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
497.3	PLEISTOCENE		UNCONSOLIDATED	30.0	0.0	
467.3			ROCK	28.5	30.0	
438.8			COAL	2.3	58.5	

MAPID: 15790290000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 5W **SECTION:** 15 **QUARTERS/FOOTAGES:** 650' N line, 30' W line of NE SE
QUADRANGLE: STEELEVILLE **LONGITUDE:** -89.634625 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.093776 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 510.9 **LOGGED (FT.):** 78.0 **LOG TYPE:** Drillers Log
SOURCE: OTHER CO. RECS RECVD FROM AMAX72 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
510.9	PLEISTOCENE		UNCONSOLIDATED	65.0	0.0	
445.9			ROCK	13.0	65.0	

MAPID: 15700047000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 16 QUARTERS/FOOTAGES: NW NW NW NW

QUADRANGLE: STEELEVILLE LONGITUDE: -89.666473 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.102891 DATE COLLECTED: 0 / 0 / 1901

SURFACE ELEVATION (FT.): 455.0 LOGGED (FT.): 96.0 LOG TYPE: Drillers Log

SOURCE: ILLINOIS FUEL CO 1 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
455.0	PLEISTOCENE		UNCONSOLIDATED	2.0	0.0	
453.0	PLEISTOCENE		CLAY	12.0	2.0	YELLOW
441.0	PLEISTOCENE		SAND	9.0	14.0	YELLOW
432.0	PLEISTOCENE		SAND	10.0	23.0	BLUE
422.0	PLEISTOCENE		SAND	8.0	33.0	GRAY
414.0	PLEISTOCENE		CLAY & SHALE	6.0	41.0	
408.0	PLEISTOCENE		CLAY	4.0	47.0	BLUE
404.0	PLEISTOCENE		SAND & GRAVEL	4.0	51.0	
400.0	CARBONDALE		BLACK SHALE	3.0	55.0	
397.0	CARBONDALE		LIMESTONE	4.0	58.0	BLUE
393.0	CARBONDALE		UNKNOWN	1.5	62.0	
391.5	CARBONDALE		BLACK SHALE	1.5	63.5	
390.0	CARBONDALE	ANNA	BLACK SHALE	2.5	65.0	
387.5	CARBONDALE	HERRIN	COAL	1.3	67.5	
386.2	CARBONDALE	HERRIN	BLUE BAND	0.6	68.8	
385.6	CARBONDALE	HERRIN	COAL	4.6	69.4	
381.0	CARBONDALE		UNDERCLAY	4.5	74.0	
376.5	CARBONDALE		LIMESTONE	12.5	78.5	
364.0	CARBONDALE		BLACK SHALE	1.5	91.0	
362.5	CARBONDALE	SPRINGFIELD	COAL	2.8	92.5	
359.7	CARBONDALE		UNDERCLAY	0.7	95.3	

MAPID: 15700048000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 16 QUARTERS/FOOTAGES: NW SW NW NW

QUADRANGLE: STEELEVILLE LONGITUDE: -89.666525 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.101044 DATE COLLECTED: 9 / 4 / 1918

SURFACE ELEVATION (FT.): 435.0 LOGGED (FT.): 49.5 LOG TYPE: Drillers Log

SOURCE: ILLINOIS FUEL CO 2A WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
435.0	PLEISTOCENE		SOIL	14.0	0.0	CLAYEY
421.0	PLEISTOCENE		SAND & GRAVEL	24.0	14.0	
397.0	PLEISTOCENE		HARD PAN	4.5	38.0	
392.5	CARBONDALE	HERRIN	COAL	6.2	42.5	TOP ERODED
386.3	CARBONDALE		UNDERCLAY	0.8	48.7	

MAPID: 15700382000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 5S 5W **SECTION:** 16 **QUARTERS/FOOTAGES:** NE
QUADRANGLE: STEELEVILLE **LONGITUDE:** -89.653214 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 38.099238 **DATE COLLECTED:** 8 / 2 / 1927
SURFACE ELEVATION (FT.): 445.0 **LOGGED (FT.):** 60.0 **LOG TYPE:** Drillers Log
SOURCE: UNITED ELECTRIC COAL CO 361 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
445.0	PLEISTOCENE		UNCONSOLIDATED	18.0	0.0	
427.0	PLEISTOCENE		SAND & GRAVEL	9.0	18.0	
418.0	PLEISTOCENE		MUD	33.0	27.0	NO COAL; BLUE

MAPID: 15700383000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 5S 5W **SECTION:** 16 **QUARTERS/FOOTAGES:** NE
QUADRANGLE: STEELEVILLE **LONGITUDE:** -89.653214 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 38.099238 **DATE COLLECTED:** 8 / 1 / 1927
SURFACE ELEVATION (FT.): 450.0 **LOGGED (FT.):** 55.8 **LOG TYPE:** Drillers Log
SOURCE: UNITED ELECTRIC COAL CO 311 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
450.0	PLEISTOCENE		UNCONSOLIDATED	14.0	0.0	
436.0	PLEISTOCENE		SAND & GRAVEL	7.0	14.0	
429.0	CARBONDALE		SHALE	19.0	21.0	
410.0	CARBONDALE		LIMESTONE	3.0	40.0	
407.0	CARBONDALE		SHALE	3.0	43.0	
404.0	CARBONDALE	BRERETON	LIMESTONE	6.0	46.0	
398.0	CARBONDALE	HERRIN	COAL	3.8	52.0	

MAPID: 15701776000C **VERSION:** 1 **PROJECT:** ROOF STUDY
COUNTY: RANDOLPH **TWP/RNG:** 5S 5W **SECTION:** 16 **QUARTERS/FOOTAGES:** 1980' N line, 660' E line
QUADRANGLE: STEELEVILLE **LONGITUDE:** -89.650901 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.097386 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 430.0 **LOGGED (FT.):** 54.3 **LOG TYPE:** Drillers Log
SOURCE: PYRAMID COAL CO. 46 **WELL TYPE:** Coal Test
COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
399.1	CARBONDALE	CONANT	CALCAREOUS SHALE	8.8	30.9	
390.2	CARBONDALE	BRERETON	LIMESTONE	4.3	39.8	
386.0	CARBONDALE	ANNA	BLACK SHALE	4.0	44.0	
382.0	CARBONDALE	HERRIN	COAL	6.3	48.0	

MAPID: 15790268000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 5W **SECTION:** 16 **QUARTERS/FOOTAGES:** SE NE
QUADRANGLE: STEELEVILLE **LONGITUDE:** -89.650922 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.097322 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 442.2 **LOGGED (FT.):** 48.8 **LOG TYPE:** Drillers Log
SOURCE: OTHER CO. RECS RECVD FROM AMAX46 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
442.2	PLEISTOCENE		UNCONSOLIDATED	20.0	0.0	
422.2			ROCK	22.5	20.0	
399.7	CARBONDALE	HERRIN	COAL	6.3	42.5	

MAPID: 15790269000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 5W **SECTION:** 16 **QUARTERS/FOOTAGES:** NE NE
QUADRANGLE: STEELEVILLE **LONGITUDE:** -89.650863 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.101008 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 440.9 **LOGGED (FT.):** 55.7 **LOG TYPE:** Drillers Log
SOURCE: OTHER CO. RECS RECVD FROM AMAX47 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
440.9	PLEISTOCENE		UNCONSOLIDATED	46.0	0.0	
394.9			ROCK	3.7	46.0	
391.2	CARBONDALE	HERRIN	COAL	6.0	49.7	

MAPID: 15700057000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 5S 5W **SECTION:** 17 **QUARTERS/FOOTAGES:** SE NE
QUADRANGLE: STEELEVILLE **LONGITUDE:** -89.669547 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 38.097815 **DATE COLLECTED:** 10 / 0 / 1918
SURFACE ELEVATION (FT.): 450.0 **LOGGED (FT.):** 68.0 **LOG TYPE:** Drillers Log
SOURCE: ILLINOIS FUEL CO 9 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
450.0	PLEISTOCENE		SAND	8.0	0.0	
442.0	PLEISTOCENE		CLAY	52.0	8.0	GRAY
390.0	CARBONDALE	HERRIN	COAL	4.5	60.0	TOP ERODED
385.5	CARBONDALE		UNDERCLAY	3.0	64.5	
382.5	CARBONDALE		LIMESTONE & SHALE	0.5	67.5	WITH SHALE

MAPID: 15700058000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 17 QUARTERS/FOOTAGES: SE

QUADRANGLE: STEELEVILLE LONGITUDE: -89.672035

GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.092287

DATE COLLECTED: 0 / 0 / 1918

SURFACE ELEVATION (FT.): 501.0

LOGGED (FT.): 120.0

LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MINING CO

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
501.0	PLEISTOCENE		CLAY	30.0	0.0	YELLOW
471.0	PLEISTOCENE		CLAY	90.0	30.0	SANDY AND GRAY

MAPID: 15700061000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 17 QUARTERS/FOOTAGES: NW SE NE NE

QUADRANGLE: STEELEVILLE LONGITUDE: -89.668869

GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.101049

DATE COLLECTED:

SURFACE ELEVATION (FT.): 448.5

LOGGED (FT.): 85.0

LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MINING CO

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
448.5	PLEISTOCENE		UNCONSOLIDATED	18.0	0.0	SANDY; YELLOW
430.5	PLEISTOCENE		SAND	22.0	18.0	GRAY
408.5	PLEISTOCENE		CLAY	42.0	40.0	SANDY AND GRAY
366.5	CARBONDALE	HERRIN	COAL/CLAYSTONE	2.0	82.0	TOP ERODED
364.5	CARBONDALE		UNDERCLAY	1.0	84.0	

MAPID: 15700062000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 17 QUARTERS/FOOTAGES: NW

QUADRANGLE: STEELEVILLE LONGITUDE: -89.68123

GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.099583

DATE COLLECTED:

SURFACE ELEVATION (FT.): 455.7

LOGGED (FT.): 80.0

LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MINING

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
455.7	PLEISTOCENE		UNCONSOLIDATED	40.0	0.0	
415.7	PLEISTOCENE		CLAY	11.5	40.0	SANDY AND GRAY
404.2	PLEISTOCENE		MUD	0.5	51.5	DARK
403.7	PLEISTOCENE		CLAY	3.0	52.0	
400.7	PLEISTOCENE		CLAY	22.0	55.0	SANDY
378.7	CARBONDALE	HERRIN	COAL	2.0	77.0	TOP ERODED
376.7	CARBONDALE		UNDERCLAY	1.0	79.0	SOFT

MAPID: 15700064000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 17 QUARTERS/FOOTAGES: NW NW

QUADRANGLE: STEELEVILLE LONGITUDE: -89.68354 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.101385 DATE COLLECTED: 0 / 0 / 1911

SURFACE ELEVATION (FT.): 475.0 LOGGED (FT.): 168.0 LOG TYPE: Drillers Log

SOURCE: MOFFAT COAL CO. WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
475.0	PLEISTOCENE		CLAY	14.0	0.0	BLUE
461.0	PLEISTOCENE		SAND & GRAVEL	6.0	14.0	
455.0	PLEISTOCENE		CLAY	14.0	20.0	BLUE
441.0	CARBONDALE		LIMESTONE	2.0	34.0	
439.0	CARBONDALE		SHALE	5.2	36.0	SOFT
433.8	CARBONDALE		SHALE/COAL	0.8	41.2	DIRTY
433.0	CARBONDALE		CLAYSTONE	4.0	42.0	FINE
429.0	CARBONDALE		SHALE	11.0	46.0	SOFT
418.0	CARBONDALE		LIMESTONE	4.0	57.0	
414.0	CARBONDALE		CALCAREOUS SHALE	3.0	61.0	
411.0	CARBONDALE		LIMESTONE	5.2	64.0	
405.8	CARBONDALE		SHALE	2.0	69.2	DARK
403.8	CARBONDALE		FOSSILIFEROUS LIMESTONE	1.0	71.2	
402.8	CARBONDALE		SHALE	1.0	72.2	DARK
401.8	CARBONDALE		FOSSILIFEROUS LIMESTONE	3.0	73.2	
398.8	CARBONDALE		BLACK SHALE	0.8	76.2	
398.0	CARBONDALE		SHALE	5.5	77.0	BLACK
392.5	CARBONDALE	HERRIN	COAL	5.8	82.5	
386.7	CARBONDALE		UNDERCLAY	7.3	88.3	
379.4	CARBONDALE		LIMESTONE	7.0	95.6	
372.4	CARBONDALE		LIMESTONE & SHALE	1.3	102.6	
371.2	CARBONDALE	ST. DAVID	LIMESTONE	4.4	103.8	
366.7	CARBONDALE		CLAYSTONE & SHALE	0.3	108.3	
366.4	CARBONDALE	SPRINGFIELD	COAL	1.4	108.6	
365.0	CARBONDALE		UNDERCLAY	5.5	110.0	
359.5	CARBONDALE		LIMESTONE	3.5	115.5	
356.0	CARBONDALE		SANDY SHALE	14.0	119.0	SANDY
342.0	CARBONDALE		SHALE	26.0	133.0	BLUE
316.0	CARBONDALE		FOSSILIFEROUS LIMESTONE	1.0	159.0	
315.0	CARBONDALE		SHALE	5.2	160.0	BLACK
309.8	CARBONDALE		COAL	2.3	165.2	
307.5	CARBONDALE		UNDERCLAY	0.5	167.5	

MAPID: 15700066000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 17 QUARTERS/FOOTAGES: SE NW

QUADRANGLE: STEELEVILLE LONGITUDE: -89.678923 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.097773 DATE COLLECTED: 10 / 0 / 1919

SURFACE ELEVATION (FT.): 467.6 LOGGED (FT.): 131.0 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MINING CO WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
467.6	PLEISTOCENE		CLAY	15.0	0.0	GRAVELLY
452.6	PLEISTOCENE		CLAY	35.0	15.0	GRAVELLY
417.6	MODESTO		SHALE	22.0	50.0	SOFT
395.6	MODESTO		LIMESTONE	4.0	72.0	GRAY
391.6	CARBONDALE		UNDERCLAY	1.0	76.0	
390.6	CARBONDALE		LIMESTONE	5.0	77.0	BLACK
385.6	CARBONDALE		BLACK SHALE	4.0	82.0	
381.6	CARBONDALE	BRERETON	LIMESTONE	5.0	86.0	DARK
376.6	CARBONDALE	ANNA	BLACK SHALE	2.5	91.0	
374.1	CARBONDALE	HERRIN	COAL	5.8	93.5	
368.3	CARBONDALE		UNDERCLAY	2.8	99.3	
365.6	CARBONDALE		LIMESTONE	9.0	102.0	GRAY
356.6	CARBONDALE		UNDERCLAY	3.5	111.0	
353.1	CARBONDALE		LIMESTONE	4.3	114.5	DARK
348.8	CARBONDALE		SHALE	2.8	118.8	LIGHT
346.1	CARBONDALE		LIMESTONE	1.5	121.5	
344.6	CARBONDALE		BLACK SHALE	1.5	123.0	
343.1	CARBONDALE		COAL	5.0	124.5	
338.1	CARBONDALE		UNDERCLAY	1.5	129.5	

MAPID: 15700067000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 17 QUARTERS/FOOTAGES: SW SW

QUADRANGLE: STEELEVILLE LONGITUDE: -89.683757 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.090488 DATE COLLECTED: 0 / 0 / 1919

SURFACE ELEVATION (FT.): 481.6 LOGGED (FT.): 108.0 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MINING CO 31 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
481.6	PLEISTOCENE		UNCONSOLIDATED	97.0	0.0	SANDY
384.6	CARBONDALE		SHALE	4.0	97.0	SOFT
380.6	CARBONDALE	HERRIN	COAL	5.0	101.0	
375.6	CARBONDALE		UNDERCLAY	2.0	106.0	

MAPID: 15700068000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 17 QUARTERS/FOOTAGES: 0' N line, 2640' E line

QUADRANGLE: STEELEVILLE LONGITUDE: -89.676264 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.103277 DATE COLLECTED: 10 / 0 / 1919

SURFACE ELEVATION (FT.): 480.0 LOGGED (FT.): 132.0 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MINING CO 29 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
480.0	PLEISTOCENE		UNCONSOLIDATED	48.0	0.0	
432.0	CARBONDALE		LIMESTONE	6.0	48.0	HARD; GRAY
426.0	CARBONDALE		UNDERCLAY	3.0	54.0	SANDY
423.0	CARBONDALE		SANDY SHALE	5.0	57.0	SANDY
418.0	CARBONDALE		SANDY SHALE	4.5	62.0	SANDY
413.5	CARBONDALE		COAL	0.8	66.5	
412.7	CARBONDALE		CLAYSTONE	4.8	67.3	
408.0	CARBONDALE		LIMESTONE	4.0	72.0	GRAY
404.0	CARBONDALE		CLAYSTONE & LIMESTONE	4.0	76.0	
400.0	CARBONDALE		LIMESTONE	5.0	80.0	GRAY
395.0	CARBONDALE		CLAYSTONE	2.0	85.0	DARK
393.0	CARBONDALE		SANDY SHALE	2.0	87.0	SANDY
391.0	CARBONDALE		SHALY LIMESTONE	6.0	89.0	
385.0	CARBONDALE		LIMESTONE	1.0	95.0	BLACK
384.0	CARBONDALE		COAL	0.3	96.0	
383.7	CARBONDALE	BRERETON	LIMESTONE	1.0	96.3	
382.7	CARBONDALE		SHALE	2.0	97.3	DARK
380.7	CARBONDALE	HERRIN	COAL	5.8	99.3	
375.0	CARBONDALE		UNDERCLAY	4.0	105.0	
371.0	CARBONDALE		LIMESTONE	7.5	109.0	GRAY
363.5	CARBONDALE		CLAYSTONE	1.5	116.5	
362.0	CARBONDALE		LIMESTONE	5.0	118.0	DARK
357.0	CARBONDALE		CLAYSTONE	1.0	123.0	
356.0	CARBONDALE	ST. DAVID	LIMESTONE	3.0	124.0	DARK
353.0	CARBONDALE	SPRINGFIELD	COAL	2.8	127.0	
350.2	CARBONDALE		UNDERCLAY	2.0	129.8	

MAPID: 15700068000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 17 QUARTERS/FOOTAGES: 0' N line, 2640' E line

QUADRANGLE: STEELEVILLE LONGITUDE: -89.676264

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.103277

DATE COLLECTED:

SURFACE ELEVATION (FT.): 480.0

LOGGED (FT.): 104.8

LOG TYPE: Drillers Log

SOURCE:

WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
431.7	MODESTO	PIASA	LIMESTONE	6.0	48.3
425.7	MODESTO		SHALE	12.0	54.3
413.7	CARBONDALE	DANVILLE	COAL	0.8	66.3
413.0	CARBONDALE		CLAYSTONE	4.8	67.0
408.2	CARBONDALE	BANKSTON FORK	LIMESTONE & SHALE	4.0	71.8
404.2	CARBONDALE	BANKSTON FORK	CALCAREOUS SHALE	4.0	75.8
400.2	CARBONDALE	BANKSTON FORK	LIMESTONE & SHALE	5.0	79.8
395.2	CARBONDALE	LAWSON	MOTTLED SHALE	2.0	84.8
393.2	CARBONDALE	CONANT	CALCAREOUS SHALE	9.0	86.8
384.2	CARBONDALE	JAMESTOWN	COAL	0.3	95.8
384.0	CARBONDALE	BRERETON	LIMESTONE & SHALE	1.0	96.0
383.0	CARBONDALE	ANNA	BLACK SHALE	2.0	97.0
381.0	CARBONDALE	HERRIN	COAL	5.8	99.0

MAPID: 15700501000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 18 QUARTERS/FOOTAGES: SW NW

QUADRANGLE: STEELEVILLE LONGITUDE: -89.701715

GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.097904

DATE COLLECTED: 0 / 0 / 1931

SURFACE ELEVATION (FT.): 570.0

LOGGED (FT.): 228.0

LOG TYPE: Drillers Log

SOURCE: MOFFAT COAL CO. 8

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
570.0	PLEISTOCENE		SOIL	4.0	0.0	
566.0	PLEISTOCENE		CLAY	31.0	4.0	YELLOW
535.0	PLEISTOCENE		SAND & GRAVEL	77.0	35.0	
458.0	PLEISTOCENE		MUD	70.0	112.0	WHITE
388.0	CARBONDALE		LIMESTONE	7.0	182.0	GRAY
381.0	CARBONDALE		COAL	1.0	189.0	
380.0	CARBONDALE		SHALE	15.0	190.0	WHITE
365.0	CARBONDALE		LIMESTONE	23.0	205.0	BROWN

MAPID: 15700606000C VERSION: 1

PROJECT: NCRDS87

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 18 QUARTERS/FOOTAGES: 1980' N line, 2310' E line

QUADRANGLE: STEELEVILLE LONGITUDE: -89.694025 GEOLOGIST: WEIBEL

CONFIDENTIAL: N LATITUDE: 38.097834 DATE COLLECTED: 5 / 0 / 1911

SURFACE ELEVATION (FT.): 540.0 LOGGED (FT.): 200.0 LOG TYPE: Drillers Log

SOURCE: MOFFAT COAL CO. WELL TYPE: Coal Test

COMMENT: LOCATION IMPRECISE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
540.0			UNCONSOLIDATED	112.0	0.0	
428.0	MODESTO		SHALE	7.0	112.0	
421.0	MODESTO		LIMESTONE	0.3	119.0	
420.7	CARBONDALE	DANVILLE	BONE COAL	1.0	119.3	UNCERTAIN CORRELATION
419.7	CARBONDALE		UNDERCLAY	11.7	120.3	
408.0	CARBONDALE		LIMESTONE	11.0	132.0	
397.0	CARBONDALE		UNDERCLAY	4.3	143.0	
392.7	CARBONDALE		LIMESTONE	3.5	147.3	
389.2	CARBONDALE		BLACK SHALE	5.2	150.8	
384.1	CARBONDALE		UNCLASSIFIED	3.5	155.9	
380.6	CARBONDALE		COAL	0.1	159.4	
380.5	CARBONDALE	ANNA	BLACK SHALE	3.5	159.5	
377.0	CARBONDALE	HERRIN	COAL	5.5	163.0	
371.5	CARBONDALE		UNDERCLAY	4.5	168.5	
367.0	CARBONDALE		LIMESTONE	12.5	173.0	
354.5	CARBONDALE		SHALE	1.5	185.5	
353.0	CARBONDALE		LIMESTONE	0.4	187.0	
352.6	CARBONDALE		SHALE	1.6	187.4	
351.0	CARBONDALE		UNCLASSIFIED	2.8	189.0	
348.2	CARBONDALE	TURNER MINE	BLACK SHALE	2.2	191.8	
346.0	CARBONDALE	SPRINGFIELD	COAL	5.3	194.0	
340.7	CARBONDALE		UNDERCLAY	0.8	199.3	

MAPID: 15700606000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 18 QUARTERS/FOOTAGES: 1980' N line, 2310' E line

QUADRANGLE: STEELEVILLE LONGITUDE: -89.694025

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.097834

DATE COLLECTED:

SURFACE ELEVATION (FT.): 540.0

LOGGED (FT.): 168.5

LOG TYPE: Drillers Log

SOURCE:

WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
421.6	MODESTO	PIASA	LIMESTONE	0.3	118.4
421.3	CARBONDALE	DANVILLE	COAL	1.0	118.7
420.3	CARBONDALE		CLAYSTONE	11.7	119.7
408.6	CARBONDALE	BANKSTON FORK	LIMESTONE W/ SHALE	11.7	131.4
396.9	CARBONDALE	BANKSTON FORK	MOTTLED SHALE	4.3	143.1
392.7	CARBONDALE	BANKSTON FORK	LIMESTONE	3.5	147.3
389.2	CARBONDALE	CONANT	CALCAREOUS SHALE	8.7	150.8
380.5	CARBONDALE	ANNA	BLACK SHALE	3.5	159.5
377.0	CARBONDALE	HERRIN	COAL	5.5	163.0

MAPID: 15700384000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 21 QUARTERS/FOOTAGES: NE SE

QUADRANGLE: STEELEVILLE LONGITUDE: -89.651177

GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.078933

DATE COLLECTED: 8 / 2 / 1927

SURFACE ELEVATION (FT.): 475.0

LOGGED (FT.): 49.0

LOG TYPE: Drillers Log

SOURCE: UNITED ELEC. COAL 237

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
475.0	PLEISTOCENE		UNCONSOLIDATED	18.0	0.0
457.0	PLEISTOCENE		CLAY	24.0	18.0
433.0	CARBONDALE		SHALE	2.5	42.0
430.5	CARBONDALE	ANNA	BLACK SHALE	2.0	44.5
428.5	CARBONDALE	HERRIN	COAL	2.5	46.5 SOFT

MAPID: 15700385000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 21 QUARTERS/FOOTAGES: SE

QUADRANGLE: STEELEVILLE LONGITUDE: -89.653531 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.077152 DATE COLLECTED: 7 / 28 / 1927

SURFACE ELEVATION (FT.): 485.0 LOGGED (FT.): 53.5 LOG TYPE: Drillers Log

SOURCE: UNITED ELECTRIC COAL CO. 211 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
485.0	PLEISTOCENE		UNCONSOLIDATED	22.0	0.0
463.0	CARBONDALE		SANDSTONE/SHALE	24.0	22.0
439.0	CARBONDALE	ANNA	BLACK SHALE	1.5	46.0
437.5	CARBONDALE	HERRIN	COAL	6.0	47.5

MAPID: 15701787000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 21 QUARTERS/FOOTAGES: 1940' N line, 1940' E line

QUADRANGLE: STEELEVILLE LONGITUDE: -89.655569 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.082886 DATE COLLECTED:

SURFACE ELEVATION (FT.): 485.0 LOGGED (FT.): 49.9 LOG TYPE: Drillers Log

SOURCE: PYRAMID COAL CO. 57 WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
451.0	CARBONDALE	CONANT	DARK GRAY SHALE	7.1	34.0
443.9	CARBONDALE	BRERETON	LIMESTONE/UNDERCLAY	2.7	41.1
441.2	CARBONDALE	ANNA	GRAY SHALE	0.3	43.8
441.0	CARBONDALE	HERRIN	COAL	5.9	44.0

MAPID: 15790276000C VERSION: 1

PROJECT: AVAIL

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 21 QUARTERS/FOOTAGES: SE NE

QUADRANGLE: STEELEVILLE LONGITUDE: -89.651132 GEOLOGIST: LAWSON

CONFIDENTIAL: N LATITUDE: 38.082605 DATE COLLECTED:

SURFACE ELEVATION (FT.): 448.6 LOGGED (FT.): 44.9 LOG TYPE: Drillers Log

SOURCE: OTHER CO. RECS RECVD FROM AMAX54 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
448.6	PLEISTOCENE		UNCONSOLIDATED	29.9	0.0
418.7			ROCK	9.4	29.9
409.3	CARBONDALE	HERRIN	COAL	5.7	39.3

MAPID: 15790278000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 5W **SECTION:** 21 **QUARTERS/FOOTAGES:** NW NE
QUADRANGLE: STEELEVILLE **LONGITUDE:** -89.655768 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.086408 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 490.7 **LOGGED (FT.):** 49.8 **LOG TYPE:** Drillers Log
SOURCE: OTHER CO. RECS RECVD FROM AMAX56 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
490.7	PLEISTOCENE		UNCONSOLIDATED	32.2	0.0	
458.5			ROCK	11.5	32.2	
447.0	CARBONDALE	HERRIN	COAL	6.1	43.7	

MAPID: 15790279000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 5W **SECTION:** 21 **QUARTERS/FOOTAGES:** SW NE
QUADRANGLE: STEELEVILLE **LONGITUDE:** -89.655806 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.082725 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 488.5 **LOGGED (FT.):** 50.7 **LOG TYPE:** Drillers Log
SOURCE: OTHER CO. RECS RECVD FROM AMAX57 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
488.5	PLEISTOCENE		UNCONSOLIDATED	34.8	0.0	
453.7			ROCK	10.0	34.8	
443.7	CARBONDALE	HERRIN	COAL	5.9	44.8	

MAPID: 15790280000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 5W **SECTION:** 21 **QUARTERS/FOOTAGES:** NE NW
QUADRANGLE: STEELEVILLE **LONGITUDE:** -89.660452 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.086537 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 447.9 **LOGGED (FT.):** 46.6 **LOG TYPE:** Drillers Log
SOURCE: OTHER CO. RECS RECVD FROM AMAX58 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
447.9	PLEISTOCENE		UNCONSOLIDATED	24.1	0.0	
423.8			ROCK	17.7	24.1	
406.1	CARBONDALE	HERRIN	COAL	4.8	41.8	

MAPID: 15790281000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 5W **SECTION:** 21 **QUARTERS/FOOTAGES:** NE NW
QUADRANGLE: STEELEVILLE **LONGITUDE:** -89.660452 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.086537 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 447.9 **LOGGED (FT.):** 51.6 **LOG TYPE:** Drillers Log
SOURCE: OTHER CO. RECS RECVD FROM AMAX59 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
447.9	PLEISTOCENE		UNCONSOLIDATED	45.7	0.0	
402.2	CARBONDALE	HERRIN	COAL	5.9	45.7	TOP ERODED

MAPID: 15790282000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 5W **SECTION:** 21 **QUARTERS/FOOTAGES:** NE SW
QUADRANGLE: STEELEVILLE **LONGITUDE:** -89.660506 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.079152 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 481.8 **LOGGED (FT.):** 64.0 **LOG TYPE:** Drillers Log
SOURCE: OTHER CO. RECS RECVD FROM AMAX60 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
481.8	PLEISTOCENE		UNCONSOLIDATED	64.0	0.0	

MAPID: 15790283000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 5W **SECTION:** 21 **QUARTERS/FOOTAGES:** NW SE
QUADRANGLE: STEELEVILLE **LONGITUDE:** -89.655843 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.079043 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 492.4 **LOGGED (FT.):** 65.8 **LOG TYPE:** Drillers Log
SOURCE: OTHER CO. RECS RECVD FROM AMAX61 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
492.4	PLEISTOCENE		UNCONSOLIDATED	45.5	0.0	
446.9			ROCK	14.3	45.5	
432.6	CARBONDALE	HERRIN	COAL	6.0	59.8	

MAPID: 15790284000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 5W **SECTION:** 21 **QUARTERS/FOOTAGES:** SW SE
QUADRANGLE: STEELEVILLE **LONGITUDE:** -89.655877 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.075363 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 476.8 **LOGGED (FT.):** 55.0 **LOG TYPE:** Drillers Log
SOURCE: OTHER CO. RECS RECVD FROM AMAX62 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
476.8	PLEISTOCENE		UNCONSOLIDATED	41.6	0.0	
435.2			ROCK	10.8	41.6	
424.4	CARBONDALE	HERRIN	COAL	2.6	52.4	

MAPID: 15790285000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 5W **SECTION:** 21 **QUARTERS/FOOTAGES:** SE SE
QUADRANGLE: STEELEVILLE **LONGITUDE:** -89.651225 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.075264 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 471.7 **LOGGED (FT.):** 53.3 **LOG TYPE:** Drillers Log
SOURCE: OTHER CO. RECS RECVD FROM AMAX63 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
471.7	PLEISTOCENE		UNCONSOLIDATED	39.0	0.0	
432.7			ROCK	11.3	39.0	
421.4			COAL	3.1	50.3	

MAPID: 15790286000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 5W **SECTION:** 21 **QUARTERS/FOOTAGES:** 450' S line, 650' W line of NE SE
QUADRANGLE: STEELEVILLE **LONGITUDE:** -89.651249 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.078342 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 435.7 **LOGGED (FT.):** 54.0 **LOG TYPE:** Drillers Log
SOURCE: OTHER CO. RECS RECVD FROM AMAX64 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
435.7	PLEISTOCENE		UNCONSOLIDATED	48.0	0.0	
387.7			ROCK	6.0	48.0	

MAPID: 15790287000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 5W **SECTION:** 21 **QUARTERS/FOOTAGES:** SE SW
QUADRANGLE: STEELEVILLE **LONGITUDE:** -89.660533 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.075461 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 491.7 **LOGGED (FT.):** 75.6 **LOG TYPE:** Drillers Log
SOURCE: OTHER CO. RECS RECVD FROM AMAX65 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
491.7	PLEISTOCENE		UNCONSOLIDATED	63.8	0.0	
427.9			ROCK	6.0	63.8	
421.9	CARBONDALE	HERRIN	COAL	5.8	69.8	

MAPID: 15700292000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 5S 5W **SECTION:** 22 **QUARTERS/FOOTAGES:** NW SE
QUADRANGLE: STEELEVILLE **LONGITUDE:** -89.637196 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 38.07892 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 445.0 **LOGGED (FT.):** 55.0 **LOG TYPE:** Drillers Log
SOURCE: UNITED ELECTRIC COAL CO. 853 **WELL TYPE:** Coal Test
COMMENT: NO COAL IN LOG (UP TO 55' - STOPPED)

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
445.0			UNCLASSIFIED	55.0	0.0	NO COAL

MAPID: 15700387000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 5S 5W **SECTION:** 22 **QUARTERS/FOOTAGES:**
QUADRANGLE: STEELEVILLE **LONGITUDE:** -89.639505 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 38.080756 **DATE COLLECTED:** 7 / 0 / 1927
SURFACE ELEVATION (FT.): 430.0 **LOGGED (FT.):** 25.8 **LOG TYPE:** Drillers Log
SOURCE: UNITED ELECTRIC COAL COMPANY 387-213UE **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
430.0	PLEISTOCENE		UNCONSOLIDATED	15.0	0.0	
415.0	CARBONDALE		SANDSTONE	6.0	15.0	
409.0	CARBONDALE	ANNA	BLACK SHALE	1.0	21.0	
408.0	CARBONDALE	HERRIN	COAL	1.8	22.0	
406.2	CARBONDALE		UNDERCLAY	2.0	23.8	

MAPID: 15701477000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 22 QUARTERS/FOOTAGES: 1320' N line, 2640' E line

QUADRANGLE: STEELEVILLE LONGITUDE: -89.639383 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.084489 DATE COLLECTED: 11 / 0 / 1944

SURFACE ELEVATION (FT.): 486.0 LOGGED (FT.): 77.0 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 483D WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
486.0	PLEISTOCENE		CLAY	20.0	0.0	
466.0	PLEISTOCENE		SAND & GRAVEL	16.0	20.0	
450.0	CARBONDALE		SHALE	6.0	36.0	YELLOW
444.0	CARBONDALE		LIMESTONE	3.0	42.0	
441.0	CARBONDALE		LIMESTONE	3.0	45.0	
438.0	CARBONDALE		SHALE	3.0	48.0	DARK
435.0	CARBONDALE		BLACK SHALE	4.0	51.0	DARK GRAY
431.0	CARBONDALE		SHALE	12.0	55.0	
419.0	CARBONDALE	BRERETON	LIMESTONE	2.0	67.0	
417.0	CARBONDALE	HERRIN	COAL	7.0	69.0	
410.0	CARBONDALE		UNDERCLAY	1.0	76.0	

MAPID: 15701477000C VERSION: 2

PROJECT: NCRDS95

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 22 QUARTERS/FOOTAGES: 1320' N line, 2640' E line

QUADRANGLE: STEELEVILLE LONGITUDE: -89.639383 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 38.084489 DATE COLLECTED: 11 / 29 / 1944

SURFACE ELEVATION (FT.): LOGGED (FT.): 77.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 483 WELL TYPE: Coal Test

COMMENT: MIDWEST RADIANT CO.

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	PLEISTOCENE		UNCONSOLIDATED	36.0	0.0	
-			SHALE	6.0	36.0	YELLOW
-			LIMESTONE	6.0	42.0	
-			DARK SHALE	7.0	48.0	
-			GRAY SHALE	12.0	55.0	
-			LIMESTONE	2.0	67.0	
-			SHALE	1.0	69.0	
-	CARBONDALE	HERRIN	COAL	6.0	70.0	
-	CARBONDALE		UNDERCLAY	1.0	76.0	

MAPID: 1570148000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 22 QUARTERS/FOOTAGES: 1' N line, 190' W line

QUADRANGLE: STEELEVILLE LONGITUDE: -89.648056

GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.088047

DATE COLLECTED: 11 / 0 / 1944

SURFACE ELEVATION (FT.): 491.0 LOGGED (FT.): 109.0

LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 480

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
491.0	PLEISTOCENE		CLAY	15.0	0.0	
476.0	PLEISTOCENE		GRAVEL	28.0	15.0	SANDY
448.0	CARBONDALE		LIMESTONE	11.0	43.0	
437.0	CARBONDALE		SANDY SHALE	15.5	54.0	SANDY
421.5	CARBONDALE		LIMESTONE	2.5	69.5	
419.0	CARBONDALE		SANDY SHALE	5.5	72.0	SANDY
413.5	CARBONDALE		LIMESTONE	3.5	77.5	
410.0	CARBONDALE		BLACK SHALE	17.0	81.0	
393.0	CARBONDALE		LIMESTONE	2.0	98.0	
391.0	CARBONDALE	BRERETON	SHALE	2.0	100.0	
389.0	CARBONDALE	HERRIN	COAL	6.0	102.0	
383.0	CARBONDALE		UNDERCLAY	1.0	108.0	

MAPID: 1570148000C VERSION: 2

PROJECT: NCRDS95

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 22 QUARTERS/FOOTAGES: 1' N line, 190' W line

QUADRANGLE: STEELEVILLE LONGITUDE: -89.648056

GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 38.088047

DATE COLLECTED: 11 / 24 / 1944

SURFACE ELEVATION (FT.): LOGGED (FT.): 109.0

LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 480

WELL TYPE: Coal Test

COMMENT: MIDWEST RADIANT COMPANY

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	PLEISTOCENE		UNCONSOLIDATED	43.0	0.0	
-			SHALE WITH LIMESTONE	57.0	43.0	
-			SHALE	2.0	100.0	
-	CARBONDALE	HERRIN	COAL	6.0	102.0	
-	CARBONDALE		UNDERCLAY	1.0	108.0	

MAPID: 15701783000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 22 QUARTERS/FOOTAGES: 2310' N line, 990' W line

QUADRANGLE: STEELEVILLE LONGITUDE: -89.64535 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.081698 DATE COLLECTED:

SURFACE ELEVATION (FT.): 470.0 LOGGED (FT.): 69.0 LOG TYPE: Drillers Log

SOURCE: PYRAMID COAL CO. 53 WELL TYPE: Coal Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
436.6	MODESTO	PIASA	LIMESTONE	2.3	33.4	
434.3	CARBONDALE		SHALE	5.9	35.7	
428.3	CARBONDALE	BANKSTON FORK	LIMESTONE	3.6	41.7	UPPER BENCH
424.8	CARBONDALE	BANKSTON FORK	GRAY SHALE	2.7	45.2	SHALE PARTING
422.1	CARBONDALE	BANKSTON FORK	LIMESTONE/UNDERCLAY	3.5	47.9	LOWER BENCH
418.6	CARBONDALE	CONANT	DARK GRAY SHALE	2.4	51.4	
416.2	CARBONDALE	JAMESTOWN	COAL	0.2	53.8	
416.0	CARBONDALE		DARK GRAY SHALE	4.5	54.0	
411.5	CARBONDALE	BRERETON	LIMESTONE/UNDERCLAY	4.5	58.5	
407.0	CARBONDALE	HERRIN	COAL	6.0	63.0	

MAPID: 15790262000C VERSION: 1

PROJECT: AVAIL

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 22 QUARTERS/FOOTAGES: NE NE

QUADRANGLE: STEELEVILLE LONGITUDE: -89.63247 GEOLOGIST: LAWSON

CONFIDENTIAL: N LATITUDE: 38.086344 DATE COLLECTED:

SURFACE ELEVATION (FT.): 482.7 LOGGED (FT.): 70.0 LOG TYPE: Drillers Log

SOURCE: OTHER CO. RECS RECVD FROM AMAX40 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
482.7	PLEISTOCENE		UNCONSOLIDATED	32.0	0.0	
450.7			ROCK	32.0	32.0	
418.7	CARBONDALE		COAL	1.0	64.0	
417.7	CARBONDALE		ROCK	5.0	65.0	

MAPID: 15790263000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 5W **SECTION:** 22 **QUARTERS/FOOTAGES:** NE NW
QUADRANGLE: STEELEVILLE **LONGITUDE:** -89.641772 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.086269 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 489.7 **LOGGED (FT.):** 70.4 **LOG TYPE:** Drillers Log
SOURCE: OTHER CO. RECS RECVD FROM AMAX41 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
489.7	PLEISTOCENE		UNCONSOLIDATED	33.0	0.0	
456.7			ROCK	37.4	33.0	

MAPID: 15790264000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 5W **SECTION:** 22 **QUARTERS/FOOTAGES:** NW NW
QUADRANGLE: STEELEVILLE **LONGITUDE:** -89.646421 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.08623 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 442.1 **LOGGED (FT.):** 44.0 **LOG TYPE:** Drillers Log
SOURCE: OTHER CO. RECS RECVD FROM AMAX42 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
442.1	PLEISTOCENE		UNCONSOLIDATED	27.0	0.0	
415.1			ROCK	13.5	27.0	
401.6			COAL	3.5	40.5	

MAPID: 15790273000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 5W **SECTION:** 22 **QUARTERS/FOOTAGES:** NW SW
QUADRANGLE: STEELEVILLE **LONGITUDE:** -89.646518 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.078886 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 449.5 **LOGGED (FT.):** 24.0 **LOG TYPE:** Drillers Log
SOURCE: OTHER CO. RECS RECVD FROM AMAX51 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
449.5	PLEISTOCENE		UNCONSOLIDATED	20.4	0.0	
429.1	CARBONDALE	HERRIN	COAL	3.6	20.4	TOP ERODED

MAPID: 15790274000C VERSION: 1

PROJECT: AVAIL

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 22 QUARTERS/FOOTAGES: 60' N line, 125' E line of NW SW

QUADRANGLE: STEELEVILLE LONGITUDE: -89.644604 GEOLOGIST: LAWSON

CONFIDENTIAL: N LATITUDE: 38.080567 DATE COLLECTED:

SURFACE ELEVATION (FT.): 470.1 LOGGED (FT.): 54.2 LOG TYPE: Drillers Log

SOURCE: OTHER CO. RECS RECVD FROM AMAX52 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
470.1	PLEISTOCENE		UNCONSOLIDATED	20.2	0.0	
449.9			ROCK	20.0	20.2	
430.0	CARBONDALE	JAMESTOWN	COAL	0.3	40.1	
429.7	CARBONDALE		ROCK	8.8	40.4	
420.9	CARBONDALE	HERRIN	COAL	5.0	49.2	

MAPID: 15790275000C VERSION: 1

PROJECT: AVAIL

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 22 QUARTERS/FOOTAGES: SW NW

QUADRANGLE: STEELEVILLE LONGITUDE: -89.646469 GEOLOGIST: LAWSON

CONFIDENTIAL: N LATITUDE: 38.082558 DATE COLLECTED:

SURFACE ELEVATION (FT.): 465.9 LOGGED (FT.): 69.7 LOG TYPE: Drillers Log

SOURCE: OTHER CO. RECS RECVD FROM AMAX53 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
465.9	PLEISTOCENE		UNCONSOLIDATED	34.2	0.0	
431.7			ROCK	20.3	34.2	
411.4	CARBONDALE	JAMESTOWN	COAL	0.2	54.5	
411.2	CARBONDALE		ROCK	9.0	54.7	
402.2	CARBONDALE	HERRIN	MINE OPENING	6.0	63.7	

MAPID: 15700293000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 23 QUARTERS/FOOTAGES: NW

QUADRANGLE: STEELEVILLE LONGITUDE: -89.625492 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.084516 DATE COLLECTED:

SURFACE ELEVATION (FT.): 480.0 LOGGED (FT.): 62.0 LOG TYPE: Drillers Log

SOURCE: UNITED ELECTRIC COAL CO. 855 WELL TYPE: Coal Test

COMMENT: NO COAL IN LOG (UP TO 62' - STOPPED)

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
480.0			UNCLASSIFIED	62.0	0.0	NO COAL

MAPID: 15700388000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 23 QUARTERS/FOOTAGES: NE

QUADRANGLE: PERCY LONGITUDE: -89.616159 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.084528 DATE COLLECTED: 7 / 28 / 1927

SURFACE ELEVATION (FT.): 445.0 LOGGED (FT.): 55.0 LOG TYPE: Drillers Log

SOURCE: UNITED ELECT. COAL 269 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
445.0	PLEISTOCENE		UNCONSOLIDATED	15.0	0.0	
430.0	CARBONDALE		SANDY SHALE	22.0	15.0	SANDY
408.0	CARBONDALE		SANDSTONE	9.0	37.0	
399.0	CARBONDALE	BRERETON	LIMESTONE	4.5	46.0	
394.5	CARBONDALE		SHALE	1.5	50.5	
393.0	CARBONDALE	HERRIN	COAL	3.0	52.0	

MAPID: 15701476000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 23 QUARTERS/FOOTAGES:

QUADRANGLE: PERCY LONGITUDE: -89.620844 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.080849 DATE COLLECTED: 11 / 0 / 1945

SURFACE ELEVATION (FT.): 493.0 LOGGED (FT.): 70.0 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 4D WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
493.0	PLEISTOCENE		SOIL	20.0	0.0	CLAYEY
473.0	CARBONDALE		SHALE	17.0	20.0	
456.0	CARBONDALE		LIMESTONE	5.0	37.0	
451.0	CARBONDALE		BLACK SHALE	2.0	42.0	
449.0	CARBONDALE		LIMESTONE	5.0	44.0	
444.0	CARBONDALE		BLACK SHALE	4.0	49.0	
440.0	CARBONDALE	BRERETON	LIMESTONE	7.0	53.0	
433.0	CARBONDALE	ANNA	BLACK SHALE	3.0	60.0	
430.0	CARBONDALE	HERRIN	COAL	6.2	63.0	
423.8	CARBONDALE		UNDERCLAY	0.8	69.2	

MAPID: 15701481000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 23 QUARTERS/FOOTAGES:

QUADRANGLE: PERCY LONGITUDE: -89.620844

GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.080849

DATE COLLECTED: 7 / 0 / 1945

SURFACE ELEVATION (FT.): 460.0

LOGGED (FT.): 50.5

LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 33

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
460.0	PLEISTOCENE		CLAY	8.0	0.0	
452.0	CARBONDALE		SHALE	12.5	8.0	YELLOW
439.5	CARBONDALE		SANDSTONE	3.5	20.5	HARD
436.0	CARBONDALE		MUDSTONE	1.0	24.0	BLUE
435.0	CARBONDALE		SHALE	2.0	25.0	BLUE
433.0	CARBONDALE		SANDSTONE	2.5	27.0	
430.5	CARBONDALE		MUDSTONE	1.0	29.5	BLUE
429.5	CARBONDALE		SHALE	1.0	30.5	BLUE
428.5	CARBONDALE		SANDSTONE	1.5	31.5	
427.0	CARBONDALE		SHALE	1.5	33.0	BLACK
425.5	CARBONDALE		SANDSTONE/SHALE	2.5	34.5	
423.0	CARBONDALE		BLACK SHALE	3.5	37.0	
419.5	CARBONDALE	ANNA	BLACK SHALE	2.0	40.5	
417.5	CARBONDALE	HERRIN	COAL	6.0	42.5	
411.5	CARBONDALE		UNDERCLAY	2.0	48.5	

MAPID: 15701484000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 23 QUARTERS/FOOTAGES:

QUADRANGLE: PERCY LONGITUDE: -89.620844

GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.080849

DATE COLLECTED: 7 / 0 / 1945

SURFACE ELEVATION (FT.): 480.0

LOGGED (FT.): 55.8

LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 36

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
480.0	PLEISTOCENE		CLAY	24.0	0.0	YELLOW
456.0	CARBONDALE		SHALE	0.6	24.0	YELLOW
455.4	CARBONDALE		SANDSTONE	4.3	24.6	HARD
451.2	CARBONDALE		BLACK SHALE	17.0	28.8	
434.2	CARBONDALE	BRERETON	LIMESTONE	2.5	45.8	BLUE
431.7	CARBONDALE	ANNA	BLACK SHALE	1.8	48.3	
429.8	CARBONDALE	HERRIN	COAL	5.7	50.2	

MAPID: 15701485000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 23 QUARTERS/FOOTAGES:

QUADRANGLE: PERCY LONGITUDE: -89.620844 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.080849 DATE COLLECTED:

SURFACE ELEVATION (FT.): 480.0 LOGGED (FT.): 56.0 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 37 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
480.0	PLEISTOCENE		CLAY	38.5	0.0	
441.5	CARBONDALE		SHALE	4.5	38.5	YELLOW
437.0	CARBONDALE		ROCK	2.0	43.0	
435.0	CARBONDALE		SANDSTONE	1.0	45.0	
434.0	CARBONDALE		SHALE	2.5	46.0	
431.5	CARBONDALE	TURNER MINE	BLACK SHALE	3.0	48.5	
428.5	CARBONDALE	SPRINGFIELD	COAL	3.3	51.5	
425.2	CARBONDALE		UNDERCLAY	1.2	54.8	

MAPID: 15701488000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 23 QUARTERS/FOOTAGES:

QUADRANGLE: PERCY LONGITUDE: -89.620844 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.080849 DATE COLLECTED: 7 / 0 / 1945

SURFACE ELEVATION (FT.): 458.0 LOGGED (FT.): 60.7 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 40 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
458.0	PLEISTOCENE		CLAY	30.5	0.0	
427.5	PLEISTOCENE		MUD	5.8	30.5	BLUE WITH BOULDERS
421.7	CARBONDALE		LIMESTONE	4.9	36.3	BLUE
416.8	CARBONDALE		BLACK SHALE	4.5	41.2	BLACK
412.3	CARBONDALE	BRERETON	LIMESTONE	6.3	45.7	BLACK
406.0	CARBONDALE	ANNA	BLACK SHALE	2.0	52.0	
404.0	CARBONDALE	HERRIN	COAL	5.2	54.0	
398.8	CARBONDALE		UNDERCLAY	1.5	59.2	

MAPID: 15701732000C **VERSION:** 1 **PROJECT:** ROOF STUDY
COUNTY: RANDOLPH **TWP/RNG:** 5S 5W **SECTION:** 23 **QUARTERS/FOOTAGES:** 1320' N line, 2540' E line
QUADRANGLE: PERCY **LONGITUDE:** -89.620364 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.084546 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 460.0 **LOGGED (FT.):** 47.3 **LOG TYPE:** Drillers Log
SOURCE: PYRAMID COAL CO. 2 **WELL TYPE:** Coal Test
COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
430.6	CARBONDALE	CONANT	LIMESTONE W/ SHALE	2.3	29.4
428.3	CARBONDALE	BRERETON	LIMESTONE/UNDERCLAY	5.4	31.7
422.9	CARBONDALE	ANNA	BLACK SHALE	3.9	37.1
419.0	CARBONDALE	HERRIN	COAL	6.3	41.0

MAPID: 15790224000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 5W **SECTION:** 23 **QUARTERS/FOOTAGES:** NW NE
QUADRANGLE: PERCY **LONGITUDE:** -89.618485 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.086356 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 467.2 **LOGGED (FT.):** 48.4 **LOG TYPE:** Drillers Log
SOURCE: OTHER CO. RECS RECVD FROM AMAX1 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
467.2	PLEISTOCENE		UNCONSOLIDATED	43.0	0.0
424.2	CARBONDALE		ROCK	1.2	43.0
423.1	CARBONDALE	HERRIN	COAL	4.3	44.1

MAPID: 15790226000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 5W **SECTION:** 23 **QUARTERS/FOOTAGES:** 20' S line, 30' E line of NW NE
QUADRANGLE: PERCY **LONGITUDE:** -89.616264 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.084581 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 452.7 **LOGGED (FT.):** 59.7 **LOG TYPE:** Drillers Log
SOURCE: OTHER CO. RECS RECVD FROM AMAX3 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
452.7	PLEISTOCENE		UNCONSOLIDATED	29.7	0.0
423.0			ROCK	24.2	29.7
398.9	CARBONDALE	HERRIN	COAL	5.8	53.8

MAPID: 15790227000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 5W **SECTION:** 23 **QUARTERS/FOOTAGES:** 40' N line, 115' E line
QUADRANGLE: PERCY **LONGITUDE:** -89.611893 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.088058 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 490.9 **LOGGED (FT.):** 66.0 **LOG TYPE:** Drillers Log
SOURCE: OTHER CO. RECS RECVD FROM AMAX4 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
490.9	PLEISTOCENE		UNCONSOLIDATED	26.9	0.0
464.0			ROCK	32.9	26.9
431.1	CARBONDALE	HERRIN	COAL	6.3	59.8

MAPID: 15790232000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 5W **SECTION:** 23 **QUARTERS/FOOTAGES:** 20' S line, 25' E line
QUADRANGLE: PERCY **LONGITUDE:** -89.611588 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.073683 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 473.6 **LOGGED (FT.):** 68.7 **LOG TYPE:** Drillers Log
SOURCE: OTHER CO. RECS RECVD FROM AMAX9 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
473.6	PLEISTOCENE		UNCONSOLIDATED	30.8	0.0
442.8			ROCK	20.9	30.8
421.8	CARBONDALE	JAMESTOWN	COAL	0.2	51.8
421.7	CARBONDALE	JAMESTOWN	COAL	0.3	51.9
421.4	CARBONDALE	JAMESTOWN	COAL	0.2	52.2
421.3	CARBONDALE		ROCK	11.0	52.3
410.3	CARBONDALE	HERRIN	COAL	5.3	63.3

MAPID: 15790236000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 5W **SECTION:** 23 **QUARTERS/FOOTAGES:** NE NW NW
QUADRANGLE: STEELEVILLE **LONGITUDE:** -89.626639 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.087283 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 475.8 **LOGGED (FT.):** 50.7 **LOG TYPE:** Drillers Log
SOURCE: OTHER CO. RECS RECVD FROM AMAX13 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
475.8	PLEISTOCENE		UNCONSOLIDATED	23.0	0.0
452.8			ROCK	12.8	23.0
440.0	CARBONDALE	JAMESTOWN	COAL	0.2	35.8
439.8	CARBONDALE		ROCK	8.8	36.0
431.0	CARBONDALE	HERRIN	COAL	5.9	44.8

MAPID: 15790237000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 5W **SECTION:** 23 **QUARTERS/FOOTAGES:** SE NW NW
QUADRANGLE: STEELEVILLE **LONGITUDE:** -89.626653 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.085436 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 476.0 **LOGGED (FT.):** 55.2 **LOG TYPE:** Drillers Log
SOURCE: OTHER CO. RECS RECVD FROM AMAX14 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
476.0	PLEISTOCENE		UNCONSOLIDATED	36.5	0.0	
439.5			ROCK	13.8	36.5	
425.7	CARBONDALE	HERRIN	COAL	4.9	50.3	

MAPID: 15790239000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 5W **SECTION:** 23 **QUARTERS/FOOTAGES:** NW NW
QUADRANGLE: STEELEVILLE **LONGITUDE:** -89.627811 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.08636 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 466.3 **LOGGED (FT.):** 47.0 **LOG TYPE:** Drillers Log
SOURCE: OTHER CO. RECS RECVD FROM AMAX16 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
466.3	PLEISTOCENE		UNCONSOLIDATED	16.7	0.0	
449.6			ROCK	12.2	16.7	
437.5	CARBONDALE	JAMESTOWN	COAL	0.2	28.8	
437.3	CARBONDALE		ROCK	12.2	29.0	
425.1	CARBONDALE	HERRIN	COAL	5.8	41.2	

MAPID: 15790240000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 5W **SECTION:** 23 **QUARTERS/FOOTAGES:** SE NW
QUADRANGLE: PERCY **LONGITUDE:** -89.623169 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.082677 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 463.6 **LOGGED (FT.):** 75.2 **LOG TYPE:** Drillers Log
SOURCE: OTHER CO. RECS RECVD FROM AMAX17 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
463.6	PLEISTOCENE		UNCONSOLIDATED	55.0	0.0	
408.6			ROCK	20.2	55.0	

MAPID: 15790241000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 5W **SECTION:** 23 **QUARTERS/FOOTAGES:** SW NE
QUADRANGLE: PERCY **LONGITUDE:** -89.6185 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.082693 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 439.5 **LOGGED (FT.):** 50.3 **LOG TYPE:** Drillers Log
SOURCE: OTHER CO. RECS RECVD FROM AMAX18 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
439.5	PLEISTOCENE		UNCONSOLIDATED	41.7	0.0	
397.8			ROCK	6.3	41.7	
391.5	CARBONDALE	HERRIN	COAL	2.3	48.0	

MAPID: 15790245000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 5W **SECTION:** 23 **QUARTERS/FOOTAGES:** 50' S line, 500' E line of SE SE
QUADRANGLE: PERCY **LONGITUDE:** -89.613247 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.073745 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 479.4 **LOGGED (FT.):** 87.0 **LOG TYPE:** Drillers Log
SOURCE: OTHER CO. RECS RECVD FROM AMAX22 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
479.4	PLEISTOCENE		UNCONSOLIDATED	21.0	0.0	
458.4			ROCK	66.0	21.0	

MAPID: 15790246000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 5W **SECTION:** 23 **QUARTERS/FOOTAGES:** 50' S line, 50' W line of SW SE
QUADRANGLE: PERCY **LONGITUDE:** -89.620703 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.073646 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 466.4 **LOGGED (FT.):** 85.0 **LOG TYPE:** Drillers Log
SOURCE: OTHER CO. RECS RECVD FROM AMAX23 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
466.4	PLEISTOCENE		UNCONSOLIDATED	27.7	0.0	
438.7			ROCK	57.3	27.7	

MAPID: 15790247000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 5W **SECTION:** 23 **QUARTERS/FOOTAGES:** 700' S line, 700' W line of SW SE
QUADRANGLE: PERCY **LONGITUDE:** -89.618425 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.075471 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 447.0 **LOGGED (FT.):** 85.0 **LOG TYPE:** Drillers Log
SOURCE: OTHER CO. RECS RECVD FROM AMAX24 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
447.0	PLEISTOCENE		UNCONSOLIDATED	32.0	0.0
415.0			ROCK	53.0	32.0

MAPID: 15790248000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 5W **SECTION:** 23 **QUARTERS/FOOTAGES:** 50' N line, 10' W line of SE SE
QUADRANGLE: PERCY **LONGITUDE:** -89.616147 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.077083 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 439.0 **LOGGED (FT.):** 85.0 **LOG TYPE:** Drillers Log
SOURCE: OTHER CO. RECS RECVD FROM AMAX25 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
439.0	PLEISTOCENE		UNCONSOLIDATED	17.7	0.0
421.3			ROCK	67.3	17.7

MAPID: 15790250000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 5W **SECTION:** 23 **QUARTERS/FOOTAGES:** 50' N line, 50' W line of NE SE
QUADRANGLE: PERCY **LONGITUDE:** -89.615996 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.080738 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 462.4 **LOGGED (FT.):** 59.4 **LOG TYPE:** Drillers Log
SOURCE: OTHER CO. RECS RECVD FROM AMAX27 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
462.4	PLEISTOCENE		UNCONSOLIDATED	58.5	0.0
403.9			ROCK	0.3	58.5
403.6	CARBONDALE	HERRIN	COAL	0.6	58.8

MAPID: 15790251000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 5W **SECTION:** 23 **QUARTERS/FOOTAGES:** SE NE
QUADRANGLE: PERCY **LONGITUDE:** -89.61383 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.082709 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 482.4 **LOGGED (FT.):** 64.3 **LOG TYPE:** Drillers Log
SOURCE: OTHER CO. RECS RECVD FROM AMAX28 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
482.4	PLEISTOCENE		UNCONSOLIDATED	34.2	0.0	
448.2			ROCK	11.9	34.2	
436.3	CARBONDALE	JAMESTOWN	COAL	0.3	46.1	
436.0	CARBONDALE		ROCK	11.9	46.4	
424.1	CARBONDALE	HERRIN	COAL	6.0	58.3	

MAPID: 15790252000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 5W **SECTION:** 23 **QUARTERS/FOOTAGES:**
QUADRANGLE: PERCY **LONGITUDE:** -89.620844 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.080849 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 449.0 **LOGGED (FT.):** 61.3 **LOG TYPE:** Drillers Log
SOURCE: OTHER CO. RECS RECVD FROM AMAX29 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
449.0	PLEISTOCENE		UNCONSOLIDATED	42.5	0.0	
406.5			ROCK	16.7	42.5	
389.8	CARBONDALE	HERRIN	COAL	2.2	59.2	

MAPID: 15790272000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 5W **SECTION:** 23 **QUARTERS/FOOTAGES:** NE SE
QUADRANGLE: PERCY **LONGITUDE:** -89.613835 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.079064 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 470.4 **LOGGED (FT.):** 76.0 **LOG TYPE:** Drillers Log
SOURCE: OTHER CO. RECS RECVD FROM AMAX50 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
470.4	PLEISTOCENE		UNCONSOLIDATED	76.0	0.0	

MAPID: 15701475000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 24 QUARTERS/FOOTAGES:

QUADRANGLE: PERCY LONGITUDE: -89.602228

GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.080655

DATE COLLECTED: 11 / 0 / 1944

SURFACE ELEVATION (FT.): 492.0 LOGGED (FT.): 88.0

LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 3D

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
492.0	PLEISTOCENE		UNCONSOLIDATED	25.0	0.0	
467.0	CARBONDALE		SHALE	25.0	25.0	
442.0	CARBONDALE		LIMESTONE	3.0	50.0	
439.0	CARBONDALE		BLACK SHALE	5.0	53.0	
434.0	CARBONDALE		LIMESTONE	5.0	58.0	
429.0	CARBONDALE		BLACK SHALE	3.0	63.0	
426.0	CARBONDALE		LIMESTONE	3.0	66.0	
423.0	CARBONDALE		BLACK SHALE	5.0	69.0	
418.0	CARBONDALE	BRERETON	LIMESTONE	5.0	74.0	
413.0	CARBONDALE	ANNA	BLACK SHALE	2.5	79.0	
410.5	CARBONDALE	HERRIN	COAL	6.2	81.5	
404.3	CARBONDALE		UNDERCLAY	0.3	87.7	

MAPID: 15701478000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 24 QUARTERS/FOOTAGES: 2640' N line, 1' E line

QUADRANGLE: PERCY LONGITUDE: -89.592965

GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.08045

DATE COLLECTED: 11 / 0 / 1944

SURFACE ELEVATION (FT.): 513.0 LOGGED (FT.): 88.0

LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 482B

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
513.0	PLEISTOCENE		CLAY	14.5	0.0	
498.5	MODESTO		LIMESTONE	9.5	14.5	
489.0	MODESTO		SHALE	23.0	24.0	SANDY AND GRAY
466.0	CARBONDALE		LIMESTONE	3.0	47.0	
463.0	CARBONDALE		MICACEOUS SHALE	3.5	50.0	
459.5	CARBONDALE		LIMESTONE	5.0	53.5	
454.5	CARBONDALE		SHALE	5.5	58.5	DARK
449.0	CARBONDALE		SILTY SHALE	4.0	64.0	DARK
445.0	CARBONDALE		COAL	0.3	68.0	
444.7	CARBONDALE		BLACK SHALE	9.7	68.3	
435.0	CARBONDALE	BRERETON	LIMESTONE	2.5	78.0	
432.5	CARBONDALE	HERRIN	COAL	6.3	80.5	
426.2	CARBONDALE		UNDERCLAY	1.2	86.8	

MAPID: 15701478000C VERSION: 2

PROJECT: NCRDS95

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 24 QUARTERS/FOOTAGES: 2640' N line, 1' E line

QUADRANGLE: PERCY LONGITUDE: -89.592965 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 38.08045 DATE COLLECTED: 11 / 27 / 1944

SURFACE ELEVATION (FT.): LOGGED (FT.): 88.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 482 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-	PLEISTOCENE		CLAY	14.5	0.0
-			CALCAREOUS SHALE	44.0	14.5
-			DARK SHALE	9.5	58.5
-			COAL	0.3	68.0
-			DARK SHALE	9.7	68.3
-			LIMESTONE	2.5	78.0
-	CARBONDALE	HERRIN	COAL	6.3	80.5
-	CARBONDALE		UNDERCLAY	1.2	86.8

MAPID: 15701479000C VERSION: 1

PROJECT: NCRDS95

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 24 QUARTERS/FOOTAGES: 1' N line, 1' E line

QUADRANGLE: PERCY LONGITUDE: -89.592876 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 38.087735 DATE COLLECTED: 0 / 0 / 1944

SURFACE ELEVATION (FT.): LOGGED (FT.): 112.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 481 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-	PLEISTOCENE		CLAY	32.0	0.0
-			SHALE	80.0	32.0

MAPID: 15701769000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 24 QUARTERS/FOOTAGES: 1980' N line, 660' W line

QUADRANGLE: PERCY LONGITUDE: -89.609188 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.08265 DATE COLLECTED:

SURFACE ELEVATION (FT.): 500.0 LOGGED (FT.): 78.9 LOG TYPE: Drillers Log

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

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
465.0	CARBONDALE		GRAY SHALE	13.0	35.0	
452.0	CARBONDALE		GRAY SHALE	17.0	48.0	
435.0	CARBONDALE	BANKSTON FORK	LIMESTONE/UNDERCLAY	0.3	65.0	UPPER BENCH
434.7	CARBONDALE	BANKSTON FORK	GRAY SHALE	2.2	65.3	SHALE PARTING
432.5	CARBONDALE	BANKSTON FORK	LIMESTONE/UNDERCLAY	2.3	67.5	LOWER BENCH
430.2	CARBONDALE		GRAY SHALE	1.5	69.8	
428.7	CARBONDALE	BRERETON	LIMESTONE/UNDERCLAY	4.3	71.3	
424.3	CARBONDALE	ANNA	BLACK SHALE	0.3	75.7	
424.0	CARBONDALE	HERRIN	COAL	2.9	76.0	

MAPID: 15790233000C VERSION: 1

PROJECT: AVAIL

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 24 QUARTERS/FOOTAGES: 20' N line, 25' W line of SE NW

QUADRANGLE: PERCY LONGITUDE: -89.606763 GEOLOGIST: LAWSON

CONFIDENTIAL: N LATITUDE: 38.084361 DATE COLLECTED:

SURFACE ELEVATION (FT.): 482.8 LOGGED (FT.): 69.0 LOG TYPE: Drillers Log

SOURCE: OTHER CO. RECS RECVD FROM AMAX10 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
482.8	PLEISTOCENE		UNCONSOLIDATED	45.8	0.0	
437.0			ROCK	23.3	45.8	

MAPID: 15790242000C VERSION: 1

PROJECT: AVAIL

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 24 QUARTERS/FOOTAGES: 40' S line, 650' E line of SW SE

QUADRANGLE: PERCY LONGITUDE: -89.599933 GEOLOGIST: LAWSON

CONFIDENTIAL: N LATITUDE: 38.073393 DATE COLLECTED:

SURFACE ELEVATION (FT.): 510.3 LOGGED (FT.): 64.4 LOG TYPE: Drillers Log

SOURCE: OTHER CO. RECS RECVD FROM AMAX19 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
510.3	PLEISTOCENE		UNCONSOLIDATED	44.3	0.0	
466.0			ROCK	14.3	44.3	
451.7	CARBONDALE	HERRIN	COAL	5.8	58.6	

MAPID: 15790243000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 5W **SECTION:** 24 **QUARTERS/FOOTAGES:** 50' S line, 5' E line of SE SE
QUADRANGLE: PERCY **LONGITUDE:** -89.593067 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.073217 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 500.9 **LOGGED (FT.):** 73.3 **LOG TYPE:** Drillers Log
SOURCE: OTHER CO. RECS RECVD FROM AMAX20 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
500.9	PLEISTOCENE		UNCONSOLIDATED	17.3	0.0
483.6			ROCK	37.0	17.3
446.6	CARBONDALE	JAMESTOWN	COAL	0.2	54.3
446.4	CARBONDALE		ROCK	13.0	54.5
433.5	CARBONDALE	HERRIN	COAL	5.8	67.4

MAPID: 15790244000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 5W **SECTION:** 24 **QUARTERS/FOOTAGES:** 50' S line, 650' E line of SW SW
QUADRANGLE: PERCY **LONGITUDE:** -89.609157 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.073697 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 454.3 **LOGGED (FT.):** 51.1 **LOG TYPE:** Drillers Log
SOURCE: OTHER CO. RECS RECVD FROM AMAX21 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
454.3	PLEISTOCENE		UNCONSOLIDATED	9.6	0.0
444.7			ROCK	37.3	9.6
407.5	CARBONDALE	HERRIN	COAL	4.3	46.8

MAPID: 15790249000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 5W **SECTION:** 24 **QUARTERS/FOOTAGES:** 75' N line, 100' W line of SW SW
QUADRANGLE: PERCY **LONGITUDE:** -89.611149 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.077046 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 446.9 **LOGGED (FT.):** 80.0 **LOG TYPE:** Drillers Log
SOURCE: OTHER CO. RECS RECVD FROM AMAX26 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
446.9	PLEISTOCENE		UNCONSOLIDATED	21.0	0.0
425.9			ROCK	59.0	21.0

MAPID: 15790253000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 5W **SECTION:** 24 **QUARTERS/FOOTAGES:** 50' N line, 50' W line of NW SE
QUADRANGLE: PERCY **LONGITUDE:** -89.602056 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.080511 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 500.1 **LOGGED (FT.):** 60.3 **LOG TYPE:** Drillers Log
SOURCE: OTHER CO. RECS RECVD FROM AMAX30 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
500.1	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0	
490.1			ROCK	34.1	10.0	
456.0	CARBONDALE	JAMESTOWN	COAL	0.7	44.1	
455.3	CARBONDALE		ROCK	9.2	44.8	
446.1	CARBONDALE	HERRIN	COAL	6.3	54.0	

MAPID: 15790254000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 5W **SECTION:** 24 **QUARTERS/FOOTAGES:** 50' N line, 50' W line of SE SE
QUADRANGLE: PERCY **LONGITUDE:** -89.597455 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.07673 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 489.8 **LOGGED (FT.):** 75.8 **LOG TYPE:** Drillers Log
SOURCE: OTHER CO. RECS RECVD FROM AMAX31 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
489.8	PLEISTOCENE		UNCONSOLIDATED	8.0	0.0	
481.8			ROCK	23.0	8.0	
458.8			COAL	1.0	31.0	
457.8			ROCK	43.8	32.0	

MAPID: 15790255000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 5W **SECTION:** 24 **QUARTERS/FOOTAGES:** 50' N line, 50' E line of NW SE
QUADRANGLE: PERCY **LONGITUDE:** -89.597771 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.080396 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 492.8 **LOGGED (FT.):** 86.0 **LOG TYPE:** Drillers Log
SOURCE: OTHER CO. RECS RECVD FROM AMAX32 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
492.8	PLEISTOCENE		UNCONSOLIDATED	22.0	0.0	
470.8			ROCK	64.0	22.0	

MAPID: 15790256000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 5W **SECTION:** 24 **QUARTERS/FOOTAGES:** 40' N line, 40' E line of SW
QUADRANGLE: PERCY **LONGITUDE:** -89.602367 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.080547 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 502.7 **LOGGED (FT.):** 86.0 **LOG TYPE:** Drillers Log
SOURCE: OTHER CO. RECS RECVD FROM AMAX33 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
502.7	PLEISTOCENE		UNCONSOLIDATED	28.0	0.0	
474.7			ROCK	58.0	28.0	

MAPID: 15790257000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 5W **SECTION:** 24 **QUARTERS/FOOTAGES:** NE SW
QUADRANGLE: PERCY **LONGITUDE:** -89.604555 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.078891 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 501.9 **LOGGED (FT.):** 86.0 **LOG TYPE:** Drillers Log
SOURCE: OTHER CO. RECS RECVD FROM AMAX34 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
501.9	PLEISTOCENE		UNCONSOLIDATED	17.0	0.0	
484.9			ROCK	69.0	17.0	

MAPID: 15790258000C **VERSION:** 1 **PROJECT:** NCRDS99
COUNTY: RANDOLPH **TWP/RNG:** 5S 5W **SECTION:** 24 **QUARTERS/FOOTAGES:** 50' N line, 50' W line of NE SW
QUADRANGLE: PERCY **LONGITUDE:** -89.606688 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.080634 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 511.4 **LOGGED (FT.):** 86.0 **LOG TYPE:** Drillers Log
SOURCE: OTHER CO. RECS RECVD FROM AMAX35 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
511.4	PLEISTOCENE		UNCONSOLIDATED	25.0	0.0	
486.4			ROCK	61.0	25.0	

MAPID: 15790259000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 5W **SECTION:** 24 **QUARTERS/FOOTAGES:** 10' S line, 40' E line of SE
QUADRANGLE: PERCY **LONGITUDE:** -89.59319 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.073109 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 497.7 **LOGGED (FT.):** 88.0 **LOG TYPE:** Drillers Log
SOURCE: OTHER CO. RECS RECVD FROM AMAX36 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
497.7	PLEISTOCENE		UNCONSOLIDATED	20.0	0.0	
477.7			ROCK	68.0	20.0	

MAPID: 15790260000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 5W **SECTION:** 24 **QUARTERS/FOOTAGES:** NW SW
QUADRANGLE: PERCY **LONGITUDE:** -89.609183 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.079019 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 497.7 **LOGGED (FT.):** 77.0 **LOG TYPE:** Drillers Log
SOURCE: OTHER CO. RECS RECVD FROM AMAX37 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
497.7	PLEISTOCENE		UNCONSOLIDATED	23.0	0.0	
474.7			ROCK	54.0	23.0	

MAPID: 15790261000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 5W **SECTION:** 24 **QUARTERS/FOOTAGES:** SW NE
QUADRANGLE: PERCY **LONGITUDE:** -89.599897 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.082418 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 502.6 **LOGGED (FT.):** 78.9 **LOG TYPE:** Drillers Log
SOURCE: OTHER CO. RECS RECVD FROM AMAX39 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
502.6	PLEISTOCENE		UNCONSOLIDATED	35.0	0.0	
467.6			ROCK	41.0	35.0	
426.6			COAL	2.9	76.0	

MAPID: 15700075000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 25 QUARTERS/FOOTAGES: 52' N line, 370' E line of NE SW

QUADRANGLE: PERCY LONGITUDE: -89.603677 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.065668 DATE COLLECTED: 0 / 0 / 1960

SURFACE ELEVATION (FT.): 510.0 LOGGED (FT.): 82.0 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MINING 25 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
510.0	PLEISTOCENE		UNCONSOLIDATED	17.0	0.0	
493.0	CARBONDALE		LIMESTONE	0.5	17.0	BROWN
492.5	CARBONDALE		SHALE	3.5	17.5	SOFT
489.0	CARBONDALE		LIMESTONE	4.0	21.0	GRAY
485.0	CARBONDALE		SANDY SHALE	5.0	25.0	SANDY
480.0	CARBONDALE		LIMESTONE	5.0	30.0	GRAY
475.0	CARBONDALE		CLAYSTONE	1.0	35.0	
474.0	CARBONDALE		CLAYSTONE	2.0	36.0	DARK
472.0	CARBONDALE		LIMESTONE	4.0	38.0	
468.0	CARBONDALE		DARK SHALE	4.0	42.0	
464.0	CARBONDALE		COAL	0.8	46.0	SOFT, DARK
463.2	CARBONDALE		LIMESTONE	6.0	46.8	HARD; DARK
457.2	CARBONDALE		BLACK SHALE	4.5	52.8	
452.7	CARBONDALE	HERRIN	COAL	5.8	57.3	
447.0	CARBONDALE		UNDERCLAY	2.0	63.0	
445.0	CARBONDALE		LIMESTONE	6.0	65.0	GRAY
439.0	CARBONDALE		CLAYSTONE	1.5	71.0	
437.5	CARBONDALE	ST. DAVID	LIMESTONE	5.0	72.5	GRAY
432.5	CARBONDALE		SHALE	0.5	77.5	SOFT
432.0	CARBONDALE	SPRINGFIELD	COAL	2.0	78.0	
430.0	CARBONDALE		UNDERCLAY	2.0	80.0	

MAPID: 15700294000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 25 QUARTERS/FOOTAGES: SW SW SW SW

QUADRANGLE: PERCY LONGITUDE: -89.611216 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.058784 DATE COLLECTED:

SURFACE ELEVATION (FT.): 506.0 LOGGED (FT.): 58.8 LOG TYPE: Drillers Log

SOURCE: UNITED ELECTRIC COAL CO. 709 WELL TYPE: Coal Test

COMMENT: COAL AT 53'

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
506.0	PLEISTOCENE		UNCONSOLIDATED	26.0	0.0
480.0	CARBONDALE		LIMESTONE	4.5	26.0
475.5	CARBONDALE		SHALE	3.5	30.5
472.0	CARBONDALE		LIMESTONE	4.0	34.0
468.0	CARBONDALE		SHALE	1.5	38.0
466.5	CARBONDALE		COAL	0.5	39.5
466.0	CARBONDALE		LIMESTONE	1.0	40.0
465.0	CARBONDALE		SHALE	6.0	41.0
459.0	CARBONDALE	BRERETON	LIMESTONE	5.5	47.0
453.5	CARBONDALE	HERRIN	COAL	5.8	52.5

MAPID: 15700295000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 25 QUARTERS/FOOTAGES: SW

QUADRANGLE: PERCY LONGITUDE: -89.607083 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.062071 DATE COLLECTED:

SURFACE ELEVATION (FT.): 512.0 LOGGED (FT.): 44.8 LOG TYPE: Drillers Log

SOURCE: UNITED ELECTRIC COAL CO. 759 WELL TYPE: Coal Test

COMMENT: COAL AT 23'

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
512.0	PLEISTOCENE		UNCONSOLIDATED	17.0	0.0
495.0	CARBONDALE		LIMESTONE	2.0	17.0
493.0	CARBONDALE		SHALE	4.0	19.0
489.0	CARBONDALE		COAL	4.6	23.0
484.4	CARBONDALE	BRERETON	LIMESTONE	5.0	27.6
479.4	CARBONDALE		SHALE	4.0	32.6 BLUE
475.4	CARBONDALE	ANNA	BLACK SHALE	2.0	36.6
473.4	CARBONDALE	HERRIN	COAL	6.3	38.6

MAPID: 15700296000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 25 QUARTERS/FOOTAGES: 2640' N line, 2640' E line

QUADRANGLE: PERCY LONGITUDE: -89.602326 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.066067 DATE COLLECTED:

SURFACE ELEVATION (FT.): 513.0 LOGGED (FT.): 61.7 LOG TYPE: Drillers Log

SOURCE: UNITED ELECTRIC COAL CO. 761 WELL TYPE: Coal Test

COMMENT: COAL AT 56'

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
513.0	PLEISTOCENE		UNCONSOLIDATED	28.0	0.0	
485.0	CARBONDALE		LIMESTONE	6.0	28.0	
479.0	CARBONDALE		SHALE	3.0	34.0	BLUE
476.0	CARBONDALE		LIMESTONE	3.0	37.0	
473.0	CARBONDALE		BLACK SHALE	6.0	40.0	
467.0	CARBONDALE	BRERETON	LIMESTONE	7.0	46.0	
460.0	CARBONDALE	ANNA	BLACK SHALE	3.0	53.0	
457.0	CARBONDALE		COAL	5.7	56.0	

MAPID: 15700296000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 25 QUARTERS/FOOTAGES: 2640' N line, 2640' E line

QUADRANGLE: PERCY LONGITUDE: -89.602326 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.066067 DATE COLLECTED:

SURFACE ELEVATION (FT.): 490.0 LOGGED (FT.): 61.7 LOG TYPE: Drillers Log

SOURCE: WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
462.0	CARBONDALE	BANKSTON FORK	LIMESTONE	6.0	28.0	
456.0	CARBONDALE	BANKSTON FORK	GRAY SHALE	3.0	34.0	
453.0	CARBONDALE	BANKSTON FORK	LIMESTONE	3.0	37.0	
450.0	CARBONDALE	CONANT	BLACK SHALE	6.0	40.0	
444.0	CARBONDALE	BRERETON	LIMESTONE & SHALE	7.0	46.0	
437.0	CARBONDALE	ANNA	BLACK SHALE	3.0	53.0	
434.0	CARBONDALE	HERRIN	COAL	5.7	56.0	

MAPID: 15700297000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 25 QUARTERS/FOOTAGES: SE

QUADRANGLE: PERCY LONGITUDE: -89.597788 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.06193 DATE COLLECTED:

SURFACE ELEVATION (FT.): 505.0 LOGGED (FT.): 54.9 LOG TYPE: Drillers Log

SOURCE: UNITED ELECTRIC COAL CO. 711 WELL TYPE: Coal Test

COMMENT: COAL AT 48'

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
505.0	PLEISTOCENE		UNCONSOLIDATED	33.0	0.0	
472.0	MODESTO		LIMESTONE	2.0	33.0	
470.0	MODESTO		SHALE	5.0	35.0	
465.0	CARBONDALE	DANVILLE	COAL	1.0	40.0	
464.0	CARBONDALE		SHALE	2.0	41.0	
462.0	CARBONDALE	BRERETON	LIMESTONE	4.0	43.0	
458.0	CARBONDALE	ANNA	BLACK SHALE	1.0	47.0	
457.0	CARBONDALE	HERRIN	COAL	6.9	48.0	

MAPID: 15700404000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 25 QUARTERS/FOOTAGES: SE SE

QUADRANGLE: PERCY LONGITUDE: -89.595484 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.060019 DATE COLLECTED:

SURFACE ELEVATION (FT.): 485.0 LOGGED (FT.): 46.0 LOG TYPE: Drillers Log

SOURCE: UNITED ELECTRIC COAL CO. 99 WELL TYPE: Coal Test

COMMENT: NO COAL IN LOG (UP TO 46')

