

Status Report

Total Records: 1273

Top 3 County Records		Top 3 Log Type Records		Top 3 Coal Records		Top 3 Member Records	
Marion	1273	Electric Log	809	HERRIN	732	CARTHAGE LIMESTONE	816
		Nuclear Log	39	SPRINGFIELD	668	HERRIN COAL	732
		Drillers Log	39	HOUCHIN CREEK	444	SPRINGFIELD COAL	668

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
OMEGA	LIMESTONE	134.5	134.5	134.5	1.8	1.8	1.8
MILLERSVILLE	LIMESTONE	144.3	70.7	217.8	4.6	1.5	7.7
CARTHAGE	LIMESTONE	392.3	90.0	667.0	9.9	4.0	22.0
NEW HAVEN	COAL	425.0	412.0	438.0	1.0	1.0	1.0
CHAPEL	COAL	597.0	489.8	666.2	1.3	0.6	2.0
TRIVOLI	SANDSTONE	581.5	252.0	794.0	47.4	10.0	100.0
WEST FRANKLIN	LIMESTONE	689.1	544.0	810.0	9.9	3.0	31.0
LAKE CREEK	COAL	712.0	712.0	712.0	1.0	1.0	1.0
POND CREEK	COAL	735.0	735.0	735.0	1.0	1.0	1.0
PIASA	LIMESTONE	683.8	380.0	964.0	6.3	1.0	18.0
DANVILLE	COAL	668.9	440.3	975.0	1.9	0.4	4.0
GALUM	LIMESTONE	625.4	548.0	717.5	1.8	0.5	2.5
ALLENBY	COAL	627.7	451.5	814.0	1.8	0.5	3.5
BANKSTON FORK	LIMESTONE	634.0	456.5	845.5	7.8	2.0	16.0
LAWSON	SHALE	663.6	471.5	981.5	4.9	1.0	16.0
CONANT	LIMESTONE	617.1	468.5	782.0	2.2	0.5	5.0
JAMESTOWN	COAL	700.0	614.5	785.5	0.8	0.2	1.5
BRERETON	LIMESTONE	670.7	473.0	987.0	5.1	2.0	12.0
ANNA	SHALE	659.0	476.5	969.5	2.9	0.5	12.0
HERRIN	COAL	700.2	472.0	1023.0	4.4	0.5	9.5
BRIAR HILL	COAL	862.9	543.0	1067.0	2.4	1.0	5.0
ST. DAVID	LIMESTONE	870.8	853.9	887.6	3.2	1.9	4.5
TURNER MINE	SHALE	889.5	889.5	889.5	1.5	1.5	1.5
SPRINGFIELD	COAL	814.8	517.0	1078.0	4.0	1.0	8.0
EXCELLO	SHALE	928.4	928.4	928.4	4.0	4.0	4.0
HOUCHIN CREEK	COAL	894.9	580.0	1145.0	2.3	1.0	6.0
COLCHESTER	COAL	930.1	606.0	1230.0	2.7	1.0	7.0
BEECH CREEK	LIMESTONE	1680.5	1164.0	2034.0	-	-	-
UPPER DEVONIAN S		3228.4	2787.0	3716.0	-	-	-
BASE UPPER DEVON		3335.6	2864.0	3843.0	-	-	-

GRASSY CREEK	SHALE		3245.6		2798.0	3741.0		-		-		-
						Net Coal		24.6				

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: 12101691000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: MARION TWP/RNG: 1N 1E SECTION: 2 QUARTERS/FOOTAGES: 2310' N line, 1650' W line

QUADRANGLE: CENTRALIA EAST

LONGITUDE: -89.06371

GEOLOGIST:

CONFIDENTIAL: N

LATITUDE: 38.555045

DATE COLLECTED:

SURFACE ELEVATION (FT.): 515.0

LOGGED (FT.): 669.0

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
-97.0	MODESTO	PIASA	LIMESTONE	3.0	612.0
-100.0	MODESTO		SHALE	17.0	615.0
-117.0	CARBONDALE	DANVILLE	COAL	2.0	632.0
-119.0	CARBONDALE		SHALE	4.0	634.0
-123.0	CARBONDALE	GALUM	LIMESTONE & SHALE	1.0	638.0
-124.0	CARBONDALE		LIMESTONE	1.5	639.0
-125.5	CARBONDALE	BANKSTON FORK	LIMESTONE	2.5	640.5
-128.0	CARBONDALE	BANKSTON FORK	SHALE	3.0	643.0
-131.0	CARBONDALE	BANKSTON FORK	LIMESTONE	4.5	646.0
-135.5	CARBONDALE	LAWSON	SHALE	4.5	650.5
-140.0	CARBONDALE	BRERETON	LIMESTONE	3.5	655.0
-143.5	CARBONDALE	ANNA	BLACK SHALE	2.0	658.5
-151.0	CARBONDALE	HERRIN	COAL	3.0	666.0

MAPID: 12101920000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 1E SECTION: 2 QUARTERS/FOOTAGES: 330' S line, 330' W line of NW
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.068351 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.555043 DATE COLLECTED:
SURFACE ELEVATION (FT.): 472.0 LOGGED (FT.): 695.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
273.0	BOND	CARTHAGE	LIMESTONE	10.0	199.0
43.0	MODESTO	TRIVOLI	SANDSTONE	41.0	429.0
-88.0	CARBONDALE	DANVILLE	COAL	-	560.0
-126.0	CARBONDALE	HERRIN	COAL	5.5	598.0
-161.0	CARBONDALE	SPRINGFIELD	COAL	5.0	633.0
-223.0	CARBONDALE	HOUCHIN CREEK	COAL	-	695.0

MAPID: 12100064000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 1N 1E SECTION: 3 QUARTERS/FOOTAGES: SW SW NW
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.086799 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.55513 DATE COLLECTED: 0 / 0 / 1926
SURFACE ELEVATION (FT.): 464.5 LOGGED (FT.): 1779.0 LOG TYPE:
SOURCE: OHIO OIL, ADAMS H W 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-153.5	CARBONDALE	HERRIN	COAL	-	618.0

MAPID: 12100066000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 1N 1E SECTION: 3 QUARTERS/FOOTAGES: SE NW SW
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.084545 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.551536 DATE COLLECTED: 0 / 0 / 1911
SURFACE ELEVATION (FT.): 475.0 LOGGED (FT.): 1634.0 LOG TYPE:
SOURCE: OHIO OIL, KUESTER F 2 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-141.0	CARBONDALE	HERRIN	COAL	-	616.0

MAPID: 12100285000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 1N 1E SECTION: 3 QUARTERS/FOOTAGES: SE SW NW
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.084493 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.555119 DATE COLLECTED: 0 / 0 / 1930
SURFACE ELEVATION (FT.): 482.0 LOGGED (FT.): 1657.0 LOG TYPE:
SOURCE: LEE ETAL, BRYANT J 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
259.0	BOND	CARTHAGE	LIMESTONE	-	223.0
-140.0	CARBONDALE	HERRIN	COAL	-	622.0

MAPID: 12100286000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 1N 1E SECTION: 3 QUARTERS/FOOTAGES: NE SW NW
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.084468 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.556911 DATE COLLECTED: 0 / 0 / 1938
SURFACE ELEVATION (FT.): 463.0 LOGGED (FT.): 1632.0 LOG TYPE:
SOURCE: BELL A OC, PALMER 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-149.0	CARBONDALE	HERRIN	COAL	-	612.0

MAPID: 12101921000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 1E SECTION: 3 QUARTERS/FOOTAGES: 990' S line, 330' E line of NW
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.079866 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.55693 DATE COLLECTED:
SURFACE ELEVATION (FT.): 467.0 LOGGED (FT.): 719.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
258.0	BOND	CARTHAGE	LIMESTONE	11.0	209.0
-153.0	CARBONDALE	HERRIN	COAL	5.0	620.0
-184.0	CARBONDALE	BRIAR HILL	COAL	-	651.0
-193.0	CARBONDALE	SPRINGFIELD	COAL	5.5	660.0
-252.0	CARBONDALE	HOUCHIN CREEK	COAL	-	719.0

MAPID: 12102083000C **VERSION:** 1 **PROJECT:** J JOHNSON
COUNTY: MARION **TWP/RNG:** 1N 1E **SECTION:** 3 **QUARTERS/FOOTAGES:** 330' S line, 330' E line of NW
QUADRANGLE: CENTRALIA EAST **LONGITUDE:** -89.07989 **GEOLOGIST:** J JOHNSON
CONFIDENTIAL: N **LATITUDE:** 38.555108 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 474.0 **LOGGED (FT.):** 1584.0 **LOG TYPE:** Electric Log
SOURCE: TEXAS COMPANY, THE **WELL TYPE:** Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-201.0	CARBONDALE	SPRINGFIELD	COAL	-	675.0
-380.0	CARBONDALE	COLCHESTER	COAL	-	854.0
-1110.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1584.0

MAPID: 12102087000C **VERSION:** 1 **PROJECT:** ROOF STUDY
COUNTY: MARION **TWP/RNG:** 1N 1E **SECTION:** 3 **QUARTERS/FOOTAGES:** 990' N line, 330' E line
QUADRANGLE: CENTRALIA EAST **LONGITUDE:** -89.070622 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.558663 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 469.0 **LOGGED (FT.):** 620.0 **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
-86.0	MODESTO	PIASA	LIMESTONE	3.0	555.0
-89.0	MODESTO		SHALE	19.0	558.0
-108.0	CARBONDALE	DANVILLE	COAL	2.0	577.0
-110.0	CARBONDALE		SHALE	7.0	579.0
-117.0	CARBONDALE	GALUM	LIMESTONE & SHALE	1.0	586.0
-118.0	CARBONDALE		SHALE	2.0	587.0
-120.0	CARBONDALE	BANKSTON FORK	LIMESTONE	2.0	589.0
-122.0	CARBONDALE	BANKSTON FORK	DARK GRAY SHALE	2.0	591.0
-124.0	CARBONDALE	BANKSTON FORK	LIMESTONE	3.0	593.0
-127.0	CARBONDALE	LAWSON	SHALE	5.0	596.0
-132.0	CARBONDALE		CALCAREOUS SHALE	7.0	601.0
-139.0	CARBONDALE	BRERETON	LIMESTONE	3.5	608.0
-142.5	CARBONDALE	ANNA	BLACK SHALE	4.0	611.5
-146.0	CARBONDALE	HERRIN	COAL	5.0	615.0

MAPID: 12102111000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 1E SECTION: 3 QUARTERS/FOOTAGES: 355' S line, 417' E line of NW SE
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.07564 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.551542 DATE COLLECTED:
SURFACE ELEVATION (FT.): 479.0 LOGGED (FT.): 715.0 LOG TYPE: Nuclear Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: POOR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
271.0	BOND	CARTHAGE	LIMESTONE	11.0	208.0
-131.0	CARBONDALE	HERRIN	COAL	6.0	610.0
-158.0	CARBONDALE	BRIAR HILL	COAL	3.0	637.0
-172.0	CARBONDALE	SPRINGFIELD	COAL	6.0	651.0
-236.0	CARBONDALE	HOUCHIN CREEK	COAL	-	715.0

MAPID: 12100065000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 1N 1E SECTION: 4 QUARTERS/FOOTAGES: NE SW NE
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.093645 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.556907 DATE COLLECTED: 0 / 0 / 1931
SURFACE ELEVATION (FT.): 466.8 LOGGED (FT.): 1645.0 LOG TYPE:
SOURCE: BRYT&LEECC, LANGWISH W 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
272.8	BOND	CARTHAGE	LIMESTONE	-	194.0
-123.2	CARBONDALE	HERRIN	COAL	-	590.0

MAPID: 12100067000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 1N 1E SECTION: 4 QUARTERS/FOOTAGES: NW SW SW
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.105221 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.5498 DATE COLLECTED: 0 / 0 / 1900
SURFACE ELEVATION (FT.): 499.4 LOGGED (FT.): 1775.0 LOG TYPE:
SOURCE: HGGNS&TMBR, HIGGINS 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
266.4	BOND	CARTHAGE	LIMESTONE	-	233.0
-142.6	CARBONDALE	HERRIN	COAL	-	642.0

MAPID: 12100069000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 1N 1E SECTION: 4 QUARTERS/FOOTAGES: NE SE NE
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.089071 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.556922 DATE COLLECTED: 0 / 0 / 1932
SURFACE ELEVATION (FT.): 466.8 LOGGED (FT.): 1632.0 LOG TYPE:
SOURCE: BIG CRK OC, MCCLELLAND 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
261.8	BOND	CARTHAGE	LIMESTONE	-	205.0
-136.2	CARBONDALE	HERRIN	COAL	-	603.0

MAPID: 12100070000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 1N 1E SECTION: 4 QUARTERS/FOOTAGES: NW SW
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.104025 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.552454 DATE COLLECTED: 0 / 0 / 1900
SURFACE ELEVATION (FT.): 450.0 LOGGED (FT.): 1525.0 LOG TYPE:
SOURCE: OHIO OIL, KOESTER F 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-160.0	CARBONDALE	HERRIN	COAL	-	610.0

MAPID: 12100071000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 1N 1E SECTION: 4 QUARTERS/FOOTAGES: SW NW SE
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.096021 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.551565 DATE COLLECTED: 0 / 0 / 1900
SURFACE ELEVATION (FT.): 461.6 LOGGED (FT.): 1631.0 LOG TYPE:
SOURCE: SAYER OG, LANGWISH W 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
196.6	BOND	CARTHAGE	LIMESTONE	-	265.0
-163.4	CARBONDALE	HERRIN	COAL	-	625.0

MAPID: 12100072000C **VERSION:** 1 **PROJECT:** CIRC 164
COUNTY: MARION **TWP/RNG:** 1N 1E **SECTION:** 4 **QUARTERS/FOOTAGES:** NE SW SE
QUADRANGLE: CENTRALIA EAST **LONGITUDE:** -89.093756 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.549785 **DATE COLLECTED:** 0 / 0 / 1900
SURFACE ELEVATION (FT.): 465.7 **LOGGED (FT.):** 1624.0 **LOG TYPE:**
SOURCE: JAMES OC, LANGEWISCH 1 **WELL TYPE:** Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-135.3	CARBONDALE	HERRIN	COAL	-	601.0	

MAPID: 12100073000C **VERSION:** 1 **PROJECT:** CIRC 164
COUNTY: MARION **TWP/RNG:** 1N 1E **SECTION:** 4 **QUARTERS/FOOTAGES:** SE NW SE
QUADRANGLE: CENTRALIA EAST **LONGITUDE:** -89.093728 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.551565 **DATE COLLECTED:** 0 / 0 / 1900
SURFACE ELEVATION (FT.): 465.1 **LOGGED (FT.):** 1627.0 **LOG TYPE:**
SOURCE: JAMES OC, LANGEWISCH 2 **WELL TYPE:** Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-149.9	CARBONDALE	HERRIN	COAL	-	615.0	

MAPID: 12101499000C **VERSION:** 1 **PROJECT:** CIRC 164
COUNTY: MARION **TWP/RNG:** 1N 1E **SECTION:** 4 **QUARTERS/FOOTAGES:** 2310' S line, 1650' E line
QUADRANGLE: CENTRALIA EAST **LONGITUDE:** -89.093777 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.55349 **DATE COLLECTED:** 0 / 0 / 1946
SURFACE ELEVATION (FT.): 464.0 **LOGGED (FT.):** 1668.0 **LOG TYPE:**
SOURCE: LESS WM JR, LANGEWISCH 1 **WELL TYPE:** Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
259.0	BOND	CARTHAGE	LIMESTONE	-	205.0	
-131.0	CARBONDALE	HERRIN	COAL	-	595.0	

MAPID: 12101499000C **VERSION:** 2 **PROJECT:** ROOF STUDY
COUNTY: MARION **TWP/RNG:** 1N 1E **SECTION:** 4 **QUARTERS/FOOTAGES:** 2310' S line, 1650' E line
QUADRANGLE: CENTRALIA EAST **LONGITUDE:** -89.093777 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.55349 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 464.0 **LOGGED (FT.):** 609.5 **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
-98.0	MODESTO	PIASA	LIMESTONE	3.5	562.0
-101.5	CARBONDALE		SHALE	5.0	565.5
-106.5	CARBONDALE	GALUM	LIMESTONE	2.5	570.5
-109.0	CARBONDALE		DARK GRAY SHALE	2.5	573.0
-111.5	CARBONDALE	BANKSTON FORK	LIMESTONE	2.5	575.5
-114.0	CARBONDALE	BANKSTON FORK	DARK GRAY SHALE	3.0	578.0
-117.0	CARBONDALE	BANKSTON FORK	LIMESTONE	3.0	581.0
-120.0	CARBONDALE	LAWSON	SHALE	4.0	584.0
-124.0	CARBONDALE		CALCAREOUS SHALE	6.0	588.0
-130.0	CARBONDALE	BRERETON	LIMESTONE	5.0	594.0
-135.0	CARBONDALE	ANNA	BLACK SHALE	4.5	599.0
-140.0	CARBONDALE	HERRIN	COAL	5.5	604.0

MAPID: 12102136000C **VERSION:** 1 **PROJECT:** J JOHNSON
COUNTY: MARION **TWP/RNG:** 1N 1E **SECTION:** 4 **QUARTERS/FOOTAGES:** 330' N line, 330' E line of SW NW
QUADRANGLE: CENTRALIA EAST **LONGITUDE:** -89.102812 **GEOLOGIST:** J JOHNSON
CONFIDENTIAL: N **LATITUDE:** 38.556856 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 470.0 **LOGGED (FT.):** 3313.0 **LOG TYPE:** Electric Log
SOURCE: WHITE, IVAN **WELL TYPE:** Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-170.0	CARBONDALE	SPRINGFIELD	COAL	-	640.0
-312.0	CARBONDALE	COLCHESTER	COAL	-	782.0
-1098.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1568.0
-2751.0	DEVONIAN	UPPER DEVONIAN S	UNCLASSIFIED	-	3221.0 TOP OF NEW ALBANY
-2762.0	DEVONIAN	GRASSY CREEK	UNCLASSIFIED	-	3232.0
-2843.0	DEVONIAN	BASE UPPER DEVON	UNCLASSIFIED	-	3313.0 BASE OF NEW ALBANY

MAPID: 12105713000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 1E SECTION: 4 QUARTERS/FOOTAGES: 1650' N line, 2265' E line
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.095892 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.556791 DATE COLLECTED:
SURFACE ELEVATION (FT.): 464.0 LOGGED (FT.): 698.0 LOG TYPE: Nuclear Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: POOR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
266.0	BOND	CARTHAGE	LIMESTONE	10.0	198.0
-132.0	CARBONDALE	HERRIN	COAL	6.0	596.0
-155.0	CARBONDALE	BRIAR HILL	COAL	-	619.0
-163.0	CARBONDALE	SPRINGFIELD	COAL	5.0	627.0
-234.0	CARBONDALE	HOUCHIN CREEK	COAL	-	698.0

MAPID: 12100287000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 1N 1E SECTION: 5 QUARTERS/FOOTAGES: NE SE SW
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.116688 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.549855 DATE COLLECTED: 0 / 0 / 1938
SURFACE ELEVATION (FT.): 468.0 LOGGED (FT.): 1823.0 LOG TYPE:
SOURCE: BELL A OC, SCHLAGATER WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-90.0	CARBONDALE	HERRIN	COAL	-	558.0

MAPID: 12101671000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 1E SECTION: 5 QUARTERS/FOOTAGES: 990' S line, 990' E line of SW NW
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.123474 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.557171 DATE COLLECTED:
SURFACE ELEVATION (FT.): 459.0 LOGGED (FT.): 650.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
330.0	BOND	CARTHAGE	LIMESTONE	12.0	129.0
-11.0	MODESTO	PIASA	LIMESTONE	6.0	470.0
-34.0	CARBONDALE	DANVILLE	COAL	-	493.0
-74.0	CARBONDALE	HERRIN	COAL	6.5	533.0
-95.0	CARBONDALE	BRIAR HILL	COAL	-	554.0
-101.0	CARBONDALE	SPRINGFIELD	COAL	4.5	560.0
-191.0	CARBONDALE	HOUCHIN CREEK	COAL	-	650.0

MAPID: 12101671000C VERSION: 2 PROJECT: ROOF STUDY
COUNTY: MARION TWP/RNG: 1N 1E SECTION: 5 QUARTERS/FOOTAGES: 990' S line, 990' E line of SW NW
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.123474 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.557171 DATE COLLECTED:
SURFACE ELEVATION (FT.): 459.0 LOGGED (FT.): 539.0 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
-11.0	MODESTO	PIASA	LIMESTONE	4.5	470.0
-15.5	MODESTO		SHALE	17.0	474.5
-32.5	CARBONDALE	DANVILLE	COAL	2.0	491.5
-34.5	CARBONDALE		SHALE	6.0	493.5
-40.5	CARBONDALE		SHALE	2.0	499.5
-42.5	CARBONDALE	BANKSTON FORK	LIMESTONE	2.0	501.5
-44.5	CARBONDALE	BANKSTON FORK	SHALE	3.5	503.5
-48.0	CARBONDALE	BANKSTON FORK	LIMESTONE	2.0	507.0
-50.0	CARBONDALE	LAWSON	SHALE	10.0	509.0
-60.0	CARBONDALE		CALCAREOUS SHALE	5.0	519.0
-65.0	CARBONDALE	BRERETON	LIMESTONE	5.0	524.0
-70.0	CARBONDALE	ANNA	BLACK SHALE	3.0	529.0
-74.0	CARBONDALE	HERRIN	COAL	6.0	533.0

MAPID: 12100288000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 1N 1E SECTION: 6 QUARTERS/FOOTAGES: SE SE NW
QUADRANGLE: CENTRALIA WEST LONGITUDE: -89.135057 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.555425 DATE COLLECTED: 0 / 0 / 1938
SURFACE ELEVATION (FT.): 481.0 LOGGED (FT.): 1450.0 LOG TYPE:
SOURCE: TATE&LNGRS, SKIPPER 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-84.0	CARBONDALE	HERRIN	COAL	-	565.0

MAPID: 12100869000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 1N 1E SECTION: 6 QUARTERS/FOOTAGES: SW SE SW
QUADRANGLE: CENTRALIA WEST LONGITUDE: -89.13751 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.548149 DATE COLLECTED: 0 / 0 / 1938
SURFACE ELEVATION (FT.): 487.0 LOGGED (FT.): 1654.0 LOG TYPE:
SOURCE: HASSETT J, HAUSEMAN 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-65.0	CARBONDALE	HERRIN	COAL	-	552.0

MAPID: 12127571000C VERSION: 1 PROJECT: J JOHNSON
COUNTY: MARION TWP/RNG: 1N 1E SECTION: 6 QUARTERS/FOOTAGES: 330' N line, 330' E line of NW NE
QUADRANGLE: CENTRALIA WEST LONGITUDE: -89.130085 GEOLOGIST: J JOHNSON
CONFIDENTIAL: N LATITUDE: 38.560238 DATE COLLECTED:
SURFACE ELEVATION (FT.): 456.0 LOGGED (FT.): 750.0 LOG TYPE: Electric Log
SOURCE: KOLLER, DANIEL N. WELL TYPE: Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-155.0	CARBONDALE	SPRINGFIELD	COAL	-	611.0
-294.0	CARBONDALE	COLCHESTER	COAL	-	750.0

MAPID: 12100179000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 1N 1E SECTION: 7 QUARTERS/FOOTAGES: SW SE SE
QUADRANGLE: CENTRALIA WEST LONGITUDE: -89.128688 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.533622 DATE COLLECTED: 0 / 0 / 1938
SURFACE ELEVATION (FT.): 495.0 LOGGED (FT.): 1820.0 LOG TYPE:
SOURCE: ALGONA OC, GIBSON 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-290.0	CARBONDALE	HERRIN	COAL	-	785.0

MAPID: 12100289000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 1N 1E SECTION: 7 QUARTERS/FOOTAGES: SW SW NE
QUADRANGLE: CENTRALIA WEST LONGITUDE: -89.133093 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.54088 DATE COLLECTED: 0 / 0 / 1900
SURFACE ELEVATION (FT.): 490.0 LOGGED (FT.): 0.0 LOG TYPE: Measured section
SOURCE: CNTRALIACC 4, WELL TYPE: Underground mine
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-180.0	CARBONDALE	HERRIN	COAL	-	670.0

MAPID: 12100290000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 1N 1E SECTION: 7 QUARTERS/FOOTAGES: SW SW SW
QUADRANGLE: CENTRALIA WEST LONGITUDE: -89.141896 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.533688 DATE COLLECTED: 0 / 0 / 1940
SURFACE ELEVATION (FT.): 497.0 LOGGED (FT.): 2915.0 LOG TYPE:
SOURCE: FIELDS B, CLARK JOHN 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-40.0	CARBONDALE	HERRIN	COAL	-	537.0	

MAPID: 12100302000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 1N 1E SECTION: 7 QUARTERS/FOOTAGES: SW NW SE
QUADRANGLE: CENTRALIA WEST LONGITUDE: -89.13321 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.537264 DATE COLLECTED: 0 / 0 / 1900
SURFACE ELEVATION (FT.): 495.0 LOGGED (FT.): 0.0 LOG TYPE: Measured section
SOURCE: CNTRALIACC 3 WELL TYPE: Underground mine
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-134.0	CARBONDALE	HERRIN	COAL	-	629.0	

MAPID: 12100981000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 1N 1E SECTION: 7 QUARTERS/FOOTAGES: SW SW NW
QUADRANGLE: CENTRALIA WEST LONGITUDE: -89.141663 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.540929 DATE COLLECTED: 0 / 0 / 1940
SURFACE ELEVATION (FT.): 494.0 LOGGED (FT.): 2932.0 LOG TYPE:
SOURCE: GLOYD B F, GEORGE L 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
323.0	BOND	CARTHAGE	LIMESTONE	-	171.0	
-38.0	CARBONDALE	HERRIN	COAL	-	532.0	

MAPID: 12101922000C VERSION: 1 PROJECT: J JOHNSON
COUNTY: MARION TWP/RNG: 1N 1E SECTION: 7 QUARTERS/FOOTAGES: 136' N line, 140' E line of SE NE
QUADRANGLE: CENTRALIA WEST LONGITUDE: -89.12539 GEOLOGIST: J JOHNSON
CONFIDENTIAL: N LATITUDE: 38.543175 DATE COLLECTED:
SURFACE ELEVATION (FT.): 475.0 LOGGED (FT.): 1529.0 LOG TYPE: Electric Log
SOURCE: DUNBAR PRICE WELL TYPE: Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-151.0	CARBONDALE	SPRINGFIELD	COAL	-	626.0
-287.0	CARBONDALE	COLCHESTER	COAL	-	762.0
-1054.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1529.0

MAPID: 12100075000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 1N 1E SECTION: 8 QUARTERS/FOOTAGES: NW NW SW
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.123883 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.539023 DATE COLLECTED: 0 / 0 / 1923
SURFACE ELEVATION (FT.): 490.0 LOGGED (FT.): 937.0 LOG TYPE:
SOURCE: OUTHUSE J, JOHNSON F WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-163.0	CARBONDALE	HERRIN	COAL	-	653.0

MAPID: 12100159000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 1N 1E SECTION: 8 QUARTERS/FOOTAGES: SE SE SE
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.107916 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.533484 DATE COLLECTED: 0 / 0 / 1942
SURFACE ELEVATION (FT.): 502.0 LOGGED (FT.): 1668.0 LOG TYPE:
SOURCE: MCFARLND R, BAKER EST 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-164.0	CARBONDALE	HERRIN	COAL	-	666.0

MAPID: 12100876000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 1N 1E SECTION: 8 QUARTERS/FOOTAGES: NE SE NE
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.107683 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.542597 DATE COLLECTED: 0 / 0 / 1938
SURFACE ELEVATION (FT.): 462.0 LOGGED (FT.): 2045.0 LOG TYPE:
SOURCE: THMPSN DRC, WRIGHT W D 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
260.0	BOND	CARTHAGE	LIMESTONE	-	202.0

MAPID: 12101923000C VERSION: 1 PROJECT: J JOHNSON
COUNTY: MARION TWP/RNG: 1N 1E SECTION: 8 QUARTERS/FOOTAGES: 330' S line, 330' W line of NW SE
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.114827 GEOLOGIST: J JOHNSON
CONFIDENTIAL: N LATITUDE: 38.537168 DATE COLLECTED:
SURFACE ELEVATION (FT.): 489.0 LOGGED (FT.): 1576.0 LOG TYPE: Electric Log
SOURCE: BAYER, KENNETH M. WELL TYPE: Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-193.0	CARBONDALE	SPRINGFIELD	COAL	-	682.0
-324.0	CARBONDALE	COLCHESTER	COAL	-	813.0
-1087.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1576.0

MAPID: 12101923000C VERSION: 2 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 1E SECTION: 8 QUARTERS/FOOTAGES: 330' S line, 330' W line of NW SE
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.114827 GEOLOGIST: C TREWORYG
CONFIDENTIAL: N LATITUDE: 38.537168 DATE COLLECTED:
SURFACE ELEVATION (FT.): 489.0 LOGGED (FT.): 768.5 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
247.0	BOND	CARTHAGE	LIMESTONE	11.0	242.0
-89.0	MODESTO	PIASA	LIMESTONE	5.0	578.0
-109.0	CARBONDALE	DANVILLE	COAL	3.0	598.0
-159.0	CARBONDALE	HERRIN	COAL	7.5	648.0
-191.0	CARBONDALE	SPRINGFIELD	COAL	5.0	680.0
-277.0	CARBONDALE	HOUCHIN CREEK	COAL	2.5	766.0

MAPID: 12105071000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: MARION TWP/RNG: 1N 1E SECTION: 8 QUARTERS/FOOTAGES: 330' N line, 2310' W line

QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.116673

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.546246

DATE COLLECTED:

SURFACE ELEVATION (FT.): 466.0 LOGGED (FT.): 585.0

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
-52.0	MODESTO	PIASA	LIMESTONE	3.0	518.0
-55.0	MODESTO		SHALE	17.0	521.0
-72.0	CARBONDALE	DANVILLE	COAL	2.0	538.0
-74.0	CARBONDALE		SHALE	8.0	540.0
-82.0	CARBONDALE	GALUM	LIMESTONE	2.0	548.0
-84.0	CARBONDALE		SHALE	2.0	550.0
-86.0	CARBONDALE	BANKSTON FORK	LIMESTONE	1.5	552.0
-87.5	CARBONDALE	BANKSTON FORK	SHALE	3.5	553.5
-91.0	CARBONDALE	BANKSTON FORK	LIMESTONE	3.0	557.0
-94.0	CARBONDALE	LAWSON	SHALE	3.0	560.0
-97.0	CARBONDALE		SHALE	4.0	563.0
-101.0	CARBONDALE	BRERETON	LIMESTONE	7.0	567.0
-108.0	CARBONDALE	ANNA	BLACK SHALE	3.5	574.0
-114.0	CARBONDALE	HERRIN	COAL	5.0	580.0

MAPID: 12105159000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 1N 1E SECTION: 8 QUARTERS/FOOTAGES: 330' N line, 330' W line of SW NE

QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.114566

GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.542612

DATE COLLECTED:

SURFACE ELEVATION (FT.): 474.0 LOGGED (FT.): 718.0

LOG TYPE: Electric Log

SOURCE:

WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
279.0	BOND	CARTHAGE	LIMESTONE	11.0	195.0
-129.0	CARBONDALE	HERRIN	COAL	7.0	603.0
-155.0	CARBONDALE	BRIAR HILL	COAL	-	629.0
-159.0	CARBONDALE	SPRINGFIELD	COAL	5.0	633.0
-241.0	CARBONDALE	HOUCHIN CREEK	COAL	3.0	715.0

MAPID: 12100303000C **VERSION:** 1 **PROJECT:** CIRC 164
COUNTY: MARION **TWP/RNG:** 1N 1E **SECTION:** 9 **QUARTERS/FOOTAGES:** SE SW NW
QUADRANGLE: CENTRALIA EAST **LONGITUDE:** -89.103126 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.540756 **DATE COLLECTED:** 0 / 0 / 1941
SURFACE ELEVATION (FT.): 466.0 **LOGGED (FT.):** 2064.0 **LOG TYPE:**
SOURCE: DODGE RAY, STATER 1 **WELL TYPE:** Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-154.0	CARBONDALE	HERRIN	COAL	-	620.0

MAPID: 12101354000C **VERSION:** 1 **PROJECT:** CIRC 164
COUNTY: MARION **TWP/RNG:** 1N 1E **SECTION:** 9 **QUARTERS/FOOTAGES:** SW SW SE
QUADRANGLE: CENTRALIA EAST **LONGITUDE:** -89.096352 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.533428 **DATE COLLECTED:** 0 / 0 / 1943
SURFACE ELEVATION (FT.): 509.0 **LOGGED (FT.):** 1702.0 **LOG TYPE:**
SOURCE: BROWN WM H, KABALA 1 **WELL TYPE:** Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-156.0	CARBONDALE	HERRIN	COAL	-	665.0

MAPID: 12101689000C **VERSION:** 1 **PROJECT:** CGT-ECILL
COUNTY: MARION **TWP/RNG:** 1N 1E **SECTION:** 9 **QUARTERS/FOOTAGES:** 380' S line, 330' E line of SW SW
QUADRANGLE: CENTRALIA EAST **LONGITUDE:** -89.103293 **GEOLOGIST:** C TREWORGY
CONFIDENTIAL: N **LATITUDE:** 38.533598 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 506.0 **LOGGED (FT.):** 835.0 **LOG TYPE:** Electric Log
SOURCE: **WELL TYPE:** Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
246.0	BOND	CARTHAGE	LIMESTONE	11.0	260.0
-103.0	MODESTO	PIASA	LIMESTONE	6.0	609.0
-123.0	CARBONDALE	DANVILLE	COAL	3.0	629.0
-165.0	CARBONDALE	HERRIN	COAL	6.5	671.0
-194.0	CARBONDALE	BRIAR HILL	COAL	3.0	700.0
-200.0	CARBONDALE	SPRINGFIELD	COAL	6.0	706.0
-280.0	CARBONDALE	HOUCHIN CREEK	COAL	-	786.0
-329.0	CARBONDALE	COLCHESTER	COAL	-	835.0

MAPID: 12101689000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: MARION TWP/RNG: 1N 1E SECTION: 9 QUARTERS/FOOTAGES: 380' S line, 330' E line of SW SW
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.103293 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.533598 DATE COLLECTED:
SURFACE ELEVATION (FT.): 506.0 LOGGED (FT.): 677.5 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-103.0	MODESTO	PIASA	LIMESTONE	4.0	609.0
-107.0	MODESTO		SHALE	16.0	613.0
-123.0	CARBONDALE	DANVILLE	COAL	3.0	629.0
-126.0	CARBONDALE		SHALE	6.0	632.0
-132.0	CARBONDALE	GALUM	LIMESTONE	2.5	638.0
-134.5	CARBONDALE		SHALE	2.5	640.5
-137.0	CARBONDALE	BANKSTON FORK	LIMESTONE	4.0	643.0
-141.0	CARBONDALE	BANKSTON FORK	SHALE	2.5	647.0
-143.5	CARBONDALE	BANKSTON FORK	LIMESTONE	2.0	649.5
-145.5	CARBONDALE	LAWSON	SHALE	4.0	651.5
-149.5	CARBONDALE	CONANT	LIMESTONE	2.0	655.5
-151.5	CARBONDALE		CALCAREOUS SHALE	4.0	657.5
-155.5	CARBONDALE	BRERETON	LIMESTONE	5.5	661.5
-161.0	CARBONDALE	ANNA	BLACK SHALE	3.5	667.0
-165.0	CARBONDALE	HERRIN	COAL	6.5	671.0

MAPID: 12101924000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 1N 1E SECTION: 10 QUARTERS/FOOTAGES: 330' N line, 330' W line of NE
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.077697 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.546061 DATE COLLECTED:
SURFACE ELEVATION (FT.): 507.0 LOGGED (FT.): 837.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
253.0	BOND	CARTHAGE	LIMESTONE	10.0	254.0
-99.0	MODESTO	PIASA	LIMESTONE	4.0	606.0
-120.0	CARBONDALE	DANVILLE	COAL	3.0	627.0
-156.0	CARBONDALE	HERRIN	COAL	6.0	663.0
-192.0	CARBONDALE	BRIAR HILL	COAL	-	699.0
-200.0	CARBONDALE	SPRINGFIELD	COAL	6.0	707.0
-275.0	CARBONDALE	HOUCHIN CREEK	COAL	-	782.0
-330.0	CARBONDALE	COLCHESTER	COAL	-	837.0

MAPID: 12101924000C VERSION: 2 PROJECT: ROOF STUDY

COUNTY: MARION TWP/RNG: 1N 1E SECTION: 10 QUARTERS/FOOTAGES: 330' N line, 330' W line of NE

QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.077697 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.546061 DATE COLLECTED:

SURFACE ELEVATION (FT.): 507.0 LOGGED (FT.): 670.0 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
-99.0	MODESTO	PIASA	LIMESTONE	4.0	606.0
-103.0	MODESTO		SHALE	18.0	610.0
-121.0	CARBONDALE	DANVILLE	COAL	2.0	628.0
-123.0	CARBONDALE		SHALE	7.0	630.0
-130.0	CARBONDALE	GALUM	LIMESTONE	0.5	637.0
-130.5	CARBONDALE		SHALE	1.5	637.5
-132.0	CARBONDALE	BANKSTON FORK	LIMESTONE	2.0	639.0
-134.0	CARBONDALE	BANKSTON FORK	SHALE	2.5	641.0
-136.5	CARBONDALE	BANKSTON FORK	LIMESTONE	3.5	643.5
-140.0	CARBONDALE	LAWSON	SHALE	5.0	647.0
-145.0	CARBONDALE		CALCAREOUS SHALE	4.0	652.0
-149.0	CARBONDALE	BRERETON	LIMESTONE	5.5	656.0
-154.5	CARBONDALE	ANNA	BLACK SHALE	2.0	661.5
-157.0	CARBONDALE	HERRIN	COAL	6.0	664.0

MAPID: 12101924000C VERSION: 3 PROJECT: J JOHNSON

COUNTY: MARION TWP/RNG: 1N 1E SECTION: 10 QUARTERS/FOOTAGES: 330' N line, 330' W line of NE

QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.077697 GEOLOGIST: J JOHNSON

CONFIDENTIAL: N LATITUDE: 38.546061 DATE COLLECTED:

SURFACE ELEVATION (FT.): 507.0 LOGGED (FT.): 3383.0 LOG TYPE: Electric Log

SOURCE: MORGAN, W. O., ETAL WELL TYPE: Oil and Gas Test

COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-203.0	CARBONDALE	SPRINGFIELD	COAL	-	710.0
-323.0	CARBONDALE	COLCHESTER	COAL	-	830.0
-1119.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1626.0
-2777.0	DEVONIAN	UPPER DEVONIAN S	UNCLASSIFIED	-	3284.0 TOP OF NEW ALBANY
-2792.0	DEVONIAN	GRASSY CREEK	UNCLASSIFIED	-	3299.0
-2876.0	DEVONIAN	BASE UPPER DEVON	UNCLASSIFIED	-	3383.0 BASE OF NEW ALBANY

MAPID: 12101687000C **VERSION:** 1 **PROJECT:** J JOHNSON
COUNTY: MARION **TWP/RNG:** 1N 1E **SECTION:** 11 **QUARTERS/FOOTAGES:** 330' N line, 330' W line
QUADRANGLE: CENTRALIA EAST **LONGITUDE:** -89.06848 **GEOLOGIST:** J JOHNSON
CONFIDENTIAL: N **LATITUDE:** 38.545952 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 512.0 **LOGGED (FT.):** 3458.0 **LOG TYPE:** Electric Log
SOURCE: BREHM, C. E. DRLG.&PROD. **WELL TYPE:** Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-217.0	CARBONDALE	SPRINGFIELD	COAL	-	729.0	
-350.0	CARBONDALE	COLCHESTER	COAL	-	862.0	
-1200.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1712.0	
-2846.0	DEVONIAN	UPPER DEVONIAN S	UNCLASSIFIED	-	3358.0	TOP OF NEW ALBANY
-2860.0	DEVONIAN	GRASSY CREEK	UNCLASSIFIED	-	3372.0	
-2946.0	DEVONIAN	BASE UPPER DEVON	UNCLASSIFIED	-	3458.0	BASE OF NEW ALBANY

MAPID: 12101925000C **VERSION:** 1 **PROJECT:** CGT-ECILL
COUNTY: MARION **TWP/RNG:** 1N 1E **SECTION:** 11 **QUARTERS/FOOTAGES:** 330' S line, 330' W line of SE NW
QUADRANGLE: CENTRALIA EAST **LONGITUDE:** -89.06386 **GEOLOGIST:** C TREWORGY
CONFIDENTIAL: N **LATITUDE:** 38.540444 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 496.0 **LOGGED (FT.):** 876.0 **LOG TYPE:** Electric Log
SOURCE: **WELL TYPE:** Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
166.0	BOND	CARTHAGE	LIMESTONE	12.0	330.0	
-249.0	CARBONDALE	HERRIN	COAL	6.0	745.0	
-296.0	CARBONDALE	SPRINGFIELD	COAL	5.5	792.0	
-380.0	CARBONDALE	HOUCHIN CREEK	COAL	-	876.0	

MAPID: 12101925000C **VERSION:** 2 **PROJECT:** ROOF STUDY
COUNTY: MARION **TWP/RNG:** 1N 1E **SECTION:** 11 **QUARTERS/FOOTAGES:** 330' S line, 330' W line of SE NW
QUADRANGLE: CENTRALIA EAST **LONGITUDE:** -89.06386 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.540444 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 496.0 **LOGGED (FT.):** 751.5 **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
-214.5	CARBONDALE	DANVILLE	COAL	2.0	710.5
-216.5	CARBONDALE		SHALE	5.0	712.5
-221.5	CARBONDALE	GALUM	LIMESTONE	2.0	717.5
-223.5	CARBONDALE		SHALE	3.0	719.5
-226.5	CARBONDALE	BANKSTON FORK	LIMESTONE	1.5	722.5
-228.0	CARBONDALE	BANKSTON FORK	SHALE	2.5	724.0
-230.5	CARBONDALE	BANKSTON FORK	LIMESTONE	3.0	726.5
-233.5	CARBONDALE	LAWSON	CALCAREOUS SHALE	5.0	729.5
-238.5	CARBONDALE	BRERETON	LIMESTONE	5.0	734.5
-243.5	CARBONDALE	ANNA	BLACK SHALE	4.5	739.5
-248.0	CARBONDALE	HERRIN	COAL	7.5	744.0

MAPID: 12126665000C **VERSION:** 1 **PROJECT:** J JOHNSON
COUNTY: MARION **TWP/RNG:** 1N 1E **SECTION:** 13 **QUARTERS/FOOTAGES:** 330' N line, 330' E line of SE NW
QUADRANGLE: CENTRALIA EAST **LONGITUDE:** -89.04295 **GEOLOGIST:** J JOHNSON
CONFIDENTIAL: N **LATITUDE:** 38.527531 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 520.0 **LOGGED (FT.):** 987.0 **LOG TYPE:** Electric Log
SOURCE: BLH & ASSOCIATES, INC. **WELL TYPE:** Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-361.0	CARBONDALE	SPRINGFIELD	COAL	-	881.0
-467.0	CARBONDALE	COLCHESTER	COAL	-	987.0

MAPID: 12100078000C **VERSION:** 1 **PROJECT:** CIRC 164
COUNTY: MARION **TWP/RNG:** 1N 1E **SECTION:** 14 **QUARTERS/FOOTAGES:** NE SE NW
QUADRANGLE: CENTRALIA EAST **LONGITUDE:** -89.06165 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.527681 **DATE COLLECTED:** 0 / 0 / 1911
SURFACE ELEVATION (FT.): 483.0 **LOGGED (FT.):** 1672.0 **LOG TYPE:**
SOURCE: OHIO OIL, GEBING 1 **WELL TYPE:** Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-262.0	CARBONDALE	HERRIN	COAL	-	745.0

MAPID: 12101686000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 1N 1E SECTION: 15 QUARTERS/FOOTAGES: 330' S line, 330' E line of SW SE SE
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.073411 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.518694 DATE COLLECTED:
SURFACE ELEVATION (FT.): 508.0 LOGGED (FT.): 915.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
136.0	BOND	CARTHAGE	LIMESTONE	11.0	372.0
-319.0	CARBONDALE	SPRINGFIELD	COAL	5.0	827.0
-407.0	CARBONDALE	HOUCHIN CREEK	COAL	-	915.0

MAPID: 12101686000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: MARION TWP/RNG: 1N 1E SECTION: 15 QUARTERS/FOOTAGES: 330' S line, 330' E line of SW SE SE
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.073411 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.518694 DATE COLLECTED:
SURFACE ELEVATION (FT.): 508.0 LOGGED (FT.): 736.0 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
-198.0	CARBONDALE	BANKSTON FORK	LIMESTONE	4.0	706.0
-202.0	CARBONDALE	BANKSTON FORK	SHALE	1.5	710.0
-203.5	CARBONDALE	BANKSTON FORK	LIMESTONE	5.5	711.5
-209.0	CARBONDALE	LAWSON	CALCAREOUS SHALE	8.0	717.0
-217.0	CARBONDALE	BRERETON	LIMESTONE	4.0	725.0
-221.0	CARBONDALE	ANNA	BLACK SHALE	3.0	729.0
-224.0	CARBONDALE	HERRIN	COAL	4.0	732.0

MAPID: 12101686000C VERSION: 3

PROJECT: J JOHNSON

COUNTY: MARION TWP/RNG: 1N 1E SECTION: 15 QUARTERS/FOOTAGES: 330' S line, 330' E line of SW SE SE
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.073411 GEOLOGIST: J JOHNSON
CONFIDENTIAL: N LATITUDE: 38.518694 DATE COLLECTED:
SURFACE ELEVATION (FT.): 508.0 LOGGED (FT.): 1828.0 LOG TYPE: Electric Log
SOURCE: RYAN OIL CO., ETAL WELL TYPE: Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-317.0	CARBONDALE	SPRINGFIELD	COAL	-	825.0
-444.0	CARBONDALE	COLCHESTER	COAL	-	952.0
-1320.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1828.0

MAPID: 12101344000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 1N 1E SECTION: 16 QUARTERS/FOOTAGES: NE SE NW
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.098763 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.527934 DATE COLLECTED: 0 / 0 / 1943
SURFACE ELEVATION (FT.): 488.3 LOGGED (FT.): 1686.0 LOG TYPE:
SOURCE: ALGONA OC, STATER 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
230.3	BOND	CARTHAGE	LIMESTONE	-	258.0
-165.7	CARBONDALE	HERRIN	COAL	-	654.0

MAPID: 12101374000C VERSION: 1 PROJECT: ROOF STUDY
COUNTY: MARION TWP/RNG: 1N 1E SECTION: 16 QUARTERS/FOOTAGES: 990' N line, 2310' W line
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.09871 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.529792 DATE COLLECTED:
SURFACE ELEVATION (FT.): 507.0 LOGGED (FT.): 658.5 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
-112.0	CARBONDALE	DANVILLE	COAL	1.0	619.0
-113.0	CARBONDALE		SHALE	6.5	620.0
-119.5	CARBONDALE		SHALE	2.0	626.5
-121.5	CARBONDALE	BANKSTON FORK	LIMESTONE	3.0	628.5
-124.5	CARBONDALE	BANKSTON FORK	SHALE	1.5	631.5
-126.0	CARBONDALE	BANKSTON FORK	LIMESTONE	4.0	633.0
-130.0	CARBONDALE	LAWSON	SHALE	4.5	637.0
-134.5	CARBONDALE	BRERETON	LIMESTONE	7.0	641.5
-141.5	CARBONDALE	ANNA	BLACK SHALE	5.5	648.5
-147.0	CARBONDALE	HERRIN	COAL	4.5	654.0

MAPID: 12102163000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 1N 1E SECTION: 16 QUARTERS/FOOTAGES: 330' N line, 330' W line of SE NW
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.101072 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.52795 DATE COLLECTED:
SURFACE ELEVATION (FT.): 517.0 LOGGED (FT.): 835.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
256.0	BOND	CARTHAGE	LIMESTONE	12.0	261.0
-92.0	MODESTO	PIASA	LIMESTONE	-	609.0
-111.0	CARBONDALE	DANVILLE	COAL	-	628.0
-145.0	CARBONDALE	HERRIN	COAL	5.5	662.0
-198.0	CARBONDALE	SPRINGFIELD	COAL	5.0	715.0
-274.0	CARBONDALE	HOUCHIN CREEK	COAL	2.5	791.0
-318.0	CARBONDALE	COLCHESTER	COAL	-	835.0

MAPID: 12100983000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 1N 1E SECTION: 17 QUARTERS/FOOTAGES: 330' N line, 330' E line of SE
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.108075 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.52428 DATE COLLECTED:
SURFACE ELEVATION (FT.): 511.0 LOGGED (FT.): 785.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
253.0	BOND	CARTHAGE	LIMESTONE	12.0	258.0
-168.0	CARBONDALE	HERRIN	COAL	7.0	679.0
-193.0	CARBONDALE	SPRINGFIELD	COAL	6.0	704.0
-274.0	CARBONDALE	HOUCHIN CREEK	COAL	-	785.0

MAPID: 12100983000C VERSION: 2 PROJECT: ROOF STUDY
COUNTY: MARION TWP/RNG: 1N 1E SECTION: 17 QUARTERS/FOOTAGES: 330' N line, 330' E line of SE
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.108075 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.52428 DATE COLLECTED:
SURFACE ELEVATION (FT.): 511.0 LOGGED (FT.): 665.0 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
-113.5	CARBONDALE	BANKSTON FORK	LIMESTONE	4.0	624.5
-117.5	CARBONDALE	BANKSTON FORK	LIMESTONE	2.0	628.5
-119.5	CARBONDALE	BANKSTON FORK	LIMESTONE	4.0	630.5
-123.5	CARBONDALE	LAWSON	SHALE	8.0	634.5
-131.5	CARBONDALE		CALCAREOUS SHALE	7.0	642.5
-138.5	CARBONDALE	BRERETON	LIMESTONE	5.5	649.5
-144.0	CARBONDALE	ANNA	BLACK SHALE	3.0	655.0
-147.0	CARBONDALE	HERRIN	COAL	7.0	658.0

MAPID: 12100983000C VERSION: 3 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 1N 1E SECTION: 17 QUARTERS/FOOTAGES: 330' N line, 330' E line of SE
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.108075 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.52428 DATE COLLECTED: 0 / 0 / 1942
SURFACE ELEVATION (FT.): 511.0 LOGGED (FT.): 1825.0 LOG TYPE:
SOURCE: LILLY L, BELL ETTA 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
255.0	BOND	CARTHAGE	LIMESTONE	-	256.0
-157.0	CARBONDALE	HERRIN	COAL	-	668.0