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
485.0			UNCLASSIFIED	46.0	0.0	NO COAL

MAPID: 15700502000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 25 QUARTERS/FOOTAGES: 220' S line, 270' E line of NE NW

QUADRANGLE: PERCY

LONGITUDE: -89.603264

GEOLOGIST: HOKE

CONFIDENTIAL: N

LATITUDE: 38.070199

DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 478.4

LOGGED (FT.): 30.8

LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO 201K

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
478.4	PLEISTOCENE		UNCONSOLIDATED	7.5	0.0
470.9	CARBONDALE		LIMESTONE	2.4	7.5
468.5	CARBONDALE		SHALE	2.4	9.9
466.1	CARBONDALE		BLACK SHALE	1.7	12.3
464.4	CARBONDALE		COAL	0.1	14.0
464.3	CARBONDALE		LIMESTONE	0.7	14.1
463.6	CARBONDALE		SHALE	4.3	14.8
459.4	CARBONDALE		BLACK SHALE	2.0	19.0
457.4	CARBONDALE	BRERETON	LIMESTONE	3.7	21.0
453.7	CARBONDALE	HERRIN	COAL	6.2	24.7

MAPID: 15700505000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 25 QUARTERS/FOOTAGES: 1020' S line, 660' E line of NW NE

QUADRANGLE: PERCY

LONGITUDE: -89.599977

GEOLOGIST: HOKE

CONFIDENTIAL: N

LATITUDE: 38.072328

DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 497.9

LOGGED (FT.): 60.3

LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO 202B

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
497.9	PLEISTOCENE		UNCONSOLIDATED	28.0	0.0
469.9	CARBONDALE		LIMESTONE	4.2	28.0
465.7	CARBONDALE		SHALE	3.6	32.2
462.1	CARBONDALE		LIMESTONE	2.3	35.8
459.8	CARBONDALE		LIMESTONE	0.6	38.1
459.2	CARBONDALE		BLACK SHALE	3.7	38.7
455.6	CARBONDALE		LIMESTONE	0.5	42.3
455.1	CARBONDALE		BLACK SHALE	3.1	42.8
452.0	CARBONDALE		LIMESTONE	2.5	45.9
449.5	CARBONDALE		BLACK SHALE	4.4	48.4
445.1	CARBONDALE		LIMESTONE	0.9	52.8
444.1	CARBONDALE	HERRIN	COAL	6.6	53.8

MAPID: 15700506000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 25 QUARTERS/FOOTAGES: 330' S line, 650' E line of NW NE

QUADRANGLE: PERCY LONGITUDE: -89.599964 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.07042 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 487.3 LOGGED (FT.): 39.9 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO 202J WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
487.3	PLEISTOCENE		UNCONSOLIDATED	8.3	0.0	
479.0	CARBONDALE		LIMESTONE	4.3	8.3	
474.8	CARBONDALE		SHALE	3.3	12.5	
471.5	CARBONDALE		LIMESTONE	3.1	15.8	
468.4	CARBONDALE		SHALE	3.6	18.9	
464.8	CARBONDALE		COAL	0.1	22.5	
464.7	CARBONDALE		LIMESTONE	0.6	22.6	
464.1	CARBONDALE		SHALE	3.9	23.2	
460.2	CARBONDALE		BLACK SHALE	0.8	27.1	
459.4	CARBONDALE	BRERETON	LIMESTONE	4.7	27.9	
454.7	CARBONDALE	ANNA	BLACK SHALE	0.8	32.6	
453.9	CARBONDALE	HERRIN	COAL	6.5	33.4	

MAPID: 15700509000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 25 QUARTERS/FOOTAGES: 1000' S line, 300' E line of SW NW

QUADRANGLE: PERCY LONGITUDE: -89.608018 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.06866 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 483.6 LOGGED (FT.): 46.8 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG CO 185-C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
483.6	PLEISTOCENE		UNCONSOLIDATED	18.0	0.0	
465.6	PLEISTOCENE		SAND & GRAVEL	4.5	18.0	
461.1	CARBONDALE		LIMESTONE	1.7	22.5	
459.4	CARBONDALE		SHALE	3.0	24.2	
456.4	CARBONDALE		COAL	0.3	27.2	
456.2	CARBONDALE		SHALE	6.3	27.4	
449.8	CARBONDALE		ROCK	4.0	33.8	SOFT
445.8	CARBONDALE	BRERETON	LIMESTONE	3.0	37.8	
442.8	CARBONDALE	HERRIN	COAL	6.1	40.8	

MAPID: 1570051000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 25 QUARTERS/FOOTAGES: 670' S line, 650' E line of SW NW

QUADRANGLE: PERCY LONGITUDE: -89.609256 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.067772 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 476.7 LOGGED (FT.): 41.5 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG 185F WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
476.7	PLEISTOCENE		UNCONSOLIDATED	10.2	0.0
466.5	CARBONDALE		LIMESTONE	4.8	10.2
461.8	CARBONDALE		SHALE	3.0	14.9
458.8	CARBONDALE		LIMESTONE	2.9	17.9
455.9	CARBONDALE		SHALE	3.0	20.8
452.9	CARBONDALE		COAL	0.7	23.8
452.2	CARBONDALE		LIMESTONE	0.3	24.5
451.9	CARBONDALE		BLACK SHALE	2.2	24.8
449.7	CARBONDALE	BRERETON	LIMESTONE	5.3	27.0
444.4	CARBONDALE		SHALE	2.8	32.3
441.6	CARBONDALE	HERRIN	COAL	6.4	35.1

MAPID: 15700511000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 25 QUARTERS/FOOTAGES: 330' S line, 990' E line of SW NW

QUADRANGLE: PERCY LONGITUDE: -89.61046 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.066857 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 487.0 LOGGED (FT.): 46.0 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG 185I WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
487.0	PLEISTOCENE		UNCONSOLIDATED	16.8	0.0
470.2	CARBONDALE		LIMESTONE	1.3	16.8
469.0	CARBONDALE		SHALE	4.1	18.0
464.9	CARBONDALE		LIMESTONE	3.3	22.1
461.7	CARBONDALE		SHALE	2.5	25.3
459.2	CARBONDALE		COAL	0.7	27.8
458.5	CARBONDALE		LIMESTONE	0.9	28.5
457.6	CARBONDALE		SHALE	3.5	29.4
454.1	CARBONDALE	BRERETON	LIMESTONE	5.2	32.9
448.9	CARBONDALE	ANNA	BLACK SHALE	2.2	38.1
446.7	CARBONDALE	HERRIN	COAL	5.8	40.3

MAPID: 15700512000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 25 QUARTERS/FOOTAGES: 300' S line, 300' E line of SW NW

QUADRANGLE: PERCY LONGITUDE: -89.608054 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.066727 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 485.9 LOGGED (FT.): 52.9 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG CO 185K WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
485.9	PLEISTOCENE		UNCONSOLIDATED	19.2	0.0
466.7	CARBONDALE		LIMESTONE	4.3	19.2
462.5	CARBONDALE		SHALE	2.8	23.4
459.6	CARBONDALE		LIMESTONE	2.5	26.3
457.1	CARBONDALE		SHALE	3.4	28.8
453.7	CARBONDALE		COAL	0.6	32.2
453.1	CARBONDALE		SHALE	5.9	32.8
447.2	CARBONDALE		LIMESTONE	2.6	38.7
444.6	CARBONDALE		SHALE	1.0	41.3
443.6	CARBONDALE	BRERETON	LIMESTONE	4.0	42.3
439.6	CARBONDALE		SHALE	0.7	46.3
439.0	CARBONDALE	HERRIN	COAL	6.0	46.9

MAPID: 15700513000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 25 QUARTERS/FOOTAGES: 1000' S line, 900' E line of SE NW

QUADRANGLE: PERCY LONGITUDE: -89.605486 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.068607 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 482.8 LOGGED (FT.): 44.9 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG CO 186A WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
482.8	PLEISTOCENE		UNCONSOLIDATED	29.3	0.0
453.5	CARBONDALE		LIMESTONE	4.1	29.3
449.4	CARBONDALE		SHALE	4.0	33.4
445.4	CARBONDALE	BRERETON	LIMESTONE	0.8	37.4
444.6	CARBONDALE	ANNA	BLACK SHALE	1.0	38.2
443.6	CARBONDALE	HERRIN	COAL	5.8	39.2

MAPID: 15700514000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 25 QUARTERS/FOOTAGES: 1000' S line, 280' E line of SE NW

QUADRANGLE: PERCY LONGITUDE: -89.603321 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.068564 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 493.3 LOGGED (FT.): 48.9 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO 186C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
493.3	PLEISTOCENE		UNCONSOLIDATED	17.0	0.0	
476.3	CARBONDALE		LIMESTONE	4.2	17.0	
472.1	CARBONDALE		SHALE	3.7	21.2	
468.5	CARBONDALE		LIMESTONE	3.0	24.8	
465.5	CARBONDALE		SHALE	3.5	27.8	
462.0	CARBONDALE		COAL	0.2	31.3	
461.8	CARBONDALE		LIMESTONE	0.4	31.5	
461.4	CARBONDALE		BLACK SHALE	1.8	31.9	WITH SHALE
459.6	CARBONDALE	BRERETON	LIMESTONE	6.4	33.7	
453.2	CARBONDALE	ANNA	BLACK SHALE	3.0	40.1	
450.2	CARBONDALE	HERRIN	COAL	5.8	43.1	

MAPID: 15700515000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 25 QUARTERS/FOOTAGES: 660' S line, 630' E line of SE NW

QUADRANGLE: PERCY LONGITUDE: -89.604556 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.06765 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 485.6 LOGGED (FT.): 47.8 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO 186F WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
485.6	PLEISTOCENE		UNCONSOLIDATED	17.0	0.0	
468.6	CARBONDALE		LIMESTONE	4.3	17.0	
464.3	CARBONDALE		SHALE	3.4	21.3	
460.9	CARBONDALE		LIMESTONE	2.9	24.7	
458.0	CARBONDALE		SHALE	3.4	27.6	
454.6	CARBONDALE		COAL	0.1	31.0	
454.5	CARBONDALE		LIMESTONE	0.7	31.1	
453.8	CARBONDALE		SHALE	6.3	31.8	
447.6	CARBONDALE	BRERETON	LIMESTONE	3.7	38.0	
443.9	CARBONDALE	HERRIN	COAL	6.2	41.7	

MAPID: 15700516000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 25 QUARTERS/FOOTAGES: 330' S line, 970' E line of SE NW

QUADRANGLE: PERCY LONGITUDE: -89.605756 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.066762 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 486.7 LOGGED (FT.): 64.0 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO 186I WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
486.7	PLEISTOCENE		UNCONSOLIDATED	22.5	0.0	
464.2	CARBONDALE		LIMESTONE	2.6	22.5	
461.6	CARBONDALE		CLAYSTONE	3.8	25.1	SANDY
457.8	CARBONDALE		LIMESTONE	6.9	28.9	
450.9	CARBONDALE		SHALE	3.3	35.8	
447.5	CARBONDALE		LIMESTONE	3.0	39.2	
444.5	CARBONDALE		BLACK SHALE	4.0	42.2	
440.5	CARBONDALE		LIMESTONE	0.5	46.2	
440.0	CARBONDALE		BLACK SHALE	7.8	46.7	
432.3	CARBONDALE	BRERETON	LIMESTONE	3.3	54.4	
429.0	CARBONDALE	HERRIN	COAL	6.3	57.7	

MAPID: 15700517000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 25 QUARTERS/FOOTAGES: 330' S line, 330' E line of SE NW

QUADRANGLE: PERCY LONGITUDE: -89.603521 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.066717 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 490.3 LOGGED (FT.): 62.1 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO 186K WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
490.3	PLEISTOCENE		UNCONSOLIDATED	27.4	0.0	
462.9	CARBONDALE		LIMESTONE	4.3	27.4	
458.5	CARBONDALE		SHALE	3.6	31.8	
455.0	CARBONDALE		LIMESTONE	2.9	35.3	
452.0	CARBONDALE		SHALE	3.1	38.3	
449.0	CARBONDALE		COAL	0.3	41.3	
448.7	CARBONDALE		LIMESTONE	0.5	41.6	
448.2	CARBONDALE		SHALE	6.8	42.1	
441.4	CARBONDALE	BRERETON	LIMESTONE	6.8	48.9	
434.6	CARBONDALE	HERRIN	COAL	6.4	55.7	

MAPID: 15700518000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 25 QUARTERS/FOOTAGES: 1000' S line, 1000' E line of SW NE

QUADRANGLE: PERCY

LONGITUDE: -89.601208

GEOLOGIST: HOKE

CONFIDENTIAL: N

LATITUDE: 38.068522

DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 497.5

LOGGED (FT.): 45.4

LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO 187A

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
497.5	PLEISTOCENE		UNCONSOLIDATED	13.0	0.0
484.5	CARBONDALE		LIMESTONE	3.5	13.0
481.0	CARBONDALE		SHALE	4.0	16.5
477.0	CARBONDALE		LIMESTONE	3.0	20.5
474.0	CARBONDALE		SHALE	6.5	23.5
467.5	CARBONDALE	BRERETON	LIMESTONE	5.5	30.0
462.0	CARBONDALE		BLACK SHALE	4.0	35.5
458.0	CARBONDALE	HERRIN	COAL	5.9	39.5

MAPID: 15700523000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 25 QUARTERS/FOOTAGES: 1040' S line, 330' E line of NW SW

QUADRANGLE: PERCY

LONGITUDE: -89.608187

GEOLOGIST: HOKE

CONFIDENTIAL: N

LATITUDE: 38.06496

DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 487.2

LOGGED (FT.): 58.0

LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG 170-C

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
487.2	PLEISTOCENE		UNCONSOLIDATED	20.0	0.0
467.2	CARBONDALE		LIMESTONE	0.9	20.0
466.3	CARBONDALE		SHALE	5.8	20.9
460.4	CARBONDALE		LIMESTONE	4.5	26.8
455.9	CARBONDALE		BLACK SHALE	3.3	31.3
452.7	CARBONDALE		LIMESTONE	3.1	34.5
449.6	CARBONDALE		BLACK SHALE	9.1	37.6 WITH SHALE
440.5	CARBONDALE		LIMESTONE	1.4	46.7
439.1	CARBONDALE		SHALE	1.0	48.1
438.1	CARBONDALE	BRERETON	LIMESTONE	2.4	49.1
435.7	CARBONDALE	HERRIN	COAL	6.5	51.5

MAPID: 15700524000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 25 QUARTERS/FOOTAGES: 650' S line, 650' E line of NW SW

QUADRANGLE: PERCY LONGITUDE: -89.60932 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.063899 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 486.9 LOGGED (FT.): 60.8 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO 170F WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
486.9	PLEISTOCENE		UNCONSOLIDATED	27.0	0.0
459.9	PLEISTOCENE		GRAVEL	2.7	27.0
457.2	CARBONDALE		LIMESTONE	5.3	29.7
452.0	CARBONDALE		SHALE	3.0	34.9
449.0	CARBONDALE		LIMESTONE	3.1	37.9
445.9	CARBONDALE		BLACK SHALE	4.8	41.0
441.1	CARBONDALE	BRERETON	LIMESTONE	6.9	45.8
434.1	CARBONDALE	ANNA	BLACK SHALE	2.0	52.8
432.1	CARBONDALE	HERRIN	COAL	6.0	54.8

MAPID: 15700525000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 25 QUARTERS/FOOTAGES: 380' S line, 310' E line of NW SW

QUADRANGLE: PERCY LONGITUDE: -89.608146 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.063135 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 487.0 LOGGED (FT.): 67.5 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG CO 170-K WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
487.0	PLEISTOCENE		UNCONSOLIDATED	29.0	0.0
458.0	CARBONDALE		LIMESTONE	3.1	29.0
454.9	CARBONDALE		SHALE	5.4	32.1
449.6	CARBONDALE		LIMESTONE	6.1	37.4
443.4	CARBONDALE		SHALE	1.4	43.6
442.0	CARBONDALE		LIMESTONE	3.8	45.0
438.2	CARBONDALE		SHALE	3.7	48.8
434.6	CARBONDALE	BRERETON	LIMESTONE	5.7	52.4
428.9	CARBONDALE	ANNA	BLACK SHALE	2.9	58.1
426.0	CARBONDALE	HERRIN	COAL	6.5	61.0

MAPID: 15700526000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 25 QUARTERS/FOOTAGES: 1030' S line, 960' E line of NE SW

QUADRANGLE: PERCY LONGITUDE: -89.605746 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.064893 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 487.8 LOGGED (FT.): 68.2 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. 171A WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
487.8	PLEISTOCENE		UNCONSOLIDATED	29.0	0.0	
458.8	PLEISTOCENE		CLAY	3.0	29.0	
455.8	CARBONDALE		LIMESTONE	0.8	32.0	SOFT
455.0	CARBONDALE		LIMESTONE	4.5	32.8	
450.5	CARBONDALE		CLAYSTONE	4.5	37.3	
446.0	CARBONDALE		LIMESTONE	3.0	41.8	
443.0	CARBONDALE		SHALE	3.8	44.8	
439.1	CARBONDALE		COAL	1.5	48.7	
437.6	CARBONDALE		COAL	0.3	50.2	
437.3	CARBONDALE		LIMESTONE	1.0	50.5	
436.3	CARBONDALE		SHALE	6.8	51.5	
429.6	CARBONDALE		ROCK	4.0	58.2	
425.6	CARBONDALE	HERRIN	COAL	6.0	62.2	

MAPID: 15700528000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 25 QUARTERS/FOOTAGES: 650' S line, 660' E line of NE SW

QUADRANGLE: PERCY LONGITUDE: -89.604715 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.063829 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 487.6 LOGGED (FT.): 64.2 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. 171F WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
487.6	PLEISTOCENE		UNCONSOLIDATED	26.5	0.0	
461.1	CARBONDALE		LIMESTONE	3.1	26.5	
458.0	CARBONDALE		SHALE	4.5	29.6	
453.5	CARBONDALE		LIMESTONE	4.7	34.1	
448.8	CARBONDALE		SHALE	3.0	38.8	
445.8	CARBONDALE		LIMESTONE	2.9	41.8	
442.9	CARBONDALE		SHALE	3.2	44.7	
439.8	CARBONDALE		COAL	0.1	47.8	
439.7	CARBONDALE		BLACK SHALE	1.8	47.9	
437.9	CARBONDALE		LIMESTONE	4.3	49.7	
433.7	CARBONDALE		BLACK SHALE	4.4	53.9	
429.3	CARBONDALE	HERRIN	COAL	5.8	58.3	

MAPID: 15700529000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 25 QUARTERS/FOOTAGES: 310' S line, 970' E line of NE SW

QUADRANGLE: PERCY LONGITUDE: -89.60581 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.062908 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 483.0 LOGGED (FT.): 67.8 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO. 1711 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
483.0	PLEISTOCENE		UNCONSOLIDATED	26.0	0.0
457.0	CARBONDALE		LIMESTONE	2.3	26.0
454.7	CARBONDALE		SHALE	5.8	28.3
448.8	CARBONDALE		LIMESTONE	4.3	34.2
444.5	CARBONDALE		SHALE	3.0	38.5
441.5	CARBONDALE		LIMESTONE	4.1	41.5
437.5	CARBONDALE		BLACK SHALE	6.9	45.5
430.6	CARBONDALE	BRERETON	LIMESTONE	5.8	52.4
424.7	CARBONDALE		SHALE	0.7	58.3
424.1	CARBONDALE	ANNA	BLACK SHALE	2.7	58.9
421.4	CARBONDALE	HERRIN	COAL	6.2	61.6

MAPID: 15700530000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 25 QUARTERS/FOOTAGES: 310' S line, 330' E line of NE SW

QUADRANGLE: PERCY LONGITUDE: -89.603575 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.062874 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 486.2 LOGGED (FT.): 61.9 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO 171K WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
486.2	PLEISTOCENE		UNCONSOLIDATED	32.1	0.0
454.1	CARBONDALE		LIMESTONE	4.1	32.1
450.0	CARBONDALE		SHALE	3.3	36.2
446.7	CARBONDALE		LIMESTONE	3.3	39.5
443.4	CARBONDALE		SHALE	2.1	42.8
441.3	CARBONDALE		ROCK	0.6	44.9
440.7	CARBONDALE		SHALE	0.6	45.5
440.1	CARBONDALE	BRERETON	LIMESTONE	7.5	46.1
432.6	CARBONDALE	ANNA	BLACK SHALE	2.5	53.6
430.1	CARBONDALE	HERRIN	COAL	5.8	56.1

MAPID: 15700531000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 25 QUARTERS/FOOTAGES: 1060' S line, 1040' E line of SW SW

QUADRANGLE: PERCY LONGITUDE: -89.610731 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.061228 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 477.6 LOGGED (FT.): 53.6 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. 155A WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
477.6	PLEISTOCENE		UNCONSOLIDATED	14.0	0.0
463.6	CARBONDALE		LIMESTONE	2.3	14.0
461.3	CARBONDALE		SHALE	6.1	16.3
455.3	CARBONDALE		LIMESTONE	5.6	22.3
449.7	CARBONDALE		BLACK SHALE	2.8	27.9
446.9	CARBONDALE		LIMESTONE	3.8	30.7
443.1	CARBONDALE		SHALE	1.7	34.5
441.4	CARBONDALE		SHALE	3.1	36.2
438.3	CARBONDALE	BRERETON	LIMESTONE	5.3	39.3
433.1	CARBONDALE	ANNA	BLACK SHALE	2.6	44.5
430.5	CARBONDALE	HERRIN	COAL	6.5	47.1

MAPID: 15700532000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 25 QUARTERS/FOOTAGES: 1030' S line, 320' E line of SW SW

QUADRANGLE: PERCY LONGITUDE: -89.608216 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.06112 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 482.2 LOGGED (FT.): 62.7 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. 155C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
482.2	PLEISTOCENE		UNCONSOLIDATED	21.1	0.0
461.1	CARBONDALE		LIMESTONE	3.7	21.1
457.4	CARBONDALE		SHALE	5.0	24.8
452.4	CARBONDALE		LIMESTONE	4.9	29.8
447.5	CARBONDALE		SHALE	2.8	34.7
444.7	CARBONDALE		LIMESTONE	2.8	37.5
441.9	CARBONDALE		BLACK SHALE	3.3	40.3
438.7	CARBONDALE		SHALE	7.0	43.5
431.7	CARBONDALE	BRERETON	LIMESTONE	6.2	50.5
425.5	CARBONDALE	HERRIN	COAL	6.0	56.7

MAPID: 15700533000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 25 QUARTERS/FOOTAGES: 650' S line, 660' E line of SW SW

QUADRANGLE: PERCY LONGITUDE: -89.609423 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.060083 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 479.0 LOGGED (FT.): 56.1 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG 155F WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
479.0	PLEISTOCENE		UNCONSOLIDATED	17.3	0.0	
461.7	CARBONDALE		LIMESTONE	2.1	17.3	
459.6	CARBONDALE		SHALE	4.7	19.4	
454.9	CARBONDALE		LIMESTONE	4.2	24.1	
450.7	CARBONDALE		SHALE	3.8	28.3	
446.9	CARBONDALE		LIMESTONE	3.2	32.1	
443.7	CARBONDALE		BLACK SHALE	3.6	35.3	WITH SHALE
440.2	CARBONDALE		COAL	0.3	38.8	
439.9	CARBONDALE		ROCK	0.3	39.1	
439.7	CARBONDALE		BLACK SHALE	6.4	39.3	WITH SHALE
433.2	CARBONDALE	BRERETON	LIMESTONE	3.6	45.8	
429.7	CARBONDALE		SHALE	0.8	49.3	
428.9	CARBONDALE	HERRIN	COAL	6.0	50.1	

MAPID: 15700534000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 25 QUARTERS/FOOTAGES: 340' S line, 1020' E line of SW SW

QUADRANGLE: PERCY LONGITUDE: -89.610693 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.05924 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 465.0 LOGGED (FT.): 38.3 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO. 155I WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
465.0	PLEISTOCENE		UNCONSOLIDATED	8.7	0.0	
456.3	CARBONDALE		LIMESTONE	4.3	8.7	
452.1	CARBONDALE		SHALE	2.7	12.9	
449.4	CARBONDALE		LIMESTONE	2.7	15.6	
446.7	CARBONDALE		SHALE	3.4	18.3	
443.3	CARBONDALE	BRERETON	LIMESTONE	8.4	21.7	
434.9	CARBONDALE	ANNA	BLACK SHALE	2.3	30.1	
432.6	CARBONDALE	HERRIN	COAL	5.9	32.4	

MAPID: 15700535000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 25 QUARTERS/FOOTAGES: 340' S line, 330' E line of SW SW

QUADRANGLE: PERCY

LONGITUDE: -89.608283

GEOLOGIST: HOKE

CONFIDENTIAL: N

LATITUDE: 38.059215

DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 478.7

LOGGED (FT.): 53.5

LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO 155K

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
478.7	PLEISTOCENE		UNCONSOLIDATED	20.7	0.0
458.0	CARBONDALE		LIMESTONE	4.2	20.7
453.9	CARBONDALE		SANDSTONE	3.3	24.8
450.6	CARBONDALE		LIMESTONE	3.0	28.1
447.6	CARBONDALE		BLACK SHALE	3.5	31.1
444.1	CARBONDALE		COAL	0.3	34.6
443.9	CARBONDALE		LIMESTONE	0.3	34.8
443.5	CARBONDALE		BLACK SHALE	6.0	35.2
437.5	CARBONDALE	BRERETON	LIMESTONE	6.2	41.2
431.4	CARBONDALE		SHALE	0.4	47.3
430.9	CARBONDALE	HERRIN	COAL	5.8	47.8

MAPID: 15700536000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 25 QUARTERS/FOOTAGES: 950' S line, 960' E line of SE SW

QUADRANGLE: PERCY

LONGITUDE: -89.605803

GEOLOGIST: HOKE

CONFIDENTIAL: N

LATITUDE: 38.060874

DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 469.4

LOGGED (FT.): 49.8

LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO 156A

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
469.4	PLEISTOCENE		UNCONSOLIDATED	22.5	0.0
446.9	PLEISTOCENE		BOULDER	1.2	22.5
445.7	PLEISTOCENE		UNCONSOLIDATED	1.5	23.7
444.2	CARBONDALE		SHALE	2.2	25.2
442.1	CARBONDALE		LIMESTONE	2.3	27.3
439.7	CARBONDALE		SHALE	3.3	29.7
436.4	CARBONDALE		COAL	0.2	33.0
436.2	CARBONDALE		BLACK SHALE	1.1	33.2
435.1	CARBONDALE		LIMESTONE	2.4	34.3
432.7	CARBONDALE		BLACK SHALE	6.0	36.7
426.7	CARBONDALE		SHALE	1.1	42.7
425.6	CARBONDALE	HERRIN	COAL	6.1	43.8

MAPID: 15700537000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 25 QUARTERS/FOOTAGES: 1010' S line, 320' E line of SE SW

QUADRANGLE: PERCY LONGITUDE: -89.603569 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.061014 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 483.0 LOGGED (FT.): 60.3 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO 156C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
483.0	PLEISTOCENE		UNCONSOLIDATED	28.0	0.0
455.0	CARBONDALE		SHALE	1.0	28.0
454.0	CARBONDALE		LIMESTONE	5.6	29.0
448.4	CARBONDALE		CLAYSTONE	1.0	34.6
447.4	CARBONDALE		SHALE	2.3	35.6
445.2	CARBONDALE		LIMESTONE	2.9	37.8
442.2	CARBONDALE		BLACK SHALE	2.3	40.8
439.9	CARBONDALE		COAL	0.2	43.1
439.7	CARBONDALE		LIMESTONE	0.3	43.3
439.4	CARBONDALE		BLACK SHALE	0.7	43.6
438.7	CARBONDALE		LIMESTONE	4.9	44.3
433.8	CARBONDALE		BLACK SHALE	5.0	49.2
428.8	CARBONDALE	HERRIN	COAL	6.1	54.2

MAPID: 15700538000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 25 QUARTERS/FOOTAGES: 650' S line, 660' E line of SE SW

QUADRANGLE: PERCY LONGITUDE: -89.604768 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.060033 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 465.6 LOGGED (FT.): 42.6 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. 156F WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
465.6	PLEISTOCENE		UNCONSOLIDATED	22.0	0.0
443.6	CARBONDALE		BLACK SHALE	2.5	22.0
441.1	CARBONDALE		COAL	2.5	24.5
438.6	CARBONDALE		BLACK SHALE	3.7	27.0
434.9	CARBONDALE	BRERETON	LIMESTONE	5.4	30.7
429.5	CARBONDALE	HERRIN	COAL	6.5	36.1

MAPID: 15700539000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 25 QUARTERS/FOOTAGES: 320' N line, 990' E line of SE SW

QUADRANGLE: PERCY

LONGITUDE: -89.605905

GEOLOGIST: HOKE

CONFIDENTIAL: N

LATITUDE: 38.061169

DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 461.3

LOGGED (FT.): 34.3

LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. 156I

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
461.3	PLEISTOCENE		UNCONSOLIDATED	22.3	0.0	
439.0	CARBONDALE		LIMESTONE	2.3	22.3	
436.7	CARBONDALE		BLACK SHALE	1.7	24.6	
435.0	CARBONDALE		UNDERCLAY	1.5	26.3	WITH SHALE
433.5	CARBONDALE	HERRIN	COAL	6.5	27.8	

MAPID: 15700540000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 25 QUARTERS/FOOTAGES: 250' S line, 330' E line of SE SW

QUADRANGLE: PERCY

LONGITUDE: -89.603632

GEOLOGIST: HOKE

CONFIDENTIAL: N

LATITUDE: 38.058918

DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 478.1

LOGGED (FT.): 56.2

LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. 156K

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
478.1	PLEISTOCENE		UNCONSOLIDATED	45.2	0.0	
432.9	CARBONDALE	BRERETON	LIMESTONE	3.7	45.2	
429.3	CARBONDALE		SHALE	1.5	48.8	
427.8	CARBONDALE	HERRIN	COAL	5.8	50.3	

MAPID: 15700541000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 25 QUARTERS/FOOTAGES: 660' S line, 1000' E line of SW SE

QUADRANGLE: PERCY LONGITUDE: -89.601301

GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.060025

DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 485.8 LOGGED (FT.): 55.6

LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG 157E

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
485.8	PLEISTOCENE		UNCONSOLIDATED	20.2	0.0
465.6	PLEISTOCENE		SAND & GRAVEL	16.7	20.2
449.0	CARBONDALE		LIMESTONE	2.0	36.8
447.0	CARBONDALE		SHALE	2.8	38.8
444.2	CARBONDALE		LIMESTONE	1.5	41.6
442.7	CARBONDALE		BLACK SHALE	7.0	43.1
435.7	CARBONDALE	HERRIN	COAL	5.5	50.1

MAPID: 15700542000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 25 QUARTERS/FOOTAGES: 660' S line, 340' E line of SW SE

QUADRANGLE: PERCY LONGITUDE: -89.598997

GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.060002

DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 487.8 LOGGED (FT.): 54.2

LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. 157G

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
487.8	PLEISTOCENE		UNCONSOLIDATED	21.0	0.0
466.8	CARBONDALE		LIMESTONE	3.8	21.0
463.0	CARBONDALE		SHALE	3.0	24.8
460.0	CARBONDALE		LIMESTONE	2.3	27.8
457.7	CARBONDALE		SHALE	3.0	30.1
454.7	CARBONDALE		COAL	0.5	33.1
454.2	CARBONDALE		LIMESTONE	0.6	33.6
453.6	CARBONDALE		SHALE	2.0	34.2
451.6	CARBONDALE	BRERETON	LIMESTONE	12.0	36.2
439.6	CARBONDALE	HERRIN	COAL	6.0	48.2

MAPID: 15700543000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 25 QUARTERS/FOOTAGES: 660' S line, 960' E line

QUADRANGLE: PERCY LONGITUDE: -89.596511 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.059974 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 491.0 LOGGED (FT.): 56.1 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. 158-E WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
491.0	PLEISTOCENE		UNCONSOLIDATED	20.0	0.0	
471.0	CARBONDALE		ROCK	4.6	20.0	SOFT
466.4	CARBONDALE		LIMESTONE	4.8	24.6	
461.6	CARBONDALE		SHALE	3.0	29.4	
458.6	CARBONDALE		LIMESTONE	3.0	32.4	
455.6	CARBONDALE		SHALE	2.6	35.4	
453.0	CARBONDALE		COAL	0.3	38.0	
452.7	CARBONDALE		LIMESTONE	0.3	38.3	
452.3	CARBONDALE		BLACK SHALE	1.2	38.7	
451.2	CARBONDALE		LIMESTONE	5.7	39.8	
445.5	CARBONDALE		BLACK SHALE	5.1	45.5	
440.4	CARBONDALE	HERRIN	COAL	5.5	50.6	

MAPID: 15700544000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 25 QUARTERS/FOOTAGES: 660' S line, 300' E line

QUADRANGLE: PERCY LONGITUDE: -89.594206 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.059951 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 485.0 LOGGED (FT.): 55.5 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG 158-G WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
485.0	PLEISTOCENE		UNCONSOLIDATED	19.5	0.0	
465.5	CARBONDALE		SHALE	2.0	19.5	
463.5	CARBONDALE		LIMESTONE	4.9	21.5	
458.6	CARBONDALE		SHALE	3.0	26.4	
455.6	CARBONDALE		LIMESTONE	3.3	29.4	
452.3	CARBONDALE		BLACK SHALE	4.0	32.7	
448.3	CARBONDALE		COAL	0.1	36.7	
448.2	CARBONDALE		SHALE	6.3	36.8	
441.9	CARBONDALE	BRERETON	LIMESTONE	3.8	43.1	
438.2	CARBONDALE	ANNA	BLACK SHALE	2.1	46.8	
436.1	CARBONDALE	HERRIN	COAL	6.6	48.9	

MAPID: 15701401000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 25 QUARTERS/FOOTAGES: SW NW NE NE

QUADRANGLE: PERCY LONGITUDE: -89.597103 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.071789 DATE COLLECTED: 7 / 0 / 1930

SURFACE ELEVATION (FT.): 477.9 LOGGED (FT.): 25.0 LOG TYPE: Drillers Log

SOURCE: H. WELSHAN, DRILLER WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
477.9	PLEISTOCENE		SOIL	3.0	0.0	
474.9	PLEISTOCENE		BOULDER	3.7	3.0	HARD
471.2	CARBONDALE		BLACK SHALE	10.0	6.7	WITH SHALE AND SANDSTONE
461.2	CARBONDALE		ROCK	3.3	16.7	HARD
457.9	CARBONDALE	HERRIN	COAL	5.0	20.0	

MAPID: 15700076000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 26 QUARTERS/FOOTAGES: 44' N line, 71' E line of NE SE

QUADRANGLE: PERCY LONGITUDE: -89.611904 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.065848 DATE COLLECTED: 0 / 0 / 1960

SURFACE ELEVATION (FT.): 493.4 LOGGED (FT.): 64.0 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MINING 19 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
493.4	PLEISTOCENE		UNCONSOLIDATED	17.0	0.0	
476.4	CARBONDALE		LIMESTONE	2.5	17.0	DARK AND BLUE
473.9	CARBONDALE		SHALE	0.5	19.5	SOFT
473.4	CARBONDALE		SHALE	3.0	20.0	SOFT
470.4	CARBONDALE		SHALE	6.0	23.0	HARD
464.4	CARBONDALE	BRERETON	LIMESTONE	4.0	29.0	
460.4	CARBONDALE		BLACK SHALE	4.5	33.0	
455.9	CARBONDALE	HERRIN	COAL	6.0	37.5	
449.9	CARBONDALE		UNDERCLAY	2.5	43.5	
447.4	CARBONDALE		CLAYSTONE & LIMESTONE	8.0	46.0	
439.4	CARBONDALE		SHALE	3.0	54.0	
436.4	CARBONDALE	ST. DAVID	LIMESTONE	1.5	57.0	
434.9	CARBONDALE	SPRINGFIELD	COAL	2.3	58.5	
432.6	CARBONDALE		UNDERCLAY	3.3	60.8	

MAPID: 15700400000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 5S 5W **SECTION:** 26 **QUARTERS/FOOTAGES:** NW SE
QUADRANGLE: PERCY **LONGITUDE:** -89.618707 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 38.064069 **DATE COLLECTED:** 8 / 4 / 1927
SURFACE ELEVATION (FT.): 482.6 **LOGGED (FT.):** 45.0 **LOG TYPE:** Drillers Log
SOURCE: UNITED ELEC. COAL 145 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
482.6	PLEISTOCENE		UNCONSOLIDATED	14.0	0.0	
468.6	PLEISTOCENE		BOULDER	2.5	14.0	
466.1	CARBONDALE		SHALE	5.0	16.5	
461.1	CARBONDALE		ROCK	4.0	21.5	BLACK
457.1	CARBONDALE		BLACK SHALE	7.0	25.5	
450.1	CARBONDALE	BRERETON	LIMESTONE	4.5	32.5	
445.6	CARBONDALE		BLACK SHALE	1.5	37.0	
444.1	CARBONDALE	HERRIN	COAL	6.5	38.5	

MAPID: 15700402000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 5S 5W **SECTION:** 26 **QUARTERS/FOOTAGES:** SE
QUADRANGLE: PERCY **LONGITUDE:** -89.616406 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 38.062164 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 500.0 **LOGGED (FT.):** 65.0 **LOG TYPE:** Drillers Log
SOURCE: UNITED ELECTRIC COAL CO. 119 **WELL TYPE:** Coal Test
COMMENT: NO COAL IN LOG (UP TO 65')

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
500.0			UNCLASSIFIED	65.0	0.0	NO COAL

MAPID: 15700403000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 5S 5W **SECTION:** 26 **QUARTERS/FOOTAGES:** SE SE
QUADRANGLE: PERCY **LONGITUDE:** -89.614105 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 38.060245 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 505.0 **LOGGED (FT.):** 59.0 **LOG TYPE:** Drillers Log
SOURCE: UNITED ELECTRIC COAL CO. 120 **WELL TYPE:** Coal Test
COMMENT: NO COAL IN LOG (UP TO 59')

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
505.0			UNCLASSIFIED	59.0	0.0	NO COAL

MAPID: 15700545000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 26 QUARTERS/FOOTAGES: 300' S line, 300' E line of SE NE

QUADRANGLE: PERCY LONGITUDE: -89.612684 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.066797 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 492.5 LOGGED (FT.): 47.7 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. 184K WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
492.5	PLEISTOCENE		UNCONSOLIDATED	26.8	0.0
465.7	CARBONDALE	ANNA	BLACK SHALE	1.0	26.8
464.7	CARBONDALE	HERRIN	COAL	4.9	27.8
459.8	CARBONDALE		UNDERCLAY	2.3	32.7
457.5	CARBONDALE		LIMESTONE	5.3	35.0
452.2	CARBONDALE		SHALE	2.0	40.3
450.2	CARBONDALE	ST. DAVID	LIMESTONE	2.8	42.3
447.3	CARBONDALE	SPRINGFIELD	COAL	2.5	45.2

MAPID: 15700547000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 26 QUARTERS/FOOTAGES: 1020' S line, 1010' E line of NE SE

QUADRANGLE: PERCY LONGITUDE: -89.615202 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.064975 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 496.6 LOGGED (FT.): 52.3 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. 169A WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
496.6	PLEISTOCENE		UNCONSOLIDATED	22.1	0.0
474.5	CARBONDALE		SHALE	1.5	22.1
473.0	CARBONDALE		SHALE	2.7	23.6
470.3	CARBONDALE		SHALE	11.8	26.3
458.6	CARBONDALE	HERRIN	COAL	4.3	38.0
454.3	CARBONDALE		SANDSTONE	10.0	42.3

MAPID: 15700548000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 26 QUARTERS/FOOTAGES: 1020' S line, 320' E line of NE SE

QUADRANGLE: PERCY LONGITUDE: -89.612793 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.064964 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 495.2 LOGGED (FT.): 44.6 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. 169C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
495.2	PLEISTOCENE		UNCONSOLIDATED	17.5	0.0
477.7	CARBONDALE		LIMESTONE	2.2	17.5
475.5	CARBONDALE		BLACK SHALE	5.9	19.7
469.6	CARBONDALE		SHALE	8.4	25.6
461.2	CARBONDALE	BRERETON	LIMESTONE	4.5	34.0
456.7	CARBONDALE	HERRIN	COAL	6.1	38.5

MAPID: 15700549000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 26 QUARTERS/FOOTAGES: 3300' N line, 660' E line

QUADRANGLE: PERCY LONGITUDE: -89.61399 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.064485 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 493.0 LOGGED (FT.): 49.3 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO 169F WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
493.0	PLEISTOCENE		UNCONSOLIDATED	16.5	0.0
476.5	PLEISTOCENE		BOULDER	1.5	16.5 LIMESTONE
475.0	PLEISTOCENE		GRAVEL	4.4	18.0
470.6	PLEISTOCENE		CLAY	2.8	22.4
467.8	PLEISTOCENE		BOULDER	1.3	25.2
466.6	PLEISTOCENE		CLAY	2.5	26.4
464.1	CARBONDALE		BLACK SHALE	0.8	28.9
463.2	CARBONDALE		COAL	0.2	29.8
463.1	CARBONDALE		LIMESTONE	0.7	29.9
462.4	CARBONDALE		COAL	0.2	30.6
462.2	CARBONDALE		SHALE	2.2	30.8
460.1	CARBONDALE	BRERETON	LIMESTONE	6.0	32.9
454.1	CARBONDALE	ANNA	BLACK SHALE	3.6	38.9
450.5	CARBONDALE	HERRIN	COAL	6.8	42.5

MAPID: 15700549000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 26 QUARTERS/FOOTAGES: 3300' N line, 660' E line

QUADRANGLE: PERCY LONGITUDE: -89.61399 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.064485 DATE COLLECTED:

SURFACE ELEVATION (FT.): 493.0 LOGGED (FT.): 49.8 LOG TYPE: Drillers Log

SOURCE: WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
467.3	CARBONDALE	BANKSTON FORK	LIMESTONE	1.3	25.7
466.1	CARBONDALE	LAWSON	CLAYSTONE	2.5	26.9
463.6	CARBONDALE	CONANT	CALCAREOUS SHALE	1.7	29.4
461.9	CARBONDALE	JAMESTOWN	COAL	0.2	31.1
461.7	CARBONDALE		SHALE	2.2	31.3
459.6	CARBONDALE	BRERETON	LIMESTONE	6.0	33.4
453.6	CARBONDALE	ANNA	BLACK SHALE	3.6	39.4
450.0	CARBONDALE	HERRIN	COAL	6.8	43.0

MAPID: 15700550000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 26 QUARTERS/FOOTAGES: 330' S line, 1100' E line of NE SE

QUADRANGLE: PERCY LONGITUDE: -89.615552 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.063073 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 483.1 LOGGED (FT.): 39.8 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. 169I WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
483.1	PLEISTOCENE		UNCONSOLIDATED	12.9	0.0
470.2	CARBONDALE		LIMESTONE	1.4	12.9
468.8	CARBONDALE		SHALE	5.8	14.3
462.9	CARBONDALE		BLACK SHALE	0.8	20.2
462.2	CARBONDALE		SHALE	3.7	20.9
458.5	CARBONDALE	BRERETON	LIMESTONE	5.5	24.6
453.0	CARBONDALE		SHALE	1.1	30.1
451.9	CARBONDALE	ANNA	BLACK SHALE	2.0	31.2
449.9	CARBONDALE	HERRIN	COAL	6.7	33.2

MAPID: 15700551000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 26 QUARTERS/FOOTAGES: 365' S line, 200' E line of NE SE

QUADRANGLE: PERCY

LONGITUDE: -89.61241

GEOLOGIST: HOKE

CONFIDENTIAL: N

LATITUDE: 38.063153

DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 486.4

LOGGED (FT.): 55.4

LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. 169K

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
486.4	PLEISTOCENE		UNCONSOLIDATED	23.8	0.0	
462.6	PLEISTOCENE		SAND & GRAVEL	0.8	23.8	
461.8	CARBONDALE		LIMESTONE	4.7	24.6	
457.1	CARBONDALE		SHALE	2.8	29.3	
454.4	CARBONDALE		LIMESTONE	2.7	32.0	
451.7	CARBONDALE		BLACK SHALE	3.2	34.7	WITH SHALE
448.6	CARBONDALE		COAL	0.2	37.8	
448.4	CARBONDALE		LIMESTONE	0.3	38.0	
448.1	CARBONDALE		BLACK SHALE	1.3	38.3	WITH SHALE
446.8	CARBONDALE		LIMESTONE	4.8	39.6	
442.1	CARBONDALE		BLACK SHALE	4.7	44.3	
437.3	CARBONDALE	HERRIN	COAL	6.3	49.1	

MAPID: 15700398000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 27 QUARTERS/FOOTAGES: NE

QUADRANGLE: STEELEVILLE

LONGITUDE: -89.634982

GEOLOGIST: HOKE

CONFIDENTIAL: N

LATITUDE: 38.069672

DATE COLLECTED: 7 / 29 / 1927

SURFACE ELEVATION (FT.): 465.0

LOGGED (FT.): 60.0

LOG TYPE: Drillers Log

SOURCE: UNITED ELEC COAL 167A

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
465.0	PLEISTOCENE		UNCONSOLIDATED	19.0	0.0	
446.0	PLEISTOCENE		SAND	23.0	19.0	
423.0	CARBONDALE		ROCK	7.0	42.0	
416.0	CARBONDALE	SPRINGFIELD	COAL	2.4	49.0	
413.6	CARBONDALE		SANDSTONE	8.6	51.4	WHITE

MAPID: 15700298000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 5S 5W **SECTION:** 34 **QUARTERS/FOOTAGES:** NE
QUADRANGLE: STEELEVILLE **LONGITUDE:** -89.635237 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 38.054891 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 474.0 **LOGGED (FT.):** 29.5 **LOG TYPE:** Drillers Log
SOURCE: UNITED ELECTRIC COAL CO. 653 **WELL TYPE:** Coal Test
COMMENT: COAL AT 20'

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
474.0	PLEISTOCENE		UNCONSOLIDATED	20.0	0.0	
454.0	CARBONDALE	HERRIN	COAL	9.5	20.0	TOP ERODED

MAPID: 15700299000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 5S 5W **SECTION:** 34 **QUARTERS/FOOTAGES:** SE
QUADRANGLE: STEELEVILLE **LONGITUDE:** -89.635388 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 38.047586 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 460.0 **LOGGED (FT.):** 25.5 **LOG TYPE:** Drillers Log
SOURCE: UNITED ELECTRIC COAL CO. 603 **WELL TYPE:** Coal Test
COMMENT: COAL AT 19'

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
460.0	PLEISTOCENE		UNCONSOLIDATED	19.0	0.0	
441.0	CARBONDALE	HERRIN	COAL	6.5	19.0	TOP ERODED

MAPID: 15700654000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 5S 5W **SECTION:** 34 **QUARTERS/FOOTAGES:** SW SE SE SE
QUADRANGLE: STEELEVILLE **LONGITUDE:** -89.63253 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 38.044373 **DATE COLLECTED:** 0 / 0 / 1939
SURFACE ELEVATION (FT.): 460.0 **LOGGED (FT.):** 32.0 **LOG TYPE:** Drillers Log
SOURCE: WILLS COAL CO 18 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
460.0	PLEISTOCENE		UNCONSOLIDATED	22.8	0.0	
437.2	PLEISTOCENE		BOULDER	0.7	22.8	
436.5	CARBONDALE		SHALE	2.9	23.5	
433.6	CARBONDALE	HERRIN	COAL	1.0	26.4	SOFT
432.6	CARBONDALE		ROCK	3.9	27.4	
428.7	CARBONDALE		SHALE	0.7	31.3	

MAPID: 15700655000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 34 QUARTERS/FOOTAGES: SE

QUADRANGLE: STEELEVILLE LONGITUDE: -89.635388 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.047586 DATE COLLECTED: 0 / 0 / 1939

SURFACE ELEVATION (FT.): 475.0 LOGGED (FT.): 29.5 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL CO 19 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
475.0	PLEISTOCENE		UNCONSOLIDATED	21.0	0.0	
454.0	PLEISTOCENE		BOULDER	0.9	21.0	
453.1	CARBONDALE		SHALE	6.6	21.9	
446.5	CARBONDALE	HERRIN	COAL	1.0	28.5	SOFT

MAPID: 15700074000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 35 QUARTERS/FOOTAGES: 174' S line, 60' W line of SW NW

QUADRANGLE: STEELEVILLE LONGITUDE: -89.630413 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.051688 DATE COLLECTED: 0 / 0 / 1960

SURFACE ELEVATION (FT.): 485.6 LOGGED (FT.): 79.0 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MINING 8 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
485.6	PLEISTOCENE		UNCONSOLIDATED	30.0	0.0	
455.6	CARBONDALE		SHALE	4.0	30.0	SOFT
451.6	CARBONDALE		SHALE	2.0	34.0	BLUE
449.6	CARBONDALE		LIMESTONE	2.0	36.0	
447.6	CARBONDALE		COAL	0.3	38.0	
447.3	CARBONDALE		SHALE	2.8	38.3	
444.6	CARBONDALE		LIMESTONE	3.0	41.0	HARD; DARK
441.6	CARBONDALE		BLACK SHALE	4.0	44.0	
437.6	CARBONDALE		SHALE	2.0	48.0	LIGHT
435.6	CARBONDALE	HERRIN	COAL	6.3	50.0	
429.3	CARBONDALE		UNDERCLAY	2.8	56.3	
426.6	CARBONDALE		LIMESTONE	5.0	59.0	GRAY
421.6	CARBONDALE		CLAYSTONE & LIMESTONE	3.0	64.0	
418.6	CARBONDALE	ST. DAVID	LIMESTONE	6.5	67.0	DARK GRAY
412.1	CARBONDALE	SPRINGFIELD	COAL	1.8	73.5	
410.3	CARBONDALE		UNDERCLAY	3.8	75.3	

MAPID: 15700079000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 35 QUARTERS/FOOTAGES: 171' S line, 560' E line of NE SW

QUADRANGLE: PERCY

LONGITUDE: -89.623282

GEOLOGIST: HOKE

CONFIDENTIAL: N

LATITUDE: 38.047986

DATE COLLECTED: 0 / 0 / 1960

SURFACE ELEVATION (FT.): 472.8

LOGGED (FT.): 53.0

LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MINING 5

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
472.8	PLEISTOCENE		UNCONSOLIDATED	19.0	0.0	
453.8	CARBONDALE		SANDY SHALE	3.0	19.0	SANDY
450.8	CARBONDALE	BRERETON	LIMESTONE	2.0	22.0	
448.8	CARBONDALE		CLAYSTONE	2.0	24.0	SOFT AND YELLOW
446.8	CARBONDALE	HERRIN	COAL	5.8	26.0	
441.0	CARBONDALE		UNDERCLAY	2.8	31.8	
438.3	CARBONDALE		LIMESTONE	6.5	34.5	
431.8	CARBONDALE		LIMESTONE/UNDERCLAY	4.0	41.0	
427.8	CARBONDALE	ST. DAVID	LIMESTONE	2.0	45.0	HARD; DARK
425.8	CARBONDALE		SHALE	0.5	47.0	
425.3	CARBONDALE	SPRINGFIELD	COAL	4.0	47.5	
421.3	CARBONDALE		UNDERCLAY	1.5	51.5	

MAPID: 15700080000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 35 QUARTERS/FOOTAGES: 240' S line, 45' W line of SW NE

QUADRANGLE: PERCY

LONGITUDE: -89.621103

GEOLOGIST: HOKE

CONFIDENTIAL: N

LATITUDE: 38.051801

DATE COLLECTED: 0 / 0 / 1960

SURFACE ELEVATION (FT.): 483.3

LOGGED (FT.): 90.0

LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MINING 6

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
483.3	PLEISTOCENE		UNCONSOLIDATED	26.0	0.0	
457.3	PLEISTOCENE		CLAY	10.0	26.0	GRAVELLY
447.3	CARBONDALE		LIMESTONE	1.5	36.0	
445.8	CARBONDALE		SHALE	2.5	37.5	SOFT
443.3	CARBONDALE		CALCAREOUS SHALE	1.0	40.0	
442.3	CARBONDALE		LIMESTONE	2.0	41.0	
440.3	CARBONDALE		CALCAREOUS SHALE	6.0	43.0	
434.3	CARBONDALE		SHALE	6.0	49.0	
428.3	CARBONDALE	BRERETON	LIMESTONE	5.5	55.0	HARD; DARK
422.8	CARBONDALE	HERRIN	COAL	6.3	60.5	
416.5	CARBONDALE		UNDERCLAY	2.3	66.8	
414.3	CARBONDALE		LIMESTONE	5.0	69.0	GRAY
409.3	CARBONDALE		UNDERCLAY	2.0	74.0	
407.3	CARBONDALE	ST. DAVID	LIMESTONE	7.0	76.0	GRAY
400.3	CARBONDALE	SPRINGFIELD	COAL	4.3	83.0	
396.0	CARBONDALE		UNDERCLAY	2.8	87.3	HARD

MAPID: 15700081000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 35 QUARTERS/FOOTAGES: 30' N line, 52' W line of NE NW

QUADRANGLE: STEELEVILLE LONGITUDE: -89.625635 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.05838 DATE COLLECTED: 0 / 0 / 1960

SURFACE ELEVATION (FT.): 507.8 LOGGED (FT.): 108.0 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MINING 7 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
507.8	PLEISTOCENE		UNCONSOLIDATED	15.0	0.0	
492.8	PLEISTOCENE		CLAY & GRAVEL	15.0	15.0	
477.8	PLEISTOCENE		UNCONSOLIDATED	7.0	30.0	SANDY; YELLOW
470.8	CARBONDALE		LIMESTONE	2.0	37.0	GRAY
468.8	CARBONDALE		CLAYSTONE & LIMESTONE	6.5	39.0	
462.3	CARBONDALE		LIMESTONE	4.5	45.5	GRAY
457.8	CARBONDALE		UNDERCLAY	0.5	50.0	LIGHT
457.3	CARBONDALE		SHALE	1.5	50.5	SOFT
455.8	CARBONDALE		CALCAREOUS SHALE	2.0	52.0	
453.8	CARBONDALE		LIMESTONE	2.0	54.0	GRAY
451.8	CARBONDALE		LIMESTONE	2.3	56.0	
449.5	CARBONDALE		CALCAREOUS SHALE	2.0	58.3	
447.5	CARBONDALE		COAL	0.3	60.3	
447.3	CARBONDALE		SHALE	0.3	60.5	
447.0	CARBONDALE		LIMESTONE	4.5	60.8	SOFT; DARK
442.5	CARBONDALE	BRERETON	LIMESTONE	6.3	65.3	HARD; DARK
436.3	CARBONDALE	HERRIN	COAL	6.5	71.5	
429.8	CARBONDALE		UNDERCLAY	1.0	78.0	DARK
428.8	CARBONDALE		UNDERCLAY	3.0	79.0	LIGHT
425.8	CARBONDALE		LIMESTONE/UNDERCLAY	12.0	82.0	GRAY
413.8	CARBONDALE		LIMESTONE	3.0	94.0	HARD; DARK
410.8	CARBONDALE		SHALE	0.3	97.0	SOFT
410.5	CARBONDALE	SPRINGFIELD	COAL	0.8	97.3	
409.8	CARBONDALE		UNDERCLAY	1.0	98.0	
408.8	CARBONDALE		SANDY LIMESTONE	9.0	99.0	

MAPID: 15700082000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 35 QUARTERS/FOOTAGES: 1373' N line, 44' W line

QUADRANGLE: STEELEVILLE LONGITUDE: -89.630408 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.054722 DATE COLLECTED:

SURFACE ELEVATION (FT.): 496.5 LOGGED (FT.): 98.0 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MINING 9 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
496.5	PLEISTOCENE		UNCONSOLIDATED	31.0	0.0	
465.5	CARBONDALE		SHALE	5.0	31.0	SOFT
460.5	CARBONDALE		LIMESTONE	2.0	36.0	GRAY
458.5	CARBONDALE		CALCAREOUS SHALE	3.0	38.0	
455.5	CARBONDALE		UNDERCLAY	4.0	41.0	HARD; LIGHT
451.5	CARBONDALE		LIMESTONE	5.0	45.0	DARK GRAY
446.5	CARBONDALE		SHALE	1.0	50.0	LIGHT; BLUISH
445.5	CARBONDALE		SHALE	1.5	51.0	
444.0	CARBONDALE		LIMESTONE	6.0	52.5	SHELLY; DARK
438.0	CARBONDALE		COAL	0.5	58.5	WITH SHALE; DARK
437.5	CARBONDALE		SHALE	5.0	59.0	HARD
432.5	CARBONDALE	BRERETON	LIMESTONE	4.0	64.0	HARD; BLUISH
428.5	CARBONDALE	ANNA	BLACK SHALE	1.8	68.0	
426.7	CARBONDALE	HERRIN	COAL	6.3	69.8	
420.5	CARBONDALE		UNDERCLAY	2.0	76.0	
418.5	CARBONDALE		LIMESTONE	7.0	78.0	DARK GRAY
411.5	CARBONDALE		UNDERCLAY	2.0	85.0	
409.5	CARBONDALE	ST. DAVID	LIMESTONE	6.0	87.0	
403.5	CARBONDALE		SHALE	0.3	93.0	SOFT
403.2	CARBONDALE	SPRINGFIELD	COAL	2.5	93.3	
400.7	CARBONDALE		UNDERCLAY	2.3	95.8	

MAPID: 15700082000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 35 QUARTERS/FOOTAGES: 1373' N line, 44' W line

QUADRANGLE: STEELEVILLE LONGITUDE: -89.630408 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.054722 DATE COLLECTED:

SURFACE ELEVATION (FT.): 496.0 LOGGED (FT.): 75.3 LOG TYPE: Drillers Log

SOURCE: WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
464.7	CARBONDALE		CLAYSTONE	5.0	31.3
459.7	CARBONDALE	GALUM	LIMESTONE	2.0	36.3
457.7	CARBONDALE		LIMESTONE W/ SHALE	2.0	38.3
455.7	CARBONDALE		CLAYSTONE	4.0	40.3
451.7	CARBONDALE	BANKSTON FORK	LIMESTONE	5.0	44.3
446.7	CARBONDALE	LAWSON	CLAYSTONE	1.0	49.3
445.7	CARBONDALE	CONANT	CALCAREOUS SHALE	7.5	50.3
438.2	CARBONDALE	JAMESTOWN	BONE COAL	0.5	57.8
437.7	CARBONDALE		DARK GRAY SHALE	5.0	58.3
432.7	CARBONDALE	BRERETON	LIMESTONE & SHALE	4.0	63.3
428.7	CARBONDALE	ANNA	BLACK SHALE	1.8	67.3
427.0	CARBONDALE	HERRIN	COAL	6.3	69.0

MAPID: 15700083000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 35 QUARTERS/FOOTAGES: 17' N line, 100' W line of NW NW

QUADRANGLE: STEELEVILLE LONGITUDE: -89.630136 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.058463 DATE COLLECTED: 0 / 0 / 1960

SURFACE ELEVATION (FT.): 487.3 LOGGED (FT.): 115.0 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MINING CO. 10 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
487.3	PLEISTOCENE		UNCONSOLIDATED	20.0	0.0
467.3	CARBONDALE		SANDY SHALE	8.0	20.0 SANDY
459.3	CARBONDALE		SANDY SHALE	16.0	28.0 SANDY
443.3	CARBONDALE		SANDSTONE	5.0	44.0 BROWN
438.3	CARBONDALE		SANDSTONE	27.0	49.0 LIGHT AND SHALY SANDY
411.3	CARBONDALE		SANDY SHALE	1.0	76.0 SANDY
410.3	CARBONDALE		LIMESTONE	1.8	77.0
408.5	CARBONDALE		COAL	0.5	78.8
408.0	CARBONDALE		UNDERCLAY	2.8	79.3
405.3	CARBONDALE		LIMESTONE	2.0	82.0
403.3	CARBONDALE		LIMESTONE	2.0	84.0 SANDY
401.3	CARBONDALE		SANDY SHALE	11.0	86.0 SANDY
390.3	CARBONDALE		SANDSTONE	18.0	97.0

MAPID: 15700084000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 35 QUARTERS/FOOTAGES: 47' S line, 65' E line of SE

QUADRANGLE: PERCY LONGITUDE: -89.612237 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.043953 DATE COLLECTED: 0 / 0 / 1960

SURFACE ELEVATION (FT.): 439.5 LOGGED (FT.): 83.0 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MINING 15 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
439.5	PLEISTOCENE		UNCONSOLIDATED	35.0	0.0	
404.5	CARBONDALE		SANDY SHALE	6.0	35.0	SANDY
398.5	CARBONDALE		LIMESTONE	2.5	41.0	
396.0	CARBONDALE	ST. DAVID	LIMESTONE	1.3	43.5	
394.7	CARBONDALE	SPRINGFIELD	COAL	3.0	44.8	
391.7	CARBONDALE		UNDERCLAY	2.0	47.8	
389.7	CARBONDALE		CLAYSTONE & LIMESTONE	6.3	49.8	
383.5	CARBONDALE		CLAYSTONE & SHALE	7.0	56.0	
376.5	CARBONDALE		SANDY SHALE	6.0	63.0	SANDY
370.5	CARBONDALE		SANDSTONE/SHALE	14.0	69.0	

MAPID: 15700085000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 35 QUARTERS/FOOTAGES: 164' S line, 33' E line of NE SE

QUADRANGLE: PERCY LONGITUDE: -89.612068 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.047898 DATE COLLECTED: 0 / 0 / 1960

SURFACE ELEVATION (FT.): 459.9 LOGGED (FT.): 49.3 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MINING 16 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
459.9	PLEISTOCENE		UNCONSOLIDATED	23.5	0.0	
436.4	CARBONDALE	HERRIN	COAL	1.0	23.5	TOP ERODED
435.4	CARBONDALE	HERRIN	COAL	1.5	24.5	
433.9	CARBONDALE		UNDERCLAY	2.0	26.0	
431.9	CARBONDALE		CLAYSTONE & LIMESTONE	5.0	28.0	
426.9	CARBONDALE		LIMESTONE	4.0	33.0	GRAY
422.9	CARBONDALE		UNDERCLAY	0.8	37.0	
422.1	CARBONDALE		LIMESTONE	0.5	37.8	DARK GRAY
421.6	CARBONDALE		SHALE	0.8	38.3	BLUISH
420.9	CARBONDALE		LIMESTONE	3.3	39.0	DARK GRAY
417.6	CARBONDALE		SHALE	1.8	42.3	
415.9	CARBONDALE	SPRINGFIELD	COAL	4.3	44.0	
411.6	CARBONDALE		UNDERCLAY	1.0	48.3	

MAPID: 15700086000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 35 QUARTERS/FOOTAGES: 134' S line, 125' E line of SE NE

QUADRANGLE: PERCY

LONGITUDE: -89.612339

GEOLOGIST: HOKE

CONFIDENTIAL: N

LATITUDE: 38.05144

DATE COLLECTED: 0 / 0 / 1960

SURFACE ELEVATION (FT.): 465.7

LOGGED (FT.): 55.0

LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MINING 17

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
465.7	PLEISTOCENE		UNCONSOLIDATED	18.0	0.0	
447.7	PLEISTOCENE		UNCONSOLIDATED	8.0	18.0	SANDY
439.7	PLEISTOCENE		UNCONSOLIDATED	3.0	26.0	BLUISH SOFT
436.7	CARBONDALE	HERRIN	COAL	3.0	29.0	TOP PART SOFT; TOP ERODED
433.7	CARBONDALE		UNDERCLAY	2.0	32.0	
431.7	CARBONDALE		CLAYSTONE & LIMESTONE	4.0	34.0	
427.7	CARBONDALE		LIMESTONE	5.0	38.0	HARD; DARK
422.7	CARBONDALE		SHALE	1.0	43.0	HARD
421.7	CARBONDALE	ST. DAVID	LIMESTONE	5.0	44.0	HARD; DARK
416.7	CARBONDALE		SHALE	1.0	49.0	SOFT
415.7	CARBONDALE	SPRINGFIELD	COAL	3.8	50.0	
411.9	CARBONDALE		UNDERCLAY	1.3	53.8	

MAPID: 15700087000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 35 QUARTERS/FOOTAGES: 77' S line, 186' E line of NE NE

QUADRANGLE: PERCY LONGITUDE: -89.612505 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.05491 DATE COLLECTED: 0 / 0 / 1960

SURFACE ELEVATION (FT.): 494.1 LOGGED (FT.): 79.0 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MINING 18 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
494.1	PLEISTOCENE		UNCONSOLIDATED	22.5	0.0	YELLOW WITH CLAY
471.6	CARBONDALE		LIMESTONE	5.0	22.5	GRAY
466.6	CARBONDALE		DARK SHALE	3.5	27.5	
463.1	CARBONDALE		LIMESTONE	3.5	31.0	
459.6	CARBONDALE		SHALE	8.0	34.5	WITH LIMESTONE; DARK
451.6	CARBONDALE	BRERETON	LIMESTONE	6.0	42.5	DARK AND BLUE
445.6	CARBONDALE		SHALE	0.3	48.5	SOFT
445.3	CARBONDALE	HERRIN	COAL	6.0	48.8	
439.3	CARBONDALE		UNDERCLAY	4.3	54.8	
435.1	CARBONDALE		LIMESTONE	7.0	59.0	GRAY
428.1	CARBONDALE		CLAYSTONE & LIMESTONE	1.0	66.0	
427.1	CARBONDALE		LIMESTONE	6.0	67.0	GRAY
421.1	CARBONDALE	ST. DAVID	LIMESTONE	0.5	73.0	
420.6	CARBONDALE	SPRINGFIELD	COAL	3.5	73.5	
417.1	CARBONDALE		UNDERCLAY	2.0	77.0	

MAPID: 15700300000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 35 QUARTERS/FOOTAGES:

QUADRANGLE: PERCY LONGITUDE: -89.621273 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.051141 DATE COLLECTED:

SURFACE ELEVATION (FT.): 452.0 LOGGED (FT.): 33.0 LOG TYPE: Drillers Log

SOURCE: UNITED ELECTRIC COAL CO. 605 WELL TYPE: Coal Test

COMMENT: NO COAL IN LOG (UP TO 33')

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
452.0			UNCLASSIFIED	33.0	0.0	NO COAL

MAPID: 15700405000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 35 QUARTERS/FOOTAGES: SE NE

QUADRANGLE: PERCY LONGITUDE: -89.614223 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.052898 DATE COLLECTED:

SURFACE ELEVATION (FT.): 477.2 LOGGED (FT.): 55.5 LOG TYPE: Drillers Log

SOURCE: UNITED ELECTRIC COAL CO. 95 WELL TYPE: Coal Test

COMMENT: COAL AT 50'

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
477.2	PLEISTOCENE		UNCONSOLIDATED	20.0	0.0
457.2	PLEISTOCENE		CLAY	19.0	20.0
438.2	CARBONDALE		SHALE	6.0	39.0
432.2	CARBONDALE	BRERETON	LIMESTONE	4.0	45.0
428.2	CARBONDALE	ANNA	BLACK SHALE	0.5	49.0
427.7	CARBONDALE	HERRIN	COAL	5.5	49.5

MAPID: 15700406000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 35 QUARTERS/FOOTAGES: NW SE

QUADRANGLE: PERCY LONGITUDE: -89.618962 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.049304 DATE COLLECTED:

SURFACE ELEVATION (FT.): 481.6 LOGGED (FT.): 63.0 LOG TYPE: Drillers Log

SOURCE: UNITED ELECTRIC COAL CO. 69 WELL TYPE: Coal Test

COMMENT: COAL AT 57'

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
481.6	PLEISTOCENE		UNCONSOLIDATED	16.0	0.0
465.6	PLEISTOCENE		SAND	18.0	16.0
447.6	CARBONDALE		SHALE	19.0	34.0
428.6	CARBONDALE	BRERETON	LIMESTONE	2.5	53.0
426.1	CARBONDALE		SHALE	1.0	55.5
425.1	CARBONDALE	HERRIN	COAL	6.0	56.5

MAPID: 15700407000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 5S 5W **SECTION:** 35 **QUARTERS/FOOTAGES:** NE SE
QUADRANGLE: PERCY **LONGITUDE:** -89.614277 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 38.049273 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 470.6 **LOGGED (FT.):** 47.0 **LOG TYPE:** Drillers Log
SOURCE: UNITED ELECTRIC COAL CO. 70 **WELL TYPE:** Coal Test
COMMENT: COAL AT 42'

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
470.6	PLEISTOCENE		UNCONSOLIDATED	19.0	0.0	
451.6	CARBONDALE		SANDSTONE	6.5	19.0	
445.1	CARBONDALE		SHALE	9.5	25.5	
435.6	CARBONDALE		ROCK	7.0	35.0	BLUE
428.6	CARBONDALE	HERRIN	COAL	5.0	42.0	

MAPID: 15700408000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 5S 5W **SECTION:** 35 **QUARTERS/FOOTAGES:** NW SE
QUADRANGLE: PERCY **LONGITUDE:** -89.618962 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 38.049304 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 462.2 **LOGGED (FT.):** 46.0 **LOG TYPE:** Drillers Log
SOURCE: UNITED ELECTRIC COAL CO. 45 **WELL TYPE:** Coal Test
COMMENT: COAL AT 44'

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
462.2	PLEISTOCENE		UNCONSOLIDATED	29.0	0.0	
433.2	PLEISTOCENE		MUD	15.0	29.0	BLUE
418.2	CARBONDALE		COAL	2.0	44.0	SOFT

MAPID: 15700088000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 36 QUARTERS/FOOTAGES: 103' S line, 50' E line of SW SW

QUADRANGLE: PERCY LONGITUDE: -89.607531 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.044057 DATE COLLECTED: 0 / 0 / 1960

SURFACE ELEVATION (FT.): 439.1 LOGGED (FT.): 53.0 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MINING 22 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
439.1	PLEISTOCENE		UNCONSOLIDATED	20.0	0.0	
419.1	CARBONDALE		SHALE	3.0	20.0	SOFT
416.1	CARBONDALE	HERRIN	COAL	5.0	23.0	
411.1	CARBONDALE		UNDERCLAY	5.0	28.0	
406.1	CARBONDALE		CLAYSTONE & LIMESTONE	7.0	33.0	
399.1	CARBONDALE	ST. DAVID	LIMESTONE	6.0	40.0	DARK GRAY
393.1	CARBONDALE	TURNER MINE	BLACK SHALE	1.0	46.0	SOFT; BLK
392.1	CARBONDALE	SPRINGFIELD	COAL	3.0	47.0	
389.1	CARBONDALE		UNDERCLAY	3.0	50.0	LIGHT

MAPID: 15700089000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 36 QUARTERS/FOOTAGES: 128' N line, 105' E line of SE SW

QUADRANGLE: PERCY LONGITUDE: -89.603025 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.046993 DATE COLLECTED: 0 / 0 / 1960

SURFACE ELEVATION (FT.): 444.5 LOGGED (FT.): 45.0 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MINING 23 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
444.5	PLEISTOCENE		UNCONSOLIDATED	12.0	0.0	
432.5	CARBONDALE		SHALE	4.3	12.0	
428.2	CARBONDALE	HERRIN	COAL	6.5	16.3	
421.7	CARBONDALE		UNDERCLAY	2.3	22.8	
419.5	CARBONDALE		CLAYSTONE & LIMESTONE	3.0	25.0	
416.5	CARBONDALE		LIMESTONE	2.0	28.0	DARK GRAY
414.5	CARBONDALE		CLAYSTONE & LIMESTONE	3.0	30.0	
411.5	CARBONDALE	ST. DAVID	LIMESTONE	5.5	33.0	DARK GRAY
406.0	CARBONDALE		SHALE	0.5	38.5	SOFT
405.5	CARBONDALE	SPRINGFIELD	COAL	2.5	39.0	
403.0	CARBONDALE		UNDERCLAY	3.5	41.5	

MAPID: 15700090000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 36 QUARTERS/FOOTAGES: 210' S line, 636' E line of SE NW

QUADRANGLE: PERCY

LONGITUDE: -89.604812

GEOLOGIST: HOKE

CONFIDENTIAL: N

LATITUDE: 38.051571

DATE COLLECTED: 0 / 0 / 1960

SURFACE ELEVATION (FT.): 472.7

LOGGED (FT.): 75.0

LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MINING 24

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
472.7	PLEISTOCENE		UNCONSOLIDATED	33.0	0.0	
439.7	CARBONDALE		SHALE	2.0	33.0	SOFT
437.7	CARBONDALE		SHALE	5.0	35.0	
432.7	CARBONDALE	BRERETON	LIMESTONE	4.0	40.0	BLUE
428.7	CARBONDALE	ANNA	BLACK SHALE	2.0	44.0	
426.7	CARBONDALE	HERRIN	COAL	6.0	46.0	
420.7	CARBONDALE		UNDERCLAY	3.0	52.0	
417.7	CARBONDALE		CLAYSTONE & LIMESTONE	4.0	55.0	
413.7	CARBONDALE		LIMESTONE	3.0	59.0	DARK GRAY
410.7	CARBONDALE		CLAYSTONE & LIMESTONE	2.0	62.0	
408.7	CARBONDALE	ST. DAVID	LIMESTONE	6.0	64.0	DARK GRAY
402.7	CARBONDALE	SPRINGFIELD	COAL	3.0	70.0	
399.7	CARBONDALE		UNDERCLAY	2.0	73.0	LIGHT

MAPID: 15700134000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 36 QUARTERS/FOOTAGES: 70' N line, 60' E line of NW SE

QUADRANGLE: PERCY LONGITUDE: -89.598157 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.050724 DATE COLLECTED:

SURFACE ELEVATION (FT.): 470.9 LOGGED (FT.): 65.0 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MINING 26 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
470.9	PLEISTOCENE		UNCONSOLIDATED	28.0	0.0	
442.9	CARBONDALE		SHALE	2.0	28.0	SOFT
440.9	CARBONDALE	BRERETON	LIMESTONE	3.5	30.0	HARD; BLUE
437.4	CARBONDALE		BLACK SHALE	3.8	33.5	
433.6	CARBONDALE	HERRIN	COAL	6.8	37.3	
426.9	CARBONDALE		UNDERCLAY	2.0	44.0	
424.9	CARBONDALE		CLAYSTONE & LIMESTONE	9.0	46.0	
415.9	CARBONDALE		LIMESTONE	3.0	55.0	GRAY
412.9	CARBONDALE	ST. DAVID	LIMESTONE	1.0	58.0	BLUE
411.9	CARBONDALE		SHALE	1.5	59.0	
410.4	CARBONDALE	SPRINGFIELD	COAL	2.0	60.5	
408.4	CARBONDALE		UNDERCLAY	2.5	62.5	

MAPID: 15700301000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 36 QUARTERS/FOOTAGES: SW

QUADRANGLE: PERCY LONGITUDE: -89.607306 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.047392 DATE COLLECTED:

SURFACE ELEVATION (FT.): 440.0 LOGGED (FT.): 49.1 LOG TYPE: Drillers Log

SOURCE: UNITED ELECTRIC COAL CO. 609 WELL TYPE: Coal Test

COMMENT: COAL AT 45'

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
440.0	PLEISTOCENE		UNCONSOLIDATED	17.0	0.0	
423.0	CARBONDALE		SANDSTONE/SHALE	5.0	17.0	
418.0	CARBONDALE		SHALE	6.0	22.0	
412.0	CARBONDALE		LIMESTONE	15.0	28.0	
397.0	CARBONDALE		SHALE	2.0	43.0	
395.0	CARBONDALE	SPRINGFIELD	COAL	4.1	45.0	

MAPID: 15700302000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 36 QUARTERS/FOOTAGES: SE

QUADRANGLE: PERCY LONGITUDE: -89.598002 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.04729 DATE COLLECTED:

SURFACE ELEVATION (FT.): 460.0 LOGGED (FT.): 47.1 LOG TYPE: Drillers Log

SOURCE: UNITED ELECTRIC COAL CO. 611 WELL TYPE: Coal Test

COMMENT: COAL AT 41'

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
460.0	PLEISTOCENE		UNCONSOLIDATED	13.0	0.0	
447.0	CARBONDALE		LIMESTONE	4.0	13.0	
443.0	CARBONDALE		SHALE	3.0	17.0	
440.0	CARBONDALE		LIMESTONE	6.0	20.0	
434.0	CARBONDALE		BLACK SHALE	2.0	26.0	
432.0	CARBONDALE		SHALE	4.0	28.0	
428.0	CARBONDALE	BRERETON	LIMESTONE	8.0	32.0	
420.0	CARBONDALE	ANNA	BLACK SHALE	1.0	40.0	
419.0	CARBONDALE	HERRIN	COAL	6.1	41.0	

MAPID: 15700303000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 36 QUARTERS/FOOTAGES: NW

QUADRANGLE: PERCY LONGITUDE: -89.607201 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.054641 DATE COLLECTED:

SURFACE ELEVATION (FT.): 469.0 LOGGED (FT.): 33.5 LOG TYPE: Drillers Log

SOURCE: UNITED ELECTRIC COAL CO. 659 WELL TYPE: Coal Test

COMMENT: COAL AT 28'

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
469.0	PLEISTOCENE		UNCONSOLIDATED	17.0	0.0	
452.0	CARBONDALE		BLACK SHALE	2.0	17.0	WITH BLACK, ROTTEN COAL
450.0	CARBONDALE		UNDERCLAY	1.0	19.0	
449.0	CARBONDALE	BRERETON	LIMESTONE	5.5	20.0	
443.5	CARBONDALE	ANNA	BLACK SHALE	2.0	25.5	
441.5	CARBONDALE	HERRIN	COAL	5.5	27.5	

MAPID: 15700304000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 36 QUARTERS/FOOTAGES: NE

QUADRANGLE: PERCY LONGITUDE: -89.597886 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.054539 DATE COLLECTED:

SURFACE ELEVATION (FT.): 480.0 LOGGED (FT.): 49.2 LOG TYPE: Drillers Log

SOURCE: UNITED ELECTRIC COAL CO. 661 WELL TYPE: Coal Test

COMMENT: COAL AT 43'

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
480.0	PLEISTOCENE		UNCONSOLIDATED	15.0	0.0
465.0	PLEISTOCENE		SAND	12.0	15.0
453.0	CARBONDALE		SHALE	4.0	27.0
449.0	CARBONDALE		ROCK	1.0	31.0
448.0	CARBONDALE		CLAYSTONE	6.0	32.0
442.0	CARBONDALE	BRERETON	LIMESTONE	5.0	38.0
437.0	CARBONDALE	HERRIN	COAL	6.2	43.0

MAPID: 15700409000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 36 QUARTERS/FOOTAGES: NE NE

QUADRANGLE: PERCY LONGITUDE: -89.595532 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.056328 DATE COLLECTED:

SURFACE ELEVATION (FT.): 475.0 LOGGED (FT.): 37.0 LOG TYPE: Drillers Log

SOURCE: UNITED ELECTRIC COAL CO. 96 WELL TYPE: Coal Test

COMMENT: COAL AT 31'

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
475.0	PLEISTOCENE		UNCONSOLIDATED	19.0	0.0
456.0	CARBONDALE		SHALE	7.0	19.0
449.0	CARBONDALE	BRERETON	LIMESTONE	5.0	26.0
444.0	CARBONDALE	HERRIN	COAL	6.0	31.0

MAPID: 1570041000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 36 QUARTERS/FOOTAGES: NE NW

QUADRANGLE: PERCY LONGITUDE: -89.604847 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.056427 DATE COLLECTED:

SURFACE ELEVATION (FT.): 473.6 LOGGED (FT.): 57.8 LOG TYPE: Drillers Log

SOURCE: UNITED ELECTRIC COAL CO. 97 WELL TYPE: Coal Test

COMMENT: COAL AT 52'

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
473.6	PLEISTOCENE		UNCONSOLIDATED	21.0	0.0	
452.6	CARBONDALE		SANDSTONE	4.0	21.0	
448.6	CARBONDALE		SHALE	15.0	25.0	
433.6	CARBONDALE		BLACK SHALE	6.0	40.0	
427.6	CARBONDALE	BRERETON	LIMESTONE	5.5	46.0	
422.1	CARBONDALE	ANNA	BLACK SHALE	0.5	51.5	
421.6	CARBONDALE	HERRIN	COAL	5.8	52.0	

MAPID: 15700411000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 36 QUARTERS/FOOTAGES: NW NE

QUADRANGLE: PERCY LONGITUDE: -89.600189 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.056379 DATE COLLECTED:

SURFACE ELEVATION (FT.): 485.0 LOGGED (FT.): 45.0 LOG TYPE: Drillers Log

SOURCE: UNITED ELECTRIC COAL CO. 98 WELL TYPE: Coal Test

COMMENT: NO COAL IN LOG (UP TO 45')

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
485.0			UNCLASSIFIED	45.0	0.0	NO COAL

MAPID: 15700412000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 36 QUARTERS/FOOTAGES: NE NE

QUADRANGLE: PERCY LONGITUDE: -89.595532 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.056328 DATE COLLECTED:

SURFACE ELEVATION (FT.): 485.0 LOGGED (FT.): 46.0 LOG TYPE: Drillers Log

SOURCE: UNITED ELECTRIC COAL CO. 99 WELL TYPE: Coal Test

COMMENT: NO COAL IN LOG (UP TO 46')

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
485.0			UNCLASSIFIED	46.0	0.0	NO COAL

MAPID: 15700413000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 5S 5W **SECTION:** 36 **QUARTERS/FOOTAGES:** SE NW
QUADRANGLE: PERCY **LONGITUDE:** -89.604901 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 38.052802 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 465.0 **LOGGED (FT.):** 72.0 **LOG TYPE:** Drillers Log
SOURCE: UNITED ELECTRIC COAL CO. 72 **WELL TYPE:** Coal Test
COMMENT: NO COAL IN LOG (UP TO 72')