MAPID: 12100984000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 1N 1E SECTION: 17 QUARTERS/FOOTAGES: NE SE NE
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.108013 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.52796 DATE COLLECTED: 0 / 0 / 1942
SURFACE ELEVATION (FT.): 510.0 LOGGED (FT.): 1679.0 LOG TYPE:
SOURCE: LILLY L, LEONRD EST 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
252.0	BOND	CARTHAGE	LIMESTONE	-	258.0
-163.0	CARBONDALE	HERRIN	COAL	-	673.0

MAPID: 12102171000C VERSION: 1 PROJECT: J JOHNSON
COUNTY: MARION TWP/RNG: 1N 1E SECTION: 17 QUARTERS/FOOTAGES: 330' S line, 330' E line
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.108162 GEOLOGIST: J JOHNSON
CONFIDENTIAL: N LATITUDE: 38.518723 DATE COLLECTED:
SURFACE ELEVATION (FT.): 522.0 LOGGED (FT.): 1659.0 LOG TYPE: Electric Log
SOURCE: WEIDLER W E WELL TYPE: Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-197.0	CARBONDALE	SPRINGFIELD	COAL	-	719.0
-317.0	CARBONDALE	COLCHESTER	COAL	-	839.0
-1137.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1659.0

MAPID: 12102171000C VERSION: 2 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 1E SECTION: 17 QUARTERS/FOOTAGES: 330' S line, 330' E line
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.108162 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.518723 DATE COLLECTED:
SURFACE ELEVATION (FT.): 522.0 LOGGED (FT.): 840.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
255.0	BOND	CARTHAGE	LIMESTONE	11.0	267.0
-108.0	CARBONDALE	DANVILLE	COAL	2.0	630.0
-148.0	CARBONDALE	HERRIN	COAL	3.0	670.0
-192.0	CARBONDALE	SPRINGFIELD	COAL	4.5	714.0
-282.0	CARBONDALE	HOUCHIN CREEK	COAL	3.0	804.0
-318.0	CARBONDALE	COLCHESTER	COAL	-	840.0

MAPID: 12100319000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 1N 1E SECTION: 18 QUARTERS/FOOTAGES: NW SE SW
QUADRANGLE: CENTRALIA WEST LONGITUDE: -89.138262 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.520652 DATE COLLECTED: 0 / 0 / 1940
SURFACE ELEVATION (FT.): 488.0 LOGGED (FT.): 2906.0 LOG TYPE:
SOURCE: MENHLL DRC, ILL CEN RR 10 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-63.0	CARBONDALE	HERRIN	COAL	-	551.0

MAPID: 12100892000C **VERSION:** 1 **PROJECT:** J JOHNSON
COUNTY: MARION **TWP/RNG:** 1N 1E **SECTION:** 18 **QUARTERS/FOOTAGES:** NW SW NW
QUADRANGLE: CENTRALIA WEST **LONGITUDE:** -89.142441 **GEOLOGIST:** J JOHNSON
CONFIDENTIAL: N **LATITUDE:** 38.527525 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 499.0 **LOGGED (FT.):** 2865.0 **LOG TYPE:** Electric Log
SOURCE: HAWLEY OIL & GAS CO **WELL TYPE:** Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-86.0	CARBONDALE	SPRINGFIELD	COAL	-	585.0	
-201.0	CARBONDALE	COLCHESTER	COAL	-	700.0	
-676.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1175.0	
-2290.0	DEVONIAN	UPPER DEVONIAN S	UNCLASSIFIED	-	2789.0	TOP OF NEW ALBANY
-2301.0	DEVONIAN	GRASSY CREEK	UNCLASSIFIED	-	2800.0	
-2366.0	DEVONIAN	BASE UPPER DEVON	UNCLASSIFIED	-	2865.0	BASE OF NEW ALBANY

MAPID: 12100892000C **VERSION:** 2 **PROJECT:** CIRC 164
COUNTY: MARION **TWP/RNG:** 1N 1E **SECTION:** 18 **QUARTERS/FOOTAGES:** NW SW NW
QUADRANGLE: CENTRALIA WEST **LONGITUDE:** -89.142441 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.527525 **DATE COLLECTED:** 0 / 0 / 1938
SURFACE ELEVATION (FT.): 496.0 **LOGGED (FT.):** 1385.0 **LOG TYPE:**
SOURCE: HAWLEY ETL, BECKER 1 **WELL TYPE:** Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
311.0	BOND	CARTHAGE	LIMESTONE	-	185.0	
-62.0	CARBONDALE	HERRIN	COAL	-	558.0	

MAPID: 12102177000C **VERSION:** 1 **PROJECT:** J JOHNSON
COUNTY: MARION **TWP/RNG:** 1N 1E **SECTION:** 18 **QUARTERS/FOOTAGES:** 34' N line, 304' W line of NE NW SW
QUADRANGLE: CENTRALIA WEST **LONGITUDE:** -89.140572 **GEOLOGIST:** J JOHNSON
CONFIDENTIAL: N **LATITUDE:** 38.525239 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 496.0 **LOGGED (FT.):** 2864.0 **LOG TYPE:** Electric Log
SOURCE: KOENIG E J **WELL TYPE:** Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-79.0	CARBONDALE	SPRINGFIELD	COAL	-	575.0	
-184.0	CARBONDALE	COLCHESTER	COAL	-	680.0	
-668.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1164.0	
-2291.0	DEVONIAN	UPPER DEVONIAN S	UNCLASSIFIED	-	2787.0	TOP OF NEW ALBANY
-2302.0	DEVONIAN	GRASSY CREEK	UNCLASSIFIED	-	2798.0	
-2368.0	DEVONIAN	BASE UPPER DEVON	UNCLASSIFIED	-	2864.0	BASE OF NEW ALBANY

MAPID: 12102178000C VERSION: 1 PROJECT: ROOF STUDY
COUNTY: MARION TWP/RNG: 1N 1E SECTION: 18 QUARTERS/FOOTAGES: 283' N line, 264' W line
QUADRANGLE: CENTRALIA WEST LONGITUDE: -89.14213 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.532002 DATE COLLECTED:
SURFACE ELEVATION (FT.): 499.0 LOGGED (FT.): 557.5 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
-7.0	MODESTO	PIASA	LIMESTONE	4.0	506.0
-11.0	MODESTO		SHALE	15.5	510.0
-26.5	CARBONDALE	DANVILLE	COAL	2.5	525.5
-29.0	CARBONDALE		SHALE	2.0	528.0
-31.0	CARBONDALE	BANKSTON FORK	LIMESTONE	2.5	530.0
-33.5	CARBONDALE	BANKSTON FORK	SHALE	2.5	532.5
-36.0	CARBONDALE	BANKSTON FORK	LIMESTONE	3.0	535.0
-39.0	CARBONDALE	LAWSON	SHALE	2.5	538.0
-41.5	CARBONDALE	CONANT	LIMESTONE	2.0	540.5
-43.5	CARBONDALE		BLACK SHALE	3.0	542.5
-46.5	CARBONDALE	BRERETON	LIMESTONE	6.5	545.5
-52.0	CARBONDALE	HERRIN	COAL	6.5	551.0

MAPID: 12100088000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 1N 1E SECTION: 19 QUARTERS/FOOTAGES: SE NW NW
QUADRANGLE: CENTRALIA WEST LONGITUDE: -89.140707 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.515146 DATE COLLECTED: 0 / 0 / 1900
SURFACE ELEVATION (FT.): 499.9 LOGGED (FT.): 886.0 LOG TYPE:
SOURCE: CNTRALIACC, SHFT S MNE 2 WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
314.9	BOND	CARTHAGE	LIMESTONE	-	185.0
-70.1	CARBONDALE	HERRIN	COAL	7.0	570.0

MAPID: 12100088000C VERSION: 2 PROJECT: ROOF STUDY

COUNTY: MARION TWP/RNG: 1N 1E SECTION: 19 QUARTERS/FOOTAGES: SE NW NW

QUADRANGLE: CENTRALIA WEST LONGITUDE: -89.140707 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.515146 DATE COLLECTED:

SURFACE ELEVATION (FT.): 500.0 LOGGED (FT.): 576.0 LOG TYPE: Drillers Log

SOURCE: WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-14.0	MODESTO	PIASA	LIMESTONE	2.0	514.0
-16.0	MODESTO		VARRIGATED SHALE	8.0	516.0
-24.0	CARBONDALE	DANVILLE	COAL	2.0	524.0
-26.0	CARBONDALE	BANKSTON FORK	LIMESTONE	8.0	526.0
-34.0	CARBONDALE	BANKSTON FORK	BLACK SHALE	2.0	534.0
-36.0	CARBONDALE	BANKSTON FORK	LIMESTONE	4.5	536.0
-40.5	CARBONDALE	LAWSON	BLACK SHALE	2.5	540.5
-43.0	CARBONDALE	CONANT	LIMESTONE	4.0	543.0
-47.0	CARBONDALE		BLACK SHALE	12.0	547.0
-59.0	CARBONDALE	BRERETON	LIMESTONE	7.0	559.0
-66.0	CARBONDALE	ANNA	BLACK SHALE	2.5	566.0
-69.0	CARBONDALE	HERRIN	COAL	7.0	569.0

MAPID: 12100088000C VERSION: 3

PROJECT: NCRDS87

COUNTY: MARION

TWP/RNG: 1N 1E

SECTION: 19

QUARTERS/FOOTAGES: SE NW NW

QUADRANGLE: CENTRALIA WEST

LONGITUDE: -89.140707

GEOLOGIST: WEIBEL

CONFIDENTIAL: N

LATITUDE: 38.515146

DATE COLLECTED:

SURFACE ELEVATION (FT.): 500.0

LOGGED (FT.): 576.0

LOG TYPE: Drillers Log

SOURCE: CENTRALIA COAL COMPANY

WELL TYPE: Mine Shaft

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
500.0			UNCONSOLIDATED	12.0	0.0	
488.0	MATTOON		UNCLASSIFIED	58.0	12.0	UNCERTAIN CORRELATION
430.0	MATTOON		SHALE	0.7	70.0	
429.3	BOND	MILLERSVILLE	LIMESTONE	1.5	70.7	UNCERTAIN CORRELATION
427.8	BOND		COAL	0.7	72.2	
427.2	BOND		UNCLASSIFIED	26.5	72.8	
400.7	BOND		LIMESTONE	5.5	99.3	
395.2	BOND		SANDSTONE	5.0	104.8	
390.2	BOND		COAL	0.2	109.8	
390.0	BOND		SANDSTONE	6.0	110.0	
384.0	BOND		COAL	0.5	116.0	
383.5	BOND		SANDSTONE	2.5	116.5	
381.0	BOND		COAL	0.2	119.0	
380.8	BOND		SANDSTONE	4.0	119.2	
376.8	BOND		LIMESTONE	2.0	123.2	
374.8	BOND		SANDSTONE	12.2	125.2	
362.7	BOND		UNCLASSIFIED	1.5	137.3	
361.2	BOND	CARTHAGE	UNDERCLAY	2.0	138.8	
359.2	BOND		UNCLASSIFIED	44.5	140.8	
314.7	BOND		LIMESTONE	11.0	185.3	UNCERTAIN CORRELATION
303.7	MODESTO		SHALE	5.5	196.3	
298.2	MODESTO		COAL	0.3	201.8	
297.8	MODESTO		UNCLASSIFIED	4.0	202.2	
293.8	MODESTO		SANDSTONE	10.0	206.2	
283.8	MODESTO		UNCLASSIFIED	50.0	216.2	
233.8	MODESTO		LIMESTONE	1.0	266.2	
232.8	MODESTO		SHALE	2.0	267.2	
230.8	MODESTO		UNCLASSIFIED	3.0	269.2	
227.8	MODESTO		SANDSTONE	24.0	272.2	
203.8	MODESTO		UNCLASSIFIED	79.0	296.2	
124.8	MODESTO		COAL	1.2	375.2	
123.7	MODESTO		UNCLASSIFIED	3.0	376.3	
120.7	MODESTO		LIMESTONE	8.0	379.3	
112.7	MODESTO		SHALE	10.0	387.3	
102.7	MODESTO		SANDSTONE	56.0	397.3	
46.7	MODESTO		SHALE	43.0	453.3	
3.7	MODESTO		BLACK SHALE	0.5	496.3	
3.2	MODESTO		COAL	0.1	496.8	
3.0	MODESTO		UNCLASSIFIED	14.0	497.0	

-11.0	MODESTO		SANDSTONE	1.0	511.0
-12.0	MODESTO		BLACK SHALE	1.0	512.0
-13.0	MODESTO		UNDERCLAY	1.5	513.0
-14.5	MODESTO	PIASA	LIMESTONE	2.0	514.5
-16.5	MODESTO		SHALE	8.0	516.5
-24.5	CARBONDALE	DANVILLE	COAL	2.0	524.5
-26.5	CARBONDALE		LIMESTONE	8.0	526.5
-34.5	CARBONDALE		SHALE	2.0	534.5
-36.5	CARBONDALE	BANKSTON FORK	LIMESTONE	4.5	536.5
-40.9	CARBONDALE		BLACK SHALE	2.5	540.9
-43.5	CARBONDALE		LIMESTONE	4.0	543.5
-47.5	CARBONDALE		BLACK SHALE	12.0	547.5
-59.5	CARBONDALE	BRERETON	LIMESTONE	7.0	559.5
-66.5	CARBONDALE	ANNA	BLACK SHALE	2.5	566.5
-69.0	CARBONDALE	HERRIN	COAL	7.0	569.0

MAPID: 12100092000C **VERSION:** 1 **PROJECT:** CIRC 164
COUNTY: MARION **TWP/RNG:** 1N 1E **SECTION:** 19 **QUARTERS/FOOTAGES:** SW NW SE
QUADRANGLE: CENTRALIA WEST **LONGITUDE:** -89.133925 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.507734 **DATE COLLECTED:** 0 / 0 / 1922
SURFACE ELEVATION (FT.): 504.7 **LOGGED (FT.):** 830.0 **LOG TYPE:**
SOURCE: PETRO OG 10, SLIGAR 1 **WELL TYPE:** Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.) UNIT OVERBURDEN	COMMENT
-62.3	CARBONDALE	HERRIN	COAL	-	567.0

MAPID: 12100167000C **VERSION:** 1 **PROJECT:** CIRC 164
COUNTY: MARION **TWP/RNG:** 1N 1E **SECTION:** 19 **QUARTERS/FOOTAGES:** SW SE SW
QUADRANGLE: CENTRALIA WEST **LONGITUDE:** -89.138648 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.504143 **DATE COLLECTED:** 0 / 0 / 1942
SURFACE ELEVATION (FT.): 495.0 **LOGGED (FT.):** 772.0 **LOG TYPE:**
SOURCE: PETERSON A, TIMMONS 1 **WELL TYPE:** Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.) UNIT OVERBURDEN	COMMENT
-16.0	CARBONDALE	HERRIN	COAL	-	511.0

MAPID: 12100278000C **VERSION:** 1 **PROJECT:** CIRC 164
COUNTY: MARION **TWP/RNG:** 1N 1E **SECTION:** 19 **QUARTERS/FOOTAGES:** SE NW SW
QUADRANGLE: CENTRALIA WEST **LONGITUDE:** -89.140881 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.50783 **DATE COLLECTED:** 0 / 0 / 1941
SURFACE ELEVATION (FT.): 498.0 **LOGGED (FT.):** 789.0 **LOG TYPE:**
SOURCE: PETERSON A, RITTERKAMP **WELL TYPE:** Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-22.0	CARBONDALE	HERRIN	COAL	-	520.0

MAPID: 12101874000C **VERSION:** 1 **PROJECT:** CGT-ECILL
COUNTY: MARION **TWP/RNG:** 1N 1E **SECTION:** 19 **QUARTERS/FOOTAGES:** 29' N line, 1623' W line
QUADRANGLE: CENTRALIA WEST **LONGITUDE:** -89.137693 **GEOLOGIST:** C TREWORGY
CONFIDENTIAL: N **LATITUDE:** 38.517767 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 496.0 **LOGGED (FT.):** 650.5 **LOG TYPE:** Nuclear Log
SOURCE: **WELL TYPE:** Oil and Gas Test
COMMENT: POOR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
306.0	BOND	CARTHAGE	LIMESTONE	10.0	190.0
-73.0	CARBONDALE	HERRIN	COAL	5.0	569.0
-152.0	CARBONDALE	HOUCHIN CREEK	COAL	2.5	648.0

MAPID: 12101882000C **VERSION:** 1 **PROJECT:** CGT-ECILL
COUNTY: MARION **TWP/RNG:** 1N 1E **SECTION:** 19 **QUARTERS/FOOTAGES:** 137' N line, 330' E line of SW SW
QUADRANGLE: CENTRALIA WEST **LONGITUDE:** -89.14042 **GEOLOGIST:** C TREWORGY
CONFIDENTIAL: N **LATITUDE:** 38.506531 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 487.0 **LOGGED (FT.):** 630.0 **LOG TYPE:** Electric Log
SOURCE: **WELL TYPE:** Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
362.0	BOND	CARTHAGE	LIMESTONE	13.0	125.0
47.0	MODESTO	PIASA	LIMESTONE	4.0	440.0
-53.0	CARBONDALE	HERRIN	COAL	5.0	540.0
-143.0	CARBONDALE	HOUCHIN CREEK	COAL	-	630.0

MAPID: 12127660000C VERSION: 1 PROJECT: J JOHNSON

COUNTY: MARION TWP/RNG: 1N 1E SECTION: 19 QUARTERS/FOOTAGES: 330' N line, 330' W line of SW

QUADRANGLE: CENTRALIA WEST LONGITUDE: -89.136329 GEOLOGIST: J JOHNSON

CONFIDENTIAL: N LATITUDE: 38.504108 DATE COLLECTED:

SURFACE ELEVATION (FT.): 496.0 LOGGED (FT.): 2954.0 LOG TYPE: Electric Log

SOURCE: PRIOR, JOHN WELL TYPE: Oil and Gas Test

COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-2377.0	DEVONIAN	UPPER DEVONIAN S	UNCLASSIFIED	-	2873.0	TOP OF NEW ALBANY
-2388.0	DEVONIAN	GRASSY CREEK	UNCLASSIFIED	-	2884.0	
-2458.0	DEVONIAN	BASE UPPER DEVON	UNCLASSIFIED	-	2954.0	BASE OF NEW ALBANY

MAPID: 12101845000C VERSION: 1 PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 1N 1E SECTION: 20 QUARTERS/FOOTAGES: 330' S line, 330' E line of NE NE

QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.108256 GEOLOGIST: C TREWORYG

CONFIDENTIAL: N LATITUDE: 38.515074 DATE COLLECTED:

SURFACE ELEVATION (FT.): 518.0 LOGGED (FT.): 818.0 LOG TYPE: Nuclear Log

SOURCE:

COMMENT: GOOD LOG WELL TYPE: Oil and Gas Test

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
260.0	BOND	CARTHAGE	LIMESTONE	11.0	258.0	
-138.0	CARBONDALE	HERRIN	COAL	7.0	656.0	
-168.0	CARBONDALE	BRIAR HILL	COAL	2.5	686.0	
-178.0	CARBONDALE	SPRINGFIELD	COAL	4.0	696.0	
-245.0	CARBONDALE	HOUCHIN CREEK	COAL	2.5	763.0	
-300.0	CARBONDALE	COLCHESTER	COAL	-	818.0	

MAPID: 12101851000C VERSION: 1 PROJECT: ROOF STUDY

COUNTY: MARION TWP/RNG: 1N 1E SECTION: 20 QUARTERS/FOOTAGES: 330' S line, 1650' E line

QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.113211 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.50408 DATE COLLECTED:

SURFACE ELEVATION (FT.): 523.0 LOGGED (FT.): 684.0 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
-111.5	CARBONDALE	DANVILLE	COAL	2.0	634.5
-113.5	CARBONDALE		SHALE	8.0	636.5
-121.5	CARBONDALE		SHALE	3.0	644.5
-124.5	CARBONDALE	BANKSTON FORK	LIMESTONE	3.0	647.5
-127.5	CARBONDALE	BANKSTON FORK	SHALE	2.0	650.5
-129.5	CARBONDALE	BANKSTON FORK	LIMESTONE	4.0	652.5
-133.5	CARBONDALE	LAWSON	SHALE	3.5	656.5
-137.0	CARBONDALE	CONANT	LIMESTONE	2.5	660.0
-139.5	CARBONDALE		BLACK SHALE	4.0	662.5
-143.5	CARBONDALE	BRERETON	LIMESTONE	5.5	666.5
-149.0	CARBONDALE	ANNA	BLACK SHALE	4.0	672.0
-153.0	CARBONDALE	HERRIN	COAL	8.0	676.0

MAPID: 12101892000C VERSION: 1 PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 1N 1E SECTION: 20 QUARTERS/FOOTAGES: 330' S line, 330' W line of NE NE

QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.110572 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.515054 DATE COLLECTED:

SURFACE ELEVATION (FT.): 524.0 LOGGED (FT.): 786.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
255.0	BOND	CARTHAGE	LIMESTONE	11.0	269.0
-149.0	CARBONDALE	HERRIN	COAL	6.5	673.0
-173.0	CARBONDALE	BRIAR HILL	COAL	-	697.0
-181.0	CARBONDALE	SPRINGFIELD	COAL	4.0	705.0
-262.0	CARBONDALE	HOUCHIN CREEK	COAL	-	786.0

MAPID: 12101907000C VERSION: 1 PROJECT: J JOHNSON
COUNTY: MARION TWP/RNG: 1N 1E SECTION: 20 QUARTERS/FOOTAGES: 660' N line, 330' E line of SE
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.108442 GEOLOGIST: J JOHNSON
CONFIDENTIAL: N LATITUDE: 38.508688 DATE COLLECTED:
SURFACE ELEVATION (FT.): 525.0 LOGGED (FT.): 1670.0 LOG TYPE: Electric Log
SOURCE: NAT'L. ASSOC. PETRO. CO. WELL TYPE: Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-165.0	CARBONDALE	SPRINGFIELD	COAL	-	690.0
-280.0	CARBONDALE	COLCHESTER	COAL	-	805.0
-1145.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1670.0

MAPID: 12105123000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 1E SECTION: 20 QUARTERS/FOOTAGES: 330' S line, 345' W line of SE NE
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.11062 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.511404 DATE COLLECTED:
SURFACE ELEVATION (FT.): 523.0 LOGGED (FT.): 781.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
259.0	BOND	CARTHAGE	LIMESTONE	11.0	264.0
-147.0	CARBONDALE	HERRIN	COAL	4.5	670.0
-179.0	CARBONDALE	SPRINGFIELD	COAL	5.0	702.0
-258.0	CARBONDALE	HOUCHIN CREEK	COAL	-	781.0

MAPID: 12101685000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 1E SECTION: 21 QUARTERS/FOOTAGES: 330' S line, 330' E line of NW NE
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.094358 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.515106 DATE COLLECTED:
SURFACE ELEVATION (FT.): 521.0 LOGGED (FT.): 824.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
221.0	BOND	CARTHAGE	LIMESTONE	10.0	300.0
-118.0	MODESTO	PIASA	LIMESTONE	4.0	639.0
-134.0	CARBONDALE	DANVILLE	COAL	-	655.0
-171.0	CARBONDALE	HERRIN	COAL	4.0	692.0
-219.0	CARBONDALE	SPRINGFIELD	COAL	4.0	740.0
-301.0	CARBONDALE	HOUCHIN CREEK	COAL	2.0	822.0

MAPID: 12101685000C VERSION: 2 PROJECT: ROOF STUDY

COUNTY: MARION TWP/RNG: 1N 1E SECTION: 21 QUARTERS/FOOTAGES: 330' S line, 330' E line of NW NE

QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.094358 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.515106 DATE COLLECTED:

SURFACE ELEVATION (FT.): 521.0 LOGGED (FT.): 696.0 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
-118.0	MODESTO	PIASA	LIMESTONE	4.0	639.0
-122.0	MODESTO		SHALE	13.0	643.0
-135.0	CARBONDALE		SHALE	9.0	656.0
-144.0	CARBONDALE		SHALE	3.0	665.0
-147.0	CARBONDALE	BANKSTON FORK	LIMESTONE	2.5	668.0
-149.5	CARBONDALE	BANKSTON FORK	SHALE	3.0	670.5
-152.5	CARBONDALE	BANKSTON FORK	LIMESTONE	2.5	673.5
-155.0	CARBONDALE	LAWSON	DARK GRAY SHALE	3.0	676.0
-158.0	CARBONDALE		CALCAREOUS SHALE	7.0	679.0
-165.0	CARBONDALE	BRERETON	LIMESTONE	4.0	686.0
-169.0	CARBONDALE	ANNA	BLACK SHALE	2.0	690.0
-171.0	CARBONDALE	HERRIN	COAL	4.0	692.0

MAPID: 12101685000C VERSION: 3 PROJECT: J JOHNSON

COUNTY: MARION TWP/RNG: 1N 1E SECTION: 21 QUARTERS/FOOTAGES: 330' S line, 330' E line of NW NE

QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.094358 GEOLOGIST: J JOHNSON

CONFIDENTIAL: N LATITUDE: 38.515106 DATE COLLECTED:

SURFACE ELEVATION (FT.): 521.0 LOGGED (FT.): 1703.0 LOG TYPE: Electric Log

SOURCE: POWERS ROY R ETAL WELL TYPE: Oil and Gas Test

COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-219.0	CARBONDALE	SPRINGFIELD	COAL	-	740.0
-342.0	CARBONDALE	COLCHESTER	COAL	-	863.0
-1182.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1703.0

MAPID: 12101893000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 1N 1E SECTION: 21 QUARTERS/FOOTAGES: 660' N line, 635' W line of SW SW
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.105156 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.505055 DATE COLLECTED:
SURFACE ELEVATION (FT.): 533.0 LOGGED (FT.): 794.0 LOG TYPE: Nuclear Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
254.0	BOND	CARTHAGE	LIMESTONE	11.0	279.0
-79.0	MODESTO	PIASA	LIMESTONE	5.0	612.0
-96.0	CARBONDALE	DANVILLE	COAL	2.5	629.0
-134.0	CARBONDALE	HERRIN	COAL	5.5	667.0
-170.0	CARBONDALE	BRIAR HILL	COAL	-	703.0
-177.0	CARBONDALE	SPRINGFIELD	COAL	4.0	710.0
-259.0	CARBONDALE	HOUCHIN CREEK	COAL	2.0	792.0

MAPID: 12101900000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 1N 1E SECTION: 21 QUARTERS/FOOTAGES: 330' S line, 330' W line of NE SW
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.101476 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.507792 DATE COLLECTED:
SURFACE ELEVATION (FT.): 528.0 LOGGED (FT.): 803.0 LOG TYPE: Nuclear Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
245.0	BOND	CARTHAGE	LIMESTONE	10.0	283.0
-88.0	MODESTO	PIASA	LIMESTONE	4.0	616.0
-107.0	CARBONDALE	DANVILLE	COAL	3.0	635.0
-145.0	CARBONDALE	HERRIN	COAL	5.0	673.0
-182.0	CARBONDALE	BRIAR HILL	COAL	2.5	710.0
-189.0	CARBONDALE	SPRINGFIELD	COAL	4.0	717.0
-272.0	CARBONDALE	HOUCHIN CREEK	COAL	3.0	800.0

MAPID: 12100180000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 1N 1E SECTION: 24 QUARTERS/FOOTAGES: 360' N line, 330' W line of SE
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.040861 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.509246 DATE COLLECTED: 0 / 0 / 1938
SURFACE ELEVATION (FT.): 512.0 LOGGED (FT.): 2200.0 LOG TYPE:
SOURCE: POTTER ETL, MC CRARY J 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
107.0	BOND	CARTHAGE	LIMESTONE	-	405.0
-278.0	CARBONDALE	HERRIN	COAL	-	790.0

MAPID: 12100180000C VERSION: 2 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 1E SECTION: 24 QUARTERS/FOOTAGES: 360' N line, 330' W line of SE
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.040861 GEOLOGIST: C TREWORYG
CONFIDENTIAL: N LATITUDE: 38.509246 DATE COLLECTED:
SURFACE ELEVATION (FT.): 516.0 LOGGED (FT.): 855.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: POOR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
108.0	BOND	CARTHAGE	LIMESTONE	11.0	408.0
-233.0	MODESTO	PIASA	LIMESTONE	4.0	749.0
-278.0	CARBONDALE	HERRIN	COAL	-	794.0
-335.0	CARBONDALE	SPRINGFIELD	COAL	4.0	851.0

MAPID: 12100180000C VERSION: 3 PROJECT: J JOHNSON
COUNTY: MARION TWP/RNG: 1N 1E SECTION: 24 QUARTERS/FOOTAGES: 360' N line, 330' W line of SE
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.040861 GEOLOGIST: J JOHNSON
CONFIDENTIAL: N LATITUDE: 38.509246 DATE COLLECTED:
SURFACE ELEVATION (FT.): 516.0 LOGGED (FT.): 1955.0 LOG TYPE: Electric Log
SOURCE: POTTER A P ETAL WELL TYPE: Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-339.0	CARBONDALE	SPRINGFIELD	COAL	-	855.0
-461.0	CARBONDALE	COLCHESTER	COAL	-	977.0
-1439.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1955.0

MAPID: 12101440000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 1N 1E SECTION: 25 QUARTERS/FOOTAGES: SE SE SW
QUADRANGLE: WALNUT HILL LONGITUDE: -89.04343 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.489458 DATE COLLECTED: 0 / 0 / 1947
SURFACE ELEVATION (FT.): 546.0 LOGGED (FT.): 2327.0 LOG TYPE:
SOURCE: SCHLAFLY, CREED ED 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
134.0	BOND	CARTHAGE	LIMESTONE	-	412.0
-238.0	CARBONDALE	HERRIN	COAL	-	784.0

MAPID: 12101751000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 1E SECTION: 25 QUARTERS/FOOTAGES: 330' N line, 330' E line of SE SE
QUADRANGLE: WALNUT HILL LONGITUDE: -89.034065 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.489402 DATE COLLECTED:
SURFACE ELEVATION (FT.): 539.0 LOGGED (FT.): 946.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
153.0	BOND	CARTHAGE	LIMESTONE	11.0	386.0
-292.0	CARBONDALE	SPRINGFIELD	COAL	5.0	831.0
-359.0	CARBONDALE	HOUCHIN CREEK	COAL	-	898.0
-407.0	CARBONDALE	COLCHESTER	COAL	-	946.0

MAPID: 12101751000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: MARION TWP/RNG: 1N 1E SECTION: 25 QUARTERS/FOOTAGES: 330' N line, 330' E line of SE SE
QUADRANGLE: WALNUT HILL LONGITUDE: -89.034065 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.489402 DATE COLLECTED:
SURFACE ELEVATION (FT.): 539.0 LOGGED (FT.): 788.0 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
-191.0	MODESTO	PIASA	LIMESTONE	3.3	730.0
-194.3	MODESTO		SHALE	11.0	733.3
-205.3	CARBONDALE	DANVILLE	COAL	2.0	744.3
-207.3	CARBONDALE		SHALE	5.0	746.3
-212.3	CARBONDALE		SHALE	2.0	751.3
-214.3	CARBONDALE	BANKSTON FORK	LIMESTONE	2.5	753.3
-216.8	CARBONDALE	BANKSTON FORK	SHALE	3.0	755.8
-219.8	CARBONDALE	BANKSTON FORK	LIMESTONE	2.5	758.8
-222.3	CARBONDALE	LAWSON	SHALE	1.0	761.3
-223.3	CARBONDALE	BRERETON	LIMESTONE	7.0	762.3
-230.3	CARBONDALE	ANNA	SHALE	12.0	769.3
-242.0	CARBONDALE	HERRIN	COAL	7.0	781.0

MAPID: 12101751000C VERSION: 3

PROJECT: J JOHNSON

COUNTY: MARION TWP/RNG: 1N 1E SECTION: 25 QUARTERS/FOOTAGES: 330' N line, 330' E line of SE SE
QUADRANGLE: WALNUT HILL LONGITUDE: -89.034065 GEOLOGIST: J JOHNSON
CONFIDENTIAL: N LATITUDE: 38.489402 DATE COLLECTED:
SURFACE ELEVATION (FT.): 539.0 LOGGED (FT.): 1946.0 LOG TYPE: Electric Log
SOURCE: MOHAWK DRILLING CO WELL TYPE: Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-295.0	CARBONDALE	SPRINGFIELD	COAL	-	834.0
-404.0	CARBONDALE	COLCHESTER	COAL	-	943.0
-1407.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1946.0

MAPID: 12126262000C VERSION: 1 PROJECT: CONF

COUNTY: MARION TWP/RNG: 1N 1E SECTION: 26 QUARTERS/FOOTAGES: SE SW NW

QUADRANGLE: WALNUT HILL LONGITUDE: -89.066797 GEOLOGIST: LOG BOOK

CONFIDENTIAL: N LATITUDE: 38.496828 DATE COLLECTED: 12 / 1 / 1979

SURFACE ELEVATION (FT.): 520.0 LOGGED (FT.): 915.0 LOG TYPE: Electric Log

SOURCE: FREEMAN UNITED WA-12-79 WELL TYPE: Coal Test

COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
472.5			COAL	1.0	47.5	
165.0			COAL	1.0	355.0	
70.0			COAL	1.0	450.0	NEW HAVEN
-110.2	MODESTO	CHAPEL	COAL	1.8	630.2	
-320.0	CARBONDALE	HERRIN	COAL	5.5	840.0	
-363.0	CARBONDALE	BRIAR HILL	COAL	1.7	883.0	
-371.0	CARBONDALE	SPRINGFIELD	COAL	5.5	891.0	

MAPID: 12126303000C VERSION: 1 PROJECT: J JOHNSON

COUNTY: MARION TWP/RNG: 1N 1E SECTION: 27 QUARTERS/FOOTAGES: 330' S line, 330' W line of SE NE

QUADRANGLE: WALNUT HILL LONGITUDE: -89.073774 GEOLOGIST: J JOHNSON

CONFIDENTIAL: N LATITUDE: 38.49686 DATE COLLECTED:

SURFACE ELEVATION (FT.): 534.0 LOGGED (FT.): 1842.0 LOG TYPE: Electric Log

SOURCE: BUFAY OIL COMPANY WELL TYPE: Oil and Gas Test

COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-1308.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1842.0	

MAPID: 12100339000C VERSION: 1 PROJECT: CIRC 164

COUNTY: MARION TWP/RNG: 1N 1E SECTION: 28 QUARTERS/FOOTAGES: SW SW NE

QUADRANGLE: WALNUT HILL LONGITUDE: -89.096995 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.496871 DATE COLLECTED: 0 / 0 / 1939

SURFACE ELEVATION (FT.): 549.0 LOGGED (FT.): 2283.0 LOG TYPE:

SOURCE: HAWLEY OG, COPPLE 1 WELL TYPE: Oil and Gas Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
192.0	BOND	CARTHAGE	LIMESTONE	-	357.0	
-203.0	CARBONDALE	HERRIN	COAL	-	752.0	

MAPID: 12126260000C VERSION: 1 PROJECT: CONF

COUNTY: MARION TWP/RNG: 1N 1E SECTION: 28 QUARTERS/FOOTAGES: SW SW NE

QUADRANGLE: WALNUT HILL LONGITUDE: -89.096995 GEOLOGIST: LOG BOOK

CONFIDENTIAL: N LATITUDE: 38.496871 DATE COLLECTED: 10 / 4 / 1979

SURFACE ELEVATION (FT.): 555.0 LOGGED (FT.): 835.0 LOG TYPE: Electric Log

SOURCE: FREEMAN UNITED WA-7-79 WELL TYPE: Coal Test

COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
405.0			COAL	2.0	150.0
288.5			COAL	1.5	266.5
160.0			COAL	1.0	395.0
-25.0	MODESTO	CHAPEL	COAL	1.5	580.0
-157.0	MODESTO	LAKE CREEK	COAL	1.0	712.0
-216.6	CARBONDALE	HERRIN	COAL	5.8	771.6
-258.0	CARBONDALE	BRIAR HILL	COAL	2.0	813.0
-264.0	CARBONDALE	SPRINGFIELD	COAL	4.0	819.0

MAPID: 12102260000C VERSION: 1 PROJECT: J JOHNSON

COUNTY: MARION TWP/RNG: 1N 1E SECTION: 29 QUARTERS/FOOTAGES: 330' S line, 330' E line of SW SW

QUADRANGLE: WALNUT HILL LONGITUDE: -89.122743 GEOLOGIST: J JOHNSON

CONFIDENTIAL: N LATITUDE: 38.489557 DATE COLLECTED:

SURFACE ELEVATION (FT.): 575.0 LOGGED (FT.): 1762.0 LOG TYPE: Electric Log

SOURCE: KUYKENDALL W R DRLG WELL TYPE: Oil and Gas Test

COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-180.0	CARBONDALE	SPRINGFIELD	COAL	-	755.0
-305.0	CARBONDALE	COLCHESTER	COAL	-	880.0
-1187.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1762.0

MAPID: 12102262000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: MARION TWP/RNG: 1N 1E SECTION: 29 QUARTERS/FOOTAGES: 990' S line, 990' W line

QUADRANGLE: WALNUT HILL LONGITUDE: -89.122701 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.491379 DATE COLLECTED:

SURFACE ELEVATION (FT.): 559.0 LOGGED (FT.): 713.0 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
-86.0	MODESTO	PIASA	LIMESTONE	3.5	645.0
-89.5	MODESTO		SHALE	11.0	648.5
-100.5	CARBONDALE	DANVILLE	COAL	1.5	659.5
-102.0	CARBONDALE		SHALE	7.5	661.0
-109.5	CARBONDALE	GALUM	LIMESTONE	2.5	668.5
-112.0	CARBONDALE		SHALE	2.0	671.0
-114.0	CARBONDALE	BANKSTON FORK	LIMESTONE	4.5	673.0
-118.5	CARBONDALE	BANKSTON FORK	SHALE	3.5	677.5
-122.0	CARBONDALE	BANKSTON FORK	LIMESTONE	1.5	681.0
-123.5	CARBONDALE	LAWSON	SHALE	6.0	682.5
-129.5	CARBONDALE	CONANT	LIMESTONE	2.5	688.5
-132.0	CARBONDALE		SHALE	2.5	691.0
-134.5	CARBONDALE	BRERETON	LIMESTONE	8.5	693.5
-143.0	CARBONDALE	ANNA	BLACK SHALE	3.5	702.0
-147.0	CARBONDALE	HERRIN	COAL	7.0	706.0

MAPID: 12105082000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 1N 1E SECTION: 29 QUARTERS/FOOTAGES: 330' N line, 330' E line of NE NE NW

QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.117859 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.502218 DATE COLLECTED:

SURFACE ELEVATION (FT.): 522.0 LOGGED (FT.): 780.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
252.0	BOND	CARTHAGE	LIMESTONE	10.0	270.0
-152.0	CARBONDALE	HERRIN	COAL	6.5	674.0
-180.0	CARBONDALE	SPRINGFIELD	COAL	4.0	702.0
-258.0	CARBONDALE	HOUCHIN CREEK	COAL	-	780.0

MAPID: 12100112000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 1N 1E SECTION: 30 QUARTERS/FOOTAGES: NW NW NW
QUADRANGLE: CENTRALIA WEST LONGITUDE: -89.142732 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.50237 DATE COLLECTED: 0 / 0 / 1900
SURFACE ELEVATION (FT.): 496.4 LOGGED (FT.): 777.0 LOG TYPE:
SOURCE: FIVE STAR PET, DODILLET 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-18.6	CARBONDALE	HERRIN	COAL	-	515.0	

MAPID: 12100122000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 1N 1E SECTION: 30 QUARTERS/FOOTAGES: NW NE SW
QUADRANGLE: IRVINGTON LONGITUDE: -89.138613 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.495046 DATE COLLECTED: 0 / 0 / 1900
SURFACE ELEVATION (FT.): 509.0 LOGGED (FT.): 780.0 LOG TYPE:
SOURCE: EWING&MARQ, FRAZIER 2 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-15.0	CARBONDALE	HERRIN	COAL	-	524.0	

MAPID: 12100150000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 1N 1E SECTION: 30 QUARTERS/FOOTAGES: SW NW SE
QUADRANGLE: IRVINGTON LONGITUDE: -89.134066 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.493199 DATE COLLECTED: 0 / 0 / 1926
SURFACE ELEVATION (FT.): 511.2 LOGGED (FT.): 819.0 LOG TYPE:
SOURCE: PETRO OG, WEBSTER A 8 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-14.8	CARBONDALE	HERRIN	COAL	-	526.0	

MAPID: 12126690000C **VERSION:** 1 **PROJECT:** J JOHNSON
COUNTY: MARION **TWP/RNG:** 1N 1E **SECTION:** 30 **QUARTERS/FOOTAGES:** 330' N line, 394' E line of SW NW
QUADRANGLE: IRVINGTON **LONGITUDE:** -89.140843 **GEOLOGIST:** J JOHNSON
CONFIDENTIAL: N **LATITUDE:** 38.498703 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 494.0 **LOGGED (FT.):** 2969.0 **LOG TYPE:** Electric Log
SOURCE: PRIOR, JOHN **WELL TYPE:** Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-744.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1238.0	
-2393.0	DEVONIAN	UPPER DEVONIAN S	UNCLASSIFIED	-	2887.0	TOP OF NEW ALBANY
-2406.0	DEVONIAN	GRASSY CREEK	UNCLASSIFIED	-	2900.0	
-2475.0	DEVONIAN	BASE UPPER DEVON	UNCLASSIFIED	-	2969.0	BASE OF NEW ALBANY

MAPID: 12101684000C **VERSION:** 1 **PROJECT:** CGT-ECILL
COUNTY: MARION **TWP/RNG:** 1N 1E **SECTION:** 31 **QUARTERS/FOOTAGES:** 330' S line, 330' E line of NE SW
QUADRANGLE: IRVINGTON **LONGITUDE:** -89.136509 **GEOLOGIST:** C TREWORYG
CONFIDENTIAL: N **LATITUDE:** 38.478516 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 492.0 **LOGGED (FT.):** 835.0 **LOG TYPE:** Electric Log
SOURCE: **WELL TYPE:** Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
174.0	BOND	CARTHAGE	LIMESTONE	10.0	318.0	
86.0	MODESTO	TRIVOLI	SANDSTONE	90.0	406.0	
-170.0	MODESTO	PIASA	LIMESTONE	7.0	662.0	
-263.0	CARBONDALE	SPRINGFIELD	COAL	-	755.0	
-341.0	CARBONDALE	HOUCHIN CREEK	COAL	2.0	833.0	

MAPID: 12102277000C **VERSION:** 1 **PROJECT:** CGT-ECILL
COUNTY: MARION **TWP/RNG:** 1N 1E **SECTION:** 31 **QUARTERS/FOOTAGES:** 330' N line, 132' E line of SW SE
QUADRANGLE: IRVINGTON **LONGITUDE:** -89.131327 **GEOLOGIST:** C TREWORYG
CONFIDENTIAL: N **LATITUDE:** 38.476719 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 493.0 **LOGGED (FT.):** 862.0 **LOG TYPE:** Electric Log
SOURCE: **WELL TYPE:** Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
97.0	BOND	CARTHAGE	LIMESTONE	10.0	396.0	
-231.0	MODESTO	PIASA	LIMESTONE	6.0	724.0	
-275.0	CARBONDALE	HERRIN	COAL	4.0	768.0	
-307.0	CARBONDALE	SPRINGFIELD	COAL	6.0	800.0	
-369.0	CARBONDALE	HOUCHIN CREEK	COAL	-	862.0	

MAPID: 12102277000C VERSION: 2 PROJECT: ROOF STUDY
COUNTY: MARION TWP/RNG: 1N 1E SECTION: 31 QUARTERS/FOOTAGES: 330' N line, 132' E line of SW SE
QUADRANGLE: IRVINGTON LONGITUDE: -89.131327 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.476719 DATE COLLECTED:
SURFACE ELEVATION (FT.): 493.0 LOGGED (FT.): 785.5 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
-231.0	MODESTO	PIASA	LIMESTONE	5.5	724.0
-236.5	MODESTO		SHALE	4.5	729.5
-241.0	CARBONDALE	DANVILLE	COAL	2.0	734.0
-243.0	CARBONDALE		SHALE	3.0	736.0
-246.0	CARBONDALE	BANKSTON FORK	LIMESTONE	3.5	739.0
-249.5	CARBONDALE	BANKSTON FORK	SHALE	2.5	742.5
-252.0	CARBONDALE	BANKSTON FORK	LIMESTONE	4.0	745.0
-256.0	CARBONDALE	LAWSON	BLACK SHALE	3.5	749.0
-259.5	CARBONDALE	CONANT	LIMESTONE	2.5	752.5
-262.0	CARBONDALE		SHALE	13.0	755.0
-275.0	CARBONDALE	BRERETON	LIMESTONE	5.0	768.0
-280.0	CARBONDALE	ANNA	BLACK SHALE	4.0	773.0
-283.0	CARBONDALE	HERRIN	COAL	9.5	776.0

MAPID: 12102277000C VERSION: 3 PROJECT: J JOHNSON
COUNTY: MARION TWP/RNG: 1N 1E SECTION: 31 QUARTERS/FOOTAGES: 330' N line, 132' E line of SW SE
QUADRANGLE: IRVINGTON LONGITUDE: -89.131327 GEOLOGIST: J JOHNSON
CONFIDENTIAL: N LATITUDE: 38.476719 DATE COLLECTED:
SURFACE ELEVATION (FT.): 493.0 LOGGED (FT.): 1678.0 LOG TYPE: Electric Log
SOURCE: OIL INVESTMENTS LTD. WELL TYPE: Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-307.0	CARBONDALE	SPRINGFIELD	COAL	-	800.0
-453.0	CARBONDALE	COLCHESTER	COAL	-	946.0
-1185.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1678.0

MAPID: 12101511000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 1N 1E SECTION: 32 QUARTERS/FOOTAGES: 330' N line, 330' W line of SW SW
QUADRANGLE: IRVINGTON LONGITUDE: -89.125195 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.476749 DATE COLLECTED:
SURFACE ELEVATION (FT.): 530.0 LOGGED (FT.): 925.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
178.0	BOND	CARTHAGE	LIMESTONE	12.0	352.0
80.0	MODESTO	TRIVOLI	SANDSTONE	80.0	450.0
-258.0	CARBONDALE	SPRINGFIELD	COAL	6.0	788.0
-344.0	CARBONDALE	HOUCHIN CREEK	COAL	2.0	874.0
-395.0	CARBONDALE	COLCHESTER	COAL	-	925.0

MAPID: 12101511000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: MARION TWP/RNG: 1N 1E SECTION: 32 QUARTERS/FOOTAGES: 330' N line, 330' W line of SW SW
QUADRANGLE: IRVINGTON LONGITUDE: -89.125195 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.476749 DATE COLLECTED:
SURFACE ELEVATION (FT.): 530.0 LOGGED (FT.): 767.0 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
-180.0	MODESTO	PIASA	LIMESTONE	4.0	710.0
-184.0	MODESTO		SHALE	8.5	714.0
-192.5	CARBONDALE	DANVILLE	COAL	3.0	722.5
-195.5	CARBONDALE		SHALE	3.0	725.5
-198.5	CARBONDALE	BANKSTON FORK	LIMESTONE	4.5	728.5
-203.0	CARBONDALE	BANKSTON FORK	SHALE	3.5	733.0
-206.5	CARBONDALE	BANKSTON FORK	LIMESTONE	2.0	736.5
-208.5	CARBONDALE	LAWSON	SHALE	4.5	738.5
-213.0	CARBONDALE		CALCAREOUS SHALE	5.0	743.0
-218.0	CARBONDALE	BRERETON	LIMESTONE	5.0	748.0
-223.0	CARBONDALE	ANNA	BLACK SHALE	4.0	753.0
-228.0	CARBONDALE	HERRIN	COAL	9.0	758.0

MAPID: 12126266000C VERSION: 1 PROJECT: CONF

COUNTY: MARION TWP/RNG: 1N 1E SECTION: 32 QUARTERS/FOOTAGES: SW SW SE SE

QUADRANGLE: WALNUT HILL LONGITUDE: -89.111921 GEOLOGIST: LOG BOOK

CONFIDENTIAL: N LATITUDE: 38.474579 DATE COLLECTED: 11 / 9 / 1979

SURFACE ELEVATION (FT.): 560.0 LOGGED (FT.): 860.0 LOG TYPE: Electric Log

SOURCE: FREEMAN UNITED WA-6-79 WELL TYPE: Coal Test

COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
402.5			COAL	1.5	157.5
241.5			COAL	1.0	318.5
148.0	MODESTO	NEW HAVEN	COAL	1.0	412.0
-32.5	MODESTO	CHAPEL	COAL	1.0	592.5
-175.0	MODESTO	POND CREEK	COAL	1.0	735.0
-232.5	CARBONDALE	HERRIN	COAL	6.2	792.5
-280.7	CARBONDALE	BRIAR HILL	COAL	2.1	840.7
-287.5	CARBONDALE	SPRINGFIELD	COAL	4.5	847.5

MAPID: 12101725000C VERSION: 1 PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 1N 1E SECTION: 33 QUARTERS/FOOTAGES: 330' N line, 330' E line of NW SE

QUADRANGLE: WALNUT HILL LONGITUDE: -89.094899 GEOLOGIST: C TREWORYG

CONFIDENTIAL: N LATITUDE: 38.480553 DATE COLLECTED:

SURFACE ELEVATION (FT.): 572.0 LOGGED (FT.): 1020.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
127.0	BOND	CARTHAGE	LIMESTONE	11.0	445.0
-18.0	MODESTO	TRIVOLI	SANDSTONE	45.0	590.0
-218.0	MODESTO	PIASA	LIMESTONE	5.0	790.0
-320.0	CARBONDALE	SPRINGFIELD	COAL	4.0	892.0
-403.0	CARBONDALE	HOUCHIN CREEK	COAL	2.0	975.0
-448.0	CARBONDALE	COLCHESTER	COAL	-	1020.0

MAPID: 12126285000C VERSION: 1 PROJECT: CONF

COUNTY: MARION TWP/RNG: 1N 1E SECTION: 33 QUARTERS/FOOTAGES: NE NE SW

QUADRANGLE: WALNUT HILL LONGITUDE: -89.099599 GEOLOGIST: LOG BOOK

CONFIDENTIAL: N LATITUDE: 38.480542 DATE COLLECTED: 10 / 19 / 1979

SURFACE ELEVATION (FT.): 565.0 LOGGED (FT.): 900.0 LOG TYPE: Drillers Log

SOURCE: FREEMAN UNITED WA-8-79 WELL TYPE: Coal Test

COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-264.3	CARBONDALE	HERRIN	COAL	5.7	829.3
-310.5	CARBONDALE	BRIAR HILL	COAL	1.5	875.5
-317.5	CARBONDALE	SPRINGFIELD	COAL	4.5	882.5

MAPID: 12101683000C VERSION: 1 PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 1N 1E SECTION: 34 QUARTERS/FOOTAGES: 330' N line, 330' E line of NW SE

QUADRANGLE: WALNUT HILL LONGITUDE: -89.076203 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.480588 DATE COLLECTED:

SURFACE ELEVATION (FT.): 589.0 LOGGED (FT.): 1027.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
129.0	BOND	CARTHAGE	LIMESTONE	9.0	460.0
-21.0	MODESTO	TRIVOLI	SANDSTONE	40.0	610.0
-221.0	MODESTO	PIASA	LIMESTONE	1.0	810.0
-267.0	CARBONDALE	HERRIN	COAL	4.0	856.0
-315.0	CARBONDALE	SPRINGFIELD	COAL	4.5	904.0
-395.0	CARBONDALE	HOUCHIN CREEK	COAL	2.0	984.0
-438.0	CARBONDALE	COLCHESTER	COAL	-	1027.0

MAPID: 12101683000C VERSION: 2 PROJECT: ROOF STUDY

COUNTY: MARION TWP/RNG: 1N 1E SECTION: 34 QUARTERS/FOOTAGES: 330' N line, 330' E line of NW SE

QUADRANGLE: WALNUT HILL LONGITUDE: -89.076203 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.480588 DATE COLLECTED:

SURFACE ELEVATION (FT.): 589.0 LOGGED (FT.): 861.5 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
-256.5	CARBONDALE	BANKSTON FORK	LIMESTONE	3.5	845.5
-260.0	CARBONDALE	BANKSTON FORK	SHALE	2.5	849.0
-262.5	CARBONDALE	BANKSTON FORK	LIMESTONE	3.5	851.5
-266.0	CARBONDALE	ANNA	BLACK SHALE	2.0	855.0
-268.0	CARBONDALE	HERRIN	COAL	4.5	857.0

MAPID: 12125936000C

VERSION: 1

PROJECT: J JOHNSON

COUNTY: MARION

TWP/RNG: 1N 1E

SECTION: 34

QUARTERS/FOOTAGES: 990' S line, 660' W line of SW

QUADRANGLE: WALNUT HILL

LONGITUDE: -89.086778

GEOLOGIST: J JOHNSON

CONFIDENTIAL: N

LATITUDE: 38.477016

DATE COLLECTED:

SURFACE ELEVATION (FT.): 622.0

LOGGED (FT.): 3745.0

LOG TYPE: Electric Log

SOURCE: DULL JOE A SLEDGE GE

WELL TYPE: Oil and Gas Test

COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-1287.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1909.0	
-3023.0	DEVONIAN	UPPER DEVONIAN S	UNCLASSIFIED	-	3645.0	TOP OF NEW ALBANY
-3040.0	DEVONIAN	GRASSY CREEK	UNCLASSIFIED	-	3662.0	
-3123.0	DEVONIAN	BASE UPPER DEVON	UNCLASSIFIED	-	3745.0	BASE OF NEW ALBANY

MAPID: 12101433000C

VERSION: 1

PROJECT: CGT-ECILL

COUNTY: MARION

TWP/RNG: 1N 1E

SECTION: 35

QUARTERS/FOOTAGES: 330' S line, 330' E line of SW NE

QUADRANGLE: WALNUT HILL

LONGITUDE: -89.057532

GEOLOGIST: C TREWORGY

CONFIDENTIAL: N

LATITUDE: 38.482313

DATE COLLECTED:

SURFACE ELEVATION (FT.): 569.0

LOGGED (FT.): 972.0

LOG TYPE: Electric Log

SOURCE:

WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
116.0	BOND	CARTHAGE	LIMESTONE	12.0	453.0	
-221.0	MODESTO	PIASA	LIMESTONE	4.0	790.0	
-274.0	CARBONDALE	HERRIN	COAL	2.5	843.0	
-327.0	CARBONDALE	SPRINGFIELD	COAL	4.0	896.0	
-401.0	CARBONDALE	HOUCHIN CREEK	COAL	2.0	970.0	

MAPID: 12101433000C VERSION: 2 PROJECT: ROOF STUDY
COUNTY: MARION TWP/RNG: 1N 1E SECTION: 35 QUARTERS/FOOTAGES: 330' S line, 330' E line of SW NE
QUADRANGLE: WALNUT HILL LONGITUDE: -89.057532 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.482313 DATE COLLECTED:
SURFACE ELEVATION (FT.): 569.0 LOGGED (FT.): 842.0 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
-222.0	MODESTO	PIASA	LIMESTONE	3.5	791.0
-225.5	MODESTO		SHALE	18.5	794.5
-244.0	CARBONDALE	DANVILLE	COAL	4.0	813.0
-248.0	CARBONDALE		SHALE	5.0	817.0
-253.0	CARBONDALE		SHALE	2.0	822.0
-255.0	CARBONDALE	BANKSTON FORK	LIMESTONE	3.5	824.0
-258.5	CARBONDALE	BANKSTON FORK	SHALE	2.0	827.5
-260.5	CARBONDALE	BANKSTON FORK	LIMESTONE	4.5	829.5
-265.0	CARBONDALE	ANNA	SHALE	4.0	834.0
-269.0	CARBONDALE	HERRIN	COAL	4.0	838.0

MAPID: 12101433000C VERSION: 3 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 1N 1E SECTION: 35 QUARTERS/FOOTAGES: 330' S line, 330' E line of SW NE
QUADRANGLE: WALNUT HILL LONGITUDE: -89.057532 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.482313 DATE COLLECTED: 0 / 0 / 1945
SURFACE ELEVATION (FT.): 567.0 LOGGED (FT.): 2509.0 LOG TYPE:
SOURCE: JARVIS S D, HAWKINS R 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
118.0	BOND	CARTHAGE	LIMESTONE	-	449.0
-273.0	CARBONDALE	HERRIN	COAL	-	840.0

MAPID: 12101433000C VERSION: 4 PROJECT: J JOHNSON
COUNTY: MARION TWP/RNG: 1N 1E SECTION: 35 QUARTERS/FOOTAGES: 330' S line, 330' E line of SW NE
QUADRANGLE: WALNUT HILL LONGITUDE: -89.057532 GEOLOGIST: J JOHNSON
CONFIDENTIAL: N LATITUDE: 38.482313 DATE COLLECTED:
SURFACE ELEVATION (FT.): 569.0 LOGGED (FT.): 1984.0 LOG TYPE: Electric Log
SOURCE: JARVIS, S. D. ETAL WELL TYPE: Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-328.0	CARBONDALE	SPRINGFIELD	COAL	-	897.0
-449.0	CARBONDALE	COLCHESTER	COAL	-	1018.0
-1415.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1984.0

MAPID: 12126263000C VERSION: 1 PROJECT: CONF
COUNTY: MARION TWP/RNG: 1N 1E SECTION: 35 QUARTERS/FOOTAGES: NW NW NW SW
QUADRANGLE: WALNUT HILL LONGITUDE: -89.069787 GEOLOGIST: LOG BOOK
CONFIDENTIAL: N LATITUDE: 38.481048 DATE COLLECTED: 11 / 27 / 1979
SURFACE ELEVATION (FT.): 550.0 LOGGED (FT.): 925.0 LOG TYPE: Drillers Log
SOURCE: FREEMAN UNITED WA-10-79 WELL TYPE: Coal Test
COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
525.0			COAL	1.5	25.0
237.0			COAL	1.0	313.0
112.0	MODESTO	NEW HAVEN	COAL	1.0	438.0
-73.0	MODESTO	CHAPEL	COAL	2.0	623.0
-288.0	CARBONDALE	HERRIN	COAL	6.0	838.0
-344.0	CARBONDALE	BRIAR HILL	COAL	2.5	894.0
-352.0	CARBONDALE	SPRINGFIELD	COAL	6.0	902.0

MAPID: 12101682000C VERSION: 1 PROJECT: J JOHNSON
COUNTY: MARION TWP/RNG: 1N 1E SECTION: 36 QUARTERS/FOOTAGES: 488' N line, 330' W line of NW SE
QUADRANGLE: WALNUT HILL LONGITUDE: -89.041225 GEOLOGIST: J JOHNSON
CONFIDENTIAL: N LATITUDE: 38.479963 DATE COLLECTED:
SURFACE ELEVATION (FT.): 570.0 LOGGED (FT.): 2020.0 LOG TYPE: Electric Log
SOURCE: OSTROM L E WELL TYPE: Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-308.0	CARBONDALE	SPRINGFIELD	COAL	-	878.0
-425.0	CARBONDALE	COLCHESTER	COAL	-	995.0
-1450.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	2020.0

MAPID: 12101682000C VERSION: 2 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 1E SECTION: 36 QUARTERS/FOOTAGES: 488' N line, 330' W line of NW SE
QUADRANGLE: WALNUT HILL LONGITUDE: -89.041225 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.479963 DATE COLLECTED:
SURFACE ELEVATION (FT.): 570.0 LOGGED (FT.): 998.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
127.0	BOND	CARTHAGE	LIMESTONE	12.0	443.0
-24.0	MODESTO	TRIVOLI	SANDSTONE	36.0	594.0
-250.0	CARBONDALE	HERRIN	COAL	-	820.0
-306.0	CARBONDALE	SPRINGFIELD	COAL	3.5	876.0
-381.0	CARBONDALE	HOUCHIN CREEK	COAL	-	951.0
-428.0	CARBONDALE	COLCHESTER	COAL	-	998.0

MAPID: 12100063000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 1E SECTION: 70 QUARTERS/FOOTAGES: NW NW NE
QUADRANGLE: CENTRALIA WEST LONGITUDE: -89.132917 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.546307 DATE COLLECTED:
SURFACE ELEVATION (FT.): 490.0 LOGGED (FT.): 637.3 LOG TYPE: Drillers Log
SOURCE: WELL TYPE: Coal Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
235.0	BOND	CARTHAGE	LIMESTONE	10.0	255.0
-86.0	MODESTO	PIASA	LIMESTONE	5.0	576.0
-105.0	CARBONDALE	DANVILLE	COAL	3.3	595.0
-141.0	CARBONDALE	HERRIN	COAL	6.3	631.0

MAPID: 12100063000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: MARION TWP/RNG: 1N 1E SECTION: 70 QUARTERS/FOOTAGES: NW NW NE

QUADRANGLE: CENTRALIA WEST LONGITUDE: -89.132917 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.546307 DATE COLLECTED:

SURFACE ELEVATION (FT.): 525.0 LOGGED (FT.): 637.3 LOG TYPE: Drillers Log

SOURCE: WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-52.0	MODESTO	PIASA	LIMESTONE	5.0	577.0
-57.0	MODESTO		SHALE	13.5	582.0
-70.5	CARBONDALE	DANVILLE	COAL	3.4	595.5
-73.9	CARBONDALE		CLAYSTONE	1.3	598.9
-75.1	CARBONDALE		SHALE	1.5	600.1
-76.6	CARBONDALE	BANKSTON FORK	LIMESTONE	3.5	601.6
-80.1	CARBONDALE	BANKSTON FORK	SHALE	1.5	605.1
-81.6	CARBONDALE	BANKSTON FORK	LIMESTONE	2.5	606.6
-84.1	CARBONDALE	LAWSON	GRAY SHALE	3.0	609.1
-87.1	CARBONDALE	CONANT	LIMESTONE W/ SHALE	2.4	612.1
-89.5	CARBONDALE	JAMESTOWN	COAL	0.2	614.5
-89.7	CARBONDALE		CALCAREOUS SHALE	10.0	614.7
-99.7	CARBONDALE	BRERETON	LIMESTONE	5.0	624.7
-104.7	CARBONDALE	ANNA	BLACK SHALE	1.7	629.7
-106.0	CARBONDALE	HERRIN	COAL	6.3	631.0

MAPID: 12101926000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 1N 2E SECTION: 2 QUARTERS/FOOTAGES: 990' N line, 750' W line of NE

QUADRANGLE: SALEM SOUTH LONGITUDE: -88.947321 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.559362 DATE COLLECTED:

SURFACE ELEVATION (FT.): 533.0 LOGGED (FT.): 860.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
112.0	BOND	CARTHAGE	LIMESTONE	10.0	421.0
-240.0	CARBONDALE	HERRIN	COAL	-	773.0
-284.0	CARBONDALE	BRIAR HILL	COAL	-	817.0
-298.0	CARBONDALE	SPRINGFIELD	COAL	3.5	831.0
-324.0	CARBONDALE	HOUCHIN CREEK	COAL	3.0	857.0

MAPID: 12101926000C VERSION: 2 PROJECT: ROOF STUDY
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 2 QUARTERS/FOOTAGES: 990' N line, 750' W line of NE
QUADRANGLE: SALEM SOUTH LONGITUDE: -88.947321 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.559362 DATE COLLECTED:
SURFACE ELEVATION (FT.): 533.0 LOGGED (FT.): 776.0 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
-235.5	CARBONDALE	BRERETON	LIMESTONE	3.5	768.5
-239.0	CARBONDALE	ANNA	CALCAREOUS SANDSTONE	1.0	772.0
-240.0	CARBONDALE	HERRIN	COAL	3.0	773.0

MAPID: 12101926000C VERSION: 3 PROJECT: J JOHNSON
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 2 QUARTERS/FOOTAGES: 990' N line, 750' W line of NE
QUADRANGLE: SALEM SOUTH LONGITUDE: -88.947321 GEOLOGIST: J JOHNSON
CONFIDENTIAL: N LATITUDE: 38.559362 DATE COLLECTED:
SURFACE ELEVATION (FT.): 533.0 LOGGED (FT.): 1856.0 LOG TYPE: Electric Log
SOURCE: SANDERS H C WELL TYPE: Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-302.0	CARBONDALE	SPRINGFIELD	COAL	-	835.0
-367.0	CARBONDALE	COLCHESTER	COAL	-	900.0
-1323.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1856.0

MAPID: 12101512000C VERSION: 1 PROJECT: J JOHNSON
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 3 QUARTERS/FOOTAGES: 330' S line, 330' E line of NE
QUADRANGLE: SALEM SOUTH LONGITUDE: -88.960702 GEOLOGIST: J JOHNSON
CONFIDENTIAL: N LATITUDE: 38.557275 DATE COLLECTED:
SURFACE ELEVATION (FT.): 564.0 LOGGED (FT.): 1820.0 LOG TYPE: Electric Log
SOURCE: TEXAS COMPANY, THE WELL TYPE: Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-254.0	CARBONDALE	SPRINGFIELD	COAL	-	818.0
-321.0	CARBONDALE	COLCHESTER	COAL	-	885.0
-1256.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1820.0

MAPID: 12101927000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 3 QUARTERS/FOOTAGES: 330' S line, 990' W line of SE SW
QUADRANGLE: SALEM SOUTH LONGITUDE: -88.970468 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.549797 DATE COLLECTED:
SURFACE ELEVATION (FT.): 577.0 LOGGED (FT.): 889.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
117.0	BOND	CARTHAGE	LIMESTONE	11.0	460.0
-198.0	MODESTO	PIASA	LIMESTONE	5.0	775.0
-232.0	CARBONDALE	HERRIN	COAL	-	809.0
-281.0	CARBONDALE	BRIAR HILL	COAL	-	858.0
-296.0	CARBONDALE	SPRINGFIELD	COAL	5.0	873.0
-308.0	CARBONDALE	HOUCHIN CREEK	COAL	4.0	885.0

MAPID: 12102233000C VERSION: 1 PROJECT: ROOF STUDY
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 3 QUARTERS/FOOTAGES: 330' S line, 330' W line
QUADRANGLE: SALEM SOUTH LONGITUDE: -88.977596 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.549661 DATE COLLECTED:
SURFACE ELEVATION (FT.): 551.0 LOGGED (FT.): 765.5 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
-208.0	CARBONDALE	BRERETON	LIMESTONE	3.0	759.0
-211.0	CARBONDALE	HERRIN	COAL	3.5	762.0

MAPID: 12101442000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 4 QUARTERS/FOOTAGES: NE SE SW
QUADRANGLE: SALEM SOUTH LONGITUDE: -88.989286 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.551033 DATE COLLECTED: 0 / 0 / 1939
SURFACE ELEVATION (FT.): 532.0 LOGGED (FT.): 2105.0 LOG TYPE:
SOURCE: TEXAS CO, RCHRD SN RY 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
142.0	BOND	CARTHAGE	LIMESTONE	-	390.0
-190.0	CARBONDALE	HERRIN	COAL	-	722.0

MAPID: 12102354000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 4 QUARTERS/FOOTAGES: 330' S line, 330' E line
QUADRANGLE: SALEM SOUTH LONGITUDE: -88.979916 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.549591 DATE COLLECTED:
SURFACE ELEVATION (FT.): 546.0 LOGGED (FT.): 838.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
129.0	BOND	CARTHAGE	LIMESTONE	10.0	417.0
-166.0	MODESTO	PIASA	LIMESTONE	6.0	712.0
-210.0	CARBONDALE	HERRIN	COAL	4.0	756.0
-254.0	CARBONDALE	BRIAR HILL	COAL	3.0	800.0
-269.0	CARBONDALE	SPRINGFIELD	COAL	5.0	815.0
-288.0	CARBONDALE	HOUCHIN CREEK	COAL	4.0	834.0

MAPID: 12102355000C VERSION: 1 PROJECT: ROOF STUDY
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 4 QUARTERS/FOOTAGES: 990' S line, 330' E line
QUADRANGLE: SALEM SOUTH LONGITUDE: -88.979903 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.551413 DATE COLLECTED:
SURFACE ELEVATION (FT.): 536.0 LOGGED (FT.): 750.5 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
-208.0	CARBONDALE	BRERETON	LIMESTONE	3.0	744.0
-211.0	CARBONDALE	HERRIN	COAL	3.5	747.0

MAPID: 12100177000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 5 QUARTERS/FOOTAGES: 660' N line, 990' W line of NW
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.013122 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.559805 DATE COLLECTED:
SURFACE ELEVATION (FT.): 527.0 LOGGED (FT.): 675.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: POOR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
229.0	BOND	CARTHAGE	LIMESTONE	12.0	298.0
-144.0	CARBONDALE	SPRINGFIELD	COAL	4.0	671.0

MAPID: 12100369000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 5 QUARTERS/FOOTAGES: NW SW SE
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.005873 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.550569 DATE COLLECTED: 0 / 0 / 1939
SURFACE ELEVATION (FT.): 531.0 LOGGED (FT.): 2244.0 LOG TYPE:
SOURCE: MCBRIDEINC, FYKE HEIRS 4 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
184.0	BOND	CARTHAGE	LIMESTONE	-	347.0
-156.0	CARBONDALE	HERRIN	COAL	-	687.0

MAPID: 12101319000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 5 QUARTERS/FOOTAGES: 450' S line, 520' E line of SW NW
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.013646 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.556243 DATE COLLECTED: 0 / 0 / 1940
SURFACE ELEVATION (FT.): 531.0 LOGGED (FT.): 3400.0 LOG TYPE:
SOURCE: TEXAS CO, TATE E 24 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
219.0	BOND	CARTHAGE	LIMESTONE	-	312.0
-109.0	CARBONDALE	HERRIN	COAL	-	640.0

MAPID: 12101319000C VERSION: 2 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 5 QUARTERS/FOOTAGES: 450' S line, 520' E line of SW NW
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.013646 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.556243 DATE COLLECTED:
SURFACE ELEVATION (FT.): 531.0 LOGGED (FT.): 696.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
221.0	BOND	CARTHAGE	LIMESTONE	12.0	310.0
-161.0	CARBONDALE	SPRINGFIELD	COAL	4.0	692.0

MAPID: 12101324000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 5 QUARTERS/FOOTAGES: NE NW SE
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.003432 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.55425 DATE COLLECTED: 0 / 0 / 1940
SURFACE ELEVATION (FT.): 527.0 LOGGED (FT.): 3487.0 LOG TYPE:
SOURCE: TEXAS CO, HAWTHRNE L 29 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
175.0	BOND	CARTHAGE	LIMESTONE	-	352.0	
-163.0	CARBONDALE	HERRIN	COAL	-	690.0	

MAPID: 12102488000C VERSION: 1 PROJECT: J JOHNSON
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 5 QUARTERS/FOOTAGES: 801' S line, 75' E line of SW
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.007339 GEOLOGIST: J JOHNSON
CONFIDENTIAL: N LATITUDE: 38.550023 DATE COLLECTED:
SURFACE ELEVATION (FT.): 532.0 LOGGED (FT.): 3360.0 LOG TYPE: Electric Log
SOURCE: TEXACO, INC. WELL TYPE: Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-1350.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1882.0	
-2712.0	DEVONIAN	UPPER DEVONIAN S	UNCLASSIFIED	-	3244.0	TOP OF NEW ALBANY
-2731.0	DEVONIAN	GRASSY CREEK	UNCLASSIFIED	-	3263.0	
-2828.0	DEVONIAN	BASE UPPER DEVON	UNCLASSIFIED	-	3360.0	BASE OF NEW ALBANY

MAPID: 12102560000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 5 QUARTERS/FOOTAGES: 450' N line, 478' E line of NW NW
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.013466 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.560386 DATE COLLECTED:
SURFACE ELEVATION (FT.): 520.0 LOGGED (FT.): 670.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: POOR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
226.0	BOND	CARTHAGE	LIMESTONE	10.0	294.0	
-146.0	CARBONDALE	SPRINGFIELD	COAL	4.0	666.0	

MAPID: 12105167000C **VERSION:** 1 **PROJECT:** CGT-ECILL
COUNTY: MARION **TWP/RNG:** 1N 2E **SECTION:** 5 **QUARTERS/FOOTAGES:** 102' S line, 310' E line of NW SW
QUADRANGLE: CENTRALIA EAST **LONGITUDE:** -89.012942 **GEOLOGIST:** C TREWORGY
CONFIDENTIAL: N **LATITUDE:** 38.551648 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 533.0 **LOGGED (FT.):** 760.5 **LOG TYPE:** Electric Log
SOURCE: **WELL TYPE:** Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
187.0	BOND	CARTHAGE	LIMESTONE	12.0	346.0
-118.0	MODESTO	PIASA	LIMESTONE	4.0	651.0
-149.0	CARBONDALE	HERRIN	COAL	3.0	682.0
-203.0	CARBONDALE	SPRINGFIELD	COAL	3.0	736.0
-226.0	CARBONDALE	HOUCHIN CREEK	COAL	1.5	759.0

MAPID: 12105183000C **VERSION:** 1 **PROJECT:** CGT-ECILL
COUNTY: MARION **TWP/RNG:** 1N 2E **SECTION:** 5 **QUARTERS/FOOTAGES:** 840' N line, 1100' W line of SE
QUADRANGLE: CENTRALIA EAST **LONGITUDE:** -89.003178 **GEOLOGIST:** C TREWORGY
CONFIDENTIAL: N **LATITUDE:** 38.552846 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 531.0 **LOGGED (FT.):** 876.0 **LOG TYPE:** Electric Log
SOURCE: **WELL TYPE:** Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
166.0	BOND	CARTHAGE	LIMESTONE	10.0	365.0
-169.0	CARBONDALE	HERRIN	COAL	-	700.0
-218.0	CARBONDALE	SPRINGFIELD	COAL	3.5	749.0
-240.0	CARBONDALE	HOUCHIN CREEK	COAL	-	771.0
-345.0	CARBONDALE	COLCHESTER	COAL	-	876.0

MAPID: 12101005000C **VERSION:** 1 **PROJECT:** CIRC 164
COUNTY: MARION **TWP/RNG:** 1N 2E **SECTION:** 6 **QUARTERS/FOOTAGES:** 660' S line, 430' E line of NE
QUADRANGLE: CENTRALIA EAST **LONGITUDE:** -89.018132 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.556722 **DATE COLLECTED:** 0 / 0 / 1940
SURFACE ELEVATION (FT.): 526.0 **LOGGED (FT.):** 3381.0 **LOG TYPE:**
SOURCE: TEXAS CO, CANULL J 18 **WELL TYPE:** Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
223.0	BOND	CARTHAGE	LIMESTONE	-	303.0
-94.0	CARBONDALE	HERRIN	COAL	-	620.0

MAPID: 12101005000C VERSION: 2 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 6 QUARTERS/FOOTAGES: 660' S line, 430' E line of NE
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.018132 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.556722 DATE COLLECTED:
SURFACE ELEVATION (FT.): 526.0 LOGGED (FT.): 695.0 LOG TYPE: Nuclear Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
222.0	BOND	CARTHAGE	LIMESTONE	10.0	304.0
-64.0	MODESTO	PIASA	LIMESTONE	4.0	590.0
-92.0	CARBONDALE	HERRIN	COAL	-	618.0
-146.0	CARBONDALE	SPRINGFIELD	COAL	4.5	672.0
-169.0	CARBONDALE	HOUCHIN CREEK	COAL	-	695.0

MAPID: 12101007000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 6 QUARTERS/FOOTAGES: 360' N line, 310' E line of NW
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.025322 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.560565 DATE COLLECTED: 0 / 0 / 1940
SURFACE ELEVATION (FT.): 488.0 LOGGED (FT.): 3501.0 LOG TYPE:
SOURCE: TEXAS CO, JOHNSON A 8 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
203.0	BOND	CARTHAGE	LIMESTONE	-	285.0
-139.0	CARBONDALE	HERRIN	COAL	-	627.0

MAPID: 12101007000C VERSION: 2 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 6 QUARTERS/FOOTAGES: 360' N line, 310' E line of NW
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.025322 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.560565 DATE COLLECTED:
SURFACE ELEVATION (FT.): 491.0 LOGGED (FT.): 725.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
201.0	BOND	CARTHAGE	LIMESTONE	12.0	290.0
-139.0	CARBONDALE	HERRIN	COAL	-	630.0
-190.0	CARBONDALE	SPRINGFIELD	COAL	4.5	681.0
-234.0	CARBONDALE	HOUCHIN CREEK	COAL	-	725.0