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
465.0			UNCLASSIFIED	72.0	0.0	NO COAL

MAPID: 15700414000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 5S 5W **SECTION:** 36 **QUARTERS/FOOTAGES:** 2640' N line, 1320' E line
QUADRANGLE: PERCY **LONGITUDE:** -89.597899 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 38.050879 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 474.1 **LOGGED (FT.):** 48.2 **LOG TYPE:** Drillers Log
SOURCE: UNITED ELECTRIC COAL CO. 74 **WELL TYPE:** Coal Test
COMMENT: COAL AT 42'

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
474.1	PLEISTOCENE		UNCONSOLIDATED	16.0	0.0	
458.1	PLEISTOCENE		SAND	2.0	16.0	
456.1	PLEISTOCENE		CLAY	10.0	18.0	
446.1	CARBONDALE		SHALE	5.0	28.0	
441.1	CARBONDALE	BRERETON	LIMESTONE	5.0	33.0	
436.1	CARBONDALE	ANNA	BLACK SHALE	3.5	38.0	
432.6	CARBONDALE	HERRIN	COAL	6.2	41.5	

MAPID: 15700414000C **VERSION:** 2 **PROJECT:** ROOF STUDY
COUNTY: RANDOLPH **TWP/RNG:** 5S 5W **SECTION:** 36 **QUARTERS/FOOTAGES:** 2640' N line, 1320' E line
QUADRANGLE: PERCY **LONGITUDE:** -89.597899 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.050879 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 474.0 **LOGGED (FT.):** 47.2 **LOG TYPE:** Drillers Log
SOURCE: **WELL TYPE:** Coal Test
COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
446.5	CARBONDALE		SHALE	5.0	27.5	
441.5	CARBONDALE	BRERETON	LIMESTONE	5.0	32.5	
436.5	CARBONDALE	ANNA	BLACK SHALE	3.5	37.5	
433.0	CARBONDALE	HERRIN	COAL	6.2	41.0	

MAPID: 15700415000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 5S 5W **SECTION:** 36 **QUARTERS/FOOTAGES:** NE SE
QUADRANGLE: PERCY **LONGITUDE:** -89.595648 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 38.049075 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 475.0 **LOGGED (FT.):** 47.0 **LOG TYPE:** Drillers Log
SOURCE: UNITED ELECTRIC COAL CO. 46 **WELL TYPE:** Coal Test
COMMENT: COAL AT 46'

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
475.0			UNCLASSIFIED	46.0	0.0	
429.0	CARBONDALE	HERRIN	COAL	1.0	46.0	

MAPID: 15700416000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 5S 5W **SECTION:** 36 **QUARTERS/FOOTAGES:** NW SE
QUADRANGLE: PERCY **LONGITUDE:** -89.600302 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 38.049126 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 475.0 **LOGGED (FT.):** 46.8 **LOG TYPE:** Drillers Log
SOURCE: UNITED ELECTRIC COAL CO. 48 **WELL TYPE:** Coal Test
COMMENT: COAL AT 45'

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
475.0	PLEISTOCENE		UNCONSOLIDATED	20.0	0.0	
455.0	CARBONDALE		SANDSTONE/SHALE	10.0	20.0	
445.0	CARBONDALE		SHALE	3.0	30.0	BLUE
442.0	CARBONDALE	ANNA	BLACK SHALE	1.5	33.0	
440.5	CARBONDALE	HERRIN	COAL	1.8	34.5	

MAPID: 15700417000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 5S 5W **SECTION:** 36 **QUARTERS/FOOTAGES:** NE SE
QUADRANGLE: PERCY **LONGITUDE:** -89.595648 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 38.049075 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 480.0 **LOGGED (FT.):** 37.8 **LOG TYPE:** Drillers Log
SOURCE: UNITED ELECTRIC COAL CO. 49 **WELL TYPE:** Coal Test
COMMENT: COAL AT 27'

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
480.0	PLEISTOCENE		UNCONSOLIDATED	12.0	0.0	
468.0	PLEISTOCENE		MUD	9.0	12.0	BLUE
459.0	PLEISTOCENE		SAND	4.0	21.0	
455.0	CARBONDALE		SHALE	2.0	25.0	BLUE
453.0	CARBONDALE		COAL	0.8	27.0	SOFT
452.2	CARBONDALE		UNDERCLAY	6.0	27.8	
446.2	CARBONDALE		SANDSTONE	4.0	33.8	

MAPID: 15700678000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 36 QUARTERS/FOOTAGES: 1000' S line, 1020' E line of NW NW

QUADRANGLE: PERCY LONGITUDE: -89.610721 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.057437 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 484.7 LOGGED (FT.): 63.0 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. 140A WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
484.7	PLEISTOCENE		UNCONSOLIDATED	29.8	0.0
454.9	CARBONDALE		LIMESTONE	3.0	29.8
451.9	CARBONDALE		SHALE	3.6	32.8
448.3	CARBONDALE		LIMESTONE	2.5	36.4
445.8	CARBONDALE		SHALE	9.6	38.9
436.2	CARBONDALE		BLACK SHALE	1.8	48.5
434.4	CARBONDALE	BRERETON	LIMESTONE	5.6	50.3
428.8	CARBONDALE	ANNA	BLACK SHALE	1.0	55.9
427.8	CARBONDALE	HERRIN	COAL	6.1	56.9

MAPID: 15700679000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 36 QUARTERS/FOOTAGES: 980' S line, 340' E line of NW NW

QUADRANGLE: PERCY LONGITUDE: -89.608347 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.057357 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 462.5 LOGGED (FT.): 36.9 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MINING CO. 140-C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
462.5	PLEISTOCENE		UNCONSOLIDATED	7.0	0.0
455.5	CARBONDALE		LIMESTONE	4.4	7.0
451.1	CARBONDALE		SHALE	2.9	11.4
448.2	CARBONDALE		LIMESTONE	2.6	14.3
445.6	CARBONDALE		SHALE	4.3	16.9
441.3	CARBONDALE		COAL	0.3	21.2
441.0	CARBONDALE		LIMESTONE	0.3	21.5
440.7	CARBONDALE		COAL	0.3	21.8
440.5	CARBONDALE		SHALE	3.1	22.0
437.4	CARBONDALE	BRERETON	LIMESTONE	4.1	25.1
433.3	CARBONDALE		SHALE	1.6	29.2
431.7	CARBONDALE	HERRIN	COAL	6.2	30.8

MAPID: 1570068000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 36 QUARTERS/FOOTAGES: 660' S line, 670' E line of NW NW

QUADRANGLE: PERCY LONGITUDE: -89.609512 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.056486 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 467.2 LOGGED (FT.): 46.8 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MINING CO. 140-F WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
467.2	PLEISTOCENE		UNCONSOLIDATED	22.0	0.0
445.2	CARBONDALE		LIMESTONE	1.9	22.0
443.3	CARBONDALE		SHALE	3.8	23.9
439.5	CARBONDALE		COAL	0.8	27.7
438.7	CARBONDALE		SHALE	5.3	28.5
433.4	CARBONDALE	BRERETON	LIMESTONE	6.6	33.8
426.9	CARBONDALE		SHALE	0.7	40.3
426.2	CARBONDALE	HERRIN	COAL	5.8	41.0

MAPID: 15700681000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 36 QUARTERS/FOOTAGES: 335' S line, 1000' E line of NW NW

QUADRANGLE: PERCY LONGITUDE: -89.61068 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.055602 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 467.5 LOGGED (FT.): 44.0 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MINING CO. 140-I WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
467.5	PLEISTOCENE		UNCONSOLIDATED	24.1	0.0
443.4	CARBONDALE		SHALE	11.9	24.1
431.5	CARBONDALE		SHALE	1.5	36.0
430.0	CARBONDALE	HERRIN	COAL	6.5	37.5

MAPID: 15700682000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 36 QUARTERS/FOOTAGES: 440' S line, 350' E line of NW NW

QUADRANGLE: PERCY LONGITUDE: -89.608404 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.055869 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 456.1 LOGGED (FT.): 37.7 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MINING CO. 140-K WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
456.1	PLEISTOCENE		UNCONSOLIDATED	8.0	0.0
448.1	CARBONDALE		LIMESTONE	4.8	8.0
443.3	CARBONDALE		SANDSTONE	1.0	12.8
442.3	CARBONDALE		SHALE	2.0	13.8
440.3	CARBONDALE		LIMESTONE	2.1	15.8
438.2	CARBONDALE		SHALE	2.8	17.9
435.3	CARBONDALE		COAL	0.3	20.8
435.1	CARBONDALE		SHALE	3.8	21.0
431.3	CARBONDALE	BRERETON	LIMESTONE	5.3	24.8
425.9	CARBONDALE		SHALE	2.0	30.2
423.9	CARBONDALE	HERRIN	COAL	5.5	32.2

MAPID: 15700684000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 36 QUARTERS/FOOTAGES: NW

QUADRANGLE: PERCY LONGITUDE: -89.607201 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.054641 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 457.4 LOGGED (FT.): 29.8 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MINING CO. 141-A WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
457.4	PLEISTOCENE		UNCONSOLIDATED	5.5	0.0
451.9	PLEISTOCENE		CLAY	0.7	5.5
451.2	PLEISTOCENE		UNCONSOLIDATED	4.2	6.2
447.1	CARBONDALE		SHALE	1.4	10.3
445.6	CARBONDALE		COAL	0.3	11.8
445.3	CARBONDALE		SHALE	7.1	12.1
438.2	CARBONDALE		SHALE	1.0	19.2
437.2	CARBONDALE	BRERETON	LIMESTONE	3.1	20.2
434.1	CARBONDALE	HERRIN	COAL	6.5	23.3

MAPID: 15700685000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 36 QUARTERS/FOOTAGES: 990' S line, 320' E line of NE NW

QUADRANGLE: PERCY LONGITUDE: -89.603619 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.057336 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 476.4 LOGGED (FT.): 56.6 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MINING CO. 141-C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
476.4	PLEISTOCENE		UNCONSOLIDATED	49.4	0.0
427.0	CARBONDALE		SHALE	1.1	49.4
425.9	CARBONDALE	HERRIN	COAL	6.1	50.5

MAPID: 15700686000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 36 QUARTERS/FOOTAGES: 730' S line, 750' E line of NE NW

QUADRANGLE: PERCY LONGITUDE: -89.605134 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.056634 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 463.4 LOGGED (FT.): 49.8 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MINING CO. 141-F WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
463.4	PLEISTOCENE		UNCONSOLIDATED	19.3	0.0
444.1	PLEISTOCENE		CLAY	7.5	19.3
436.6	PLEISTOCENE		UNCONSOLIDATED	5.0	26.8
431.6	CARBONDALE		LIMESTONE	0.5	31.8
431.1	CARBONDALE		SHALE	4.4	32.3
426.7	CARBONDALE		SANDSTONE	2.8	36.7
424.0	CARBONDALE	BRERETON	LIMESTONE	4.5	39.4
419.5	CARBONDALE	HERRIN	COAL	5.8	43.9

MAPID: 15700687000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 36 QUARTERS/FOOTAGES: 330' S line, 980' E line of NE NW

QUADRANGLE: PERCY

LONGITUDE: -89.605953

GEOLOGIST: HOKE

CONFIDENTIAL: N

LATITUDE: 38.055537

DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 473.8

LOGGED (FT.): 55.3

LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MINING CO. 141-I

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
473.8	PLEISTOCENE		UNCONSOLIDATED	26.3	0.0
447.5	PLEISTOCENE		CLAY	1.1	26.3
446.5	PLEISTOCENE		CLAY	1.2	27.3
445.3	PLEISTOCENE		UNCONSOLIDATED	3.3	28.5
442.0	CARBONDALE		LIMESTONE	2.6	31.8
439.4	CARBONDALE		SHALE	3.5	34.4
435.9	CARBONDALE		SHALE	0.3	37.9
435.5	CARBONDALE		LIMESTONE	0.3	38.3
435.2	CARBONDALE		SHALE	1.3	38.6
434.0	CARBONDALE	BRERETON	LIMESTONE	6.4	39.8
427.5	CARBONDALE		SHALE	0.8	46.3
426.7	CARBONDALE		SHALE	2.5	47.1
424.2	CARBONDALE	HERRIN	COAL	5.7	49.6

MAPID: 15700692000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 36 QUARTERS/FOOTAGES: 330' S line, 340' E line of NE NW

QUADRANGLE: PERCY

LONGITUDE: -89.603718

GEOLOGIST: HOKE

CONFIDENTIAL: N

LATITUDE: 38.055514

DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 476.7

LOGGED (FT.): 71.3

LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG 141K

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
476.7	PLEISTOCENE		UNCONSOLIDATED	56.3	0.0
420.4	CARBONDALE		LIMESTONE	0.1	56.3
420.4	CARBONDALE		COAL	0.1	56.3
420.3	CARBONDALE		SHALE	5.3	56.4
414.9	CARBONDALE		LIMESTONE	5.9	61.8
409.0	CARBONDALE		SHALE	0.7	67.7
408.4	CARBONDALE		LIMESTONE	0.3	68.3
408.0	CARBONDALE		SHALE	0.3	68.7
407.8	CARBONDALE		LIMESTONE	2.3	68.9

MAPID: 15700696000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 36 QUARTERS/FOOTAGES: 990' S line, 1010' E line of NW NE

QUADRANGLE: PERCY LONGITUDE: -89.601371 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.057311 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 480.5 LOGGED (FT.): 48.8 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. 142A WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
480.5	PLEISTOCENE		UNCONSOLIDATED	37.0	0.0
443.5	CARBONDALE	BRERETON	LIMESTONE	4.8	37.0
438.7	CARBONDALE		SHALE	3.3	41.8
435.4	CARBONDALE	HERRIN	COAL	3.8	45.1

MAPID: 15700697000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 36 QUARTERS/FOOTAGES: 1000' S line, 350' E line of NW NE

QUADRANGLE: PERCY LONGITUDE: -89.599066 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.057313 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 488.4 LOGGED (FT.): 52.0 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. 142C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
488.4	PLEISTOCENE		UNCONSOLIDATED	20.5	0.0
467.9	CARBONDALE		LIMESTONE	0.5	20.5
467.4	CARBONDALE		SHALE	1.5	21.0
465.9	CARBONDALE		LIMESTONE	1.4	22.5
464.5	CARBONDALE		SHALE	3.4	23.9
461.1	CARBONDALE		LIMESTONE	1.8	27.3
459.2	CARBONDALE		SHALE	3.2	29.2
456.1	CARBONDALE		COAL	0.2	32.3
455.9	CARBONDALE		LIMESTONE	0.5	32.5
455.4	CARBONDALE		BLACK SHALE	4.0	33.0
451.4	CARBONDALE	BRERETON	LIMESTONE	6.0	37.0
445.4	CARBONDALE		SHALE	3.0	43.0
442.4	CARBONDALE	HERRIN	COAL	6.0	46.0

MAPID: 15700698000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 36 QUARTERS/FOOTAGES: 330' S line, 1010' E line of NW NE

QUADRANGLE: PERCY

LONGITUDE: -89.6014

GEOLOGIST: HOKE

CONFIDENTIAL: N

LATITUDE: 38.055489

DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 483.8

LOGGED (FT.): 60.3

LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. 142I

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
483.8	PLEISTOCENE		UNCONSOLIDATED	26.4	0.0
457.4	CARBONDALE		LIMESTONE	3.8	26.4
453.5	CARBONDALE		SHALE	3.6	30.3
450.0	CARBONDALE		LIMESTONE	2.4	33.8
447.5	CARBONDALE		SHALE	3.3	36.3
444.2	CARBONDALE		BLACK SHALE	1.8	39.6
442.4	CARBONDALE		SHALE	6.1	41.4
436.3	CARBONDALE		BLACK SHALE	0.5	47.5
435.8	CARBONDALE		LIMESTONE	1.1	48.0
434.7	CARBONDALE		BLACK SHALE	1.8	49.1
432.9	CARBONDALE	BRERETON	LIMESTONE	3.2	50.9
429.7	CARBONDALE		SHALE	0.3	54.1
429.5	CARBONDALE	HERRIN	COAL	6.0	54.3

MAPID: 15700699000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 36 QUARTERS/FOOTAGES: 315' S line, 330' E line of NW NE

QUADRANGLE: PERCY

LONGITUDE: -89.599025

GEOLOGIST: HOKE

CONFIDENTIAL: N

LATITUDE: 38.055422

DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 485.5

LOGGED (FT.): 44.6

LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. 142K

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
485.5	PLEISTOCENE		UNCONSOLIDATED	23.0	0.0
462.5	CARBONDALE		LIMESTONE	2.0	23.0
460.5	CARBONDALE		SHALE	5.0	25.0
455.5	CARBONDALE		LIMESTONE	4.7	30.0
450.8	CARBONDALE		SHALE	4.3	34.7
446.5	CARBONDALE		LIMESTONE	1.6	39.0
444.9	CARBONDALE		SHALE	3.4	40.6
441.5	CARBONDALE		COAL	0.6	44.0

MAPID: 1570070000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 36 QUARTERS/FOOTAGES: 1000' S line, 1030' E line of NE NE

QUADRANGLE: PERCY LONGITUDE: -89.596783 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.05729 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 488.1 LOGGED (FT.): 51.4 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG 143A WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
488.1	PLEISTOCENE		UNCONSOLIDATED	20.0	0.0
468.1	CARBONDALE		LIMESTONE	4.3	20.0
463.8	CARBONDALE		SHALE	2.5	24.3
461.3	CARBONDALE		LIMESTONE	4.1	26.8
457.3	CARBONDALE		BLACK SHALE	2.5	30.8
454.8	CARBONDALE		LIMESTONE	0.6	33.3
454.2	CARBONDALE		BLACK SHALE	2.2	33.9
452.0	CARBONDALE	BRERETON	LIMESTONE	6.7	36.1
445.3	CARBONDALE	ANNA	BLACK SHALE	2.7	42.8
442.7	CARBONDALE	HERRIN	COAL	6.0	45.4

MAPID: 15700701000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 36 QUARTERS/FOOTAGES: 1010' S line, 320' E line of NE NE

QUADRANGLE: PERCY LONGITUDE: -89.594304 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.057289 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 484.0 LOGGED (FT.): 57.0 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG 143C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
484.0	PLEISTOCENE		UNCONSOLIDATED	22.4	0.0
461.6	CARBONDALE		LIMESTONE	1.8	22.4
459.7	CARBONDALE		SHALE	2.8	24.3
456.9	CARBONDALE		SHALE	3.8	27.1 WITH ROCK
453.1	CARBONDALE		LIMESTONE	4.5	30.9
448.6	CARBONDALE		SHALE	3.5	35.4
445.1	CARBONDALE		LIMESTONE	0.9	38.9
444.2	CARBONDALE		SHALE	5.8	39.8
438.3	CARBONDALE		BLACK SHALE	4.3	45.7
434.0	CARBONDALE	HERRIN	CLAY & COAL	4.0	50.0
430.0	CARBONDALE	HERRIN	COAL	3.0	54.0

MAPID: 15700702000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 36 QUARTERS/FOOTAGES: 680' S line, 700' E line of NE NE

QUADRANGLE: PERCY LONGITUDE: -89.595644 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.056394 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 483.5 LOGGED (FT.): 53.2 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG 143F WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
483.5	PLEISTOCENE		UNCONSOLIDATED	18.8	0.0
464.7	CARBONDALE		LIMESTONE	1.5	18.8
463.2	CARBONDALE		SHALE	5.7	20.3
457.5	CARBONDALE		LIMESTONE	5.0	26.0
452.5	CARBONDALE		SHALE	2.0	31.0
450.5	CARBONDALE		SHALE	1.1	33.0
449.4	CARBONDALE		COAL	0.1	34.1
449.3	CARBONDALE		LIMESTONE	0.8	34.2
448.6	CARBONDALE		SHALE	2.9	34.9
445.7	CARBONDALE	BRERETON	LIMESTONE	7.3	37.8
438.3	CARBONDALE	ANNA	BLACK SHALE	2.0	45.2
436.3	CARBONDALE	HERRIN	COAL	6.0	47.2

MAPID: 15700703000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 36 QUARTERS/FOOTAGES: 310' S line, 1010' E line of NE NE

QUADRANGLE: PERCY LONGITUDE: -89.596742 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.055385 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 483.1 LOGGED (FT.): 55.4 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG 143I WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
483.1	PLEISTOCENE		UNCONSOLIDATED	24.6	0.0
458.5	CARBONDALE		LIMESTONE	4.4	24.6
454.1	CARBONDALE		SHALE	1.3	29.0
452.8	CARBONDALE		LIMESTONE	2.9	30.3
449.8	CARBONDALE		SHALE	4.2	33.3
445.7	CARBONDALE		LIMESTONE	3.8	37.4
441.9	CARBONDALE		SHALE	8.1	41.2
433.8	CARBONDALE	HERRIN	COAL	6.2	49.3

MAPID: 15700704000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 36 QUARTERS/FOOTAGES: 1000' S line, 1000' E line of SW NW

QUADRANGLE: PERCY LONGITUDE: -89.610705 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.053815 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 452.2 LOGGED (FT.): 46.3 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG 125A WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
452.2	PLEISTOCENE		UNCONSOLIDATED	20.8	0.0
431.4	CARBONDALE		SHALE	3.0	20.8
428.4	CARBONDALE		COAL W/ BLACK SHALE	3.5	23.8
424.9	CARBONDALE		SHALE	5.7	27.3
419.2	CARBONDALE		LIMESTONE	5.6	33.0
413.6	CARBONDALE		SHALE	2.5	38.6
411.1	CARBONDALE		LIMESTONE	5.2	41.1

MAPID: 15700705000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 36 QUARTERS/FOOTAGES: 1020' S line, 810' E line of SW NW

QUADRANGLE: PERCY LONGITUDE: -89.610042 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.053863 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 448.9 LOGGED (FT.): 30.1 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. 125AA WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
448.9	PLEISTOCENE		UNCONSOLIDATED	24.0	0.0
424.9	CARBONDALE	ANNA	BLACK SHALE	2.3	24.0
422.6	CARBONDALE	HERRIN	COAL	3.8	26.3

MAPID: 15700706000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 36 QUARTERS/FOOTAGES: 1020' S line, 340' E line of SW NW

QUADRANGLE: PERCY LONGITUDE: -89.608401 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.053845 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 460.4 LOGGED (FT.): 30.6 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG 125C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
460.4	PLEISTOCENE		UNCONSOLIDATED	16.0	0.0
444.4	PLEISTOCENE		SAND & GRAVEL	7.0	16.0
437.4	CARBONDALE	BRERETON	LIMESTONE	1.3	23.0
436.1	CARBONDALE	ANNA	BLACK SHALE	0.8	24.3
435.3	CARBONDALE	HERRIN	COAL	5.5	25.1

MAPID: 15700707000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 36 QUARTERS/FOOTAGES: 680' S line, 680' E line of SW NW

QUADRANGLE: PERCY LONGITUDE: -89.609601 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.052919 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 465.0 LOGGED (FT.): 52.8 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG 125F WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
465.0	PLEISTOCENE		UNCONSOLIDATED	40.4	0.0	
424.6	CARBONDALE		LIMESTONE	1.6	40.4	
423.0	CARBONDALE		SHALE	5.8	42.0	
417.2	CARBONDALE	HERRIN	COAL	5.0	47.8	

MAPID: 15700708000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 36 QUARTERS/FOOTAGES: 360' S line, 1000' E line of SW NW

QUADRANGLE: PERCY LONGITUDE: -89.61073 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.052049 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 465.5 LOGGED (FT.): 54.5 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. 125I WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
465.5	PLEISTOCENE		UNCONSOLIDATED	22.3	0.0	
443.2	PLEISTOCENE		BOULDER	0.9	22.3	
442.2	PLEISTOCENE		GRAVEL	2.8	23.3	
439.4	CARBONDALE		SHALE	4.0	26.1	
435.4	CARBONDALE		ROCK	1.3	30.1	SOFT
434.2	CARBONDALE		CLAYSTONE	4.0	31.3	
430.2	CARBONDALE		LIMESTONE	1.0	35.3	
429.2	CARBONDALE		BLACK SHALE	5.8	36.3	
423.3	CARBONDALE	BRERETON	LIMESTONE	6.3	42.2	
417.0	CARBONDALE	HERRIN	COAL	6.0	48.5	

MAPID: 15700713000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 36 QUARTERS/FOOTAGES: 360' S line, 350' E line of SW NW

QUADRANGLE: PERCY LONGITUDE: -89.608461 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.052023 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 466.5 LOGGED (FT.): 49.0 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. 125K WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
466.5	PLEISTOCENE		UNCONSOLIDATED	22.0	0.0	
444.5	PLEISTOCENE		SAND & GRAVEL	18.0	22.0	
426.5	PLEISTOCENE		CLAY	7.6	40.0	BLUE
418.9	CARBONDALE	SPRINGFIELD	COAL	1.4	47.6	TOP ERODED

MAPID: 15700720000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 36 QUARTERS/FOOTAGES: 1020' S line, 970' E line of SE NW

QUADRANGLE: PERCY LONGITUDE: -89.605943 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.053817 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 468.1 LOGGED (FT.): 52.9 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. 126A WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
468.1	PLEISTOCENE		UNCONSOLIDATED	41.5	0.0	
426.6	CARBONDALE		LIMESTONE	0.6	41.5	
426.0	CARBONDALE		SHALE	0.8	42.1	
425.3	CARBONDALE		LIMESTONE	0.9	42.8	
424.3	CARBONDALE		SHALE	0.8	43.8	
423.5	CARBONDALE	ANNA	BLACK SHALE	2.6	44.6	
420.9	CARBONDALE	HERRIN	COAL	5.8	47.2	

MAPID: 15700722000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 36 QUARTERS/FOOTAGES: 1000' S line, 340' E line of SE NW

QUADRANGLE: PERCY LONGITUDE: -89.603743 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.053739 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 469.6 LOGGED (FT.): 67.2 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO. 126C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
469.6	PLEISTOCENE		UNCONSOLIDATED	20.0	0.0
449.6	PLEISTOCENE		GRAVEL	3.2	20.0
446.4	PLEISTOCENE		CLAY	0.8	23.2
445.6	PLEISTOCENE		GRAVEL	3.0	24.0
442.6	CARBONDALE		SHALE	5.0	27.0
437.6	CARBONDALE		COAL	0.2	32.0
437.4	CARBONDALE		SHALE	25.0	32.2
412.4	CARBONDALE		LIMESTONE	10.0	57.2

MAPID: 15700727000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 36 QUARTERS/FOOTAGES: 660' S line, 650' E line of SW NW

QUADRANGLE: PERCY LONGITUDE: -89.609496 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.052864 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 468.9 LOGGED (FT.): 69.8 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO. 126F WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
468.9	PLEISTOCENE		UNCONSOLIDATED	23.0	0.0
445.9	CARBONDALE		SANDSTONE	1.5	23.0
444.4	CARBONDALE		CLAYSTONE	0.6	24.5
443.8	CARBONDALE		SANDSTONE	1.0	25.1
442.8	CARBONDALE		SANDSTONE	8.0	26.1
434.8	CARBONDALE		SHALE	21.0	34.1
413.8	CARBONDALE		LIMESTONE	3.9	55.1
409.9	CARBONDALE		SHALE	3.1	59.0
406.8	CARBONDALE		LIMESTONE	3.3	62.1
403.5	CARBONDALE		SHALE	1.7	65.4
401.8	CARBONDALE	SPRINGFIELD	COAL	1.1	67.1
400.7	CARBONDALE	SPRINGFIELD	SHALE/COAL	0.7	68.2
400.1	CARBONDALE	SPRINGFIELD	COAL	0.3	68.8
399.7	CARBONDALE		UNDERCLAY	0.6	69.2

MAPID: 15700733000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 36 QUARTERS/FOOTAGES: 340' S line, 970' E line of SE NW

QUADRANGLE: PERCY LONGITUDE: -89.605972 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.05194 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 460.6 LOGGED (FT.): 64.1 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG 126I WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
460.6	PLEISTOCENE		UNCONSOLIDATED	49.0	0.0
411.6	PLEISTOCENE		GRAVEL	0.5	49.0
411.1	CARBONDALE		LIMESTONE	3.3	49.5
407.8	CARBONDALE		SHALE	2.0	52.8
405.8	CARBONDALE		LIMESTONE	6.0	54.8
399.8	CARBONDALE	SPRINGFIELD	COAL	3.3	60.8

MAPID: 15700735000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 36 QUARTERS/FOOTAGES: 350' S line, 340' E line of SE NW

QUADRANGLE: PERCY LONGITUDE: -89.603772 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.051945 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 480.4 LOGGED (FT.): 57.6 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. 126K WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
480.4	PLEISTOCENE		UNCONSOLIDATED	16.3	0.0
464.1	CARBONDALE		SHALE	10.3	16.3
453.7	CARBONDALE		CLAYSTONE	3.0	26.7
450.7	CARBONDALE		ROCK	0.3	29.7
450.5	CARBONDALE		SHALE	2.3	29.9
448.1	CARBONDALE		LIMESTONE	3.0	32.3
445.1	CARBONDALE		BLACK SHALE	2.5	35.3
442.6	CARBONDALE		COAL	1.5	37.8
441.1	CARBONDALE		ROCK	1.0	39.3
440.1	CARBONDALE		BLACK SHALE	2.0	40.3
438.1	CARBONDALE		SHALE	2.1	42.3
436.1	CARBONDALE		ROCK	4.9	44.3
431.1	CARBONDALE	ANNA	BLACK SHALE	2.1	49.3
429.1	CARBONDALE	HERRIN	COAL	6.3	51.3

MAPID: 15700738000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 36 QUARTERS/FOOTAGES: 1000' S line, 980' E line of SW NE

QUADRANGLE: PERCY LONGITUDE: -89.601324 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.053714 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 481.8 LOGGED (FT.): 61.8 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG 127A WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
481.8	PLEISTOCENE		UNCONSOLIDATED	27.0	0.0
454.8	PLEISTOCENE		SAND	1.8	27.0
453.0	PLEISTOCENE		SAND & GRAVEL	1.1	28.8
451.9	PLEISTOCENE		CLAY	4.4	29.9
447.5	CARBONDALE		LIMESTONE	3.3	34.3
444.2	CARBONDALE		SHALE	3.0	37.6
441.2	CARBONDALE		BLACK SHALE	3.0	40.6
438.2	CARBONDALE		LIMESTONE	0.6	43.6
437.6	CARBONDALE		SHALE	7.3	44.2
430.4	CARBONDALE	BRERETON	LIMESTONE	4.0	51.4
426.4	CARBONDALE	HERRIN	COAL	6.4	55.4

MAPID: 15700739000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 36 QUARTERS/FOOTAGES: 1000' S line, 340' E line of SW NE

QUADRANGLE: PERCY LONGITUDE: -89.599089 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.053688 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 482.7 LOGGED (FT.): 62.3 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG 127C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
482.7	PLEISTOCENE		UNCONSOLIDATED	22.6	0.0
460.1	CARBONDALE		SANDSTONE	0.4	22.6
459.7	CARBONDALE		LIMESTONE	1.3	23.0
458.4	CARBONDALE		SHALE	4.9	24.3
453.5	CARBONDALE		LIMESTONE	5.1	29.2
448.4	CARBONDALE		SHALE	3.2	34.3
445.3	CARBONDALE		LIMESTONE	3.7	37.4
441.6	CARBONDALE		SHALE	3.6	41.1
438.0	CARBONDALE		BLACK SHALE	0.7	44.7
437.4	CARBONDALE		SHALE	3.3	45.3
434.1	CARBONDALE	BRERETON	LIMESTONE	4.0	48.6
430.1	CARBONDALE		BLACK SHALE	4.3	52.6
425.9	CARBONDALE	HERRIN	COAL	5.4	56.8

MAPID: 15700740000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 36 QUARTERS/FOOTAGES: 670' S line, 670' E line of SW NE

QUADRANGLE: PERCY LONGITUDE: -89.600254 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.05279 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 486.4 LOGGED (FT.): 58.2 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO. 127F WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
486.4	PLEISTOCENE		UNCONSOLIDATED	25.7	0.0
460.7	CARBONDALE		LIMESTONE	4.7	25.7
456.1	CARBONDALE		SHALE	3.5	30.3
452.6	CARBONDALE		LIMESTONE	2.5	33.8
450.1	CARBONDALE		SHALE	4.6	36.3
445.5	CARBONDALE		COAL	0.3	40.9
445.1	CARBONDALE		BLACK SHALE	3.2	41.3
442.0	CARBONDALE	BRERETON	LIMESTONE	4.4	44.4
437.6	CARBONDALE		BLACK SHALE	4.0	48.8
433.6	CARBONDALE	HERRIN	COAL	5.3	52.8

MAPID: 15700741000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 36 QUARTERS/FOOTAGES: 350' S line, 1010' E line of SW NE

QUADRANGLE: PERCY LONGITUDE: -89.601454 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.051919 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 482.6 LOGGED (FT.): 51.4 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG 127I WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
482.6	PLEISTOCENE		UNCONSOLIDATED	27.0	0.0
455.6	CARBONDALE		LIMESTONE	2.7	27.0
452.9	CARBONDALE		SHALE	1.0	29.7
451.9	CARBONDALE		COAL	0.1	30.7
451.9	CARBONDALE		LIMESTONE & SHALE	8.4	30.7
443.4	CARBONDALE	BRERETON	LIMESTONE	4.8	39.2
438.6	CARBONDALE		SHALE	1.3	44.0
437.3	CARBONDALE	HERRIN	COAL	6.2	45.3

MAPID: 15700742000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 36 QUARTERS/FOOTAGES: 350' S line, 340' E line of SW NE

QUADRANGLE: PERCY LONGITUDE: -89.599115 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.051894 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 480.2 LOGGED (FT.): 51.3 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG 127K WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
480.2	PLEISTOCENE		UNCONSOLIDATED	23.0	0.0
457.2	PLEISTOCENE		BOULDER	0.6	23.0
456.6	PLEISTOCENE		CLAY	4.8	23.6
451.8	CARBONDALE		LIMESTONE	2.3	28.4
449.4	CARBONDALE		SHALE	4.2	30.8
445.3	CARBONDALE		LIMESTONE	0.7	34.9
444.6	CARBONDALE		SHALE	2.4	35.6
442.2	CARBONDALE	BRERETON	LIMESTONE	4.4	38.0
437.8	CARBONDALE	ANNA	BLACK SHALE	2.7	42.4
435.1	CARBONDALE	HERRIN	COAL	6.2	45.1

MAPID: 15700743000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 36 QUARTERS/FOOTAGES: 990' S line, 1010' E line of NE

QUADRANGLE: PERCY LONGITUDE: -89.596771 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.053635 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 481.6 LOGGED (FT.): 54.3 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG 128A WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
481.6	PLEISTOCENE		UNCONSOLIDATED	22.0	0.0
459.6	CARBONDALE		LIMESTONE	5.0	22.0
454.6	CARBONDALE		SHALE	3.0	27.0
451.6	CARBONDALE		LIMESTONE	2.7	30.0
448.9	CARBONDALE		SHALE	7.0	32.7
441.9	CARBONDALE	BRERETON	LIMESTONE	7.7	39.7
434.3	CARBONDALE	ANNA	BLACK SHALE	1.0	47.3
433.3	CARBONDALE	HERRIN	COAL	6.0	48.3

MAPID: 15700744000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 36 QUARTERS/FOOTAGES: 990' S line, 330' E line of NE

QUADRANGLE: PERCY LONGITUDE: -89.594397 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.053609 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 468.9 LOGGED (FT.): 44.3 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG 128C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
468.9	PLEISTOCENE		UNCONSOLIDATED	12.5	0.0
456.4	CARBONDALE		LIMESTONE	4.0	12.5
452.4	CARBONDALE		SHALE	4.0	16.5
448.4	CARBONDALE		LIMESTONE	3.0	20.5
445.4	CARBONDALE		SHALE	3.0	23.5
442.4	CARBONDALE		COAL	1.0	26.5
441.4	CARBONDALE		SHALE	3.5	27.5
437.9	CARBONDALE		LIMESTONE	2.7	31.0
435.2	CARBONDALE		SHALE	4.5	33.7
430.7	CARBONDALE	HERRIN	COAL	6.1	38.2

MAPID: 15700745000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 36 QUARTERS/FOOTAGES: 660' S line, 670' E line of NE

QUADRANGLE: PERCY LONGITUDE: -89.5956 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.052711 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 475.4 LOGGED (FT.): 47.7 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG 128F WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
475.4	PLEISTOCENE		UNCONSOLIDATED	25.8	0.0
449.6	CARBONDALE		LIMESTONE	4.2	25.8
445.4	CARBONDALE		SHALE	3.5	30.0
441.9	CARBONDALE		LIMESTONE	1.5	33.5
440.4	CARBONDALE		SHALE	3.3	35.0
437.1	CARBONDALE		LIMESTONE	1.1	38.3
436.0	CARBONDALE	BRERETON	LIMESTONE	3.0	39.4
433.0	CARBONDALE		SHALE	0.7	42.4
432.3	CARBONDALE	HERRIN	COAL	4.8	43.1

MAPID: 15700746000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 36 QUARTERS/FOOTAGES: 330' S line, 1000' E line of NE

QUADRANGLE: PERCY LONGITUDE: -89.596765 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.051813 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 474.2 LOGGED (FT.): 50.5 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG 128I WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
474.2	PLEISTOCENE		UNCONSOLIDATED	15.0	0.0
459.2	PLEISTOCENE		GRAVEL	10.0	15.0
449.2	PLEISTOCENE		UNCONSOLIDATED	2.3	25.0
446.9	CARBONDALE		LIMESTONE	2.0	27.3
444.9	CARBONDALE		SHALE	3.2	29.3
441.7	CARBONDALE		COAL	0.3	32.5
441.4	CARBONDALE		SHALE	4.2	32.8
437.2	CARBONDALE	BRERETON	LIMESTONE	4.5	37.0
432.7	CARBONDALE		SHALE	2.8	41.5
429.9	CARBONDALE	ANNA	BLACK SHALE	0.2	44.3
429.7	CARBONDALE	HERRIN	COAL	6.0	44.5

MAPID: 15700747000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 36 QUARTERS/FOOTAGES: 330' S line, 340' E line of NE

QUADRANGLE: PERCY LONGITUDE: -89.594461 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.051787 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 459.3 LOGGED (FT.): 39.3 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG 128K WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
459.3	PLEISTOCENE		UNCONSOLIDATED	18.6	0.0
440.7	CARBONDALE		LIMESTONE	0.3	18.6
440.5	CARBONDALE		SHALE	7.8	18.8
432.7	CARBONDALE	BRERETON	LIMESTONE	5.2	26.6
427.5	CARBONDALE		SHALE	1.0	31.8
426.5	CARBONDALE	HERRIN	COAL	6.5	32.8

MAPID: 15700753000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 36 QUARTERS/FOOTAGES: 1060' S line, 990' E line of NW SW

QUADRANGLE: PERCY LONGITUDE: -89.610721 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.050356 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 453.7 LOGGED (FT.): 41.4 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. 110A WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
453.7	PLEISTOCENE		UNCONSOLIDATED	30.7	0.0
423.0	CARBONDALE		LIMESTONE	1.5	30.7
421.5	CARBONDALE		SANDSTONE	1.0	32.2
420.5	CARBONDALE	ANNA	BLACK SHALE	1.8	33.2
418.8	CARBONDALE	HERRIN	COAL	6.5	34.9

MAPID: 15700756000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 36 QUARTERS/FOOTAGES: 970' S line, 340' E line of NW SW

QUADRANGLE: PERCY LONGITUDE: -89.608455 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.050082 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 464.4 LOGGED (FT.): 63.6 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG 110C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
464.4	PLEISTOCENE		UNCONSOLIDATED	16.0	0.0
448.4	PLEISTOCENE		GRAVEL	3.0	16.0
445.4	PLEISTOCENE		SAND	20.0	19.0
425.4	PLEISTOCENE		CLAY	5.5	39.0 BLUE
419.9	PLEISTOCENE		SAND & GRAVEL	3.5	44.5
416.4	CARBONDALE		LIMESTONE	3.4	48.0
413.0	CARBONDALE		CLAYSTONE	2.1	51.4
410.9	CARBONDALE		LIMESTONE	3.3	53.5
407.6	CARBONDALE		CLAYSTONE	0.9	56.8
406.6	CARBONDALE	ST. DAVID	LIMESTONE	0.9	57.8
405.7	CARBONDALE		SHALE	1.2	58.7
404.6	CARBONDALE	SPRINGFIELD	COAL	3.8	59.8

MAPID: 15700761000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 36 QUARTERS/FOOTAGES: 660' S line, 660' E line of NW SW

QUADRANGLE: PERCY LONGITUDE: -89.609585

GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.049239

DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 447.1 LOGGED (FT.): 59.0

LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO. 110F

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
447.1	PLEISTOCENE		UNCONSOLIDATED	49.6	0.0	
397.5	CARBONDALE		LIMESTONE	2.0	49.6	
395.5	CARBONDALE		SHALE	1.3	51.6	
394.3	CARBONDALE	ST. DAVID	LIMESTONE	0.9	52.8	
393.3	CARBONDALE		SHALE	2.3	53.8	
391.1	CARBONDALE	SPRINGFIELD	COAL	3.0	56.0	

MAPID: 15700762000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 36 QUARTERS/FOOTAGES: 340' S line, 1000' E line of NW SW

QUADRANGLE: PERCY LONGITUDE: -89.610784

GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.048371

DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 440.8 LOGGED (FT.): 51.8

LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. 110I

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
440.8	PLEISTOCENE		UNCONSOLIDATED	21.5	0.0	
419.3	PLEISTOCENE		CLAY	13.7	21.5	HARD
405.6	PLEISTOCENE		SAND & GRAVEL	3.5	35.2	
402.1	CARBONDALE		LIMESTONE	3.7	38.7	
398.5	CARBONDALE		SHALE	4.1	42.3	
394.4	CARBONDALE	ANNA	BLACK SHALE	0.8	46.4	
393.5	CARBONDALE	HERRIN	COAL	4.5	47.3	

MAPID: 15700763000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 36 QUARTERS/FOOTAGES: 340' S line, 340' E line of NW SW

QUADRANGLE: PERCY LONGITUDE: -89.60848 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.048346 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 445.6 LOGGED (FT.): 60.4 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. 110K WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
445.6	PLEISTOCENE		UNCONSOLIDATED	35.8	0.0
409.8	PLEISTOCENE		BOULDER	0.9	35.8
408.8	PLEISTOCENE		CLAY	7.3	36.8
401.6	CARBONDALE		LIMESTONE	4.2	44.0
397.4	CARBONDALE		SHALE	1.7	48.2
395.8	CARBONDALE		SHALE	0.5	49.8
395.3	CARBONDALE	ST. DAVID	LIMESTONE	5.3	50.3
389.9	CARBONDALE		SHALE	2.8	55.7
387.2	CARBONDALE	SPRINGFIELD	COAL	2.0	58.4

MAPID: 15700766000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 36 QUARTERS/FOOTAGES: 990' S line, 990' E line of NE SW

QUADRANGLE: PERCY LONGITUDE: -89.60607 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.050112 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 464.7 LOGGED (FT.): 54.9 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO. 111A WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
464.7	PLEISTOCENE		UNCONSOLIDATED	16.5	0.0
448.2	PLEISTOCENE		BOULDER	0.8	16.5
447.4	PLEISTOCENE		CLAY	10.7	17.3 GRAVELLY
436.7	CARBONDALE		SHALE	1.5	28.0
435.2	CARBONDALE		ROCK	5.0	29.5
430.2	CARBONDALE		SHALE	3.6	34.5
426.6	CARBONDALE		COAL	0.7	38.1
425.9	CARBONDALE		BLACK SHALE	0.6	38.8
425.4	CARBONDALE		SHALE	3.0	39.3
422.4	CARBONDALE		SHALE	1.2	42.3
421.2	CARBONDALE		BLACK SHALE	0.7	43.5
420.5	CARBONDALE		ROCK	4.8	44.2
415.8	CARBONDALE	HERRIN	COAL	6.0	48.9

MAPID: 15700769000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 36 QUARTERS/FOOTAGES: SW

QUADRANGLE: PERCY LONGITUDE: -89.607306 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.047392 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 471.1 LOGGED (FT.): 53.2 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. 111C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
471.1	PLEISTOCENE		UNCONSOLIDATED	26.9	0.0
444.2	PLEISTOCENE		UNCONSOLIDATED	16.8	26.9
427.4	CARBONDALE		ROCK	2.3	43.7
425.1	CARBONDALE		SHALE	1.1	46.0
424.0	CARBONDALE	HERRIN	COAL	6.1	47.1

MAPID: 15700774000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 36 QUARTERS/FOOTAGES: 650' S line, 650' E line of NE SW

QUADRANGLE: PERCY LONGITUDE: -89.604896 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.049161 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 463.5 LOGGED (FT.): 65.7 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO. 111F WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
463.5	PLEISTOCENE		UNCONSOLIDATED	19.6	0.0
443.9	PLEISTOCENE		SAND & GRAVEL	10.0	19.6
433.9	PLEISTOCENE		UNCONSOLIDATED	17.0	29.6
416.9	PLEISTOCENE		GRAVEL	4.0	46.6
412.9	CARBONDALE		LIMESTONE	2.5	50.6
410.4	CARBONDALE		CLAYSTONE	1.3	53.1
409.1	CARBONDALE		SANDSTONE	0.3	54.4
408.7	CARBONDALE	BRERETON	LIMESTONE	5.3	54.8
403.5	CARBONDALE		SHALE	1.5	60.0
402.0	CARBONDALE	HERRIN	COAL	4.2	61.5

MAPID: 15700776000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 36 QUARTERS/FOOTAGES: 320' S line, 970' E line of NE SW

QUADRANGLE: PERCY LONGITUDE: -89.606026 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.048263 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 458.5 LOGGED (FT.): 60.3 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO. 1111 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
458.5	PLEISTOCENE		UNCONSOLIDATED	50.8	0.0
407.7	CARBONDALE		LIMESTONE	4.4	50.8
403.2	CARBONDALE		SHALE	1.6	55.3
401.7	CARBONDALE	SPRINGFIELD	COAL	3.5	56.8

MAPID: 15700777000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 36 QUARTERS/FOOTAGES: 340' S line, 340' E line of NE SW

QUADRANGLE: PERCY LONGITUDE: -89.603826 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.048292 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 456.2 LOGGED (FT.): 68.7 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO. 111K WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
456.2	PLEISTOCENE		UNCONSOLIDATED	33.0	0.0
423.2	CARBONDALE		SHALE	3.5	33.0
419.7	CARBONDALE		CLAYSTONE	8.0	36.5
411.7	CARBONDALE		BLACK SHALE	1.0	44.5 WITH HERRIN COAL
410.7	CARBONDALE		UNDERCLAY	3.0	45.5
407.7	CARBONDALE		ROCK	0.5	48.5
407.2	CARBONDALE		SHALE	5.2	49.0
402.0	CARBONDALE		SANDSTONE	2.0	54.2
400.0	CARBONDALE		LIMESTONE	0.7	56.2
399.4	CARBONDALE		SANDSTONE	4.0	56.8
395.4	CARBONDALE		LIMESTONE	0.7	60.8
394.7	CARBONDALE		CLAYSTONE	4.2	61.5
390.5	CARBONDALE	SPRINGFIELD	COAL	3.0	65.7

MAPID: 1570078000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 36 QUARTERS/FOOTAGES: 980' S line, 1000' E line of NW SE

QUADRANGLE: PERCY LONGITUDE: -89.601451 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.050034 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 464.7 LOGGED (FT.): 37.9 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG 112A WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
464.7	PLEISTOCENE		UNCONSOLIDATED	15.0	0.0
449.7	PLEISTOCENE		SAND & GRAVEL	16.0	15.0
433.7	CARBONDALE		SHALE	0.3	31.0
433.4	CARBONDALE	BRERETON	LIMESTONE	1.7	31.3
431.8	CARBONDALE	HERRIN	COAL	5.0	32.9

MAPID: 15700786000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 36 QUARTERS/FOOTAGES: 660' S line, 680' E line of NW SE

QUADRANGLE: PERCY LONGITUDE: -89.600347 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.049137 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 457.4 LOGGED (FT.): 52.2 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG 112F WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
457.4	PLEISTOCENE		UNCONSOLIDATED	15.0	0.0
442.4	PLEISTOCENE		SAND & GRAVEL	15.0	15.0
427.4	PLEISTOCENE		CLAY	8.3	30.0
419.1	CARBONDALE		COAL	0.5	38.3
418.6	CARBONDALE		LIMESTONE	1.0	38.8
417.6	CARBONDALE		CLAYSTONE	1.3	39.8
416.2	CARBONDALE		LIMESTONE	4.0	41.2
412.2	CARBONDALE		CLAYSTONE	2.5	45.2 SANDY
409.7	CARBONDALE		SHALE	0.6	47.7
409.1	CARBONDALE	ST. DAVID	LIMESTONE	1.1	48.3
408.1	CARBONDALE	SPRINGFIELD	COAL	2.8	49.3

MAPID: 15700787000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 36 QUARTERS/FOOTAGES: 990' S line, 330' E line of NW SE

QUADRANGLE: PERCY LONGITUDE: -89.599112 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.050033 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 465.7 LOGGED (FT.): 41.6 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG 112C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
465.7	PLEISTOCENE		UNCONSOLIDATED	26.0	0.0	
439.7	CARBONDALE	BRERETON	LIMESTONE	5.9	26.0	
433.8	CARBONDALE		BLACK SHALE	4.2	31.9	
429.6	CARBONDALE	HERRIN	COAL	5.5	36.1	

MAPID: 15700794000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 36 QUARTERS/FOOTAGES:

QUADRANGLE: PERCY LONGITUDE: -89.602598 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.050966 DATE COLLECTED: 0 / 0 / 1927

SURFACE ELEVATION (FT.): 449.5 LOGGED (FT.): 52.7 LOG TYPE: Drillers Log

SOURCE: WILLIS COA & MNG. 112L WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
449.5	PLEISTOCENE		UNCONSOLIDATED	16.5	0.0	
433.0	PLEISTOCENE		SAND & GRAVEL	1.5	16.5	
431.5	PLEISTOCENE		CLAY	2.0	18.0	SANDY
429.5	PLEISTOCENE		SAND & GRAVEL	10.0	20.0	
419.5	CARBONDALE		COAL	0.1	30.0	
419.4	CARBONDALE		CLAYSTONE	3.2	30.1	BLUE
416.2	CARBONDALE	HERRIN	COAL	0.5	33.3	
415.7	CARBONDALE		UNDERCLAY	3.1	33.8	
412.7	CARBONDALE		ROCK	5.7	36.8	
407.0	CARBONDALE		SHALE	1.8	42.5	
405.2	CARBONDALE		ROCK	5.1	44.3	
400.1	CARBONDALE	SPRINGFIELD	COAL	3.3	49.4	

MAPID: 15700795000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 36 QUARTERS/FOOTAGES: 340' S line, 360' E line of NW SE

QUADRANGLE: PERCY LONGITUDE: -89.599243 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.048241 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 458.6 LOGGED (FT.): 54.5 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. 112K WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
458.6	PLEISTOCENE		UNCONSOLIDATED	20.0	0.0
438.6	PLEISTOCENE		SAND & GRAVEL	15.0	20.0
423.6	CARBONDALE		SHALE	7.0	35.0
416.6	CARBONDALE		LIMESTONE	1.6	42.0
415.0	CARBONDALE		SHALE	2.0	43.6
413.0	CARBONDALE		LIMESTONE	5.4	45.6
407.6	CARBONDALE	SPRINGFIELD	COAL	3.5	51.0

MAPID: 15700796000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 36 QUARTERS/FOOTAGES: 330' S line, 1010' E line of NW SE

QUADRANGLE: PERCY LONGITUDE: -89.601512 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.048239 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 455.6 LOGGED (FT.): 52.7 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. 112I WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
455.6	PLEISTOCENE		UNCONSOLIDATED	18.5	0.0
437.1	PLEISTOCENE		SAND & GRAVEL	8.7	18.5
428.4	CARBONDALE		SHALE	14.8	27.2
413.6	CARBONDALE		ROCK	2.1	42.0 SOFT
411.5	CARBONDALE		SHALE	1.4	44.1
410.1	CARBONDALE		LIMESTONE	0.6	45.5
409.5	CARBONDALE	SPRINGFIELD	COAL	2.0	46.1
407.5	CARBONDALE		CLAYSTONE	3.6	48.1
403.9	CARBONDALE		ROCK	1.0	51.7

MAPID: 15700797000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 5S 5W **SECTION:** 36 **QUARTERS/FOOTAGES:** 1000' S line, 1000' E line of NE SE
QUADRANGLE: PERCY **LONGITUDE:** -89.596794 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 38.050035 **DATE COLLECTED:** 0 / 0 / 1928
SURFACE ELEVATION (FT.): 459.1 **LOGGED (FT.):** 41.0 **LOG TYPE:** Drillers Log
SOURCE: WILLIS COAL & MNG 113A **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
459.1	PLEISTOCENE		UNCONSOLIDATED	33.8	0.0
425.3	CARBONDALE	ANNA	BLACK SHALE	1.0	33.8
424.3	CARBONDALE	HERRIN	COAL	6.3	34.8

MAPID: 15700798000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 5S 5W **SECTION:** 36 **QUARTERS/FOOTAGES:** 1050' S line, 300' E line of NE SE
QUADRANGLE: PERCY **LONGITUDE:** -89.594351 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 38.050147 **DATE COLLECTED:** 0 / 0 / 1928
SURFACE ELEVATION (FT.): 453.6 **LOGGED (FT.):** 36.3 **LOG TYPE:** Drillers Log
SOURCE: WILLIS COAL & MMNG. CO 113C **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
453.6	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0
443.6	PLEISTOCENE		SAND & GRAVEL	13.9	10.0
429.7	PLEISTOCENE		UNCONSOLIDATED	0.8	23.9
428.8	CARBONDALE	BRERETON	LIMESTONE	2.3	24.8
426.5	CARBONDALE		SHALE	2.5	27.1
424.0	CARBONDALE	HERRIN	COAL	6.7	29.6

MAPID: 15700799000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 5S 5W **SECTION:** 36 **QUARTERS/FOOTAGES:** 670' S line, 670' E line of NE SE
QUADRANGLE: PERCY **LONGITUDE:** -89.595658 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 38.049111 **DATE COLLECTED:** 0 / 0 / 1928
SURFACE ELEVATION (FT.): 452.5 **LOGGED (FT.):** 36.6 **LOG TYPE:** Drillers Log
SOURCE: WILLIS COAL & MNG. CO 115F **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
452.5	PLEISTOCENE		UNCONSOLIDATED	28.0	0.0
424.5	CARBONDALE	BRERETON	LIMESTONE	2.1	28.0
422.4	CARBONDALE	HERRIN	COAL	6.5	30.1

MAPID: 1570080000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 36 QUARTERS/FOOTAGES: 340' N line, 990' E line of NE SE

QUADRANGLE: PERCY LONGITUDE: -89.596763 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.049963 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 449.8 LOGGED (FT.): 32.4 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO. 113I WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
449.8	PLEISTOCENE		UNCONSOLIDATED	18.0	0.0	
431.8	PLEISTOCENE		BOULDER	1.9	18.0	
429.9	PLEISTOCENE		GRAVEL	1.2	19.9	
428.7	CARBONDALE		BLACK SHALE	5.3	21.1	
423.5	CARBONDALE	HERRIN	COAL	6.1	26.3	

MAPID: 15700801000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 36 QUARTERS/FOOTAGES: 340' S line, 370' E line of NE SE

QUADRANGLE: PERCY LONGITUDE: -89.594624 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.04819 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 463.2 LOGGED (FT.): 47.2 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO. 113K WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
463.2	PLEISTOCENE		UNCONSOLIDATED	22.0	0.0	
441.2	CARBONDALE		BLACK SHALE	4.6	22.0	
436.6	CARBONDALE		LIMESTONE	0.6	26.6	
436.0	CARBONDALE		BLACK SHALE	6.2	27.2	
429.9	CARBONDALE		ROCK	6.8	33.3	SOFT
423.1	CARBONDALE	ANNA	BLACK SHALE	1.1	40.1	
422.0	CARBONDALE	HERRIN	COAL	6.0	41.2	

MAPID: 15700803000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 36 QUARTERS/FOOTAGES: 1010' S line, 1000' E line of SW SW

QUADRANGLE: PERCY LONGITUDE: -89.610809 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.046596 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 442.8 LOGGED (FT.): 59.3 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG 96A WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
442.8	PLEISTOCENE		UNCONSOLIDATED	25.0	0.0
417.8	CARBONDALE		SHALE	13.3	25.0
404.5	CARBONDALE		SANDSTONE	4.8	38.3
399.6	CARBONDALE		LIMESTONE	3.2	43.2
396.5	CARBONDALE		SHALE	2.3	46.3
394.1	CARBONDALE		LIMESTONE	2.3	48.7
391.8	CARBONDALE		SHALE	2.2	51.0
389.6	CARBONDALE	ST. DAVID	LIMESTONE	1.3	53.2
388.3	CARBONDALE	TURNER MINE	SHALE	1.0	54.5
387.3	CARBONDALE	SPRINGFIELD	COAL	3.8	55.5

MAPID: 15700804000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 36 QUARTERS/FOOTAGES: 1000' S line, 340' E line of SW SW

QUADRANGLE: PERCY LONGITUDE: -89.608505 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.046543 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 449.7 LOGGED (FT.): 39.5 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO. 96C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
449.7	PLEISTOCENE		UNCONSOLIDATED	26.0	0.0
423.7	PLEISTOCENE		UNCLASSIFIED	0.2	26.0 COAL
423.5	PLEISTOCENE		UNCONSOLIDATED	3.8	26.2
419.7	CARBONDALE		ROCK	7.0	30.0
412.7	CARBONDALE		CLOD	0.5	37.0
412.2	CARBONDALE	HERRIN	COAL	2.0	37.5

MAPID: 15700807000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 5S 5W **SECTION:** 36 **QUARTERS/FOOTAGES:** 670' S line, 670' E line of SW SW
QUADRANGLE: PERCY **LONGITUDE:** -89.609673 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 38.045645 **DATE COLLECTED:** 0 / 0 / 1928
SURFACE ELEVATION (FT.): 448.9 **LOGGED (FT.):** 63.2 **LOG TYPE:** Drillers Log
SOURCE: WILLIS COAL & MNG 96F **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
448.9	PLEISTOCENE		UNCONSOLIDATED	60.0	0.0	
388.9			COAL	0.2	60.0	
388.7			SHALE	3.0	60.2	GRAVELLY

MAPID: 15700810000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 5S 5W **SECTION:** 36 **QUARTERS/FOOTAGES:** 350' S line, 1000' E line of SW SW
QUADRANGLE: PERCY **LONGITUDE:** -89.610838 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 38.044774 **DATE COLLECTED:** 0 / 0 / 1928
SURFACE ELEVATION (FT.): 450.4 **LOGGED (FT.):** 57.0 **LOG TYPE:** Drillers Log
SOURCE: WILLIS COAL & MNG. CO 96I **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
450.4	PLEISTOCENE		UNCONSOLIDATED	16.8	0.0	
433.6	PLEISTOCENE		BOULDER	1.0	16.8	
432.6	PLEISTOCENE		SAND & GRAVEL	39.3	17.8	

MAPID: 15700811000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 5S 5W **SECTION:** 36 **QUARTERS/FOOTAGES:** 340' S line, 360' E line of SW SW
QUADRANGLE: PERCY **LONGITUDE:** -89.608604 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 38.044721 **DATE COLLECTED:** 0 / 0 / 1928
SURFACE ELEVATION (FT.): 451.3 **LOGGED (FT.):** 33.7 **LOG TYPE:** Drillers Log
SOURCE: WILLIS COAL & MNG 96K **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
451.3	PLEISTOCENE		UNCONSOLIDATED	29.2	0.0	
422.1	CARBONDALE		SHALE	0.5	29.2	
421.6	CARBONDALE	HERRIN	COAL	4.0	29.7	

MAPID: 15700819000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 36 QUARTERS/FOOTAGES: SW

QUADRANGLE: PERCY LONGITUDE: -89.607306 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.047392 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 454.4 LOGGED (FT.): 39.9 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG 97A WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
454.4	PLEISTOCENE		UNCONSOLIDATED	15.8	0.0
438.6	PLEISTOCENE		SAND & GRAVEL	6.0	15.8
432.6	CARBONDALE		SHALE	4.7	21.8
427.9	CARBONDALE		LIMESTONE	1.0	26.5
426.9	CARBONDALE		CLAYSTONE	0.3	27.5
426.6	CARBONDALE		BLACK SHALE	4.5	27.8
422.1	CARBONDALE		SHALE	1.7	32.3
420.5	CARBONDALE	HERRIN	COAL	6.0	33.9

MAPID: 15700824000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 36 QUARTERS/FOOTAGES: 670' S line, 650' E line of SE SW

QUADRANGLE: PERCY LONGITUDE: -89.60495 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.045591 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 440.9 LOGGED (FT.): 31.0 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG 97F WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
440.9	PLEISTOCENE		UNCONSOLIDATED	17.0	0.0
423.9	CARBONDALE	BRERETON	LIMESTONE	3.8	17.0
420.1	CARBONDALE		SHALE	4.2	20.8
416.0	CARBONDALE	HERRIN	COAL	6.1	24.9

MAPID: 15700825000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 36 QUARTERS/FOOTAGES: 340' S line, 1000' E line of SE SW

QUADRANGLE: PERCY LONGITUDE: -89.606185

GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.044696

DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 440.2 LOGGED (FT.): 30.9

LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG CO. 971

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
440.2	PLEISTOCENE		UNCONSOLIDATED	16.0	0.0	
424.2	PLEISTOCENE		UNCLASSIFIED	0.2	16.0	COAL
424.0	PLEISTOCENE		UNCONSOLIDATED	1.0	16.2	
423.0	CARBONDALE		COAL	1.1	17.2	
421.9	CARBONDALE	BRERETON	LIMESTONE	3.4	18.3	
418.5	CARBONDALE	ANNA	BLACK SHALE	3.3	21.7	WITH SHALE
415.3	CARBONDALE	HERRIN	COAL	6.0	24.9	

MAPID: 15700832000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 36 QUARTERS/FOOTAGES: 1000' S line, 330' E line of SE SW

QUADRANGLE: PERCY LONGITUDE: -89.60382

GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.04649

DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 443.2 LOGGED (FT.): 25.2

LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG 97C

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
443.2	PLEISTOCENE		UNCONSOLIDATED	16.0	0.0	
427.2	CARBONDALE	ANNA	BLACK SHALE	3.4	16.0	
423.8	CARBONDALE	HERRIN	COAL	5.8	19.4	

MAPID: 15700833000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 36 QUARTERS/FOOTAGES: 360' S line, 340' E line of SE SW

QUADRANGLE: PERCY LONGITUDE: -89.603881 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.044723 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 447.3 LOGGED (FT.): 30.3 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. 97K WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
447.3	PLEISTOCENE		UNCONSOLIDATED	10.3	0.0
437.0	CARBONDALE		BLACK SHALE	0.5	10.3
436.5	CARBONDALE		SHALE	3.0	10.8
433.5	CARBONDALE		SHALE	0.6	13.8
433.0	CARBONDALE		LIMESTONE	6.0	14.3
427.0	CARBONDALE		SHALE	1.0	20.3
426.0	CARBONDALE	ANNA	BLACK SHALE	3.4	21.3
422.5	CARBONDALE	HERRIN	COAL	5.5	24.8

MAPID: 15700842000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 36 QUARTERS/FOOTAGES: 980' S line, 440' E line of SW SE

QUADRANGLE: PERCY LONGITUDE: -89.599551 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.046386 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 460.4 LOGGED (FT.): 39.8 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. 98C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
460.4	PLEISTOCENE		UNCONSOLIDATED	20.5	0.0
439.9	PLEISTOCENE		GRAVEL	7.0	20.5
432.9	CARBONDALE		LIMESTONE	1.7	27.5
431.2	CARBONDALE		SHALE	4.5	29.2
426.7	CARBONDALE	HERRIN	COAL	6.2	33.7

MAPID: 15700843000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 36 QUARTERS/FOOTAGES: 660' S line, 640' E line of SW SE

QUADRANGLE: PERCY LONGITUDE: -89.600265 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.04551 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 456.6 LOGGED (FT.): 33.9 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. 98F WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
456.6	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0	
446.6	PLEISTOCENE		BOULDER	1.7	10.0	
444.9	CARBONDALE		SHALE	3.8	11.7	
441.1	CARBONDALE		BLACK SHALE & COAL	0.5	15.5	
440.6	CARBONDALE		UNDERCLAY	2.4	16.0	
438.2	CARBONDALE		LIMESTONE	2.7	18.4	
435.5	CARBONDALE		LIMESTONE	1.6	21.1	
433.9	CARBONDALE		SHALE	5.2	22.7	
428.8	CARBONDALE	HERRIN	COAL	6.1	27.8	

MAPID: 15700845000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 36 QUARTERS/FOOTAGES: 320' S line, 990' E line of SW SE

QUADRANGLE: PERCY LONGITUDE: -89.6015 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.044587 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 467.7 LOGGED (FT.): 45.9 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. 98I WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
467.7	PLEISTOCENE		UNCONSOLIDATED	19.5	0.0	
448.2	CARBONDALE		SHALE	0.4	19.5	BLACK
447.8	CARBONDALE		LIMESTONE	1.3	19.9	
446.4	CARBONDALE		UNDERCLAY	3.8	21.3	
442.6	CARBONDALE		SHALE	9.0	25.1	BLUE
433.6	CARBONDALE	BRERETON	LIMESTONE	5.0	34.1	
428.6	CARBONDALE		SHALE	0.9	39.1	
427.7	CARBONDALE	HERRIN	COAL	5.9	40.0	

MAPID: 15700846000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 36 QUARTERS/FOOTAGES: 290' S line, 340' E line of SW SE

QUADRANGLE: PERCY LONGITUDE: -89.599234 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.044476 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 471.9 LOGGED (FT.): 51.2 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. 98K WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
471.9	PLEISTOCENE		UNCONSOLIDATED	19.0	0.0
452.9	PLEISTOCENE		BOULDER	2.8	19.0
450.1	PLEISTOCENE		GRAVEL	1.4	21.8
448.7	PLEISTOCENE		CLAY	0.5	23.2
448.2	CARBONDALE		SHALE	3.2	23.7
445.1	CARBONDALE		LIMESTONE	2.3	26.8
442.7	CARBONDALE		SHALE	4.3	29.2
438.4	CARBONDALE		BLACK SHALE	4.0	33.5
434.4	CARBONDALE	BRERETON	LIMESTONE	6.1	37.5
428.3	CARBONDALE	ANNA	BLACK SHALE	1.8	43.6
426.6	CARBONDALE	HERRIN	COAL	5.8	45.3

MAPID: 15700848000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 36 QUARTERS/FOOTAGES: 1010' S line, 990' E line of SE SE

QUADRANGLE: PERCY LONGITUDE: -89.596817 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.046438 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 465.4 LOGGED (FT.): 47.9 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. 99A WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
465.4	PLEISTOCENE		UNCONSOLIDATED	21.0	0.0
444.4	CARBONDALE		SHALE	3.5	21.0
440.9	CARBONDALE		LIMESTONE	0.5	24.5
440.4	CARBONDALE		SHALE	5.0	25.0
435.4	CARBONDALE		ROCK	2.5	30.0 GRAVEL
432.9	CARBONDALE	BRERETON	LIMESTONE	8.2	32.5
424.7	CARBONDALE		SHALE	1.3	40.7
423.5	CARBONDALE	HERRIN	COAL	6.0	41.9

MAPID: 15700849000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 36 QUARTERS/FOOTAGES: 990' S line, 350' E line of SE SE

QUADRANGLE: PERCY LONGITUDE: -89.594587 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.046357 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 463.5 LOGGED (FT.): 48.8 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG 99C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
463.5	PLEISTOCENE		UNCONSOLIDATED	14.7	0.0
448.8	CARBONDALE		LIMESTONE	5.1	14.7
443.7	CARBONDALE		SHALE	4.0	19.8
439.7	CARBONDALE		LIMESTONE	2.8	23.8
437.0	CARBONDALE		SHALE	4.5	26.5
432.5	CARBONDALE		BLACK SHALE	0.3	31.0
432.2	CARBONDALE		LIMESTONE	0.3	31.3
432.0	CARBONDALE		SHALE	6.6	31.5
425.4	CARBONDALE	BRERETON	LIMESTONE	4.8	38.1
420.6	CARBONDALE	HERRIN	COAL	5.8	42.9

MAPID: 15700850000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 36 QUARTERS/FOOTAGES: 670' S line, 660' E line of SE SE

QUADRANGLE: PERCY LONGITUDE: -89.595682 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.045486 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 469.4 LOGGED (FT.): 54.8 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO. 99F WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
469.4	PLEISTOCENE		UNCONSOLIDATED	22.0	0.0
447.4	CARBONDALE		LIMESTONE	4.8	22.0
442.6	CARBONDALE		SHALE	3.1	26.8
439.5	CARBONDALE		LIMESTONE	2.5	29.9
437.0	CARBONDALE		SHALE	4.2	32.4
432.8	CARBONDALE		COAL	0.3	36.6
432.6	CARBONDALE		LIMESTONE	0.3	36.8
432.2	CARBONDALE		SHALE	2.1	37.2
430.1	CARBONDALE	BRERETON	LIMESTONE	6.7	39.3
423.5	CARBONDALE	ANNA	BLACK SHALE	3.0	45.9
420.5	CARBONDALE	HERRIN	COAL	5.9	48.9

MAPID: 15700851000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 36 QUARTERS/FOOTAGES: 350' S line, 990' E line of SE SE

QUADRANGLE: PERCY LONGITUDE: -89.596846 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.044616 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 468.2 LOGGED (FT.): 54.6 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. 99I WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
468.2	PLEISTOCENE		UNCONSOLIDATED	20.7	0.0
447.5	CARBONDALE		LIMESTONE	4.9	20.7
442.6	CARBONDALE		SHALE	3.1	25.6
439.5	CARBONDALE		ROCK	2.8	28.7
436.7	CARBONDALE		BLACK SHALE	3.5	31.5
433.2	CARBONDALE		LIMESTONE	0.8	35.0
432.4	CARBONDALE		SHALE	2.7	35.8
429.8	CARBONDALE	BRERETON	LIMESTONE	6.7	38.4
423.1	CARBONDALE	ANNA	BLACK SHALE	3.5	45.1
419.6	CARBONDALE	HERRIN	COAL	6.0	48.6

MAPID: 15701458000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 36 QUARTERS/FOOTAGES: 1000' S line, 1000' E line of SW SW

QUADRANGLE: PERCY LONGITUDE: -89.610809 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.046569 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 452.3 LOGGED (FT.): 29.4 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. 96A WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
452.3	PLEISTOCENE		UNCONSOLIDATED	14.7	0.0
437.6	PLEISTOCENE		CLAY & SHALE	3.0	14.7
434.6	PLEISTOCENE		BOULDER	3.0	17.7
431.6	CARBONDALE	ANNA	BLACK SHALE	2.0	20.7
429.6	CARBONDALE	HERRIN	COAL	6.8	22.7

MAPID: 15701459000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 36 QUARTERS/FOOTAGES: 330' S line, 320' E line of NE NE

QUADRANGLE: PERCY LONGITUDE: -89.594333 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.055412 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 482.1 LOGGED (FT.): 52.9 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO 143K WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
482.1	PLEISTOCENE		UNCONSOLIDATED	24.3	0.0	
457.8	CARBONDALE		LIMESTONE	3.8	24.3	
453.9	CARBONDALE		SHALE	3.5	28.2	
450.4	CARBONDALE		LIMESTONE	1.1	31.7	
449.3	CARBONDALE		SHALE	2.1	32.8	
447.3	CARBONDALE		LIMESTONE	0.7	34.8	
446.6	CARBONDALE		SHALE	0.8	35.5	
445.8	CARBONDALE	BRERETON	LIMESTONE	8.0	36.3	STOPPED; LOST BIT IN HOLE
437.8	CARBONDALE	ANNA	BLACK SHALE	2.7	44.3	
435.2	CARBONDALE	HERRIN	COAL	6.0	46.9	

MAPID: 15701460000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 5W SECTION: 36 QUARTERS/FOOTAGES: 650' S line, 680' E line of NW NE

QUADRANGLE: PERCY LONGITUDE: -89.600235 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.056359 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 486.8 LOGGED (FT.): 57.2 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO 142F WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
486.8	PLEISTOCENE		UNCONSOLIDATED	26.0	0.0	
460.8	CARBONDALE		LIMESTONE	3.8	26.0	
457.0	CARBONDALE		SHALE	3.5	29.8	
453.5	CARBONDALE		LIMESTONE	2.6	33.3	
450.9	CARBONDALE		BLACK SHALE	4.4	35.9	
446.5	CARBONDALE		LIMESTONE	0.6	40.3	
445.9	CARBONDALE		BLACK SHALE	1.6	40.9	
444.3	CARBONDALE	BRERETON	LIMESTONE	6.1	42.5	
438.2	CARBONDALE	ANNA	BLACK SHALE	3.1	48.6	
435.1	CARBONDALE	HERRIN	COAL	5.5	51.7	

MAPID: 15700020000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 1 QUARTERS/FOOTAGES: 3960' N line, 1320' E line

QUADRANGLE: STEELEVILLE

LONGITUDE: -89.708277

GEOLOGIST:

CONFIDENTIAL: N

LATITUDE: 38.121441

DATE COLLECTED:

SURFACE ELEVATION (FT.): 540.0

LOGGED (FT.): 113.0

LOG TYPE: Drillers Log

SOURCE:

WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
486.0	CARBONDALE	LAWSON	SANDSTONE	4.0	54.0
482.0	CARBONDALE	LAWSON	SHALE	30.0	58.0
452.0	CARBONDALE	CONANT	CALCAREOUS SHALE	18.0	88.0
434.0	CARBONDALE	BRERETON	LIMESTONE	1.0	106.0
433.0	CARBONDALE	HERRIN	COAL	6.0	107.0

MAPID: 15700021000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 1 QUARTERS/FOOTAGES: SE NW SW SW

QUADRANGLE: STEELEVILLE

LONGITUDE: -89.720449

GEOLOGIST: HOKE

CONFIDENTIAL: N

LATITUDE: 38.120347

DATE COLLECTED:

SURFACE ELEVATION (FT.): 520.4

LOGGED (FT.): 388.0

LOG TYPE: Drillers Log

SOURCE: SPARTA GAS WELL 2

WELL TYPE: Coal Test

COMMENT: TOTAL DEPTH 1036

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
520.4	PLEISTOCENE		SOIL	57.0	0.0
463.4	CARBONDALE		LIMESTONE	4.0	57.0
459.4	CARBONDALE		COAL	3.0	61.0
456.4	CARBONDALE		BLACK SHALE	25.0	64.0
431.4	CARBONDALE	HERRIN	LIMESTONE	12.0	89.0
419.4	CARBONDALE		COAL	6.0	101.0
413.4	CARBONDALE		UNDERCLAY	2.0	107.0
411.4	CARBONDALE		SHALE	20.0	109.0
391.4	CARBONDALE		LIMESTONE	12.0	129.0
379.4	CARBONDALE	SPRINGFIELD	BLACK SHALE	8.0	141.0
371.4	CARBONDALE		COAL	4.0	149.0
367.4	CARBONDALE		SHALE	15.0	153.0
352.4	CARBONDALE		GRAY SANDSTONE	200.0	168.0
152.4	CARBONDALE		SHALE	20.0	368.0

MAPID: 15700022000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 1 QUARTERS/FOOTAGES: NE SE

QUADRANGLE: STEELEVILLE LONGITUDE: -89.705986 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.123264 DATE COLLECTED:

SURFACE ELEVATION (FT.): 540.8 LOGGED (FT.): 260.0 LOG TYPE: Drillers Log

SOURCE: SPARTA GAS WELL 8 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
540.8	PLEISTOCENE		SOIL	36.0	0.0	
504.8	PLEISTOCENE		CLAY & GRAVEL	34.0	36.0	
470.8	CARBONDALE		LIMESTONE	14.0	70.0	
456.8	CARBONDALE		BLACK SHALE	35.0	84.0	SOFT; BLK
421.8	CARBONDALE	HERRIN	COAL	5.0	119.0	
416.8	CARBONDALE		UNDERCLAY	6.0	124.0	SOFT AND DARK
410.8	CARBONDALE		LIMESTONE	8.0	130.0	
402.8	CARBONDALE		BLACK SHALE	22.0	138.0	
380.8	CARBONDALE		LIMESTONE	10.0	160.0	
370.8	CARBONDALE		BLACK SHALE	14.0	170.0	
356.8	CARBONDALE	SPRINGFIELD	COAL	4.0	184.0	
352.8	CARBONDALE		BLACK SHALE	38.0	188.0	
314.8	CARBONDALE		COAL	5.0	226.0	
309.8	CARBONDALE		SHALE/UNDERCLAY	29.0	231.0	

MAPID: 15725395000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 2 QUARTERS/FOOTAGES: 175' S line, 100' W line of SE SW SE SE

QUADRANGLE: STEELEVILLE LONGITUDE: -89.725357 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.11867 DATE COLLECTED: 1 / 6 / 1984

SURFACE ELEVATION (FT.): 470.0 LOGGED (FT.): 37.0 LOG TYPE: Drillers Log

SOURCE: CLARENCE KOHNEN WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
470.0	PLEISTOCENE		SOIL	1.0	0.0	BROWN
469.0	PLEISTOCENE		CLAY	11.0	1.0	YELLOW
458.0	PLEISTOCENE		CLAY	14.0	12.0	SANDY; YELLOW
444.0	CARBONDALE	HERRIN	COAL	4.0	26.0	TOP ERODED
440.0	CARBONDALE		SHALE	7.0	30.0	

MAPID: 15790222000C VERSION: 1

PROJECT: AVAIL

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 8 QUARTERS/FOOTAGES: 1' S line, 1' W line

QUADRANGLE: WALSH LONGITUDE: -89.797305 GEOLOGIST: LAWSON

CONFIDENTIAL: N LATITUDE: 38.104361 DATE COLLECTED: 11 / 29 / 1926

SURFACE ELEVATION (FT.): 465.6 LOGGED (FT.): 43.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 1209 WELL TYPE: Coal Test

COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
465.6	PLEISTOCENE		UNCONSOLIDATED	13.0	0.0	
452.6			ROCK	30.0	13.0	

MAPID: 15726017000C VERSION: 1

PROJECT: LUMP

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 9 QUARTERS/FOOTAGES: 200' S line, 1300' E line of SE

QUADRANGLE: WALSH LONGITUDE: -89.764293 GEOLOGIST: J. MCBETH

CONFIDENTIAL: N LATITUDE: 38.104524 DATE COLLECTED: 4 / 8 / 1976

SURFACE ELEVATION (FT.): 540.0 LOGGED (FT.): 210.0 LOG TYPE: Drillers Log

SOURCE: CONSOLIDATION COAL 1-C WELL TYPE: Coal Test

COMMENT: PERMIT 72; BURNING STAR #3

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
540.0	PLEISTOCENE		UNCLASSIFIED	3.0	0.0	
537.0	PLEISTOCENE		SANDY CLAY	46.5	3.0	
490.5	PLEISTOCENE		BOULDER	0.3	49.5	
490.2	PLEISTOCENE		CLAY	4.5	49.8	
485.7	CARBONDALE		LIMESTONE	9.7	54.3	
476.0	CARBONDALE		GRAY SHALE	27.4	64.0	
448.6	CARBONDALE		GRAY SHALE	29.6	91.4	W/ SS STREAKS
419.0	CARBONDALE		GRAY SHALE	39.3	121.0	WITH LIMESTONE STREAKS
379.7	CARBONDALE		LIMESTONE	2.0	160.3	
377.7	CARBONDALE		SANDY SHALE	14.2	162.3	
363.5	CARBONDALE	OAK GROVE	LIMESTONE	1.1	176.5	
362.4	CARBONDALE	MECCA QUARRY	BLACK SHALE	4.7	177.6	
357.7	CARBONDALE	COLCHESTER	COAL	1.2	182.3	
356.5			GRAY SHALE	6.5	183.5	W/ SS STREAKS
350.0			GRAY SHALE	3.3	190.0	
346.7			LIMESTONE	1.7	193.3	
345.0			GRAY SHALE	15.0	195.0	

MAPID: 15790223000C VERSION: 1

PROJECT: AVAIL

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 10 QUARTERS/FOOTAGES: 1' S line, 1' W line

QUADRANGLE: WALSH LONGITUDE: -89.759763 GEOLOGIST: LAWSON

CONFIDENTIAL: N LATITUDE: 38.10388 DATE COLLECTED: 11 / 18 / 1926

SURFACE ELEVATION (FT.): 539.9 LOGGED (FT.): 35.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 1225 WELL TYPE: Coal Test

COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
539.9	PLEISTOCENE		UNCONSOLIDATED	35.0	0.0	

MAPID: 15702092000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 12 QUARTERS/FOOTAGES: NW SE

QUADRANGLE: STEELEVILLE LONGITUDE: -89.710717 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.108688 DATE COLLECTED:

SURFACE ELEVATION (FT.): 520.0 LOGGED (FT.): 120.0 LOG TYPE: Drillers Log

SOURCE: MOFFAT COAL CO. 1 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
520.0	PLEISTOCENE		CLAY	29.0	0.0	
491.0	PLEISTOCENE		GRAVEL	6.0	29.0	
485.0	PLEISTOCENE		MUD	15.0	35.0	BLUE; WITH SHALES YELLOW
470.0	CARBONDALE		SHALES	29.0	50.0	
441.0	CARBONDALE	BRERETON	LIMESTONE	8.0	79.0	
433.0	CARBONDALE	HERRIN	COAL	2.0	87.0	
431.0	CARBONDALE		SHALES	10.0	89.0	BLACK
421.0	CARBONDALE		LIMESTONE	4.0	99.0	
417.0	CARBONDALE		SHALES	6.0	103.0	BLUE
411.0	CARBONDALE		LIMESTONE	9.0	109.0	
402.0	CARBONDALE		LIMESTONE	2.0	118.0	

MAPID: 15702093000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 12 QUARTERS/FOOTAGES: NE SW

QUADRANGLE: STEELEVILLE LONGITUDE: -89.715344 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.108767 DATE COLLECTED:

SURFACE ELEVATION (FT.): 520.0 LOGGED (FT.): 123.0 LOG TYPE: Drillers Log

SOURCE: MOFFAT COAL CO. 2 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
520.0	PLEISTOCENE		SOIL	26.0	0.0	CLAYEY
494.0	PLEISTOCENE		SAND	16.0	26.0	
478.0	PLEISTOCENE		CLAY	42.0	42.0	YELLOW
436.0	CARBONDALE		LIMESTONE	6.0	84.0	
430.0	CARBONDALE		SHALE	8.0	90.0	BLUE
422.0	CARBONDALE	HERRIN	COAL	2.0	98.0	
420.0	CARBONDALE		LIMESTONE	5.0	100.0	
415.0	CARBONDALE		SHALE	1.0	105.0	WHITE
414.0	CARBONDALE		LIMESTONE	2.0	106.0	
412.0	CARBONDALE		SHALE	2.0	108.0	LIGHT
410.0	CARBONDALE		LIMESTONE	5.0	110.0	BLACK
405.0	CARBONDALE		SHALE	1.0	115.0	BLUE
404.0	CARBONDALE		SHALE	4.0	116.0	BLACK
400.0	CARBONDALE		LIMESTONE	3.0	120.0	HARD

MAPID: 15701394000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 13 QUARTERS/FOOTAGES: NW NW NE NE

QUADRANGLE: STEELEVILLE LONGITUDE: -89.707908 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.102666 DATE COLLECTED: 0 / 0 / 1931

SURFACE ELEVATION (FT.): 533.0 LOGGED (FT.): 143.0 LOG TYPE: Drillers Log

SOURCE: MOFFAT COAL CO. 1 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
533.0	PLEISTOCENE		SOIL	2.0	0.0	
531.0	PLEISTOCENE		CLAY	5.0	2.0	
526.0	PLEISTOCENE		CLAY	43.0	7.0	YELLOW
483.0	CARBONDALE		SHALE	38.0	50.0	LOTS OF WATER; BLUE
445.0	CARBONDALE		CLAYSTONE	10.0	88.0	YELLOW
435.0	CARBONDALE		ROCK	9.0	98.0	LITTLE WATER IN LIMESTONE; GRAY
426.0	CARBONDALE	HERRIN	COAL	5.0	107.0	
421.0	CARBONDALE		SHALE	3.0	112.0	BLUE
418.0	CARBONDALE		LIMESTONE	3.0	115.0	BROWN
415.0	CARBONDALE		SHALE	7.0	118.0	BLUE
408.0	CARBONDALE		LIMESTONE	3.0	125.0	GRAY
405.0	CARBONDALE		SHALE	13.0	128.0	HARD
392.0	CARBONDALE		LIMESTONE	2.0	141.0	CAP ROCK

MAPID: 15701395000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 13 QUARTERS/FOOTAGES: NW NW NE NE

QUADRANGLE: STEELEVILLE LONGITUDE: -89.707908 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.102666 DATE COLLECTED: 0 / 0 / 1931

SURFACE ELEVATION (FT.): 536.0 LOGGED (FT.): 143.0 LOG TYPE: Drillers Log

SOURCE: MOFFAT COAL CO. 2 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
536.0	PLEISTOCENE		SOIL	12.0	0.0	
524.0	PLEISTOCENE		SAND & GRAVEL	62.0	12.0	
462.0	CARBONDALE		SHALE	18.0	74.0	BLUE
444.0	CARBONDALE		LIMESTONE	4.0	92.0	
440.0	CARBONDALE		CLAYSTONE	12.0	96.0	YELLOW
428.0	CARBONDALE	HERRIN	COAL	5.0	108.0	
423.0	CARBONDALE		SHALE	13.0	113.0	BLUE
410.0	CARBONDALE		LIMESTONE	4.0	126.0	
406.0	CARBONDALE		SHALE	5.0	130.0	BLUE
401.0	CARBONDALE		SHALE	5.0	135.0	HARD
396.0	CARBONDALE		LIMESTONE	3.0	140.0	CAP ROCK

MAPID: 15700154000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 14 QUARTERS/FOOTAGES: NW NW

QUADRANGLE: STEELEVILLE LONGITUDE: -89.738925 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.101543 DATE COLLECTED: 1 / 26 / 1927

SURFACE ELEVATION (FT.): 552.0 LOGGED (FT.): 72.7 LOG TYPE: Drillers Log

SOURCE: MISSISSIPPI COAL CORP. 1133 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
552.0	PLEISTOCENE		UNCONSOLIDATED	18.0	0.0	
534.0	PLEISTOCENE		SAND & GRAVEL	37.0	18.0	
497.0	CARBONDALE		SHALE	5.0	55.0	
492.0	CARBONDALE		LIMESTONE	2.0	60.0	
490.0	CARBONDALE		SHALE	2.0	62.0	
488.0	CARBONDALE	BRERETON	LIMESTONE	3.5	64.0	BLACK
484.5	CARBONDALE		SHALE	2.0	67.5	
482.5	CARBONDALE	HERRIN	COAL	3.2	69.5	

MAPID: 15700155000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 14 QUARTERS/FOOTAGES: NW

QUADRANGLE: STEELEVILLE LONGITUDE: -89.736558 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.099737 DATE COLLECTED: 1 / 25 / 1927

SURFACE ELEVATION (FT.): 536.0 LOGGED (FT.): 59.2 LOG TYPE: Drillers Log

SOURCE: MISSISSIPPI COAL CORP. 1033 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
536.0	PLEISTOCENE		UNCONSOLIDATED	20.0	0.0	
516.0	PLEISTOCENE		SAND & GRAVEL	30.0	20.0	
486.0	CARBONDALE		SANDSTONE	1.0	50.0	
485.0	CARBONDALE		SANDSTONE/SHALE	3.5	51.0	
481.5	CARBONDALE	ANNA	BLACK SHALE	0.5	54.5	
481.0	CARBONDALE	HERRIN	COAL	4.2	55.0	

MAPID: 15700156000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 14 QUARTERS/FOOTAGES: SW NW

QUADRANGLE: STEELEVILLE LONGITUDE: -89.73891 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.09794 DATE COLLECTED: 1 / 31 / 1927

SURFACE ELEVATION (FT.): 542.0 LOGGED (FT.): 71.0 LOG TYPE: Drillers Log

SOURCE: MISSISSIPPI COAL CORP. 1035 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
542.0	PLEISTOCENE		UNCONSOLIDATED	17.0	0.0	
525.0	PLEISTOCENE		SAND & GRAVEL	17.0	17.0	
508.0	PLEISTOCENE		MUD	9.0	34.0	BLUE
499.0	PLEISTOCENE		SAND & GRAVEL	28.0	43.0	

MAPID: 15701704000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 14 QUARTERS/FOOTAGES:

QUADRANGLE: STEELEVILLE LONGITUDE: -89.731844 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.096116 DATE COLLECTED: 11 / 0 / 1946

SURFACE ELEVATION (FT.): 582.0 LOGGED (FT.): 97.5 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 43W WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
582.0	PLEISTOCENE		SOIL	17.5	0.0	CLAYEY
564.5	PLEISTOCENE		SAND	5.5	17.5	
559.0	PLEISTOCENE		CLAY	13.4	23.0	SANDY
545.6	PLEISTOCENE		MUD	7.9	36.4	SANDY AND BLUE
537.7	PLEISTOCENE		SAND	7.7	44.3	
530.0	PLEISTOCENE		GRAVEL	3.0	52.0	WITH WATER
527.0	PLEISTOCENE		SAND	26.5	55.0	
500.5	CARBONDALE		LIMESTONE	3.3	81.5	
497.2	CARBONDALE		COAL	0.3	84.8	
497.0	CARBONDALE		BLACK SHALE	4.0	85.0	
493.0	CARBONDALE		CONCRETION	2.0	89.0	
491.0	CARBONDALE	HERRIN	COAL	5.5	91.0	
485.5	CARBONDALE		UNDERCLAY	1.0	96.5	

MAPID: 15790186000C VERSION: 1

PROJECT: AVAIL

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 14 QUARTERS/FOOTAGES: 1' S line, 1' W line

QUADRANGLE: STEELEVILLE LONGITUDE: -89.741206 GEOLOGIST: LAWSON

CONFIDENTIAL: N LATITUDE: 38.088938 DATE COLLECTED: 11 / 18 / 1926

SURFACE ELEVATION (FT.): 517.1 LOGGED (FT.): 55.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 833 WELL TYPE: Coal Test

COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
517.1	PLEISTOCENE		UNCONSOLIDATED	45.0	0.0
472.1			ROCK	10.0	45.0

MAPID: 15790187000C VERSION: 1

PROJECT: AVAIL

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 14 QUARTERS/FOOTAGES: 1' S line, 1320' W line

QUADRANGLE: STEELEVILLE LONGITUDE: -89.736599 GEOLOGIST: LAWSON

CONFIDENTIAL: N LATITUDE: 38.088923 DATE COLLECTED: 1 / 29 / 1927

SURFACE ELEVATION (FT.): 529.6 LOGGED (FT.): 64.5 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 835 WELL TYPE: Coal Test

COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
529.6	PLEISTOCENE		UNCONSOLIDATED	14.0	0.0
515.6			ROCK	47.0	14.0
468.6	CARBONDALE		COAL	0.5	61.0
468.1	CARBONDALE		ROCK	3.0	61.5

MAPID: 15790192000C VERSION: 1

PROJECT: AVAIL

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 14 QUARTERS/FOOTAGES: 660' S line, 660' W line

QUADRANGLE: STEELEVILLE LONGITUDE: -89.738918 GEOLOGIST: LAWSON

CONFIDENTIAL: N LATITUDE: 38.090751 DATE COLLECTED: 8 / 10 / 1927

SURFACE ELEVATION (FT.): 520.0 LOGGED (FT.): 61.8 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 884 WELL TYPE: Coal Test

COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
520.0	PLEISTOCENE		UNCONSOLIDATED	40.5	0.0
479.5			ROCK	16.5	40.5
463.0	CARBONDALE	HERRIN	COAL	4.8	57.0

MAPID: 1579020000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 6W **SECTION:** 14 **QUARTERS/FOOTAGES:** 1320' S line, 1' W line
QUADRANGLE: STEELEVILLE **LONGITUDE:** -89.741233 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.092582 **DATE COLLECTED:** 1 / 23 / 1927
SURFACE ELEVATION (FT.): 527.9 **LOGGED (FT.):** 55.0 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE 933 **WELL TYPE:** Coal Test
COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
527.9	PLEISTOCENE		UNCONSOLIDATED	32.0	0.0
495.9			ROCK	18.0	32.0
477.9	CARBONDALE	HERRIN	COAL	5.0	50.0

MAPID: 15790201000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 6W **SECTION:** 14 **QUARTERS/FOOTAGES:** 1320' S line, 1320' W line
QUADRANGLE: STEELEVILLE **LONGITUDE:** -89.736625 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.092564 **DATE COLLECTED:** 1 / 29 / 1927
SURFACE ELEVATION (FT.): 532.9 **LOGGED (FT.):** 70.0 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE 935 **WELL TYPE:** Coal Test
COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
532.9	PLEISTOCENE		UNCONSOLIDATED	30.0	0.0
502.9			ROCK	40.0	30.0

MAPID: 15790208000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 6W **SECTION:** 14 **QUARTERS/FOOTAGES:** 1980' S line, 660' W line
QUADRANGLE: STEELEVILLE **LONGITUDE:** -89.73894 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.094395 **DATE COLLECTED:** 8 / 6 / 1927
SURFACE ELEVATION (FT.): 500.0 **LOGGED (FT.):** 63.0 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE 984 **WELL TYPE:** Coal Test
COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
500.0	PLEISTOCENE		UNCONSOLIDATED	18.0	0.0
482.0			ROCK	45.0	18.0

MAPID: 15790213000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 6W **SECTION:** 14 **QUARTERS/FOOTAGES:** 2640' N line, 1' W line
QUADRANGLE: STEELEVILLE **LONGITUDE:** -89.741251 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.096061 **DATE COLLECTED:** 1 / 25 / 1927
SURFACE ELEVATION (FT.): 536.5 **LOGGED (FT.):** 59.2 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE 1033 **WELL TYPE:** Coal Test
COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
536.5	PLEISTOCENE		UNCONSOLIDATED	50.0	0.0	
486.5			ROCK	5.0	50.0	
481.5	CARBONDALE	HERRIN	COAL	4.2	55.0	

MAPID: 15790214000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 6W **SECTION:** 14 **QUARTERS/FOOTAGES:** 2640' N line, 1320' W line
QUADRANGLE: STEELEVILLE **LONGITUDE:** -89.736643 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.096054 **DATE COLLECTED:** 1 / 31 / 1927
SURFACE ELEVATION (FT.): 541.7 **LOGGED (FT.):** 71.0 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE 1035 **WELL TYPE:** Coal Test
COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
541.7	PLEISTOCENE		UNCONSOLIDATED	71.0	0.0	

MAPID: 15790221000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 6W **SECTION:** 14 **QUARTERS/FOOTAGES:** 1320' N line, 1' W line
QUADRANGLE: STEELEVILLE **LONGITUDE:** -89.741274 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.099705 **DATE COLLECTED:** 1 / 26 / 1927
SURFACE ELEVATION (FT.): 551.6 **LOGGED (FT.):** 72.7 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE 1133 **WELL TYPE:** Coal Test
COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
551.6	PLEISTOCENE		UNCONSOLIDATED	55.0	0.0	
496.6	CARBONDALE		ROCK	14.5	55.0	
482.1	CARBONDALE	HERRIN	COAL	3.2	69.5	

MAPID: 15700162000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 15 QUARTERS/FOOTAGES: NE NW

QUADRANGLE: WALSH LONGITUDE: -89.752859 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.101858 DATE COLLECTED: 1 / 27 / 1927

SURFACE ELEVATION (FT.): 535.0 LOGGED (FT.): 72.0 LOG TYPE: Drillers Log

SOURCE: MISSISSIPPI COAL CORP. 1127 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
535.0	PLEISTOCENE		UNCONSOLIDATED	24.0	0.0	
511.0	PLEISTOCENE		SAND & GRAVEL	24.0	24.0	
487.0	PLEISTOCENE		MUD	12.0	48.0	
475.0	CARBONDALE		LIMESTONE	1.0	60.0	BLACK
474.0	CARBONDALE		CLAYSTONE	11.0	61.0	

MAPID: 15700163000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 15 QUARTERS/FOOTAGES: NW NE

QUADRANGLE: STEELEVILLE LONGITUDE: -89.74823 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.101736 DATE COLLECTED: 1 / 25 / 1927

SURFACE ELEVATION (FT.): 539.0 LOGGED (FT.): 69.5 LOG TYPE: Drillers Log

SOURCE: MISSISSIPPI COAL CORP. 1129 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
539.0	PLEISTOCENE		UNCONSOLIDATED	13.0	0.0	
526.0	PLEISTOCENE		SAND & GRAVEL	41.0	13.0	
485.0	CARBONDALE		SHALE	4.0	54.0	
481.0	CARBONDALE	BRERETON	LIMESTONE	2.0	58.0	BLACK
479.0	CARBONDALE		BLACK SHALE	4.0	60.0	
475.0	CARBONDALE	HERRIN	COAL	5.5	64.0	

MAPID: 15700164000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 15 QUARTERS/FOOTAGES: NE NE

QUADRANGLE: STEELEVILLE LONGITUDE: -89.743604 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.10161 DATE COLLECTED: 1 / 31 / 1927

SURFACE ELEVATION (FT.): 542.0 LOGGED (FT.): 76.0 LOG TYPE: Drillers Log

SOURCE: MISSISSIPPI COAL CORP. 1131 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
542.0	PLEISTOCENE		UNCONSOLIDATED	13.0	0.0	
529.0	PLEISTOCENE		SAND & GRAVEL	44.0	13.0	
485.0	CARBONDALE		LIMESTONE	2.0	57.0	
483.0	CARBONDALE		SHALE	5.0	59.0	
478.0	CARBONDALE	BRERETON	LIMESTONE	5.0	64.0	
473.0	CARBONDALE		SHALE	2.0	69.0	BLUE
471.0	CARBONDALE	HERRIN	COAL	5.0	71.0	

MAPID: 15700165000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 15 QUARTERS/FOOTAGES: NE SW NW NW

QUADRANGLE: WALSH LONGITUDE: -89.758071 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.101537 DATE COLLECTED: 0 / 0 / 1927

SURFACE ELEVATION (FT.): 535.0 LOGGED (FT.): 70.5 LOG TYPE: Drillers Log

SOURCE: MISSISSIPPI COAL CORP. 1076 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
535.0	PLEISTOCENE		UNCONSOLIDATED	36.0	0.0	
499.0	PLEISTOCENE		BOULDER	1.5	36.0	
497.5	CARBONDALE		SHALE	4.0	37.5	
493.5	CARBONDALE		LIMESTONE	5.5	41.5	
488.0	CARBONDALE		SHALE	2.0	47.0	
486.0	CARBONDALE		ROCK	5.5	49.0	
480.5	CARBONDALE		SHALE	2.0	54.5	
478.5	CARBONDALE		COAL	0.5	56.5	
478.0	CARBONDALE		SHALE	13.5	57.0	

MAPID: 15700166000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 15 QUARTERS/FOOTAGES: NW SE NW NW

QUADRANGLE: WALSH LONGITUDE: -89.756914 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.101509 DATE COLLECTED: 2 / 9 / 1927

SURFACE ELEVATION (FT.): 530.0 LOGGED (FT.): 59.0 LOG TYPE: Drillers Log

SOURCE: MISSISSIPPI COAL CORP. 1078 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
530.0	PLEISTOCENE		UNCONSOLIDATED	24.0	0.0
506.0	CARBONDALE		SANDSTONE/SHALE	20.0	24.0
486.0	CARBONDALE		SANDSTONE	5.0	44.0
481.0	CARBONDALE		SHALE	1.0	49.0
480.0	CARBONDALE	BRERETON	LIMESTONE	4.0	50.0
476.0	CARBONDALE	HERRIN	COAL	5.0	54.0

MAPID: 15700167000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 15 QUARTERS/FOOTAGES: SE SW NE NE

QUADRANGLE: STEELEVILLE LONGITUDE: -89.744179 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.10027 DATE COLLECTED: 2 / 9 / 1927

SURFACE ELEVATION (FT.): 535.0 LOGGED (FT.): 70.0 LOG TYPE: Drillers Log

SOURCE: MISSISSIPPI COAL CORP. 1080 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
535.0	PLEISTOCENE		UNCONSOLIDATED	20.0	0.0
515.0	PLEISTOCENE		SAND & GRAVEL	32.0	20.0
483.0	CARBONDALE		SHALE	14.0	52.0
469.0	CARBONDALE		LIMESTONE	4.0	66.0

MAPID: 15700169000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 15 QUARTERS/FOOTAGES: NW

QUADRANGLE: WALSH LONGITUDE: -89.755194 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.100092 DATE COLLECTED: 8 / 6 / 1927

SURFACE ELEVATION (FT.): 525.0 LOGGED (FT.): 37.5 LOG TYPE: Drillers Log

SOURCE: MISSISSIPPI COAL CORP. 1025 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
525.0	PLEISTOCENE		UNCONSOLIDATED	20.0	0.0	
505.0	CARBONDALE		SANDSTONE	1.5	20.0	
503.5	CARBONDALE		SHALE	1.5	21.5	
502.0	CARBONDALE		BLACK SHALE	5.0	23.0	
497.0	CARBONDALE	BRERETON	LIMESTONE	3.5	28.0	
493.5	CARBONDALE		SHALE	0.5	31.5	
493.0	CARBONDALE	HERRIN	COAL	5.5	32.0	

MAPID: 15700170000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 15 QUARTERS/FOOTAGES: SE NW

QUADRANGLE: WALSH LONGITUDE: -89.752888 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.098211 DATE COLLECTED: 1 / 20 / 1927

SURFACE ELEVATION (FT.): 526.0 LOGGED (FT.): 44.0 LOG TYPE: Drillers Log

SOURCE: MISSISSIPPI COAL CORP. 1027 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
526.0	PLEISTOCENE		UNCONSOLIDATED	20.0	0.0	
506.0	CARBONDALE		SANDSTONE	6.5	20.0	
499.5	CARBONDALE		SHALE	5.0	26.5	
494.5	CARBONDALE		LIMESTONE	3.0	31.5	BLACK
491.5	CARBONDALE		BLACK SHALE	4.5	34.5	
487.0	CARBONDALE	HERRIN	COAL	5.0	39.0	

MAPID: 15700171000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 15 QUARTERS/FOOTAGES: NE

QUADRANGLE: STEELEVILLE LONGITUDE: -89.745917 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.099863 DATE COLLECTED: 11 / 19 / 1926

SURFACE ELEVATION (FT.): 523.0 LOGGED (FT.): 53.8 LOG TYPE: Drillers Log

SOURCE: MISSISSIPPI COAL CORP. 1029 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
523.0	PLEISTOCENE		UNCONSOLIDATED	20.0	0.0
503.0	PLEISTOCENE		SAND & GRAVEL	14.0	20.0
489.0	CARBONDALE		SANDSTONE/SHALE	10.0	34.0
479.0	CARBONDALE		BLACK SHALE	3.0	44.0
476.0	CARBONDALE	BRERETON	LIMESTONE	2.0	47.0
474.0	CARBONDALE	HERRIN	COAL	4.8	49.0

MAPID: 15700172000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 15 QUARTERS/FOOTAGES: SE NE

QUADRANGLE: STEELEVILLE LONGITUDE: -89.743591 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.097999 DATE COLLECTED: 1 / 17 / 1927

SURFACE ELEVATION (FT.): 530.0 LOGGED (FT.): 61.6 LOG TYPE: Drillers Log

SOURCE: MISSISSIPPI COAL CORP. 1031 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
530.0	PLEISTOCENE		UNCONSOLIDATED	17.0	0.0
513.0	PLEISTOCENE		SAND & GRAVEL	22.0	17.0
491.0	CARBONDALE		SANDSTONE	10.0	39.0
481.0	CARBONDALE	BRERETON	LIMESTONE	5.0	49.0
476.0	CARBONDALE	ANNA	BLACK SHALE	2.0	54.0
474.0	CARBONDALE	HERRIN	COAL	5.6	56.0

MAPID: 15700176000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 15 QUARTERS/FOOTAGES: NW SW

QUADRANGLE: WALSH LONGITUDE: -89.757592 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.094656 DATE COLLECTED: 8 / 8 / 1927

SURFACE ELEVATION (FT.): 540.0 LOGGED (FT.): 56.0 LOG TYPE: Drillers Log

SOURCE: MISSISSIPPI COAL CORP. 925 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
540.0	PLEISTOCENE		UNCONSOLIDATED	29.0	0.0	
511.0	CARBONDALE		SANDSTONE	2.0	29.0	
509.0	CARBONDALE		SHALE	5.0	31.0	
504.0	CARBONDALE		ROCK	2.0	36.0	
502.0	CARBONDALE		SHALE	7.5	38.0	
494.5	CARBONDALE		ROCK	2.5	45.5	BLACK
492.0	CARBONDALE	ANNA	BLACK SHALE	2.5	48.0	
489.5	CARBONDALE	HERRIN	COAL	5.5	50.5	

MAPID: 15700184000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 15 QUARTERS/FOOTAGES:

QUADRANGLE: WALSH LONGITUDE: -89.750576 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.096339 DATE COLLECTED: 11 / 18 / 1926

SURFACE ELEVATION (FT.): 536.0 LOGGED (FT.): 62.0 LOG TYPE: Drillers Log

SOURCE: MISSISSIPPI COAL CORP. 825 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
536.0	PLEISTOCENE		UNCONSOLIDATED	17.0	0.0	
519.0	PLEISTOCENE		CLAY	26.0	17.0	YELLOW
493.0	CARBONDALE		SANDSTONE	2.0	43.0	
491.0	CARBONDALE		SHALE	4.0	45.0	
487.0	CARBONDALE		SANDSTONE	2.0	49.0	
485.0	CARBONDALE		BLACK SHALE	3.0	51.0	
482.0	CARBONDALE		LIMESTONE	8.0	54.0	

MAPID: 1570156000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 15 QUARTERS/FOOTAGES:

QUADRANGLE: WALSH LONGITUDE: -89.750576

GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.096339

DATE COLLECTED: 5 / 0 / 1948

SURFACE ELEVATION (FT.): 550.0 LOGGED (FT.): 74.0

LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 110W

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
550.0	PLEISTOCENE		CLAY	22.0	0.0	SANDY
528.0	PLEISTOCENE		SAND & GRAVEL	52.0	22.0	

MAPID: 15701561000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 15 QUARTERS/FOOTAGES:

QUADRANGLE: WALSH LONGITUDE: -89.750576

GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.096339

DATE COLLECTED: 5 / 0 / 1948

SURFACE ELEVATION (FT.): 517.0 LOGGED (FT.): 74.0

LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 109W

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
517.0	PLEISTOCENE		CLAY	29.0	0.0	SANDY
488.0	PLEISTOCENE		MUD	37.0	29.0	SANDY AND BLUE
451.0	PLEISTOCENE		SAND & GRAVEL	8.0	66.0	

MAPID: 15701562000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 15 QUARTERS/FOOTAGES:

QUADRANGLE: WALSH LONGITUDE: -89.750576

GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.096339

DATE COLLECTED: 5 / 0 / 1948

SURFACE ELEVATION (FT.): 538.0 LOGGED (FT.): 46.5

LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 108W

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
538.0	PLEISTOCENE		SAND	14.0	0.0	WITH CLAY
524.0	PLEISTOCENE		MUD	16.2	14.0	SANDY AND BLUE
507.8	CARBONDALE	BRERETON	LIMESTONE	9.8	30.2	BLACK
498.0	CARBONDALE	HERRIN	COAL	5.0	40.0	
493.0	CARBONDALE		UNDERCLAY	1.5	45.0	

MAPID: 15701563000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 15 QUARTERS/FOOTAGES: 1320' S line, 1330' W line of NE

QUADRANGLE: STEELEVILLE

LONGITUDE: -89.74591

GEOLOGIST: HOKE

CONFIDENTIAL: N

LATITUDE: 38.099885

DATE COLLECTED: 5 / 0 / 1948

SURFACE ELEVATION (FT.): 541.0

LOGGED (FT.): 64.0

LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 107

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
541.0	PLEISTOCENE		CLAY	14.0	0.0	SANDY
527.0	PLEISTOCENE		MUD	37.1	14.0	SANDY AND BLUE
489.9	PLEISTOCENE		BOULDER	1.6	51.1	
488.3	PLEISTOCENE		MUD	11.3	52.7	SANDY AND BLUE

MAPID: 15701564000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 15 QUARTERS/FOOTAGES:

QUADRANGLE: WALSH

LONGITUDE: -89.750576

GEOLOGIST: HOKE

CONFIDENTIAL: N

LATITUDE: 38.096339

DATE COLLECTED: 5 / 0 / 1948

SURFACE ELEVATION (FT.): 541.0

LOGGED (FT.): 61.5

LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 106

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
541.0	PLEISTOCENE		CLAY	44.0	0.0	SANDY
497.0	PLEISTOCENE		MUD	11.0	44.0	SANDY AND BLUE
486.0	CARBONDALE	ANNA	BLACK SHALE	1.0	55.0	
485.0	CARBONDALE	HERRIN	COAL	5.2	56.0	
479.8	CARBONDALE		UNDERCLAY	0.3	61.2	

MAPID: 15701565000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 15 QUARTERS/FOOTAGES: 1080' N line, 230' W line of SE

QUADRANGLE: STEELEVILLE LONGITUDE: -89.74979 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.093342 DATE COLLECTED: 5 / 0 / 1948

SURFACE ELEVATION (FT.): 522.0 LOGGED (FT.): 59.0 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 105 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
522.0	PLEISTOCENE		CLAY	9.0	0.0	
513.0	PLEISTOCENE		CLAY	5.0	9.0	SANDY
508.0	PLEISTOCENE		MUD	8.0	14.0	BLUE
500.0	CARBONDALE		SANDSTONE	2.0	22.0	
498.0	CARBONDALE		SHALE	7.0	24.0	LIGHT
491.0	CARBONDALE		LIMESTONE	2.7	31.0	
488.3	CARBONDALE		SHALE	4.3	33.7	LIGHT
484.0	CARBONDALE		LIMESTONE	3.3	38.0	
480.7	CARBONDALE		SHALE	5.3	41.3	DARK
475.5	CARBONDALE		SHALE	6.0	46.5	BLACK
469.5	CARBONDALE	HERRIN	COAL	5.3	52.5	
464.2	CARBONDALE		UNDERCLAY	1.3	57.8	

MAPID: 15701705000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 15 QUARTERS/FOOTAGES: 27' S line, 660' W line

QUADRANGLE: WALSH LONGITUDE: -89.757716 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.089236 DATE COLLECTED: 11 / 0 / 1946

SURFACE ELEVATION (FT.): 527.0 LOGGED (FT.): 65.0 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 44W WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
527.0	PLEISTOCENE		SOIL	20.5	0.0	CLAYEY
506.5	PLEISTOCENE		SAND	4.5	20.5	
502.0	PLEISTOCENE		CLAY	2.0	25.0	SANDY
500.0	PLEISTOCENE		SAND	8.7	27.0	
491.3	PLEISTOCENE		SAND/CLAY	5.8	35.7	COAL WASH
485.5	CARBONDALE		LIMESTONE	1.8	41.5	
483.7	CARBONDALE		CLAYSTONE	5.7	43.3	LIGHT
478.0	CARBONDALE		LIMESTONE	2.0	49.0	
476.0	CARBONDALE		COAL	0.2	51.0	
475.8	CARBONDALE		BLACK SHALE	4.4	51.2	
471.4	CARBONDALE	BRERETON	LIMESTONE	1.8	55.6	
469.7	CARBONDALE	HERRIN	COAL	5.0	57.3	
464.7	CARBONDALE		CLAYSTONE	2.7	62.3	FINE

MAPID: 15701705000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 15 QUARTERS/FOOTAGES: 27' S line, 660' W line

QUADRANGLE: WALSH LONGITUDE: -89.757716

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.089236

DATE COLLECTED:

SURFACE ELEVATION (FT.): 527.0

LOGGED (FT.): 62.0

LOG TYPE: Drillers Log

SOURCE:

WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
485.8	CARBONDALE	BANKSTON FORK	LIMESTONE	1.8	41.2	
484.0	CARBONDALE	LAWSON	MOTTLED SHALE	5.7	43.0	
478.3	CARBONDALE	CONANT	LIMESTONE & SHALE	2.0	48.7	
476.3	CARBONDALE	JAMESTOWN	BONE COAL	0.2	50.7	
476.2	CARBONDALE		GRAY SHALE	4.4	50.8	
471.7	CARBONDALE	BRERETON	LIMESTONE & SHALE	1.8	55.3	
470.0	CARBONDALE	HERRIN	COAL	5.0	57.0	

MAPID: 15701706000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 15 QUARTERS/FOOTAGES:

QUADRANGLE: WALSH LONGITUDE: -89.750576

GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.096339

DATE COLLECTED: 11 / 0 / 1946

SURFACE ELEVATION (FT.): 550.0

LOGGED (FT.): 81.5

LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 45W

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
550.0	PLEISTOCENE		SOIL	17.0	0.0	CLAYEY
533.0	PLEISTOCENE		CLAY	4.0	17.0	SANDY
529.0	PLEISTOCENE		MUD	3.0	21.0	BLUE
526.0	PLEISTOCENE		SAND & GRAVEL	5.0	24.0	
521.0	PLEISTOCENE		MUD	14.0	29.0	SANDY AND BLUE
507.0	PLEISTOCENE		SAND & GRAVEL	25.8	43.0	
481.2	CARBONDALE		LIMESTONE	1.0	68.8	
480.2	CARBONDALE		COAL	0.2	69.8	TRACE
480.0	CARBONDALE		CONCRETION	1.3	70.0	DARK CONCRET
478.7	CARBONDALE		BLACK SHALE	3.8	71.3	
475.0	CARBONDALE	HERRIN	COAL	5.1	75.0	
469.9	CARBONDALE		UNDERCLAY	1.0	80.1	
468.9	CARBONDALE		LIMESTONE	0.4	81.1	

MAPID: 15790182000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 6W **SECTION:** 15 **QUARTERS/FOOTAGES:** 1' S line, 1' W line
QUADRANGLE: WALSH **LONGITUDE:** -89.760017 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.089195 **DATE COLLECTED:** 11 / 18 / 1926
SURFACE ELEVATION (FT.): 532.4 **LOGGED (FT.):** 62.0 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE 825 **WELL TYPE:** Coal Test
COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
532.4	PLEISTOCENE		UNCONSOLIDATED	43.0	0.0
489.4			ROCK	19.0	43.0

MAPID: 15790183000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 6W **SECTION:** 15 **QUARTERS/FOOTAGES:** 1' S line, 1320' W line
QUADRANGLE: WALSH **LONGITUDE:** -89.75541 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.089131 **DATE COLLECTED:** 1 / 29 / 1927
SURFACE ELEVATION (FT.): 538.8 **LOGGED (FT.):** 74.5 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE 827 **WELL TYPE:** Coal Test
COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
538.8	PLEISTOCENE		UNCONSOLIDATED	20.0	0.0
518.8			ROCK	49.0	20.0
469.8	CARBONDALE	HERRIN	COAL	5.5	69.0

MAPID: 15790184000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 6W **SECTION:** 15 **QUARTERS/FOOTAGES:** 1' S line, 2640' W line
QUADRANGLE: WALSH **LONGITUDE:** -89.750802 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.089069 **DATE COLLECTED:** 1 / 10 / 1927
SURFACE ELEVATION (FT.): 517.2 **LOGGED (FT.):** 70.1 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE 829 **WELL TYPE:** Coal Test
COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
517.2	PLEISTOCENE		UNCONSOLIDATED	29.0	0.0
488.2			ROCK	36.0	29.0
452.2	CARBONDALE	HERRIN	COAL	5.1	65.0

MAPID: 15790185000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 6W **SECTION:** 15 **QUARTERS/FOOTAGES:** 1' S line, 1320' E line
QUADRANGLE: STEELEVILLE **LONGITUDE:** -89.745825 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.089003 **DATE COLLECTED:** 1 / 10 / 1927
SURFACE ELEVATION (FT.): 524.7 **LOGGED (FT.):** 64.8 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE 831 **WELL TYPE:** Coal Test
COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
524.7	PLEISTOCENE		UNCONSOLIDATED	17.0	0.0
507.7			ROCK	42.5	17.0
465.2	CARBONDALE	SPRINGFIELD	COAL	5.3	59.5

MAPID: 15790188000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 6W **SECTION:** 15 **QUARTERS/FOOTAGES:** 660' S line, 660' W line
QUADRANGLE: WALSH **LONGITUDE:** -89.757683 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.090981 **DATE COLLECTED:** 8 / 9 / 1927
SURFACE ELEVATION (FT.): 520.0 **LOGGED (FT.):** 69.5 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE 876 **WELL TYPE:** Coal Test
COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
520.0	PLEISTOCENE		UNCONSOLIDATED	26.0	0.0
494.0			ROCK	38.0	26.0
456.0	CARBONDALE	HERRIN	COAL	5.5	64.0

MAPID: 15790189000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 6W **SECTION:** 15 **QUARTERS/FOOTAGES:** 660' S line, 1980' W line
QUADRANGLE: WALSH **LONGITUDE:** -89.753076 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.09092 **DATE COLLECTED:** 8 / 9 / 1927
SURFACE ELEVATION (FT.): 520.0 **LOGGED (FT.):** 78.0 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE 878 **WELL TYPE:** Coal Test
COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
520.0	PLEISTOCENE		UNCONSOLIDATED	33.0	0.0
487.0			ROCK	39.0	33.0
448.0	CARBONDALE	HERRIN	COAL	6.0	72.0

MAPID: 1579019000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 6W **SECTION:** 15 **QUARTERS/FOOTAGES:** 660' S line, 1980' E line
QUADRANGLE: STEELEVILLE **LONGITUDE:** -89.74814 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.090853 **DATE COLLECTED:** 8 / 8 / 1927
SURFACE ELEVATION (FT.): 520.0 **LOGGED (FT.):** 51.2 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE 880 **WELL TYPE:** Coal Test
COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
520.0	PLEISTOCENE		UNCONSOLIDATED	13.0	0.0
507.0			ROCK	33.0	13.0
474.0	CARBONDALE	HERRIN	COAL	5.2	46.0

MAPID: 15790191000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 6W **SECTION:** 15 **QUARTERS/FOOTAGES:** 660' S line, 660' E line
QUADRANGLE: STEELEVILLE **LONGITUDE:** -89.743529 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.090791 **DATE COLLECTED:** 8 / 8 / 1927
SURFACE ELEVATION (FT.): 520.0 **LOGGED (FT.):** 54.3 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE 882 **WELL TYPE:** Coal Test
COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
520.0	PLEISTOCENE		UNCONSOLIDATED	27.0	0.0
493.0			ROCK	23.0	27.0
470.0	CARBONDALE	HERRIN	COAL	4.3	50.0

MAPID: 15790196000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 6W **SECTION:** 15 **QUARTERS/FOOTAGES:** 1320' S line, 1' W line
QUADRANGLE: WALSH **LONGITUDE:** -89.759954 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.092834 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): **LOGGED (FT.):** 56.5 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE 925 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-	PLEISTOCENE		UNCONSOLIDATED	29.0	0.0
-			ROCK	22.0	29.0
-	CARBONDALE	HERRIN	COAL	5.5	51.0

MAPID: 15790197000C VERSION: 1

PROJECT: AVAIL

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 15 QUARTERS/FOOTAGES: 1320' S line, 1320' W line
 QUADRANGLE: WALSH LONGITUDE: -89.755349 GEOLOGIST: LAWSON
 CONFIDENTIAL: N LATITUDE: 38.092773 DATE COLLECTED: 12 / 15 / 1926
 SURFACE ELEVATION (FT.): 523.8 LOGGED (FT.): 70.0 LOG TYPE: Drillers Log
 SOURCE: AYRSHIRE 927 WELL TYPE: Coal Test
 COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
523.8	PLEISTOCENE		UNCONSOLIDATED	25.0	0.0
498.8			ROCK	40.0	25.0
458.8	CARBONDALE	HERRIN	COAL	5.0	65.0

MAPID: 15790198000C VERSION: 1

PROJECT: AVAIL

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 15 QUARTERS/FOOTAGES: 1320' S line, 1320' E line
 QUADRANGLE: STEELEVILLE LONGITUDE: -89.745847 GEOLOGIST: LAWSON
 CONFIDENTIAL: N LATITUDE: 38.092644 DATE COLLECTED: 1 / 10 / 1927
 SURFACE ELEVATION (FT.): 518.8 LOGGED (FT.): 63.1 LOG TYPE: Drillers Log
 SOURCE: AYRSHIRE 929 WELL TYPE: Coal Test
 COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
518.8	PLEISTOCENE		UNCONSOLIDATED	21.0	0.0
497.8			ROCK	37.5	21.0
460.3	CARBONDALE	HERRIN	COAL	4.6	58.5

MAPID: 15790199000C VERSION: 1

PROJECT: AVAIL

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 15 QUARTERS/FOOTAGES: 1320' S line, 1320' E line
 QUADRANGLE: STEELEVILLE LONGITUDE: -89.745847 GEOLOGIST: LAWSON
 CONFIDENTIAL: N LATITUDE: 38.092644 DATE COLLECTED: 12 / 12 / 1926
 SURFACE ELEVATION (FT.): 520.5 LOGGED (FT.): 56.8 LOG TYPE: Drillers Log
 SOURCE: AYRSHIRE 931 WELL TYPE: Coal Test
 COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
520.5	PLEISTOCENE		UNCONSOLIDATED	28.0	0.0
492.5			ROCK	24.0	28.0
468.5	CARBONDALE	HERRIN	COAL	4.8	52.0

MAPID: 15790204000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 6W **SECTION:** 15 **QUARTERS/FOOTAGES:** 1980' S line, 660' W line
QUADRANGLE: WALSH **LONGITUDE:** -89.75762 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.094625 **DATE COLLECTED:** 8 / 6 / 1927
SURFACE ELEVATION (FT.): 520.0 **LOGGED (FT.):** 53.5 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE 976 **WELL TYPE:** Coal Test
COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
520.0	PLEISTOCENE		UNCONSOLIDATED	15.0	0.0
505.0			ROCK	33.0	15.0
472.0	CARBONDALE	HERRIN	COAL	5.5	48.0

MAPID: 15790205000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 6W **SECTION:** 15 **QUARTERS/FOOTAGES:** 1980' S line, 1980' W line
QUADRANGLE: WALSH **LONGITUDE:** -89.753012 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.094564 **DATE COLLECTED:** 8 / 6 / 1927
SURFACE ELEVATION (FT.): 520.0 **LOGGED (FT.):** 55.3 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE 978 **WELL TYPE:** Coal Test
COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
520.0	PLEISTOCENE		UNCONSOLIDATED	29.0	0.0
491.0			ROCK	21.0	29.0
470.0	CARBONDALE	HERRIN	COAL	5.3	50.0

MAPID: 15790206000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 6W **SECTION:** 15 **QUARTERS/FOOTAGES:** 1980' S line, 1980' E line
QUADRANGLE: STEELEVILLE **LONGITUDE:** -89.748163 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.094497 **DATE COLLECTED:** 8 / 8 / 1927
SURFACE ELEVATION (FT.): 500.0 **LOGGED (FT.):** 59.3 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE 980 **WELL TYPE:** Coal Test
COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
500.0	PLEISTOCENE		UNCONSOLIDATED	18.0	0.0
482.0			ROCK	36.0	18.0
446.0	CARBONDALE	HERRIN	COAL	5.3	54.0

MAPID: 15790207000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 6W **SECTION:** 15 **QUARTERS/FOOTAGES:** 1980' S line, 660' E line
QUADRANGLE: STEELEVILLE **LONGITUDE:** -89.743551 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.094435 **DATE COLLECTED:** 8 / 8 / 1927
SURFACE ELEVATION (FT.): 500.0 **LOGGED (FT.):** 65.0 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE 982 **WELL TYPE:** Coal Test
COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
500.0	PLEISTOCENE		UNCONSOLIDATED	65.0	0.0

MAPID: 15790209000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 6W **SECTION:** 15 **QUARTERS/FOOTAGES:** 2640' N line, 1' W line
QUADRANGLE: WALSH **LONGITUDE:** -89.75989 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.096594 **DATE COLLECTED:** 8 / 0 / 1927
SURFACE ELEVATION (FT.): 520.0 **LOGGED (FT.):** 37.5 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE 1025 **WELL TYPE:** Coal Test
COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
520.0	PLEISTOCENE		UNCONSOLIDATED	20.0	0.0
500.0			ROCK	12.0	20.0
488.0	CARBONDALE	HERRIN	COAL	5.5	32.0

MAPID: 15790210000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 6W **SECTION:** 15 **QUARTERS/FOOTAGES:** 2640' N line, 1320' E line
QUADRANGLE: STEELEVILLE **LONGITUDE:** -89.74587 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.096194 **DATE COLLECTED:** 1 / 20 / 1927
SURFACE ELEVATION (FT.): 525.8 **LOGGED (FT.):** 44.0 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE 1027 **WELL TYPE:** Coal Test
COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
525.8	PLEISTOCENE		UNCONSOLIDATED	20.0	0.0
505.8			ROCK	19.0	20.0
486.8	CARBONDALE	HERRIN	COAL	5.0	39.0

MAPID: 15790211000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 6W **SECTION:** 15 **QUARTERS/FOOTAGES:** 2640' N line, 2640' E line
QUADRANGLE: WALSH **LONGITUDE:** -89.750482 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.096325 **DATE COLLECTED:** 11 / 19 / 1926
SURFACE ELEVATION (FT.): 525.7 **LOGGED (FT.):** 53.8 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE 1029 **WELL TYPE:** Coal Test
COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
525.7	PLEISTOCENE		UNCONSOLIDATED	34.0	0.0
491.7			ROCK	15.0	34.0
476.7	CARBONDALE	HERRIN	COAL	4.8	49.0

MAPID: 15790212000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 6W **SECTION:** 15 **QUARTERS/FOOTAGES:** 2640' N line, 1320' E line
QUADRANGLE: STEELEVILLE **LONGITUDE:** -89.74587 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.096194 **DATE COLLECTED:** 1 / 17 / 1927
SURFACE ELEVATION (FT.): 500.0 **LOGGED (FT.):** 61.6 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE 1031 **WELL TYPE:** Coal Test
COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
500.0	PLEISTOCENE		UNCONSOLIDATED	39.0	0.0
461.0			ROCK	17.0	39.0
444.0	CARBONDALE	HERRIN	COAL	5.6	56.0

MAPID: 15790215000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 6W **SECTION:** 15 **QUARTERS/FOOTAGES:** 1980' N line, 660' W line
QUADRANGLE: WALSH **LONGITUDE:** -89.757556 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.09835 **DATE COLLECTED:** 8 / 8 / 1927
SURFACE ELEVATION (FT.): **LOGGED (FT.):** 85.0 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE 1076 **WELL TYPE:** Coal Test
COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-	PLEISTOCENE		UNCONSOLIDATED	36.0	0.0
-			ROCK	35.0	36.0
-	CARBONDALE		COAL	0.5	71.0
-	CARBONDALE		ROCK	13.5	71.5

MAPID: 15790216000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 6W **SECTION:** 15 **QUARTERS/FOOTAGES:** 1980' N line, 660' E line
QUADRANGLE: STEELEVILLE **LONGITUDE:** -89.743574 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.09795 **DATE COLLECTED:** 2 / 9 / 1927
SURFACE ELEVATION (FT.): 534.0 **LOGGED (FT.):** 70.0 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE 1080 **WELL TYPE:** Coal Test
COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
534.0	PLEISTOCENE		UNCONSOLIDATED	52.0	0.0
482.0			ROCK	18.0	52.0

MAPID: 15790217000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 6W **SECTION:** 15 **QUARTERS/FOOTAGES:** 1980' N line, 1980' W line
QUADRANGLE: WALSH **LONGITUDE:** -89.752948 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.098219 **DATE COLLECTED:** 2 / 9 / 1927
SURFACE ELEVATION (FT.): 534.0 **LOGGED (FT.):** 59.0 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE 1078 **WELL TYPE:** Coal Test
COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
534.0	PLEISTOCENE		UNCONSOLIDATED	24.0	0.0
510.0			ROCK	30.0	24.0
480.0	CARBONDALE	HERRIN	COAL	5.0	54.0

MAPID: 15790218000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 6W **SECTION:** 15 **QUARTERS/FOOTAGES:** 1320' N line, 1320' W line
QUADRANGLE: WALSH **LONGITUDE:** -89.755222 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.100105 **DATE COLLECTED:** 1 / 27 / 1927
SURFACE ELEVATION (FT.): 535.3 **LOGGED (FT.):** 72.0 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE 1127 **WELL TYPE:** Coal Test
COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
535.3	PLEISTOCENE		UNCONSOLIDATED	60.0	0.0
475.3			ROCK	12.0	60.0

MAPID: 15790219000C VERSION: 1

PROJECT: AVAIL

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 15 QUARTERS/FOOTAGES: 1320' N line, 2640' E line
 QUADRANGLE: WALSH LONGITUDE: -89.750505 GEOLOGIST: LAWSON
 CONFIDENTIAL: N LATITUDE: 38.099969 DATE COLLECTED: 1 / 25 / 1927
 SURFACE ELEVATION (FT.): 538.0 LOGGED (FT.): 69.5 LOG TYPE: Drillers Log
 SOURCE: AYRSHIRE 1129 WELL TYPE: Coal Test
 COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
538.0	PLEISTOCENE		UNCONSOLIDATED	54.0	0.0	
484.0			ROCK	10.0	54.0	
474.0	CARBONDALE	HERRIN	COAL	5.5	64.0	

MAPID: 15790220000C VERSION: 1

PROJECT: AVAIL

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 15 QUARTERS/FOOTAGES: 1320' N line, 1320' E line
 QUADRANGLE: STEELEVILLE LONGITUDE: -89.745893 GEOLOGIST: LAWSON
 CONFIDENTIAL: N LATITUDE: 38.099838 DATE COLLECTED: 1 / 31 / 1927
 SURFACE ELEVATION (FT.): 542.1 LOGGED (FT.): 76.0 LOG TYPE: Drillers Log
 SOURCE: AYRSHIRE 1131 WELL TYPE: Coal Test
 COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
542.1	PLEISTOCENE		UNCONSOLIDATED	57.0	0.0	
485.1			ROCK	14.0	57.0	
471.1	CARBONDALE	HERRIN	COAL	5.0	71.0	

MAPID: 15702171000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 16 QUARTERS/FOOTAGES: SW SE
 QUADRANGLE: WALSH LONGITUDE: -89.767021 GEOLOGIST: HOKE
 CONFIDENTIAL: N LATITUDE: 38.09107 DATE COLLECTED: 4 / 26 / 1957
 SURFACE ELEVATION (FT.): 550.0 LOGGED (FT.): 55.0 LOG TYPE: Drillers Log
 SOURCE: GWIN DRILLING CO. WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
550.0	PLEISTOCENE		CLAY	27.5	0.0	
522.5	PLEISTOCENE		BOULDER	0.5	27.5	GRAY
522.0	PLEISTOCENE		CLAY	7.0	28.0	
515.0	CARBONDALE		LIMESTONE	3.0	35.0	GRAY
512.0	CARBONDALE		SHALE	7.0	38.0	
505.0	CARBONDALE	BRERETON	LIMESTONE	4.0	45.0	DARK GRAY
501.0	CARBONDALE	HERRIN	MINE OPENING	6.0	49.0	INACCURACIES ARE POSSIBLE

MAPID: 1579027000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 6W **SECTION:** 16 **QUARTERS/FOOTAGES:** NW NE
QUADRANGLE: WALSH **LONGITUDE:** -89.766765 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.102169 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 549.5 **LOGGED (FT.):** 75.0 **LOG TYPE:** Drillers Log
SOURCE: OTHER CO. RECS RECVD FROM AMAX48 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
549.5	PLEISTOCENE		UNCONSOLIDATED	47.0	0.0	
502.5			ROCK	28.0	47.0	

MAPID: 15700024000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 5S 6W **SECTION:** 17 **QUARTERS/FOOTAGES:** SE SE
QUADRANGLE: WALSH **LONGITUDE:** -89.781088 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 38.091164 **DATE COLLECTED:** 10 / 0 / 1926
SURFACE ELEVATION (FT.): 543.6 **LOGGED (FT.):** 60.0 **LOG TYPE:** Drillers Log
SOURCE: W. C. MCBRIDE & CO. 1 **WELL TYPE:** Coal Test
COMMENT: TOTAL DEPTH IS 1006'

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
543.6	PLEISTOCENE		CLAY	20.0	0.0	YELLOW
523.6	CARBONDALE		LIMESTONE	6.0	20.0	WHITE
517.6	CARBONDALE		SANDSTONE	2.0	26.0	SOME WATER
515.6	CARBONDALE	BRERETON	LIMESTONE	2.0	28.0	WHITE
513.6	CARBONDALE	HERRIN	COAL	2.0	30.0	
511.6	CARBONDALE		BLACK SHALE	8.0	32.0	
503.6	CARBONDALE		BLACK SHALE	20.0	40.0	

MAPID: 15790181000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 6W **SECTION:** 17 **QUARTERS/FOOTAGES:** 1' S line, 2640' E line
QUADRANGLE: WALSH **LONGITUDE:** -89.788015 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.089366 **DATE COLLECTED:** 12 / 16 / 1926
SURFACE ELEVATION (FT.): 541.9 **LOGGED (FT.):** 37.5 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE 813 **WELL TYPE:** Coal Test
COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
541.9	PLEISTOCENE		UNCONSOLIDATED	31.0	0.0	
510.9	CARBONDALE		ROCK	2.0	31.0	
508.9	CARBONDALE	SPRINGFIELD	COAL	4.5	33.0	

MAPID: 15790194000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 6W **SECTION:** 17 **QUARTERS/FOOTAGES:** 1980' S line, 1980' W line
QUADRANGLE: WALSH **LONGITUDE:** -89.790556 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.094856 **DATE COLLECTED:** 12 / 16 / 1926
SURFACE ELEVATION (FT.): 541.0 **LOGGED (FT.):** 25.5 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE 911 **WELL TYPE:** Coal Test
COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
541.0	PLEISTOCENE		UNCONSOLIDATED	19.0	0.0
522.0	CARBONDALE		ROCK	4.0	19.0
518.0	CARBONDALE	SPRINGFIELD	COAL	2.5	23.0

MAPID: 15790195000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 6W **SECTION:** 17 **QUARTERS/FOOTAGES:** 1320' S line, 1320' E line
QUADRANGLE: WALSH **LONGITUDE:** -89.783289 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.092959 **DATE COLLECTED:** 12 / 16 / 1926
SURFACE ELEVATION (FT.): 537.6 **LOGGED (FT.):** 26.1 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE 915 **WELL TYPE:** Coal Test
COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
537.6	PLEISTOCENE		UNCONSOLIDATED	15.0	0.0
522.6	CARBONDALE		ROCK	9.0	15.0
513.6	CARBONDALE	SPRINGFIELD	COAL	2.1	24.0

MAPID: 15790202000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 6W **SECTION:** 17 **QUARTERS/FOOTAGES:** 1980' S line, 1' W line
QUADRANGLE: WALSH **LONGITUDE:** -89.797466 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.094927 **DATE COLLECTED:** 11 / 27 / 1926
SURFACE ELEVATION (FT.): 518.9 **LOGGED (FT.):** 22.8 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE 959 **WELL TYPE:** Coal Test
COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
518.9	PLEISTOCENE		UNCONSOLIDATED	13.0	0.0
505.9	CARBONDALE		ROCK	6.0	13.0
499.9	CARBONDALE	SPRINGFIELD	COAL	3.8	19.0

MAPID: 15790203000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 6W **SECTION:** 17 **QUARTERS/FOOTAGES:** 1980' S line, 2640' E line
QUADRANGLE: WALSH **LONGITUDE:** -89.787841 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.094827 **DATE COLLECTED:** 11 / 26 / 1926
SURFACE ELEVATION (FT.): 518.9 **LOGGED (FT.):** 22.7 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE 963 **WELL TYPE:** Coal Test
COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
518.9	PLEISTOCENE		UNCONSOLIDATED	8.0	0.0
510.9	CARBONDALE		ROCK	11.0	8.0
499.9	CARBONDALE	SPRINGFIELD	COAL	3.7	19.0

MAPID: 15790293000C **VERSION:** 1 **PROJECT:** NCRDS 02
COUNTY: RANDOLPH **TWP/RNG:** 5S 6W **SECTION:** 17 **QUARTERS/FOOTAGES:** 1' S line, 1' W line of SW SW
QUADRANGLE: WALSH **LONGITUDE:** -89.797555 **GEOLOGIST:** PHILLIPS
CONFIDENTIAL: N **LATITUDE:** 38.089466 **DATE COLLECTED:** 11 / 27 / 1926
SURFACE ELEVATION (FT.): 540.0 **LOGGED (FT.):** 38.5 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE 809 **WELL TYPE:** Coal Test
COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
540.0	PLEISTOCENE		UNCONSOLIDATED	24.0	0.0
516.0	CARBONDALE		ROCK	9.0	24.0
507.0	CARBONDALE	SPRINGFIELD	COAL	5.5	33.0

MAPID: 15790178000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 6W **SECTION:** 18 **QUARTERS/FOOTAGES:** 1' S line, 1' W line
QUADRANGLE: WALSH **LONGITUDE:** -89.81603 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.089627 **DATE COLLECTED:** 11 / 27 / 1926
SURFACE ELEVATION (FT.): 473.8 **LOGGED (FT.):** 32.0 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE 801 **WELL TYPE:** Coal Test
COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
473.8	PLEISTOCENE		UNCONSOLIDATED	8.0	0.0
465.8			ROCK	24.0	8.0

MAPID: 15790179000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 6W **SECTION:** 18 **QUARTERS/FOOTAGES:** 1' S line, 1320' W line
QUADRANGLE: WALSH **LONGITUDE:** -89.811423 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.089587 **DATE COLLECTED:** 11 / 29 / 1926
SURFACE ELEVATION (FT.): 511.7 **LOGGED (FT.):** 38.5 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE 803 **WELL TYPE:** Coal Test
COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
511.7	PLEISTOCENE		UNCONSOLIDATED	33.0	0.0	
478.7	CARBONDALE	SPRINGFIELD	COAL	5.5	33.0	TOP ERODED

MAPID: 15790193000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 6W **SECTION:** 18 **QUARTERS/FOOTAGES:** 1320' S line, 2640' E line
QUADRANGLE: WALSH **LONGITUDE:** -89.806719 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.093186 **DATE COLLECTED:** 11 / 29 / 1926
SURFACE ELEVATION (FT.): 508.7 **LOGGED (FT.):** 52.0 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE 905 **WELL TYPE:** Coal Test
COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
508.7	PLEISTOCENE		UNCONSOLIDATED	5.0	0.0	
503.7			ROCK	47.0	5.0	

MAPID: 15790152000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 6W **SECTION:** 19 **QUARTERS/FOOTAGES:** 2640' N line, 2640' E line
QUADRANGLE: WALSH **LONGITUDE:** -89.806879 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.082256 **DATE COLLECTED:** 11 / 29 / 1926
SURFACE ELEVATION (FT.): 520.0 **LOGGED (FT.):** 53.0 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE 605 **WELL TYPE:** Coal Test
COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
520.0	PLEISTOCENE		UNCONSOLIDATED	53.0	0.0	

MAPID: 15702637000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 20 QUARTERS/FOOTAGES: 30' N line, 1100' W line of NW

QUADRANGLE: WALSH LONGITUDE: -89.793722 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.089341 DATE COLLECTED: 8 / 28 / 1972

SURFACE ELEVATION (FT.): 540.0 LOGGED (FT.): 101.0 LOG TYPE: Drillers Log

SOURCE: GWIN DRILLING COMPANY 1 WELL TYPE: Coal Test

COMMENT: TOTAL DEPTH IS 225

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
540.0	PLEISTOCENE		CLAY	17.0	0.0	
523.0	PLEISTOCENE		CLAY & SHALE	5.0	17.0	
518.0	PLEISTOCENE		CLAY & GRAVEL	6.0	22.0	
512.0	CARBONDALE		LIMESTONE	0.5	28.0	WHITE
511.5	CARBONDALE		LIMESTONE	2.0	28.5	BROWN
509.5	CARBONDALE		LIMESTONE	3.5	30.5	GRAY
506.0	CARBONDALE		SHALE	2.0	34.0	BROWN
504.0	CARBONDALE		SHALE	2.0	36.0	
502.0	CARBONDALE	SPRINGFIELD	COAL	3.0	38.0	
499.0	CARBONDALE		SHALE	35.0	41.0	SOFT
464.0	CARBONDALE		SANDY SHALE	25.0	76.0	SANDY

MAPID: 15790153000C VERSION: 1

PROJECT: AVAIL

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 20 QUARTERS/FOOTAGES:

QUADRANGLE: WALSH LONGITUDE: -89.788275 GEOLOGIST: LAWSON

CONFIDENTIAL: N LATITUDE: 38.081953 DATE COLLECTED:

SURFACE ELEVATION (FT.): 531.4 LOGGED (FT.): 55.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 613 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
531.4	PLEISTOCENE		UNCONSOLIDATED	40.0	0.0	
491.4			ROCK	15.0	40.0	

MAPID: 15790120000C VERSION: 1

PROJECT: AVAIL

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 21 QUARTERS/FOOTAGES: 1' S line, 2640' W line

QUADRANGLE: WALSH LONGITUDE: -89.76976 GEOLOGIST: LAWSON

CONFIDENTIAL: N LATITUDE: 38.07437 DATE COLLECTED: 11 / 20 / 1926

SURFACE ELEVATION (FT.): 535.4 LOGGED (FT.): 54.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 421 WELL TYPE: Coal Test

COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
535.4	PLEISTOCENE		UNCONSOLIDATED	12.0	0.0	
523.4			ROCK	42.0	12.0	

MAPID: 15790154000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 6W **SECTION:** 21 **QUARTERS/FOOTAGES:** 2640' N line, 2640' E line
QUADRANGLE: WALSH **LONGITUDE:** -89.769271 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.081941 **DATE COLLECTED:** 11 / 11 / 1926
SURFACE ELEVATION (FT.): 546.9 **LOGGED (FT.):** 66.0 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE 621 **WELL TYPE:** Coal Test
COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
546.9	PLEISTOCENE		UNCONSOLIDATED	34.0	0.0
512.9			ROCK	32.0	34.0

MAPID: 15790121000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 6W **SECTION:** 22 **QUARTERS/FOOTAGES:** 1' S line, 1' W line
QUADRANGLE: WALSH **LONGITUDE:** -89.760075 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.074287 **DATE COLLECTED:** 11 / 11 / 1926
SURFACE ELEVATION (FT.): 535.1 **LOGGED (FT.):** 46.2 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE 425 **WELL TYPE:** Coal Test
COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
535.1	PLEISTOCENE		UNCONSOLIDATED	28.0	0.0
507.1	CARBONDALE		ROCK	14.0	28.0
493.1	CARBONDALE	SPRINGFIELD	COAL	4.2	42.0

MAPID: 15790122000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 6W **SECTION:** 22 **QUARTERS/FOOTAGES:** 1' S line, 1320' W line
QUADRANGLE: WALSH **LONGITUDE:** -89.755472 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.074237 **DATE COLLECTED:** 1 / 10 / 1927
SURFACE ELEVATION (FT.): 524.1 **LOGGED (FT.):** 65.0 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE 427 **WELL TYPE:** Coal Test
COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
524.1	PLEISTOCENE		UNCONSOLIDATED	65.0	0.0

MAPID: 15790123000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 6W **SECTION:** 22 **QUARTERS/FOOTAGES:** 1' S line, 2640' W line
QUADRANGLE: WALSH **LONGITUDE:** -89.750862 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.074186 **DATE COLLECTED:** 11 / 15 / 1926
SURFACE ELEVATION (FT.): 523.1 **LOGGED (FT.):** 64.1 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE 429 **WELL TYPE:** Coal Test
COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
523.1	PLEISTOCENE		UNCONSOLIDATED	22.0	0.0
501.1			ROCK	36.0	22.0
465.1	CARBONDALE	HERRIN	COAL	6.1	58.0

MAPID: 15790124000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 6W **SECTION:** 22 **QUARTERS/FOOTAGES:** 1' S line, 1320' E line
QUADRANGLE: STEELEVILLE **LONGITUDE:** -89.745962 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.074131 **DATE COLLECTED:** 1 / 12 / 1927
SURFACE ELEVATION (FT.): 494.9 **LOGGED (FT.):** 59.5 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE 431 **WELL TYPE:** Coal Test
COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
494.9	PLEISTOCENE		UNCONSOLIDATED	38.0	0.0
456.9	CARBONDALE		ROCK	11.0	38.0
445.9	CARBONDALE		COAL	0.5	49.0
445.4	CARBONDALE		ROCK	5.5	49.5
439.9	CARBONDALE	SPRINGFIELD	COAL	4.5	55.0

MAPID: 15790130000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 6W **SECTION:** 22 **QUARTERS/FOOTAGES:** 660' S line, 660' W line of SW SW
QUADRANGLE: WALSH **LONGITUDE:** -89.75777 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.076082 **DATE COLLECTED:** 8 / 10 / 1927
SURFACE ELEVATION (FT.): 540.0 **LOGGED (FT.):** 72.6 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE 476 **WELL TYPE:** Coal Test
COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
540.0	PLEISTOCENE		UNCONSOLIDATED	20.0	0.0
520.0			ROCK	48.0	20.0
472.0	CARBONDALE	SPRINGFIELD	COAL	4.6	68.0

MAPID: 15790131000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 6W **SECTION:** 22 **QUARTERS/FOOTAGES:** 660' S line, 1980' W line
QUADRANGLE: WALSH **LONGITUDE:** -89.75316 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.076031 **DATE COLLECTED:** 1 / 12 / 1927
SURFACE ELEVATION (FT.): 520.9 **LOGGED (FT.):** 44.0 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE 478 **WELL TYPE:** Coal Test
COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
520.9	PLEISTOCENE		UNCONSOLIDATED	39.0	0.0	
481.9	CARBONDALE	HERRIN	COAL	5.0	39.0	TOP ERODED

MAPID: 15790132000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 6W **SECTION:** 22 **QUARTERS/FOOTAGES:** 660' S line, 1980' E line
QUADRANGLE: STEELEVILLE **LONGITUDE:** -89.748249 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.075975 **DATE COLLECTED:** 8 / 10 / 1929
SURFACE ELEVATION (FT.): 500.0 **LOGGED (FT.):** 44.3 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE 480 **WELL TYPE:** Coal Test
COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
500.0	PLEISTOCENE		UNCONSOLIDATED	20.0	0.0	
480.0			ROCK	21.0	20.0	
459.0	CARBONDALE	HERRIN	COAL	3.3	41.0	

MAPID: 15790133000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 6W **SECTION:** 22 **QUARTERS/FOOTAGES:** 660' S line, 660' E line
QUADRANGLE: STEELEVILLE **LONGITUDE:** -89.743643 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.075925 **DATE COLLECTED:** 8 / 10 / 1927
SURFACE ELEVATION (FT.): 520.0 **LOGGED (FT.):** 43.0 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE 482 **WELL TYPE:** Coal Test
COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
520.0	PLEISTOCENE		UNCONSOLIDATED	30.5	0.0	
489.5			ROCK	12.5	30.5	

MAPID: 15790137000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 6W **SECTION:** 22 **QUARTERS/FOOTAGES:** 1320' S line, 1' W line
QUADRANGLE: WALSH **LONGITUDE:** -89.760064 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.077929 **DATE COLLECTED:** 8 / 10 / 1927
SURFACE ELEVATION (FT.): 520.0 **LOGGED (FT.):** 68.1 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE 525 **WELL TYPE:** Coal Test
COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
520.0	PLEISTOCENE		UNCONSOLIDATED	33.0	0.0
487.0	PLEISTOCENE		UNCONSOLIDATED	12.0	33.0
475.0	CARBONDALE		ROCK	18.0	45.0
457.0	CARBONDALE	SPRINGFIELD	COAL	5.1	63.0

MAPID: 15790138000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 6W **SECTION:** 22 **QUARTERS/FOOTAGES:** 1320' S line, 1320' W line
QUADRANGLE: WALSH **LONGITUDE:** -89.755457 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.077878 **DATE COLLECTED:** 12 / 14 / 1926
SURFACE ELEVATION (FT.): 521.1 **LOGGED (FT.):** 64.7 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE 527 **WELL TYPE:** Coal Test
COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
521.1	PLEISTOCENE		UNCONSOLIDATED	36.0	0.0
485.1	CARBONDALE		ROCK	24.0	36.0
461.1	CARBONDALE	SPRINGFIELD	COAL	4.7	60.0

MAPID: 15790139000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 6W **SECTION:** 22 **QUARTERS/FOOTAGES:** 1320' S line, 2640' E line
QUADRANGLE: WALSH **LONGITUDE:** -89.75054 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.077823 **DATE COLLECTED:** 1 / 10 / 1927
SURFACE ELEVATION (FT.): 507.8 **LOGGED (FT.):** 42.3 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE 529 **WELL TYPE:** Coal Test
COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
507.8	PLEISTOCENE		UNCONSOLIDATED	21.0	0.0
486.8			ROCK	17.0	21.0
469.8	CARBONDALE	HERRIN	COAL	4.3	38.0

MAPID: 15790140000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 6W **SECTION:** 22 **QUARTERS/FOOTAGES:** 1320' S line, 1320' E line
QUADRANGLE: STEELEVILLE **LONGITUDE:** -89.745929 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.077772 **DATE COLLECTED:** 12 / 10 / 1926
SURFACE ELEVATION (FT.): 520.0 **LOGGED (FT.):** 50.6 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE 531 **WELL TYPE:** Coal Test
COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
520.0	PLEISTOCENE		UNCONSOLIDATED	44.0	0.0
476.0	CARBONDALE		ROCK	1.0	44.0
475.0	CARBONDALE	HERRIN	COAL	5.6	45.0

MAPID: 15790146000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 6W **SECTION:** 22 **QUARTERS/FOOTAGES:** 1980' S line, 660' W line
QUADRANGLE: WALSH **LONGITUDE:** -89.757755 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.079726 **DATE COLLECTED:** 8 / 9 / 1927
SURFACE ELEVATION (FT.): 520.0 **LOGGED (FT.):** 72.1 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE 576 **WELL TYPE:** Coal Test
COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
520.0	PLEISTOCENE		UNCONSOLIDATED	20.0	0.0
500.0			ROCK	48.0	20.0
452.0	CARBONDALE	HERRIN	COAL	4.1	68.0

MAPID: 15790147000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 6W **SECTION:** 22 **QUARTERS/FOOTAGES:** NE SW
QUADRANGLE: WALSH **LONGITUDE:** -89.753023 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.079791 **DATE COLLECTED:** 8 / 9 / 1927
SURFACE ELEVATION (FT.): **LOGGED (FT.):** 53.8 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE 578 **WELL TYPE:** Coal Test
COMMENT: NOT IN HEADERS FILE, NO ELV LISTED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-	PLEISTOCENE		UNCONSOLIDATED	41.0	0.0
-			ROCK	8.0	41.0
-	CARBONDALE	HERRIN	COAL	4.8	49.0

MAPID: 15790148000C VERSION: 1

PROJECT: AVAIL

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 22 QUARTERS/FOOTAGES:

QUADRANGLE: WALSH LONGITUDE: -89.750668

GEOLOGIST: LAWSON

CONFIDENTIAL: N LATITUDE: 38.081624

DATE COLLECTED:

SURFACE ELEVATION (FT.): LOGGED (FT.): 59.2

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 580

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-	PLEISTOCENE		UNCONSOLIDATED	20.0	0.0
-			ROCK	34.0	20.0
-	CARBONDALE	HERRIN	COAL	5.2	54.0

MAPID: 15790149000C VERSION: 1

PROJECT: AVAIL

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 22 QUARTERS/FOOTAGES:

QUADRANGLE: WALSH LONGITUDE: -89.750668

GEOLOGIST: LAWSON

CONFIDENTIAL: N LATITUDE: 38.081624

DATE COLLECTED:

SURFACE ELEVATION (FT.): LOGGED (FT.): 32.5

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 582

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-	PLEISTOCENE		UNCONSOLIDATED	20.0	0.0
-			ROCK	7.0	20.0
-	CARBONDALE	HERRIN	COAL	5.5	27.0

MAPID: 15790155000C VERSION: 1

PROJECT: AVAIL

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 22 QUARTERS/FOOTAGES: 2640' N line, 1' W line

QUADRANGLE: WALSH LONGITUDE: -89.760047

GEOLOGIST: LAWSON

CONFIDENTIAL: N LATITUDE: 38.081904

DATE COLLECTED: 11 / 22 / 1926

SURFACE ELEVATION (FT.): 540.0 LOGGED (FT.): 73.2

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 625

WELL TYPE: Coal Test

COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
540.0	PLEISTOCENE		UNCONSOLIDATED	60.0	0.0
480.0	CARBONDALE		ROCK	9.0	60.0
471.0	CARBONDALE	SPRINGFIELD	COAL	4.2	69.0

MAPID: 15790156000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 6W **SECTION:** 22 **QUARTERS/FOOTAGES:** 2640' N line, 1320' W line
QUADRANGLE: WALSH **LONGITUDE:** -89.75544 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.081843 **DATE COLLECTED:** 1 / 28 / 1927
SURFACE ELEVATION (FT.): 533.3 **LOGGED (FT.):** 52.4 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE 627 **WELL TYPE:** Coal Test
COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
533.3	PLEISTOCENE		UNCONSOLIDATED	28.0	0.0
505.3			ROCK	19.0	28.0
486.3	CARBONDALE	HERRIN	COAL	5.4	47.0

MAPID: 15790157000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 6W **SECTION:** 22 **QUARTERS/FOOTAGES:** 2640' N line, 2640' E line
QUADRANGLE: WALSH **LONGITUDE:** -89.750501 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.081776 **DATE COLLECTED:** 11 / 11 / 1926
SURFACE ELEVATION (FT.): 525.3 **LOGGED (FT.):** 60.0 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE 629 **WELL TYPE:** Coal Test
COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
525.3	PLEISTOCENE		UNCONSOLIDATED	41.0	0.0
484.3			ROCK	14.0	41.0
470.3	CARBONDALE	HERRIN	COAL	5.0	55.0

MAPID: 15790158000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 6W **SECTION:** 22 **QUARTERS/FOOTAGES:** 2640' N line, 1320' E line
QUADRANGLE: STEELEVILLE **LONGITUDE:** -89.745891 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.081712 **DATE COLLECTED:** 1 / 10 / 1927
SURFACE ELEVATION (FT.): 520.0 **LOGGED (FT.):** 44.8 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE 631 **WELL TYPE:** Coal Test
COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
520.0	PLEISTOCENE		UNCONSOLIDATED	25.0	0.0
495.0			ROCK	15.0	25.0
480.0	CARBONDALE	HERRIN	COAL	4.8	40.0

MAPID: 15790164000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 6W **SECTION:** 22 **QUARTERS/FOOTAGES:** 1980' N line, 660' W line
QUADRANGLE: WALSH **LONGITUDE:** -89.757738 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.083696 **DATE COLLECTED:** 8 / 6 / 1927
SURFACE ELEVATION (FT.): 520.0 **LOGGED (FT.):** 47.8 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE 676 **WELL TYPE:** Coal Test
COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
520.0	PLEISTOCENE		UNCONSOLIDATED	26.0	0.0
494.0			ROCK	17.0	26.0
477.0	CARBONDALE	HERRIN	COAL	4.8	43.0

MAPID: 15790165000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 6W **SECTION:** 22 **QUARTERS/FOOTAGES:** 1980' N line, 1980' W line
QUADRANGLE: WALSH **LONGITUDE:** -89.753127 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.083634 **DATE COLLECTED:** 8 / 8 / 1927
SURFACE ELEVATION (FT.): 529.5 **LOGGED (FT.):** 63.4 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE 678 **WELL TYPE:** Coal Test
COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
529.5			ROCK	53.5	0.0
476.0			ROCK	5.0	53.5
471.0	CARBONDALE	HERRIN	COAL	4.9	58.5

MAPID: 15790166000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 6W **SECTION:** 22 **QUARTERS/FOOTAGES:** 1980' N line, 1980' E line
QUADRANGLE: STEELEVILLE **LONGITUDE:** -89.748178 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.083565 **DATE COLLECTED:** 8 / 9 / 1927
SURFACE ELEVATION (FT.): 524.9 **LOGGED (FT.):** 62.3 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE 680 **WELL TYPE:** Coal Test
COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
524.9	PLEISTOCENE		UNCONSOLIDATED	27.0	0.0
497.9			ROCK	30.0	27.0
467.9	CARBONDALE	HERRIN	COAL	5.3	57.0

MAPID: 15790167000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 6W **SECTION:** 22 **QUARTERS/FOOTAGES:** 1980' N line, 660' E line
QUADRANGLE: STEELEVILLE **LONGITUDE:** -89.74357 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.083503 **DATE COLLECTED:** 8 / 9 / 1927
SURFACE ELEVATION (FT.): 500.0 **LOGGED (FT.):** 33.7 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE 682 **WELL TYPE:** Coal Test
COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
500.0			ROCK	24.0	0.0
476.0			ROCK	5.0	24.0
471.0	CARBONDALE	HERRIN	COAL	4.7	29.0

MAPID: 15790169000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 6W **SECTION:** 22 **QUARTERS/FOOTAGES:** 1320' N line, 1' W line
QUADRANGLE: WALSH **LONGITUDE:** -89.760032 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.085548 **DATE COLLECTED:** 8 / 8 / 1927
SURFACE ELEVATION (FT.): 520.0 **LOGGED (FT.):** 67.2 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE 725 **WELL TYPE:** Coal Test
COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
520.0	PLEISTOCENE		UNCONSOLIDATED	25.0	0.0
495.0			ROCK	37.0	25.0
458.0	CARBONDALE	HERRIN	COAL	5.2	62.0

MAPID: 15790170000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 6W **SECTION:** 22 **QUARTERS/FOOTAGES:** 1320' N line, 1320' W line
QUADRANGLE: WALSH **LONGITUDE:** -89.755425 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.085487 **DATE COLLECTED:** 1 / 26 / 1927
SURFACE ELEVATION (FT.): 526.1 **LOGGED (FT.):** 59.9 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE 727 **WELL TYPE:** Coal Test
COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
526.1	PLEISTOCENE		UNCONSOLIDATED	19.0	0.0
507.1			ROCK	36.0	19.0
471.1	CARBONDALE	HERRIN	ROCK	4.9	55.0

MAPID: 15790171000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 6W **SECTION:** 22 **QUARTERS/FOOTAGES:** 1320' N line, 2640' E line
QUADRANGLE: WALSH **LONGITUDE:** -89.750465 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.085418 **DATE COLLECTED:** 1 / 28 / 1927
SURFACE ELEVATION (FT.): 525.1 **LOGGED (FT.):** 70.0 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE 729 **WELL TYPE:** Coal Test
COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
525.1	PLEISTOCENE		UNCONSOLIDATED	33.0	0.0
492.1			ROCK	37.0	33.0

MAPID: 15790172000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 6W **SECTION:** 22 **QUARTERS/FOOTAGES:** 1320' N line, 1320' E line
QUADRANGLE: STEELEVILLE **LONGITUDE:** -89.745858 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.085356 **DATE COLLECTED:** 12 / 15 / 1926
SURFACE ELEVATION (FT.): 523.6 **LOGGED (FT.):** 64.1 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE 731 **WELL TYPE:** Coal Test
COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
523.6	PLEISTOCENE		UNCONSOLIDATED	36.0	0.0
487.6			ROCK	23.0	36.0
464.6	CARBONDALE	HERRIN	COAL	5.1	59.0

MAPID: 15790175000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 6W **SECTION:** 22 **QUARTERS/FOOTAGES:** 660' N line, 660' W line
QUADRANGLE: WALSH **LONGITUDE:** -89.757723 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.08734 **DATE COLLECTED:** 8 / 6 / 1927
SURFACE ELEVATION (FT.): 520.0 **LOGGED (FT.):** 60.2 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE 776 **WELL TYPE:** Coal Test
COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
520.0	PLEISTOCENE		UNCONSOLIDATED	22.0	0.0
498.0			ROCK	33.0	22.0
465.0	CARBONDALE	HERRIN	COAL	5.2	55.0

MAPID: 15790176000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 6W **SECTION:** 22 **QUARTERS/FOOTAGES:** 660' N line, 1980' W line
QUADRANGLE: WALSH **LONGITUDE:** -89.753112 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.087275 **DATE COLLECTED:** 8 / 10 / 1927
SURFACE ELEVATION (FT.): 520.0 **LOGGED (FT.):** 73.4 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE 778 **WELL TYPE:** Coal Test
COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
520.0	PLEISTOCENE		UNCONSOLIDATED	38.0	0.0	
482.0			ROCK	30.0	38.0	
452.0	CARBONDALE	HERRIN	COAL	5.4	68.0	

MAPID: 15790177000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 6W **SECTION:** 22 **QUARTERS/FOOTAGES:** 660' N line, 660' E line
QUADRANGLE: STEELEVILLE **LONGITUDE:** -89.743534 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.087147 **DATE COLLECTED:** 2 / 8 / 1927
SURFACE ELEVATION (FT.): 516.5 **LOGGED (FT.):** 70.0 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE 782 **WELL TYPE:** Coal Test
COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
516.5	PLEISTOCENE		UNCONSOLIDATED	30.0	0.0	
486.5			ROCK	40.0	30.0	

MAPID: 15723622000C **VERSION:** 1 **PROJECT:** LUMP
COUNTY: RANDOLPH **TWP/RNG:** 5S 6W **SECTION:** 23 **QUARTERS/FOOTAGES:**
QUADRANGLE: STEELEVILLE **LONGITUDE:** -89.722791 **GEOLOGIST:** J. MCBETH
CONFIDENTIAL: N **LATITUDE:** 38.074203 **DATE COLLECTED:** 5 / 18 / 1979
SURFACE ELEVATION (FT.): 487.4 **LOGGED (FT.):** 31.3 **LOG TYPE:** Drillers Log
SOURCE: CONSOLIDATION COAL C-9606 **WELL TYPE:** Coal Test
COMMENT: PERMIT 72; BURNING STAR #3

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
487.4	PLEISTOCENE		UNCONSOLIDATED	20.0	0.0	
467.4			LIMESTONE	3.1	20.0	
464.3			GRAY SHALE	0.7	23.1	WITH LIMESTONE STREAKS
463.6			SHALE	1.2	23.8	
462.4			BLACK SHALE	1.2	25.0	BLK SHALE
461.2			COAL	4.8	26.2	
456.4			UNDERCLAY	0.3	31.0	

MAPID: 15723627000C VERSION: 1

PROJECT: LUMP

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 23 QUARTERS/FOOTAGES:

QUADRANGLE: STEELEVILLE LONGITUDE: -89.732032

GEOLOGIST: J. MCBETH

CONFIDENTIAL: N LATITUDE: 38.077677

DATE COLLECTED: 6 / 4 / 1979

SURFACE ELEVATION (FT.): 511.0 LOGGED (FT.): 79.2

LOG TYPE: Drillers Log

SOURCE: CONSOLIDATION COAL C-9611

WELL TYPE: Coal Test

COMMENT: PERMIT 72; BURNING STAR #3

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
511.0	PLEISTOCENE		SOIL	3.0	0.0	
508.0	PLEISTOCENE		CLAY	8.2	3.0	
499.8	PLEISTOCENE		SANDY CLAY	6.0	11.2	
493.8	PLEISTOCENE		SAND & GRAVEL	1.7	17.2	
492.1	PLEISTOCENE		SANDY CLAY	4.0	18.9	
488.1	PLEISTOCENE		CLAY	7.3	22.9	
480.8	PLEISTOCENE		CLAY	7.0	30.2	W/ SAND & GRAVEL
473.8	PLEISTOCENE		CLAY	0.9	37.2	
472.9	CARBONDALE		SHALE	1.6	38.1	
471.3	CARBONDALE		LIMESTONE	1.4	39.7	
469.9	CARBONDALE		SHALE	3.5	41.1	
466.4	CARBONDALE		SHALE	0.5	44.6	WITH LIMESTONE
465.9	CARBONDALE	BRERETON	LIMESTONE	2.1	45.1	
463.8	CARBONDALE	HERRIN	COAL	4.7	47.2	
459.1	CARBONDALE		GRAY SHALE	5.7	51.9	
453.4	CARBONDALE		LIMESTONE	8.5	57.6	
444.9	CARBONDALE		GRAY SHALE	6.2	66.1	
438.7	CARBONDALE		SHALE	1.5	72.3	
437.2	CARBONDALE	SPRINGFIELD	COAL	4.7	73.8	
432.5	CARBONDALE		CLAYSTONE	0.7	78.5	CLAYSTONE

MAPID: 15790125000C VERSION: 1

PROJECT: AVAIL

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 23 QUARTERS/FOOTAGES: SW SW SW SW

QUADRANGLE: STEELEVILLE LONGITUDE: -89.740764

GEOLOGIST: LAWSON

CONFIDENTIAL: N LATITUDE: 38.074542

DATE COLLECTED: 11 / 13 / 1926

SURFACE ELEVATION (FT.): 513.0 LOGGED (FT.): 48.4

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 433

WELL TYPE: Coal Test

COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
513.0	PLEISTOCENE		UNCONSOLIDATED	24.0	0.0	
489.0	PLEISTOCENE		ROCK	20.0	24.0	
469.0	CARBONDALE	SPRINGFIELD	COAL	4.4	44.0	

MAPID: 15790126000C VERSION: 1

PROJECT: AVAIL

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 23 QUARTERS/FOOTAGES: NW SW SE SW

QUADRANGLE: STEELEVILLE LONGITUDE: -89.73608 GEOLOGIST: LAWSON

CONFIDENTIAL: N LATITUDE: 38.075488 DATE COLLECTED: 1 / 11 / 1927

SURFACE ELEVATION (FT.): 506.9 LOGGED (FT.): 63.1 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 435 WELL TYPE: Coal Test

COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
506.9	PLEISTOCENE		UNCONSOLIDATED	50.0	0.0
456.9	CARBONDALE		COAL	0.5	50.0
456.4	PLEISTOCENE		ROCK	7.5	50.5
448.9	CARBONDALE	SPRINGFIELD	COAL	5.1	58.0

MAPID: 15790127000C VERSION: 1

PROJECT: AVAIL

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 23 QUARTERS/FOOTAGES: 1' S line, 2640' E line

QUADRANGLE: STEELEVILLE LONGITUDE: -89.731867 GEOLOGIST: LAWSON

CONFIDENTIAL: N LATITUDE: 38.074119 DATE COLLECTED: 11 / 24 / 1926

SURFACE ELEVATION (FT.): 500.8 LOGGED (FT.): 56.2 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 437 WELL TYPE: Coal Test

COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
500.8	PLEISTOCENE		UNCONSOLIDATED	19.0	0.0
481.8			ROCK	5.0	19.0
476.8	CARBONDALE	HERRIN	COAL	3.5	24.0
473.3	CARBONDALE		ROCK	23.5	27.5
449.8	CARBONDALE	SPRINGFIELD	COAL	5.2	51.0

MAPID: 15790128000C VERSION: 1

PROJECT: AVAIL

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 23 QUARTERS/FOOTAGES: 1' S line, 1320' E line

QUADRANGLE: STEELEVILLE LONGITUDE: -89.727258 GEOLOGIST: LAWSON

CONFIDENTIAL: N LATITUDE: 38.074136 DATE COLLECTED: 1 / 19 / 1927

SURFACE ELEVATION (FT.): 500.9 LOGGED (FT.): 60.1 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 439 WELL TYPE: Coal Test

COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
500.9	PLEISTOCENE		UNCONSOLIDATED	32.0	0.0
468.9	CARBONDALE		ROCK	24.0	32.0
444.9	CARBONDALE	SPRINGFIELD	COAL	4.1	56.0

MAPID: 15790134000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 6W **SECTION:** 23 **QUARTERS/FOOTAGES:** 660' S line, 660' W line
QUADRANGLE: STEELEVILLE **LONGITUDE:** -89.739033 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.075907 **DATE COLLECTED:** 8 / 11 / 1927
SURFACE ELEVATION (FT.): 500.0 **LOGGED (FT.):** 62.8 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE 484 **WELL TYPE:** Coal Test
COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
500.0	PLEISTOCENE		UNCONSOLIDATED	39.0	0.0
461.0	CARBONDALE		ROCK	19.0	39.0
442.0	CARBONDALE	SPRINGFIELD	COAL	4.8	58.0

MAPID: 15790135000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 6W **SECTION:** 23 **QUARTERS/FOOTAGES:** 660' S line, 1980' W line
QUADRANGLE: STEELEVILLE **LONGITUDE:** -89.734423 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.075927 **DATE COLLECTED:** 8 / 12 / 1927
SURFACE ELEVATION (FT.): 500.0 **LOGGED (FT.):** 67.2 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE 486 **WELL TYPE:** Coal Test
COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
500.0	PLEISTOCENE		UNCONSOLIDATED	20.0	0.0
480.0			ROCK	43.0	20.0
437.0	CARBONDALE	SPRINGFIELD	COAL	4.2	63.0

MAPID: 15790136000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 6W **SECTION:** 23 **QUARTERS/FOOTAGES:** 660' S line, 1980' E line
QUADRANGLE: STEELEVILLE **LONGITUDE:** -89.729544 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.075945 **DATE COLLECTED:** 8 / 10 / 1927
SURFACE ELEVATION (FT.): 500.0 **LOGGED (FT.):** 55.5 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE 488 **WELL TYPE:** Coal Test
COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
500.0	PLEISTOCENE		UNCONSOLIDATED	25.0	0.0
475.0	CARBONDALE		ROCK	21.5	25.0
453.5	CARBONDALE		ROCK	1.0	46.5 WITH COAL
452.5	CARBONDALE		ROCK	3.5	47.5
449.0	CARBONDALE	SPRINGFIELD	COAL	4.5	51.0

MAPID: 15790141000C VERSION: 1

PROJECT: AVAIL

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 23 QUARTERS/FOOTAGES: 1320' S line, 1' W line
 QUADRANGLE: STEELEVILLE LONGITUDE: -89.741316 GEOLOGIST: LAWSON
 CONFIDENTIAL: N LATITUDE: 38.077721 DATE COLLECTED: 1 / 12 / 1927
 SURFACE ELEVATION (FT.): 493.0 LOGGED (FT.): 39.0 LOG TYPE: Drillers Log
 SOURCE: AYRSHIRE 533 WELL TYPE: Coal Test
 COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
493.0	PLEISTOCENE		UNCONSOLIDATED	11.0	0.0
482.0	CARBONDALE		ROCK	24.0	11.0
458.0	CARBONDALE	HERRIN	COAL	4.0	35.0

MAPID: 15790142000C VERSION: 1

PROJECT: AVAIL

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 23 QUARTERS/FOOTAGES: 1320' S line, 1320' W line
 QUADRANGLE: STEELEVILLE LONGITUDE: -89.736709 GEOLOGIST: LAWSON
 CONFIDENTIAL: N LATITUDE: 38.077739 DATE COLLECTED: 12 / 8 / 1926
 SURFACE ELEVATION (FT.): 512.9 LOGGED (FT.): 44.8 LOG TYPE: Drillers Log
 SOURCE: AYRSHIRE 535 WELL TYPE: Coal Test
 COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
512.9	PLEISTOCENE		UNCONSOLIDATED	23.0	0.0
489.9			ROCK	16.0	23.0
473.9	CARBONDALE	HERRIN	COAL	5.8	39.0

MAPID: 15790143000C VERSION: 1

PROJECT: AVAIL

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 23 QUARTERS/FOOTAGES: 1320' S line, 2640' E line
 QUADRANGLE: STEELEVILLE LONGITUDE: -89.73183 GEOLOGIST: LAWSON
 CONFIDENTIAL: N LATITUDE: 38.07776 DATE COLLECTED: 1 / 26 / 1927
 SURFACE ELEVATION (FT.): 511.6 LOGGED (FT.): 52.8 LOG TYPE: Drillers Log
 SOURCE: AYRSHIRE 537 WELL TYPE: Coal Test
 COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
511.6	PLEISTOCENE		UNCONSOLIDATED	36.0	0.0
475.6			ROCK	11.0	36.0
464.6	CARBONDALE	HERRIN	COAL	5.8	47.0

MAPID: 15790144000C VERSION: 1

PROJECT: AVAIL

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 23 QUARTERS/FOOTAGES: 1320' S line, 1320' E line

QUADRANGLE: STEELEVILLE LONGITUDE: -89.72722 GEOLOGIST: LAWSON

CONFIDENTIAL: N LATITUDE: 38.077778 DATE COLLECTED: 12 / 12 / 1926

SURFACE ELEVATION (FT.): 518.5 LOGGED (FT.): 65.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 539 WELL TYPE: Coal Test

COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
518.5	PLEISTOCENE		UNCONSOLIDATED	65.0	0.0

MAPID: 15790150000C VERSION: 1

PROJECT: AVAIL

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 23 QUARTERS/FOOTAGES:

QUADRANGLE: STEELEVILLE LONGITUDE: -89.73193 GEOLOGIST: LAWSON

CONFIDENTIAL: N LATITUDE: 38.081509 DATE COLLECTED:

SURFACE ELEVATION (FT.): LOGGED (FT.): 44.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 584 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-	PLEISTOCENE		UNCONSOLIDATED	31.0	0.0
-			ROCK	2.0	31.0
-			COAL	1.0	33.0
-			ROCK	5.5	34.0
-	CARBONDALE	HERRIN	COAL	4.5	39.5

MAPID: 15790151000C VERSION: 1

PROJECT: AVAIL

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 23 QUARTERS/FOOTAGES: 1980' S line, 1980' W line

QUADRANGLE: STEELEVILLE LONGITUDE: -89.734386 GEOLOGIST: LAWSON

CONFIDENTIAL: N LATITUDE: 38.079571 DATE COLLECTED: 8 / 10 / 1927

SURFACE ELEVATION (FT.): 520.0 LOGGED (FT.): 53.8 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 586 WELL TYPE: Coal Test

COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
520.0	PLEISTOCENE		UNCONSOLIDATED	18.0	0.0
502.0			ROCK	31.0	18.0
471.0	CARBONDALE	SPRINGFIELD	COAL	4.8	49.0

MAPID: 15790159000C VERSION: 1

PROJECT: AVAIL

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 23 QUARTERS/FOOTAGES: 2640' N line, 1' W line
 QUADRANGLE: STEELEVILLE LONGITUDE: -89.741276 GEOLOGIST: LAWSON
 CONFIDENTIAL: N LATITUDE: 38.08165 DATE COLLECTED: 11 / 12 / 1926
 SURFACE ELEVATION (FT.): 495.6 LOGGED (FT.): 27.5 LOG TYPE: Drillers Log
 SOURCE: AYRSHIRE 633 WELL TYPE: Coal Test
 COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
495.6	PLEISTOCENE		UNCONSOLIDATED	12.0	0.0
483.6			ROCK	11.0	12.0
472.6	CARBONDALE	HERRIN	COAL	4.5	23.0

MAPID: 15790160000C VERSION: 1

PROJECT: AVAIL

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 23 QUARTERS/FOOTAGES: 2640' N line, 1320' W line
 QUADRANGLE: STEELEVILLE LONGITUDE: -89.736673 GEOLOGIST: LAWSON
 CONFIDENTIAL: N LATITUDE: 38.081632 DATE COLLECTED: 1 / 10 / 1927
 SURFACE ELEVATION (FT.): 514.2 LOGGED (FT.): 51.3 LOG TYPE: Drillers Log
 SOURCE: AYRSHIRE 635 WELL TYPE: Coal Test
 COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
514.2	PLEISTOCENE		UNCONSOLIDATED	27.0	0.0
487.2			ROCK	19.6	27.0
467.6	CARBONDALE	HERRIN	COAL	4.7	46.6

MAPID: 15790161000C VERSION: 1

PROJECT: AVAIL

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 23 QUARTERS/FOOTAGES: 2640' N line, 1980' W line
 QUADRANGLE: STEELEVILLE LONGITUDE: -89.734368 GEOLOGIST: LAWSON
 CONFIDENTIAL: N LATITUDE: 38.081623 DATE COLLECTED: 12 / 14 / 1926
 SURFACE ELEVATION (FT.): 519.1 LOGGED (FT.): 59.0 LOG TYPE: Drillers Log
 SOURCE: AYRSHIRE 636 WELL TYPE: Coal Test
 COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
519.1	PLEISTOCENE		UNCONSOLIDATED	30.0	0.0
489.1			ROCK	25.0	30.0
464.1	CARBONDALE	SPRINGFIELD	COAL	4.0	55.0

MAPID: 15790162000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 6W **SECTION:** 23 **QUARTERS/FOOTAGES:** 2640' N line, 2640' W line
QUADRANGLE: STEELEVILLE **LONGITUDE:** -89.732063 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.081614 **DATE COLLECTED:** 2 / 3 / 1927
SURFACE ELEVATION (FT.): 510.9 **LOGGED (FT.):** 72.0 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE 637 **WELL TYPE:** Coal Test
COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
510.9	PLEISTOCENE		UNCONSOLIDATED	40.0	0.0
470.9			ROCK	32.0	40.0

MAPID: 15790168000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 6W **SECTION:** 23 **QUARTERS/FOOTAGES:** 1980' N line, 660' W line
QUADRANGLE: STEELEVILLE **LONGITUDE:** -89.73896 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.083463 **DATE COLLECTED:** 8 / 10 / 1927
SURFACE ELEVATION (FT.): 520.0 **LOGGED (FT.):** 72.0 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE 684 **WELL TYPE:** Coal Test
COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
520.0	PLEISTOCENE		UNCONSOLIDATED	25.0	0.0
495.0			ROCK	47.0	25.0

MAPID: 15790173000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 6W **SECTION:** 23 **QUARTERS/FOOTAGES:** 1320' N line, 1' W line
QUADRANGLE: STEELEVILLE **LONGITUDE:** -89.741243 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.085294 **DATE COLLECTED:** 1 / 15 / 1927
SURFACE ELEVATION (FT.): 503.5 **LOGGED (FT.):** 64.3 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE 733 **WELL TYPE:** Coal Test
COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
503.5	PLEISTOCENE		UNCONSOLIDATED	46.0	0.0
457.5	CARBONDALE		ROCK	17.0	46.0
440.5	CARBONDALE		COAL	1.3	63.0

MAPID: 15790174000C VERSION: 1

PROJECT: AVAIL

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 23 QUARTERS/FOOTAGES: 1320' N line, 1320' W line
 QUADRANGLE: STEELEVILLE LONGITUDE: -89.736636 GEOLOGIST: LAWSON
 CONFIDENTIAL: N LATITUDE: 38.085276 DATE COLLECTED: 12 / 14 / 1926
 SURFACE ELEVATION (FT.): 520.0 LOGGED (FT.): 66.0 LOG TYPE: Drillers Log
 SOURCE: AYRSHIRE 735 WELL TYPE: Coal Test
 COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
520.0	PLEISTOCENE		UNCONSOLIDATED	31.0	0.0
489.0			ROCK	35.0	31.0

MAPID: 15790129000C VERSION: 1

PROJECT: AVAIL

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 24 QUARTERS/FOOTAGES: SW SW SW SW
 QUADRANGLE: STEELEVILLE LONGITUDE: -89.722066 GEOLOGIST: LAWSON
 CONFIDENTIAL: N LATITUDE: 38.074596 DATE COLLECTED: 1 / 28 / 1927
 SURFACE ELEVATION (FT.): 487.9 LOGGED (FT.): 71.0 LOG TYPE: Drillers Log
 SOURCE: AYRSHIRE 441 WELL TYPE: Coal Test
 COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
487.9	PLEISTOCENE		UNCONSOLIDATED	19.0	0.0
468.9	CARBONDALE		ROCK	7.0	19.0
461.9	CARBONDALE	SPRINGFIELD	COAL	4.9	26.0
457.0	CARBONDALE		ROCK	40.1	30.9

MAPID: 15790145000C VERSION: 1

PROJECT: AVAIL

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 24 QUARTERS/FOOTAGES: 2640' N line, 1' W line
 QUADRANGLE: STEELEVILLE LONGITUDE: -89.722573 GEOLOGIST: LAWSON
 CONFIDENTIAL: N LATITUDE: 38.08158 DATE COLLECTED: 2 / 2 / 1927
 SURFACE ELEVATION (FT.): 497.5 LOGGED (FT.): 45.4 LOG TYPE: Drillers Log
 SOURCE: AYRSHIRE 541 WELL TYPE: Coal Test
 COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
497.5	PLEISTOCENE		UNCONSOLIDATED	28.0	0.0
469.5	CARBONDALE		ROCK	13.0	28.0
456.5	CARBONDALE	SPRINGFIELD	COAL	4.4	41.0

MAPID: 15790163000C VERSION: 1

PROJECT: AVAIL

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 24 QUARTERS/FOOTAGES: 2640' N line, 1' W line
 QUADRANGLE: STEELEVILLE LONGITUDE: -89.722573 GEOLOGIST: LAWSON
 CONFIDENTIAL: N LATITUDE: 38.08158 DATE COLLECTED: 12 / 16 / 1926
 SURFACE ELEVATION (FT.): 513.0 LOGGED (FT.): 66.0 LOG TYPE: Drillers Log
 SOURCE: AYRSHIRE 641 WELL TYPE: Coal Test
 COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
513.0	PLEISTOCENE		UNCONSOLIDATED	42.0	0.0	
471.0			ROCK	24.0	42.0	

MAPID: 15701555000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 25 QUARTERS/FOOTAGES: 1320' S line, 2640' E line of NW
 QUADRANGLE: STEELEVILLE LONGITUDE: -89.722748 GEOLOGIST: HOKE
 CONFIDENTIAL: N LATITUDE: 38.070407 DATE COLLECTED: 5 / 0 / 1948
 SURFACE ELEVATION (FT.): 482.0 LOGGED (FT.): 31.5 LOG TYPE: Drillers Log
 SOURCE: MIDWEST RADIANT CO. 117W WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
482.0	PLEISTOCENE		CLAY	12.0	0.0	
470.0	PLEISTOCENE		CLAY	6.3	12.0	SANDY
463.7	CARBONDALE		LIMESTONE	5.7	18.3	
458.0	CARBONDALE		BLACK SHALE	0.5	24.0	GRAVELLY
457.5	CARBONDALE		COAL	4.6	24.5	
452.9	CARBONDALE		UNDERCLAY	2.4	29.1	

MAPID: 15701556000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 25 QUARTERS/FOOTAGES: SW SW SE NW
 QUADRANGLE: STEELEVILLE LONGITUDE: -89.717647 GEOLOGIST: HOKE
 CONFIDENTIAL: N LATITUDE: 38.067123 DATE COLLECTED: 5 / 0 / 1948
 SURFACE ELEVATION (FT.): 483.0 LOGGED (FT.): 64.0 LOG TYPE: Drillers Log
 SOURCE: MIDWEST RADIANT CO. 116W WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
483.0	PLEISTOCENE		CLAY	14.0	0.0	
469.0	PLEISTOCENE		CLAY	13.0	14.0	SANDY
456.0	PLEISTOCENE		MUD	12.0	27.0	BLUE
444.0	CARBONDALE		SANDSTONE	16.8	39.0	
427.2	CARBONDALE		BLACK SHALE	4.8	55.8	
422.3	CARBONDALE		COAL	1.7	60.7	
420.7	CARBONDALE		UNDERCLAY	1.7	62.3	

MAPID: 15702173000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 25 QUARTERS/FOOTAGES:

QUADRANGLE: STEELEVILLE LONGITUDE: -89.713615

GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.066584

DATE COLLECTED: 3 / 2 / 1955

SURFACE ELEVATION (FT.): 470.0

LOGGED (FT.): 130.0

LOG TYPE: Drillers Log

SOURCE: GWIN DRILLING CO. 1

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
470.0	PLEISTOCENE		CLAY	30.0	0.0	BOULDER AT 19'
440.0	CARBONDALE		SANDY SHALE	45.0	30.0	SANDY
395.0	CARBONDALE		SANDY SHALE	14.0	75.0	SANDY
381.0	CARBONDALE		SANDSTONE	3.0	89.0	FINE; GRAY
378.0	CARBONDALE		SANDSTONE	8.0	92.0	GREEN
370.0	CARBONDALE		GRAY SANDSTONE	27.0	100.0	COARSE
343.0	CARBONDALE		BLACK SHALE	2.0	127.0	
341.0	CARBONDALE		COAL	1.0	129.0	INACCURACIES ARE POSSIBLE

MAPID: 15726018000C VERSION: 1

PROJECT: LUMP

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 25 QUARTERS/FOOTAGES:

QUADRANGLE: STEELEVILLE LONGITUDE: -89.713615

GEOLOGIST: J. MCBETH

CONFIDENTIAL: N LATITUDE: 38.066584

DATE COLLECTED: 10 / 9 / 1969

SURFACE ELEVATION (FT.): 511.0

LOGGED (FT.): 58.0

LOG TYPE: Drillers Log

SOURCE: CONSOLIDATION COAL R-7171

WELL TYPE: Coal Test

COMMENT: PERMIT 72; BURNING STAR #3

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
511.0	PLEISTOCENE		SOIL	5.0	0.0	
506.0	PLEISTOCENE		CLAY	9.1	5.0	
496.9			SHALE	2.2	14.1	
494.7			LIMESTONE	0.3	16.3	
494.4			SHALE	2.7	16.6	
491.7			SHALE	23.9	19.3	YELLOW
467.8			SANDY SHALE	14.8	43.2	WITH SS STREAKS

MAPID: 1579008000C VERSION: 1

PROJECT: AVAIL

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 25 QUARTERS/FOOTAGES:

QUADRANGLE: STEELEVILLE LONGITUDE: -89.713615

GEOLOGIST: LAWSON

CONFIDENTIAL: N LATITUDE: 38.066584

DATE COLLECTED:

SURFACE ELEVATION (FT.): 478.7 LOGGED (FT.): 55.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 41

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	UNIT OVERBURDEN	COMMENT
478.7	PLEISTOCENE		UNCONSOLIDATED	55.0	0.0	

MAPID: 15790106000C VERSION: 1

PROJECT: AVAIL

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 25 QUARTERS/FOOTAGES:

QUADRANGLE: STEELEVILLE LONGITUDE: -89.713615

GEOLOGIST: LAWSON

CONFIDENTIAL: N LATITUDE: 38.066584

DATE COLLECTED:

SURFACE ELEVATION (FT.): 486.4 LOGGED (FT.): 57.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 241

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	UNIT OVERBURDEN	COMMENT
486.4	PLEISTOCENE		UNCONSOLIDATED	56.0	0.0	
430.4			ROCK	1.0	56.0	

MAPID: 15790107000C VERSION: 1

PROJECT: AVAIL

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 25 QUARTERS/FOOTAGES: 2640' N line, 2640' E line

QUADRANGLE: STEELEVILLE LONGITUDE: -89.713594

GEOLOGIST: LAWSON

CONFIDENTIAL: N LATITUDE: 38.066617

DATE COLLECTED: 2 / 5 / 1927

SURFACE ELEVATION (FT.): 481.9 LOGGED (FT.): 41.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 245

WELL TYPE: Coal Test

COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	UNIT OVERBURDEN	COMMENT
481.9	PLEISTOCENE		UNCONSOLIDATED	36.0	0.0	
445.9	CARBONDALE		ROCK	2.0	36.0	
443.9	CARBONDALE	SPRINGFIELD	COAL	3.0	38.0	

MAPID: 15790118000C VERSION: 1

PROJECT: AVAIL

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 25 QUARTERS/FOOTAGES: 1320' N line, 1' W line
 QUADRANGLE: STEELEVILLE LONGITUDE: -89.722745 GEOLOGIST: LAWSON
 CONFIDENTIAL: N LATITUDE: 38.070512 DATE COLLECTED: 1 / 15 / 1927
 SURFACE ELEVATION (FT.): 494.3 LOGGED (FT.): 32.3 LOG TYPE: Drillers Log
 SOURCE: AYRSHIRE 341 WELL TYPE: Coal Test
 COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
494.3	PLEISTOCENE		UNCONSOLIDATED	22.0	0.0	
472.3	CARBONDALE		ROCK	6.0	22.0	
466.3	CARBONDALE	SPRINGFIELD	COAL	4.3	28.0	

MAPID: 15790119000C VERSION: 1

PROJECT: AVAIL

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 25 QUARTERS/FOOTAGES: 1320' N line, 1320' W line
 QUADRANGLE: STEELEVILLE LONGITUDE: -89.718142 GEOLOGIST: LAWSON
 CONFIDENTIAL: N LATITUDE: 38.070386 DATE COLLECTED: 2 / 4 / 1927
 SURFACE ELEVATION (FT.): 486.4 LOGGED (FT.): 70.0 LOG TYPE: Drillers Log
 SOURCE: AYRSHIRE 343 WELL TYPE: Coal Test
 COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
486.4	PLEISTOCENE		UNCONSOLIDATED	33.0	0.0	
453.4	CARBONDALE	SPRINGFIELD	COAL	0.5	33.0	TOP ERODED
452.9	CARBONDALE		ROCK	37.0	33.5	

MAPID: 15701707000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 26 QUARTERS/FOOTAGES: 30' S line, 266' E line
 QUADRANGLE: STEELEVILLE LONGITUDE: -89.723985 GEOLOGIST: HOKE
 CONFIDENTIAL: N LATITUDE: 38.059464 DATE COLLECTED: 5 / 0 / 1948
 SURFACE ELEVATION (FT.): 499.0 LOGGED (FT.): 54.0 LOG TYPE: Drillers Log
 SOURCE: MIDWEST RADIANT CO. 100W WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
499.0	PLEISTOCENE		CLAY	23.0	0.0	
476.0	CARBONDALE		UNCLASSIFIED	3.0	23.0	WITH SMUT AND CLAY
473.0	CARBONDALE		LIMESTONE	16.0	26.0	
457.0	CARBONDALE		BLACK SHALE	4.5	42.0	
452.5	CARBONDALE		COAL	4.8	46.5	
447.7	CARBONDALE		UNDERCLAY	2.8	51.3	

MAPID: 15790078000C VERSION: 1

PROJECT: AVAIL

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 26 QUARTERS/FOOTAGES:

QUADRANGLE: STEELEVILLE LONGITUDE: -89.732165

GEOLOGIST: LAWSON

CONFIDENTIAL: N LATITUDE: 38.066769

DATE COLLECTED:

SURFACE ELEVATION (FT.): LOGGED (FT.): 27.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 33

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0	
-	CARBONDALE		ROCK	12.0	10.0	
-	CARBONDALE	SPRINGFIELD	COAL	5.0	22.0	

MAPID: 15790079000C VERSION: 1

PROJECT: AVAIL

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 26 QUARTERS/FOOTAGES:

QUADRANGLE: STEELEVILLE LONGITUDE: -89.732165

GEOLOGIST: LAWSON

CONFIDENTIAL: N LATITUDE: 38.066769

DATE COLLECTED:

SURFACE ELEVATION (FT.): 500.7 LOGGED (FT.): 55.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 37

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
500.7	PLEISTOCENE		UNCONSOLIDATED	40.0	0.0	
460.7			ROCK	15.0	40.0	

MAPID: 15790087000C VERSION: 1

PROJECT: AVAIL

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 26 QUARTERS/FOOTAGES: 1320' S line, 1' W line

QUADRANGLE: STEELEVILLE LONGITUDE: -89.741536

GEOLOGIST: LAWSON

CONFIDENTIAL: N LATITUDE: 38.063108

DATE COLLECTED: 2 / 7 / 1927

SURFACE ELEVATION (FT.): 480.0 LOGGED (FT.): 70.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 133

WELL TYPE: Coal Test

COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
480.0	PLEISTOCENE		UNCONSOLIDATED	21.0	0.0	
459.0			ROCK	49.0	21.0	

MAPID: 15790104000C VERSION: 1

PROJECT: AVAIL

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 26 QUARTERS/FOOTAGES:

QUADRANGLE: STEELEVILLE LONGITUDE: -89.732165

GEOLOGIST: LAWSON

CONFIDENTIAL: N LATITUDE: 38.066769

DATE COLLECTED:

SURFACE ELEVATION (FT.): LOGGED (FT.): 70.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 233

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	PLEISTOCENE		UNCONSOLIDATED	15.0	0.0	
-			ROCK	55.0	15.0	

MAPID: 15790105000C VERSION: 1

PROJECT: AVAIL

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 26 QUARTERS/FOOTAGES: 2640' N line, 2640' E line

QUADRANGLE: STEELEVILLE LONGITUDE: -89.732067

GEOLOGIST: LAWSON

CONFIDENTIAL: N LATITUDE: 38.066824

DATE COLLECTED: 11 / 24 / 1926

SURFACE ELEVATION (FT.): 488.7 LOGGED (FT.): 55.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 237

WELL TYPE: Coal Test

COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
488.7	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0	
478.7			ROCK	45.0	10.0	

MAPID: 15790116000C VERSION: 1

PROJECT: AVAIL

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 26 QUARTERS/FOOTAGES: 1320' N line, 1320' W line

QUADRANGLE: STEELEVILLE LONGITUDE: -89.736807

GEOLOGIST: LAWSON

CONFIDENTIAL: N LATITUDE: 38.070451

DATE COLLECTED: 1 / 11 / 1927

SURFACE ELEVATION (FT.): 502.2 LOGGED (FT.): 65.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 335

WELL TYPE: Coal Test

COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
502.2	PLEISTOCENE		UNCONSOLIDATED	18.0	0.0	
484.2			ROCK	47.0	18.0	

MAPID: 15790117000C VERSION: 1

PROJECT: AVAIL

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 26 QUARTERS/FOOTAGES: 1320' N line, 1320' E line

QUADRANGLE: STEELEVILLE LONGITUDE: -89.727358 GEOLOGIST: LAWSON

CONFIDENTIAL: N LATITUDE: 38.070489 DATE COLLECTED: 1 / 14 / 1927

SURFACE ELEVATION (FT.): 486.4 LOGGED (FT.): 65.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 339 WELL TYPE: Coal Test

COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
486.4	PLEISTOCENE		UNCONSOLIDATED	40.0	0.0	
446.4			ROCK	25.0	40.0	

MAPID: 15701708000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 27 QUARTERS/FOOTAGES: 50' N line, 1920' W line of SE

QUADRANGLE: STEELEVILLE LONGITUDE: -89.744114 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.06665 DATE COLLECTED: 5 / 0 / 1948

SURFACE ELEVATION (FT.): 505.0 LOGGED (FT.): 76.0 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 101W WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
505.0	PLEISTOCENE		CLAY	49.7	0.0	
455.3	CARBONDALE		LIMESTONE	13.8	49.7	
441.5	CARBONDALE		SHALE	2.0	63.5	LIGHT
439.5	CARBONDALE		LIMESTONE & SHALE	1.5	65.5	
438.0	CARBONDALE		BLACK SHALE	1.8	67.0	
436.2	CARBONDALE		COAL	5.0	68.8	
431.2	CARBONDALE		UNDERCLAY	2.3	73.8	

MAPID: 15701709000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 27 QUARTERS/FOOTAGES: 2060' S line, 1730' W line of NE

QUADRANGLE: STEELEVILLE LONGITUDE: -89.7447 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.07248 DATE COLLECTED: 5 / 0 / 1948

SURFACE ELEVATION (FT.): 503.0 LOGGED (FT.): 94.0 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 102W WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
503.0	PLEISTOCENE		CLAY	14.0	0.0	SANDY
489.0	PLEISTOCENE		CLAY	9.0	14.0	
480.0	CARBONDALE		SMUT	1.0	23.0	
479.0	CARBONDALE		UNDERCLAY	3.0	24.0	WITH CLAY
476.0	CARBONDALE		LIMESTONE	12.0	27.0	
464.0	CARBONDALE		SHALE	3.5	39.0	LIGHT
460.5	CARBONDALE		BLACK SHALE	5.3	42.5	
455.2	CARBONDALE	SPRINGFIELD	COAL	5.0	47.8	
450.2	CARBONDALE		UNDERCLAY	4.2	52.8	
446.0	CARBONDALE		LIMESTONE	0.8	57.0	
445.2	CARBONDALE		SHALE	34.3	57.8	LIGHT GRAY
411.0	CARBONDALE		SANDSTONE	2.0	92.0	

MAPID: 15701710000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 27 QUARTERS/FOOTAGES: 1270' S line, 1350' W line of NE

QUADRANGLE: STEELEVILLE LONGITUDE: -89.746054 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.070307 DATE COLLECTED: 5 / 0 / 1948

SURFACE ELEVATION (FT.): 510.0 LOGGED (FT.): 56.5 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 103W WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
510.0	PLEISTOCENE		CLAY	27.5	0.0	GRAVELLY
482.5	CARBONDALE		SMUT	1.0	27.5	
481.5	CARBONDALE		CLAYSTONE	1.4	28.5	FINE
480.1	CARBONDALE		LIMESTONE	12.1	29.9	
468.0	CARBONDALE		SHALE	3.0	42.0	LIGHT
465.0	CARBONDALE		BLACK SHALE	4.5	45.0	
460.5	CARBONDALE	SPRINGFIELD	COAL	4.9	49.5	
455.6	CARBONDALE		UNDERCLAY	2.1	54.4	

MAPID: 15701711000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 27 QUARTERS/FOOTAGES: 1340' S line, 1340' W line of NE

QUADRANGLE: STEELEVILLE LONGITUDE: -89.74609 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.0705 DATE COLLECTED: 5 / 0 / 1948

SURFACE ELEVATION (FT.): 504.0 LOGGED (FT.): 84.0 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 104W WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
504.0	PLEISTOCENE		CLAY	54.0	0.0	GRAVELLY
450.0	PLEISTOCENE		MUD	18.3	54.0	BLUE
431.7	CARBONDALE	ST. DAVID	LIMESTONE	4.0	72.3	
427.7	CARBONDALE	TURNER MINE	BLACK SHALE	1.7	76.3	
426.0	CARBONDALE	SPRINGFIELD	COAL	5.2	78.0	
420.8	CARBONDALE		UNDERCLAY	0.8	83.2	

MAPID: 15790074000C VERSION: 1

PROJECT: AVAIL

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 27 QUARTERS/FOOTAGES:

QUADRANGLE: WALSH LONGITUDE: -89.750816 GEOLOGIST: LAWSON

CONFIDENTIAL: N LATITUDE: 38.066832 DATE COLLECTED:

SURFACE ELEVATION (FT.): 496.5 LOGGED (FT.): 50.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 25 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
496.5	PLEISTOCENE		UNCONSOLIDATED	35.0	0.0	
461.5			ROCK	15.0	35.0	

MAPID: 15790075000C VERSION: 1

PROJECT: AVAIL

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 27 QUARTERS/FOOTAGES:

QUADRANGLE: WALSH LONGITUDE: -89.750816 GEOLOGIST: LAWSON

CONFIDENTIAL: N LATITUDE: 38.066832 DATE COLLECTED:

SURFACE ELEVATION (FT.): LOGGED (FT.): 42.7 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 27 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	PLEISTOCENE		UNCONSOLIDATED	28.0	0.0	
-	CARBONDALE		ROCK	10.0	28.0	
-	CARBONDALE	SPRINGFIELD	COAL	4.7	38.0	

MAPID: 15790076000C VERSION: 1

PROJECT: AVAIL

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 27 QUARTERS/FOOTAGES:

QUADRANGLE: WALSH LONGITUDE: -89.750816 GEOLOGIST: LAWSON

CONFIDENTIAL: N LATITUDE: 38.066832 DATE COLLECTED:

SURFACE ELEVATION (FT.): 514.7 LOGGED (FT.): 43.2 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 29 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
514.7	PLEISTOCENE		UNCONSOLIDATED	22.0	0.0	
492.7	CARBONDALE		ROCK	17.0	22.0	
475.7	CARBONDALE	SPRINGFIELD	COAL	4.2	39.0	

MAPID: 15790077000C VERSION: 1

PROJECT: AVAIL

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 27 QUARTERS/FOOTAGES:

QUADRANGLE: WALSH LONGITUDE: -89.750816 GEOLOGIST: LAWSON

CONFIDENTIAL: N LATITUDE: 38.066832 DATE COLLECTED:

SURFACE ELEVATION (FT.): 500.6 LOGGED (FT.): 47.3 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 31 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
500.6	PLEISTOCENE		UNCONSOLIDATED	27.0	0.0	
473.6	CARBONDALE		ROCK	16.0	27.0	
457.6	CARBONDALE	SPRINGFIELD	COAL	4.3	43.0	

MAPID: 15790083000C VERSION: 1

PROJECT: AVAIL

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 27 QUARTERS/FOOTAGES: 1320' S line, 1320' W line of SW

QUADRANGLE: WALSH LONGITUDE: -89.755587 GEOLOGIST: LAWSON

CONFIDENTIAL: N LATITUDE: 38.063139 DATE COLLECTED: 12 / 8 / 1926

SURFACE ELEVATION (FT.): 520.4 LOGGED (FT.): 42.8 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 127 WELL TYPE: Coal Test

COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
520.4	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0	
510.4	CARBONDALE		ROCK	29.0	10.0	
481.4	CARBONDALE	SPRINGFIELD	COAL	3.8	39.0	

MAPID: 15790084000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 6W **SECTION:** 27 **QUARTERS/FOOTAGES:** 1320' S line, 2640' E line
QUADRANGLE: WALSH **LONGITUDE:** -89.750758 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.063127 **DATE COLLECTED:** 2 / 4 / 1927
SURFACE ELEVATION (FT.): 500.9 **LOGGED (FT.):** 54.6 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE 129 **WELL TYPE:** Coal Test
COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
500.9	PLEISTOCENE		UNCONSOLIDATED	41.0	0.0
459.9	CARBONDALE		ROCK	9.0	41.0
450.9	CARBONDALE	SPRINGFIELD	COAL	4.6	50.0

MAPID: 15790088000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 6W **SECTION:** 27 **QUARTERS/FOOTAGES:** 660' N line, 660' W line of SW
QUADRANGLE: WALSH **LONGITUDE:** -89.75787 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.065058 **DATE COLLECTED:** 8 / 11 / 1927
SURFACE ELEVATION (FT.): 520.0 **LOGGED (FT.):** 43.3 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE 176 **WELL TYPE:** Coal Test
COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
520.0	PLEISTOCENE		UNCONSOLIDATED	30.0	0.0
490.0	CARBONDALE		ROCK	9.0	30.0
481.0	CARBONDALE	SPRINGFIELD	COAL	4.3	39.0

MAPID: 15790089000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 6W **SECTION:** 27 **QUARTERS/FOOTAGES:** 660' N line, 660' E line of SW
QUADRANGLE: WALSH **LONGITUDE:** -89.753146 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.065027 **DATE COLLECTED:** 8 / 12 / 1927
SURFACE ELEVATION (FT.): 520.0 **LOGGED (FT.):** 52.3 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE 178 **WELL TYPE:** Coal Test
COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
520.0	PLEISTOCENE		UNCONSOLIDATED	30.0	0.0
490.0	CARBONDALE		ROCK	17.0	30.0
473.0	CARBONDALE	SPRINGFIELD	COAL	5.3	47.0

MAPID: 15790090000C VERSION: 1

PROJECT: AVAIL

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 27 QUARTERS/FOOTAGES: 660' N line, 660' W line of SE
 QUADRANGLE: STEELEVILLE LONGITUDE: -89.748536 GEOLOGIST: LAWSON
 CONFIDENTIAL: N LATITUDE: 38.064996 DATE COLLECTED: 8 / 12 / 1927
 SURFACE ELEVATION (FT.): 520.0 LOGGED (FT.): 63.0 LOG TYPE: Drillers Log
 SOURCE: AYRSHIRE 180 WELL TYPE: Coal Test
 COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
520.0	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0
510.0			ROCK	49.0	10.0
461.0	CARBONDALE	SPRINGFIELD	COAL	4.0	59.0

MAPID: 15790092000C VERSION: 1

PROJECT: AVAIL

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 27 QUARTERS/FOOTAGES: 660' N line, 660' E line of SE
 QUADRANGLE: STEELEVILLE LONGITUDE: -89.743812 GEOLOGIST: LAWSON
 CONFIDENTIAL: N LATITUDE: 38.064964 DATE COLLECTED: 8 / 12 / 1927
 SURFACE ELEVATION (FT.): 520.0 LOGGED (FT.): 38.7 LOG TYPE: Drillers Log
 SOURCE: AYRSHIRE 182 WELL TYPE: Coal Test
 COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
520.0	PLEISTOCENE		UNCONSOLIDATED	18.0	0.0
502.0	CARBONDALE		ROCK	16.0	18.0
486.0	CARBONDALE	SPRINGFIELD	COAL	4.7	34.0

MAPID: 15790096000C VERSION: 1

PROJECT: AVAIL

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 27 QUARTERS/FOOTAGES:
 QUADRANGLE: WALSH LONGITUDE: -89.750816 GEOLOGIST: LAWSON
 CONFIDENTIAL: N LATITUDE: 38.066832 DATE COLLECTED:
 SURFACE ELEVATION (FT.): 528.6 LOGGED (FT.): 44.7 LOG TYPE: Drillers Log
 SOURCE: AYRSHIRE 225 WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
528.6	PLEISTOCENE		UNCONSOLIDATED	22.0	0.0
506.6			ROCK	18.0	22.0
488.6	CARBONDALE	SPRINGFIELD	COAL	4.7	40.0

MAPID: 15790097000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 6W **SECTION:** 27 **QUARTERS/FOOTAGES:**
QUADRANGLE: WALSH **LONGITUDE:** -89.750816 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.066832 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 524.8 **LOGGED (FT.):** 61.8 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE 227 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
524.8	PLEISTOCENE		UNCONSOLIDATED	35.0	0.0
489.8	CARBONDALE		ROCK	22.0	35.0
467.8	CARBONDALE	SPRINGFIELD	COAL	4.8	57.0

MAPID: 15790098000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 6W **SECTION:** 27 **QUARTERS/FOOTAGES:**
QUADRANGLE: WALSH **LONGITUDE:** -89.750816 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.066832 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): **LOGGED (FT.):** 57.1 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE 229 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-	PLEISTOCENE		UNCONSOLIDATED	42.0	0.0
-	CARBONDALE		ROCK	10.0	42.0
-	CARBONDALE	SPRINGFIELD	COAL	5.1	52.0

MAPID: 15790100000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 6W **SECTION:** 27 **QUARTERS/FOOTAGES:**
QUADRANGLE: WALSH **LONGITUDE:** -89.750816 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.066832 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 495.4 **LOGGED (FT.):** 55.3 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE 231 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
495.4	PLEISTOCENE		UNCONSOLIDATED	30.0	0.0
465.4			ROCK	20.0	30.0
445.4	CARBONDALE	SPRINGFIELD	COAL	5.3	50.0

MAPID: 15790102000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 6W **SECTION:** 27 **QUARTERS/FOOTAGES:**
QUADRANGLE: WALSH **LONGITUDE:** -89.750816 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.066832 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 487.1 **LOGGED (FT.):** 48.4 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE 232 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
487.1	PLEISTOCENE		UNCONSOLIDATED	18.0	0.0
469.1	CARBONDALE		ROCK	25.0	18.0
444.1	CARBONDALE	SPRINGFIELD	COAL	5.4	43.0

MAPID: 15790109000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 6W **SECTION:** 27 **QUARTERS/FOOTAGES:** 1980' N line, 660' W line
QUADRANGLE: WALSH **LONGITUDE:** -89.757831 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.068796 **DATE COLLECTED:** 8 / 11 / 1927
SURFACE ELEVATION (FT.): 520.0 **LOGGED (FT.):** 74.1 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE 276 **WELL TYPE:** Coal Test
COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
520.0	PLEISTOCENE		UNCONSOLIDATED	30.0	0.0
490.0			ROCK	40.0	30.0
450.0	CARBONDALE	SPRINGFIELD	COAL	4.1	70.0

MAPID: 15790110000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 6W **SECTION:** 27 **QUARTERS/FOOTAGES:** 1980' N line, 1980' W line
QUADRANGLE: WALSH **LONGITUDE:** -89.753222 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.068743 **DATE COLLECTED:** 8 / 10 / 1929
SURFACE ELEVATION (FT.): 520.0 **LOGGED (FT.):** 80.0 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE 278 **WELL TYPE:** Coal Test
COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
520.0	PLEISTOCENE		UNCONSOLIDATED	48.0	0.0
472.0			ROCK	18.0	48.0
454.0			COAL	2.0	66.0
452.0			ROCK	8.0	68.0
444.0	CARBONDALE	SPRINGFIELD	COAL	4.0	76.0

MAPID: 15790111000C VERSION: 1

PROJECT: AVAIL

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 27 QUARTERS/FOOTAGES: 1980' N line, 1980' E line
 QUADRANGLE: STEELEVILLE LONGITUDE: -89.74836 GEOLOGIST: LAWSON
 CONFIDENTIAL: N LATITUDE: 38.06869 DATE COLLECTED: 8 / 10 / 1927
 SURFACE ELEVATION (FT.): 500.0 LOGGED (FT.): 62.0 LOG TYPE: Drillers Log
 SOURCE: AYRSHIRE 280 WELL TYPE: Coal Test
 COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
500.0	PLEISTOCENE		UNCONSOLIDATED	12.0	0.0
488.0			ROCK	50.0	12.0

MAPID: 15790112000C VERSION: 1

PROJECT: AVAIL

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 27 QUARTERS/FOOTAGES: 1980' N line, 660' E line
 QUADRANGLE: STEELEVILLE LONGITUDE: -89.743751 GEOLOGIST: LAWSON
 CONFIDENTIAL: N LATITUDE: 38.068636 DATE COLLECTED: 8 / 10 / 1929
 SURFACE ELEVATION (FT.): 500.0 LOGGED (FT.): 50.0 LOG TYPE: Drillers Log
 SOURCE: AYRSHIRE 282 WELL TYPE: Coal Test
 COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
500.0	PLEISTOCENE		UNCONSOLIDATED	50.0	0.0

MAPID: 15790114000C VERSION: 1

PROJECT: AVAIL

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 27 QUARTERS/FOOTAGES: 1320' N line, 1320' W line
 QUADRANGLE: WALSH LONGITUDE: -89.755508 GEOLOGIST: LAWSON
 CONFIDENTIAL: N LATITUDE: 38.07059 DATE COLLECTED: 12 / 7 / 1926
 SURFACE ELEVATION (FT.): 524.1 LOGGED (FT.): 65.0 LOG TYPE: Drillers Log
 SOURCE: AYRSHIRE 327 WELL TYPE: Coal Test
 COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
524.1	PLEISTOCENE		UNCONSOLIDATED	21.0	0.0
503.1			ROCK	44.0	21.0

MAPID: 15790115000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 6W **SECTION:** 27 **QUARTERS/FOOTAGES:** 1320' N line, 1320' E line
QUADRANGLE: STEELEVILLE **LONGITUDE:** -89.746023 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.070484 **DATE COLLECTED:** 12 / 7 / 1926
SURFACE ELEVATION (FT.): 514.7 **LOGGED (FT.):** 65.0 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE 331 **WELL TYPE:** Coal Test
COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
514.7	PLEISTOCENE		UNCONSOLIDATED	65.0	0.0	

MAPID: 15790292000C **VERSION:** 1 **PROJECT:** NCRDS 02
COUNTY: RANDOLPH **TWP/RNG:** 5S 6W **SECTION:** 27 **QUARTERS/FOOTAGES:** 660' N line, 660' W line of SE SW
QUADRANGLE: WALSH **LONGITUDE:** -89.753259 **GEOLOGIST:** PHILLIPS
CONFIDENTIAL: N **LATITUDE:** 38.061358 **DATE COLLECTED:** 8 / 11 / 1927
SURFACE ELEVATION (FT.): 520.0 **LOGGED (FT.):** 46.9 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE 78 **WELL TYPE:** Coal Test
COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
520.0	PLEISTOCENE		UNCONSOLIDATED	20.0	0.0	
500.0	CARBONDALE		SHALE	10.0	20.0	
490.0	CARBONDALE		LIMESTONE	11.0	30.0	
479.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.0	41.0	BLACK
478.0	CARBONDALE	SPRINGFIELD	COAL	4.9	42.0	

MAPID: 15790081000C **VERSION:** 1 **PROJECT:** AVAIL
COUNTY: RANDOLPH **TWP/RNG:** 5S 6W **SECTION:** 28 **QUARTERS/FOOTAGES:** 1320' S line, 1320' W line of SW
QUADRANGLE: WALSH **LONGITUDE:** -89.774349 **GEOLOGIST:** LAWSON
CONFIDENTIAL: N **LATITUDE:** 38.063239 **DATE COLLECTED:** 0 / 0 / 1926
SURFACE ELEVATION (FT.): 517.5 **LOGGED (FT.):** 65.0 **LOG TYPE:** Drillers Log
SOURCE: AYRSHIRE 119 **WELL TYPE:** Coal Test
COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
517.5	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0	
507.5			ROCK	55.0	10.0	

MAPID: 15790082000C VERSION: 1

PROJECT: AVAIL

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 28 QUARTERS/FOOTAGES: 1320' S line, 1320' E line of SE
 QUADRANGLE: WALSH LONGITUDE: -89.764802 GEOLOGIST: LAWSON
 CONFIDENTIAL: N LATITUDE: 38.063176 DATE COLLECTED: 12 / 6 / 1926
 SURFACE ELEVATION (FT.): 522.4 LOGGED (FT.): 31.0 LOG TYPE: Drillers Log
 SOURCE: AYRSHIRE 123 WELL TYPE: Coal Test
 COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
522.4	PLEISTOCENE		UNCONSOLIDATED	20.0	0.0
502.4	CARBONDALE		ROCK	10.0	20.0
492.4	CARBONDALE	SPRINGFIELD	COAL	1.0	30.0

MAPID: 15790094000C VERSION: 1

PROJECT: AVAIL

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 28 QUARTERS/FOOTAGES:
 QUADRANGLE: WALSH LONGITUDE: -89.769561 GEOLOGIST: LAWSON
 CONFIDENTIAL: N LATITUDE: 38.066964 DATE COLLECTED:
 SURFACE ELEVATION (FT.): 516.5 LOGGED (FT.): 57.0 LOG TYPE: Drillers Log
 SOURCE: AYRSHIRE 217 WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
516.5	PLEISTOCENE		UNCONSOLIDATED	57.0	0.0

MAPID: 15790095000C VERSION: 1

PROJECT: AVAIL

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 28 QUARTERS/FOOTAGES:
 QUADRANGLE: WALSH LONGITUDE: -89.769561 GEOLOGIST: LAWSON
 CONFIDENTIAL: N LATITUDE: 38.066964 DATE COLLECTED:
 SURFACE ELEVATION (FT.): 527.5 LOGGED (FT.): 31.8 LOG TYPE: Drillers Log
 SOURCE: AYRSHIRE 221 WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
527.5	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0
517.5	CARBONDALE		ROCK	17.0	10.0
500.5	CARBONDALE	SPRINGFIELD	COAL	4.8	27.0

MAPID: 15790113000C VERSION: 1

PROJECT: AVAIL

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 28 QUARTERS/FOOTAGES: 1320' N line, 1320' E line

QUADRANGLE: WALSH LONGITUDE: -89.764728 GEOLOGIST: LAWSON

CONFIDENTIAL: N LATITUDE: 38.07068 DATE COLLECTED: 12 / 10 / 1926

SURFACE ELEVATION (FT.): 535.3 LOGGED (FT.): 56.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 323 WELL TYPE: Coal Test

COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
535.3	PLEISTOCENE		UNCONSOLIDATED	33.0	0.0	
502.3	CARBONDALE		ROCK	20.0	33.0	
482.3	CARBONDALE	SPRINGFIELD	COAL	3.0	53.0	

MAPID: 15790291000C VERSION: 1

PROJECT: NCRDS 02

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 28 QUARTERS/FOOTAGES: SW SE

QUADRANGLE: WALSH LONGITUDE: -89.767239 GEOLOGIST: PHILLIPS

CONFIDENTIAL: N LATITUDE: 38.061401 DATE COLLECTED: 11 / 23 / 1926

SURFACE ELEVATION (FT.): 500.0 LOGGED (FT.): 55.0 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 21 WELL TYPE: Coal Test

COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
500.0	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0	
490.0	PLEISTOCENE		CLAY	45.0	10.0	YELLOW

MAPID: 15701558000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 29 QUARTERS/FOOTAGES: 450' S line, 2640' E line of NW

QUADRANGLE: WALSH

LONGITUDE: -89.797545

GEOLOGIST: HOKE

CONFIDENTIAL: N

LATITUDE: 38.06841

DATE COLLECTED: 5 / 0 / 1948

SURFACE ELEVATION (FT.): 535.0

LOGGED (FT.): 79.0

LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. 112

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
535.0	PLEISTOCENE		CLAY	18.0	0.0	
517.0	CARBONDALE		SHALE	2.0	18.0	LIGHT
515.0	CARBONDALE		LIMESTONE	2.5	20.0	
512.5	CARBONDALE		SHALE	16.5	22.5	LIGHT
496.0	CARBONDALE		SHALE	13.0	39.0	
483.0	CARBONDALE		LIMESTONE	1.3	52.0	BLACK
481.7	CARBONDALE		SHALE	0.8	53.3	BLACK
481.0	CARBONDALE		LIMESTONE	1.0	54.0	BLACK
480.0	CARBONDALE		BLACK SHALE	1.0	55.0	
479.0	CARBONDALE		UNDERCLAY	3.0	56.0	
476.0	CARBONDALE		SHALE	4.0	59.0	LIGHT
472.0	CARBONDALE	SPRINGFIELD	COAL	1.0	63.0	
471.0	CARBONDALE	SPRINGFIELD	COAL	0.5	64.0	RASH
470.5	CARBONDALE		UNDERCLAY	4.5	64.5	
466.0	CARBONDALE		LIMESTONE	6.0	69.0	WITH SHALE: LIGHT
460.0	CARBONDALE		SANDSTONE	4.0	75.0	

MAPID: 15701558000C VERSION: 2

PROJECT: NCRDS87

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 29 QUARTERS/FOOTAGES: 450' S line, 2640' E line of NW

QUADRANGLE: WALSH LONGITUDE: -89.797545 GEOLOGIST: WEIBEL

CONFIDENTIAL: N LATITUDE: 38.06841 DATE COLLECTED: 5 / 0 / 1948

SURFACE ELEVATION (FT.): 535.0 LOGGED (FT.): 79.0 LOG TYPE: Drillers Log

SOURCE: MIDWEST RADIANT CO. WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
535.0			UNCONSOLIDATED	18.0	0.0
517.0	CARBONDALE		SHALE	2.0	18.0
515.0	CARBONDALE		LIMESTONE	2.5	20.0
512.5	CARBONDALE		SHALE	16.5	22.5
496.0	CARBONDALE		GRAY SHALE	13.0	39.0
483.0	CARBONDALE		LIMESTONE	1.3	52.0
481.7	CARBONDALE		BLACK SHALE	0.8	53.3
481.0	CARBONDALE		LIMESTONE	1.0	54.0
480.0	CARBONDALE		BLACK SHALE	1.0	55.0
479.0	CARBONDALE		UNDERCLAY	3.0	56.0
476.0	CARBONDALE		SHALE	4.0	59.0
472.0	CARBONDALE	SPRINGFIELD	COAL	1.0	63.0
471.0	CARBONDALE	SPRINGFIELD	BONE COAL	0.5	64.0
470.5	CARBONDALE		UNDERCLAY	4.5	64.5
466.0	CARBONDALE		LIMESTONE	6.0	69.0
460.0	CARBONDALE		SANDSTONE	4.0	75.0

MAPID: 15790072000C VERSION: 1

PROJECT: AVAIL

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 29 QUARTERS/FOOTAGES:

QUADRANGLE: WALSH LONGITUDE: -89.788314 GEOLOGIST: LAWSON

CONFIDENTIAL: N LATITUDE: 38.0671 DATE COLLECTED:

SURFACE ELEVATION (FT.): 533.9 LOGGED (FT.): 44.9 LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 9 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
533.9	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0
523.9			ROCK	33.0	10.0
490.9			COAL	1.9	43.0

MAPID: 15790071000C VERSION: 1

PROJECT: AVAIL

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 30 QUARTERS/FOOTAGES:

QUADRANGLE: WALSH LONGITUDE: -89.806891

GEOLOGIST: LAWSON

CONFIDENTIAL: N LATITUDE: 38.067152

DATE COLLECTED:

SURFACE ELEVATION (FT.): 520.7

LOGGED (FT.): 55.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 1

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
520.7	PLEISTOCENE		UNCONSOLIDATED	55.0	0.0

MAPID: 15790108000C VERSION: 1

PROJECT: AVAIL

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 30 QUARTERS/FOOTAGES: 1980' N line, 2640' E line

QUADRANGLE: WALSH LONGITUDE: -89.806907

GEOLOGIST: LAWSON

CONFIDENTIAL: N LATITUDE: 38.069156

DATE COLLECTED: 11 / 24 / 1926

SURFACE ELEVATION (FT.): 544.4

LOGGED (FT.): 38.0

LOG TYPE: Drillers Log

SOURCE: AYRSHIRE 255

WELL TYPE: Coal Test

COMMENT: SPARTA BOX 43

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
544.4	PLEISTOCENE		UNCONSOLIDATED	23.0	0.0
521.4	CARBONDALE		ROCK	13.0	23.0
508.4	CARBONDALE	SPRINGFIELD	COAL	2.0	36.0

MAPID: 15702512000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 5S 6W SECTION: 31 QUARTERS/FOOTAGES: NE SW NE NE

QUADRANGLE: WALSH LONGITUDE: -89.800467

GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.057368

DATE COLLECTED: 8 / 6 / 1971

SURFACE ELEVATION (FT.): 435.0

LOGGED (FT.): 170.0

LOG TYPE: Drillers Log

SOURCE: FRANK HEPPE JR. 1

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN COMMENT	
435.0	PLEISTOCENE		CLAY	38.0	0.0	
397.0	CARBONDALE		SHALE	18.0	38.0	
379.0	CARBONDALE		LIMESTONE & SHALE	25.0	56.0	
354.0	CARBONDALE		LIMESTONE	1.0	81.0	
353.0	CARBONDALE		COAL	3.0	82.0	
350.0	CARBONDALE		CLAYSTONE & SHALE	10.0	85.0	
340.0	CARBONDALE		LIMESTONE	5.0	95.0	
335.0	CARBONDALE		SHALE	13.0	100.0	
322.0	CARBONDALE		SHALE	20.0	113.0	GRN, RD
302.0	CARBONDALE		SHALE	27.0	133.0	
275.0	CARBONDALE		SANDSTONE	10.0	160.0	

MAPID: 15700091000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 1 QUARTERS/FOOTAGES: NW

QUADRANGLE: PERCY LONGITUDE: -89.607253 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.040048 DATE COLLECTED: 0 / 0 / 1903

SURFACE ELEVATION (FT.): 463.4 LOGGED (FT.): 86.0 LOG TYPE: Drillers Log

SOURCE: WILLISVILLE COAL CO. WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
463.4	PLEISTOCENE		UNCONSOLIDATED	45.5	0.0	
417.9	CARBONDALE		SANDY SHALE	1.5	45.5	SANDY
416.4	CARBONDALE		LIMESTONE	4.5	47.0	GRAY
411.9	CARBONDALE		BLACK SHALE	1.0	51.5	
410.9	CARBONDALE		LIMESTONE	1.5	52.5	BLACK
409.4	CARBONDALE		BLACK SHALE	9.5	54.0	
399.9	CARBONDALE		COAL	0.3	63.5	
399.6	CARBONDALE		BLACK SHALE	2.3	63.8	
397.4	CARBONDALE		LIMESTONE	6.0	66.0	BLACK
391.4	CARBONDALE		BLACK SHALE	5.3	72.0	
386.1	CARBONDALE	HERRIN	COAL	5.8	77.3	
380.4	CARBONDALE		UNDERCLAY	3.0	83.0	

MAPID: 15700092000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 1 QUARTERS/FOOTAGES: SW

QUADRANGLE: PERCY LONGITUDE: -89.607364 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.032611 DATE COLLECTED: 0 / 0 / 1903

SURFACE ELEVATION (FT.): 401.0 LOGGED (FT.): 96.0 LOG TYPE: Drillers Log

SOURCE: WILLISVILLE COAL CO WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
401.0	PLEISTOCENE		UNCONSOLIDATED	32.0	0.0	
369.0			SHALE	8.0	32.0	BLUE
361.0			SANDY SHALE	6.0	40.0	SANDY
355.0			SANDY SHALE	3.0	46.0	SANDY
352.0			LIMESTONE	2.5	49.0	GRAY
349.5	CARBONDALE		SANDY SHALE	5.5	51.5	SANDY
344.0	CARBONDALE		LIMESTONE	5.0	57.0	GRAY
339.0	CARBONDALE		BLACK SHALE	6.0	62.0	
333.0	CARBONDALE		LIMESTONE	1.5	68.0	BLUE
331.5	CARBONDALE		BLACK SHALE	2.5	69.5	
329.0	CARBONDALE		COAL	0.3	72.0	
328.7	CARBONDALE		SHALE	6.5	72.3	DARK
322.2	CARBONDALE		LIMESTONE	2.0	78.8	BLUE
320.2	CARBONDALE		SHALE	0.5	80.8	
319.7	CARBONDALE		LIMESTONE	2.5	81.3	BLUE
317.2	CARBONDALE	BRERETON	SHALY LIMESTONE	5.8	83.8	DARK WITH COAL
311.5	CARBONDALE	HERRIN	COAL	6.3	89.5	
305.2	CARBONDALE		UNDERCLAY	0.3	95.8	

MAPID: 15700305000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 1 QUARTERS/FOOTAGES: SW

QUADRANGLE: PERCY LONGITUDE: -89.607364 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.032611 DATE COLLECTED:

SURFACE ELEVATION (FT.): 455.0 LOGGED (FT.): 41.2 LOG TYPE: Drillers Log

SOURCE: UNITED ELECTRIC COAL CO. 509 WELL TYPE: Coal Test

COMMENT: COAL TEST

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
455.0	PLEISTOCENE		UNCONSOLIDATED	13.0	0.0	
442.0	CARBONDALE		LIMESTONE	3.0	13.0	
439.0	CARBONDALE		SHALE	3.0	16.0	
436.0	CARBONDALE		LIMESTONE	5.0	19.0	
431.0	CARBONDALE		BLACK SHALE	1.0	24.0	
430.0	CARBONDALE	BRERETON	LIMESTONE	7.0	25.0	
423.0	CARBONDALE	ANNA	BLACK SHALE	3.0	32.0	
420.0	CARBONDALE	HERRIN	COAL	6.2	35.0	

MAPID: 15700306000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 1 QUARTERS/FOOTAGES: 2640' N line, 0' W line

QUADRANGLE: PERCY LONGITUDE: -89.611887 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.036532 DATE COLLECTED:

SURFACE ELEVATION (FT.): 452.0 LOGGED (FT.): 70.5 LOG TYPE: Drillers Log

SOURCE: UNITED ELECTRIC COAL CO. 559 WELL TYPE: Coal Test

COMMENT: COAL TEST

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
452.0	PLEISTOCENE		UNCONSOLIDATED	17.0	0.0
435.0	CARBONDALE		LIMESTONE	2.0	17.0
433.0	CARBONDALE		SHALE	7.0	19.0
426.0	CARBONDALE		LIMESTONE	1.0	26.0
425.0	CARBONDALE		SHALE	5.0	27.0
420.0	CARBONDALE	BRERETON	LIMESTONE	5.0	32.0
415.0	CARBONDALE	ANNA	BLACK SHALE	1.0	37.0
414.0	CARBONDALE	HERRIN	COAL	6.6	38.0
407.4	CARBONDALE		UNDERCLAY	5.0	44.6
402.4	CARBONDALE		LIMESTONE	7.0	49.6
395.4	CARBONDALE		SHALE	2.0	56.6
393.4	CARBONDALE	ST. DAVID	LIMESTONE	5.0	58.6
388.4	CARBONDALE	TURNER MINE	BLACK SHALE	3.0	63.6
385.4	CARBONDALE	SPRINGFIELD	COAL	3.9	66.6

MAPID: 15700306000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 1 QUARTERS/FOOTAGES: 2640' N line, 0' W line

QUADRANGLE: PERCY LONGITUDE: -89.611887 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.036532 DATE COLLECTED:

SURFACE ELEVATION (FT.): 452.0 LOGGED (FT.): 44.6 LOG TYPE: Drillers Log

SOURCE: WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
435.0	CARBONDALE	BANKSTON FORK	LIMESTONE	2.0	17.0
433.0	CARBONDALE	LAWSON	SHALE	7.0	19.0
426.0	CARBONDALE	CONANT	LIMESTONE	1.0	26.0
425.0	CARBONDALE		SHALE	5.0	27.0
420.0	CARBONDALE	BRERETON	LIMESTONE	5.0	32.0
415.0	CARBONDALE	ANNA	BLACK SHALE	1.0	37.0
414.0	CARBONDALE	HERRIN	COAL	6.6	38.0

MAPID: 15700471000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 1 QUARTERS/FOOTAGES: SW NW NW NW

QUADRANGLE: PERCY LONGITUDE: -89.611232 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.042408 DATE COLLECTED: 8 / 4 / 1927

SURFACE ELEVATION (FT.): 440.0 LOGGED (FT.): 29.0 LOG TYPE: Drillers Log

SOURCE: UNITED ELECTRIC COAL CO. 596 WELL TYPE: Coal Test

COMMENT: STOPPED ON ROCK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
440.0	PLEISTOCENE		UNCONSOLIDATED	19.0	0.0	
421.0	PLEISTOCENE		SAND & GRAVEL	4.0	19.0	
417.0			SHALE	6.0	23.0	SOFT

MAPID: 15700854000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 1 QUARTERS/FOOTAGES: 1105' S line, 970' E line of NE NW

QUADRANGLE: PERCY LONGITUDE: -89.605997 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.043095 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 455.4 LOGGED (FT.): 50.7 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. 85A WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
455.4	PLEISTOCENE		UNCONSOLIDATED	16.0	0.0	
439.4	CARBONDALE		LIMESTONE	4.3	16.0	
435.1	CARBONDALE		SHALE	1.8	20.3	
433.4	CARBONDALE		LIMESTONE	2.2	22.0	
431.2	CARBONDALE		SHALE	5.5	24.2	
425.7	CARBONDALE		COAL	0.1	29.7	
425.6	CARBONDALE		LIMESTONE	0.5	29.8	
425.1	CARBONDALE		SHALE	3.8	30.3	
421.3	CARBONDALE	BRERETON	LIMESTONE	5.5	34.1	
415.8	CARBONDALE		BLACK SHALE	4.8	39.6	
411.1	CARBONDALE	HERRIN	COAL	6.3	44.3	

MAPID: 15700855000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 1 QUARTERS/FOOTAGES: 770' S line, 650' E line of NE NW

QUADRANGLE: PERCY LONGITUDE: -89.604896 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.042165 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 463.8 LOGGED (FT.): 57.8 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. 85F WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
463.8	PLEISTOCENE		UNCONSOLIDATED	16.3	0.0
447.5	CARBONDALE		LIMESTONE	1.3	16.3
446.3	CARBONDALE		UNDERCLAY	7.3	17.5
439.0	CARBONDALE		LIMESTONE	5.2	24.8
433.8	CARBONDALE		SHALE	3.3	30.0
430.5	CARBONDALE		LIMESTONE	2.2	33.3
428.3	CARBONDALE		SHALE	3.5	35.5
424.8	CARBONDALE		BLACK SHALE	3.5	39.0
421.3	CARBONDALE	BRERETON	LIMESTONE	4.0	42.5
417.3	CARBONDALE		BLACK SHALE	4.8	46.5
412.5	CARBONDALE	HERRIN	COAL	6.6	51.3

MAPID: 15700856000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 1 QUARTERS/FOOTAGES: 440' S line, 970' E line of NE NW

QUADRANGLE: PERCY LONGITUDE: -89.606029 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.041259 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 464.3 LOGGED (FT.): 53.0 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO. 851 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
464.3	PLEISTOCENE		UNCONSOLIDATED	19.0	0.0
445.3	CARBONDALE		LIMESTONE	4.8	19.0
440.5	CARBONDALE		UNDERCLAY	3.0	23.8
437.5	CARBONDALE		LIMESTONE	1.9	26.8
435.5	CARBONDALE		SHALE	5.4	28.8
430.1	CARBONDALE		COAL	0.3	34.2
429.8	CARBONDALE		BLACK SHALE	5.0	34.5
424.8	CARBONDALE	BRERETON	LIMESTONE	4.8	39.5
420.0	CARBONDALE		SHALE	1.7	44.3
418.3	CARBONDALE	HERRIN	COAL	7.4	46.0

MAPID: 15700857000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 6S 5W **SECTION:** 1 **QUARTERS/FOOTAGES:** 290' S line, 320' E line of NE NW
QUADRANGLE: PERCY **LONGITUDE:** -89.603767 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 38.040836 **DATE COLLECTED:** 0 / 0 / 1928
SURFACE ELEVATION (FT.): 454.8 **LOGGED (FT.):** 51.0 **LOG TYPE:** Drillers Log
SOURCE: WILLIS COAL & MNG. CO. 85K **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
454.8	PLEISTOCENE		UNCONSOLIDATED	18.0	0.0
436.8	CARBONDALE		LIMESTONE	4.6	18.0
432.2	CARBONDALE		CLAYSTONE	3.2	22.6
429.0	CARBONDALE		LIMESTONE	3.3	25.8
425.7	CARBONDALE		CLAYSTONE	6.2	29.1
419.5	CARBONDALE	BRERETON	LIMESTONE	6.3	35.3
413.3	CARBONDALE		BLACK SHALE	3.2	41.5
410.1	CARBONDALE	HERRIN	COAL	6.3	44.7

MAPID: 15700858000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 6S 5W **SECTION:** 1 **QUARTERS/FOOTAGES:** 1270' S line, 1040' E line of NW NW
QUADRANGLE: PERCY **LONGITUDE:** -89.610829 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 38.043568 **DATE COLLECTED:** 0 / 0 / 1928
SURFACE ELEVATION (FT.): 427.3 **LOGGED (FT.):** 8.8 **LOG TYPE:** Drillers Log
SOURCE: WILLIS COAL & MNG. CO 84AB **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
427.3	PLEISTOCENE		UNCONSOLIDATED	1.3	0.0
426.0	CARBONDALE	ANNA	BLACK SHALE	1.0	1.3
425.0	CARBONDALE	HERRIN	COAL	6.5	2.3

MAPID: 15700862000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 6S 5W **SECTION:** 1 **QUARTERS/FOOTAGES:** 1270' S line, 1040' E line of NW NW
QUADRANGLE: PERCY **LONGITUDE:** -89.610829 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 38.043568 **DATE COLLECTED:** 0 / 0 / 1928
SURFACE ELEVATION (FT.): 434.1 **LOGGED (FT.):** 11.1 **LOG TYPE:** Drillers Log
SOURCE: WILLIS COAL & MNG. 84AA **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
434.1	PLEISTOCENE		UNCONSOLIDATED	9.0	0.0
425.1	CARBONDALE	HERRIN	COAL	2.1	9.0

MAPID: 15700863000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 1 QUARTERS/FOOTAGES: 1120' S line, 1040' E line of NW NW

QUADRANGLE: PERCY

LONGITUDE: -89.610836

GEOLOGIST: HOKE

CONFIDENTIAL: N

LATITUDE: 38.043154

DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 434.5

LOGGED (FT.): 13.1

LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. 84A

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
434.5	PLEISTOCENE		UNCONSOLIDATED	13.0	0.0	
421.5	CARBONDALE	HERRIN	COAL	0.1	13.0	TOP ERODED

MAPID: 15700866000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 1 QUARTERS/FOOTAGES: 850' S line, 650' E line of NW NW

QUADRANGLE: PERCY

LONGITUDE: -89.609484

GEOLOGIST: HOKE

CONFIDENTIAL: N

LATITUDE: 38.042404

DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 443.7

LOGGED (FT.): 29.8

LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. 84F

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
443.7	PLEISTOCENE		UNCONSOLIDATED	8.9	0.0	
434.8	CARBONDALE		COAL	0.5	8.9	SOFT; TOP ERODED
434.3	CARBONDALE		BLACK SHALE	0.4	9.4	
433.9	CARBONDALE		CLAYSTONE	5.1	9.8	
428.8	CARBONDALE	BRERETON	LIMESTONE	3.9	14.9	
424.9	CARBONDALE		BLACK SHALE	4.7	18.8	
420.2	CARBONDALE	HERRIN	COAL	6.3	23.5	

MAPID: 15700876000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 1 QUARTERS/FOOTAGES: 570' S line, 270' E line of NW NW

QUADRANGLE: PERCY

LONGITUDE: -89.60817

GEOLOGIST: HOKE

CONFIDENTIAL: N

LATITUDE: 38.041627

DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 456.7

LOGGED (FT.): 45.3

LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. 84K

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
456.7	PLEISTOCENE		UNCONSOLIDATED	15.9	0.0	
440.8	PLEISTOCENE		BOULDER	0.2	15.9	
440.6	PLEISTOCENE		UNCONSOLIDATED	4.1	16.1	
436.5	CARBONDALE		LIMESTONE	1.6	20.2	
434.9	CARBONDALE		BLACK SHALE	4.0	21.8	WITH SHALE
430.9	CARBONDALE		COAL	0.3	25.8	
430.6	CARBONDALE		BLACK SHALE	2.5	26.1	
428.1	CARBONDALE	BRERETON	LIMESTONE	6.3	28.6	
421.7	CARBONDALE		BLACK SHALE	4.6	35.0	
417.1	CARBONDALE	HERRIN	COAL	5.7	39.6	

MAPID: 15700878000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 1 QUARTERS/FOOTAGES: 330' S line, 970' E line of NW NW

QUADRANGLE: PERCY

LONGITUDE: -89.610623

GEOLOGIST: HOKE

CONFIDENTIAL: N

LATITUDE: 38.040973

DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 437.4

LOGGED (FT.): 48.5

LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. 84I

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
437.4	PLEISTOCENE		UNCONSOLIDATED	26.8	0.0	
410.6	PLEISTOCENE		CLAY	0.2	26.8	DARK AND SOFT WITH COAL
410.5	PLEISTOCENE		GRAVEL	2.8	26.9	
407.7	CARBONDALE		LIMESTONE	4.7	29.7	SOFT
403.1	CARBONDALE		CLAYSTONE	1.7	34.3	
401.4	CARBONDALE	BRERETON	LIMESTONE	8.0	36.0	
393.4	CARBONDALE	HERRIN	COAL	4.5	44.0	

MAPID: 15700886000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 1 QUARTERS/FOOTAGES: 1100' S line, 980' E line of SW NW

QUADRANGLE: PERCY

LONGITUDE: -89.610683

GEOLOGIST: HOKE

CONFIDENTIAL: N

LATITUDE: 38.039355

DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 443.8

LOGGED (FT.): 53.8

LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG 72A

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
443.8	PLEISTOCENE		UNCONSOLIDATED	10.4	0.0	
433.4	PLEISTOCENE		BOULDER	2.9	10.4	LIME
430.5	PLEISTOCENE		CLAY	11.7	13.3	
418.8	CARBONDALE		SHALE/COAL	0.3	25.0	
418.5	CARBONDALE		UNDERCLAY	2.5	25.3	
416.0	CARBONDALE		SHALE	3.4	27.8	
412.6	CARBONDALE		LIMESTONE	5.7	31.2	
407.0	CARBONDALE		LIMESTONE	1.2	36.8	
405.8	CARBONDALE		SHALE	1.8	38.0	
404.0	CARBONDALE	BRERETON	LIMESTONE	6.0	39.8	
398.0	CARBONDALE		BLACK SHALE	3.5	45.8	
394.5	CARBONDALE	HERRIN	COAL	4.5	49.3	

MAPID: 15700887000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 1 QUARTERS/FOOTAGES: 1070' S line, 350' E line of SW NW

QUADRANGLE: PERCY

LONGITUDE: -89.608484

GEOLOGIST: HOKE

CONFIDENTIAL: N

LATITUDE: 38.03928

DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 441.0

LOGGED (FT.): 55.4

LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. 72C

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
441.0	PLEISTOCENE		UNCONSOLIDATED	12.9	0.0	
428.1	CARBONDALE		LIMESTONE	4.9	12.9	
423.2	CARBONDALE		SHALE	4.2	17.8	
418.9	CARBONDALE		LIMESTONE	1.9	22.1	
417.0	CARBONDALE		SHALE	9.3	24.0	
407.7	CARBONDALE	BRERETON	LIMESTONE	13.4	33.3	
394.2	CARBONDALE	ANNA	BLACK SHALE	2.0	46.8	
392.2	CARBONDALE	HERRIN	COAL	6.7	48.8	

MAPID: 15700889000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 1 QUARTERS/FOOTAGES: 920' S line, 980' E line of SW NW

QUADRANGLE: PERCY

LONGITUDE: -89.610689

GEOLOGIST: HOKE

CONFIDENTIAL: N

LATITUDE: 38.038858

DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 451.6

LOGGED (FT.): 79.0

LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG 72AA

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
451.6	PLEISTOCENE		UNCONSOLIDATED	47.5	0.0
404.1	CARBONDALE		SHALE	4.5	47.5
399.6	CARBONDALE		CLAYSTONE	6.0	52.0
393.6	CARBONDALE		LIMESTONE	7.0	58.0
386.6	CARBONDALE		CLAYSTONE	4.0	65.0
382.6	CARBONDALE	BRERETON	LIMESTONE	2.0	69.0
380.6	CARBONDALE	ANNA	BLACK SHALE	2.0	71.0
378.6	CARBONDALE	HERRIN	COAL	6.0	73.0

MAPID: 15700894000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 1 QUARTERS/FOOTAGES: 700' S line, 660' E line of SW NW

QUADRANGLE: PERCY

LONGITUDE: -89.609582

GEOLOGIST: HOKE

CONFIDENTIAL: N

LATITUDE: 38.038255

DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 452.6

LOGGED (FT.): 54.5

LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG 72F

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
452.6	PLEISTOCENE		UNCONSOLIDATED	46.5	0.0
406.1	CARBONDALE	ANNA	BLACK SHALE	2.3	46.5
403.8	CARBONDALE	HERRIN	COAL	5.7	48.8

MAPID: 15700904000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 1 QUARTERS/FOOTAGES: 980' S line, 970' E line of NW

QUADRANGLE: PERCY

LONGITUDE: -89.606068

GEOLOGIST: HOKE

CONFIDENTIAL: N

LATITUDE: 38.039039

DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 445.0

LOGGED (FT.): 50.8

LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
445.0	PLEISTOCENE		UNCONSOLIDATED	14.8	0.0
430.2	CARBONDALE		LIMESTONE	4.8	14.8
425.3	CARBONDALE		SHALE	3.2	19.7
422.2	CARBONDALE		LIMESTONE	2.6	22.8
419.6	CARBONDALE		BLACK SHALE	4.2	25.4
415.4	CARBONDALE		ROCK	0.5	29.6
414.9	CARBONDALE		BLACK SHALE	3.0	30.1
411.9	CARBONDALE		ROCK	10.5	33.1
401.4	CARBONDALE		BLACK SHALE	1.0	43.6
400.4	CARBONDALE	HERRIN	COAL	6.2	44.6

MAPID: 15700905000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 1 QUARTERS/FOOTAGES: 610' S line, 650' E line of NW