MAPID: 12102574000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 6 QUARTERS/FOOTAGES: 660' S line, 330' W line of NE
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.02473 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.55649 DATE COLLECTED:
SURFACE ELEVATION (FT.): 520.0 LOGGED (FT.): 695.5 LOG TYPE: Nuclear Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
206.0	BOND	CARTHAGE	LIMESTONE	11.0	314.0
-172.0	CARBONDALE	SPRINGFIELD	COAL	3.5	692.0

MAPID: 12102575000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 6 QUARTERS/FOOTAGES: 330' N line, 330' W line of NE
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.023071 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.560663 DATE COLLECTED:
SURFACE ELEVATION (FT.): 513.0 LOGGED (FT.): 697.5 LOG TYPE: Nuclear Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
207.0	BOND	CARTHAGE	LIMESTONE	11.0	306.0
-180.0	CARBONDALE	SPRINGFIELD	COAL	4.5	693.0

MAPID: 12102622000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 6 QUARTERS/FOOTAGES: 500' S line, 330' E line of NW
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.027054 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.555967 DATE COLLECTED:
SURFACE ELEVATION (FT.): 522.0 LOGGED (FT.): 740.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
200.0	BOND	CARTHAGE	LIMESTONE	10.0	322.0
-106.0	MODESTO	PIASA	LIMESTONE	6.0	628.0
-142.0	CARBONDALE	HERRIN	COAL	-	664.0
-186.0	CARBONDALE	SPRINGFIELD	COAL	4.0	708.0
-218.0	CARBONDALE	HOUCHIN CREEK	COAL	-	740.0

MAPID: 12102640000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 6 QUARTERS/FOOTAGES: 660' N line, 330' E line of SE
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.017798 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.553091 DATE COLLECTED:
SURFACE ELEVATION (FT.): 530.0 LOGGED (FT.): 686.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
218.0	BOND	CARTHAGE	LIMESTONE	10.0	312.0	
-151.0	CARBONDALE	SPRINGFIELD	COAL	5.0	681.0	

MAPID: 12100182000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 7 QUARTERS/FOOTAGES: SE NE NE
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.01785 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.544902 DATE COLLECTED: 0 / 0 / 1940
SURFACE ELEVATION (FT.): 528.0 LOGGED (FT.): 2210.0 LOG TYPE:
SOURCE: TEXAS CO, CARR W B 6B WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
238.0	BOND	CARTHAGE	LIMESTONE	-	290.0	
-81.0	CARBONDALE	HERRIN	COAL	-	609.0	

MAPID: 12101012000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 7 QUARTERS/FOOTAGES: SE SE NE
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.017882 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.541252 DATE COLLECTED: 0 / 0 / 1940
SURFACE ELEVATION (FT.): 531.0 LOGGED (FT.): 3477.0 LOG TYPE:
SOURCE: TEXAS CO, JOHNSON G 22 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
224.0	BOND	CARTHAGE	LIMESTONE	-	307.0	
-96.0	CARBONDALE	HERRIN	COAL	-	627.0	

MAPID: 12101014000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 7 QUARTERS/FOOTAGES: SE SW SE
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.022583 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.533851 DATE COLLECTED: 0 / 0 / 1940
SURFACE ELEVATION (FT.): 534.0 LOGGED (FT.): 2103.0 LOG TYPE:
SOURCE: OHIO OIL, MURRAY R L 16 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
191.0	BOND	CARTHAGE	LIMESTONE	-	343.0
-141.0	CARBONDALE	HERRIN	COAL	-	675.0

MAPID: 12101015000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 7 QUARTERS/FOOTAGES: SW NE SW
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.029508 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.537341 DATE COLLECTED: 0 / 0 / 1940
SURFACE ELEVATION (FT.): 523.0 LOGGED (FT.): 2095.0 LOG TYPE:
SOURCE: OHIO OIL, MURRAY R L 17 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
212.0	BOND	CARTHAGE	LIMESTONE	-	311.0
-143.0	CARBONDALE	HERRIN	COAL	-	666.0

MAPID: 12101017000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 7 QUARTERS/FOOTAGES: SW NW SE
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.024868 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.537447 DATE COLLECTED: 0 / 0 / 1940
SURFACE ELEVATION (FT.): 528.0 LOGGED (FT.): 3505.0 LOG TYPE:
SOURCE: OHIO OIL, MURRAY R L 20 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
217.0	BOND	CARTHAGE	LIMESTONE	-	311.0
-124.0	CARBONDALE	HERRIN	COAL	-	652.0

MAPID: 12101426000C **VERSION:** 1 **PROJECT:** CIRC 164
COUNTY: MARION **TWP/RNG:** 1N 2E **SECTION:** 7 **QUARTERS/FOOTAGES:** SE SE SE
QUADRANGLE: CENTRALIA EAST **LONGITUDE:** -89.017942 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.533956 **DATE COLLECTED:** 0 / 0 / 1943
SURFACE ELEVATION (FT.): 538.0 **LOGGED (FT.):** 1897.0 **LOG TYPE:**
SOURCE: ROCK HILL, BLYTH&FOST 21 **WELL TYPE:** Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
181.0	BOND	CARTHAGE	LIMESTONE	-	357.0
-157.0	CARBONDALE	HERRIN	COAL	-	695.0

MAPID: 12102660000C **VERSION:** 1 **PROJECT:** CGT-ECILL
COUNTY: MARION **TWP/RNG:** 1N 2E **SECTION:** 7 **QUARTERS/FOOTAGES:** 330' S line, 330' E line of NE NW
QUADRANGLE: CENTRALIA EAST **LONGITUDE:** -89.027129 **GEOLOGIST:** C TREWORYG
CONFIDENTIAL: N **LATITUDE:** 38.544692 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 521.0 **LOGGED (FT.):** 701.0 **LOG TYPE:** Nuclear Log
SOURCE: **WELL TYPE:** Oil and Gas Test
COMMENT: POOR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
249.0	BOND	CARTHAGE	LIMESTONE	11.0	272.0
-141.0	CARBONDALE	SPRINGFIELD	COAL	4.0	662.0
-180.0	CARBONDALE	HOUCHIN CREEK	COAL	-	701.0

MAPID: 12127757000C **VERSION:** 1 **PROJECT:** J JOHNSON
COUNTY: MARION **TWP/RNG:** 1N 2E **SECTION:** 7 **QUARTERS/FOOTAGES:** 2140' S line, 290' E line of SE
QUADRANGLE: CENTRALIA EAST **LONGITUDE:** -89.017761 **GEOLOGIST:** J JOHNSON
CONFIDENTIAL: N **LATITUDE:** 38.538955 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 541.0 **LOGGED (FT.):** 3375.0 **LOG TYPE:** Electric Log
SOURCE: TEXACO, INC. **WELL TYPE:** Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-1353.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1894.0
-2718.0	DEVONIAN	UPPER DEVONIAN S	UNCLASSIFIED	-	3259.0 TOP OF NEW ALBANY
-2739.0	DEVONIAN	GRASSY CREEK	UNCLASSIFIED	-	3280.0
-2834.0	DEVONIAN	BASE UPPER DEVON	UNCLASSIFIED	-	3375.0 BASE OF NEW ALBANY

MAPID: 12100424000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 8 QUARTERS/FOOTAGES: 330' S line, 660' W line of NE NE
QUADRANGLE: SALEM SOUTH LONGITUDE: -89.000021 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.545241 DATE COLLECTED:
SURFACE ELEVATION (FT.): 538.0 LOGGED (FT.): 808.0 LOG TYPE: Nuclear Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: POOR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-234.0	CARBONDALE	SPRINGFIELD	COAL	4.0	772.0	
-270.0	CARBONDALE	HOUCHIN CREEK	COAL	-	808.0	

MAPID: 12100428000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 8 QUARTERS/FOOTAGES: 990' S line, 660' W line of SE SW
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.009672 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.536 DATE COLLECTED:
SURFACE ELEVATION (FT.): 557.0 LOGGED (FT.): 838.0 LOG TYPE: Nuclear Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: POOR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
159.0	BOND	CARTHAGE	LIMESTONE	10.0	398.0	
-219.0	CARBONDALE	BRIAR HILL	COAL	2.0	776.0	
-235.0	CARBONDALE	SPRINGFIELD	COAL	4.0	792.0	
-281.0	CARBONDALE	HOUCHIN CREEK	COAL	-	838.0	

MAPID: 12101021000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 8 QUARTERS/FOOTAGES: NW NW SW
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.015543 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.539481 DATE COLLECTED: 0 / 0 / 1940
SURFACE ELEVATION (FT.): 544.0 LOGGED (FT.): 3420.0 LOG TYPE:
SOURCE: TEXAS CO, FOSTER V L 8 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
199.0	BOND	CARTHAGE	LIMESTONE	-	345.0	
-133.0	CARBONDALE	HERRIN	COAL	-	677.0	

MAPID: 12101321000C **VERSION:** 1 **PROJECT:** CIRC 164
COUNTY: MARION **TWP/RNG:** 1N 2E **SECTION:** 8 **QUARTERS/FOOTAGES:** SW NE SW
QUADRANGLE: CENTRALIA EAST **LONGITUDE:** -89.010781 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.537774 **DATE COLLECTED:** 0 / 0 / 1940
SURFACE ELEVATION (FT.): 550.0 **LOGGED (FT.):** 3525.0 **LOG TYPE:**
SOURCE: TEXAS CO, FYKE R 19 **WELL TYPE:** Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.) UNIT OVERBURDEN	COMMENT
183.0	BOND	CARTHAGE	LIMESTONE	- 367.0	

MAPID: 12101427000C **VERSION:** 1 **PROJECT:** CIRC 164
COUNTY: MARION **TWP/RNG:** 1N 2E **SECTION:** 8 **QUARTERS/FOOTAGES:** NE SW SW
QUADRANGLE: CENTRALIA EAST **LONGITUDE:** -89.013187 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.535899 **DATE COLLECTED:** 0 / 0 / 1940
SURFACE ELEVATION (FT.): 543.0 **LOGGED (FT.):** 3528.0 **LOG TYPE:**
SOURCE: ROCK HILL, FOSTR&BLYT 20 **WELL TYPE:** Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.) UNIT OVERBURDEN	COMMENT
175.0	BOND	CARTHAGE	LIMESTONE	- 368.0	
-167.0	CARBONDALE	HERRIN	COAL	- 710.0	

MAPID: 12100439000C **VERSION:** 1 **PROJECT:** CGT-ECILL
COUNTY: MARION **TWP/RNG:** 1N 2E **SECTION:** 9 **QUARTERS/FOOTAGES:** 180' N line, 360' W line
QUADRANGLE: SALEM SOUTH **LONGITUDE:** -88.996268 **GEOLOGIST:** C TREWORGY
CONFIDENTIAL: N **LATITUDE:** 38.547521 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 530.0 **LOGGED (FT.):** 792.0 **LOG TYPE:** Nuclear Log
SOURCE: **WELL TYPE:** Oil and Gas Test
COMMENT: POOR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.) UNIT OVERBURDEN	COMMENT
161.0	BOND	CARTHAGE	LIMESTONE	9.0 369.0	
-220.0	CARBONDALE	BRIAR HILL	COAL	2.5 750.0	
-232.0	CARBONDALE	SPRINGFIELD	COAL	4.0 762.0	
-262.0	CARBONDALE	HOUCHIN CREEK	COAL	- 792.0	

MAPID: 12101025000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 9 QUARTERS/FOOTAGES: SW NW NW
QUADRANGLE: SALEM SOUTH LONGITUDE: -88.996386 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.545316 DATE COLLECTED: 0 / 0 / 1939
SURFACE ELEVATION (FT.): 528.0 LOGGED (FT.): 2060.0 LOG TYPE:
SOURCE: FRONTER OC, FRDRCH HRS 2 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
153.0	BOND	CARTHAGE	LIMESTONE	-	375.0
-181.0	CARBONDALE	HERRIN	COAL	-	709.0

MAPID: 12101322000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 9 QUARTERS/FOOTAGES: NW NE NE
QUADRANGLE: SALEM SOUTH LONGITUDE: -88.982286 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.547672 DATE COLLECTED: 0 / 0 / 1938
SURFACE ELEVATION (FT.): 548.0 LOGGED (FT.): 2146.0 LOG TYPE:
SOURCE: SUPRIOR OC, LUTTRELL 1A WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
141.0	BOND	CARTHAGE	LIMESTONE	-	407.0
-200.0	CARBONDALE	HERRIN	COAL	-	748.0

MAPID: 12101345000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 9 QUARTERS/FOOTAGES: NE SE SW
QUADRANGLE: SALEM SOUTH LONGITUDE: -88.9894 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.536528 DATE COLLECTED: 0 / 0 / 1938
SURFACE ELEVATION (FT.): 550.0 LOGGED (FT.): 2136.0 LOG TYPE:
SOURCE: MAMMOTHPRC, BACHMAN 7 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
140.0	BOND	CARTHAGE	LIMESTONE	-	410.0
-200.0	CARBONDALE	HERRIN	COAL	-	750.0

MAPID: 12101368000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 9 QUARTERS/FOOTAGES: NE SE NE
QUADRANGLE: SALEM SOUTH LONGITUDE: -88.979946 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.544108 DATE COLLECTED: 0 / 0 / 1943
SURFACE ELEVATION (FT.): 537.0 LOGGED (FT.): 2192.0 LOG TYPE:
SOURCE: TEXAS CO, KELL S D 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
127.0	BOND	CARTHAGE	LIMESTONE	-	410.0
-214.0	CARBONDALE	HERRIN	COAL	-	751.0

MAPID: 12101369000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 9 QUARTERS/FOOTAGES: SE SW SE
QUADRANGLE: SALEM SOUTH LONGITUDE: -88.984685 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.534842 DATE COLLECTED: 0 / 0 / 1944
SURFACE ELEVATION (FT.): 541.0 LOGGED (FT.): 1900.0 LOG TYPE:
SOURCE: TEXAS CO, SNYDR COMM 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
129.0	BOND	CARTHAGE	LIMESTONE	-	412.0
-213.0	CARBONDALE	HERRIN	COAL	-	754.0

MAPID: 12101428000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 9 QUARTERS/FOOTAGES: SW SE SE
QUADRANGLE: SALEM SOUTH LONGITUDE: -88.982322 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.534906 DATE COLLECTED: 0 / 0 / 1944
SURFACE ELEVATION (FT.): 547.0 LOGGED (FT.): 2147.0 LOG TYPE:
SOURCE: TEXAS CO, JACKSON T 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
124.0	BOND	CARTHAGE	LIMESTONE	-	423.0
-223.0	CARBONDALE	HERRIN	COAL	-	770.0

MAPID: 12102852000C VERSION: 1 PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 1N 2E SECTION: 9 QUARTERS/FOOTAGES: 330' N line, 330' E line of SW NE

QUADRANGLE: SALEM SOUTH LONGITUDE: -88.984633 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.543939 DATE COLLECTED:

SURFACE ELEVATION (FT.): 516.0 LOGGED (FT.): 789.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
141.0	BOND	CARTHAGE	LIMESTONE	10.0	375.0
-236.0	CARBONDALE	BRIAR HILL	COAL	-	752.0
-248.0	CARBONDALE	SPRINGFIELD	COAL	5.0	764.0
-273.0	CARBONDALE	HOUCHIN CREEK	COAL	-	789.0

MAPID: 12102852000C VERSION: 2 PROJECT: ROOF STUDY

COUNTY: MARION TWP/RNG: 1N 2E SECTION: 9 QUARTERS/FOOTAGES: 330' N line, 330' E line of SW NE

QUADRANGLE: SALEM SOUTH LONGITUDE: -88.984633 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.543939 DATE COLLECTED:

SURFACE ELEVATION (FT.): 516.0 LOGGED (FT.): 713.0 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
-171.0	MODESTO	PIASA	LIMESTONE	4.0	687.0
-175.0	MODESTO		SHALE	5.0	691.0
-180.0	CARBONDALE		SHALE	4.0	696.0
-184.0	CARBONDALE		SHALE	1.0	700.0
-185.0	CARBONDALE		SHALE	2.0	701.0
-187.0	CARBONDALE	LAWSON	SHALE	2.0	703.0
-189.0	CARBONDALE	BRERETON	LIMESTONE	4.0	705.0
-194.0	CARBONDALE	HERRIN	COAL	3.0	710.0

MAPID: 12102868000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 9 QUARTERS/FOOTAGES: 330' N line, 330' E line of NW NE
QUADRANGLE: SALEM SOUTH LONGITUDE: -88.984617 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.547578 DATE COLLECTED:
SURFACE ELEVATION (FT.): 537.0 LOGGED (FT.): 808.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
137.0	BOND	CARTHAGE	LIMESTONE	10.0	400.0
-232.0	CARBONDALE	BRIAR HILL	COAL	-	769.0
-249.0	CARBONDALE	SPRINGFIELD	COAL	5.5	786.0
-271.0	CARBONDALE	HOUCHIN CREEK	COAL	-	808.0

MAPID: 12102896000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 9 QUARTERS/FOOTAGES: 330' S line, 405' W line of SE SE
QUADRANGLE: SALEM SOUTH LONGITUDE: -88.98208 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.534911 DATE COLLECTED:
SURFACE ELEVATION (FT.): 546.0 LOGGED (FT.): 834.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
122.0	BOND	CARTHAGE	LIMESTONE	11.0	424.0
24.0	MODESTO	TRIVOLI	SANDSTONE	38.0	522.0
-269.0	CARBONDALE	SPRINGFIELD	COAL	3.5	815.0
-288.0	CARBONDALE	HOUCHIN CREEK	COAL	-	834.0

MAPID: 12102900000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 9 QUARTERS/FOOTAGES: 330' N line, 330' E line of NW SE
QUADRANGLE: SALEM SOUTH LONGITUDE: -88.984645 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.5403 DATE COLLECTED:
SURFACE ELEVATION (FT.): 549.0 LOGGED (FT.): 810.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
147.0	BOND	CARTHAGE	LIMESTONE	11.0	402.0
-227.0	CARBONDALE	BRIAR HILL	COAL	4.0	776.0
-236.0	CARBONDALE	SPRINGFIELD	COAL	6.0	785.0
-261.0	CARBONDALE	HOUCHIN CREEK	COAL	-	810.0

MAPID: 12105432000C **VERSION:** 1 **PROJECT:** J JOHNSON
COUNTY: MARION **TWP/RNG:** 1N 2E **SECTION:** 9 **QUARTERS/FOOTAGES:** 330' N line, 330' W line of NW
QUADRANGLE: SALEM SOUTH **LONGITUDE:** -88.99638 **GEOLOGIST:** J JOHNSON
CONFIDENTIAL: N **LATITUDE:** 38.547102 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 531.0 **LOGGED (FT.):** 3442.0 **LOG TYPE:** Electric Log
SOURCE: TEXACO, INC. **WELL TYPE:** Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-263.0	CARBONDALE	SPRINGFIELD	COAL	-	794.0	
-370.0	CARBONDALE	COLCHESTER	COAL	-	901.0	
-1130.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1661.0	
-2793.0	DEVONIAN	UPPER DEVONIAN S	UNCLASSIFIED	-	3324.0	TOP OF NEW ALBANY
-2812.0	DEVONIAN	GRASSY CREEK	UNCLASSIFIED	-	3343.0	
-2911.0	DEVONIAN	BASE UPPER DEVON	UNCLASSIFIED	-	3442.0	BASE OF NEW ALBANY

MAPID: 12101355000C **VERSION:** 1 **PROJECT:** CIRC 164
COUNTY: MARION **TWP/RNG:** 1N 2E **SECTION:** 10 **QUARTERS/FOOTAGES:** SW NW NW
QUADRANGLE: SALEM SOUTH **LONGITUDE:** -88.977566 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.546005 **DATE COLLECTED:** 0 / 0 / 1943
SURFACE ELEVATION (FT.): 532.0 **LOGGED (FT.):** 2105.0 **LOG TYPE:**
SOURCE: BIG CHIEF, LUTTRELL A 1 **WELL TYPE:** Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
119.0	BOND	CARTHAGE	LIMESTONE	-	413.0	
-229.0	CARBONDALE	HERRIN	COAL	-	761.0	

MAPID: 12101931000C **VERSION:** 1 **PROJECT:** CGT-ECILL
COUNTY: MARION **TWP/RNG:** 1N 2E **SECTION:** 10 **QUARTERS/FOOTAGES:** 330' S line, 330' W line of NE SW
QUADRANGLE: SALEM SOUTH **LONGITUDE:** -88.972814 **GEOLOGIST:** C TREWORGY
CONFIDENTIAL: N **LATITUDE:** 38.538786 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 564.0 **LOGGED (FT.):** 866.0 **LOG TYPE:** Electric Log
SOURCE: **WELL TYPE:** Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
119.0	BOND	CARTHAGE	LIMESTONE	13.0	445.0	
-266.0	CARBONDALE	BRIAR HILL	COAL	3.0	830.0	
-282.0	CARBONDALE	SPRINGFIELD	COAL	6.0	846.0	
-302.0	CARBONDALE	HOUCHIN CREEK	COAL	-	866.0	

MAPID: 12101931000C VERSION: 2 PROJECT: ROOF STUDY

COUNTY: MARION TWP/RNG: 1N 2E SECTION: 10 QUARTERS/FOOTAGES: 330' S line, 330' W line of NE SW

QUADRANGLE: SALEM SOUTH LONGITUDE: -88.972814 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.538786 DATE COLLECTED:

SURFACE ELEVATION (FT.): 564.0 LOGGED (FT.): 791.0 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
-187.0	MODESTO	PIASA	LIMESTONE	3.5	751.0
-190.5	MODESTO		SHALE	10.0	754.5
-200.5	CARBONDALE		SHALE	10.0	764.5
-210.5	CARBONDALE	LAWSON	SHALE	7.0	774.5
-217.5	CARBONDALE	BRERETON	LIMESTONE	4.0	781.5
-221.5	CARBONDALE	ANNA	SHALE	1.0	785.5
-224.0	CARBONDALE	HERRIN	COAL	3.0	788.0

MAPID: 12102930000C VERSION: 1 PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 1N 2E SECTION: 10 QUARTERS/FOOTAGES: 330' S line, 330' W line

QUADRANGLE: SALEM SOUTH LONGITUDE: -88.977619 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.535023 DATE COLLECTED:

SURFACE ELEVATION (FT.): 541.0 LOGGED (FT.): 834.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
127.0	BOND	CARTHAGE	LIMESTONE	11.0	414.0
-259.0	CARBONDALE	BRIAR HILL	COAL	2.5	800.0
-275.0	CARBONDALE	SPRINGFIELD	COAL	8.0	816.0
-293.0	CARBONDALE	HOUCHIN CREEK	COAL	-	834.0

MAPID: 12102935000C **VERSION:** 1 **PROJECT:** CGT-ECILL
COUNTY: MARION **TWP/RNG:** 1N 2E **SECTION:** 10 **QUARTERS/FOOTAGES:** 330' N line, 330' W line of NE SW
QUADRANGLE: SALEM SOUTH **LONGITUDE:** -88.972811 **GEOLOGIST:** C TREWORY
CONFIDENTIAL: N **LATITUDE:** 38.54062 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 554.0 **LOGGED (FT.):** 1038.0 **LOG TYPE:** Electric Log
SOURCE: **WELL TYPE:** Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
123.0	BOND	CARTHAGE	LIMESTONE	12.0	431.0	
-261.0	CARBONDALE	BRIAR HILL	COAL	3.0	815.0	
-274.0	CARBONDALE	SPRINGFIELD	COAL	4.5	828.0	
-294.0	CARBONDALE	HOUCHIN CREEK	COAL	-	848.0	
-484.0	CARBONDALE	COLCHESTER	COAL	-	1038.0	

MAPID: 12101692000C **VERSION:** 1 **PROJECT:** ROOF STUDY
COUNTY: MARION **TWP/RNG:** 1N 2E **SECTION:** 11 **QUARTERS/FOOTAGES:** 330' N line, 1650' W line
QUADRANGLE: SALEM SOUTH **LONGITUDE:** -88.953727 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.548374 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 572.0 **LOGGED (FT.):** 815.5 **LOG TYPE:** Electric Log
SOURCE: **WELL TYPE:** Oil and Gas Test
COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-237.0	CARBONDALE	BRERETON	LIMESTONE	4.0	809.0	
-241.0	CARBONDALE	HERRIN	COAL	2.5	813.0	

MAPID: 12101932000C **VERSION:** 1 **PROJECT:** J JOHNSON
COUNTY: MARION **TWP/RNG:** 1N 2E **SECTION:** 11 **QUARTERS/FOOTAGES:** 411' N line, 330' E line of NW NE
QUADRANGLE: SALEM SOUTH **LONGITUDE:** -88.946563 **GEOLOGIST:** J JOHNSON
CONFIDENTIAL: N **LATITUDE:** 38.548379 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 593.0 **LOGGED (FT.):** 3770.0 **LOG TYPE:** Electric Log
SOURCE: SANDERS H C **WELL TYPE:** Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-307.0	CARBONDALE	SPRINGFIELD	COAL	-	900.0	
-387.0	CARBONDALE	COLCHESTER	COAL	-	980.0	
-1336.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1929.0	
-3051.0	DEVONIAN	UPPER DEVONIAN S	UNCLASSIFIED	-	3644.0	TOP OF NEW ALBANY
-3075.0	DEVONIAN	GRASSY CREEK	UNCLASSIFIED	-	3668.0	
-3177.0	DEVONIAN	BASE UPPER DEVON	UNCLASSIFIED	-	3770.0	BASE OF NEW ALBANY

MAPID: 1210296000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 11 QUARTERS/FOOTAGES: 330' N line, 330' E line of SE NW
QUADRANGLE: SALEM SOUTH LONGITUDE: -88.95129 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.544807 DATE COLLECTED:
SURFACE ELEVATION (FT.): 564.0 LOGGED (FT.): 888.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
116.0	BOND	CARTHAGE	LIMESTONE	9.0	448.0
-279.0	CARBONDALE	BRIAR HILL	COAL	-	843.0
-293.0	CARBONDALE	SPRINGFIELD	COAL	4.0	857.0
-324.0	CARBONDALE	HOUCHIN CREEK	COAL	-	888.0