QUADRANGLE: PERCY

LONGITUDE: -89.604967

GEOLOGIST: HOKE

CONFIDENTIAL: N

LATITUDE: 38.038024

DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 458.2

LOGGED (FT.): 77.1

LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO 73F

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
458.2	PLEISTOCENE		UNCONSOLIDATED	37.5	0.0
420.7	CARBONDALE		LIMESTONE	0.9	37.5
419.8	CARBONDALE		SHALE	1.0	38.4
418.8	CARBONDALE		LIMESTONE	0.4	39.4
418.4	CARBONDALE		SHALE	5.5	39.8
412.9	CARBONDALE		LIMESTONE	5.5	45.3
407.4	CARBONDALE		SHALE	3.2	50.8
404.2	CARBONDALE		LIMESTONE	2.5	54.0
401.7	CARBONDALE		BLACK SHALE	2.7	56.5 WITH SHALE
399.0	CARBONDALE		COAL	0.3	59.2
398.8	CARBONDALE		BLACK SHALE	1.3	59.4
397.4	CARBONDALE	BRERETON	LIMESTONE	4.0	60.8
393.4	CARBONDALE		BLACK SHALE	5.8	64.8
387.6	CARBONDALE	HERRIN	COAL	6.5	70.6

MAPID: 15700906000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 1 QUARTERS/FOOTAGES: 320' S line, 970' E line of NW

QUADRANGLE: PERCY LONGITUDE: -89.606097 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.037217 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 452.6 LOGGED (FT.): 66.8 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO 731 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
452.6	PLEISTOCENE		UNCONSOLIDATED	33.0	0.0
419.6	CARBONDALE		SHALE	8.0	33.0
411.6	CARBONDALE		LIMESTONE	3.0	41.0
408.6	CARBONDALE		SHALE	4.7	44.0
403.9	CARBONDALE		LIMESTONE	0.8	48.7
403.1	CARBONDALE		BLACK SHALE	6.5	49.5
396.6	CARBONDALE	BRERETON	LIMESTONE	2.8	56.0
393.8	CARBONDALE	ANNA	BLACK SHALE	1.8	58.8
392.0	CARBONDALE	HERRIN	COAL	6.3	60.6

MAPID: 15700907000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 1 QUARTERS/FOOTAGES: 990' N line, 980' W line

QUADRANGLE: PERCY LONGITUDE: -89.608406 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.041047 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 456.4 LOGGED (FT.): 58.7 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG 60A WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
456.4	PLEISTOCENE		UNCONSOLIDATED	21.8	0.0
434.6	CARBONDALE		LIMESTONE	4.8	21.8
429.7	CARBONDALE		CLAYSTONE	4.0	26.7 BLUE
425.7	CARBONDALE		LIMESTONE	3.5	30.7
422.2	CARBONDALE		BLACK SHALE	3.5	34.2
418.7	CARBONDALE		CLAYSTONE	5.0	37.7
413.7	CARBONDALE	BRERETON	LIMESTONE	5.0	42.7
408.7	CARBONDALE		BLACK SHALE	2.0	47.7
406.7	CARBONDALE		SHALE	2.0	49.7
404.7	CARBONDALE	HERRIN	COAL	7.0	51.7

MAPID: 15700908000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 1 QUARTERS/FOOTAGES: 980' S line, 330' E line of NW SW

QUADRANGLE: PERCY LONGITUDE: -89.608475 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.035304 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 445.5 LOGGED (FT.): 56.4 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG 60C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
445.5	PLEISTOCENE		UNCONSOLIDATED	19.4	0.0
426.1	CARBONDALE		LIMESTONE	2.0	19.4
424.1	CARBONDALE		SHALE	3.5	21.4
420.6	CARBONDALE		LIMESTONE	5.0	24.9
415.6	CARBONDALE		SHALE	8.0	29.9
407.6	CARBONDALE		LIMESTONE	5.0	37.9
402.6	CARBONDALE		SHALE	7.0	42.9
395.6	CARBONDALE	HERRIN	COAL	6.5	49.9

MAPID: 15700909000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 1 QUARTERS/FOOTAGES: 660' S line, 660' E line of NW SW

QUADRANGLE: PERCY LONGITUDE: -89.609643 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.034409 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 458.8 LOGGED (FT.): 46.8 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. 60F WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
458.8	PLEISTOCENE		UNCONSOLIDATED	20.4	0.0
438.4	CARBONDALE		LIMESTONE	2.4	20.4
436.0	CARBONDALE		BLACK SHALE	10.0	22.8
426.0	CARBONDALE	BRERETON	LIMESTONE	5.0	32.8
421.0	CARBONDALE	ANNA	BLACK SHALE	3.0	37.8
418.0	CARBONDALE	HERRIN	COAL	6.0	40.8

MAPID: 1570091000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 1 QUARTERS/FOOTAGES: 330' S line, 980' E line of NW SW

QUADRANGLE: PERCY

LONGITUDE: -89.610772

GEOLOGIST: HOKE

CONFIDENTIAL: N

LATITUDE: 38.033483

DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 460.5

LOGGED (FT.): 54.8

LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG 60I

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
460.5	PLEISTOCENE		UNCONSOLIDATED	21.0	0.0
439.5	CARBONDALE		LIMESTONE	4.8	21.0
434.7	CARBONDALE		SHALE	3.3	25.8
431.5	CARBONDALE		LIMESTONE	3.5	29.0
428.0	CARBONDALE		SHALE	4.5	32.5
423.5	CARBONDALE		SHALE	2.3	37.0
421.2	CARBONDALE		CLAYSTONE	2.0	39.3
419.2	CARBONDALE	BRERETON	LIMESTONE	5.5	41.3
413.7	CARBONDALE	ANNA	BLACK SHALE	1.5	46.8
412.2	CARBONDALE	HERRIN	COAL	6.5	48.3

MAPID: 15700911000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 1 QUARTERS/FOOTAGES: 1000' S line, 960' E line of SW

QUADRANGLE: PERCY

LONGITUDE: -89.606159

GEOLOGIST: HOKE

CONFIDENTIAL: N

LATITUDE: 38.031679

DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 456.1

LOGGED (FT.): 71.4

LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. 61A

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
456.1	PLEISTOCENE		UNCONSOLIDATED	37.8	0.0
418.3	CARBONDALE		LIMESTONE	3.8	37.8
414.5	CARBONDALE		SHALE	2.4	41.6
412.1	CARBONDALE		LIMESTONE	2.6	44.0
409.5	CARBONDALE		SHALE	5.3	46.6
404.3	CARBONDALE		COAL	0.3	51.8
404.0	CARBONDALE		SHALE	5.3	52.1
398.7	CARBONDALE	BRERETON	LIMESTONE	6.2	57.4
392.5	CARBONDALE	ANNA	BLACK SHALE	0.5	63.6
392.0	CARBONDALE	HERRIN	COAL	7.3	64.1

MAPID: 15700912000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 1 QUARTERS/FOOTAGES: 330' S line, 950' E line of SW

QUADRANGLE: PERCY LONGITUDE: -89.606156 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.029829 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 452.7 LOGGED (FT.): 75.6 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG 611 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
452.7	PLEISTOCENE		UNCONSOLIDATED	22.0	0.0	
430.7	CARBONDALE		SHALE	10.0	22.0	
420.7	CARBONDALE		LIMESTONE	1.5	32.0	
419.2	CARBONDALE		LIMESTONE	5.8	33.5	SOFT
413.4	CARBONDALE		LIMESTONE	5.4	39.3	
408.0	CARBONDALE		SHALE	2.0	44.7	
406.0	CARBONDALE		LIMESTONE	1.5	46.7	
404.5	CARBONDALE		BLACK SHALE	5.7	48.2	
398.9	CARBONDALE		COAL	0.7	53.8	
398.2	CARBONDALE		BLACK SHALE	5.5	54.5	WITH SHALE
392.7	CARBONDALE	BRERETON	LIMESTONE	5.5	60.0	
387.2	CARBONDALE		BLACK SHALE	3.8	65.5	
383.4	CARBONDALE	HERRIN	COAL	6.3	69.3	

MAPID: 15700913000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 1 QUARTERS/FOOTAGES: 10' N line, 330' E line of SW SW

QUADRANGLE: PERCY LONGITUDE: -89.608519 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.032571 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 461.7 LOGGED (FT.): 51.0 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG 600 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
461.7	PLEISTOCENE		UNCONSOLIDATED	16.9	0.0	
444.8	CARBONDALE		LIMESTONE	0.8	16.9	
443.9	CARBONDALE		SHALE	7.3	17.8	
436.7	CARBONDALE		LIMESTONE	5.0	25.0	
431.7	CARBONDALE		SHALE	7.0	30.0	
424.7	CARBONDALE	BRERETON	LIMESTONE	3.0	37.0	
421.7	CARBONDALE		BLACK SHALE	4.0	40.0	
417.7	CARBONDALE	HERRIN	COAL	7.0	44.0	

MAPID: 15700914000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 1 QUARTERS/FOOTAGES: 990' S line, 330' W line of SW

QUADRANGLE: PERCY

LONGITUDE: -89.6108

GEOLOGIST: HOKE

CONFIDENTIAL: N

LATITUDE: 38.031561

DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 465.2

LOGGED (FT.): 72.0

LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. 49A

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
465.2	PLEISTOCENE		UNCONSOLIDATED	39.4	0.0	
425.8	CARBONDALE		LIMESTONE	5.0	39.4	
420.8	CARBONDALE		CLAYSTONE	4.0	44.4	BLUE
416.8	CARBONDALE		LIMESTONE	2.8	48.4	
414.0	CARBONDALE		CLAYSTONE	7.3	51.2	BLUE
406.7	CARBONDALE	BRERETON	LIMESTONE	4.5	58.5	
402.2	CARBONDALE	ANNA	BLACK SHALE	2.0	63.0	
400.2	CARBONDALE	HERRIN	COAL	7.0	65.0	

MAPID: 15700915000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 1 QUARTERS/FOOTAGES: 670' S line, 630' W line

QUADRANGLE: PERCY

LONGITUDE: -89.609766

GEOLOGIST: HOKE

CONFIDENTIAL: N

LATITUDE: 38.030698

DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 467.3

LOGGED (FT.): 76.8

LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. 49F

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
467.3	PLEISTOCENE		UNCONSOLIDATED	32.4	0.0	
434.9	CARBONDALE		LIMESTONE	5.8	32.4	
429.0	CARBONDALE		SHALE	3.5	38.3	
425.5	CARBONDALE		LIMESTONE	3.0	41.8	
422.5	CARBONDALE		SHALE	23.1	44.8	
399.5	CARBONDALE	ANNA	BLACK SHALE	2.0	67.8	
397.5	CARBONDALE	HERRIN	COAL	7.0	69.8	

MAPID: 15700916000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 1 QUARTERS/FOOTAGES: 350' N line, 340' E line

QUADRANGLE: PERCY LONGITUDE: -89.594617 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.042657 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 456.0 LOGGED (FT.): 50.5 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG 49I WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
456.0	PLEISTOCENE		UNCONSOLIDATED	17.0	0.0
439.0	CARBONDALE		LIMESTONE	5.0	17.0
434.0	CARBONDALE		SHALE	3.0	22.0
431.0	CARBONDALE		LIMESTONE	3.0	25.0
428.0	CARBONDALE		SHALE	6.5	28.0
421.5	CARBONDALE	BRERETON	LIMESTONE	7.0	34.5
414.5	CARBONDALE	ANNA	BLACK SHALE	2.0	41.5
412.5	CARBONDALE	HERRIN	COAL	7.0	43.5

MAPID: 15700917000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 1 QUARTERS/FOOTAGES: 340' N line, 980' E line

QUADRANGLE: PERCY LONGITUDE: -89.596847 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.042711 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 461.8 LOGGED (FT.): 47.8 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. 49K WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
461.8	PLEISTOCENE		UNCONSOLIDATED	15.5	0.0
446.3	PLEISTOCENE		SAND	2.0	15.5
444.3	PLEISTOCENE		CLAY	5.5	17.5 GRAVELLY
438.8	CARBONDALE		LIMESTONE	6.0	23.0
432.8	CARBONDALE		SHALE	2.8	29.0
430.0	CARBONDALE	BRERETON	LIMESTONE	5.5	31.8
424.5	CARBONDALE		BLACK SHALE	4.0	37.3
420.5	CARBONDALE	HERRIN	COAL	6.5	41.3

MAPID: 15700918000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 1 QUARTERS/FOOTAGES: 1000' S line, 960' E line of SW

QUADRANGLE: PERCY LONGITUDE: -89.606159 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.031679 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 467.0 LOGGED (FT.): 76.0 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. 50A WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
467.0	PLEISTOCENE		UNCONSOLIDATED	30.0	0.0
437.0	PLEISTOCENE		SAND & GRAVEL	2.0	30.0
435.0	CARBONDALE		LIMESTONE	4.0	32.0
431.0	CARBONDALE		SHALE	2.0	36.0
429.0	CARBONDALE		LIMESTONE	3.8	38.0
425.2	CARBONDALE		BLACK SHALE	3.2	41.8
422.0	CARBONDALE		LIMESTONE	17.0	45.0
405.0	CARBONDALE	BRERETON	LIMESTONE	5.0	62.0
400.0	CARBONDALE	ANNA	BLACK SHALE	3.0	67.0
397.0	CARBONDALE	HERRIN	COAL	6.0	70.0

MAPID: 15700919000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 1 QUARTERS/FOOTAGES: 350' S line, 960' E line of SW

QUADRANGLE: PERCY LONGITUDE: -89.606191 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.029882 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 472.8 LOGGED (FT.): 70.7 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. 50I WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
472.8	PLEISTOCENE		UNCONSOLIDATED	30.0	0.0
442.8	CARBONDALE		LIMESTONE	0.7	30.0
442.1	CARBONDALE		SHALE	0.5	30.7
441.6	CARBONDALE		LIMESTONE	0.4	31.2
441.2	CARBONDALE		SHALE	1.0	31.6
440.2	CARBONDALE		LIMESTONE	5.4	32.6
434.8	CARBONDALE		LIMESTONE	5.5	38.0 HARD
429.3	CARBONDALE		SHALE	3.2	43.5
426.1	CARBONDALE		LIMESTONE	2.8	46.7
423.3	CARBONDALE		SHALE	7.2	49.5
416.1	CARBONDALE	BRERETON	LIMESTONE	3.7	56.7
412.5	CARBONDALE		SHALE	3.8	60.3
408.6	CARBONDALE	HERRIN	COAL	6.5	64.2

MAPID: 15701437000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 6S 5W **SECTION:** 1 **QUARTERS/FOOTAGES:** SW NW
QUADRANGLE: PERCY **LONGITUDE:** -89.609571 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 38.038188 **DATE COLLECTED:** 0 / 0 / 1928
SURFACE ELEVATION (FT.): 454.9 **LOGGED (FT.):** 54.8 **LOG TYPE:** Drillers Log
SOURCE: WILLIS COAL & MNG. 72K **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
454.9			UNCONSOLIDATED	50.2	0.0	
404.7	CARBONDALE	HERRIN	COAL	4.6	50.2	TOP ERODED

MAPID: 15701438000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 6S 5W **SECTION:** 1 **QUARTERS/FOOTAGES:** NW
QUADRANGLE: PERCY **LONGITUDE:** -89.607253 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 38.040048 **DATE COLLECTED:** 0 / 0 / 1928
SURFACE ELEVATION (FT.): 466.0 **LOGGED (FT.):** 60.0 **LOG TYPE:** Drillers Log
SOURCE: WILLIS COAL & MNG. CO. 85C **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
466.0	PLEISTOCENE		UNCONSOLIDATED	25.2	0.0	
440.8	CARBONDALE		LIMESTONE	5.3	25.2	
435.5	CARBONDALE		SHALE	3.0	30.5	
432.5	CARBONDALE		LIMESTONE	2.7	33.5	
429.8	CARBONDALE		CLAYSTONE	0.3	36.2	BLUE
429.5	CARBONDALE		BLACK SHALE	4.0	36.5	
425.5	CARBONDALE		LIMESTONE	0.3	40.5	
425.2	CARBONDALE		BLACK SHALE	7.9	40.8	
417.2	CARBONDALE	BRERETON	LIMESTONE	4.8	48.8	
412.5	CARBONDALE	ANNA	BLACK SHALE	0.5	53.5	
412.0	CARBONDALE	HERRIN	COAL	6.0	54.0	

MAPID: 15701439000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 6S 5W **SECTION:** 1 **QUARTERS/FOOTAGES:** 1210' S line, 350' E line of NW NW
QUADRANGLE: PERCY **LONGITUDE:** -89.60842 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 38.043393 **DATE COLLECTED:** 0 / 0 / 1928
SURFACE ELEVATION (FT.): 436.7 **LOGGED (FT.):** 24.7 **LOG TYPE:** Drillers Log
SOURCE: WILLIS COAL & MNG. CO. 84C **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
436.7	PLEISTOCENE		UNCONSOLIDATED	20.0	0.0	
416.7	CARBONDALE	HERRIN	COAL	4.7	20.0	TOP ERODED

MAPID: 15700028000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 2 QUARTERS/FOOTAGES: 108' N line, 380' W line of SW NE

QUADRANGLE: PERCY

LONGITUDE: -89.619742

GEOLOGIST: HOKE

CONFIDENTIAL: N

LATITUDE: 38.039774

DATE COLLECTED: 0 / 0 / 1960

SURFACE ELEVATION (FT.): 429.1

LOGGED (FT.): 87.0

LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MINING 3

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
429.1	PLEISTOCENE		UNCONSOLIDATED	46.0	0.0	
383.1	CARBONDALE		COAL/CLAYSTONE	5.0	46.0	WITH LIMESTONE
378.1	CARBONDALE		CLAYSTONE & LIMESTONE	12.0	51.0	
366.1	CARBONDALE		CLAYSTONE & SHALE	7.0	63.0	BLUE
359.1	CARBONDALE		BLACK SHALE	1.0	70.0	BLACK
358.1	CARBONDALE		COAL	5.0	71.0	
353.1	CARBONDALE		BLACK SHALE	5.5	76.0	
347.6	CARBONDALE		COAL	3.0	81.5	
344.6	CARBONDALE		UNDERCLAY	2.5	84.5	

MAPID: 15700029000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 2 QUARTERS/FOOTAGES: 312' N line, 102' W line of SE NE

QUADRANGLE: PERCY

LONGITUDE: -89.616104

GEOLOGIST: HOKE

CONFIDENTIAL: N

LATITUDE: 38.039209

DATE COLLECTED: 0 / 0 / 1960

SURFACE ELEVATION (FT.): 431.5

LOGGED (FT.): 98.0

LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MINING 14

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
431.5	PLEISTOCENE		UNCONSOLIDATED	37.0	0.0	
394.5	CARBONDALE	ST. DAVID	LIMESTONE	1.0	37.0	
393.5	CARBONDALE	SPRINGFIELD	COAL	5.8	38.0	
387.7	CARBONDALE		UNDERCLAY	8.3	43.8	
379.5	CARBONDALE		CLAYSTONE & LIMESTONE	8.0	52.0	
371.5	CARBONDALE		CLAY & COAL	1.0	60.0	
370.5	CARBONDALE		CLAYSTONE	3.0	61.0	SANDY
367.5	CARBONDALE		SHALY SANDSTONE	7.0	64.0	DARK
360.5	CARBONDALE		SANDY SHALE	12.0	71.0	SANDY
348.5	CARBONDALE		SANDSTONE	3.0	83.0	
345.5	CARBONDALE		BLACK SHALE	6.8	86.0	
338.7	CARBONDALE	HOUCHIN CREEK	COAL	3.3	92.8	
335.5	CARBONDALE		UNDERCLAY	2.0	96.0	SANDY

MAPID: 15700093000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 2 QUARTERS/FOOTAGES: 1320' S line, 0' E line
 QUADRANGLE: PERCY LONGITUDE: -89.61194 GEOLOGIST: HOKE
 CONFIDENTIAL: N LATITUDE: 38.032452 DATE COLLECTED: 0 / 0 / 1903
 SURFACE ELEVATION (FT.): 465.2 LOGGED (FT.): 71.0 LOG TYPE: Drillers Log
 SOURCE: WILLISVILLE COAL CO. WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
465.2	PLEISTOCENE		UNCONSOLIDATED	29.0	0.0	
436.2	CARBONDALE		LIMESTONE	1.5	29.0	GRAY
434.7	CARBONDALE		UNDERCLAY	4.5	30.5	BLUE
430.2	CARBONDALE		LIMESTONE	5.0	35.0	GRAY
425.2	CARBONDALE		SHALE	5.5	40.0	WITH LIMESTONE; BLUE
419.7	CARBONDALE		LIMESTONE	1.5	45.5	BLUE
418.2	CARBONDALE		SHALE	5.0	47.0	WITH LIMESTONE; DARK
413.2	CARBONDALE		LIMESTONE	6.0	52.0	BLUE
407.2	CARBONDALE		BLACK SHALE	4.0	58.0	
403.2	CARBONDALE		SHALE	2.3	62.0	SOFT
400.9	CARBONDALE	HERRIN	COAL	6.3	64.3	
394.7	CARBONDALE		UNDERCLAY	0.5	70.5	

MAPID: 15700093000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 2 QUARTERS/FOOTAGES: 1320' S line, 0' E line
 QUADRANGLE: PERCY LONGITUDE: -89.61194 GEOLOGIST:
 CONFIDENTIAL: N LATITUDE: 38.032452 DATE COLLECTED:
 SURFACE ELEVATION (FT.): 465.0 LOGGED (FT.): 70.3 LOG TYPE: Drillers Log
 SOURCE: WELL TYPE: Coal Test
 COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
436.2	CARBONDALE	BANKSTON FORK	LIMESTONE & SHALE	1.5	28.8	
434.7	CARBONDALE	BANKSTON FORK	CLAYSTONE	4.5	30.3	
430.2	CARBONDALE	BANKSTON FORK	LIMESTONE & SHALE	5.0	34.8	
425.2	CARBONDALE	LAWSON	LIMESTONE W/ SHALE	5.5	39.8	
419.7	CARBONDALE	CONANT	CALCAREOUS SHALE	6.5	45.3	
413.2	CARBONDALE	BRERETON	LIMESTONE & SHALE	6.0	51.8	
407.2	CARBONDALE	ANNA	BLACK SHALE	4.0	57.8	
403.2	CARBONDALE	ENERGY	GRAY SHALE	2.3	61.8	
401.0	CARBONDALE	HERRIN	COAL	6.3	64.0	

MAPID: 15700094000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 6S 5W **SECTION:** 2 **QUARTERS/FOOTAGES:** 48' N line, 87' W line of NE
QUADRANGLE: PERCY **LONGITUDE:** -89.62074 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 38.043729 **DATE COLLECTED:** 0 / 0 / 1960
SURFACE ELEVATION (FT.): 444.5 **LOGGED (FT.):** 72.0 **LOG TYPE:** Drillers Log
SOURCE: WILLIS COAL & MINING 4 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
444.5	PLEISTOCENE		UNCONSOLIDATED	31.0	0.0	
413.5	PLEISTOCENE		CLAY & SHALE	11.0	31.0	WHITE
402.5			SANDSTONE	17.0	42.0	LIGHT
385.5			SANDSTONE/SHALE	13.0	59.0	

MAPID: 15700307000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 6S 5W **SECTION:** 2 **QUARTERS/FOOTAGES:**
QUADRANGLE: PERCY **LONGITUDE:** -89.621091 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 38.036283 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 431.0 **LOGGED (FT.):** 49.0 **LOG TYPE:** Drillers Log
SOURCE: UNITED ELECTRIC COAL CO. 505 **WELL TYPE:** Coal Test
COMMENT: COAL TEST

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
431.0	PLEISTOCENE		UNCONSOLIDATED	25.0	0.0	
406.0			SHALE	7.0	25.0	
399.0			SANDSTONE	17.0	32.0	

MAPID: 15700308000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 6S 5W **SECTION:** 2 **QUARTERS/FOOTAGES:** NW
QUADRANGLE: STEELEVILLE **LONGITUDE:** -89.62568 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 38.040077 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 438.0 **LOGGED (FT.):** 63.0 **LOG TYPE:** Drillers Log
SOURCE: UNITED ELECTRIC COAL CO. 555 **WELL TYPE:** Coal Test
COMMENT: COAL TEST

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
438.0	PLEISTOCENE		UNCONSOLIDATED	18.0	0.0	
420.0	PLEISTOCENE		SAND & GRAVEL	6.0	18.0	
414.0	PLEISTOCENE		MUD	10.0	24.0	BLUE
404.0	PLEISTOCENE		CLAY	27.0	34.0	
377.0	PLEISTOCENE		SAND & GRAVEL	2.0	61.0	

MAPID: 15700309000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 2 QUARTERS/FOOTAGES: SW

QUADRANGLE: STEELEVILLE LONGITUDE: -89.625698 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.03246 DATE COLLECTED:

SURFACE ELEVATION (FT.): 447.0 LOGGED (FT.): 56.1 LOG TYPE: Drillers Log

SOURCE: UNITED ELECTRIC COAL CO. 507 WELL TYPE: Coal Test

COMMENT: COAL TEST

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
447.0	PLEISTOCENE		UNCONSOLIDATED	15.0	0.0
432.0	PLEISTOCENE		SAND & GRAVEL	10.0	15.0
422.0	CARBONDALE		SANDSTONE/SHALE	22.0	25.0
400.0	CARBONDALE	ST. DAVID	LIMESTONE	1.0	47.0
399.0	CARBONDALE		BLACK SHALE	3.5	48.0
395.5	CARBONDALE	SPRINGFIELD	COAL	4.1	51.5

MAPID: 15700310000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 2 QUARTERS/FOOTAGES: NE

QUADRANGLE: PERCY LONGITUDE: -89.616454 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.04007 DATE COLLECTED:

SURFACE ELEVATION (FT.): 441.0 LOGGED (FT.): 51.1 LOG TYPE: Drillers Log

SOURCE: UNITED ELECTRIC COAL CO. 557 WELL TYPE: Coal Test

COMMENT: COAL TEST

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
441.0	PLEISTOCENE		UNCONSOLIDATED	17.0	0.0
424.0	PLEISTOCENE		SAND & GRAVEL	15.0	17.0
409.0	CARBONDALE		LIMESTONE	13.0	32.0
396.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.3	45.0
394.7	CARBONDALE	SPRINGFIELD	COAL	5.1	46.3

MAPID: 15700472000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 6S 5W **SECTION:** 2 **QUARTERS/FOOTAGES:** SE SW
QUADRANGLE: PERCY **LONGITUDE:** -89.623413 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 38.030577 **DATE COLLECTED:** 7 / 27 / 1927
SURFACE ELEVATION (FT.): 438.0 **LOGGED (FT.):** 33.2 **LOG TYPE:** Drillers Log
SOURCE: UNITED ELECTRIC COAL COMPANY 518 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
438.0	PLEISTOCENE		UNCONSOLIDATED	14.0	0.0	
424.0	CARBONDALE		LIMESTONE	7.0	14.0	
417.0	CARBONDALE		SHALE	2.0	21.0	
415.0	CARBONDALE		ROCK	3.0	23.0	BLACK
412.0	CARBONDALE		SHALE	1.0	26.0	
411.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.0	27.0	
410.0	CARBONDALE	SPRINGFIELD	COAL	5.2	28.0	

MAPID: 15700473000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 6S 5W **SECTION:** 2 **QUARTERS/FOOTAGES:** SE NE
QUADRANGLE: PERCY **LONGITUDE:** -89.614169 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 38.038187 **DATE COLLECTED:** 8 / 4 / 1927
SURFACE ELEVATION (FT.): 440.0 **LOGGED (FT.):** 29.5 **LOG TYPE:** Drillers Log
SOURCE: UNITED ELECTRIC COAL COMPANY 570 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
440.0	PLEISTOCENE		UNCONSOLIDATED	17.0	0.0	
423.0	CARBONDALE		SHALE	7.5	17.0	
415.5	CARBONDALE		ROCK	5.0	24.5	BLACK

MAPID: 15700474000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 6S 5W **SECTION:** 2 **QUARTERS/FOOTAGES:** NE NE
QUADRANGLE: PERCY **LONGITUDE:** -89.614126 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 38.041949 **DATE COLLECTED:** 8 / 4 / 1927
SURFACE ELEVATION (FT.): 438.0 **LOGGED (FT.):** 47.0 **LOG TYPE:** Drillers Log
SOURCE: UNITED ELECTRIC COAL COMPANY 595 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
438.0	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0	
428.0			SANDSTONE/SHALE	30.0	10.0	
398.0			SANDSTONE	7.0	40.0	

MAPID: 15700623000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 6S 5W **SECTION:** 2 **QUARTERS/FOOTAGES:** NW
QUADRANGLE: STEELEVILLE **LONGITUDE:** -89.62568 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 38.040077 **DATE COLLECTED:** 7 / 29 / 1927
SURFACE ELEVATION (FT.): 438.0 **LOGGED (FT.):** 63.0 **LOG TYPE:** Drillers Log
SOURCE: UNITED ELECTRIC COAL COMPANY 567 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
438.0	PLEISTOCENE		UNCONSOLIDATED	20.0	0.0	
418.0			SANDSTONE/SHALE	20.0	20.0	
398.0			SHALE	20.0	40.0	
378.0			LIMESTONE	3.0	60.0	

MAPID: 15700624000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 6S 5W **SECTION:** 2 **QUARTERS/FOOTAGES:** NW
QUADRANGLE: STEELEVILLE **LONGITUDE:** -89.62568 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 38.040077 **DATE COLLECTED:** 7 / 26 / 1927
SURFACE ELEVATION (FT.): 438.0 **LOGGED (FT.):** 63.0 **LOG TYPE:** Drillers Log
SOURCE: UNITED ELECTRIC COAL COMPANY 617 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
438.0	PLEISTOCENE		UNCONSOLIDATED	44.0	0.0	
394.0			SHALE	10.0	44.0	
384.0			SANDSTONE	9.0	54.0	

MAPID: 15700659000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 6S 5W **SECTION:** 2 **QUARTERS/FOOTAGES:** NW NW
QUADRANGLE: STEELEVILLE **LONGITUDE:** -89.627984 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 38.041984 **DATE COLLECTED:** 0 / 0 / 1939
SURFACE ELEVATION (FT.): 440.0 **LOGGED (FT.):** 27.0 **LOG TYPE:** Drillers Log
SOURCE: WILLS COAL CO. 23 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
440.0	PLEISTOCENE		UNCONSOLIDATED	26.0	0.0	
414.0	CARBONDALE	SPRINGFIELD	COAL	1.0	26.0	TOP ERODED

MAPID: 1570066000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 6S 5W **SECTION:** 2 **QUARTERS/FOOTAGES:** NW
QUADRANGLE: STEELEVILLE **LONGITUDE:** -89.62568 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 38.040077 **DATE COLLECTED:** 0 / 0 / 1939
SURFACE ELEVATION (FT.): 440.0 **LOGGED (FT.):** 32.0 **LOG TYPE:** Drillers Log
SOURCE: WILLS COAL CO. 24 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
440.0	PLEISTOCENE		UNCONSOLIDATED	32.0	0.0	

MAPID: 15700661000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 6S 5W **SECTION:** 2 **QUARTERS/FOOTAGES:** SW NW
QUADRANGLE: STEELEVILLE **LONGITUDE:** -89.627988 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 38.038169 **DATE COLLECTED:** 0 / 0 / 1939
SURFACE ELEVATION (FT.): 450.0 **LOGGED (FT.):** 32.0 **LOG TYPE:** Drillers Log
SOURCE: WILLS COAL CO. 25 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
450.0	PLEISTOCENE		UNCONSOLIDATED	32.0	0.0	

MAPID: 15700920000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 6S 5W **SECTION:** 2 **QUARTERS/FOOTAGES:** 1100' S line, 960' E line of NE NE
QUADRANGLE: PERCY **LONGITUDE:** -89.61515 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 38.043105 **DATE COLLECTED:** 0 / 0 / 1928
SURFACE ELEVATION (FT.): 440.0 **LOGGED (FT.):** 42.0 **LOG TYPE:** Drillers Log
SOURCE: WILLIS COAL & MNG. 83A **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
440.0	PLEISTOCENE		UNCONSOLIDATED	20.4	0.0	
419.6	PLEISTOCENE		CLAY	5.5	20.4	SOFT
414.1	PLEISTOCENE		UNCONSOLIDATED	4.1	25.9	
410.0	PLEISTOCENE		CLAY	12.0	30.0	

MAPID: 15700921000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 2 QUARTERS/FOOTAGES: 1100' S line, 330' E line of NE NE
 QUADRANGLE: PERCY LONGITUDE: -89.612951 GEOLOGIST: HOKE
 CONFIDENTIAL: N LATITUDE: 38.043105 DATE COLLECTED: 0 / 0 / 1928
 SURFACE ELEVATION (FT.): 437.4 LOGGED (FT.): 59.0 LOG TYPE: Drillers Log
 SOURCE: WILLIS COAL & MNG. CO. 83C WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
437.4	PLEISTOCENE		UNCONSOLIDATED	14.0	0.0	
423.4	CARBONDALE		COAL	0.5	14.0	TOP ERODED
422.9	CARBONDALE		SANDY SHALE	26.7	14.5	SANDY
396.1	CARBONDALE		SANDY SHALE	7.0	41.3	SANDY
389.1	CARBONDALE		LIMESTONE AND SANDSTONE	1.3	48.3	
387.9	CARBONDALE		SANDY SHALE	9.5	49.5	SANDY

MAPID: 15700923000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 2 QUARTERS/FOOTAGES: 950' S line, 330' E line of NE NE
 QUADRANGLE: PERCY LONGITUDE: -89.612957 GEOLOGIST: HOKE
 CONFIDENTIAL: N LATITUDE: 38.04269 DATE COLLECTED: 0 / 0 / 1928
 SURFACE ELEVATION (FT.): 437.5 LOGGED (FT.): 18.2 LOG TYPE: Drillers Log
 SOURCE: WILLIS COAL & MNG. 83C WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
437.5	PLEISTOCENE		UNCONSOLIDATED	18.0	0.0	
419.5			COAL	0.2	18.0	

MAPID: 15700928000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 2 QUARTERS/FOOTAGES: 330' S line, 330' E line of NE NE
 QUADRANGLE: PERCY LONGITUDE: -89.612979 GEOLOGIST: HOKE
 CONFIDENTIAL: N LATITUDE: 38.040979 DATE COLLECTED: 0 / 0 / 1928
 SURFACE ELEVATION (FT.): 449.8 LOGGED (FT.): 41.5 LOG TYPE: Drillers Log
 SOURCE: WILLIS COAL & MNG. 83K WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
449.8	PLEISTOCENE		UNCONSOLIDATED	21.0	0.0	
428.8	PLEISTOCENE		SAND & GRAVEL	0.9	21.0	
427.9	CARBONDALE		LIMESTONE	6.0	21.9	
421.9	CARBONDALE		BLACK SHALE	6.5	27.9	
415.4	CARBONDALE	HERRIN	COAL	7.1	34.4	

MAPID: 15700933000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 2 QUARTERS/FOOTAGES: 55' S line, 170' W line of NE

QUADRANGLE: PERCY LONGITUDE: -89.620494 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.036435 DATE COLLECTED: 0 / 0 / 1960

SURFACE ELEVATION (FT.): 441.9 LOGGED (FT.): 51.0 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. 2 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
441.9	PLEISTOCENE		UNCONSOLIDATED	28.0	0.0
413.9	CARBONDALE	ANNA	BLACK SHALE	2.5	28.0
411.4	CARBONDALE	HERRIN	COAL	7.3	30.5
404.1	CARBONDALE		UNDERCLAY	2.3	37.8
401.9	CARBONDALE		SANDY SHALE	1.8	40.0
400.1	CARBONDALE	ST. DAVID	LIMESTONE & CONGLOMERATE	1.3	41.8
398.9	CARBONDALE	TURNER MINE	BLACK SHALE	1.5	43.0
397.4	CARBONDALE	SPRINGFIELD	COAL	3.3	44.5
394.1	CARBONDALE		SHALE/UNDERCLAY	3.3	47.8

MAPID: 15700937000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 2 QUARTERS/FOOTAGES: 970' S line, 980' E line of NW SE

QUADRANGLE: PERCY LONGITUDE: -89.619919 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.03518 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 434.4 LOGGED (FT.): 27.1 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. 58A WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
434.4	PLEISTOCENE		UNCONSOLIDATED	9.6	0.0
424.8	PLEISTOCENE		BOULDER	2.0	9.6
422.8	CARBONDALE		LIMESTONE	1.5	11.6
421.3	CARBONDALE		BLACK SHALE	6.0	13.1
415.3	CARBONDALE	HERRIN	COAL	8.0	19.1

MAPID: 15700938000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 2 QUARTERS/FOOTAGES: SE

QUADRANGLE: PERCY LONGITUDE: -89.616526 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.032528 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 453.5 LOGGED (FT.): 41.5 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG 58C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
453.5	PLEISTOCENE		UNCONSOLIDATED	16.6	0.0
436.9	CARBONDALE		LIMESTONE	1.8	16.6
435.1	CARBONDALE		SHALE	6.0	18.4
429.1	CARBONDALE		ROCK	1.6	24.4
427.5	CARBONDALE		SHALE	4.0	26.0
423.5	CARBONDALE	BRERETON	LIMESTONE	5.0	30.0
418.5	CARBONDALE	HERRIN	COAL	6.5	35.0

MAPID: 15700940000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 2 QUARTERS/FOOTAGES: 660' S line, 660' E line of NW SE

QUADRANGLE: PERCY LONGITUDE: -89.618812 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.034331 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 450.1 LOGGED (FT.): 38.5 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. 58F WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
450.1	PLEISTOCENE		UNCONSOLIDATED	19.8	0.0
430.3	CARBONDALE		SHALE	2.7	19.8
427.6	CARBONDALE		LIMESTONE	6.5	22.5
421.1	CARBONDALE		BLACK SHALE	3.7	29.0
417.4	CARBONDALE	HERRIN	COAL	5.8	32.7

MAPID: 15700943000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 2 QUARTERS/FOOTAGES: 320' S line, 990' E line of NW SE

QUADRANGLE: PERCY

LONGITUDE: -89.619972

GEOLOGIST: HOKE

CONFIDENTIAL: N

LATITUDE: 38.033385

DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 435.1

LOGGED (FT.): 24.7

LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. 58I

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
435.1	PLEISTOCENE		UNCONSOLIDATED	7.5	0.0
427.6	CARBONDALE		LIMESTONE	6.6	7.5
421.0	CARBONDALE		BLACK SHALE	4.3	14.1
416.8	CARBONDALE	HERRIN	COAL	6.3	18.3

MAPID: 15700944000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 2 QUARTERS/FOOTAGES: 340' S line, 340' E line of NW SE

QUADRANGLE: PERCY

LONGITUDE: -89.617704

GEOLOGIST: HOKE

CONFIDENTIAL: N

LATITUDE: 38.033457

DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 446.4

LOGGED (FT.): 47.5

LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. 58K

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
446.4	PLEISTOCENE		UNCONSOLIDATED	11.0	0.0
435.4	CARBONDALE		LIMESTONE	6.0	11.0
429.4	CARBONDALE		SHALE	5.0	17.0
424.4	CARBONDALE		LIMESTONE	1.0	22.0
423.4	CARBONDALE		BLACK SHALE	5.0	23.0
418.4	CARBONDALE		COAL	0.3	28.0
418.1	CARBONDALE		SHALE	2.8	28.3
415.4	CARBONDALE		LIMESTONE	4.7	31.0
410.7	CARBONDALE		SHALE	5.2	35.7
405.6	CARBONDALE	HERRIN	COAL	6.7	40.8

MAPID: 15700945000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 2 QUARTERS/FOOTAGES: 1000' S line, 980' E line of NE SE

QUADRANGLE: PERCY LONGITUDE: -89.615323 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.035295 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 458.3 LOGGED (FT.): 48.7 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. 59A WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
458.3	PLEISTOCENE		UNCONSOLIDATED	22.7	0.0
435.6	CARBONDALE		LIMESTONE	1.3	22.7
434.4	CARBONDALE		BLACK SHALE	0.8	23.9
433.5	CARBONDALE		SHALE	3.3	24.8
430.3	CARBONDALE		BLACK SHALE	0.8	28.0
429.5	CARBONDALE		SHALE	8.5	28.8
421.0	CARBONDALE	BRERETON	LIMESTONE	4.8	37.3
416.1	CARBONDALE		SHALE	0.8	42.2
415.4	CARBONDALE	HERRIN	COAL	5.8	42.9

MAPID: 15700946000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 2 QUARTERS/FOOTAGES: 1000' S line, 330' E line of NE SE

QUADRANGLE: PERCY LONGITUDE: -89.613054 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.035311 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 448.8 LOGGED (FT.): 39.6 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. 59C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
448.8	PLEISTOCENE		UNCONSOLIDATED	7.0	0.0
441.8	PLEISTOCENE		BOULDER	0.7	7.0
441.1	PLEISTOCENE		UNCONSOLIDATED	1.3	7.7
439.8	CARBONDALE		LIMESTONE	1.7	9.0
438.1	CARBONDALE		SHALE	3.8	10.7
434.3	CARBONDALE		LIMESTONE	3.5	14.5
430.8	CARBONDALE		SHALE	2.9	18.0
427.9	CARBONDALE		BLACK SHALE	5.4	20.9
422.5	CARBONDALE		LIMESTONE	2.3	26.3
420.2	CARBONDALE		SHALE	1.5	28.6
418.7	CARBONDALE		BLACK SHALE	3.8	30.1
415.0	CARBONDALE	HERRIN	COAL	5.8	33.8

MAPID: 15700947000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 2 QUARTERS/FOOTAGES: 660' S line, 660' E line of NE SE

QUADRANGLE: PERCY

LONGITUDE: -89.614218

GEOLOGIST: HOKE

CONFIDENTIAL: N

LATITUDE: 38.034366

DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 463.5

LOGGED (FT.): 65.5

LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. 59F

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
463.5	PLEISTOCENE		UNCONSOLIDATED	26.8	0.0
436.7	CARBONDALE		LIMESTONE	0.8	26.8
435.8	CARBONDALE		CLAYSTONE	5.2	27.7
430.7	CARBONDALE		LIMESTONE	5.8	32.8
424.9	CARBONDALE		SHALE	3.5	38.6
421.4	CARBONDALE		LIMESTONE	1.8	42.1
419.7	CARBONDALE		SHALE	3.3	43.8
416.4	CARBONDALE		BLACK SHALE	0.3	47.1
416.1	CARBONDALE		SHALE	3.6	47.4
412.5	CARBONDALE	BRERETON	LIMESTONE	5.8	51.0
406.7	CARBONDALE	ANNA	BLACK SHALE	2.3	56.8
404.5	CARBONDALE	HERRIN	COAL	6.5	59.0

MAPID: 15700948000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 2 QUARTERS/FOOTAGES: 330' S line, 980' E line of NE SE

QUADRANGLE: PERCY

LONGITUDE: -89.615348

GEOLOGIST: HOKE

CONFIDENTIAL: N

LATITUDE: 38.033445

DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 456.9

LOGGED (FT.): 59.5

LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO. 59I

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
456.9	PLEISTOCENE		UNCONSOLIDATED	23.4	0.0
433.5	CARBONDALE		LIMESTONE	6.0	23.4
427.5	CARBONDALE		SHALE	2.6	29.4
424.9	CARBONDALE		LIMESTONE	3.1	32.0
421.8	CARBONDALE		BLACK SHALE	1.5	35.1
420.3	CARBONDALE		SHALE	2.1	36.6
418.2	CARBONDALE		COAL	0.5	38.7
417.7	CARBONDALE		BLACK SHALE	0.6	39.2
417.1	CARBONDALE		SHALE	3.2	39.8
414.0	CARBONDALE	BRERETON	LIMESTONE	6.6	42.9
407.4	CARBONDALE		BLACK SHALE	4.0	49.5
403.4	CARBONDALE	HERRIN	COAL	6.0	53.5

MAPID: 15700949000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 2 QUARTERS/FOOTAGES: 330' S line, 330' E line of NE SE

QUADRANGLE: PERCY LONGITUDE: -89.613079 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.033461 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 461.3 LOGGED (FT.): 62.8 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG 59K WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
461.3	PLEISTOCENE		UNCONSOLIDATED	20.8	0.0
440.5	PLEISTOCENE		BOULDER	1.5	20.8
439.0	CARBONDALE		SHALE	7.2	22.3
431.9	CARBONDALE		LIMESTONE	5.3	29.4
426.6	CARBONDALE		SHALE	3.2	34.7
423.5	CARBONDALE		LIMESTONE	2.7	37.8
420.8	CARBONDALE		BLACK SHALE	1.0	40.5
419.8	CARBONDALE		SHALE	1.5	41.5
418.3	CARBONDALE		BLACK SHALE	0.5	43.0
417.8	CARBONDALE		COAL	0.3	43.5
417.5	CARBONDALE		BLACK SHALE	1.4	43.8
416.0	CARBONDALE		LIMESTONE	2.7	45.3
413.4	CARBONDALE	BRERETON	LIMESTONE	4.3	47.9
409.0	CARBONDALE		BLACK SHALE	2.0	52.3
407.0	CARBONDALE		SHALE	2.3	54.3
404.8	CARBONDALE	HERRIN	COAL	6.3	56.5

MAPID: 15700957000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 2 QUARTERS/FOOTAGES: 980' S line, 980' E line of SW SE

QUADRANGLE: PERCY LONGITUDE: -89.619955 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.031423 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 448.0 LOGGED (FT.): 35.4 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG 47A WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
448.0	PLEISTOCENE		UNCONSOLIDATED	29.8	0.0
418.2	CARBONDALE	ANNA	BLACK SHALE	1.0	29.8
417.2	CARBONDALE	HERRIN	COAL	4.7	30.8

MAPID: 15700961000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 2 QUARTERS/FOOTAGES: 1000' S line, 330' E line of SW SE

QUADRANGLE: PERCY

LONGITUDE: -89.617687

GEOLOGIST: HOKE

CONFIDENTIAL: N

LATITUDE: 38.031502

DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 456.2

LOGGED (FT.): 45.5

LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG 47C

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
456.2	PLEISTOCENE		UNCONSOLIDATED	16.0	0.0	
440.2	PLEISTOCENE		SAND & GRAVEL	2.0	16.0	
438.2	PLEISTOCENE		BOULDER	4.3	18.0	SOFT
433.9	PLEISTOCENE		BOULDER	1.0	22.3	HARD
432.9	CARBONDALE		SHALE	5.2	23.3	BLUE
427.8	CARBONDALE	BRERETON	LIMESTONE	7.8	28.4	
420.0	CARBONDALE		BLACK SHALE	3.3	36.2	
416.7	CARBONDALE	HERRIN	COAL	6.0	39.5	

MAPID: 15700964000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 2 QUARTERS/FOOTAGES: 660' S line, 660' E line of SW SE

QUADRANGLE: PERCY

LONGITUDE: -89.618847

GEOLOGIST: HOKE

CONFIDENTIAL: N

LATITUDE: 38.030551

DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 450.9

LOGGED (FT.): 39.3

LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG 47F

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
450.9	PLEISTOCENE		UNCONSOLIDATED	28.4	0.0	
422.5	PLEISTOCENE		BOULDER	2.4	28.4	LIMESTONE
420.1	PLEISTOCENE		UNCONSOLIDATED	2.8	30.8	
417.2	CARBONDALE	ANNA	BLACK SHALE	1.8	33.7	
415.4	CARBONDALE	HERRIN	COAL	3.8	35.5	

MAPID: 15700969000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 2 QUARTERS/FOOTAGES: 340' S line, 330' E line of SW SE

QUADRANGLE: PERCY

LONGITUDE: -89.617705

GEOLOGIST: HOKE

CONFIDENTIAL: N

LATITUDE: 38.02968

DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 442.4

LOGGED (FT.): 50.3

LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO 47K

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
442.4	PLEISTOCENE		UNCONSOLIDATED	36.3	0.0
406.1	CARBONDALE		LIMESTONE	2.2	36.3
403.9	CARBONDALE		UNDERCLAY	3.3	38.5
400.6	CARBONDALE	ST. DAVID	LIMESTONE	1.3	41.8
399.2	CARBONDALE	TURNER MINE	BLACK SHALE	2.8	43.2
396.5	CARBONDALE	SPRINGFIELD	COAL	4.3	45.9

MAPID: 15700972000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 2 QUARTERS/FOOTAGES: 990' S line, 970' E line of SE SE

QUADRANGLE: PERCY

LONGITUDE: -89.615338

GEOLOGIST: HOKE

CONFIDENTIAL: N

LATITUDE: 38.031502

DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 451.0

LOGGED (FT.): 46.0

LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. 48A

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
451.0	PLEISTOCENE		UNCONSOLIDATED	15.2	0.0
435.8	PLEISTOCENE		BOULDER	1.0	15.2 SOFT
434.8	CARBONDALE		LIMESTONE	4.0	16.2
430.8	CARBONDALE		SHALE	3.9	20.2
426.9	CARBONDALE		LIMESTONE	1.6	24.1
425.3	CARBONDALE		SHALE	6.0	25.7
419.3	CARBONDALE	BRERETON	LIMESTONE	5.0	31.7
414.3	CARBONDALE	ANNA	BLACK SHALE	2.7	36.7
411.7	CARBONDALE	HERRIN	COAL	6.7	39.3

MAPID: 15700973000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 2 QUARTERS/FOOTAGES: 990' S line, 330' E line of SE SE

QUADRANGLE: PERCY

LONGITUDE: -89.613104

GEOLOGIST: HOKE

CONFIDENTIAL: N

LATITUDE: 38.031526

DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 461.5

LOGGED (FT.): 62.7

LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO. 48C

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
461.5	PLEISTOCENE		UNCONSOLIDATED	29.8	0.0
431.7	CARBONDALE		LIMESTONE	5.3	29.8
426.5	CARBONDALE		SHALE	3.5	35.0
423.0	CARBONDALE		LIMESTONE	2.8	38.5
420.2	CARBONDALE		SHALE	5.8	41.3
414.3	CARBONDALE	BRERETON	LIMESTONE	6.5	47.2
407.8	CARBONDALE	ANNA	BLACK SHALE	2.8	53.7
405.0	CARBONDALE	HERRIN	COAL	6.2	56.5

MAPID: 15700974000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 2 QUARTERS/FOOTAGES: 660' S line, 650' W line

QUADRANGLE: STEELEVILLE

LONGITUDE: -89.628016

GEOLOGIST: HOKE

CONFIDENTIAL: N

LATITUDE: 38.030448

DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 458.0

LOGGED (FT.): 50.4

LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. 48F

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
458.0	PLEISTOCENE		UNCONSOLIDATED	37.0	0.0
421.0	CARBONDALE		SANDSTONE	2.3	37.0
418.7	CARBONDALE	BRERETON	LIMESTONE	4.8	39.3
413.9	CARBONDALE	HERRIN	COAL	6.3	44.1

MAPID: 15700976000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 2 QUARTERS/FOOTAGES: 330' S line, 980' E line
 QUADRANGLE: PERCY LONGITUDE: -89.615398 GEOLOGIST: HOKE
 CONFIDENTIAL: N LATITUDE: 38.02968 DATE COLLECTED: 0 / 0 / 1928
 SURFACE ELEVATION (FT.): 440.1 LOGGED (FT.): 49.2 LOG TYPE: Drillers Log
 SOURCE: WILLIS COAL & MNG. 48I WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
440.1	PLEISTOCENE		UNCONSOLIDATED	21.7	0.0
418.4	CARBONDALE		SHALE	10.8	21.7
407.7	CARBONDALE		LIMESTONE	2.4	32.4
405.3	CARBONDALE		UNDERCLAY	2.7	34.8
402.6	CARBONDALE		LIMESTONE	0.7	37.5
401.9	CARBONDALE		LIMESTONE	2.8	38.2
399.1	CARBONDALE		BLACK SHALE	0.5	41.0
398.6	CARBONDALE	ST. DAVID	LIMESTONE	1.3	41.5
397.3	CARBONDALE	TURNER MINE	BLACK SHALE	1.9	42.8
395.4	CARBONDALE	SPRINGFIELD	COAL W/ BLACK SHALE	4.5	44.7

MAPID: 15700977000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 2 QUARTERS/FOOTAGES: 330' S line, 330' E line
 QUADRANGLE: PERCY LONGITUDE: -89.613129 GEOLOGIST: HOKE
 CONFIDENTIAL: N LATITUDE: 38.029704 DATE COLLECTED: 0 / 0 / 1928
 SURFACE ELEVATION (FT.): 444.8 LOGGED (FT.): 32.2 LOG TYPE: Drillers Log
 SOURCE: WILLIS COAL & MNG. 48K WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
444.8	PLEISTOCENE		UNCONSOLIDATED	22.1	0.0
422.7	CARBONDALE		SHALE	0.3	22.1
422.5	CARBONDALE	BRERETON	LIMESTONE	4.3	22.3
418.1	CARBONDALE	ANNA	BLACK SHALE	1.0	26.7
417.1	CARBONDALE	HERRIN	COAL	1.0	27.7
416.1	CARBONDALE		UNDERCLAY	3.5	28.7

MAPID: 15700978000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 6S 5W **SECTION:** 2 **QUARTERS/FOOTAGES:** 350' S line, 30' E line
QUADRANGLE: PERCY **LONGITUDE:** -89.612079 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 38.029771 **DATE COLLECTED:** 0 / 0 / 1928
SURFACE ELEVATION (FT.): 451.2 **LOGGED (FT.):** 43.8 **LOG TYPE:** Drillers Log
SOURCE: WILLIS COAL & MNG. CO. 48L **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
451.2	PLEISTOCENE		UNCONSOLIDATED	13.0	0.0	
438.2	CARBONDALE		LIMESTONE	5.1	13.0	
433.1	CARBONDALE		SHALE	4.8	18.1	
428.4	CARBONDALE		LIMESTONE	1.2	22.8	
427.2	CARBONDALE		SHALE	2.4	24.0	
424.8	CARBONDALE		COAL	0.8	26.4	
423.9	CARBONDALE		SHALE	1.5	27.3	
422.4	CARBONDALE	BRERETON	LIMESTONE	5.0	28.8	
417.4	CARBONDALE		BLACK SHALE	3.8	33.8	
413.7	CARBONDALE	HERRIN	COAL	6.3	37.5	

MAPID: 15701441000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 6S 5W **SECTION:** 2 **QUARTERS/FOOTAGES:** 330' S line, 980' E line of SW SE
QUADRANGLE: PERCY **LONGITUDE:** -89.619973 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 38.029628 **DATE COLLECTED:** 0 / 0 / 1928
SURFACE ELEVATION (FT.): 433.9 **LOGGED (FT.):** 39.7 **LOG TYPE:** Drillers Log
SOURCE: WILLIS COAL & MNG. CO. 471 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
433.9	PLEISTOCENE		UNCONSOLIDATED	35.2	0.0	
398.7	CARBONDALE	HERRIN	COAL	4.5	35.2	TOP ERODED

MAPID: 15701442000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 6S 5W **SECTION:** 2 **QUARTERS/FOOTAGES:** NE NE NE NE
QUADRANGLE: PERCY **LONGITUDE:** -89.612375 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 38.043351 **DATE COLLECTED:** 0 / 0 / 1928
SURFACE ELEVATION (FT.): 444.5 **LOGGED (FT.):** 26.2 **LOG TYPE:** Drillers Log
SOURCE: WILLIS COAL & MNG. 83F **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
444.5	PLEISTOCENE		UNCONSOLIDATED	19.9	0.0	
424.6	CARBONDALE	HERRIN	COAL	6.3	19.9	TOP ERODED

MAPID: 15701443000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 6S 5W **SECTION:** 2 **QUARTERS/FOOTAGES:** SW NE NE NE
QUADRANGLE: PERCY **LONGITUDE:** -89.61354 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 38.042417 **DATE COLLECTED:** 0 / 0 / 1928
SURFACE ELEVATION (FT.): 435.0 **LOGGED (FT.):** 31.2 **LOG TYPE:** Drillers Log
SOURCE: WILLIS COAL & MNG. 83FI **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
435.0	PLEISTOCENE		UNCONSOLIDATED	23.3	0.0	
411.7	CARBONDALE		LIMESTONE	4.9	23.3	
406.7	CARBONDALE		BLACK SHALE	2.9	28.3	

MAPID: 15701444000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 6S 5W **SECTION:** 2 **QUARTERS/FOOTAGES:** SW NE NE NE
QUADRANGLE: PERCY **LONGITUDE:** -89.61354 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 38.042417 **DATE COLLECTED:** 0 / 0 / 1928
SURFACE ELEVATION (FT.): 442.3 **LOGGED (FT.):** 60.0 **LOG TYPE:** Drillers Log
SOURCE: WILLIS COAL & MNG. 83I **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
442.3	PLEISTOCENE		UNCONSOLIDATED	60.0	0.0	NO COAL HIT AT THIS DEPTH

MAPID: 15700650000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 6S 5W **SECTION:** 3 **QUARTERS/FOOTAGES:** SW SE
QUADRANGLE: STEELEVILLE **LONGITUDE:** -89.637377 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 38.030638 **DATE COLLECTED:** 0 / 0 / 1939
SURFACE ELEVATION (FT.): 420.0 **LOGGED (FT.):** 32.0 **LOG TYPE:** Drillers Log
SOURCE: WILLS COAL CO 14 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
420.0	PLEISTOCENE		UNCONSOLIDATED	32.0	0.0	

MAPID: 15700651000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 6S 5W **SECTION:** 3 **QUARTERS/FOOTAGES:** SE SE
QUADRANGLE: STEELEVILLE **LONGITUDE:** -89.632648 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 38.030555 **DATE COLLECTED:** 0 / 0 / 1939
SURFACE ELEVATION (FT.): 418.0 **LOGGED (FT.):** 32.0 **LOG TYPE:** Drillers Log
SOURCE: WILLS COAL CO 15 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
418.0	PLEISTOCENE		UNCONSOLIDATED	32.0	0.0	

MAPID: 15700652000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 6S 5W **SECTION:** 3 **QUARTERS/FOOTAGES:** SE SW
QUADRANGLE: STEELEVILLE **LONGITUDE:** -89.642106 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 38.030721 **DATE COLLECTED:** 0 / 0 / 1939
SURFACE ELEVATION (FT.): 652.0 **LOGGED (FT.):** 32.0 **LOG TYPE:** Drillers Log
SOURCE: WILLS COAL CO. 16 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
652.0	PLEISTOCENE		UNCONSOLIDATED	32.0	0.0	

MAPID: 15700653000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 6S 5W **SECTION:** 3 **QUARTERS/FOOTAGES:** NW SW SE SE
QUADRANGLE: STEELEVILLE **LONGITUDE:** -89.634423 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 38.030109 **DATE COLLECTED:** 0 / 0 / 1939
SURFACE ELEVATION (FT.): 435.0 **LOGGED (FT.):** 30.5 **LOG TYPE:** Drillers Log
SOURCE: WILLS COAL CO. 17 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
435.0	PLEISTOCENE		UNCONSOLIDATED	22.8	0.0	
412.2	PLEISTOCENE		BOULDER	2.8	22.8	LOOSE
409.5	MODESTO		SHALE	1.3	25.5	
408.2	CARBONDALE	DANVILLE	COAL	3.7	26.8	

MAPID: 15700657000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 3 QUARTERS/FOOTAGES: NE NE

QUADRANGLE: STEELEVILLE LONGITUDE: -89.632641 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.04201 DATE COLLECTED: 0 / 0 / 1939

SURFACE ELEVATION (FT.): 440.0 LOGGED (FT.): 31.0 LOG TYPE: Drillers Log

SOURCE: WILLS COAL CO 21 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
440.0	PLEISTOCENE		UNCONSOLIDATED	29.5	0.0	
410.5	CARBONDALE	DANVILLE	COAL	1.5	29.5	TOP ERODED

MAPID: 15700658000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 3 QUARTERS/FOOTAGES: SE NE

QUADRANGLE: STEELEVILLE LONGITUDE: -89.632644 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.038191 DATE COLLECTED: 0 / 0 / 1939

SURFACE ELEVATION (FT.): 430.0 LOGGED (FT.): 36.0 LOG TYPE: Drillers Log

SOURCE: WILLS COAL CO. 22 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
430.0	PLEISTOCENE		UNCONSOLIDATED	32.0	0.0	
398.0	PLEISTOCENE		BOULDER	2.0	32.0	
396.0			SHALE	2.0	34.0	

MAPID: 15725465000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 3 QUARTERS/FOOTAGES: 136' N line, 139' E line of NW NW NE NE

QUADRANGLE: STEELEVILLE LONGITUDE: -89.634295 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.043551 DATE COLLECTED: 9 / 6 / 1979

SURFACE ELEVATION (FT.): 460.0 LOGGED (FT.): 33.0 LOG TYPE: Drillers Log

SOURCE: CLARENCE KOHNEN WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
460.0	PLEISTOCENE		SOIL	1.0	0.0	
459.0	PLEISTOCENE		CLAY	11.0	1.0	BROWN
448.0	PLEISTOCENE		CLAY	7.0	12.0	SANDY; BR
441.0	PLEISTOCENE		UNCLASSIFIED	1.0	19.0	SOFT COAL
440.0	PLEISTOCENE		HARD PAN	7.0	20.0	BROWN
433.0	CARBONDALE	SPRINGFIELD	COAL	3.0	27.0	HARD
430.0	CARBONDALE		SHALE	3.0	30.0	

MAPID: 15700311000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 6S 5W **SECTION:** 10 **QUARTERS/FOOTAGES:** NE
QUADRANGLE: STEELEVILLE **LONGITUDE:** -89.635091 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 38.025111 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 438.0 **LOGGED (FT.):** 37.0 **LOG TYPE:** Drillers Log
SOURCE: UNITED ELECTRIC COAL CO. 453 **WELL TYPE:** Coal Test
COMMENT: COAL TEST

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
438.0	PLEISTOCENE		UNCONSOLIDATED	33.0	0.0	
405.0	CARBONDALE		SANDSTONE/SHALE	3.0	33.0	
402.0	CARBONDALE	SPRINGFIELD	COAL	1.0	36.0	

MAPID: 15700645000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 6S 5W **SECTION:** 10 **QUARTERS/FOOTAGES:** SW SE NE NE
QUADRANGLE: STEELEVILLE **LONGITUDE:** -89.632122 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 38.025504 **DATE COLLECTED:** 0 / 0 / 1939
SURFACE ELEVATION (FT.): 430.0 **LOGGED (FT.):** 46.0 **LOG TYPE:** Drillers Log
SOURCE: WILLS COAL CO 9 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
430.0	PLEISTOCENE		UNCONSOLIDATED	22.0	0.0	
408.0	CARBONDALE		ROCK	1.3	22.0	
406.7	CARBONDALE		SHALE	20.7	23.3	
386.0	CARBONDALE	SPRINGFIELD	COAL	2.0	44.0	SOFT

MAPID: 15700648000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 6S 5W **SECTION:** 10 **QUARTERS/FOOTAGES:** SW NE NE NE
QUADRANGLE: STEELEVILLE **LONGITUDE:** -89.632087 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 38.027293 **DATE COLLECTED:** 0 / 0 / 1939
SURFACE ELEVATION (FT.): 420.0 **LOGGED (FT.):** 36.0 **LOG TYPE:** Drillers Log
SOURCE: WILLS COAL CO. 12 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
420.0	PLEISTOCENE		UNCONSOLIDATED	32.0	0.0	
388.0	CARBONDALE		ROCK	1.0	32.0	
387.0	CARBONDALE		SHALE	3.0	33.0	

MAPID: 15700649000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 10 QUARTERS/FOOTAGES: NW NE NE NE

QUADRANGLE: STEELEVILLE LONGITUDE: -89.632067 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.028187 DATE COLLECTED: 0 / 0 / 1939

SURFACE ELEVATION (FT.): 422.0 LOGGED (FT.): 44.3 LOG TYPE: Drillers Log

SOURCE: WILLS COAL CO. 13 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
422.0	PLEISTOCENE		UNCONSOLIDATED	22.5	0.0	
399.5	CARBONDALE		ROCK	1.0	22.5	
398.5	CARBONDALE		BLACK SHALE	0.4	23.5	
398.1	CARBONDALE		SHALE	16.0	23.9	
382.1	CARBONDALE	SPRINGFIELD	COAL	1.8	39.9	
380.2	CARBONDALE		ROCK	2.5	41.8	

MAPID: 15700098000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 11 QUARTERS/FOOTAGES: NE NE NE NE

QUADRANGLE: PERCY LONGITUDE: -89.612565 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.028349 DATE COLLECTED: 0 / 0 / 1903

SURFACE ELEVATION (FT.): 451.1 LOGGED (FT.): 61.0 LOG TYPE: Drillers Log

SOURCE: WILLISVILLE COAL CO. WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
451.1	PLEISTOCENE		UNCONSOLIDATED	14.5	0.0	
436.6	CARBONDALE		COAL	0.5	14.5	TOP ERODED
436.1	CARBONDALE		BLACK SHALE	3.3	15.0	
432.8	CARBONDALE		SHALE	3.3	18.3	
429.6	CARBONDALE	BRERETON	LIMESTONE	3.5	21.5	
426.1	CARBONDALE		SHALE	2.5	25.0	SOFT
423.6	CARBONDALE	ANNA	BLACK SHALE	1.0	27.5	
422.6	CARBONDALE	HERRIN	COAL	5.8	28.5	
416.8	CARBONDALE		UNDERCLAY	1.3	34.3	GRAY
415.6	CARBONDALE		LIMESTONE	13.5	35.5	BLUISH
402.1	CARBONDALE		BLACK SHALE	5.0	49.0	
397.1	CARBONDALE	SPRINGFIELD	COAL	4.0	54.0	
393.1	CARBONDALE		UNDERCLAY	1.0	58.0	HARD; DARK
392.1	CARBONDALE		UNDERCLAY	2.0	59.0	LIGHT; BLUISH

MAPID: 15700099000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 11 QUARTERS/FOOTAGES: 270' S line, 940' E line of NW NE

QUADRANGLE: PERCY LONGITUDE: -89.619873 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.025871 DATE COLLECTED: 0 / 0 / 1903

SURFACE ELEVATION (FT.): 453.5 LOGGED (FT.): 106.0 LOG TYPE: Drillers Log

SOURCE: WILLISVILLE COAL CO. 5 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
453.5	PLEISTOCENE		UNCONSOLIDATED	30.0	0.0	
423.5	CARBONDALE		SHALE	15.0	30.0	SOFT
408.5	CARBONDALE		LIMESTONE	2.0	45.0	BLUE
406.5	CARBONDALE		SHALE	1.0	47.0	
405.5	CARBONDALE		SHALE	2.0	48.0	LIGHT GRAY
403.5	CARBONDALE	HERRIN	COAL	5.3	50.0	
398.2	CARBONDALE		UNDERCLAY	7.7	55.3	LIGHT
390.5	CARBONDALE		SANDY SHALE	12.0	63.0	SANDY
378.5	CARBONDALE		GRAY SANDSTONE	22.0	75.0	
356.5	CARBONDALE		LIMESTONE	1.6	97.0	
354.9	CARBONDALE		BLACK SHALE	4.4	98.6	
350.5	CARBONDALE		COAL	2.0	103.0	
348.5	CARBONDALE		UNDERCLAY	1.0	105.0	LIGHT

MAPID: 15700099000C VERSION: 2

PROJECT: NCRDS87

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 11 QUARTERS/FOOTAGES: 270' S line, 940' E line of NW NE

QUADRANGLE: PERCY LONGITUDE: -89.619873 GEOLOGIST: WEIBEL

CONFIDENTIAL: N LATITUDE: 38.025871 DATE COLLECTED: 0 / 0 / 1903

SURFACE ELEVATION (FT.): 453.5 LOGGED (FT.): 106.0 LOG TYPE: Drillers Log

SOURCE: WILLISVILLE COAL CO. WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
453.5			UNCONSOLIDATED	30.0	0.0	
423.5	CARBONDALE		SHALE	15.0	30.0	
408.5	CARBONDALE		LIMESTONE	2.0	45.0	
406.5	CARBONDALE		DARK SHALE	1.0	47.0	
405.5	CARBONDALE		GRAY SHALE	2.0	48.0	
403.5	CARBONDALE	HERRIN	COAL	5.3	50.0	
398.2	CARBONDALE		UNDERCLAY	7.8	55.3	
390.5	CARBONDALE		SHALE	12.0	63.0	
378.5	CARBONDALE		SANDSTONE	22.0	75.0	
356.5	CARBONDALE	ST. DAVID	LIMESTONE	1.6	97.0	
354.9	CARBONDALE	TURNER MINE	BLACK SHALE	4.4	98.6	
350.5	CARBONDALE	SPRINGFIELD	COAL	2.0	103.0	
348.5	CARBONDALE		UNDERCLAY	1.0	105.0	

MAPID: 15700312000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 11 QUARTERS/FOOTAGES:

QUADRANGLE: PERCY LONGITUDE: -89.621234 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.021519 DATE COLLECTED:

SURFACE ELEVATION (FT.): 450.0 LOGGED (FT.): 52.0 LOG TYPE: Drillers Log

SOURCE: UNITED ELECTRIC COAL CO. 405 WELL TYPE: Coal Test

COMMENT: COAL TEST

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
398.0			UNCLASSIFIED	0.0	52.0	STOPPED

MAPID: 15700313000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 11 QUARTERS/FOOTAGES: NW

QUADRANGLE: STEELEVILLE LONGITUDE: -89.625769 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.025067 DATE COLLECTED:

SURFACE ELEVATION (FT.): 443.0 LOGGED (FT.): 60.0 LOG TYPE: Drillers Log

SOURCE: UNITED ELECTRIC COAL CO. 455 WELL TYPE: Coal Test

COMMENT: COAL TEST

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
443.0	PLEISTOCENE		UNCONSOLIDATED	34.0	0.0	
409.0	PLEISTOCENE		MUD	4.0	34.0	BLACK
405.0	CARBONDALE		SHALE	7.0	38.0	
398.0	CARBONDALE		SANDSTONE	15.0	45.0	

MAPID: 15700314000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 11 QUARTERS/FOOTAGES: NE

QUADRANGLE: PERCY LONGITUDE: -89.616601 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.025156 DATE COLLECTED:

SURFACE ELEVATION (FT.): 458.0 LOGGED (FT.): 41.8 LOG TYPE: Drillers Log

SOURCE: UNITED ELECTRIC COAL CO. 457 WELL TYPE: Coal Test

COMMENT: COAL TEST

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
458.0	PLEISTOCENE		UNCONSOLIDATED	18.0	0.0	
440.0	PLEISTOCENE		SAND & GRAVEL	4.0	18.0	
436.0	CARBONDALE	ANNA	BLACK SHALE	1.5	22.0	
434.5	CARBONDALE	HERRIN	COAL	3.0	23.5	POOR
431.5	CARBONDALE		LIMESTONE	3.0	26.5	
428.5	CARBONDALE		SHALE	2.0	29.5	
426.5	CARBONDALE		LIMESTONE	2.0	31.5	
424.5	CARBONDALE		SHALE	3.5	33.5	
421.0	CARBONDALE	SPRINGFIELD	COAL	4.8	37.0	

MAPID: 15700625000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 6S 5W **SECTION:** 11 **QUARTERS/FOOTAGES:** NE NE
QUADRANGLE: PERCY **LONGITUDE:** -89.61429 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 38.026981 **DATE COLLECTED:** 8 / 4 / 1927
SURFACE ELEVATION (FT.): 460.0 **LOGGED (FT.):** 29.0 **LOG TYPE:** Drillers Log
SOURCE: UNITED ELECTRIC COAL COMPANY 495 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
460.0	PLEISTOCENE		UNCONSOLIDATED	19.0	0.0	
441.0	CARBONDALE		SANDSTONE	2.0	19.0	
439.0	CARBONDALE		SHALE	1.0	21.0	
438.0	CARBONDALE	ANNA	BLACK SHALE	1.0	22.0	
437.0	CARBONDALE	HERRIN	COAL	6.0	23.0	

MAPID: 15700626000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 6S 5W **SECTION:** 11 **QUARTERS/FOOTAGES:** 980' S line, 980' E line of NE SE
QUADRANGLE: PERCY **LONGITUDE:** -89.615467 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 38.020672 **DATE COLLECTED:** 0 / 0 / 1928
SURFACE ELEVATION (FT.): 484.0 **LOGGED (FT.):** 28.8 **LOG TYPE:** Drillers Log
SOURCE: WILLIS COAL & MNG. CO 18A **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
484.0	PLEISTOCENE		UNCONSOLIDATED	19.5	0.0	
464.5	PLEISTOCENE		SAND & GRAVEL	1.0	19.5	
463.5	CARBONDALE		LIMESTONE	5.3	20.5	
458.2	CARBONDALE		SHALE	3.0	25.8	

MAPID: 15700637000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 6S 5W **SECTION:** 11 **QUARTERS/FOOTAGES:** SE NE SW SW
QUADRANGLE: STEELEVILLE **LONGITUDE:** -89.626491 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 38.016549 **DATE COLLECTED:** 0 / 0 / 1939
SURFACE ELEVATION (FT.): 449.7 **LOGGED (FT.):** 27.0 **LOG TYPE:** Drillers Log
SOURCE: WILLS COAL CO. 1 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
449.7	PLEISTOCENE		UNCONSOLIDATED	20.5	0.0	
429.2	CARBONDALE		ROCK	0.5	20.5	
428.7	CARBONDALE		SHALE	1.3	21.0	
427.4	CARBONDALE	HERRIN	COAL	4.8	22.3	GOOD

MAPID: 15700638000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 11 QUARTERS/FOOTAGES: SE NW SW SW

QUADRANGLE: STEELEVILLE LONGITUDE: -89.628797 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.016536 DATE COLLECTED: 0 / 0 / 1939

SURFACE ELEVATION (FT.): 445.0 LOGGED (FT.): 60.0 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL CO 2 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
445.0	PLEISTOCENE		UNCONSOLIDATED	29.0	0.0	
416.0	CARBONDALE		SHALE	31.0	29.0	

MAPID: 15700639000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 11 QUARTERS/FOOTAGES: NW NE SW SW

QUADRANGLE: STEELEVILLE LONGITUDE: -89.627627 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.017437 DATE COLLECTED: 0 / 0 / 1939

SURFACE ELEVATION (FT.): 447.5 LOGGED (FT.): 37.0 LOG TYPE: Drillers Log

SOURCE: WILLS COAL CO. 3 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
447.5	PLEISTOCENE		UNCONSOLIDATED	22.8	0.0	
424.7	CARBONDALE		ROCK	4.1	22.8	
420.6	CARBONDALE		BLACK SHALE	0.6	26.9	
420.0	CARBONDALE		SHALE	5.3	27.5	
414.7	CARBONDALE	HERRIN	COAL	4.3	32.8	GOOD

MAPID: 15700640000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 11 QUARTERS/FOOTAGES: SW NE NW SW

QUADRANGLE: STEELEVILLE LONGITUDE: -89.627579 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.020123 DATE COLLECTED: 0 / 0 / 1939

SURFACE ELEVATION (FT.): 440.0 LOGGED (FT.): 21.0 LOG TYPE: Drillers Log

SOURCE: WILLS COAL CO 4 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
440.0	PLEISTOCENE		UNCONSOLIDATED	21.0	0.0	STOPPED IN ROCK

MAPID: 15700641000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 11 QUARTERS/FOOTAGES: SW SW SE NW

QUADRANGLE: STEELEVILLE LONGITUDE: -89.625247 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.021934 DATE COLLECTED: 0 / 0 / 1939

SURFACE ELEVATION (FT.): 440.0 LOGGED (FT.): 21.0 LOG TYPE: Drillers Log

SOURCE: WILLS COAL CO 5 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
440.0	PLEISTOCENE		UNCONSOLIDATED	20.0	0.0	
420.0	CARBONDALE	HERRIN	COAL	1.0	20.0	TOP ERODED

MAPID: 15700642000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 11 QUARTERS/FOOTAGES: SE SW NW NW

QUADRANGLE: STEELEVILLE LONGITUDE: -89.628628 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.025486 DATE COLLECTED: 0 / 0 / 1939

SURFACE ELEVATION (FT.): 450.0 LOGGED (FT.): 21.0 LOG TYPE: Drillers Log

SOURCE: WILLS COAL CO. 6 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
450.0	PLEISTOCENE		UNCONSOLIDATED	20.0	0.0	
430.0			ROCK	1.0	20.0	STOPPED IN ROCK

MAPID: 15700643000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 11 QUARTERS/FOOTAGES: NE SW SW SW

QUADRANGLE: STEELEVILLE LONGITUDE: -89.628813 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.015638 DATE COLLECTED: 0 / 0 / 1939

SURFACE ELEVATION (FT.): 442.2 LOGGED (FT.): 37.5 LOG TYPE: Drillers Log

SOURCE: WILLS COAL CO. 7 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
442.2	PLEISTOCENE		UNCONSOLIDATED	24.7	0.0	
417.5	CARBONDALE		ROCK	3.9	24.7	
413.6	CARBONDALE		BLACK SHALE	0.5	28.6	GOOD
413.1	CARBONDALE		SHALE	1.0	29.1	LOOSE ROCK
412.1	CARBONDALE	SPRINGFIELD	COAL	4.5	30.1	GOOD
407.6	CARBONDALE		ROCK	1.3	34.6	
406.3	CARBONDALE		SHALE	1.6	35.9	SOFT

MAPID: 15700644000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 6S 5W **SECTION:** 11 **QUARTERS/FOOTAGES:** NW SW SW SW
QUADRANGLE: STEELEVILLE **LONGITUDE:** -89.629968 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 38.015632 **DATE COLLECTED:** 0 / 0 / 1939
SURFACE ELEVATION (FT.): 438.8 **LOGGED (FT.):** 32.9 **LOG TYPE:** Drillers Log
SOURCE: WILLS COAL CO. 8 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
438.8	PLEISTOCENE		UNCONSOLIDATED	20.7	0.0	
418.1	CARBONDALE		ROCK	2.3	20.7	
415.8	CARBONDALE		BLACK SHALE	1.3	23.0	
414.5	CARBONDALE		SHALE	3.0	24.3	
411.5	CARBONDALE	SPRINGFIELD	COAL	4.9	27.3	GOOD
406.6	CARBONDALE		ROCK	0.8	32.2	

MAPID: 15700646000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 6S 5W **SECTION:** 11 **QUARTERS/FOOTAGES:** NW SW NW NW
QUADRANGLE: STEELEVILLE **LONGITUDE:** -89.629754 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 38.026368 **DATE COLLECTED:** 0 / 0 / 1939
SURFACE ELEVATION (FT.): 442.0 **LOGGED (FT.):** 37.0 **LOG TYPE:** Drillers Log
SOURCE: WILLS COAL CO. 10 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
442.0	PLEISTOCENE		UNCONSOLIDATED	22.8	0.0	
419.2	CARBONDALE		ROCK	4.1	22.8	
415.1	CARBONDALE		BLACK SHALE	0.6	26.9	
414.5	CARBONDALE		SHALE	5.3	27.5	
409.2	CARBONDALE	SPRINGFIELD	COAL	4.3	32.8	

MAPID: 15700647000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 6S 5W **SECTION:** 11 **QUARTERS/FOOTAGES:** NE SW NW NW
QUADRANGLE: STEELEVILLE **LONGITUDE:** -89.628609 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 38.02638 **DATE COLLECTED:** 0 / 0 / 1939
SURFACE ELEVATION (FT.): 450.0 **LOGGED (FT.):** 21.0 **LOG TYPE:** Drillers Log
SOURCE: WILLS COAL CO 11 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
450.0	PLEISTOCENE		UNCONSOLIDATED	21.0	0.0	STOPPED IN ROCK

MAPID: 15700656000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 11 QUARTERS/FOOTAGES: SW NE SW SW

QUADRANGLE: STEELEVILLE LONGITUDE: -89.627642 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.016542 DATE COLLECTED: 0 / 0 / 1939

SURFACE ELEVATION (FT.): 450.0 LOGGED (FT.): 32.0 LOG TYPE: Drillers Log

SOURCE: WILLS COAL CO. 20 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
450.0	PLEISTOCENE		UNCONSOLIDATED	27.0	0.0
423.0	CARBONDALE		SHALE	5.0	27.0

MAPID: 15700987000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 11 QUARTERS/FOOTAGES: 990' S line, 970' E line of NW NE

QUADRANGLE: PERCY LONGITUDE: -89.619956 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.027856 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 449.7 LOGGED (FT.): 52.9 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO 37A WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
449.7	PLEISTOCENE		UNCONSOLIDATED	41.0	0.0
408.7	PLEISTOCENE		SAND & GRAVEL	0.5	41.0
408.2	PLEISTOCENE		UNCONSOLIDATED	1.8	41.5
406.4	CARBONDALE		ROCK	1.8	43.3
404.5	CARBONDALE		SHALE	3.1	45.2
401.4	CARBONDALE	SPRINGFIELD	COAL	4.7	48.3

MAPID: 15700992000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 11 QUARTERS/FOOTAGES: 960' S line, 330' E line of NW NE

QUADRANGLE: PERCY

LONGITUDE: -89.617723

GEOLOGIST: HOKE

CONFIDENTIAL: N

LATITUDE: 38.027795

DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 440.6

LOGGED (FT.): 42.3

LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO 37C

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
440.6	PLEISTOCENE		UNCONSOLIDATED	15.2	0.0	
425.4	CARBONDALE	ANNA	BLACK SHALE	0.3	15.2	
425.1	CARBONDALE	HERRIN	COAL	0.9	15.5	
424.2	CARBONDALE		SHALE	2.3	16.4	
421.8	CARBONDALE		LIMESTONE	10.0	18.8	SOFT
411.8	CARBONDALE		SHALE	4.3	28.8	
407.6	CARBONDALE	ST. DAVID	LIMESTONE	3.7	33.0	
403.9	CARBONDALE		SHALE	1.5	36.7	
402.4	CARBONDALE	SPRINGFIELD	COAL	4.2	38.2	

MAPID: 15700996000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 11 QUARTERS/FOOTAGES: 660' S line, 660' E line of NW NE

QUADRANGLE: PERCY

LONGITUDE: -89.618883

GEOLOGIST: HOKE

CONFIDENTIAL: N

LATITUDE: 38.026957

DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 453.5

LOGGED (FT.): 52.5

LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO 37F

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
453.5	PLEISTOCENE		UNCONSOLIDATED	22.3	0.0	
431.2	CARBONDALE	HERRIN	COAL	6.5	22.3	TOP ERODED
424.7	CARBONDALE		CLAYSTONE	4.7	28.8	
420.1	CARBONDALE		LIMESTONE	6.6	33.4	
413.5	CARBONDALE		SHALE	2.2	40.0	
411.3	CARBONDALE	ST. DAVID	LIMESTONE	3.3	42.2	
408.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.5	45.5	
406.5	CARBONDALE	SPRINGFIELD	COAL	5.5	47.0	

MAPID: 15701004000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 11 QUARTERS/FOOTAGES: 500' S line, 230' E line of NW NE

QUADRANGLE: PERCY

LONGITUDE: -89.617389

GEOLOGIST: HOKE

CONFIDENTIAL: N

LATITUDE: 38.026528

DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 456.3

LOGGED (FT.): 28.2

LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO 37K

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
456.3	PLEISTOCENE		UNCONSOLIDATED	17.5	0.0	
438.8	CARBONDALE		BLACK SHALE	0.9	17.5	
437.9	CARBONDALE		COAL	0.3	18.4	
437.6	CARBONDALE		LIMESTONE	0.5	18.7	
437.1	CARBONDALE		BLACK SHALE	4.2	19.2	
433.0	CARBONDALE	SPRINGFIELD	MINE OPENING	4.8	23.3	#5 MINE WORKINGS

MAPID: 15701011000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 11 QUARTERS/FOOTAGES: 1000' S line, 970' E line of NE NE

QUADRANGLE: PERCY

LONGITUDE: -89.615381

GEOLOGIST: HOKE

CONFIDENTIAL: N

LATITUDE: 38.027929

DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 448.7

LOGGED (FT.): 51.2

LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO 38A

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
448.7	PLEISTOCENE		UNCONSOLIDATED	34.5	0.0	
414.2	CARBONDALE		ROCK	0.5	34.5	SOFT
413.7	CARBONDALE		LIMESTONE	1.9	35.0	
411.8	CARBONDALE		SANDSTONE	0.6	36.9	
411.2	CARBONDALE		ROCK	0.2	37.5	
411.0	CARBONDALE		SANDSTONE	1.3	37.7	
409.7	CARBONDALE		ROCK	0.8	39.0	SOFT
408.9	CARBONDALE		ROCK	3.0	39.8	
405.9	CARBONDALE		SANDSTONE	0.4	42.8	
405.5	CARBONDALE		ROCK	1.0	43.2	
404.5	CARBONDALE	TURNER MINE	BLACK SHALE	2.6	44.2	
401.9	CARBONDALE	SPRINGFIELD	COAL	4.4	46.8	

MAPID: 15701013000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 6S 5W **SECTION:** 11 **QUARTERS/FOOTAGES:** 990' S line, 340' E line of NE NE
QUADRANGLE: PERCY **LONGITUDE:** -89.613182 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 38.027923 **DATE COLLECTED:** 0 / 0 / 1928
SURFACE ELEVATION (FT.): 457.9 **LOGGED (FT.):** 37.1 **LOG TYPE:** Drillers Log
SOURCE: WILLIS COAL & MNG. CO 38C **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
457.9	PLEISTOCENE		UNCONSOLIDATED	18.3	0.0
439.6	CARBONDALE		LIMESTONE	5.8	18.3
433.7	CARBONDALE		CLAYSTONE	5.0	24.2
428.7	CARBONDALE	BRERETON	LIMESTONE	1.3	29.2
427.5	CARBONDALE	HERRIN	COAL	6.7	30.4

MAPID: 15701030000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 6S 5W **SECTION:** 11 **QUARTERS/FOOTAGES:** 350' S line, 970' E line of NE NE
QUADRANGLE: PERCY **LONGITUDE:** -89.615392 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 38.026135 **DATE COLLECTED:** 0 / 0 / 1928
SURFACE ELEVATION (FT.): 453.5 **LOGGED (FT.):** 34.8 **LOG TYPE:** Drillers Log
SOURCE: WILLIS COAL & MNG. CO 38I **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
453.5	PLEISTOCENE		UNCONSOLIDATED	27.0	0.0
426.5	CARBONDALE		SHALE	0.2	27.0
426.3	CARBONDALE	ANNA	BLACK SHALE	2.0	27.2
424.3	CARBONDALE	HERRIN	COAL	5.4	29.2
418.9	CARBONDALE		BLACK SHALE	0.2	34.6

MAPID: 15701031000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 6S 5W **SECTION:** 11 **QUARTERS/FOOTAGES:** 340' S line, 330' E line of NE NE
QUADRANGLE: PERCY **LONGITUDE:** -89.613158 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 38.026129 **DATE COLLECTED:** 0 / 0 / 1928
SURFACE ELEVATION (FT.): 453.6 **LOGGED (FT.):** 32.2 **LOG TYPE:** Drillers Log
SOURCE: WILLIS COAL & MNG. CO 38K **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
453.6	PLEISTOCENE		UNCONSOLIDATED	12.0	0.0
441.6	CARBONDALE		SHALE	4.5	12.0
437.1	CARBONDALE		LIMESTONE	6.0	16.5
431.1	CARBONDALE		BLACK SHALE	4.3	22.5
426.8	CARBONDALE	HERRIN	COAL	5.3	26.8

MAPID: 15701043000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 11 QUARTERS/FOOTAGES:

QUADRANGLE: PERCY LONGITUDE: -89.621234

GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.021519

DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 455.9 LOGGED (FT.): 23.8

LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO 26H

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
455.9	PLEISTOCENE		UNCONSOLIDATED	17.8	0.0	
438.1	CARBONDALE	HERRIN	COAL	0.2	17.8	TOP ERODED
438.0	CARBONDALE	HERRIN	COAL	5.8	17.9	

MAPID: 15701057000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 11 QUARTERS/FOOTAGES: 985' S line, 970' E line of SW NE

QUADRANGLE: PERCY LONGITUDE: -89.619996

GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.024247

DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 454.9 LOGGED (FT.): 30.6

LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. 27A

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
454.9	PLEISTOCENE		UNCONSOLIDATED	26.4	0.0	
428.5	CARBONDALE		SHALE	1.2	26.4	
427.3	CARBONDALE	HERRIN	COAL	3.0	27.6	

MAPID: 15701061000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 11 QUARTERS/FOOTAGES: 980' S line, 340' E line of SW NE

QUADRANGLE: PERCY LONGITUDE: -89.617797

GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.024253

DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 462.6 LOGGED (FT.): 34.0

LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO. 27C

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
462.6	PLEISTOCENE		UNCONSOLIDATED	22.0	0.0	
440.6	CARBONDALE		LIMESTONE	2.0	22.0	
438.6	CARBONDALE		BLACK SHALE	4.0	24.0	
434.6	CARBONDALE	HERRIN	COAL	6.0	28.0	

MAPID: 15701064000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 11 QUARTERS/FOOTAGES: 660' S line, 650' E line of SW NE

QUADRANGLE: PERCY LONGITUDE: -89.618888 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.02336 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 461.8 LOGGED (FT.): 31.3 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO. 27F WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
461.8	PLEISTOCENE		UNCONSOLIDATED	26.8	0.0
435.0	CARBONDALE		BLACK SHALE	1.3	26.8
433.6	CARBONDALE	HERRIN	COAL	3.2	28.2

MAPID: 15701065000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 11 QUARTERS/FOOTAGES: 340' S line, 960' E line of SW NE

QUADRANGLE: PERCY LONGITUDE: -89.619979 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.02247 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 459.9 LOGGED (FT.): 27.5 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO 27I WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
459.9	PLEISTOCENE		UNCONSOLIDATED	21.3	0.0
438.6	CARBONDALE	ANNA	BLACK SHALE	0.1	21.3
438.5	CARBONDALE	HERRIN	COAL	6.1	21.4

MAPID: 15701067000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 11 QUARTERS/FOOTAGES: 340' S line, 340' E line of SW NE

QUADRANGLE: PERCY LONGITUDE: -89.617815 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.022486 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 469.5 LOGGED (FT.): 39.1 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO 27K WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
469.5	PLEISTOCENE		UNCONSOLIDATED	16.5	0.0
453.0	CARBONDALE		BLACK SHALE	1.8	16.5
451.2	CARBONDALE		COAL	1.0	18.3
450.2	CARBONDALE		UNDERCLAY	0.3	19.3
449.8	CARBONDALE		LIMESTONE	7.0	19.7
442.8	CARBONDALE		BLACK SHALE	5.8	26.7
437.0	CARBONDALE	HERRIN	COAL	6.6	32.5

MAPID: 15701069000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 11 QUARTERS/FOOTAGES: 980' S line, 970' E line of SE NE

QUADRANGLE: PERCY LONGITUDE: -89.615406 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.024272 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 452.5 LOGGED (FT.): 24.8 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO 28A WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
452.5	PLEISTOCENE		UNCONSOLIDATED	10.7	0.0
441.8	CARBONDALE	BRERETON	LIMESTONE	5.4	10.7
436.4	CARBONDALE	ANNA	BLACK SHALE	2.7	16.1
433.7	CARBONDALE	HERRIN	COAL	6.2	18.8

MAPID: 15701070000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 11 QUARTERS/FOOTAGES: 980' S line, 340' E line of SE NE

QUADRANGLE: PERCY LONGITUDE: -89.613208 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.02429 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 474.6 LOGGED (FT.): 48.0 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO 28C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
474.6	PLEISTOCENE		UNCONSOLIDATED	34.0	0.0
440.6	PLEISTOCENE		BOULDER	3.5	34.0
437.1	CARBONDALE		LIMESTONE	0.5	37.5
436.6	CARBONDALE		BLACK SHALE	4.0	38.0
432.6	CARBONDALE	HERRIN	COAL	6.0	42.0

MAPID: 15701071000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 11 QUARTERS/FOOTAGES: 650' S line, 990' E line of SE NE

QUADRANGLE: PERCY LONGITUDE: -89.615482 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.02336 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 457.2 LOGGED (FT.): 26.9 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO 28F WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
457.2	PLEISTOCENE		UNCONSOLIDATED	8.2	0.0
449.0	CARBONDALE		BLACK SHALE	2.0	8.2
447.0	CARBONDALE		ROCK	5.9	10.2
441.1	CARBONDALE		BLACK SHALE	4.4	16.1
436.7	CARBONDALE	HERRIN	COAL	6.4	20.5

MAPID: 15701072000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 11 QUARTERS/FOOTAGES: 330' S line, 970' E line of SE NE

QUADRANGLE: PERCY LONGITUDE: -89.615421 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.022477 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 470.1 LOGGED (FT.): 37.6 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO 28I WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
470.1	PLEISTOCENE		UNCONSOLIDATED	19.3	0.0
450.8	CARBONDALE		COAL	0.7	19.3
450.2	CARBONDALE		LIMESTONE	5.7	19.9
444.5	CARBONDALE		BLACK SHALE	4.2	25.6
440.3	CARBONDALE	HERRIN	COAL	7.8	29.8

MAPID: 15701073000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 11 QUARTERS/FOOTAGES: 340' S line, 340' E line of SW NE

QUADRANGLE: PERCY LONGITUDE: -89.617815 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.022486 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 475.7 LOGGED (FT.): 53.6 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO 28K WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
475.7	PLEISTOCENE		UNCONSOLIDATED	17.3	0.0
458.4	PLEISTOCENE		BOULDER	2.1	17.3
456.4	PLEISTOCENE		UNCONSOLIDATED	14.8	19.3
441.6	CARBONDALE		LIMESTONE	4.3	34.1
437.4	CARBONDALE		BLACK SHALE	5.2	38.3
432.2	CARBONDALE	BRERETON	LIMESTONE	0.4	43.5
431.8	CARBONDALE		SHALE	3.4	43.9
428.4	CARBONDALE	HERRIN	COAL	6.3	47.3

MAPID: 15701076000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 11 QUARTERS/FOOTAGES: 990' S line, 980' E line of NW SE

QUADRANGLE: PERCY

LONGITUDE: -89.620067

GEOLOGIST: HOKE

CONFIDENTIAL: N

LATITUDE: 38.02067

DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 468.1

LOGGED (FT.): 31.8

LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. 17A

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
468.1	PLEISTOCENE		UNCONSOLIDATED	19.8	0.0
448.3	CARBONDALE		ROCK	0.7	19.8
447.6	CARBONDALE		SHALE	5.0	20.5
442.6	CARBONDALE	HERRIN	COAL	6.3	25.5

MAPID: 15701077000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 11 QUARTERS/FOOTAGES: 1000' S line, 330' E line of NW SE

QUADRANGLE: PERCY

LONGITUDE: -89.617798

GEOLOGIST: HOKE

CONFIDENTIAL: N

LATITUDE: 38.020711

DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 478.3

LOGGED (FT.): 51.4

LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO 17C

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
478.3	PLEISTOCENE		UNCONSOLIDATED	24.0	0.0
454.3	CARBONDALE		BLACK SHALE	2.5	24.0
451.8	CARBONDALE		LIMESTONE	1.4	26.5
450.4	CARBONDALE		BLACK SHALE	7.7	27.9
442.7	CARBONDALE		LIMESTONE	4.8	35.6
437.9	CARBONDALE		BLACK SHALE	5.0	40.4
432.9	CARBONDALE	HERRIN	COAL	6.0	45.4

MAPID: 15701078000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 11 QUARTERS/FOOTAGES: 665' S line, 660' E line of NW SE

QUADRANGLE: PERCY LONGITUDE: -89.618959 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.019779 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 434.3 LOGGED (FT.): 42.8 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO. 17F WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
434.3	PLEISTOCENE		UNCONSOLIDATED	19.0	0.0
415.3	CARBONDALE		LIMESTONE	6.8	19.0
408.5	CARBONDALE		SHALE	2.0	25.8
406.5	CARBONDALE	BRERETON	LIMESTONE	5.8	27.8
400.8	CARBONDALE		SHALE	3.2	33.5
397.6	CARBONDALE	HERRIN	COAL	6.2	36.7

MAPID: 15701079000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 11 QUARTERS/FOOTAGES: 340' S line, 850' E line of NW SE

QUADRANGLE: PERCY LONGITUDE: -89.619631 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.018876 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 469.1 LOGGED (FT.): 37.3 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO. 17I WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
469.1	PLEISTOCENE		UNCONSOLIDATED	18.5	0.0
450.6	CARBONDALE		SHALE	0.7	18.5
449.9	CARBONDALE		LIMESTONE	0.5	19.2
449.4	CARBONDALE		BLACK SHALE & COAL	3.3	19.7
446.1	CARBONDALE		BLACK SHALE	2.9	23.0
443.2	CARBONDALE		BLACK SHALE	0.8	25.9
442.4	CARBONDALE	BRERETON	LIMESTONE	2.6	26.7 HARD
439.8	CARBONDALE	ANNA	BLACK SHALE	2.2	29.3
437.7	CARBONDALE	HERRIN	COAL	5.8	31.4

MAPID: 1570108000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 11 QUARTERS/FOOTAGES: 1650' N line, 1650' E line

QUADRANGLE: PERCY LONGITUDE: -89.617779 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.024186 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 474.5 LOGGED (FT.): 46.2 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO 17K WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
474.5	PLEISTOCENE		UNCONSOLIDATED	13.8	0.0	
460.7	PLEISTOCENE		BOULDER	1.1	13.8	
459.6	PLEISTOCENE		CLAY	4.8	14.9	
454.8	CARBONDALE		BLACK SHALE	0.8	19.7	
454.0	CARBONDALE		LIMESTONE	1.1	20.5	
452.9	CARBONDALE		SHALE	4.7	21.6	
448.2	CARBONDALE		COAL	0.3	26.3	
448.0	CARBONDALE		ROCK	0.3	26.5	WITH SLATE
447.7	CARBONDALE		SHALE	4.0	26.8	
443.7	CARBONDALE		BLACK SHALE	0.5	30.8	
443.2	CARBONDALE		LIMESTONE	4.3	31.3	
438.8	CARBONDALE		BLACK SHALE	4.2	35.7	
434.7	CARBONDALE	HERRIN	COAL	6.3	39.8	

MAPID: 1570108000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 11 QUARTERS/FOOTAGES: 1650' N line, 1650' E line

QUADRANGLE: PERCY LONGITUDE: -89.617779 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.024186 DATE COLLECTED:

SURFACE ELEVATION (FT.): 474.0 LOGGED (FT.): 46.3 LOG TYPE: Drillers Log

SOURCE: WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
460.1	CARBONDALE	BANKSTON FORK	LIMESTONE	1.1	13.9	
459.0	CARBONDALE	BANKSTON FORK	LIMESTONE W/ SHALE	5.7	15.0	
453.3	CARBONDALE	BANKSTON FORK	LIMESTONE	1.1	20.7	
452.2	CARBONDALE	CONANT	SHALE	4.7	21.8	
447.6	CARBONDALE	JAMESTOWN	COAL	0.3	26.4	
447.3	CARBONDALE		SHALE	4.8	26.7	
442.5	CARBONDALE	BRERETON	LIMESTONE	4.3	31.5	
438.2	CARBONDALE	ANNA	BLACK SHALE	4.2	35.8	
434.0	CARBONDALE	HERRIN	COAL	6.3	40.0	

MAPID: 15701083000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 11 QUARTERS/FOOTAGES: 980' S line, 340' E line of NE SE

QUADRANGLE: PERCY LONGITUDE: -89.613234 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.020685 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 473.0 LOGGED (FT.): 58.5 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. 18C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
473.0	PLEISTOCENE		UNCONSOLIDATED	22.9	0.0	
450.1	CARBONDALE		SANDSTONE	0.8	22.9	
449.2	CARBONDALE		SHALE	4.2	23.8	
445.1	CARBONDALE		LIMESTONE	2.7	27.9	
442.4	CARBONDALE		SHALE	4.3	30.6	
438.1	CARBONDALE		COAL	0.3	34.9	
437.8	CARBONDALE		SHALE	7.0	35.2	
430.8	CARBONDALE	BRERETON	LIMESTONE	5.0	42.2	
425.7	CARBONDALE	ANNA	BLACK SHALE	3.2	47.3	
422.6	CARBONDALE	HERRIN	COAL	8.1	50.4	

MAPID: 15701084000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 11 QUARTERS/FOOTAGES: 660' S line, 660' E line of NE SE

QUADRANGLE: PERCY LONGITUDE: -89.614359 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.019795 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 485.0 LOGGED (FT.): 72.0 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO 18F WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
485.0	PLEISTOCENE		UNCONSOLIDATED	22.0	0.0	
463.0	CARBONDALE		LIMESTONE	2.0	22.0	
461.0	CARBONDALE		CLAYSTONE	7.0	24.0	
454.0	CARBONDALE		LIMESTONE	6.0	31.0	
448.0	CARBONDALE		SHALE	2.5	37.0	BLUE
445.5	CARBONDALE		LIMESTONE	4.5	39.5	
441.0	CARBONDALE		SHALE	6.0	44.0	BLUE
435.0	CARBONDALE		LIMESTONE	10.0	50.0	
425.0	CARBONDALE		BLACK SHALE	5.0	60.0	
420.0	CARBONDALE	HERRIN	COAL	7.0	65.0	

MAPID: 15701085000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 11 QUARTERS/FOOTAGES: 340' S line, 970' E line of NE SE

QUADRANGLE: PERCY

LONGITUDE: -89.615447

GEOLOGIST: HOKE

CONFIDENTIAL: N

LATITUDE: 38.018905

DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 490.3

LOGGED (FT.): 53.3

LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. 181

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
490.3	PLEISTOCENE		UNCONSOLIDATED	23.7	0.0	
466.6	PLEISTOCENE		BOULDER	1.6	23.7	
465.0	PLEISTOCENE		CLAY	0.7	25.3	
464.4	PLEISTOCENE		CLAY	1.3	25.9	SANDY
463.0	CARBONDALE		LIMESTONE	4.1	27.3	SOFT
459.0	CARBONDALE		LIMESTONE	5.7	31.3	
453.3	CARBONDALE		BLACK SHALE	4.4	37.0	
448.9	CARBONDALE		BLACK SHALE	1.3	41.4	
447.5	CARBONDALE		SHALE	2.8	42.8	
444.7	CARBONDALE		BLACK SHALE	3.3	45.6	
441.4	CARBONDALE		LIMESTONE	4.3	48.9	

MAPID: 15701409000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 11 QUARTERS/FOOTAGES: NW SW SE SE

QUADRANGLE: PERCY LONGITUDE: -89.616122 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.015713 DATE COLLECTED: 0 / 0 / 1934

SURFACE ELEVATION (FT.): 470.0 LOGGED (FT.): 190.0 LOG TYPE: Drillers Log

SOURCE: SEWELL WELL CO 1 WELL TYPE: Coal Test

COMMENT: TOTAL DEPTH - 447.00

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
470.0	PLEISTOCENE		CLAY	22.0	0.0	YELLOW
448.0	PLEISTOCENE		BOULDERS & CLAY	6.0	22.0	
442.0	CARBONDALE		SHALE	7.0	28.0	BLUE
435.0	CARBONDALE		BLACK SHALE	5.0	35.0	
430.0	CARBONDALE	HERRIN	COAL	5.0	40.0	
425.0	CARBONDALE		SHALE	3.0	45.0	BLUE
422.0	CARBONDALE		ROCK	2.0	48.0	
420.0	CARBONDALE		LIMESTONE	5.0	50.0	
415.0	CARBONDALE		SHALE	35.0	55.0	BLUE
380.0	CARBONDALE		SHALE	5.0	90.0	GR
375.0	CARBONDALE		LIMESTONE	5.0	95.0	
370.0	CARBONDALE		SHALE	5.0	100.0	GR
365.0	CARBONDALE		BLACK SHALE	5.0	105.0	
360.0	CARBONDALE		SHALE	15.0	110.0	WITH SHELLS; BLUE
345.0	CARBONDALE		UNDERCLAY	5.0	125.0	
340.0	CARBONDALE		SHALE	25.0	130.0	BLUE
315.0	CARBONDALE		LIMESTONE	5.0	155.0	
310.0	CARBONDALE		COAL W/ BLACK SHALE	5.0	160.0	WITH SLATE
305.0	CARBONDALE		SHALE	20.0	165.0	CAVING; BLUE
285.0	CARBONDALE		SANDSTONE	5.0	185.0	

MAPID: 15701445000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 11 QUARTERS/FOOTAGES: NE SE NW NW

QUADRANGLE: STEELEVILLE LONGITUDE: -89.62632 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.026405 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 451.7 LOGGED (FT.): 21.0 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO 26C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
451.7	PLEISTOCENE		UNCONSOLIDATED	21.0	0.0	HIT INTO LS WHICH IS UNDER SEAM #6

MAPID: 15701446000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 11 QUARTERS/FOOTAGES: 480' S line, 240' E line of NW NE

QUADRANGLE: PERCY

LONGITUDE: -89.617424

GEOLOGIST: HOKE

CONFIDENTIAL: N

LATITUDE: 38.026472

DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 455.0

LOGGED (FT.): 39.7

LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO. 37KA

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
455.0	PLEISTOCENE		UNCONSOLIDATED	18.8	0.0
436.2	CARBONDALE		SHALE	1.1	18.8
435.1	CARBONDALE	DANVILLE	COAL	0.3	19.9
434.8	CARBONDALE		ROCK	0.3	20.2
434.6	CARBONDALE		BLACK SHALE	5.3	20.4
429.3	CARBONDALE	BRERETON	LIMESTONE	6.8	25.7
422.6	CARBONDALE	ANNA	BLACK SHALE	1.5	32.4
421.1	CARBONDALE	HERRIN	COAL	5.8	33.9

MAPID: 15702109000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 11 QUARTERS/FOOTAGES: 50' S line, 460' E line of SE SW

QUADRANGLE: PERCY LONGITUDE: -89.622935 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.014466 DATE COLLECTED: 0 / 0 / 1944

SURFACE ELEVATION (FT.): 450.4 LOGGED (FT.): 437.0 LOG TYPE: Drillers Log

SOURCE: SOUTHWESTERN ILLINOIS COAL CO. 2 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
450.4	PLEISTOCENE		UNCONSOLIDATED	23.0	0.0	
427.4	PLEISTOCENE		CLAY	20.0	23.0	WITH SHALE
407.4	CARBONDALE		ROCK	5.0	43.0	
402.4	CARBONDALE		SHALE	2.0	48.0	
400.4	CARBONDALE		ROCK	2.0	50.0	
398.4	CARBONDALE		SHALE	20.0	52.0	
378.4	CARBONDALE		SANDSTONE	15.0	72.0	WHITE
363.4	CARBONDALE		SANDY SHALE	2.0	87.0	
361.4	CARBONDALE		BLACK SHALE	3.0	89.0	
358.4	CARBONDALE	HERRIN	COAL	6.0	92.0	
352.4	CARBONDALE		UNDERCLAY	4.0	98.0	
348.4	CARBONDALE		ROCK	15.0	102.0	
333.4	CARBONDALE		SHALE	5.0	117.0	
328.4	CARBONDALE		ROCK	10.0	122.0	
318.4	CARBONDALE		SHALE	13.0	132.0	
305.4	CARBONDALE		ROCK	4.0	145.0	
301.4	CARBONDALE		BLACK SHALE	3.0	149.0	
298.4	CARBONDALE	SPRINGFIELD	COAL	2.0	152.0	
296.4	CARBONDALE		UNDERCLAY	1.0	154.0	
295.4	CARBONDALE		ROCK	6.0	155.0	
289.4	CARBONDALE		SHALE	2.0	161.0	
287.4	CARBONDALE		SANDSTONE	26.0	163.0	
261.4	CARBONDALE		COAL	2.0	189.0	
259.4	CARBONDALE		SANDSTONE	4.0	191.0	
255.4	CARBONDALE		SHALE	30.0	195.0	
225.4	CARBONDALE		SHALE	4.0	225.0	BLACK
221.4	CARBONDALE		COAL	4.0	229.0	
217.4	CARBONDALE		UNDERCLAY	4.0	233.0	
213.4	CARBONDALE		SANDY SHALE	18.0	237.0	SANDY
195.4	CARBONDALE		SANDSTONE	72.0	255.0	
123.4	CARBONDALE		SANDY SHALE	5.0	327.0	SANDY
118.4	CARBONDALE		SANDSTONE	80.0	332.0	
38.4	CARBONDALE		SANDSTONE	25.0	412.0	DARK

MAPID: 15700315000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 12 QUARTERS/FOOTAGES: 2640' N line, 0' W line

QUADRANGLE: PERCY LONGITUDE: -89.612041 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.021517 DATE COLLECTED:

SURFACE ELEVATION (FT.): 472.0 LOGGED (FT.): 52.3 LOG TYPE: Drillers Log

SOURCE: UNITED ELECTRIC COAL CO. 459 WELL TYPE: Coal Test

COMMENT: COAL TEST

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
472.0	PLEISTOCENE		UNCONSOLIDATED	26.0	0.0
446.0	CARBONDALE		LIMESTONE	3.0	26.0
443.0	CARBONDALE		BLACK SHALE	4.0	29.0
439.0	CARBONDALE		COAL	0.3	33.0
438.7	CARBONDALE		LIMESTONE	6.0	33.3
432.7	CARBONDALE		BLACK SHALE	4.0	39.3
428.7	CARBONDALE		SHALE	3.0	43.3
425.7	CARBONDALE	HERRIN	COAL	6.3	46.3

MAPID: 15700315000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 12 QUARTERS/FOOTAGES: 2640' N line, 0' W line

QUADRANGLE: PERCY LONGITUDE: -89.612041 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.021517 DATE COLLECTED:

SURFACE ELEVATION (FT.): 472.0 LOGGED (FT.): 52.3 LOG TYPE: Drillers Log

SOURCE: WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
446.2	CARBONDALE	CONANT	LIMESTONE W/ SHALE	7.0	25.8
439.2	CARBONDALE	JAMESTOWN	COAL	0.3	32.8
439.0	CARBONDALE	BRERETON	LIMESTONE	6.0	33.0
433.0	CARBONDALE	ANNA	BLACK SHALE	4.0	39.0
429.0	CARBONDALE	ENERGY	SHALE	3.0	43.0
426.0	CARBONDALE	HERRIN	COAL	6.3	46.0

MAPID: 15701086000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 12 QUARTERS/FOOTAGES: 970' S line, 980' E line of NW NW

QUADRANGLE: PERCY LONGITUDE: -89.610854 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.027892 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 456.8 LOGGED (FT.): 40.7 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO 39A WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
456.8	PLEISTOCENE		UNCONSOLIDATED	8.0	0.0
448.8	CARBONDALE		LIMESTONE	5.0	8.0
443.8	CARBONDALE		SHALE	4.4	13.0
439.4	CARBONDALE		LIMESTONE	1.5	17.4
437.9	CARBONDALE		BLACK SHALE	4.0	18.9
433.9	CARBONDALE		COAL	0.3	22.9
433.6	CARBONDALE		BLACK SHALE	1.9	23.2
431.7	CARBONDALE		ROCK	5.2	25.1
426.5	CARBONDALE		BLACK SHALE	4.2	30.3
422.4	CARBONDALE	HERRIN	COAL	6.3	34.4

MAPID: 15701087000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 12 QUARTERS/FOOTAGES: 660' S line, 650' E line of NW NW

QUADRANGLE: PERCY LONGITUDE: -89.609708 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.027049 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 462.8 LOGGED (FT.): 46.6 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO. 39F WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
462.8	PLEISTOCENE		UNCONSOLIDATED	14.8	0.0
448.0	CARBONDALE		LIMESTONE	5.0	14.8
443.0	CARBONDALE		SHALE	3.0	19.8
440.0	CARBONDALE		LIMESTONE	2.8	22.8
437.2	CARBONDALE		SHALE	4.0	25.6
433.2	CARBONDALE		COAL	0.3	29.6
433.0	CARBONDALE		SHALE	4.5	29.8
428.5	CARBONDALE	BRERETON	LIMESTONE	4.0	34.3
424.5	CARBONDALE	ANNA	BLACK SHALE	2.2	38.3
422.3	CARBONDALE	HERRIN	COAL	6.1	40.5

MAPID: 15701088000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 12 QUARTERS/FOOTAGES: 340' S line, 980' E line of NW NW

QUADRANGLE: PERCY

LONGITUDE: -89.610869

GEOLOGIST: HOKE

CONFIDENTIAL: N

LATITUDE: 38.026153

DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 471.2

LOGGED (FT.): 51.5

LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO. 39I

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
471.2	PLEISTOCENE		UNCONSOLIDATED	34.5	0.0	
436.7	CARBONDALE		LIMESTONE	5.5	34.5	
431.2	CARBONDALE		BLACK SHALE	3.0	40.0	
428.2	CARBONDALE		SHALE	2.0	43.0	
426.2	CARBONDALE	HERRIN	COAL	6.5	45.0	

MAPID: 15701089000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 12 QUARTERS/FOOTAGES: 340' S line, 330' E line of NW NW

QUADRANGLE: PERCY

LONGITUDE: -89.608601

GEOLOGIST: HOKE

CONFIDENTIAL: N

LATITUDE: 38.026178

DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 479.8

LOGGED (FT.): 67.6

LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO. 39K

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
479.8	PLEISTOCENE		UNCONSOLIDATED	31.4	0.0	
448.4	CARBONDALE		LIMESTONE	5.5	31.4	
442.9	CARBONDALE		CLAYSTONE	3.0	36.9	BLUE
439.9	CARBONDALE		LIMESTONE	3.2	39.9	
436.7	CARBONDALE		CLAYSTONE	7.0	43.1	BLUE
429.7	CARBONDALE	BRERETON	LIMESTONE	7.0	50.1	
422.7	CARBONDALE		BLACK SHALE	4.0	57.1	
418.7	CARBONDALE	HERRIN	COAL	6.5	61.1	

MAPID: 1570109000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 12 QUARTERS/FOOTAGES: 1050' S line, 980' E line of SW NW

QUADRANGLE: PERCY LONGITUDE: -89.610887 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.024497 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 464.2 LOGGED (FT.): 32.7 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO. 29A WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
464.2	PLEISTOCENE		UNCONSOLIDATED	6.7	0.0
457.5	PLEISTOCENE		BOULDER	1.2	6.7
456.4	PLEISTOCENE		GRAVEL	0.5	7.8
455.9	PLEISTOCENE		SAND & GRAVEL	1.3	8.3
454.5	CARBONDALE		SHALE	2.4	9.7
452.1	CARBONDALE		BLACK SHALE	1.0	12.1
451.1	CARBONDALE		COAL	0.4	13.1
450.7	CARBONDALE		BLACK SHALE	0.5	13.5
450.2	CARBONDALE		SHALE	4.3	14.0
445.9	CARBONDALE		BLACK SHALE	5.3	18.3
440.6	CARBONDALE	BRERETON	LIMESTONE	2.1	23.6
438.5	CARBONDALE	ANNA	BLACK SHALE	0.5	25.7
438.0	CARBONDALE	HERRIN	COAL	6.5	26.2

MAPID: 15701091000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 12 QUARTERS/FOOTAGES: 1010' S line, 330' E line of SW NW

QUADRANGLE: PERCY LONGITUDE: -89.608619 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.024394 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 477.2 LOGGED (FT.): 52.5 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO. 29C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
477.2	PLEISTOCENE		UNCONSOLIDATED	18.5	0.0
458.7	CARBONDALE		LIMESTONE	4.5	18.5
454.2	CARBONDALE		CLAYSTONE	4.5	23.0 DRILLER REPORTS YELLOW CLAY
449.7	CARBONDALE		LIMESTONE	4.0	27.5
445.7	CARBONDALE		UNDERCLAY	6.0	31.5
439.7	CARBONDALE		LIMESTONE	3.0	37.5
436.7	CARBONDALE		BLACK SHALE	5.0	40.5
431.7	CARBONDALE	HERRIN	COAL	7.0	45.5

MAPID: 15701092000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 12 QUARTERS/FOOTAGES: 590' S line, 780' E line of SW NW

QUADRANGLE: PERCY

LONGITUDE: -89.610201

GEOLOGIST: HOKE

CONFIDENTIAL: N

LATITUDE: 38.02323

DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 488.2

LOGGED (FT.): 54.4

LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO 29F

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
488.2	PLEISTOCENE		UNCONSOLIDATED	19.0	0.0	
469.2	CARBONDALE		LIMESTONE	5.0	19.0	
464.2	CARBONDALE		CLAYSTONE	5.0	24.0	BLACK
459.2	CARBONDALE		LIMESTONE	4.4	29.0	
454.8	CARBONDALE		UNDERCLAY	2.0	33.4	
452.8	CARBONDALE		LIMESTONE	7.0	35.4	
445.8	CARBONDALE		BLACK SHALE	5.0	42.4	
440.8	CARBONDALE	HERRIN	COAL	7.0	47.4	

MAPID: 15701093000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 12 QUARTERS/FOOTAGES: 240' S line, 1160' E line of SW NW

QUADRANGLE: PERCY

LONGITUDE: -89.611537

GEOLOGIST: HOKE

CONFIDENTIAL: N

LATITUDE: 38.022257

DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 474.7

LOGGED (FT.): 49.9

LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO. 29I

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
474.7	PLEISTOCENE		UNCONSOLIDATED	14.0	0.0	
460.7	CARBONDALE		LIMESTONE	5.6	14.0	
455.1	CARBONDALE		CLAYSTONE	1.6	19.6	SANDY
453.5	CARBONDALE		SHALE	1.0	21.2	
452.5	CARBONDALE		LIMESTONE	2.4	22.2	
450.1	CARBONDALE		SHALE	7.1	24.6	
443.0	CARBONDALE	BRERETON	LIMESTONE	9.5	31.7	
433.5	CARBONDALE		SHALE	2.3	41.2	
431.3	CARBONDALE	ANNA	BLACK SHALE	0.8	43.4	
430.4	CARBONDALE	HERRIN	COAL	5.7	44.3	

MAPID: 15790010000C VERSION: 1

PROJECT: LUMP

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 12 QUARTERS/FOOTAGES: 15' N line, 80' E line of SE NW NE

QUADRANGLE: PERCY

LONGITUDE: -89.5986

GEOLOGIST: NORTH

CONFIDENTIAL: N

LATITUDE: 38.027164

DATE COLLECTED: 10 / 24 / 1975

SURFACE ELEVATION (FT.): 497.3

LOGGED (FT.): 144.0

LOG TYPE: Drillers Log

SOURCE: APOGEE COAL COMPANY 2734

WELL TYPE: Coal Test

COMMENT: PERMIT 124; KATHLEEN MINE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
497.3	PLEISTOCENE		UNCONSOLIDATED	32.0	0.0	
465.3	MODESTO		GRAY SHALE	14.0	32.0	
451.3	MODESTO	PIASA	LIMESTONE	15.0	46.0	
436.3	MODESTO		GRAY SHALE	13.0	61.0	
423.3	CARBONDALE		SHALE WITH LIMESTONE	11.1	74.0	
412.2	CARBONDALE	BANKSTON FORK	LIMESTONE	4.2	85.1	
408.0	CARBONDALE		SHALE WITH LIMESTONE	4.7	89.3	
403.3	CARBONDALE	CONANT	LIMESTONE	1.3	94.0	DARK
402.0	CARBONDALE		SHALE WITH LIMESTONE	7.7	95.3	
394.3	CARBONDALE	BRERETON	LIMESTONE	5.7	103.0	DARK
388.6	CARBONDALE	ANNA	SHALE WITH LIMESTONE	3.3	108.7	
385.3	CARBONDALE	HERRIN	COAL	6.0	112.0	
379.3	CARBONDALE		UNDERCLAY	2.2	118.0	
377.1	CARBONDALE		SHALE WITH LIMESTONE	10.6	120.2	
366.5	CARBONDALE	ST. DAVID	LIMESTONE	5.1	130.8	DARK
361.4	CARBONDALE	TURNER MINE	DARK SHALE	2.1	135.9	
359.3	CARBONDALE	SPRINGFIELD	COAL	4.5	138.0	
354.8	CARBONDALE		UNDERCLAY	1.5	142.5	

MAPID: 15790013000C VERSION: 1

PROJECT: LUMP

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 12 QUARTERS/FOOTAGES: 245' S line, 75' E line of SE NE NE

QUADRANGLE: PERCY

LONGITUDE: -89.59404

GEOLOGIST: NORTH

CONFIDENTIAL: N

LATITUDE: 38.026077

DATE COLLECTED: 11 / 10 / 1975

SURFACE ELEVATION (FT.): 514.1

LOGGED (FT.): 182.0

LOG TYPE: Drillers Log

SOURCE: APOGEE COAL COMPANY 2765

WELL TYPE: Coal Test

COMMENT: PERMIT 124; KATHLEEN MINE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
514.1	PLEISTOCENE		UNCONSOLIDATED	26.0	0.0	
488.1	MODESTO		GRAY SHALE	20.0	26.0	
468.1	MODESTO		SHALE WITH LIMESTONE	46.0	46.0	
422.1	MODESTO	PIASA	LIMESTONE	9.8	92.0	
412.3			SHALE WITH LIMESTONE	14.2	101.8	
398.1	CARBONDALE	GALUM	LIMESTONE	0.8	116.0	
397.3	CARBONDALE		SHALE WITH LIMESTONE	6.8	116.8	
390.5	CARBONDALE	BANKSTON FORK	LIMESTONE	4.9	123.6	
385.6	CARBONDALE		SHALE WITH LIMESTONE	4.6	128.5	
381.0	CARBONDALE	CONANT	LIMESTONE	1.3	133.1	DARK
379.7	CARBONDALE		SHALE WITH LIMESTONE	6.1	134.4	
373.6	CARBONDALE	BRERETON	LIMESTONE	5.4	140.5	DARK
368.2	CARBONDALE		SHALE WITH LIMESTONE	4.4	145.9	
363.8	CARBONDALE	HERRIN	COAL	5.7	150.3	
358.1	CARBONDALE		UNDERCLAY	2.6	156.0	
355.5	CARBONDALE		SHALE WITH LIMESTONE	12.8	158.6	
342.7	CARBONDALE	ST. DAVID	LIMESTONE	2.1	171.4	DARK
340.6	CARBONDALE	TURNER MINE	DARK SHALE	1.7	173.5	
338.9	CARBONDALE	SPRINGFIELD	COAL	3.8	175.2	
335.1	CARBONDALE		UNDERCLAY	3.0	179.0	

MAPID: 15790014000C VERSION: 1

PROJECT: LUMP

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 12 QUARTERS/FOOTAGES: 75' N line, 75' E line of NE NE NE

QUADRANGLE: PERCY

LONGITUDE: -89.593992

GEOLOGIST: NORTH

CONFIDENTIAL: N

LATITUDE: 38.02894

DATE COLLECTED: 11 / 10 / 1975

SURFACE ELEVATION (FT.): 500.6

LOGGED (FT.): 165.0

LOG TYPE: Drillers Log

SOURCE: APOGEE COAL COMPANY 2767

WELL TYPE: Coal Test

COMMENT: PERMIT 124; KATHLEEN MINE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
500.6	PLEISTOCENE		UNCONSOLIDATED	17.0	0.0	
483.6	PLEISTOCENE		UNCONSOLIDATED	6.0	17.0	
477.6	MODESTO		GRAY SHALE	10.0	23.0	
467.6	MODESTO		SHALE WITH LIMESTONE	34.8	33.0	
432.8	MODESTO	PIASA	LIMESTONE	7.1	67.8	
425.7			SHALE WITH LIMESTONE	8.8	74.9	
416.9	CARBONDALE	GALUM	LIMESTONE	1.7	83.7	
415.2	CARBONDALE		SHALE WITH LIMESTONE	2.2	85.4	
413.0	CARBONDALE	BANKSTON FORK	LIMESTONE	4.4	87.6	
408.6	CARBONDALE		SHALE WITH LIMESTONE	19.6	92.0	
389.0	CARBONDALE	CONANT	LIMESTONE	1.2	111.6	DARK
387.8	CARBONDALE		SHALE WITH LIMESTONE	12.8	112.8	
375.0	CARBONDALE	BRERETON	LIMESTONE	4.0	125.6	DARK
371.0	CARBONDALE		SHALE WITH LIMESTONE	4.1	129.6	
366.9	CARBONDALE	HERRIN	COAL	5.9	133.7	
361.0	CARBONDALE		UNDERCLAY	2.6	139.6	
358.4	CARBONDALE		SHALE WITH LIMESTONE	11.7	142.2	
346.7	CARBONDALE	ST. DAVID	LIMESTONE	2.2	153.9	DARK
344.5	CARBONDALE	TURNER MINE	DARK SHALE	2.2	156.1	
342.3	CARBONDALE	SPRINGFIELD	COAL	3.6	158.3	
338.7	CARBONDALE		UNDERCLAY	3.1	161.9	

MAPID: 15700316000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 13 QUARTERS/FOOTAGES: 85' S line, 115' W line of SW SW SW SW

QUADRANGLE: PERCY

LONGITUDE: -89.612399

GEOLOGIST: HOKE

CONFIDENTIAL: N

LATITUDE: 38.000246

DATE COLLECTED:

SURFACE ELEVATION (FT.): 463.0

LOGGED (FT.): 45.5

LOG TYPE: Drillers Log

SOURCE: UNITED ELECTRIC COAL CO. 309

WELL TYPE: Coal Test

COMMENT: COAL TEST

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
423.0	CARBONDALE	HERRIN	COAL	5.5	40.0	

MAPID: 15700317000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 6S 5W **SECTION:** 13 **QUARTERS/FOOTAGES:** SW NW
QUADRANGLE: PERCY **LONGITUDE:** -89.610079 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 38.008977 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 483.0 **LOGGED (FT.):** 60.5 **LOG TYPE:** Drillers Log
SOURCE: UNITED ELECTRIC COAL CO. 359 **WELL TYPE:** Coal Test
COMMENT: COAL TEST

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
483.0			UNKNOWN	60.0	0.0	
423.0			COAL	0.5	60.0	

MAPID: 15700318000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 6S 5W **SECTION:** 13 **QUARTERS/FOOTAGES:** SW SE
QUADRANGLE: PERCY **LONGITUDE:** -89.60115 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 38.001808 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 439.0 **LOGGED (FT.):** 82.7 **LOG TYPE:** Drillers Log
SOURCE: UNITED ELECTRIC COAL CO. 311 **WELL TYPE:** Coal Test
COMMENT: COAL TEST

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
439.0			UNKNOWN	31.0	0.0	
408.0	CARBONDALE	HERRIN	COAL	0.5	31.0	
407.5	CARBONDALE		UNKNOWN	16.5	31.5	
391.0	CARBONDALE	SPRINGFIELD	COAL	3.2	48.0	

MAPID: 15701101000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 6S 5W **SECTION:** 13 **QUARTERS/FOOTAGES:** 340' S line, 340' E line of NW SW
QUADRANGLE: PERCY **LONGITUDE:** -89.609165 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 38.004536 **DATE COLLECTED:** 0 / 0 / 1928
SURFACE ELEVATION (FT.): 446.5 **LOGGED (FT.):** 38.3 **LOG TYPE:** Drillers Log
SOURCE: WILLIS COAL & MNG. CO 428K **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
446.5	PLEISTOCENE		UNCONSOLIDATED	31.2	0.0	
415.3	CARBONDALE		SHALE	2.2	31.2	
413.2	CARBONDALE		LIMESTONE	3.3	33.3	
409.9	CARBONDALE		LIMESTONE	1.8	36.6	SOFT

MAPID: 15701102000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 13 QUARTERS/FOOTAGES: 1320' S line, 1320' E line

QUADRANGLE: PERCY LONGITUDE: -89.598777 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.003679 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 451.2 LOGGED (FT.): 58.7 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO 430P WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
451.2	PLEISTOCENE		UNCONSOLIDATED	21.8	0.0	
429.4	CARBONDALE		LIMESTONE	1.3	21.8	
428.1	CARBONDALE		SHALE	5.2	23.1	WITH CLAY
422.9	CARBONDALE		LIMESTONE	2.3	28.3	
420.7	CARBONDALE		SHALE	5.0	30.5	
415.7	CARBONDALE		COAL	0.4	35.5	
415.3	CARBONDALE		BLACK SHALE	0.5	35.9	WITH SHALE
414.8	CARBONDALE		LIMESTONE	7.0	36.4	
407.8	CARBONDALE		BLACK SHALE	3.4	43.4	
404.4	CARBONDALE	BRERETON	LIMESTONE	4.7	46.8	
399.7	CARBONDALE	HERRIN	COAL	7.2	51.5	

MAPID: 15701102000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 13 QUARTERS/FOOTAGES: 1320' S line, 1320' E line

QUADRANGLE: PERCY LONGITUDE: -89.598777 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.003679 DATE COLLECTED:

SURFACE ELEVATION (FT.): 451.0 LOGGED (FT.): 58.2 LOG TYPE: Drillers Log

SOURCE: WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
429.7	CARBONDALE	BANKSTON FORK	LIMESTONE	1.3	21.3	
428.4	CARBONDALE	BANKSTON FORK	CLAYSTONE	5.2	22.6	
423.3	CARBONDALE	BANKSTON FORK	LIMESTONE	2.3	27.7	
421.0	CARBONDALE	LAWSON	SHALE	5.0	30.0	
416.0	CARBONDALE	CONANT	LIMESTONE W/ SHALE	7.9	35.0	
408.1	CARBONDALE		SHALE	3.4	42.9	
404.7	CARBONDALE	BRERETON	LIMESTONE	4.7	46.3	
400.0	CARBONDALE	HERRIN	COAL	7.2	51.0	

MAPID: 15701103000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 13 QUARTERS/FOOTAGES: 1000' S line, 1000' E line of SW SW

QUADRANGLE: PERCY LONGITUDE: -89.611542 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.002772 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 462.7 LOGGED (FT.): 39.5 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. 437A WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
462.7	PLEISTOCENE		UNCONSOLIDATED	30.2	0.0
432.5	CARBONDALE		LIMESTONE	0.5	30.2
432.0	CARBONDALE		SHALE	4.8	30.7
427.2	CARBONDALE		BLACK SHALE	4.0	35.5

MAPID: 15701104000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 13 QUARTERS/FOOTAGES: 990' S line, 390' E line of SW SW

QUADRANGLE: PERCY LONGITUDE: -89.609413 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.00275 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 459.1 LOGGED (FT.): 55.1 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO 437C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
459.1	PLEISTOCENE		UNCONSOLIDATED	40.8	0.0
418.3	CARBONDALE		SHALE	0.9	40.8
417.3	CARBONDALE		LIMESTONE	3.0	41.8
414.3	CARBONDALE		BLACK SHALE	4.3	44.8
410.0	CARBONDALE	HERRIN	COAL	6.0	49.1

MAPID: 15701105000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 13 QUARTERS/FOOTAGES: 710' S line, 680' E line of SW SW

QUADRANGLE: PERCY LONGITUDE: -89.610459 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.001973 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 451.7 LOGGED (FT.): 44.5 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO 437F WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
451.7	PLEISTOCENE		UNCONSOLIDATED	28.7	0.0
423.0	CARBONDALE		SHALE	4.0	28.7 WHITE
419.0	CARBONDALE		SHALE	1.0	32.7 YELLOW
418.0	CARBONDALE		SHALE	2.3	33.7 BLUE
415.8	CARBONDALE	BRERETON	LIMESTONE	2.0	35.9
413.8	CARBONDALE	HERRIN	COAL	6.6	37.9

MAPID: 15701114000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 6S 5W **SECTION:** 13 **QUARTERS/FOOTAGES:** 980' S line, 1000' E line of SW
QUADRANGLE: PERCY **LONGITUDE:** -89.606922 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 38.002724 **DATE COLLECTED:** 0 / 0 / 1928
SURFACE ELEVATION (FT.): 450.5 **LOGGED (FT.):** 52.7 **LOG TYPE:** Drillers Log
SOURCE: WILLIS COAL & MNG. CO 438A **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
450.5	PLEISTOCENE		UNCONSOLIDATED	43.0	0.0	
407.5	CARBONDALE	BRERETON	LIMESTONE	2.1	43.0	
405.4	CARBONDALE	ANNA	BLACK SHALE	2.6	45.1	
402.8	CARBONDALE	HERRIN	COAL	5.0	47.7	

MAPID: 15701115000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 6S 5W **SECTION:** 13 **QUARTERS/FOOTAGES:** 330' S line, 660' E line of SW
QUADRANGLE: PERCY **LONGITUDE:** -89.605796 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 38.000934 **DATE COLLECTED:** 0 / 0 / 1928
SURFACE ELEVATION (FT.): 462.3 **LOGGED (FT.):** 65.0 **LOG TYPE:** Drillers Log
SOURCE: WILLIS COAL & MNG. CO 438J **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
462.3	PLEISTOCENE		UNCONSOLIDATED	65.0	0.0	STOPPED; NO COAL #6 SEAM

MAPID: 15701116000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 6S 5W **SECTION:** 13 **QUARTERS/FOOTAGES:** 660' S line, 10' E line of SW
QUADRANGLE: PERCY **LONGITUDE:** -89.603498 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 38.001847 **DATE COLLECTED:** 0 / 0 / 1928
SURFACE ELEVATION (FT.): 448.9 **LOGGED (FT.):** 49.4 **LOG TYPE:** Drillers Log
SOURCE: WILLIS COAL & MNG. CO 438H **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
448.9	PLEISTOCENE		UNCONSOLIDATED	19.0	0.0	
429.9	CARBONDALE		SHALE	12.4	19.0	
417.5	CARBONDALE		LIMESTONE	4.7	31.4	
412.8	CARBONDALE		BLACK SHALE	4.6	36.1	
408.2	CARBONDALE	BRERETON	LIMESTONE	0.6	40.7	
407.6	CARBONDALE	ANNA	BLACK SHALE	1.0	41.3	
406.6	CARBONDALE	HERRIN	COAL	7.2	42.3	

MAPID: 15701447000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 13 QUARTERS/FOOTAGES: 240' S line, 5' E line of SW SW

QUADRANGLE: PERCY LONGITUDE: -89.608158 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.00068 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 460.0 LOGGED (FT.): 40.9 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO. 439P WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
460.0	PLEISTOCENE		UNCONSOLIDATED	21.0	0.0	
439.0	CARBONDALE		COAL	0.5	21.0	
438.5	CARBONDALE		BLACK SHALE	1.5	21.5	
437.0	CARBONDALE		LIMESTONE	2.3	23.0	
434.7	CARBONDALE		BLACK SHALE	2.2	25.3	WITH SHALE
432.6	CARBONDALE		LIMESTONE	0.3	27.4	
432.2	CARBONDALE		BLACK SHALE	4.0	27.8	WITH SHALE
428.2	CARBONDALE		SHALE	2.2	31.8	
426.1	CARBONDALE	HERRIN	COAL	7.0	33.9	

MAPID: 15701448000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 13 QUARTERS/FOOTAGES: 350' S line, 340' E line of SW SW

QUADRANGLE: PERCY LONGITUDE: -89.609313 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.000983 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 450.6 LOGGED (FT.): 55.0 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO. 437K WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
450.6	PLEISTOCENE		UNCONSOLIDATED	20.7	0.0	
429.9	PLEISTOCENE		GRAVEL	5.4	20.7	
424.5	CARBONDALE		SHALE	17.3	26.1	
407.2	CARBONDALE		LIMESTONE	4.3	43.4	
402.8	CARBONDALE		SHALE	3.5	47.8	
399.3	CARBONDALE		BLACK SHALE	1.3	51.3	
398.1	CARBONDALE	HERRIN	COAL	2.5	52.5	

MAPID: 15701449000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 6S 5W **SECTION:** 13 **QUARTERS/FOOTAGES:** NW SW
QUADRANGLE: PERCY **LONGITUDE:** -89.610244 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 38.005391 **DATE COLLECTED:** 0 / 0 / 1928
SURFACE ELEVATION (FT.): 455.6 **LOGGED (FT.):** 52.9 **LOG TYPE:** Drillers Log
SOURCE: WILLIS COAL & MNG. CO 4281 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
455.6	PLEISTOCENE		UNCONSOLIDATED	17.8	0.0	
437.8	PLEISTOCENE		BOULDER	0.5	17.8	
437.3	PLEISTOCENE		SOIL	17.0	18.3	
420.3	CARBONDALE		SHALE	1.3	35.3	
419.0	CARBONDALE		LIMESTONE	5.6	36.6	
413.4	CARBONDALE		SHALE	4.3	42.2	
409.2	CARBONDALE	HERRIN	COAL	6.5	46.4	

MAPID: 15701450000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 6S 5W **SECTION:** 13 **QUARTERS/FOOTAGES:**
QUADRANGLE: PERCY **LONGITUDE:** -89.603283 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 38.007148 **DATE COLLECTED:** 0 / 0 / 1920
SURFACE ELEVATION (FT.): 489.5 **LOGGED (FT.):** 128.3 **LOG TYPE:** Drillers Log
SOURCE: WILLIS COAL & MINING 28 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
489.5			UNCLASSIFIED	122.0	0.0	DOWN TO TOP COAL
367.5	CARBONDALE	HERRIN	COAL	6.3	122.0	

MAPID: 15700319000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 6S 5W **SECTION:** 14 **QUARTERS/FOOTAGES:** SW SE
QUADRANGLE: PERCY **LONGITUDE:** -89.619536 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 38.001812 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 474.0 **LOGGED (FT.):** 32.3 **LOG TYPE:** Drillers Log
SOURCE: UNITED ELECTRIC COAL CO. 307 **WELL TYPE:** Coal Test
COMMENT: COAL TEST

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
474.0			UNKNOWN	27.0	0.0	
447.0			COAL	5.3	27.0	

MAPID: 15700320000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 6S 5W **SECTION:** 14 **QUARTERS/FOOTAGES:** SW NE
QUADRANGLE: PERCY **LONGITUDE:** -89.619245 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 38.008976 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 490.0 **LOGGED (FT.):** 47.2 **LOG TYPE:** Drillers Log
SOURCE: UNITED ELECTRIC COAL CO. 357 **WELL TYPE:** Coal Test
COMMENT: COAL TEST

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
490.0			UNKNOWN	41.0	0.0	
449.0			COAL	6.2	41.0	

MAPID: 15700321000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 6S 5W **SECTION:** 14 **QUARTERS/FOOTAGES:** 45' S line, 40' W line of SW NW
QUADRANGLE: STEELEVILLE **LONGITUDE:** -89.630613 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 38.007291 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 455.0 **LOGGED (FT.):** 28.1 **LOG TYPE:** Drillers Log
SOURCE: UNITED ELECTRIC COAL CO. 355 **WELL TYPE:** Coal Test
COMMENT: COAL TEST

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
455.0			UNKNOWN	23.0	0.0	
432.0			COAL	5.1	23.0	

MAPID: 15700627000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 14 QUARTERS/FOOTAGES: 300' S line, 400' W line of NW

QUADRANGLE: STEELEVILLE LONGITUDE: -89.629337 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.007996 DATE COLLECTED: 0 / 0 / 1938

SURFACE ELEVATION (FT.): 460.3 LOGGED (FT.): 541.0 LOG TYPE: Drillers Log

SOURCE: SOUTHWESTERN ILLINOIS COAL CO.2 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
460.3	PLEISTOCENE		CLAY	22.0	0.0	
438.3	CARBONDALE		LIMESTONE	9.0	22.0	
429.3	CARBONDALE		SHALE	7.0	31.0	BLACK
422.3	CARBONDALE		SHALE	10.0	38.0	
412.3	CARBONDALE		SHALE	5.0	48.0	WHITE
407.3	CARBONDALE		SANDSTONE	23.0	53.0	
384.3	CARBONDALE		SHALE	6.0	76.0	
378.3	CARBONDALE		BLACK SHALE	3.0	82.0	
375.3	CARBONDALE		COAL	3.0	85.0	
372.3	CARBONDALE		LIMESTONE	3.0	88.0	
369.3	CARBONDALE		SHALE	41.0	91.0	
328.3	CARBONDALE		LIMESTONE	3.0	132.0	
325.3	CARBONDALE		SHALE	5.0	135.0	BLACK
320.3	CARBONDALE		LIMESTONE & SHALE	3.0	140.0	
317.3	CARBONDALE		LIMESTONE	2.0	143.0	BROKEN
315.3	CARBONDALE		SANDSTONE	27.0	145.0	
288.3	CARBONDALE		SHALE	32.0	172.0	
256.3	CARBONDALE		SHALE	43.0	204.0	WHITE
213.3	CARBONDALE		SANDSTONE	123.0	247.0	
90.3	CARBONDALE		SHALE	31.0	370.0	
59.3	CARBONDALE		SANDSTONE	12.0	401.0	
47.3	CARBONDALE		SANDY SHALE	13.0	413.0	SANDY
34.3	CARBONDALE		LIMESTONE	12.0	426.0	SANDY
22.3	CARBONDALE		SANDSTONE	4.0	438.0	
18.3	CARBONDALE		SHALE	18.0	442.0	BROKEN
0.3	CARBONDALE		SANDY SHALE	81.0	460.0	SANDY

MAPID: 15700628000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 14 QUARTERS/FOOTAGES: 0' N line, 1320' E line

QUADRANGLE: PERCY LONGITUDE: -89.616703 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.014359 DATE COLLECTED: 3 / 5 / 1921

SURFACE ELEVATION (FT.): 480.0 LOGGED (FT.): 135.8 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. 6 WELL TYPE: Coal Test

COMMENT: DIAMOND CORE DRILL

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
480.0	PLEISTOCENE		UNCONSOLIDATED	38.0	0.0	
442.0	CARBONDALE		SHALE	6.0	38.0	SOFT
436.0	CARBONDALE		LIMESTONE	0.3	44.0	DARK GRAY
435.7	CARBONDALE		VARRIGATED SHALE	6.8	44.3	MIXED
429.0	CARBONDALE		SHALE & CLAYSTONE	15.0	51.0	BLUISH
414.0	CARBONDALE		COAL	0.5	66.0	WITH SHALE
413.5	CARBONDALE		UNDERCLAY	2.5	66.5	
411.0	CARBONDALE		LIMESTONE	10.0	69.0	HARD; DARK GRAY
401.0	CARBONDALE		DARK SHALE	6.5	79.0	
394.5	CARBONDALE		CLAYSTONE & LIMESTONE	6.5	85.5	
388.0	CARBONDALE		LIMESTONE	3.0	92.0	GRAY
385.0	CARBONDALE		UNDERCLAY	6.0	95.0	SANDY
379.0	CARBONDALE		LIMESTONE	5.5	101.0	GRAY
373.5	CARBONDALE		SHALE	3.5	106.5	
370.0	CARBONDALE		LIMESTONE	4.0	110.0	SHELLY; DARK
366.0	CARBONDALE		LIMESTONE	1.5	114.0	HARD AND DARK
364.5	CARBONDALE		LIMESTONE	1.5	115.5	SHELLY; DARK
363.0	CARBONDALE		COAL	0.3	117.0	
362.7	CARBONDALE		SHALE	4.0	117.3	DARK
358.7	CARBONDALE		LIMESTONE	5.8	121.3	DARK; BLUISH
353.0	CARBONDALE		BLACK SHALE	2.5	127.0	
350.5	CARBONDALE		COAL	6.3	129.5	

MAPID: 15700628000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 14 QUARTERS/FOOTAGES: 0' N line, 1320' E line

QUADRANGLE: PERCY LONGITUDE: -89.616703 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.014359 DATE COLLECTED:

SURFACE ELEVATION (FT.): 496.0 LOGGED (FT.): 136.3 LOG TYPE: Drillers Log

SOURCE: WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
426.5	MODESTO	PIASA	LIMESTONE	10.0	69.5
416.5	CARBONDALE		CLAYSTONE	6.5	79.5
410.0	CARBONDALE		CLAYSTONE	6.5	86.0
403.5	CARBONDALE	BANKSTON FORK	LIMESTONE & SHALE	3.0	92.5
400.5	CARBONDALE	BANKSTON FORK	CLAYSTONE	6.0	95.5
394.5	CARBONDALE	BANKSTON FORK	LIMESTONE	5.5	101.5
389.0	CARBONDALE	LAWSON	DARK GRAY SHALE	3.5	107.0
385.5	CARBONDALE	CONANT	LIMESTONE & SHALE	7.0	110.5
378.5	CARBONDALE	JAMESTOWN	COAL	0.3	117.5
378.3	CARBONDALE		DARK GRAY SHALE	4.0	117.7
374.3	CARBONDALE	BRERETON	LIMESTONE & SHALE	5.8	121.7
368.5	CARBONDALE	ANNA	BLACK SHALE	2.5	127.5
366.0	CARBONDALE	HERRIN	COAL	6.3	130.0

MAPID: 15700629000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 14 QUARTERS/FOOTAGES: NE NE NE NE

QUADRANGLE: PERCY LONGITUDE: -89.612693 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.01393 DATE COLLECTED: 0 / 0 / 1960

SURFACE ELEVATION (FT.): 430.5 LOGGED (FT.): 489.0 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MINING CO. 11 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
430.5	PLEISTOCENE		UNCONSOLIDATED	42.0	0.0	
388.5	CARBONDALE		LIMESTONE	6.0	42.0	
382.5	CARBONDALE		LIMESTONE	1.5	48.0	BLUE
381.0	CARBONDALE		SHALE	4.0	49.5	
377.0	CARBONDALE		LIMESTONE	4.5	53.5	
372.5	CARBONDALE		SHALE	2.0	58.0	
370.5	CARBONDALE		BLACK SHALE	3.0	60.0	
367.5	CARBONDALE	HERRIN	COAL	6.0	63.0	
361.5	CARBONDALE		UNDERCLAY	3.0	69.0	
358.5	CARBONDALE		LIMESTONE	4.0	72.0	
354.5	CARBONDALE		SHALE	4.0	76.0	HARD
350.5	CARBONDALE	ST. DAVID	LIMESTONE	5.0	80.0	BLUE
345.5	CARBONDALE	SPRINGFIELD	MINE OPENING	3.0	85.0	
342.5	CARBONDALE		UNDERCLAY	5.0	88.0	
337.5	CARBONDALE		SHALE	1.0	93.0	HARD
336.5	CARBONDALE		SANDY SHALE	44.0	94.0	SANDY
292.5	CARBONDALE		LIMESTONE	1.0	138.0	
291.5	CARBONDALE		BLACK SHALE	2.0	139.0	
289.5	CARBONDALE		COAL	1.0	141.0	
288.5	CARBONDALE		UNDERCLAY	10.0	142.0	
278.5	CARBONDALE		SHALE	49.0	152.0	
229.5	CARBONDALE		LIMESTONE	2.0	201.0	
227.5	CARBONDALE		BLACK SHALE	8.0	203.0	
219.5	CARBONDALE		COAL	1.0	211.0	
218.5	CARBONDALE		SHALE	4.0	212.0	
214.5	CARBONDALE		UNDERCLAY	4.0	216.0	
210.5	CARBONDALE		SANDY SHALE	8.0	220.0	SANDY
202.5	CARBONDALE		BLACK SHALE & COAL	1.0	228.0	
201.5	CARBONDALE		UNDERCLAY	3.0	229.0	
198.5	CARBONDALE		SHALE	13.0	232.0	
185.5	CARBONDALE		SANDY SHALE	10.0	245.0	SANDY
175.5	CARBONDALE		SANDSTONE	7.0	255.0	
168.5	CARBONDALE		BLACK SHALE	3.0	262.0	
165.5	CARBONDALE		COAL	1.0	265.0	
164.5	CARBONDALE		UNDERCLAY	2.0	266.0	DARK
162.5	CARBONDALE		UNDERCLAY	14.0	268.0	
148.5	CARBONDALE		SANDSTONE	7.0	282.0	LIGHT
141.5	CARBONDALE		SHALE	11.0	289.0	
130.5	CARBONDALE		SANDSTONE	3.0	300.0	

127.5	CARBONDALE	SHALE	3.0	303.0	
124.5	CARBONDALE	SANDSTONE	1.0	306.0	
123.5	CARBONDALE	SHALE	3.0	307.0	LIGHT
120.5	CARBONDALE	SANDSTONE	1.0	310.0	
119.5	CARBONDALE	SHALE	5.0	311.0	BLUE
114.5	CARBONDALE	SANDSTONE	84.0	316.0	
30.5	CARBONDALE	SHALE	5.0	400.0	
25.5	CARBONDALE	SHALE	56.0	405.0	LIGHT
-30.5	CARBONDALE	SANDSTONE	16.0	461.0	
-46.5	CARBONDALE	SANDSTONE	3.0	477.0	
-49.5	CARBONDALE	SANDY SHALE	5.0	480.0	SANDY
-54.5	CARBONDALE	SHALE	4.0	485.0	LIGHT

MAPID: 15701129000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 6S 5W **SECTION:** 14 **QUARTERS/FOOTAGES:** 660' S line, 660' E line of SW NW
QUADRANGLE: STEELEVILLE **LONGITUDE:** -89.628425 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 38.008991 **DATE COLLECTED:** 0 / 0 / 1928
SURFACE ELEVATION (FT.): 460.0 **LOGGED (FT.):** 43.3 **LOG TYPE:** Drillers Log
SOURCE: WILLIS COAL & MNG. CO 415F **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
460.0	PLEISTOCENE		UNCONSOLIDATED	25.0	0.0
435.0	PLEISTOCENE		GRAVEL	4.0	25.0
431.0	CARBONDALE		COAL	0.2	29.0
430.8	CARBONDALE		SHALE	12.5	29.2
418.3	CARBONDALE		LIMESTONE	1.7	41.7

MAPID: 15701130000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 6S 5W **SECTION:** 14 **QUARTERS/FOOTAGES:** 1000' S line, 335' E line of SW NW
QUADRANGLE: STEELEVILLE **LONGITUDE:** -89.627261 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 38.009931 **DATE COLLECTED:** 0 / 0 / 1928
SURFACE ELEVATION (FT.): 457.1 **LOGGED (FT.):** 43.2 **LOG TYPE:** Drillers Log
SOURCE: WILLIS COAL & MNG. CO 415C **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
457.1	PLEISTOCENE		UNCONSOLIDATED	36.9	0.0
420.2	CARBONDALE		ROCK	1.0	36.9 SOFT
419.2	CARBONDALE	HERRIN	COAL	5.3	37.9

MAPID: 15701131000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 14 QUARTERS/FOOTAGES:

QUADRANGLE: PERCY LONGITUDE: -89.621604

GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.007182

DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 465.1 LOGGED (FT.): 43.1

LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO 4150

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
465.1	PLEISTOCENE		UNCONSOLIDATED	21.8	0.0	
443.3	CARBONDALE		LIMESTONE	5.4	21.8	
437.8	CARBONDALE		SHALE	0.9	27.3	
436.9	CARBONDALE	BRERETON	LIMESTONE	10.0	28.2	SOFT
426.9	CARBONDALE	HERRIN	COAL	4.9	38.2	

MAPID: 15701134000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 14 QUARTERS/FOOTAGES: SE NE

QUADRANGLE: PERCY LONGITUDE: -89.614656

GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.008986

DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 464.3 LOGGED (FT.): 51.3

LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO 4181

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
464.3	PLEISTOCENE		UNCONSOLIDATED	12.0	0.0	
452.3	CARBONDALE		LIMESTONE	5.2	12.0	
447.1	CARBONDALE		SHALE	4.1	17.2	
443.0	CARBONDALE		LIMESTONE	3.8	21.3	
439.2	CARBONDALE		SHALE	13.2	25.1	
426.0	CARBONDALE	BRERETON	LIMESTONE	6.5	38.3	
419.5	CARBONDALE	ANNA	BLACK SHALE	0.5	44.8	
419.0	CARBONDALE	HERRIN	COAL	6.0	45.3	

MAPID: 15701136000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 14 QUARTERS/FOOTAGES: 990' S line, 1000' E line of NW SW

QUADRANGLE: STEELEVILLE LONGITUDE: -89.629693

GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.006337

DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 459.6 LOGGED (FT.): 32.3

LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO 424A

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
459.6	PLEISTOCENE		UNCONSOLIDATED	26.0	0.0	
433.6	CARBONDALE	HERRIN	COAL	6.3	26.0	

MAPID: 15701141000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 14 QUARTERS/FOOTAGES: 670' S line, 660' E line of NW SW

QUADRANGLE: STEELEVILLE LONGITUDE: -89.628537 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.005455 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 465.3 LOGGED (FT.): 37.8 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO 424F WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
465.3	PLEISTOCENE		UNCONSOLIDATED	31.0	0.0
434.3	PLEISTOCENE		GRAVEL	1.3	31.0
433.0	CARBONDALE	TURNER MINE	BLACK SHALE	1.3	32.3
431.7	CARBONDALE	SPRINGFIELD	COAL	4.2	33.6

MAPID: 15701149000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 14 QUARTERS/FOOTAGES: 340' S line, 995' E line of NW SW

QUADRANGLE: STEELEVILLE LONGITUDE: -89.629736 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.004542 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 454.4 LOGGED (FT.): 17.0 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO 424I WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
454.4	PLEISTOCENE		UNCONSOLIDATED	16.5	0.0
437.9	CARBONDALE		LIMESTONE	0.5	16.5

MAPID: 15701161000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 14 QUARTERS/FOOTAGES: 980' S line, 990' E line of NE SW

QUADRANGLE: PERCY LONGITUDE: -89.625091 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.006309 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 478.0 LOGGED (FT.): 32.3 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO 425A WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
478.0	PLEISTOCENE		UNCONSOLIDATED	14.5	0.0
463.5	CARBONDALE		SANDSTONE	1.2	14.5
462.3	CARBONDALE	BRERETON	LIMESTONE	6.3	15.7
456.0	CARBONDALE	ANNA	BLACK SHALE	3.7	22.0
452.3	CARBONDALE	HERRIN	COAL	6.7	25.7

MAPID: 15701162000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 14 QUARTERS/FOOTAGES: 985' S line, 350' E line of NE SW

QUADRANGLE: PERCY LONGITUDE: -89.622858 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.006322 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 490.1 LOGGED (FT.): 54.8 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO 425C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
490.1	PLEISTOCENE		UNCONSOLIDATED	15.0	0.0
475.1	CARBONDALE		LIMESTONE	7.3	15.0
467.8	CARBONDALE		SHALE	3.0	22.3
464.8	CARBONDALE		LIMESTONE	3.3	25.3
461.4	CARBONDALE		BLACK SHALE	4.8	28.7
456.7	CARBONDALE		COAL	1.1	33.4
455.6	CARBONDALE		BLACK SHALE	2.5	34.5
453.1	CARBONDALE		LIMESTONE	4.3	37.0
448.8	CARBONDALE		BLACK SHALE	6.6	41.3
442.3	CARBONDALE	HERRIN	COAL	7.0	47.8

MAPID: 15701163000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 14 QUARTERS/FOOTAGES: 660' S line, 670' E line of NE SW

QUADRANGLE: PERCY LONGITUDE: -89.624008 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.005426 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 488.4 LOGGED (FT.): 46.5 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO. 425F WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
488.4	PLEISTOCENE		UNCONSOLIDATED	18.8	0.0
469.6	CARBONDALE		LIMESTONE	3.7	18.8
466.0	CARBONDALE		SHALE	4.6	22.4
461.4	CARBONDALE		LIMESTONE	2.8	27.0
458.6	CARBONDALE		SHALE	2.8	29.8
455.8	CARBONDALE	BRERETON	LIMESTONE	5.2	32.6
450.7	CARBONDALE	ANNA	BLACK SHALE	2.9	37.7
447.7	CARBONDALE	HERRIN	COAL	5.8	40.7

MAPID: 15701164000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 14 QUARTERS/FOOTAGES: 10' S line, 630' E line of NE SW

QUADRANGLE: PERCY LONGITUDE: -89.623935 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.003632 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 481.1 LOGGED (FT.): 41.0 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO 425N WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
481.1	PLEISTOCENE		UNCONSOLIDATED	20.2	0.0
460.9	CARBONDALE		SHALE	0.7	20.2
460.3	CARBONDALE		LIMESTONE	0.3	20.8
459.9	CARBONDALE		CLAYSTONE	4.4	21.2
455.5	CARBONDALE	BRERETON	LIMESTONE	5.5	25.6
450.0	CARBONDALE		SHALE	1.3	31.1
448.8	CARBONDALE	ANNA	BLACK SHALE	2.7	32.3
446.1	CARBONDALE	HERRIN	COAL	6.0	35.0

MAPID: 15701169000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 14 QUARTERS/FOOTAGES: 670' S line, 660' E line of NW SE

QUADRANGLE: PERCY LONGITUDE: -89.619406 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.005453 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 479.8 LOGGED (FT.): 49.8 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO 426F WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
479.8	PLEISTOCENE		UNCONSOLIDATED	29.7	0.0
450.1	CARBONDALE		BLACK SHALE	0.5	29.7
449.6	CARBONDALE		COAL	0.2	30.2
449.5	CARBONDALE		LIMESTONE	0.3	30.3
449.1	CARBONDALE		SHALE	1.3	30.7
447.8	CARBONDALE		LIMESTONE	5.8	32.0
442.0	CARBONDALE		BLACK SHALE	4.7	37.8
437.3	CARBONDALE	HERRIN	COAL	7.3	42.5

MAPID: 1570117000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 14 QUARTERS/FOOTAGES: 345' S line, 995' E line of NW SE

QUADRANGLE: PERCY

LONGITUDE: -89.620616

GEOLOGIST: HOKE

CONFIDENTIAL: N

LATITUDE: 38.004555

DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 478.6

LOGGED (FT.): 23.6

LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO 426I

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
478.6	PLEISTOCENE		UNCONSOLIDATED	21.6	0.0
457.0	CARBONDALE		LIMESTONE	2.0	21.6

MAPID: 15701173000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 14 QUARTERS/FOOTAGES: 350' S line, 340' E line of NW SE

QUADRANGLE: PERCY

LONGITUDE: -89.61833

GEOLOGIST: HOKE

CONFIDENTIAL: N

LATITUDE: 38.004568

DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 470.4

LOGGED (FT.): 45.3

LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO. 426K

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
470.4	PLEISTOCENE		UNCONSOLIDATED	8.0	0.0
462.4	CARBONDALE		LIMESTONE	5.1	8.0
457.3	CARBONDALE		SHALE	3.4	13.1
453.9	CARBONDALE		LIMESTONE	3.1	16.5
450.8	CARBONDALE		BLACK SHALE	5.0	19.6 WITH SHALE
445.8	CARBONDALE		COAL	0.3	24.6
445.6	CARBONDALE		LIMESTONE	0.9	24.8
444.6	CARBONDALE		SHALE	2.0	25.8
442.6	CARBONDALE	BRERETON	LIMESTONE	6.9	27.8
435.7	CARBONDALE	ANNA	BLACK SHALE	3.5	34.7
432.2	CARBONDALE	HERRIN	COAL	7.2	38.2

MAPID: 15701174000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 14 QUARTERS/FOOTAGES: 1000' S line, 980' E line of NE SE

QUADRANGLE: PERCY LONGITUDE: -89.615915 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.006362 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 471.5 LOGGED (FT.): 44.4 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO. 427A WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
471.5	PLEISTOCENE		UNCONSOLIDATED	31.0	0.0
440.5	CARBONDALE	BRERETON	LIMESTONE	6.0	31.0
434.5	CARBONDALE	ANNA	BLACK SHALE	1.4	37.0
433.1	CARBONDALE	HERRIN	COAL	6.0	38.4

MAPID: 15701175000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 14 QUARTERS/FOOTAGES: 995' S line, 330' E line of NE SE

QUADRANGLE: PERCY LONGITUDE: -89.613647 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.006348 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 451.6 LOGGED (FT.): 35.9 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO. 427C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
451.6	PLEISTOCENE		UNCONSOLIDATED	19.1	0.0
432.5	CARBONDALE		BLACK SHALE	4.1	19.1
428.4	CARBONDALE	BRERETON	LIMESTONE	3.5	23.2
424.9	CARBONDALE	ANNA	BLACK SHALE	3.0	26.7
421.9	CARBONDALE	HERRIN	COAL	6.3	29.7

MAPID: 15701176000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 14 QUARTERS/FOOTAGES: 670' S line, 650' E line of NE SE

QUADRANGLE: PERCY LONGITUDE: -89.614808 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.005453 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 470.0 LOGGED (FT.): 41.7 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO. 427F WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
470.0	PLEISTOCENE		UNCONSOLIDATED	21.3	0.0
448.7	CARBONDALE		SHALE	5.0	21.3
443.7	CARBONDALE		LIMESTONE	4.8	26.3
438.8	CARBONDALE		BLACK SHALE	4.2	31.2
434.7	CARBONDALE	HERRIN	COAL	6.3	35.3

MAPID: 15701177000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 14 QUARTERS/FOOTAGES: 340' S line, 970' E line of NE SE

QUADRANGLE: PERCY LONGITUDE: -89.615972 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.00454 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 460.4 LOGGED (FT.): 34.6 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO. 427I WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
460.4	PLEISTOCENE		UNCONSOLIDATED	8.0	0.0
452.4	CARBONDALE		LIMESTONE	1.5	8.0
450.9	CARBONDALE		SHALE	5.2	9.5
445.7	CARBONDALE		COAL	0.2	14.7
445.6	CARBONDALE		SHALE	3.6	14.8
442.0	CARBONDALE	BRERETON	LIMESTONE	5.4	18.4
436.6	CARBONDALE	ANNA	BLACK SHALE	0.8	23.8
435.8	CARBONDALE	HERRIN	COAL	10.0	24.6

MAPID: 15701178000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 14 QUARTERS/FOOTAGES: 340' S line, 330' E line of NE SE

QUADRANGLE: PERCY LONGITUDE: -89.613739 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.00454 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 445.6 LOGGED (FT.): 25.6 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO. 427K WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
445.6	PLEISTOCENE		UNCONSOLIDATED	10.1	0.0
435.5	CARBONDALE		LIMESTONE	5.2	10.1
430.3	CARBONDALE		BLACK SHALE	4.0	15.3
426.3	CARBONDALE	HERRIN	COAL	6.3	19.3

MAPID: 1570118000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 14 QUARTERS/FOOTAGES: 990' S line, 990' E line of SW SW

QUADRANGLE: STEELEVILLE LONGITUDE: -89.629774

GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.002773

DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 457.0 LOGGED (FT.): 37.0

LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO 433A

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
457.0	PLEISTOCENE		UNCONSOLIDATED	25.2	0.0
431.8	CARBONDALE		LIMESTONE	1.0	25.2
430.8	CARBONDALE		SHALE	4.8	26.2
426.0	CARBONDALE		LIMESTONE	0.8	31.0
425.2	CARBONDALE	ANNA	BLACK SHALE	0.5	31.8
424.7	CARBONDALE	HERRIN	COAL	4.7	32.3

MAPID: 15701182000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 14 QUARTERS/FOOTAGES: 660' S line, 690' E line of SW SW

QUADRANGLE: STEELEVILLE LONGITUDE: -89.628757

GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.00186

DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 458.1 LOGGED (FT.): 41.3

LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO. 433F

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
458.1	PLEISTOCENE		UNCONSOLIDATED	27.5	0.0
430.6	CARBONDALE		LIMESTONE	1.0	27.5
429.6	CARBONDALE		SHALE	0.3	28.5
429.3	CARBONDALE	HERRIN	COAL	4.8	28.8
424.4	CARBONDALE		SHALE	0.7	33.7
423.7	CARBONDALE		LIMESTONE	1.7	34.4
422.0	CARBONDALE	TURNER MINE	BLACK SHALE	0.5	36.1
421.5	CARBONDALE	SPRINGFIELD	COAL	4.7	36.6

MAPID: 15701183000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 14 QUARTERS/FOOTAGES: 310' S line, 1010' E line of SW SW