MAPID: 12101693000C VERSION: 1 PROJECT: J JOHNSON
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 12 QUARTERS/FOOTAGES: 330' N line, 330' E line of SW
QUADRANGLE: SALEM SOUTH LONGITUDE: -88.932368 GEOLOGIST: J JOHNSON
CONFIDENTIAL: N LATITUDE: 38.541648 DATE COLLECTED:
SURFACE ELEVATION (FT.): 610.0 LOGGED (FT.): 2005.0 LOG TYPE: Electric Log
SOURCE: NORMAN APPLEBY WELL TYPE: Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-298.0	CARBONDALE	SPRINGFIELD	COAL	-	908.0
-420.0	CARBONDALE	COLCHESTER	COAL	-	1030.0
-1395.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	2005.0

MAPID: 12101693000C VERSION: 2 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 12 QUARTERS/FOOTAGES: 330' N line, 330' E line of SW
QUADRANGLE: SALEM SOUTH LONGITUDE: -88.932368 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.541648 DATE COLLECTED:
SURFACE ELEVATION (FT.): 610.0 LOGGED (FT.): 939.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
113.0	BOND	CARTHAGE	LIMESTONE	8.0	497.0
-295.0	CARBONDALE	SPRINGFIELD	COAL	3.0	905.0
-329.0	CARBONDALE	HOUCHIN CREEK	COAL	-	939.0

MAPID: 12101373000C VERSION: 1 PROJECT: J JOHNSON
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 15 QUARTERS/FOOTAGES: NE NE SW
QUADRANGLE: SALEM SOUTH LONGITUDE: -88.970452 GEOLOGIST: J JOHNSON
CONFIDENTIAL: N LATITUDE: 38.526056 DATE COLLECTED:
SURFACE ELEVATION (FT.): 549.0 LOGGED (FT.): 1779.0 LOG TYPE: Electric Log
SOURCE: TEXACO, INC. WELL TYPE: Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-267.0	CARBONDALE	SPRINGFIELD	COAL	-	816.0
-376.0	CARBONDALE	COLCHESTER	COAL	-	925.0
-1230.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1779.0

MAPID: 12101373000C VERSION: 2 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 15 QUARTERS/FOOTAGES: NE NE SW
QUADRANGLE: SALEM SOUTH LONGITUDE: -88.970452 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.526056 DATE COLLECTED: 0 / 0 / 1943
SURFACE ELEVATION (FT.): 549.0 LOGGED (FT.): 2152.0 LOG TYPE:
SOURCE: TEXAS CO, FRDRCH COM 2 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
151.0	BOND	CARTHAGE	LIMESTONE	-	398.0
-210.0	CARBONDALE	HERRIN	COAL	-	759.0

MAPID: 12101398000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 15 QUARTERS/FOOTAGES: SE NW NW
QUADRANGLE: SALEM SOUTH LONGITUDE: -88.97522 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.53142 DATE COLLECTED: 0 / 0 / 1943
SURFACE ELEVATION (FT.): 546.0 LOGGED (FT.): 2147.0 LOG TYPE:
SOURCE: TEXAS CO, LUTTRELL E 8 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
147.0	BOND	CARTHAGE	LIMESTONE	-	399.0
-222.0	CARBONDALE	HERRIN	COAL	-	768.0

MAPID: 12101429000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 15 QUARTERS/FOOTAGES: NE NW SW
QUADRANGLE: SALEM SOUTH LONGITUDE: -88.975292 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.525927 DATE COLLECTED: 0 / 0 / 1944
SURFACE ELEVATION (FT.): 556.0 LOGGED (FT.): 2116.0 LOG TYPE:
SOURCE: TEXAS CO, BOLES H 3 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
163.0	BOND	CARTHAGE	LIMESTONE	-	393.0
-196.0	CARBONDALE	HERRIN	COAL	-	752.0

MAPID: 12102970000C VERSION: 1 PROJECT: ROOF STUDY
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 15 QUARTERS/FOOTAGES: 990' N line, 330' W line
QUADRANGLE: SALEM SOUTH LONGITUDE: -88.977656 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.531379 DATE COLLECTED:
SURFACE ELEVATION (FT.): 535.0 LOGGED (FT.): 760.0 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
-194.0	MODESTO	PIASA	LIMESTONE	6.0	729.0
-200.0	MODESTO		SHALE	5.0	735.0
-205.0	CARBONDALE		SHALE	5.0	740.0
-210.0	CARBONDALE		SHALE	1.0	745.0
-211.0	CARBONDALE	LAWSON	SHALE	2.0	746.0
-213.0	CARBONDALE		SHALE	4.0	748.0
-217.0	CARBONDALE		LIMESTONE	4.0	752.0
-222.0	CARBONDALE	HERRIN	COAL	3.0	757.0

MAPID: 12100160000C VERSION: 2 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 16 QUARTERS/FOOTAGES: 660' N line, 330' W line of SE NE
QUADRANGLE: SALEM SOUTH LONGITUDE: -88.982418 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.528501 DATE COLLECTED: 0 / 0 / 1942
SURFACE ELEVATION (FT.): 564.0 LOGGED (FT.): 1919.0 LOG TYPE:
SOURCE: TEXAS CO, FRICKE F 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
157.0	BOND	CARTHAGE	LIMESTONE	-	407.0
-212.0	CARBONDALE	HERRIN	COAL	-	776.0

MAPID: 12100160000C VERSION: 3 PROJECT: CONTROL
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 16 QUARTERS/FOOTAGES: 660' N line, 330' W line of SE NE
QUADRANGLE: SALEM SOUTH LONGITUDE: -88.982418 GEOLOGIST: HINES
CONFIDENTIAL: N LATITUDE: 38.528501 DATE COLLECTED:
SURFACE ELEVATION (FT.): LOGGED (FT.): 1919.0 LOG TYPE: Survey Sample Study
SOURCE: TEXACO, INC. WELL TYPE: Oil and Gas Test
COMMENT: OILWELLS LOGGED BY COAL SECT-LOGS IN GRU

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			NO RECORD	0.0	0.0	

MAPID: 12101302000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 16 QUARTERS/FOOTAGES: 330' N line, 330' E line of NW SE
QUADRANGLE: SALEM SOUTH LONGITUDE: -88.984776 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.525677 DATE COLLECTED: 0 / 0 / 1943
SURFACE ELEVATION (FT.): 566.0 LOGGED (FT.): 2150.0 LOG TYPE:
SOURCE: TEXAS CO, BLENZ L 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
166.0	BOND	CARTHAGE	LIMESTONE	-	400.0	

MAPID: 12101302000C VERSION: 2 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 16 QUARTERS/FOOTAGES: 330' N line, 330' E line of NW SE
QUADRANGLE: SALEM SOUTH LONGITUDE: -88.984776 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.525677 DATE COLLECTED:
SURFACE ELEVATION (FT.): 566.0 LOGGED (FT.): 817.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
165.0	BOND	CARTHAGE	LIMESTONE	12.0	401.0	
-245.0	CARBONDALE	SPRINGFIELD	COAL	6.0	811.0	

MAPID: 12101307000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 16 QUARTERS/FOOTAGES: SE SE NW
QUADRANGLE: SALEM SOUTH LONGITUDE: -88.989494 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.527373 DATE COLLECTED: 0 / 0 / 1943
SURFACE ELEVATION (FT.): 563.0 LOGGED (FT.): 1916.0 LOG TYPE:
SOURCE: KINGWOODOC, DODSON 2 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
153.0	BOND	CARTHAGE	LIMESTONE	-	410.0
-217.0	CARBONDALE	HERRIN	COAL	-	780.0

MAPID: 12101311000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 16 QUARTERS/FOOTAGES: NW NW NW
QUADRANGLE: SALEM SOUTH LONGITUDE: -88.996517 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.532708 DATE COLLECTED: 0 / 0 / 1939
SURFACE ELEVATION (FT.): 548.0 LOGGED (FT.): 2179.0 LOG TYPE:
SOURCE: TEXAS CO, LUTTRELL E 6 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
141.0	BOND	CARTHAGE	LIMESTONE	-	407.0
-229.0	CARBONDALE	HERRIN	COAL	-	777.0

MAPID: 12101396000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 16 QUARTERS/FOOTAGES: SE NW SE
QUADRANGLE: SALEM SOUTH LONGITUDE: -88.984817 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.52383 DATE COLLECTED: 0 / 0 / 1943
SURFACE ELEVATION (FT.): 553.0 LOGGED (FT.): 1916.0 LOG TYPE:
SOURCE: TEXAS CO, SNYDER E 7 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
145.0	BOND	CARTHAGE	LIMESTONE	-	408.0
-232.0	CARBONDALE	HERRIN	COAL	-	785.0

MAPID: 12101397000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 16 QUARTERS/FOOTAGES: NE NE SW
QUADRANGLE: SALEM SOUTH LONGITUDE: -88.989514 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.525535 DATE COLLECTED: 0 / 0 / 1943
SURFACE ELEVATION (FT.): 553.0 LOGGED (FT.): 2140.0 LOG TYPE:
SOURCE: TEXAS CO, WILLIS R E 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
145.0	BOND	CARTHAGE	LIMESTONE	-	408.0
-226.0	CARBONDALE	HERRIN	COAL	-	779.0

MAPID: 12101430000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 16 QUARTERS/FOOTAGES: NE SE SE
QUADRANGLE: SALEM SOUTH LONGITUDE: -88.980124 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.522133 DATE COLLECTED: 0 / 0 / 1944
SURFACE ELEVATION (FT.): 553.0 LOGGED (FT.): 2106.0 LOG TYPE:
SOURCE: TEXAS CO, FRICKE F 5 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
171.0	BOND	CARTHAGE	LIMESTONE	-	382.0
-193.0	CARBONDALE	HERRIN	COAL	-	746.0

MAPID: 12101431000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 16 QUARTERS/FOOTAGES: SW NE NE
QUADRANGLE: SALEM SOUTH LONGITUDE: -88.982363 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.53124 DATE COLLECTED: 0 / 0 / 1943
SURFACE ELEVATION (FT.): 555.0 LOGGED (FT.): 1913.0 LOG TYPE:
SOURCE: TEXAS CO, FRICKE 3 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
133.0	BOND	CARTHAGE	LIMESTONE	-	422.0
-235.0	CARBONDALE	HERRIN	COAL	-	790.0

MAPID: 12102977000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 16 QUARTERS/FOOTAGES: 330' S line, 330' W line of NW SE
QUADRANGLE: SALEM SOUTH LONGITUDE: -88.987197 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.523755 DATE COLLECTED:
SURFACE ELEVATION (FT.): 560.0 LOGGED (FT.): 845.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
162.0	BOND	CARTHAGE	LIMESTONE	11.0	398.0
50.0	MODESTO	TRIVOLI	SANDSTONE	89.0	510.0
-233.0	CARBONDALE	BRIAR HILL	COAL	2.5	793.0
-249.0	CARBONDALE	SPRINGFIELD	COAL	5.0	809.0
-285.0	CARBONDALE	HOUCHIN CREEK	COAL	-	845.0

MAPID: 12101027000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 17 QUARTERS/FOOTAGES: NW NW NW
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.015603 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.532187 DATE COLLECTED: 0 / 0 / 1938
SURFACE ELEVATION (FT.): 544.0 LOGGED (FT.): 2119.0 LOG TYPE:
SOURCE: KINGWOODOC, DEVAR 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
167.0	BOND	CARTHAGE	LIMESTONE	-	377.0
-178.0	CARBONDALE	HERRIN	COAL	-	722.0

MAPID: 12101028000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 17 QUARTERS/FOOTAGES: NW SW NE
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.006084 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.528768 DATE COLLECTED: 0 / 0 / 1938
SURFACE ELEVATION (FT.): 545.0 LOGGED (FT.): 2174.0 LOG TYPE:
SOURCE: DUNCANBROS, FYKE 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
147.0	BOND	CARTHAGE	LIMESTONE	-	398.0
-229.0	CARBONDALE	HERRIN	COAL	-	774.0

MAPID: 12101595000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 1N 2E SECTION: 17 QUARTERS/FOOTAGES: 330' S line, 330' W line of SE NE
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.001365 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.527042 DATE COLLECTED:
SURFACE ELEVATION (FT.): 554.0 LOGGED (FT.): 864.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
147.0	BOND	CARTHAGE	LIMESTONE	12.0	407.0
33.0	MODESTO	TRIVOLI	SANDSTONE	83.0	521.0
-263.0	CARBONDALE	SPRINGFIELD	COAL	5.0	817.0
-310.0	CARBONDALE	HOUCHIN CREEK	COAL	-	864.0

MAPID: 12102999000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 1N 2E SECTION: 17 QUARTERS/FOOTAGES: 330' N line, 330' E line of SW NE
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.003669 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.52884 DATE COLLECTED:
SURFACE ELEVATION (FT.): 546.0 LOGGED (FT.): 871.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
145.0	BOND	CARTHAGE	LIMESTONE	12.0	401.0
39.0	MODESTO	TRIVOLI	SANDSTONE	97.0	507.0
-258.0	CARBONDALE	BRIAR HILL	COAL	-	804.0
-271.0	CARBONDALE	SPRINGFIELD	COAL	4.0	817.0
-325.0	CARBONDALE	HOUCHIN CREEK	COAL	-	871.0

MAPID: 12102999000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: MARION TWP/RNG: 1N 2E SECTION: 17 QUARTERS/FOOTAGES: 330' N line, 330' E line of SW NE
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.003669 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.52884 DATE COLLECTED:
SURFACE ELEVATION (FT.): 546.0 LOGGED (FT.): 766.5 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
-214.0	MODESTO	PIASA	LIMESTONE	6.5	760.0

MAPID: 12100447000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 18 QUARTERS/FOOTAGES: NE SE NE
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.017979 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.528456 DATE COLLECTED: 0 / 0 / 1939
SURFACE ELEVATION (FT.): 539.0 LOGGED (FT.): 3684.0 LOG TYPE:
SOURCE: KINGWOODOC, BURGE T 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
149.0	BOND	CARTHAGE	LIMESTONE	-	390.0	
-198.0	CARBONDALE	HERRIN	COAL	-	737.0	

MAPID: 12100451000C VERSION: 1 PROJECT: ROOF STUDY
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 18 QUARTERS/FOOTAGES: 275' N line, 930' E line
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.020066 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.532236 DATE COLLECTED:
SURFACE ELEVATION (FT.): 544.0 LOGGED (FT.): 705.5 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-154.0	CARBONDALE	BRERETON	LIMESTONE	4.0	698.0	
-158.0	CARBONDALE	HERRIN	COAL	3.5	702.0	

MAPID: 12101032000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 18 QUARTERS/FOOTAGES: 50' N line, 50' E line of NW NE
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.021609 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.532823 DATE COLLECTED: 0 / 0 / 1940
SURFACE ELEVATION (FT.): 536.0 LOGGED (FT.): 2081.0 LOG TYPE:
SOURCE: DEANER J J, BURGE 5 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
181.0	BOND	CARTHAGE	LIMESTONE	-	355.0	
-165.0	CARBONDALE	HERRIN	COAL	-	701.0	

MAPID: 12101032000C VERSION: 2 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 18 QUARTERS/FOOTAGES: 50' N line, 50' E line of NW NE
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.021609 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.532823 DATE COLLECTED:
SURFACE ELEVATION (FT.): 539.0 LOGGED (FT.): 811.0 LOG TYPE: Nuclear Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: POOR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
179.0	BOND	CARTHAGE	LIMESTONE	11.0	360.0
-221.0	CARBONDALE	SPRINGFIELD	COAL	4.5	760.0
-270.0	CARBONDALE	HOUCHIN CREEK	COAL	2.0	809.0

MAPID: 12101033000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 18 QUARTERS/FOOTAGES: SW NE NE
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.020287 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.530241 DATE COLLECTED: 0 / 0 / 1940
SURFACE ELEVATION (FT.): 547.0 LOGGED (FT.): 2089.0 LOG TYPE:
SOURCE: TIDE WATER, MILLER MYR 7 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
168.0	BOND	CARTHAGE	LIMESTONE	-	379.0
-171.0	CARBONDALE	HERRIN	COAL	-	718.0

MAPID: 12103018000C VERSION: 1 PROJECT: J JOHNSON
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 18 QUARTERS/FOOTAGES: 330' N line, 480' E line of SE NE
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.018507 GEOLOGIST: J JOHNSON
CONFIDENTIAL: N LATITUDE: 38.528453 DATE COLLECTED:
SURFACE ELEVATION (FT.): 542.0 LOGGED (FT.): 1720.0 LOG TYPE: Electric Log
SOURCE: SMITH MILTON WELL TYPE: Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-244.0	CARBONDALE	SPRINGFIELD	COAL	-	786.0
-342.0	CARBONDALE	COLCHESTER	COAL	-	884.0
-1178.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1720.0

MAPID: 12100453000C **VERSION:** 1 **PROJECT:** CIRC 164
COUNTY: MARION **TWP/RNG:** 1N 2E **SECTION:** 21 **QUARTERS/FOOTAGES:** NW NE NE
QUADRANGLE: SALEM SOUTH **LONGITUDE:** -88.982527 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.518397 **DATE COLLECTED:** 0 / 0 / 1940
SURFACE ELEVATION (FT.): 550.0 **LOGGED (FT.):** 2655.0 **LOG TYPE:**
SOURCE: TEXAS CO, DAVIS R N 1 **WELL TYPE:** Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
158.0	BOND	CARTHAGE	LIMESTONE	-	392.0
-213.0	CARBONDALE	HERRIN	COAL	-	763.0

MAPID: 12101439000C **VERSION:** 1 **PROJECT:** CIRC 164
COUNTY: MARION **TWP/RNG:** 1N 2E **SECTION:** 21 **QUARTERS/FOOTAGES:** NE NW SE
QUADRANGLE: SALEM SOUTH **LONGITUDE:** -88.984949 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.511031 **DATE COLLECTED:** 0 / 0 / 1946
SURFACE ELEVATION (FT.): 546.0 **LOGGED (FT.):** 2260.0 **LOG TYPE:**
SOURCE: TEXAS CO, WOOTERS O 1 **WELL TYPE:** Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
144.0	BOND	CARTHAGE	LIMESTONE	-	402.0
-248.0	CARBONDALE	HERRIN	COAL	-	794.0

MAPID: 12101831000C **VERSION:** 1 **PROJECT:** CGT-ECILL
COUNTY: MARION **TWP/RNG:** 1N 2E **SECTION:** 21 **QUARTERS/FOOTAGES:** 330' S line, 330' E line of SW NE
QUADRANGLE: SALEM SOUTH **LONGITUDE:** -88.984911 **GEOLOGIST:** C TREWORGY
CONFIDENTIAL: N **LATITUDE:** 38.512856 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 554.0 **LOGGED (FT.):** 885.0 **LOG TYPE:** Electric Log
SOURCE: **WELL TYPE:** Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
144.0	BOND	CARTHAGE	LIMESTONE	12.0	410.0
10.0	MODESTO	TRIVOLI	SANDSTONE	76.0	544.0
-279.0	CARBONDALE	BRIAR HILL	COAL	3.0	833.0
-296.0	CARBONDALE	SPRINGFIELD	COAL	7.0	850.0
-331.0	CARBONDALE	HOUCHIN CREEK	COAL	-	885.0

MAPID: 12103021000C **VERSION:** 1 **PROJECT:** CGT-ECILL
COUNTY: MARION **TWP/RNG:** 1N 2E **SECTION:** 21 **QUARTERS/FOOTAGES:** 330' N line, 330' E line of SE SW
QUADRANGLE: SALEM SOUTH **LONGITUDE:** -88.989695 **GEOLOGIST:** C TREWORY
CONFIDENTIAL: N **LATITUDE:** 38.507242 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 543.0 **LOGGED (FT.):** 851.0 **LOG TYPE:** Electric Log
SOURCE: **WELL TYPE:** Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
152.0	BOND	CARTHAGE	LIMESTONE	11.0	391.0	
45.0	MODESTO	TRIVOLI	SANDSTONE	93.0	498.0	
-274.0	CARBONDALE	SPRINGFIELD	COAL	4.5	817.0	
-308.0	CARBONDALE	HOUCHIN CREEK	COAL	-	851.0	

MAPID: 12103042000C **VERSION:** 1 **PROJECT:** J JOHNSON
COUNTY: MARION **TWP/RNG:** 1N 2E **SECTION:** 21 **QUARTERS/FOOTAGES:** 330' S line, 330' W line of NE SW
QUADRANGLE: SALEM SOUTH **LONGITUDE:** -88.992086 **GEOLOGIST:** J JOHNSON
CONFIDENTIAL: N **LATITUDE:** 38.508995 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 552.0 **LOGGED (FT.):** 1760.0 **LOG TYPE:** Electric Log
SOURCE: CONREY, T. M. **WELL TYPE:** Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-273.0	CARBONDALE	SPRINGFIELD	COAL	-	825.0	
-388.0	CARBONDALE	COLCHESTER	COAL	-	940.0	
-1208.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1760.0	

MAPID: 12105625000C **VERSION:** 1 **PROJECT:** J JOHNSON
COUNTY: MARION **TWP/RNG:** 1N 2E **SECTION:** 21 **QUARTERS/FOOTAGES:** 660' N line, 330' E line of SW NE
QUADRANGLE: SALEM SOUTH **LONGITUDE:** -88.984904 **GEOLOGIST:** J JOHNSON
CONFIDENTIAL: N **LATITUDE:** 38.51377 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 552.0 **LOGGED (FT.):** 3554.0 **LOG TYPE:** Electric Log
SOURCE: LINDSAY, FRANK E. **WELL TYPE:** Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-2878.0	DEVONIAN	UPPER DEVONIAN S	UNCLASSIFIED	-	3430.0	TOP OF NEW ALBANY
-2917.0	DEVONIAN	GRASSY CREEK	UNCLASSIFIED	-	3469.0	
-3002.0	DEVONIAN	BASE UPPER DEVON	UNCLASSIFIED	-	3554.0	BASE OF NEW ALBANY

MAPID: 12101309000C **VERSION:** 1 **PROJECT:** CIRC 164
COUNTY: MARION **TWP/RNG:** 1N 2E **SECTION:** 22 **QUARTERS/FOOTAGES:** SE SW SE
QUADRANGLE: SALEM SOUTH **LONGITUDE:** -88.966033 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.506039 **DATE COLLECTED:** 0 / 0 / 1943
SURFACE ELEVATION (FT.): 558.0 **LOGGED (FT.):** 2300.0 **LOG TYPE:**
SOURCE: BIG CHIEF, HANES E C 1 **WELL TYPE:** Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
122.0	BOND	CARTHAGE	LIMESTONE	-	436.0
-237.0	CARBONDALE	HERRIN	COAL	-	795.0

MAPID: 12101664000C **VERSION:** 1 **PROJECT:** ROOF STUDY
COUNTY: MARION **TWP/RNG:** 1N 2E **SECTION:** 22 **QUARTERS/FOOTAGES:** 2310' S line, 2310' W line
QUADRANGLE: SALEM SOUTH **LONGITUDE:** -88.970923 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.511385 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 534.0 **LOGGED (FT.):** 766.0 **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
-207.0	MODESTO	PIASA	LIMESTONE	3.0	741.0
-210.0	MODESTO		SHALE	4.0	744.0
-214.0	CARBONDALE		SHALE	3.0	748.0
-217.0	CARBONDALE		SHALE	1.0	751.0
-218.0	CARBONDALE		SHALE	1.0	752.0
-219.0	CARBONDALE	LAWSON	SHALE	5.0	753.0
-224.0	CARBONDALE	BRERETON	LIMESTONE	4.5	758.0
-228.5	CARBONDALE	ANNA	SHALE	0.5	762.5
-229.0	CARBONDALE	HERRIN	COAL	3.0	763.0

MAPID: 12103049000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 22 QUARTERS/FOOTAGES: 330' N line, 330' W line of NE SW
QUADRANGLE: SALEM SOUTH LONGITUDE: -88.973112 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.511362 DATE COLLECTED:
SURFACE ELEVATION (FT.): 541.0 LOGGED (FT.): 852.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
144.0	BOND	CARTHAGE	LIMESTONE	11.0	397.0
14.0	MODESTO	TRIVOLI	SANDSTONE	70.0	527.0
-264.0	CARBONDALE	BRIAR HILL	COAL	5.0	805.0
-280.0	CARBONDALE	SPRINGFIELD	COAL	5.5	821.0
-311.0	CARBONDALE	HOUCHIN CREEK	COAL	-	852.0

MAPID: 12103069000C VERSION: 1 PROJECT: J JOHNSON
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 22 QUARTERS/FOOTAGES: 330' N line, 330' W line of NE SE
QUADRANGLE: SALEM SOUTH LONGITUDE: -88.963577 GEOLOGIST: J JOHNSON
CONFIDENTIAL: N LATITUDE: 38.511608 DATE COLLECTED:
SURFACE ELEVATION (FT.): 552.0 LOGGED (FT.): 1818.0 LOG TYPE: Electric Log
SOURCE: EWART L G WELL TYPE: Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-302.0	CARBONDALE	SPRINGFIELD	COAL	-	854.0
-408.0	CARBONDALE	COLCHESTER	COAL	-	960.0
-1266.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1818.0