QUADRANGLE: STEELEVILLE

LONGITUDE: -89.629904

GEOLOGIST: HOKE

CONFIDENTIAL: N

LATITUDE: 38.000895

DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 442.3

LOGGED (FT.): 32.1

LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO. 433I

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
442.3	PLEISTOCENE		UNCONSOLIDATED	11.0	0.0	
431.3	CARBONDALE		ROCK	14.3	11.0	SOFT
417.0	CARBONDALE		SHALE	0.9	25.3	
416.0	CARBONDALE	BRERETON	LIMESTONE	0.8	26.3	
415.2	CARBONDALE	HERRIN	COAL	5.0	27.1	

MAPID: 15701184000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 14 QUARTERS/FOOTAGES: 215' S line, 300' E line of SW SW

QUADRANGLE: STEELEVILLE

LONGITUDE: -89.627433

GEOLOGIST: HOKE

CONFIDENTIAL: N

LATITUDE: 38.00063

DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 451.8

LOGGED (FT.): 44.2

LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO 433K

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
451.8	PLEISTOCENE		UNCONSOLIDATED	29.8	0.0	
422.0	PLEISTOCENE		BOULDER	0.3	29.8	
421.6	PLEISTOCENE		CLAY	1.3	30.2	
420.3	CARBONDALE		ROCK	5.7	31.5	
414.6	CARBONDALE		SHALE	1.1	37.2	
413.5	CARBONDALE		ROCK	1.3	38.3	
412.2	CARBONDALE	ANNA	BLACK SHALE	0.3	39.6	
411.9	CARBONDALE	HERRIN	COAL	4.3	39.9	

MAPID: 15701193000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 14 QUARTERS/FOOTAGES: 980' S line, 960' E line of SE SW

QUADRANGLE: STEELEVILLE LONGITUDE: -89.62512 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.002736 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 473.6 LOGGED (FT.): 35.2 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO. 434A WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
473.6	PLEISTOCENE		UNCONSOLIDATED	20.0	0.0
453.6	CARBONDALE	BRERETON	LIMESTONE	9.0	20.0
444.6	CARBONDALE	HERRIN	COAL	6.2	29.0

MAPID: 15701194000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 14 QUARTERS/FOOTAGES: 970' S line, 350' E line of SW

QUADRANGLE: PERCY LONGITUDE: -89.622995 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.002706 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 480.1 LOGGED (FT.): 36.7 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO. 434C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
480.1	PLEISTOCENE		UNCONSOLIDATED	20.7	0.0
459.4	CARBONDALE		LIMESTONE	5.0	20.7
454.4	CARBONDALE		BLACK SHALE	5.0	25.7
449.4	CARBONDALE	HERRIN	COAL	6.0	30.7

MAPID: 15701197000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 14 QUARTERS/FOOTAGES: 660' S line, 650' E line of SW

QUADRANGLE: PERCY LONGITUDE: -89.624075 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.001851 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 478.1 LOGGED (FT.): 37.0 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO. 434F WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
478.1	PLEISTOCENE		UNCONSOLIDATED	20.2	0.0
457.9	PLEISTOCENE		BOULDER	1.0	20.2
456.9	PLEISTOCENE		CLAY	4.3	21.2
452.6	CARBONDALE		SANDSTONE	0.8	25.5
451.8	CARBONDALE		SHALE	2.6	26.3
449.3	CARBONDALE	BRERETON	LIMESTONE	2.5	28.8
446.8	CARBONDALE	HERRIN	COAL	5.7	31.3

MAPID: 1570120000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 14 QUARTERS/FOOTAGES: 330' S line, 970' E line of SE SW

QUADRANGLE: STEELEVILLE

LONGITUDE: -89.625225

GEOLOGIST: HOKE

CONFIDENTIAL: N

LATITUDE: 38.000945

DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 466.7

LOGGED (FT.): 50.8

LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO. 434I

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
466.7	PLEISTOCENE		UNCONSOLIDATED	33.0	0.0	
433.7	CARBONDALE		LIMESTONE	5.8	33.0	SOFT
427.9	CARBONDALE	BRERETON	LIMESTONE	7.0	38.8	
420.9	CARBONDALE	HERRIN	COAL	5.0	45.8	

MAPID: 15701202000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 14 QUARTERS/FOOTAGES: 340' S line, 340' E line of SW

QUADRANGLE: PERCY

LONGITUDE: -89.623027

GEOLOGIST: HOKE

CONFIDENTIAL: N

LATITUDE: 38.000966

DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 478.8

LOGGED (FT.): 37.8

LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO. 434K

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
478.8	PLEISTOCENE		UNCONSOLIDATED	20.5	0.0	
458.3	CARBONDALE		SHALE	5.8	20.5	
452.5	CARBONDALE	BRERETON	LIMESTONE	5.3	26.3	
447.3	CARBONDALE	HERRIN	COAL	6.3	31.5	

MAPID: 15701207000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 14 QUARTERS/FOOTAGES: 990' S line, 1020' E line of SW SE

QUADRANGLE: PERCY

LONGITUDE: -89.620784

GEOLOGIST: HOKE

CONFIDENTIAL: N

LATITUDE: 38.002758

DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 470.7

LOGGED (FT.): 38.6

LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO. 435A

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
470.7	PLEISTOCENE		UNCONSOLIDATED	38.0	0.0	
432.7	CARBONDALE		LIMESTONE	0.6	38.0	

MAPID: 15701209000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 14 QUARTERS/FOOTAGES: 970' S line, 360' E line of SW SE

QUADRANGLE: PERCY LONGITUDE: -89.618481 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.002696 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 475.0 LOGGED (FT.): 43.8 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO. 435C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
475.0	PLEISTOCENE		UNCONSOLIDATED	31.0	0.0
444.0	CARBONDALE		LIMESTONE	2.1	31.0
441.9	CARBONDALE		BLACK SHALE	4.8	33.1
437.1	CARBONDALE	HERRIN	COAL	5.9	37.9

MAPID: 15701213000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 14 QUARTERS/FOOTAGES: 650' S line, 680' E line of SW SE

QUADRANGLE: PERCY LONGITUDE: -89.619638 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.001817 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 455.4 LOGGED (FT.): 41.7 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO. 435F WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
455.4	PLEISTOCENE		UNCONSOLIDATED	29.0	0.0
426.4	PLEISTOCENE		BOULDER	1.3	29.0
425.1	PLEISTOCENE		CLAY	3.0	30.3
422.1	CARBONDALE		SHALE	1.7	33.3
420.4	CARBONDALE		LIMESTONE	0.8	35.0
419.6	CARBONDALE		SHALE	1.3	35.8
418.4	CARBONDALE	HERRIN	COAL	4.7	37.0

MAPID: 15701218000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 14 QUARTERS/FOOTAGES: 330' S line, 1000' E line of SW SE

QUADRANGLE: PERCY LONGITUDE: -89.620791 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.000936 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 467.6 LOGGED (FT.): 34.8 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO. 435I WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
467.6	PLEISTOCENE		UNCONSOLIDATED	28.6	0.0
439.0	CARBONDALE		SHALE	1.0	28.6
438.0	CARBONDALE	HERRIN	COAL	5.2	29.6

MAPID: 15701219000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 14 QUARTERS/FOOTAGES: 340' S line, 360' E line of SW SE

QUADRANGLE: PERCY

LONGITUDE: -89.618558

GEOLOGIST: HOKE

CONFIDENTIAL: N

LATITUDE: 38.00096

DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 453.6

LOGGED (FT.): 39.2

LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO. 435K

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
453.6	PLEISTOCENE		UNCONSOLIDATED	12.0	0.0
441.6	CARBONDALE		LIMESTONE	2.0	12.0
439.6	CARBONDALE		SHALE	13.2	14.0
426.4	CARBONDALE		LIMESTONE	1.0	27.2
425.4	CARBONDALE		SHALE	3.0	28.2
422.4	CARBONDALE		LIMESTONE	1.3	31.2
421.1	CARBONDALE		SHALE	2.2	32.5
418.9	CARBONDALE	HERRIN	COAL	4.5	34.7

MAPID: 15701224000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 14 QUARTERS/FOOTAGES: 990' S line, 990' E line of SE

QUADRANGLE: PERCY

LONGITUDE: -89.616129

GEOLOGIST: HOKE

CONFIDENTIAL: N

LATITUDE: 38.002749

DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 471.3

LOGGED (FT.): 51.0

LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO. 436A

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
471.3	PLEISTOCENE		UNCONSOLIDATED	19.0	0.0
452.3	CARBONDALE		SHALE	5.8	19.0
446.5	CARBONDALE		LIMESTONE	1.0	24.8
445.5	CARBONDALE		SHALE	9.5	25.8
436.0	CARBONDALE	BRERETON	LIMESTONE	7.2	35.3
428.9	CARBONDALE	ANNA	BLACK SHALE	1.0	42.4
427.9	CARBONDALE	HERRIN	COAL	7.6	43.4

MAPID: 15701225000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 6S 5W **SECTION:** 14 **QUARTERS/FOOTAGES:** 990' S line, 340' E line of SE
QUADRANGLE: PERCY **LONGITUDE:** -89.613862 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 38.002745 **DATE COLLECTED:** 0 / 0 / 1928
SURFACE ELEVATION (FT.): 450.9 **LOGGED (FT.):** 28.3 **LOG TYPE:** Drillers Log
SOURCE: WILLIS COAL & MNG. CO. 436C **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
450.9	PLEISTOCENE		UNCONSOLIDATED	20.0	0.0	
430.9	CARBONDALE	ANNA	BLACK SHALE	2.2	20.0	
428.7	CARBONDALE	HERRIN	COAL	6.1	22.2	

MAPID: 15701226000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 6S 5W **SECTION:** 14 **QUARTERS/FOOTAGES:** 670' S line, 660' E line of SE
QUADRANGLE: PERCY **LONGITUDE:** -89.615022 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 38.001864 **DATE COLLECTED:** 0 / 0 / 1928
SURFACE ELEVATION (FT.): 469.9 **LOGGED (FT.):** 37.7 **LOG TYPE:** Drillers Log
SOURCE: WILLIS COAL & MNG. CO. 436F **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
469.9	PLEISTOCENE		UNCONSOLIDATED	24.0	0.0	
445.9	CARBONDALE		BLACK SHALE	6.7	24.0	
439.2	CARBONDALE		ROCK	1.0	30.7	
438.2	CARBONDALE	HERRIN	COAL	6.0	31.7	

MAPID: 15701227000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 14 QUARTERS/FOOTAGES: 330' S line, 990' E line of SE

QUADRANGLE: PERCY LONGITUDE: -89.616221 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.000926 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 472.5 LOGGED (FT.): 48.7 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO 436I WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
472.5	PLEISTOCENE		UNCONSOLIDATED	17.0	0.0
455.5	CARBONDALE		LIMESTONE	1.5	17.0
454.0	CARBONDALE		SHALE	7.5	18.5
446.5	CARBONDALE		COAL	0.5	26.0
446.0	CARBONDALE		SHALE	3.8	26.5
442.2	CARBONDALE		LIMESTONE	5.8	30.3
436.4	CARBONDALE		BLACK SHALE	1.0	36.1
435.4	CARBONDALE		COAL	0.8	37.1
434.7	CARBONDALE		BLACK SHALE	4.0	37.8
430.7	CARBONDALE	HERRIN	COAL	6.8	41.8

MAPID: 15701228000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 14 QUARTERS/FOOTAGES: 350' S line, 340' E line of SW SE

QUADRANGLE: PERCY LONGITUDE: -89.618488 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.000985 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 467.9 LOGGED (FT.): 41.8 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO. 436K WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
467.9	PLEISTOCENE		UNCONSOLIDATED	20.2	0.0
447.7	PLEISTOCENE		BOULDER	1.3	20.2
446.4	PLEISTOCENE		SAND	2.2	21.5
444.2	CARBONDALE		LIMESTONE	5.5	23.7
438.7	CARBONDALE		BLACK SHALE	6.8	29.2
431.9	CARBONDALE	HERRIN	COAL	5.8	36.0

MAPID: 15701451000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 14 QUARTERS/FOOTAGES: NW SW

QUADRANGLE: STEELEVILLE LONGITUDE: -89.628519 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.005386 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 470.3 LOGGED (FT.): 26.5 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO. 424K WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
470.3	PLEISTOCENE		UNCONSOLIDATED	18.5	0.0	
451.8	CARBONDALE	ANNA	BLACK SHALE	2.7	18.5	
449.1	CARBONDALE	HERRIN	COAL	5.3	21.2	

MAPID: 15701452000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 14 QUARTERS/FOOTAGES: NW NW

QUADRANGLE: STEELEVILLE LONGITUDE: -89.628312 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.012517 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 453.0 LOGGED (FT.): 29.9 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO 405F WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
453.0	PLEISTOCENE		UNCONSOLIDATED	24.0	0.0	
429.0	CARBONDALE		SHALE	2.3	24.0	
426.7	CARBONDALE		LIMESTONE	1.6	26.3	
425.1	CARBONDALE		SHALE	2.0	27.9	

MAPID: 15701453000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 14 QUARTERS/FOOTAGES: 340' S line, 320' E line of NW NW

QUADRANGLE: STEELEVILLE LONGITUDE: -89.627152 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.011676 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 457.0 LOGGED (FT.): 31.3 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO 405K WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
457.0	PLEISTOCENE		UNCONSOLIDATED	17.7	0.0	
439.3	CARBONDALE		LIMESTONE	7.0	17.7	
432.3	CARBONDALE		SHALE	0.7	24.7	
431.7	CARBONDALE	BRERETON	LIMESTONE	1.2	25.3	
430.5	CARBONDALE	HERRIN	COAL	4.8	26.5	

MAPID: 15701454000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 14 QUARTERS/FOOTAGES: NW NW

QUADRANGLE: STEELEVILLE LONGITUDE: -89.628312 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.012517 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 448.8 LOGGED (FT.): 41.0 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MINING CO. 405C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
448.8	PLEISTOCENE		UNCONSOLIDATED	31.0	0.0
417.8	CARBONDALE		SHALE	9.0	31.0
408.8	CARBONDALE		ROCK	1.0	40.0

MAPID: 15702110000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 14 QUARTERS/FOOTAGES: 1000' S line, 550' W line of NW

QUADRANGLE: STEELEVILLE LONGITUDE: -89.628765 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.009929 DATE COLLECTED: 0 / 0 / 1936

SURFACE ELEVATION (FT.): 457.5 LOGGED (FT.): 475.0 LOG TYPE: Drillers Log

SOURCE: SOUTHWESTERN ILLINOIS COAL CO.1 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
457.5	PLEISTOCENE		CLAY	30.0	0.0	
427.5	CARBONDALE		LIMESTONE & SHALE	10.0	30.0	
417.5	CARBONDALE	ANNA	BLACK SHALE	2.0	40.0	
415.5	CARBONDALE	HERRIN	COAL	4.0	42.0	
411.5	CARBONDALE		UNDERCLAY	4.0	46.0	
407.5	CARBONDALE		LIMESTONE	38.0	50.0	SOFT
369.5	CARBONDALE		LIMESTONE	2.0	88.0	BROKEN
367.5	CARBONDALE	TURNER MINE	BLACK SHALE	2.0	90.0	
365.5	CARBONDALE	SPRINGFIELD	COAL	3.0	92.0	
362.5	CARBONDALE		SHALE	18.0	95.0	WHITE
344.5	CARBONDALE		SANDSTONE	22.0	113.0	
322.5	CARBONDALE		SHALE	12.0	135.0	
310.5	CARBONDALE		LIMESTONE	3.0	147.0	
307.5	CARBONDALE		SHALE	11.0	150.0	BROWN
296.5	CARBONDALE		LIMESTONE	3.0	161.0	HARD
293.5	CARBONDALE		SHALE	36.0	164.0	WHITE
257.5	CARBONDALE		SHALE	5.0	200.0	
252.5	CARBONDALE		SHALE	12.0	205.0	WHITE
240.5	CARBONDALE		SHALE	8.0	217.0	
232.5	CARBONDALE		SHALE	19.0	225.0	WHITE
213.5	CARBONDALE		SANDSTONE	156.0	244.0	
57.5	CARBONDALE		SHALE	3.0	400.0	
54.5	CARBONDALE		LIMESTONE	2.0	403.0	
52.5	CARBONDALE		SHALE	13.0	405.0	
39.5	CARBONDALE		SANDSTONE	34.0	418.0	DARK
5.5	CARBONDALE		SANDSTONE	23.0	452.0	LIGHT

MAPID: 15701229000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 6S 5W **SECTION:** 15 **QUARTERS/FOOTAGES:** 460' S line, 500' E line of SE
QUADRANGLE: STEELEVILLE **LONGITUDE:** -89.63265 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 38.001314 **DATE COLLECTED:** 0 / 0 / 1928
SURFACE ELEVATION (FT.): 426.7 **LOGGED (FT.):** 16.4 **LOG TYPE:** Drillers Log
SOURCE: WILLIS COAL & MNG. CO. 432K **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
426.7	PLEISTOCENE		UNCONSOLIDATED	14.0	0.0	
412.7	CARBONDALE	SPRINGFIELD	COAL	2.4	14.0	TOP ERODED

MAPID: 15701402000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 6S 5W **SECTION:** 15 **QUARTERS/FOOTAGES:** NE
QUADRANGLE: STEELEVILLE **LONGITUDE:** -89.635392 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 38.010794 **DATE COLLECTED:** 0 / 0 / 1928
SURFACE ELEVATION (FT.): 455.7 **LOGGED (FT.):** 28.8 **LOG TYPE:** Drillers Log
SOURCE: WILLIS COAL & MNG. CO. 414L **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
455.7	PLEISTOCENE		UNCONSOLIDATED	19.5	0.0	
436.2	CARBONDALE		LIMESTONE	5.8	19.5	
430.4	CARBONDALE	SPRINGFIELD	COAL	3.5	25.3	

MAPID: 15701403000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 6S 5W **SECTION:** 15 **QUARTERS/FOOTAGES:** SE SE NE NE
QUADRANGLE: STEELEVILLE **LONGITUDE:** -89.631244 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 38.01118 **DATE COLLECTED:** 0 / 0 / 1928
SURFACE ELEVATION (FT.): 454.0 **LOGGED (FT.):** 25.3 **LOG TYPE:** Drillers Log
SOURCE: WILLIS COAL & MNG. CO. 414O **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
454.0	PLEISTOCENE		UNCONSOLIDATED	24.0	0.0	
430.0	CARBONDALE	SPRINGFIELD	COAL	1.3	24.0	

MAPID: 15701404000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 15 QUARTERS/FOOTAGES: NE SE

QUADRANGLE: STEELEVILLE LONGITUDE: -89.633153 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.005402 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 443.2 LOGGED (FT.): 53.0 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO. 423I WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
443.2	PLEISTOCENE		UNCONSOLIDATED	28.0	0.0	
415.2			ROCK	25.0	28.0	SOFT

MAPID: 15701405000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 15 QUARTERS/FOOTAGES: NE SE

QUADRANGLE: STEELEVILLE LONGITUDE: -89.633153 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.005402 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 449.3 LOGGED (FT.): 63.3 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO. 423K WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
449.3	PLEISTOCENE		UNCONSOLIDATED	50.7	0.0	
398.6	CARBONDALE		LIMESTONE	1.2	50.7	
397.5	CARBONDALE		SHALE	1.5	51.8	
396.0	CARBONDALE		LIMESTONE	10.0	53.3	

MAPID: 15701406000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 15 QUARTERS/FOOTAGES: SE SE

QUADRANGLE: STEELEVILLE LONGITUDE: -89.633241 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.00183 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 434.2 LOGGED (FT.): 53.0 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO. 432C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
434.2	PLEISTOCENE		UNCONSOLIDATED	38.7	0.0	
395.5	CARBONDALE		SHALE	9.7	38.7	
385.9	CARBONDALE		ROCK	4.7	48.3	SOFT

MAPID: 15701407000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 15 QUARTERS/FOOTAGES: SE SE

QUADRANGLE: STEELEVILLE LONGITUDE: -89.633241 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.00183 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 448.7 LOGGED (FT.): 39.2 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO. 432H WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
448.7	PLEISTOCENE		UNCONSOLIDATED	33.2	0.0	
415.5			BOULDER	2.0	33.2	
413.5			BOULDER	4.0	35.2	

MAPID: 15700105000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 16 QUARTERS/FOOTAGES: NE SE

QUADRANGLE: STEELEVILLE LONGITUDE: -89.651906 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.005523 DATE COLLECTED:

SURFACE ELEVATION (FT.): 404.6 LOGGED (FT.): 134.5 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MINING CO. 7 WELL TYPE: Coal Test

COMMENT: TOTAL DEPTH IS 300'9"

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
404.6	PLEISTOCENE		UNCONSOLIDATED	60.0	0.0	SANDY
344.6	CARBONDALE		SANDSTONE	48.0	60.0	
296.6	CARBONDALE		LIMESTONE	0.4	108.0	
296.2	CARBONDALE		SANDSTONE	2.6	108.4	
293.6	CARBONDALE		COAL	0.4	111.0	
293.2	CARBONDALE		SHALE	8.6	111.4	
284.6	CARBONDALE		SANDY SHALE	5.5	120.0	SANDY
279.1	CARBONDALE		SHALE	2.0	125.5	SOFT
277.1	CARBONDALE		SANDY SHALE	7.0	127.5	SANDY

MAPID: 15702695000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 17 QUARTERS/FOOTAGES: SE SW SW SW

QUADRANGLE: STEELEVILLE LONGITUDE: -89.684634

GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.000519

DATE COLLECTED: 4 / 6 / 1973

SURFACE ELEVATION (FT.): 430.0 LOGGED (FT.): 225.0

LOG TYPE: Drillers Log

SOURCE: FRANK HEPP, JR 1

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
430.0	PLEISTOCENE		CLAY	20.0	0.0	
410.0	PLEISTOCENE		SAND	62.0	20.0	
348.0	CARBONDALE		SHALE	26.0	82.0	
322.0	CARBONDALE		SANDY SHALE	13.0	108.0	SANDY
309.0	CARBONDALE		COAL	2.0	121.0	
307.0	CARBONDALE		LIMESTONE	37.0	123.0	SANDY
270.0	CARBONDALE		GRAY SANDSTONE	5.0	160.0	
265.0	CARBONDALE		SANDSTONE	60.0	165.0	WHITE

MAPID: 15702044000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 18 QUARTERS/FOOTAGES:

QUADRANGLE: STEELEVILLE LONGITUDE: -89.695663

GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.007378

DATE COLLECTED:

SURFACE ELEVATION (FT.): 450.0 LOGGED (FT.): 243.0

LOG TYPE: Drillers Log

SOURCE: L.W. GWIN

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
450.0	PLEISTOCENE		CLAY	30.0	0.0	YELLOW
420.0	PLEISTOCENE		SILT	30.0	30.0	
390.0	PLEISTOCENE		GRAVEL	20.0	60.0	WITH SILT
370.0	PLEISTOCENE		SILT	35.0	80.0	
335.0	CARBONDALE		LIMESTONE	1.0	115.0	
334.0	CARBONDALE	DEKOVEN	COAL	5.0	116.0	
329.0	CARBONDALE		SHALE	36.0	121.0	
293.0	CARBONDALE	DAVIS	COAL	5.0	157.0	
288.0	CARBONDALE		SHALE	36.0	162.0	
252.0	CARBONDALE		LIMESTONE W/ SHALE	11.0	198.0	
241.0	CARBONDALE		SANDSTONE	33.0	209.0	
208.0	CARBONDALE		SHALE	1.0	242.0	

MAPID: 15702113000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 18 QUARTERS/FOOTAGES:

QUADRANGLE: STEELEVILLE LONGITUDE: -89.695663

GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.007378

DATE COLLECTED: 0 / 0 / 1946

SURFACE ELEVATION (FT.): 460.0

LOGGED (FT.): 223.0

LOG TYPE: Drillers Log

SOURCE: L. W. GWIN 1

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
460.0	PLEISTOCENE		CLAY	25.0	0.0	YELLOW
435.0	PLEISTOCENE		SILT	95.0	25.0	BLUE
340.0	CARBONDALE	DEKOVEN	COAL	3.0	120.0	WITH DARK SHALE
337.0	CARBONDALE		SHALE	37.0	123.0	
300.0	CARBONDALE	DAVIS	COAL	4.0	160.0	
296.0	CARBONDALE		SHALE	8.0	164.0	
288.0	CARBONDALE		LIMESTONE	2.0	172.0	
286.0	CARBONDALE		SHALE	24.0	174.0	WITH SHELLS
262.0	CARBONDALE		SANDSTONE	25.0	198.0	

MAPID: 15702254000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 18 QUARTERS/FOOTAGES: 450' N line, 700' W line of NW

QUADRANGLE: STEELEVILLE LONGITUDE: -89.702659

GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.013533

DATE COLLECTED: 9 / 0 / 1946

SURFACE ELEVATION (FT.): 520.0

LOGGED (FT.): 223.0

LOG TYPE: Drillers Log

SOURCE: GWIN DRILLING COMPANY

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
520.0	PLEISTOCENE		CLAY	20.0	0.0	YELLOW
500.0	PLEISTOCENE		CLAY	5.0	20.0	YELLOW
495.0	PLEISTOCENE		SILT	42.0	25.0	BLUE
453.0	PLEISTOCENE		SILT	50.0	67.0	BLUE
403.0	PLEISTOCENE		SILT	3.0	117.0	BLUE
400.0	CARBONDALE	DEKOVEN	COAL	3.0	120.0	TOP ERODED
397.0	CARBONDALE		SHALE	37.0	123.0	
360.0	CARBONDALE	DAVIS	COAL	4.0	160.0	WITH SHALE
356.0	CARBONDALE		SHALE	8.0	164.0	
348.0	CARBONDALE		LIMESTONE	2.0	172.0	
346.0	CARBONDALE		SANDY SHALE	7.0	174.0	SANDY
339.0	CARBONDALE		SHALE	16.0	181.0	WITH SHELLS
323.0	CARBONDALE		SHALE	1.0	197.0	WITH SHELLS
322.0	CARBONDALE		SANDSTONE	25.0	198.0	

MAPID: 15702255000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 18 QUARTERS/FOOTAGES: 400' N line, 200' W line of NW

QUADRANGLE: STEELEVILLE

LONGITUDE: -89.704407

GEOLOGIST: HOKE

CONFIDENTIAL: N

LATITUDE: 38.01369

DATE COLLECTED: 2 / 0 / 1955

SURFACE ELEVATION (FT.): 460.0

LOGGED (FT.): 245.0

LOG TYPE: Drillers Log

SOURCE: GWIN DRILLING COMPANY

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
460.0	PLEISTOCENE		CLAY	25.0	0.0	
435.0	CARBONDALE		SHALE	7.0	25.0	
428.0	CARBONDALE		SHALE	3.0	32.0	
425.0	CARBONDALE		SHALE	2.0	35.0	GRAVELLY
423.0	CARBONDALE		SILTY SHALE	53.0	37.0	
370.0	CARBONDALE		SHALE	20.0	90.0	SANDY AND GRAY
350.0	CARBONDALE		SHALE	16.0	110.0	SANDY; GRN
334.0	CARBONDALE		SHALE	3.0	126.0	BROWN
331.0	CARBONDALE		SHALE	2.5	129.0	DARK GRAY
328.5	CARBONDALE		LIMESTONE	1.5	131.5	GRAY AND BROWN
327.0	CARBONDALE		SHALE	2.0	133.0	
325.0	CARBONDALE		SHALE	5.0	135.0	WITH SMALL COAL VEIN
320.0	CARBONDALE		SHALE	8.0	140.0	
312.0	CARBONDALE		LIMESTONE	2.0	148.0	GRAY
310.0	CARBONDALE		SHALE	27.0	150.0	
283.0	CARBONDALE		COAL	5.0	177.0	
278.0	CARBONDALE		SHALE	3.0	182.0	
275.0	CARBONDALE		SHALE	2.0	185.0	
273.0	CARBONDALE		LIMESTONE	2.0	187.0	GRAY
271.0	CARBONDALE		SHALE	4.0	189.0	
267.0	CARBONDALE		LIMESTONE	2.0	193.0	SANDY; GRAY AND BROWN
265.0	CARBONDALE		SHALE	5.0	195.0	
260.0	CARBONDALE		SANDSTONE	15.0	200.0	GRAY WITH LIMESTONE
245.0	CARBONDALE		SHALY SANDSTONE	4.0	215.0	LIGHT GRAY
241.0	CARBONDALE		SANDSTONE	11.0	219.0	FINE TO COARSE, GRAY, SETTLING OUT
230.0	CARBONDALE		SANDSTONE	10.0	230.0	FINE, GRAY, NOT SETTLING
220.0	CARBONDALE		SANDSTONE	5.0	240.0	GRAY WITH LIMESTONE

MAPID: 15722944000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 6S 5W **SECTION:** 21 **QUARTERS/FOOTAGES:** SE NE SW SW
QUADRANGLE: WELGE **LONGITUDE:** -89.663913 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 37.987313 **DATE COLLECTED:** 11 / 21 / 1975
SURFACE ELEVATION (FT.): 430.0 **LOGGED (FT.):** 123.0 **LOG TYPE:** Drillers Log
SOURCE: HEPP DRILLING COMPANY 1 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
430.0	PLEISTOCENE		CLAY	32.0	0.0	
398.0	CARBONDALE		SHALE	15.0	32.0	SOFT
383.0	CARBONDALE		SANDSTONE	8.0	47.0	BROWN
375.0	CARBONDALE		GRAY SANDSTONE	21.0	55.0	
354.0	CARBONDALE		SANDSTONE	1.0	76.0	WHITE
353.0	CARBONDALE		COAL	2.0	77.0	WITH UNDERCLAY
351.0	CARBONDALE		SANDSTONE	16.0	79.0	WHITE AND SOFT
335.0	CARBONDALE		SANDSTONE	28.0	95.0	WHITE

MAPID: 15700322000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 6S 5W **SECTION:** 23 **QUARTERS/FOOTAGES:** 35' S line, 235' W line of SW NE
QUADRANGLE: WILLISVILLE **LONGITUDE:** -89.620993 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 37.992435 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 458.0 **LOGGED (FT.):** 67.5 **LOG TYPE:** Drillers Log
SOURCE: UNITED ELECTRIC COAL CO. 257 **WELL TYPE:** Coal Test
COMMENT: COAL TEST

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
458.0			UNKNOWN	66.0	0.0	
392.0			COAL	1.5	66.0	

MAPID: 15700631000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 6S 5W **SECTION:** 23 **QUARTERS/FOOTAGES:** NE SW NE NE
QUADRANGLE: WILLISVILLE **LONGITUDE:** -89.615399 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 37.997603 **DATE COLLECTED:** 0 / 0 / 1934
SURFACE ELEVATION (FT.): 445.0 **LOGGED (FT.):** 31.5 **LOG TYPE:** Drillers Log
SOURCE: H. E. WILLSON 6 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
445.0	PLEISTOCENE		UNCONSOLIDATED	20.2	0.0	
424.8	CARBONDALE		COAL	0.7	20.2	TOP ERODED
424.2	CARBONDALE		SHALE	4.2	20.8	
420.0	CARBONDALE		SHALE	6.5	25.0	HARD

MAPID: 1570123000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 6S 5W **SECTION:** 23 **QUARTERS/FOOTAGES:** 1000' S line, 990' E line of NW NW
QUADRANGLE: WELGE **LONGITUDE:** -89.629757 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 37.998982 **DATE COLLECTED:** 0 / 0 / 1928
SURFACE ELEVATION (FT.): 454.6 **LOGGED (FT.):** 44.7 **LOG TYPE:** Drillers Log
SOURCE: WILLIS COAL & MNG 443A **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
454.6	PLEISTOCENE		UNCONSOLIDATED	22.4	0.0
432.2	PLEISTOCENE		SAND & GRAVEL	15.0	22.4
417.2	CARBONDALE		SHALE	4.0	37.4
413.2	CARBONDALE		SANDSTONE	1.0	41.4
412.2	CARBONDALE	SPRINGFIELD	COAL	2.3	42.4

MAPID: 15701231000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 6S 5W **SECTION:** 23 **QUARTERS/FOOTAGES:** 1010' S line, 500' E line of NW NW
QUADRANGLE: WELGE **LONGITUDE:** -89.628048 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 37.999003 **DATE COLLECTED:** 0 / 0 / 1928
SURFACE ELEVATION (FT.): 462.9 **LOGGED (FT.):** 51.8 **LOG TYPE:** Drillers Log
SOURCE: WILLIS COAL & MNG. CO. 443C **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
462.9	PLEISTOCENE		UNCONSOLIDATED	25.6	0.0
437.3	CARBONDALE		LIMESTONE	0.5	25.6
436.8	CARBONDALE	HERRIN	COAL	0.3	26.1
436.6	CARBONDALE		CLAYSTONE	21.2	26.3
415.4	CARBONDALE	SPRINGFIELD	COAL	4.3	47.5

MAPID: 15701232000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 6S 5W **SECTION:** 23 **QUARTERS/FOOTAGES:** 670' S line, 700' E line of NW NW
QUADRANGLE: WELGE **LONGITUDE:** -89.628761 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 37.998067 **DATE COLLECTED:** 0 / 0 / 1928
SURFACE ELEVATION (FT.): 460.1 **LOGGED (FT.):** 47.7 **LOG TYPE:** Drillers Log
SOURCE: WILLIS COAL & MNG. CO 443F **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
460.1	PLEISTOCENE		UNCONSOLIDATED	40.2	0.0
419.9	PLEISTOCENE		SAND & GRAVEL	2.0	40.2
417.9	CARBONDALE	HERRIN	COAL	5.5	42.2

MAPID: 15701237000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 6S 5W **SECTION:** 23 **QUARTERS/FOOTAGES:** 340' S line, 340' E line of NW NW
QUADRANGLE: WELGE **LONGITUDE:** -89.627521 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 37.997152 **DATE COLLECTED:** 0 / 0 / 1928
SURFACE ELEVATION (FT.): 460.8 **LOGGED (FT.):** 38.3 **LOG TYPE:** Drillers Log
SOURCE: WILLIS COAL & MNG. CO. 443K **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
460.8	PLEISTOCENE		UNCONSOLIDATED	26.3	0.0
434.5	CARBONDALE		LIMESTONE	3.9	26.3
430.6	CARBONDALE		CLAYSTONE	1.7	30.2
429.0	CARBONDALE		LIMESTONE	0.5	31.8
428.5	CARBONDALE		SHALE	0.8	32.3
427.6	CARBONDALE	HERRIN	COAL	5.1	33.2

MAPID: 15701250000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 6S 5W **SECTION:** 23 **QUARTERS/FOOTAGES:** 990' S line, 350' E line of NE NW
QUADRANGLE: WILLISVILLE **LONGITUDE:** -89.622926 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 37.998923 **DATE COLLECTED:** 0 / 0 / 1928
SURFACE ELEVATION (FT.): 471.7 **LOGGED (FT.):** 31.5 **LOG TYPE:** Drillers Log
SOURCE: WILLIS COAL & MNG. CO. 444C **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
471.7	PLEISTOCENE		UNCONSOLIDATED	19.2	0.0
452.5	CARBONDALE		BLACK SHALE	0.5	19.2
452.0	CARBONDALE	BRERETON	LIMESTONE	6.4	19.7
445.6	CARBONDALE	HERRIN	COAL	5.4	26.1

MAPID: 15701251000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 6S 5W **SECTION:** 23 **QUARTERS/FOOTAGES:** 1000' S line, 990' E line of NE NW
QUADRANGLE: WELGE **LONGITUDE:** -89.625155 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 37.998962 **DATE COLLECTED:** 0 / 0 / 1928
SURFACE ELEVATION (FT.): 466.6 **LOGGED (FT.):** 32.6 **LOG TYPE:** Drillers Log
SOURCE: WILLIS COAL & MNG. CO. 444A **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
466.6	PLEISTOCENE		UNCONSOLIDATED	19.6	0.0
447.0	CARBONDALE	BRERETON	LIMESTONE	6.0	19.6
441.0	CARBONDALE		SHALE	1.0	25.6
440.0	CARBONDALE	HERRIN	COAL	6.0	26.6

MAPID: 15701255000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 23 QUARTERS/FOOTAGES: 670' S line, 670' E line of NE NW

QUADRANGLE: WILLISVILLE LONGITUDE: -89.624055 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 37.998044 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 468.8 LOGGED (FT.): 32.8 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO 444F WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
468.8	PLEISTOCENE		UNCONSOLIDATED	23.0	0.0
445.8	CARBONDALE		LIMESTONE	1.9	23.0
443.9	CARBONDALE		SHALE	0.8	24.9
443.0	CARBONDALE		BLACK SHALE	3.3	25.8
439.8	CARBONDALE		COAL	3.8	29.0

MAPID: 15701258000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 23 QUARTERS/FOOTAGES: 340' S line, 350' E line of NE NW

QUADRANGLE: WILLISVILLE LONGITUDE: -89.622955 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 37.997129 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 472.8 LOGGED (FT.): 62.9 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO 444K WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
472.8			UNKNOWN	35.0	0.0
437.8	CARBONDALE	HERRIN	COAL	6.3	35.0
431.5	CARBONDALE		CLAYSTONE	2.3	41.3
429.2	CARBONDALE		LIMESTONE	4.8	43.6
424.4	CARBONDALE		CLAYSTONE	1.8	48.4
422.5	CARBONDALE		LIMESTONE	6.7	50.3
415.9	CARBONDALE		CLAYSTONE	0.8	56.9
415.0	CARBONDALE		LIMESTONE	0.8	57.8
414.2	CARBONDALE	SPRINGFIELD	COAL	4.3	58.6

MAPID: 15701264000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 6S 5W **SECTION:** 23 **QUARTERS/FOOTAGES:** 345' S line, 980' E line of NE NW
QUADRANGLE: WELGE **LONGITUDE:** -89.625152 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 37.997154 **DATE COLLECTED:** 0 / 0 / 1928
SURFACE ELEVATION (FT.): 468.1 **LOGGED (FT.):** 33.6 **LOG TYPE:** Drillers Log
SOURCE: WILLIS COAL & MNG. CO. 444I **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
468.1	PLEISTOCENE		UNCONSOLIDATED	27.3	0.0	
440.8	CARBONDALE	ANNA	BLACK SHALE	0.3	27.3	
440.5	CARBONDALE	HERRIN	COAL	6.0	27.6	

MAPID: 15701272000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 6S 5W **SECTION:** 23 **QUARTERS/FOOTAGES:** 1000' S line, 260' E line of NW NE
QUADRANGLE: WILLISVILLE **LONGITUDE:** -89.618011 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 37.998929 **DATE COLLECTED:** 0 / 0 / 1928
SURFACE ELEVATION (FT.): 455.2 **LOGGED (FT.):** 59.0 **LOG TYPE:** Drillers Log
SOURCE: WILLIS COAL & MNG. CO 445C **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
455.2	PLEISTOCENE		UNCONSOLIDATED	35.0	0.0	
420.2	CARBONDALE		SANDY SHALE	24.0	35.0	SANDY

MAPID: 15701273000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 6S 5W **SECTION:** 23 **QUARTERS/FOOTAGES:** 1000' S line, 980' E line of NW NE
QUADRANGLE: WILLISVILLE **LONGITUDE:** -89.620522 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 37.99894 **DATE COLLECTED:** 0 / 0 / 1928
SURFACE ELEVATION (FT.): 468.1 **LOGGED (FT.):** 30.8 **LOG TYPE:** Drillers Log
SOURCE: WILLIS COAL & MNG. CO 445A **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
468.1	PLEISTOCENE		UNCONSOLIDATED	27.0	0.0	
441.1	CARBONDALE		BLACK SHALE	0.4	27.0	
440.7	CARBONDALE	HERRIN	COAL	3.3	27.4	

MAPID: 15701279000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 23 QUARTERS/FOOTAGES: 670' S line, 660' E line of NW NE

QUADRANGLE: WILLISVILLE LONGITUDE: -89.619419

GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 37.998024

DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 451.4 LOGGED (FT.): 29.0

LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO. 445F

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
451.4	PLEISTOCENE		UNCONSOLIDATED	23.3	0.0	
428.1			ROCK	5.8	23.3	MIXED

MAPID: 15701282000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 23 QUARTERS/FOOTAGES: 340' S line, 980' E line of NW NE

QUADRANGLE: WILLISVILLE LONGITUDE: -89.620551

GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 37.997118

DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 466.3 LOGGED (FT.): 38.0

LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO. 445I

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
466.3	PLEISTOCENE		UNCONSOLIDATED	28.9	0.0	
437.4	CARBONDALE	BRERETON	LIMESTONE	3.0	28.9	
434.4	CARBONDALE	ANNA	BLACK SHALE	0.8	31.9	
433.5	CARBONDALE	HERRIN	COAL	5.3	32.8	

MAPID: 15701285000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 23 QUARTERS/FOOTAGES: 310' S line, 370' E line of NW NE

QUADRANGLE: WILLISVILLE LONGITUDE: -89.618423

GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 37.997026

DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 458.0 LOGGED (FT.): 58.7

LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO. 445K

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
458.0	PLEISTOCENE		UNCONSOLIDATED	41.5	0.0	
416.5	CARBONDALE	BRERETON	LIMESTONE	7.0	41.5	
409.5	CARBONDALE	HERRIN	COAL	0.5	48.5	
409.0	CARBONDALE		SHALE	9.7	49.0	

MAPID: 15701295000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 6S 5W **SECTION:** 23 **QUARTERS/FOOTAGES:** 1000' S line, 990' E line of NE
QUADRANGLE: WILLISVILLE **LONGITUDE:** -89.616016 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 37.99506 **DATE COLLECTED:** 0 / 0 / 1928
SURFACE ELEVATION (FT.): 460.3 **LOGGED (FT.):** 43.3 **LOG TYPE:** Drillers Log
SOURCE: WILLIS COAL & MNG. CO 446A **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
460.3	PLEISTOCENE		UNCONSOLIDATED	22.0	0.0
438.3	CARBONDALE		SHALE	2.0	22.0
436.3	CARBONDALE		LIMESTONE	4.7	24.0
431.6	CARBONDALE		SHALE	2.0	28.7
429.6	CARBONDALE	BRERETON	LIMESTONE	6.7	30.7
423.0	CARBONDALE		SHALE	1.3	37.3
421.6	CARBONDALE		LIMESTONE	0.5	38.7
421.1	CARBONDALE	HERRIN	COAL	4.2	39.2

MAPID: 15701296000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 6S 5W **SECTION:** 23 **QUARTERS/FOOTAGES:** 990' S line, 340' E line of NE NE
QUADRANGLE: WILLISVILLE **LONGITUDE:** -89.613688 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 37.998881 **DATE COLLECTED:** 0 / 0 / 1928
SURFACE ELEVATION (FT.): 456.2 **LOGGED (FT.):** 30.3 **LOG TYPE:** Drillers Log
SOURCE: WILLIS COAL & MNG. CO 446C **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
456.2	PLEISTOCENE		UNCONSOLIDATED	24.3	0.0
431.9	CARBONDALE	HERRIN	COAL	6.0	24.3 TOP ERODED

MAPID: 15701302000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 6S 5W **SECTION:** 23 **QUARTERS/FOOTAGES:** 670' S line, 660' E line of NE NE
QUADRANGLE: WILLISVILLE **LONGITUDE:** -89.614817 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 37.998002 **DATE COLLECTED:** 0 / 0 / 1928
SURFACE ELEVATION (FT.): 456.0 **LOGGED (FT.):** 27.8 **LOG TYPE:** Drillers Log
SOURCE: WILLIS COAL & MNG. CO 446F **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
456.0	PLEISTOCENE		UNCONSOLIDATED	22.0	0.0
434.0	CARBONDALE		SHALE	1.3	22.0
432.7	CARBONDALE	HERRIN	COAL	4.4	23.3 SOFT

MAPID: 15701308000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 23 QUARTERS/FOOTAGES: 340' S line, 1000' E line of NE NE

QUADRANGLE: WILLISVILLE LONGITUDE: -89.616019 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 37.997098 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 445.2 LOGGED (FT.): 50.8 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO. 446I WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
445.2	PLEISTOCENE		UNCONSOLIDATED	34.4	0.0
410.8	PLEISTOCENE		BOULDER	1.0	34.4
409.8	PLEISTOCENE		CLAY	2.0	35.4
407.8	CARBONDALE		SHALE	2.2	37.4
405.6	CARBONDALE	BRERETON	LIMESTONE	4.0	39.6
401.6	CARBONDALE		SHALE	2.2	43.6
399.4	CARBONDALE	HERRIN	COAL	5.0	45.8

MAPID: 15701309000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 23 QUARTERS/FOOTAGES: 340' S line, 350' E line of NE NE

QUADRANGLE: WILLISVILLE LONGITUDE: -89.613752 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 37.997086 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 448.1 LOGGED (FT.): 40.0 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO. 446K WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
448.1	PLEISTOCENE		UNCONSOLIDATED	28.8	0.0
419.3	CARBONDALE		LIMESTONE	4.5	28.8
414.8	CARBONDALE		CLAYSTONE	2.8	33.3
411.9	CARBONDALE	HERRIN	COAL	3.8	36.2

MAPID: 1570131000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 23 QUARTERS/FOOTAGES: 980' S line, 1000' E line of SW NW

QUADRANGLE: WELGE LONGITUDE: -89.629862 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 37.995112 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 447.9 LOGGED (FT.): 63.7 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. 453A WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
447.9	PLEISTOCENE		UNCONSOLIDATED	21.8	0.0	
426.1	CARBONDALE	HERRIN	COAL	2.7	21.8	SOFT
423.4	CARBONDALE	HERRIN	COAL	2.7	24.5	
420.7	CARBONDALE		UNDERCLAY	4.0	27.2	
416.7	CARBONDALE		LIMESTONE	32.5	31.2	SOFT

MAPID: 15701311000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 23 QUARTERS/FOOTAGES: 1000' S line, 315' E line of SW NW

QUADRANGLE: WELGE LONGITUDE: -89.627469 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 37.995147 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 457.9 LOGGED (FT.): 39.7 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. 453C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
457.9	PLEISTOCENE		UNCONSOLIDATED	21.2	0.0	
436.7	CARBONDALE		LIMESTONE	3.7	21.2	
433.1	CARBONDALE		CLAYSTONE	2.7	24.8	
430.4	CARBONDALE		LIMESTONE	6.7	27.5	
423.7	CARBONDALE		CLAYSTONE	0.7	34.2	
423.1	CARBONDALE		LIMESTONE	0.7	34.8	
422.4	CARBONDALE	HERRIN	COAL	4.2	35.5	

MAPID: 15701321000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 23 QUARTERS/FOOTAGES: 980' S line, 990' E line of NW

QUADRANGLE: WELGE LONGITUDE: -89.625222 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 37.995075 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 461.4 LOGGED (FT.): 27.8 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO 454A WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
461.4	PLEISTOCENE		UNCONSOLIDATED	24.5	0.0	
436.9	CARBONDALE		SHALE	0.3	24.5	
436.6	CARBONDALE	HERRIN	COAL	3.1	24.8	

MAPID: 15701325000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 6S 5W **SECTION:** 23 **QUARTERS/FOOTAGES:** 660' S line, 660' E line of NW
QUADRANGLE: WILLISVILLE **LONGITUDE:** -89.624087 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 37.994182 **DATE COLLECTED:** 0 / 0 / 1928
SURFACE ELEVATION (FT.): 466.9 **LOGGED (FT.):** 58.0 **LOG TYPE:** Drillers Log
SOURCE: WILLIS COAL & MNG. CO. 454F **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
466.9	PLEISTOCENE		UNCONSOLIDATED	46.0	0.0	
420.9			UNCLASSIFIED	2.5	46.0	BLACK
418.4			SHALE	9.5	48.5	WHITE

MAPID: 15701330000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 6S 5W **SECTION:** 23 **QUARTERS/FOOTAGES:** 985' S line, 340' E line of NW
QUADRANGLE: WILLISVILLE **LONGITUDE:** -89.622955 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 37.995072 **DATE COLLECTED:** 0 / 0 / 1928
SURFACE ELEVATION (FT.): 465.8 **LOGGED (FT.):** 53.4 **LOG TYPE:** Drillers Log
SOURCE: WILLIS COAL & MNG. CO. 454C **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
465.8	PLEISTOCENE		UNCONSOLIDATED	23.4	0.0	
442.4	CARBONDALE		LIMESTONE	2.3	23.4	
440.0	CARBONDALE		CLAYSTONE	10.3	25.8	
429.8	CARBONDALE		LIMESTONE	3.7	36.0	
426.1	CARBONDALE		CLAYSTONE	1.3	39.7	
424.8	CARBONDALE	BRERETON	LIMESTONE	8.4	41.0	
416.4	CARBONDALE	HERRIN	COAL	4.0	49.4	

MAPID: 15701334000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 6S 5W **SECTION:** 23 **QUARTERS/FOOTAGES:** 950' S line, 990' E line of SW NE
QUADRANGLE: WILLISVILLE **LONGITUDE:** -89.620621 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 37.994956 **DATE COLLECTED:** 0 / 0 / 1928
SURFACE ELEVATION (FT.): 459.3 **LOGGED (FT.):** 38.1 **LOG TYPE:** Drillers Log
SOURCE: WILLIS COAL & MNG. CO. 455A **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
459.3	PLEISTOCENE		UNCONSOLIDATED	22.8	0.0	
436.5	CARBONDALE		SHALE	12.0	22.8	
424.5	CARBONDALE		BLACK SHALE	0.8	34.8	
423.7	CARBONDALE		COAL	2.5	35.6	

MAPID: 1570143000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 23 QUARTERS/FOOTAGES: NW SW NE NE

QUADRANGLE: WILLISVILLE LONGITUDE: -89.61655 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 37.997608 DATE COLLECTED: 0 / 0 / 1934

SURFACE ELEVATION (FT.): 465.0 LOGGED (FT.): 34.7 LOG TYPE: Drillers Log

SOURCE: H. E. WILLSON 5 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
465.0	PLEISTOCENE		UNCONSOLIDATED	11.0	0.0	
454.0	PLEISTOCENE		CLAY	10.5	11.0	
443.5	CARBONDALE		ROCK	4.2	21.5	
439.3	CARBONDALE		CLAYSTONE	0.5	25.7	
438.8	CARBONDALE	ANNA	BLACK SHALE	1.8	26.2	
437.1	CARBONDALE	HERRIN	COAL	6.8	27.9	GOOD

MAPID: 15725831000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 23 QUARTERS/FOOTAGES: NW SW SE SE

QUADRANGLE: WILLISVILLE LONGITUDE: -89.616734 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 37.986038 DATE COLLECTED: 8 / 21 / 1991

SURFACE ELEVATION (FT.): 430.0 LOGGED (FT.): 288.0 LOG TYPE: Drillers Log

SOURCE: FRANK D. HEPP, JR 1 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
430.0	PLEISTOCENE		CLAY	18.0	0.0	
412.0	PLEISTOCENE		UNCONSOLIDATED	40.0	18.0	
372.0	CARBONDALE		SANDY SHALE	16.0	58.0	SANDY
356.0	CARBONDALE		SANDY SHALE	19.0	74.0	SANDY
337.0	CARBONDALE		LIMESTONE	2.0	93.0	
335.0	CARBONDALE		SHALE	4.0	95.0	DARK
331.0	CARBONDALE	DEKOVEN	COAL	1.0	99.0	
330.0	CARBONDALE		UNDERCLAY	20.0	100.0	WITH SHALE
310.0	CARBONDALE		GRAY SANDSTONE	16.0	120.0	
294.0	CARBONDALE	DAVIS	COAL	2.0	136.0	
292.0	CARBONDALE		UNDERCLAY	10.0	138.0	
282.0	CARBONDALE		SHALE	24.0	148.0	
258.0	CARBONDALE		SANDY SHALE	15.0	172.0	SANDY
243.0	CARBONDALE		SANDSTONE	12.0	187.0	WHITE AND GRAY WITH LIMESTONE
231.0	CARBONDALE		SHALE	44.0	199.0	WITH COAL STREAKS; DARK GRAY
187.0	CARBONDALE		SANDSTONE	10.0	243.0	WHITE
177.0	CARBONDALE		SANDSTONE	34.0	253.0	GRAY AND BROWN
143.0	CARBONDALE		COAL	1.0	287.0	

MAPID: 15700323000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 6S 5W **SECTION:** 24 **QUARTERS/FOOTAGES:** 45' S line, 60' W line of SW SW SW SW
QUADRANGLE: WILLISVILLE **LONGITUDE:** -89.612515 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 37.984661 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 480.0 **LOGGED (FT.):** 70.0 **LOG TYPE:** Drillers Log
SOURCE: UNITED ELECTRIC COAL CO. 209 **WELL TYPE:** Coal Test
COMMENT: COAL TEST

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
480.0			UNKNOWN	69.0	0.0
411.0			COAL	1.0	69.0

MAPID: 15700324000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 6S 5W **SECTION:** 24 **QUARTERS/FOOTAGES:** 50' S line, 50' W line of SW NW
QUADRANGLE: WILLISVILLE **LONGITUDE:** -89.612429 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 37.992411 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 458.0 **LOGGED (FT.):** 70.0 **LOG TYPE:** Drillers Log
SOURCE: UNITED ELECTRIC COAL CO. 259 **WELL TYPE:** Coal Test
COMMENT: COAL TEST

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
458.0			UNKNOWN	70.0	0.0

MAPID: 15700325000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 6S 5W **SECTION:** 24 **QUARTERS/FOOTAGES:** 60' S line, 55' W line of SW NE
QUADRANGLE: WILLISVILLE **LONGITUDE:** -89.603244 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 37.99248 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 457.0 **LOGGED (FT.):** 34.0 **LOG TYPE:** Drillers Log
SOURCE: UNITED ELECTRIC COAL CO. 261 **WELL TYPE:** Coal Test
COMMENT: COAL TEST

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
457.0			UNKNOWN	30.0	0.0
427.0			COAL	4.0	30.0

MAPID: 15700326000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 6S 5W **SECTION:** 24 **QUARTERS/FOOTAGES:** 1325' S line, 70' W line of SE
QUADRANGLE: WILLISVILLE **LONGITUDE:** -89.603256 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 37.988262 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 461.0 **LOGGED (FT.):** 56.6 **LOG TYPE:** Drillers Log
SOURCE: UNITED ELECTRIC COAL CO. 236 **WELL TYPE:** Coal Test
COMMENT: COAL TEST

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
461.0			UNKNOWN	16.0	0.0
445.0	CARBONDALE	HERRIN	COAL	3.0	16.0
442.0	CARBONDALE		UNKNOWN	15.0	19.0
427.0	CARBONDALE	SPRINGFIELD	COAL	3.6	34.0

MAPID: 15700327000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 6S 5W **SECTION:** 24 **QUARTERS/FOOTAGES:** SW SE
QUADRANGLE: WILLISVILLE **LONGITUDE:** -89.601234 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 37.986544 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 481.0 **LOGGED (FT.):** 31.8 **LOG TYPE:** Drillers Log
SOURCE: UNITED ELECTRIC COAL CO. 211 **WELL TYPE:** Coal Test
COMMENT: COAL TEST

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
481.0			UNKNOWN	26.0	0.0
455.0	CARBONDALE	HERRIN	COAL	5.8	26.0

MAPID: 15701340000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 6S 5W **SECTION:** 24 **QUARTERS/FOOTAGES:** 990' S line, 980' E line of NW NW
QUADRANGLE: WILLISVILLE **LONGITUDE:** -89.61134 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 37.998877 **DATE COLLECTED:** 0 / 0 / 1928
SURFACE ELEVATION (FT.): 455.7 **LOGGED (FT.):** 51.8 **LOG TYPE:** Drillers Log
SOURCE: WILLIS COAL & MNG. CO. 447A **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
455.7	PLEISTOCENE		UNCONSOLIDATED	36.6	0.0
419.1	CARBONDALE		SHALE	3.0	36.6
416.1	CARBONDALE		LIMESTONE	3.2	39.6
412.9	CARBONDALE		SHALE	2.3	42.8
410.6	CARBONDALE	ST. DAVID	LIMESTONE	0.8	45.1
409.8	CARBONDALE		SHALE	1.8	45.9
407.9	CARBONDALE	SPRINGFIELD	COAL	4.0	47.8

MAPID: 15701342000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 24 QUARTERS/FOOTAGES: 980' S line, 980' E line of NE NW

QUADRANGLE: WILLISVILLE LONGITUDE: -89.606756

GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 37.998865

DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 436.4 LOGGED (FT.): 34.7

LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO. 448A

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
436.4	PLEISTOCENE		UNCONSOLIDATED	32.3	0.0
404.1	CARBONDALE		COAL	2.3	32.3

MAPID: 15701344000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 24 QUARTERS/FOOTAGES: 320' S line, 980' E line of NE NW

QUADRANGLE: WILLISVILLE LONGITUDE: -89.606785

GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 37.997043

DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 436.0 LOGGED (FT.): 42.3

LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO. 448I

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
436.0	PLEISTOCENE		UNCONSOLIDATED	21.0	0.0
415.0	CARBONDALE		SHALE	4.5	21.0
410.5	CARBONDALE		LIMESTONE	14.1	25.5
396.4	CARBONDALE	HERRIN	COAL	2.7	39.6

MAPID: 15701345000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 24 QUARTERS/FOOTAGES:

QUADRANGLE: WILLISVILLE LONGITUDE: -89.603439

GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 37.992314

DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 468.3 LOGGED (FT.): 64.2

LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO. 448H

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
468.3	PLEISTOCENE		UNCONSOLIDATED	53.0	0.0
415.3	CARBONDALE		SHALE	1.4	53.0
413.9	CARBONDALE	BRERETON	LIMESTONE	1.8	54.4
412.1	CARBONDALE	ANNA	BLACK SHALE	2.3	56.2
409.9	CARBONDALE	HERRIN	COAL	5.8	58.4

MAPID: 15701346000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 24 QUARTERS/FOOTAGES: 670' S line, 30' E line of NW NE

QUADRANGLE: WILLISVILLE LONGITUDE: -89.598874 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 37.998033 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 457.0 LOGGED (FT.): 39.7 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO. 449H WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
457.0	PLEISTOCENE		UNCONSOLIDATED	9.2	0.0	
447.8	PLEISTOCENE		BOULDER	0.3	9.2	
447.5	PLEISTOCENE		UNCONSOLIDATED	2.0	9.5	
445.5	CARBONDALE		SHALE	1.6	11.5	
443.9	CARBONDALE		LIMESTONE	3.0	13.1	
440.9	CARBONDALE		SHALE	4.8	16.1	
436.2	CARBONDALE		LIMESTONE	0.1	20.8	
436.1	CARBONDALE		COAL	0.8	20.9	
435.2	CARBONDALE		LIMESTONE	0.7	21.8	
434.6	CARBONDALE		SHALE	5.7	22.4	
428.9	CARBONDALE		SHALE	5.9	28.1	HARD
423.0	CARBONDALE	HERRIN	COAL	5.7	34.0	

MAPID: 15701348000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 24 QUARTERS/FOOTAGES: 665' S line, 50' E line of NE NE

QUADRANGLE: WILLISVILLE LONGITUDE: -89.59436 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 37.998034 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 448.0 LOGGED (FT.): 48.6 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. 450H WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
448.0	PLEISTOCENE		UNCONSOLIDATED	7.7	0.0	
440.3	PLEISTOCENE		SAND & GRAVEL	14.0	7.7	
426.3	CARBONDALE		SHALE	4.3	21.7	
422.0	CARBONDALE		BLACK SHALE	3.7	26.0	WITH SHALE
418.3	CARBONDALE		LIMESTONE	7.3	29.7	
411.1	CARBONDALE		BLACK SHALE	3.0	36.9	WITH SHALE
408.1	CARBONDALE		SHALE	2.5	39.9	
405.6	CARBONDALE	HERRIN	COAL	6.2	42.4	

MAPID: 15701349000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 24 QUARTERS/FOOTAGES: 20' S line, 440' E line of NE NE

QUADRANGLE: WILLISVILLE LONGITUDE: -89.595749 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 37.996249 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 475.8 LOGGED (FT.): 66.8 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. 450N WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
475.8	PLEISTOCENE		UNCONSOLIDATED	30.8	0.0	
445.0	PLEISTOCENE		BOULDER	1.1	30.8	
443.9	PLEISTOCENE		GRAVEL	2.4	31.9	
441.5	CARBONDALE		SHALE	4.4	34.3	
437.0	CARBONDALE		LIMESTONE	2.1	38.8	
435.0	CARBONDALE		SHALE	1.2	40.8	
433.8	CARBONDALE		BLACK SHALE	11.7	42.0	WITH SHALE
422.1	CARBONDALE		LIMESTONE	2.2	53.7	
420.0	CARBONDALE		BLACK SHALE	1.2	55.8	
418.8	CARBONDALE	ANNA	BLACK SHALE	3.0	57.0	CONCRETIONS
415.8	CARBONDALE	HERRIN	COAL	6.8	60.0	

MAPID: 15701350000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 24 QUARTERS/FOOTAGES: 980' S line, 980' E line of NW

QUADRANGLE: WILLISVILLE LONGITUDE: -89.606817 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 37.995003 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 457.0 LOGGED (FT.): 53.1 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO. 458A WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
457.0	PLEISTOCENE		UNCONSOLIDATED	37.6	0.0	
419.4	CARBONDALE		LIMESTONE	2.5	37.6	
416.9	CARBONDALE		LIMESTONE	2.8	40.1	SOFT
414.1	CARBONDALE		LIMESTONE	6.9	42.9	
407.2	CARBONDALE		SHALE	0.8	49.8	
406.4	CARBONDALE	HERRIN	COAL	2.5	50.6	

MAPID: 15701352000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 24 QUARTERS/FOOTAGES: 10' N line, 670' E line of NW NE

QUADRANGLE: WILLISVILLE LONGITUDE: -89.601078 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.000002 DATE COLLECTED: 0 / 0 / 1928

SURFACE ELEVATION (FT.): 459.1 LOGGED (FT.): 43.8 LOG TYPE: Drillers Log

SOURCE: WILLIS COAL & MNG. CO. 449N WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
459.1	PLEISTOCENE		UNCONSOLIDATED	12.3	0.0
446.8	CARBONDALE		LIMESTONE	1.0	12.3
445.8	CARBONDALE		SHALE	5.8	13.3
440.1	CARBONDALE		LIMESTONE	1.8	19.0
438.3	CARBONDALE		SHALE	4.9	20.8
433.4	CARBONDALE		COAL	0.4	25.7
433.0	CARBONDALE		LIMESTONE	0.3	26.1
432.7	CARBONDALE		SHALE	1.9	26.4
430.8	CARBONDALE		BLACK SHALE	1.0	28.3
429.8	CARBONDALE	BRERETON	LIMESTONE	5.7	29.3
424.1	CARBONDALE		SHALE	0.8	35.0
423.3	CARBONDALE	ANNA	BLACK SHALE	1.6	35.8
421.7	CARBONDALE	HERRIN	COAL	6.3	37.4

MAPID: 15701431000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 24 QUARTERS/FOOTAGES: SE SE SW SW

QUADRANGLE: WILLISVILLE LONGITUDE: -89.608706 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 37.985046 DATE COLLECTED: 0 / 0 / 1934

SURFACE ELEVATION (FT.): 480.0 LOGGED (FT.): 42.3 LOG TYPE: Drillers Log

SOURCE: H. E. WILLSON WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
480.0			UNKNOWN	20.0	0.0
460.0	CARBONDALE	HERRIN	COAL	6.3	20.0
453.7	CARBONDALE		SHALE/UNDERCLAY	12.0	26.3
441.7	CARBONDALE	SPRINGFIELD	COAL	4.1	38.3

MAPID: 15700328000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 6S 5W **SECTION:** 25 **QUARTERS/FOOTAGES:** 45' S line, 270' W line of SW NE
QUADRANGLE: WILLISVILLE **LONGITUDE:** -89.602749 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 37.977385 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 468.0 **LOGGED (FT.):** 28.0 **LOG TYPE:** Drillers Log
SOURCE: UNITED ELECTRIC COAL CO. 161 **WELL TYPE:** Coal Test
COMMENT: COAL TEST

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
468.0			UNKNOWN	25.0	0.0
443.0			COAL	3.0	25.0

MAPID: 15700329000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 6S 5W **SECTION:** 25 **QUARTERS/FOOTAGES:** 50' S line, 40' E line of SE NE
QUADRANGLE: WILLISVILLE **LONGITUDE:** -89.594675 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 37.97742 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 475.0 **LOGGED (FT.):** 28.7 **LOG TYPE:** Drillers Log
SOURCE: UNITED ELECTRIC COAL CO. 163 **WELL TYPE:** Coal Test
COMMENT: COAL TEST

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
475.0			UNKNOWN	23.0	0.0
452.0	CARBONDALE	HERRIN	COAL	5.7	23.0

MAPID: 15700330000C **VERSION:** 1 **PROJECT:** NCRDS92
COUNTY: RANDOLPH **TWP/RNG:** 6S 5W **SECTION:** 25 **QUARTERS/FOOTAGES:** 1280' N line, 1190' E line of NE NE
QUADRANGLE: WILLISVILLE **LONGITUDE:** -89.59861 **GEOLOGIST:** HOKE
CONFIDENTIAL: N **LATITUDE:** 37.981102 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 478.0 **LOGGED (FT.):** 45.0 **LOG TYPE:** Drillers Log
SOURCE: UNITED ELECTRIC COAL CO. 187 **WELL TYPE:** Coal Test
COMMENT: COAL TEST

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
478.0			UNKNOWN	43.0	0.0
435.0			COAL	2.0	43.0

MAPID: 15700331000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 25 QUARTERS/FOOTAGES: 50' S line, 40' W line of SW NW
 QUADRANGLE: WILLISVILLE LONGITUDE: -89.612702 GEOLOGIST: HOKE
 CONFIDENTIAL: N LATITUDE: 37.977376 DATE COLLECTED:
 SURFACE ELEVATION (FT.): 452.0 LOGGED (FT.): 56.8 LOG TYPE: Drillers Log
 SOURCE: UNITED ELECTRIC COAL CO. 187 WELL TYPE: Coal Test
 COMMENT: COAL TEST

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
452.0			UNKNOWN	55.0	0.0	
397.0			COAL	1.8	55.0	

MAPID: 15701432000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 25 QUARTERS/FOOTAGES: NE SW SW SW
 QUADRANGLE: WILLISVILLE LONGITUDE: -89.611228 GEOLOGIST: HOKE
 CONFIDENTIAL: N LATITUDE: 37.971304 DATE COLLECTED: 0 / 0 / 1934
 SURFACE ELEVATION (FT.): 460.0 LOGGED (FT.): 28.3 LOG TYPE: Drillers Log
 SOURCE: H. E. WILLSON 2 WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
460.0	PLEISTOCENE		UNCONSOLIDATED	16.2	0.0	
443.8	PLEISTOCENE		CLAY	2.7	16.2	LIGHT
441.2	CARBONDALE	ANNA	BLACK SHALE	3.3	18.8	
437.9	CARBONDALE	HERRIN	COAL	6.2	22.1	GOOD

MAPID: 15701433000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 25 QUARTERS/FOOTAGES: NW NE SW SW
 QUADRANGLE: WILLISVILLE LONGITUDE: -89.610056 GEOLOGIST: HOKE
 CONFIDENTIAL: N LATITUDE: 37.973133 DATE COLLECTED: 0 / 0 / 1934
 SURFACE ELEVATION (FT.): 540.0 LOGGED (FT.): 26.7 LOG TYPE: Drillers Log
 SOURCE: H. E. WILLSON 3 WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
540.0	PLEISTOCENE		UNCONSOLIDATED	14.0	0.0	
526.0	PLEISTOCENE		CLAY	8.0	14.0	SOFT
518.0	CARBONDALE	ANNA	BLACK SHALE	1.6	22.0	
516.4	CARBONDALE	HERRIN	COAL	3.1	23.6	GOOD

MAPID: 15702045000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 25 QUARTERS/FOOTAGES:

QUADRANGLE: WILLISVILLE LONGITUDE: -89.60369

GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 37.97726

DATE COLLECTED: 0 / 0 / 1948

SURFACE ELEVATION (FT.): 510.0

LOGGED (FT.): 135.0

LOG TYPE: Drillers Log

SOURCE: OTHO KINMAN

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
510.0	PLEISTOCENE		CLAY	25.0	0.0	YELLOW
485.0	PLEISTOCENE		CLAY	4.0	25.0	BLUE
481.0	CARBONDALE		LIMESTONE	3.0	29.0	
478.0	CARBONDALE		BLACK SHALE	2.0	32.0	WITH SHALE
476.0	CARBONDALE	HERRIN	COAL	2.0	34.0	
474.0	CARBONDALE		SHALE	3.0	36.0	
471.0	CARBONDALE		LIMESTONE	2.0	39.0	
469.0	CARBONDALE		SHALE	4.0	41.0	
465.0	CARBONDALE		LIMESTONE	7.7	45.0	
457.3	CARBONDALE	SPRINGFIELD	COAL	4.8	52.7	
452.5	CARBONDALE		SHALE	51.5	57.5	
401.0	CARBONDALE		LIMESTONE	1.0	109.0	
400.0	CARBONDALE		BLACK SHALE	6.0	110.0	
394.0	CARBONDALE		COAL	0.3	116.0	
393.7	CARBONDALE		SHALE	8.0	116.3	
385.7	CARBONDALE		SANDSTONE	1.0	124.3	
384.7	CARBONDALE		SHALE	2.0	125.3	
382.7	CARBONDALE		SANDSTONE	1.0	127.3	
381.7	CARBONDALE		SHALE	7.0	128.3	

MAPID: 15702217000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 26 QUARTERS/FOOTAGES: 2300' S line, 1400' E line of SE

QUADRANGLE: WILLISVILLE LONGITUDE: -89.617744 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 37.976344 DATE COLLECTED: 2 / 0 / 1964

SURFACE ELEVATION (FT.): 425.0 LOGGED (FT.): 186.0 LOG TYPE: Drillers Log

SOURCE: GWIN DRILLING COMPANY WELL TYPE: Coal Test

COMMENT: TOTAL DEPTH IS 300'

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
425.0	PLEISTOCENE		CLAY	19.0	0.0	
406.0	PLEISTOCENE		BOULDER	1.0	19.0	BROKEN
405.0	PLEISTOCENE		CLAY	25.0	20.0	SANDY
380.0	CARBONDALE		SHALE	13.0	45.0	
367.0	CARBONDALE		LIMESTONE	2.0	58.0	SANDY AND GRAY
365.0	CARBONDALE		BLACK SHALE	6.0	60.0	
359.0	CARBONDALE	SPRINGFIELD	COAL	1.0	66.0	WITH SLATE
358.0	CARBONDALE		SHALE	13.0	67.0	
345.0	CARBONDALE		SHALE	34.0	80.0	SANDY AND GRAY
311.0	CARBONDALE		LIMESTONE	2.0	114.0	GRAY
309.0	CARBONDALE		BLACK SHALE	2.0	116.0	
307.0	CARBONDALE		COAL	2.0	118.0	
305.0	CARBONDALE		LIMESTONE	3.0	120.0	
302.0	CARBONDALE		SHALE	7.0	123.0	LIGHT GRAY
295.0	CARBONDALE		SANDSTONE	10.0	130.0	SANDY AND GRAY
285.0	CARBONDALE		RED SHALE	15.0	140.0	GRAY
270.0	CARBONDALE		SHALE	15.0	155.0	LIGHT GRAY
255.0	CARBONDALE		SHALE	16.0	170.0	LIGHT GRAY

MAPID: 15722852000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 27 QUARTERS/FOOTAGES: NW NE NW NW

QUADRANGLE: WELGE LONGITUDE: -89.646846 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 37.984324 DATE COLLECTED: 6 / 28 / 1974

SURFACE ELEVATION (FT.): 450.0 LOGGED (FT.): 163.0 LOG TYPE: Drillers Log

SOURCE: FRANK HEPP, JR. 1 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
450.0	PLEISTOCENE		CLAY	40.0	0.0	
410.0	PLEISTOCENE		CLAY	10.0	40.0	GRAY
400.0	CARBONDALE		SANDSTONE	13.0	50.0	BROWN
387.0	CARBONDALE		GRAY SANDSTONE	31.0	63.0	
356.0	CARBONDALE		SHALE	11.0	94.0	WITH HARD SANDSTONE AND LIMESTONE
345.0	CARBONDALE		SHALE	22.0	105.0	SOFT
323.0	CARBONDALE	HOUCHIN CREEK	COAL	3.0	127.0	
320.0	CARBONDALE		SHALE	12.0	130.0	SOFT
308.0	CARBONDALE		SANDSTONE	21.0	142.0	WHITE

MAPID: 15702594000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 28 QUARTERS/FOOTAGES: 350' N line, 400' E line of NE

QUADRANGLE: WELGE LONGITUDE: -89.651149 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 37.983827 DATE COLLECTED: 5 / 22 / 1972

SURFACE ELEVATION (FT.): 430.0 LOGGED (FT.): 145.0 LOG TYPE: Drillers Log

SOURCE: GWIN DRILLING CO. 1 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
430.0	PLEISTOCENE		CLAY	32.0	0.0	
398.0	CARBONDALE		SHALE	30.0	32.0	
368.0	CARBONDALE		SANDSTONE	7.0	62.0	BROWN
361.0	CARBONDALE		GRAY SANDSTONE	6.0	69.0	
355.0	CARBONDALE		SANDSTONE	2.0	75.0	BROWN
353.0	CARBONDALE		GRAY SANDSTONE	3.0	77.0	
350.0	CARBONDALE		SHALE	4.0	80.0	
346.0	CARBONDALE		COAL	2.0	84.0	
344.0	CARBONDALE		SHALE	3.0	86.0	
341.0	CARBONDALE		DARK SHALE	18.0	89.0	
323.0	CARBONDALE		SHALE	17.0	107.0	
306.0	CARBONDALE		SANDSTONE	21.0	124.0	WHITE

MAPID: 15702117000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 30 QUARTERS/FOOTAGES:

QUADRANGLE: WELGE LONGITUDE: -89.695845

GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 37.97788

DATE COLLECTED: 1 / 1 / 1927

SURFACE ELEVATION (FT.): 521.0 LOGGED (FT.): 50.6

LOG TYPE: Drillers Log

SOURCE: UNITED ELECTRIC COAL COMPANY 113

WELL TYPE: Coal Test

COMMENT: OUT OF PLACE WRONG LOCATION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
521.0	PLEISTOCENE		UNCONSOLIDATED	19.0	0.0	
502.0	MODESTO		LIMESTONE	2.0	19.0	
500.0	MODESTO		SHALE	4.0	21.0	
496.0	MODESTO		LIMESTONE	3.0	25.0	
493.0	MODESTO		BLACK SHALE	5.0	28.0	
488.0	CARBONDALE	DANVILLE	COAL	4.7	33.0	
483.3	CARBONDALE		LIMESTONE	5.0	37.7	
478.3	CARBONDALE		BLACK SHALE	2.0	42.7	
476.3	CARBONDALE	HERRIN	COAL	5.9	44.7	

MAPID: 15701434000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 36 QUARTERS/FOOTAGES: NE NW NW NW

QUADRANGLE: WILLISVILLE LONGITUDE: -89.611264

GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 37.969479

DATE COLLECTED: 0 / 0 / 1934

SURFACE ELEVATION (FT.): 490.0 LOGGED (FT.): 37.6

LOG TYPE: Drillers Log

SOURCE: H.E. WILLSON 1

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
490.0	PLEISTOCENE		UNCONSOLIDATED	12.2	0.0	
477.8	PLEISTOCENE		CLAY	7.0	12.2	WITH SHALE
470.8	CARBONDALE		BLACK SHALE	1.3	19.2	
469.5	CARBONDALE		COAL	1.3	20.5	SOFT
468.2	CARBONDALE		COAL	2.8	21.8	MEDIUM-HARD
465.4	CARBONDALE		SHALE	10.0	24.6	
455.4	CARBONDALE		ROCK	3.0	34.6	

MAPID: 15701435000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 5W SECTION: 36 QUARTERS/FOOTAGES: NE NW SW SW

QUADRANGLE: WILLISVILLE LONGITUDE: -89.611543

GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 37.958524

DATE COLLECTED: 0 / 0 / 1934

SURFACE ELEVATION (FT.): 490.0

LOGGED (FT.): 23.3

LOG TYPE: Drillers Log

SOURCE: H. E. WILLSON 4

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
490.0	PLEISTOCENE		UNCONSOLIDATED	18.0	0.0	
472.0	PLEISTOCENE		CLAY	4.0	18.0	
468.0	CARBONDALE	SPRINGFIELD	COAL	1.3	22.0	TOP ERODED

MAPID: 15723059000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 6W SECTION: 12 QUARTERS/FOOTAGES: SW NW NE NE

QUADRANGLE: STEELEVILLE LONGITUDE: -89.708899 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.028462 DATE COLLECTED: 2 / 25 / 1977

SURFACE ELEVATION (FT.): 470.0 LOGGED (FT.): 363.0 LOG TYPE: Drillers Log

SOURCE: HEPP DRILLING COMPANY 1 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
470.0	PLEISTOCENE		CLAY	15.0	0.0	
455.0	PLEISTOCENE		GLACIAL DRIFT	76.0	15.0	
379.0	PLEISTOCENE		UNCONSOLIDATED	20.0	91.0	
359.0	CARBONDALE		LIMESTONE	2.0	111.0	
357.0	CARBONDALE		COAL W/ BLACK SHALE	5.0	113.0	WITH SLATE
352.0	CARBONDALE		UNDERCLAY	1.0	118.0	
351.0	CARBONDALE		SHALE	10.0	119.0	
341.0	CARBONDALE		GRAY SANDSTONE	4.0	129.0	
337.0	CARBONDALE		SHALE	6.0	133.0	
331.0	CARBONDALE		LIMESTONE	2.0	139.0	
329.0	CARBONDALE		COAL	2.0	141.0	WITH UNDERCLAY
327.0	CARBONDALE		SHALE	26.0	143.0	SOFT
301.0	CARBONDALE		SHALE	6.0	169.0	
295.0	CARBONDALE		LIMESTONE	7.0	175.0	
288.0	CARBONDALE		SHALE	4.0	182.0	
284.0	CARBONDALE		COAL	3.0	186.0	WITH UNDERCLAY
281.0	CARBONDALE		SHALE	6.0	189.0	
275.0	CARBONDALE		SANDSTONE	11.0	195.0	GRAY WITH LIMESTONE
264.0	CARBONDALE		SANDSTONE	3.0	206.0	WHITE
261.0	CARBONDALE		CALCAREOUS SHALE	33.0	209.0	
228.0	CARBONDALE		LIMESTONE	13.0	242.0	
215.0	CARBONDALE		SHALE	11.0	255.0	
204.0	CARBONDALE		SANDSTONE	6.0	266.0	WITH SHALE SHEETS
198.0	CARBONDALE		LIMESTONE	3.0	272.0	
195.0	CARBONDALE		SHALE	49.0	275.0	
146.0	CARBONDALE		SANDSTONE	37.0	324.0	WITH SHALE SHEETS
109.0	CARBONDALE		SHALE	2.0	361.0	

MAPID: 15723267000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 6S 6W SECTION: 13 QUARTERS/FOOTAGES:

QUADRANGLE: STEELEVILLE LONGITUDE: -89.71413 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 38.008107 DATE COLLECTED: 5 / 2 / 1978

SURFACE ELEVATION (FT.): 460.0 LOGGED (FT.): 220.0 LOG TYPE: Drillers Log

SOURCE: HEPP DRILLING COMPANY 1 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
460.0	PLEISTOCENE		CLAY	30.0	0.0	
430.0	PLEISTOCENE		UNCONSOLIDATED	35.5	30.0	GRAVELLY
394.5	PLEISTOCENE		BOULDER	1.5	65.5	
393.0	PLEISTOCENE		UNCONSOLIDATED	48.0	67.0	
345.0	CARBONDALE		SHALE	5.0	115.0	GREEN
340.0	CARBONDALE		LIMESTONE	5.0	120.0	WITH SHALE; DARK
335.0	CARBONDALE	DEKOVEN	COAL	2.5	125.0	WITH UNDERCLAY
332.5	CARBONDALE		SHALE	29.5	127.5	
303.0	CARBONDALE	DAVIS	COAL	6.0	157.0	WITH UNDERCLAY
297.0	CARBONDALE		SANDSTONE	27.0	163.0	GRAY WITH LIMESTONE
270.0	CARBONDALE		SANDSTONE	25.0	190.0	WHITE AND GRAY
245.0	CARBONDALE		CALCAREOUS SHALE	5.0	215.0	

MAPID: 15725538000C VERSION: 1

PROJECT: NCRDS92

COUNTY: RANDOLPH TWP/RNG: 7S 5W SECTION: 14 QUARTERS/FOOTAGES: 108' N line, 100' E line of NW NW NW NW

QUADRANGLE: WELGE LONGITUDE: -89.632608 GEOLOGIST: HOKE

CONFIDENTIAL: N LATITUDE: 37.926848 DATE COLLECTED: 8 / 7 / 1980

SURFACE ELEVATION (FT.): 500.0 LOGGED (FT.): 40.0 LOG TYPE: Drillers Log

SOURCE: CLARENCE KOHNEN WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
500.0	PLEISTOCENE		SOIL	1.0	0.0	
499.0	PLEISTOCENE		CLAY	4.0	1.0	BRN,RD
495.0	PLEISTOCENE		CLAY	18.0	5.0	SANDY; BRN,RD
477.0	CARBONDALE		COAL	2.0	23.0	TOP ERODED
475.0	CARBONDALE		SHALE	11.0	25.0	
464.0	CARBONDALE		SHALE	3.0	36.0	
461.0	CARBONDALE		SHALE	1.0	39.0	GREEN