MAPID: 12101694000C VERSION: 1 PROJECT: J JOHNSON
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 24 QUARTERS/FOOTAGES: 330' S line, 990' W line of NW
QUADRANGLE: SALEM SOUTH LONGITUDE: -88.937493 GEOLOGIST: J JOHNSON
CONFIDENTIAL: N LATITUDE: 38.514084 DATE COLLECTED:
SURFACE ELEVATION (FT.): 551.0 LOGGED (FT.): 1978.0 LOG TYPE: Electric Log
SOURCE: WINN C R WELL TYPE: Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-333.0	CARBONDALE	SPRINGFIELD	COAL	-	884.0
-449.0	CARBONDALE	COLCHESTER	COAL	-	1000.0
-1427.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1978.0

MAPID: 12101694000C VERSION: 2 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 24 QUARTERS/FOOTAGES: 330' S line, 990' W line of NW
QUADRANGLE: SALEM SOUTH LONGITUDE: -88.937493 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.514084 DATE COLLECTED:
SURFACE ELEVATION (FT.): 551.0 LOGGED (FT.): 917.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
89.0	BOND	CARTHAGE	LIMESTONE	9.0	462.0
-315.0	CARBONDALE	BRIAR HILL	COAL	-	866.0
-329.0	CARBONDALE	SPRINGFIELD	COAL	3.5	880.0
-366.0	CARBONDALE	HOUCHIN CREEK	COAL	-	917.0

MAPID: 12101438000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 25 QUARTERS/FOOTAGES: 330' S line, 330' W line of SE
QUADRANGLE: KELL LONGITUDE: -88.930475 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.492225 DATE COLLECTED: 0 / 0 / 1946
SURFACE ELEVATION (FT.): 585.0 LOGGED (FT.): 2448.0 LOG TYPE:
SOURCE: SLIVKA, WARD 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
151.0	BOND	CARTHAGE	LIMESTONE	-	434.0
-231.0	CARBONDALE	HERRIN	COAL	-	816.0

MAPID: 12101438000C VERSION: 2 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 25 QUARTERS/FOOTAGES: 330' S line, 330' W line of SE
QUADRANGLE: KELL LONGITUDE: -88.930475 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.492225 DATE COLLECTED:
SURFACE ELEVATION (FT.): 583.0 LOGGED (FT.): 910.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
147.0	BOND	CARTHAGE	LIMESTONE	9.0	436.0
17.0	MODESTO	TRIVOLI	SANDSTONE	50.0	566.0
-288.0	CARBONDALE	SPRINGFIELD	COAL	4.0	871.0
-327.0	CARBONDALE	HOUCHIN CREEK	COAL	-	910.0

MAPID: 12101438000C VERSION: 3 PROJECT: J JOHNSON
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 25 QUARTERS/FOOTAGES: 330' S line, 330' W line of SE
QUADRANGLE: KELL LONGITUDE: -88.930475 GEOLOGIST: J JOHNSON
CONFIDENTIAL: N LATITUDE: 38.492225 DATE COLLECTED:
SURFACE ELEVATION (FT.): 583.0 LOGGED (FT.): 2011.0 LOG TYPE: Electric Log
SOURCE: SLIVKA, JOE & SON WELL TYPE: Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-290.0	CARBONDALE	SPRINGFIELD	COAL	-	873.0
-385.0	CARBONDALE	COLCHESTER	COAL	-	968.0
-1428.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	2011.0

MAPID: 12101755000C VERSION: 1 PROJECT: J JOHNSON
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 27 QUARTERS/FOOTAGES: 330' S line, 330' E line of SW
QUADRANGLE: KELL LONGITUDE: -88.970911 GEOLOGIST: J JOHNSON
CONFIDENTIAL: N LATITUDE: 38.491211 DATE COLLECTED:
SURFACE ELEVATION (FT.): 573.0 LOGGED (FT.): 996.0 LOG TYPE: Electric Log
SOURCE: CENTRAL OIL PROD INC WELL TYPE: Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-318.0	CARBONDALE	SPRINGFIELD	COAL	-	891.0
-423.0	CARBONDALE	COLCHESTER	COAL	-	996.0

MAPID: 12101755000C VERSION: 2 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 27 QUARTERS/FOOTAGES: 330' S line, 330' E line of SW
QUADRANGLE: KELL LONGITUDE: -88.970911 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.491211 DATE COLLECTED:
SURFACE ELEVATION (FT.): 573.0 LOGGED (FT.): 997.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
109.0	BOND	CARTHAGE	LIMESTONE	11.0	464.0
-302.0	CARBONDALE	BRIAR HILL	COAL	2.5	875.0
-314.0	CARBONDALE	SPRINGFIELD	COAL	5.0	887.0
-345.0	CARBONDALE	HOUCHIN CREEK	COAL	-	918.0
-424.0	CARBONDALE	COLCHESTER	COAL	-	997.0

MAPID: 12101937000C VERSION: 1 PROJECT: J JOHNSON
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 27 QUARTERS/FOOTAGES: 990' N line, 330' W line of NE NW
QUADRANGLE: SALEM SOUTH LONGITUDE: -88.973215 GEOLOGIST: J JOHNSON
CONFIDENTIAL: N LATITUDE: 38.502224 DATE COLLECTED:
SURFACE ELEVATION (FT.): 551.0 LOGGED (FT.): 1809.0 LOG TYPE: Electric Log
SOURCE: WEIDLER W E WELL TYPE: Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-292.0	CARBONDALE	SPRINGFIELD	COAL	-	843.0
-397.0	CARBONDALE	COLCHESTER	COAL	-	948.0
-1258.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1809.0

MAPID: 12101937000C VERSION: 2 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 27 QUARTERS/FOOTAGES: 990' N line, 330' W line of NE NW
QUADRANGLE: SALEM SOUTH LONGITUDE: -88.973215 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.502224 DATE COLLECTED:
SURFACE ELEVATION (FT.): 551.0 LOGGED (FT.): 950.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
131.0	BOND	CARTHAGE	LIMESTONE	10.0	420.0
-9.0	MODESTO	TRIVOLI	SANDSTONE	60.0	560.0
-275.0	CARBONDALE	BRIAR HILL	COAL	-	826.0
-288.0	CARBONDALE	SPRINGFIELD	COAL	4.5	839.0
-321.0	CARBONDALE	HOUCHIN CREEK	COAL	-	872.0
-399.0	CARBONDALE	COLCHESTER	COAL	-	950.0

MAPID: 12100454000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 28 QUARTERS/FOOTAGES: SE NW SW
QUADRANGLE: KELL LONGITUDE: -88.994572 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.494299 DATE COLLECTED: 0 / 0 / 1940
SURFACE ELEVATION (FT.): 509.0 LOGGED (FT.): 2313.0 LOG TYPE:
SOURCE: CARTER OC, PRATHER C 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
155.0	BOND	CARTHAGE	LIMESTONE	-	354.0
-221.0	CARBONDALE	HERRIN	COAL	-	730.0

MAPID: 12100924000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 28 QUARTERS/FOOTAGES: SE NW SE
QUADRANGLE: KELL LONGITUDE: -88.985113 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.49458 DATE COLLECTED: 0 / 0 / 1942
SURFACE ELEVATION (FT.): 547.0 LOGGED (FT.): 2185.0 LOG TYPE:
SOURCE: SKILES C E, BARNHOUSE 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
145.0	BOND	CARTHAGE	LIMESTONE	-	402.0
-225.0	CARBONDALE	HERRIN	COAL	-	772.0

MAPID: 12101280000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 28 QUARTERS/FOOTAGES: SW SW SE
QUADRANGLE: KELL LONGITUDE: -88.987515 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.49085 DATE COLLECTED: 0 / 0 / 1942
SURFACE ELEVATION (FT.): 542.0 LOGGED (FT.): 2168.0 LOG TYPE:
SOURCE: POWERS R R, HATFIELD 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
150.0	BOND	CARTHAGE	LIMESTONE	-	392.0

MAPID: 12101500000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 28 QUARTERS/FOOTAGES: SW NE SE
QUADRANGLE: KELL LONGITUDE: -88.982749 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.49465 DATE COLLECTED: 0 / 0 / 1947
SURFACE ELEVATION (FT.): 562.0 LOGGED (FT.): 2140.0 LOG TYPE:
SOURCE: HALBERT R, PRICE 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
140.0	BOND	CARTHAGE	LIMESTONE	-	422.0
-235.0	CARBONDALE	HERRIN	COAL	-	797.0

MAPID: 12101938000C VERSION: 1 PROJECT: ROOF STUDY
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 28 QUARTERS/FOOTAGES: 1650' S line, 1650' E line
QUADRANGLE: KELL LONGITUDE: -88.984998 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.494563 DATE COLLECTED:
SURFACE ELEVATION (FT.): 547.0 LOGGED (FT.): 778.0 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
-194.0	MODESTO	PIASA	LIMESTONE	3.0	741.0
-197.0	MODESTO		SHALE	6.0	744.0
-203.0	CARBONDALE		SANDSTONE	13.0	750.0
-216.0	CARBONDALE	BANKSTON FORK	LIMESTONE	2.0	763.0
-218.0	CARBONDALE	LAWSON	SHALE	6.0	765.0
-224.0	CARBONDALE	BRERETON	LIMESTONE	3.5	771.0
-227.5	CARBONDALE	ANNA	SHALE	0.5	774.5
-228.0	CARBONDALE	HERRIN	COAL	3.0	775.0

MAPID: 12103074000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 28 QUARTERS/FOOTAGES: 330' S line, 990' W line of NE
QUADRANGLE: KELL LONGITUDE: -88.985147 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.498236 DATE COLLECTED:
SURFACE ELEVATION (FT.): 547.0 LOGGED (FT.): 852.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
141.0	BOND	CARTHAGE	LIMESTONE	11.0	406.0
21.0	MODESTO	TRIVOLI	SANDSTONE	65.0	526.0
-269.0	CARBONDALE	BRIAR HILL	COAL	2.5	816.0
-297.0	CARBONDALE	SPRINGFIELD	COAL	8.0	844.0

MAPID: 12103075000C VERSION: 1 PROJECT: J JOHNSON
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 28 QUARTERS/FOOTAGES: 990' S line, 330' W line of SE SW NE
QUADRANGLE: SALEM SOUTH LONGITUDE: -88.985081 GEOLOGIST: J JOHNSON
CONFIDENTIAL: N LATITUDE: 38.500058 DATE COLLECTED:
SURFACE ELEVATION (FT.): 528.0 LOGGED (FT.): 1758.0 LOG TYPE: Electric Log
SOURCE: WEIDLER W E WELL TYPE: Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-312.0	CARBONDALE	SPRINGFIELD	COAL	-	840.0
-450.0	CARBONDALE	COLCHESTER	COAL	-	978.0
-1230.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1758.0

MAPID: 12103077000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 28 QUARTERS/FOOTAGES: 330' S line, 330' E line of SW NW
QUADRANGLE: KELL LONGITUDE: -88.994514 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.497957 DATE COLLECTED:
SURFACE ELEVATION (FT.): 506.0 LOGGED (FT.): 841.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
151.0	BOND	CARTHAGE	LIMESTONE	13.0	355.0
-9.0	MODESTO	TRIVOLI	SANDSTONE	49.0	515.0
-274.0	CARBONDALE	BRIAR HILL	COAL	4.0	780.0
-294.0	CARBONDALE	SPRINGFIELD	COAL	7.0	800.0
-335.0	CARBONDALE	HOUCHIN CREEK	COAL	-	841.0

MAPID: 12103091000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 28 QUARTERS/FOOTAGES: 330' N line, 330' E line of SE SW
QUADRANGLE: KELL LONGITUDE: -88.989838 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.492613 DATE COLLECTED:
SURFACE ELEVATION (FT.): 546.0 LOGGED (FT.): 842.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
161.0	BOND	CARTHAGE	LIMESTONE	12.0	385.0
-2.0	MODESTO	TRIVOLI	SANDSTONE	12.0	548.0
-248.0	CARBONDALE	BRIAR HILL	COAL	-	794.0
-268.0	CARBONDALE	SPRINGFIELD	COAL	8.0	814.0
-296.0	CARBONDALE	HOUCHIN CREEK	COAL	-	842.0

MAPID: 12105035000C VERSION: 1 PROJECT: J JOHNSON
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 30 QUARTERS/FOOTAGES: 330' S line, 330' W line of SE
QUADRANGLE: WALNUT HILL LONGITUDE: -89.025261 GEOLOGIST: J JOHNSON
CONFIDENTIAL: N LATITUDE: 38.490086 DATE COLLECTED:
SURFACE ELEVATION (FT.): 546.0 LOGGED (FT.): 1947.0 LOG TYPE: Electric Log
SOURCE: BALDRIDGE, N. A. DRLG. WELL TYPE: Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-292.0	CARBONDALE	SPRINGFIELD	COAL	-	838.0
-405.0	CARBONDALE	COLCHESTER	COAL	-	951.0
-1401.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1947.0

MAPID: 12105035000C VERSION: 2 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 30 QUARTERS/FOOTAGES: 330' S line, 330' W line of SE
QUADRANGLE: WALNUT HILL LONGITUDE: -89.025261 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.490086 DATE COLLECTED:
SURFACE ELEVATION (FT.): 546.0 LOGGED (FT.): 950.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
154.0	BOND	CARTHAGE	LIMESTONE	10.0	392.0	
28.0	MODESTO	TRIVOLI	SANDSTONE	69.0	518.0	
-276.0	CARBONDALE	BRIAR HILL	COAL	-	822.0	
-286.0	CARBONDALE	SPRINGFIELD	COAL	5.0	832.0	
-351.0	CARBONDALE	HOUCHIN CREEK	COAL	-	897.0	
-404.0	CARBONDALE	COLCHESTER	COAL	-	950.0	

MAPID: 12126251000C VERSION: 1 PROJECT: J JOHNSON
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 30 QUARTERS/FOOTAGES: 660' S line, 330' E line of SW
QUADRANGLE: WALNUT HILL LONGITUDE: -89.027567 GEOLOGIST: J JOHNSON
CONFIDENTIAL: N LATITUDE: 38.490938 DATE COLLECTED:
SURFACE ELEVATION (FT.): 535.0 LOGGED (FT.): 3806.0 LOG TYPE: Electric Log
SOURCE: GLASS, THEO G. WELL TYPE: Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-293.0	CARBONDALE	SPRINGFIELD	COAL	-	828.0	
-410.0	CARBONDALE	COLCHESTER	COAL	-	945.0	
-1395.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1930.0	
-3155.0	DEVONIAN	UPPER DEVONIAN S	UNCLASSIFIED	-	3690.0	TOP OF NEW ALBANY
-3177.0	DEVONIAN	GRASSY CREEK	UNCLASSIFIED	-	3712.0	
-3271.0	DEVONIAN	BASE UPPER DEVON	UNCLASSIFIED	-	3806.0	BASE OF NEW ALBANY

MAPID: 12101513000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 31 QUARTERS/FOOTAGES: 330' N line, 330' W line of SE
QUADRANGLE: WALNUT HILL LONGITUDE: -89.025249 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.480835 DATE COLLECTED:
SURFACE ELEVATION (FT.): 554.0 LOGGED (FT.): 851.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
148.0	BOND	CARTHAGE	LIMESTONE	11.0	406.0	
44.0	MODESTO	TRIVOLI	SANDSTONE	100.0	510.0	
-292.0	CARBONDALE	SPRINGFIELD	COAL	5.0	846.0	

MAPID: 12101513000C VERSION: 2 PROJECT: ROOF STUDY
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 31 QUARTERS/FOOTAGES: 330' N line, 330' W line of SE
QUADRANGLE: WALNUT HILL LONGITUDE: -89.025249 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.480835 DATE COLLECTED:
SURFACE ELEVATION (FT.): 554.0 LOGGED (FT.): 789.0 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
-194.0	MODESTO	PIASA	LIMESTONE	4.0	748.0
-198.0	MODESTO		SHALE	4.5	752.0
-202.5	CARBONDALE		SHALE	4.5	756.5
-207.0	CARBONDALE	BANKSTON FORK	LIMESTONE	5.0	761.0
-212.0	CARBONDALE	LAWSON	SHALE	7.0	766.0
-219.0	CARBONDALE	CONANT	LIMESTONE	3.0	773.0
-222.0	CARBONDALE		SHALE	2.0	776.0
-224.0	CARBONDALE	BRERETON	LIMESTONE	3.0	778.0
-227.0	CARBONDALE	ANNA	SHALE	2.0	781.0
-230.0	CARBONDALE	HERRIN	COAL	5.0	784.0

MAPID: 12101513000C VERSION: 3 PROJECT: J JOHNSON
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 31 QUARTERS/FOOTAGES: 330' N line, 330' W line of SE
QUADRANGLE: WALNUT HILL LONGITUDE: -89.025249 GEOLOGIST: J JOHNSON
CONFIDENTIAL: N LATITUDE: 38.480835 DATE COLLECTED:
SURFACE ELEVATION (FT.): 554.0 LOGGED (FT.): 1974.0 LOG TYPE: Electric Log
SOURCE: SUPERIOR OIL CO., THE WELL TYPE: Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-296.0	CARBONDALE	SPRINGFIELD	COAL	-	850.0
-420.0	CARBONDALE	COLCHESTER	COAL	-	974.0
-1420.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1974.0

MAPID: 12100455000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 33 QUARTERS/FOOTAGES: SE SW SE
QUADRANGLE: KELL LONGITUDE: -88.985348 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.476205 DATE COLLECTED: 0 / 0 / 1940
SURFACE ELEVATION (FT.): 573.0 LOGGED (FT.): 2183.0 LOG TYPE:
SOURCE: CARTER OC, MILTON M 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
191.0	BOND	CARTHAGE	LIMESTONE	-	382.0
-174.0	CARBONDALE	HERRIN	COAL	-	747.0

MAPID: 12100931000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 33 QUARTERS/FOOTAGES: SW SE SE
QUADRANGLE: KELL LONGITUDE: -88.982987 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.476275 DATE COLLECTED: 0 / 0 / 1942
SURFACE ELEVATION (FT.): 574.0 LOGGED (FT.): 1971.0 LOG TYPE:
SOURCE: FRAZER ETL, VAN GILDER 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
195.0	BOND	CARTHAGE	LIMESTONE	-	379.0	
-179.0	CARBONDALE	HERRIN	COAL	-	753.0	

MAPID: 12101436000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 33 QUARTERS/FOOTAGES: SW NW SE
QUADRANGLE: KELL LONGITUDE: -88.987658 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.479816 DATE COLLECTED: 0 / 0 / 1946
SURFACE ELEVATION (FT.): 546.0 LOGGED (FT.): 1942.0 LOG TYPE:
SOURCE: STPHNS&TTR, CALDWELL 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
168.0	BOND	CARTHAGE	LIMESTONE	-	378.0	
-208.0	CARBONDALE	HERRIN	COAL	-	754.0	

MAPID: 12101437000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 33 QUARTERS/FOOTAGES: SW SW NE
QUADRANGLE: KELL LONGITUDE: -88.98761 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.483496 DATE COLLECTED: 0 / 0 / 1947
SURFACE ELEVATION (FT.): 571.0 LOGGED (FT.): 1970.0 LOG TYPE:
SOURCE: SCHLAFLY, BOGGS 2 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
167.0	BOND	CARTHAGE	LIMESTONE	-	404.0	
-213.0	CARBONDALE	HERRIN	COAL	-	784.0	

MAPID: 12101501000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 33 QUARTERS/FOOTAGES: SW SE NE
QUADRANGLE: KELL LONGITUDE: -88.982885 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.483635 DATE COLLECTED: 0 / 0 / 1947
SURFACE ELEVATION (FT.): 542.0 LOGGED (FT.): 2148.0 LOG TYPE:
SOURCE: STPHNS&TTR, IRWIN E E 2 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
166.0	BOND	CARTHAGE	LIMESTONE	-	376.0
-214.0	CARBONDALE	HERRIN	COAL	-	756.0

MAPID: 12101502000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 33 QUARTERS/FOOTAGES: SE NW NW
QUADRANGLE: KELL LONGITUDE: -88.994645 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.486964 DATE COLLECTED: 0 / 0 / 1947
SURFACE ELEVATION (FT.): 553.0 LOGGED (FT.): 2180.0 LOG TYPE:
SOURCE: COLLNS BRO, TATE COMM 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
175.0	BOND	CARTHAGE	LIMESTONE	-	378.0
-205.0	CARBONDALE	HERRIN	COAL	-	758.0

MAPID: 12101939000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 33 QUARTERS/FOOTAGES: 330' S line, 330' E line of NW SE
QUADRANGLE: KELL LONGITUDE: -88.985276 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.479877 DATE COLLECTED:
SURFACE ELEVATION (FT.): 573.0 LOGGED (FT.): 920.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
178.0	BOND	CARTHAGE	LIMESTONE	11.0	395.0
19.0	MODESTO	TRIVOLI	SANDSTONE	42.0	554.0
-254.0	CARBONDALE	SPRINGFIELD	COAL	5.0	827.0
-277.0	CARBONDALE	HOUCHIN CREEK	COAL	-	850.0
-347.0	CARBONDALE	COLCHESTER	COAL	-	920.0

MAPID: 12103106000C VERSION: 1 PROJECT: ROOF STUDY
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 33 QUARTERS/FOOTAGES: 2310' S line, 2310' E line
QUADRANGLE: KELL LONGITUDE: -88.987487 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.481598 DATE COLLECTED:
SURFACE ELEVATION (FT.): 568.0 LOGGED (FT.): 777.5 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
-182.0	MODESTO	PIASA	LIMESTONE	4.0	750.0
-186.0	MODESTO		SHALE	4.0	754.0
-190.0	CARBONDALE		SHALE	4.0	758.0
-194.0	CARBONDALE	LAWSON	SHALE	7.0	762.0
-201.0	CARBONDALE	BRERETON	LIMESTONE	4.0	769.0
-205.0	CARBONDALE	ANNA	SHALE	0.5	773.0
-206.0	CARBONDALE	HERRIN	COAL	3.5	774.0

MAPID: 12103111000C VERSION: 1 PROJECT: J JOHNSON
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 33 QUARTERS/FOOTAGES: 330' N line, 330' E line of NW
QUADRANGLE: KELL LONGITUDE: -88.989875 GEOLOGIST: J JOHNSON
CONFIDENTIAL: N LATITUDE: 38.488953 DATE COLLECTED:
SURFACE ELEVATION (FT.): 565.0 LOGGED (FT.): 1779.0 LOG TYPE: Electric Log
SOURCE: TETER T C WELL TYPE: Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-275.0	CARBONDALE	SPRINGFIELD	COAL	-	840.0
-395.0	CARBONDALE	COLCHESTER	COAL	-	960.0
-1214.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1779.0

MAPID: 12103113000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 33 QUARTERS/FOOTAGES: 334' S line, 330' W line of NE NE
QUADRANGLE: KELL LONGITUDE: -88.982858 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.487315 DATE COLLECTED:
SURFACE ELEVATION (FT.): 573.0 LOGGED (FT.): 870.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
155.0	BOND	CARTHAGE	LIMESTONE	11.0	418.0
43.0	MODESTO	TRIVOLI	SANDSTONE	60.0	530.0
-255.0	CARBONDALE	BRIAR HILL	COAL	-	828.0
-282.0	CARBONDALE	SPRINGFIELD	COAL	6.5	855.0
-297.0	CARBONDALE	HOUCHIN CREEK	COAL	-	870.0

MAPID: 12100456000C **VERSION:** 1 **PROJECT:** CIRC 164
COUNTY: MARION **TWP/RNG:** 1N 2E **SECTION:** 34 **QUARTERS/FOOTAGES:** NW SW NW
QUADRANGLE: KELL **LONGITUDE:** -88.978129 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.485601 **DATE COLLECTED:** 0 / 0 / 1938
SURFACE ELEVATION (FT.): 574.0 **LOGGED (FT.):** 2242.0 **LOG TYPE:**
SOURCE: DUNCANBROS, MYERS 1 **WELL TYPE:** Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
164.0	BOND	CARTHAGE	LIMESTONE	-	410.0
-203.0	CARBONDALE	HERRIN	COAL	-	777.0

MAPID: 12101435000C **VERSION:** 1 **PROJECT:** CIRC 164
COUNTY: MARION **TWP/RNG:** 1N 2E **SECTION:** 34 **QUARTERS/FOOTAGES:** SW SW SW
QUADRANGLE: KELL **LONGITUDE:** -88.978252 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.476414 **DATE COLLECTED:** 0 / 0 / 1947
SURFACE ELEVATION (FT.): 579.0 **LOGGED (FT.):** 1979.0 **LOG TYPE:**
SOURCE: SCHLAFLY, MC BRIDE 1 **WELL TYPE:** Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
193.0	BOND	CARTHAGE	LIMESTONE	-	386.0
-175.0	CARBONDALE	HERRIN	COAL	-	754.0

MAPID: 12101837000C **VERSION:** 1 **PROJECT:** CGT-ECILL
COUNTY: MARION **TWP/RNG:** 1N 2E **SECTION:** 34 **QUARTERS/FOOTAGES:** 330' S line, 330' E line of NW
QUADRANGLE: KELL **LONGITUDE:** -88.970976 **GEOLOGIST:** C TREWORYG
CONFIDENTIAL: N **LATITUDE:** 38.483917 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 604.0 **LOGGED (FT.):** 965.0 **LOG TYPE:** Electric Log
SOURCE: **WELL TYPE:** Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
161.0	BOND	CARTHAGE	LIMESTONE	10.0	443.0
24.0	MODESTO	TRIVOLI	SANDSTONE	64.0	580.0
-242.0	CARBONDALE	BRIAR HILL	COAL	-	846.0
-266.0	CARBONDALE	SPRINGFIELD	COAL	5.5	870.0
-291.0	CARBONDALE	HOUCHIN CREEK	COAL	-	895.0
-361.0	CARBONDALE	COLCHESTER	COAL	-	965.0

MAPID: 12101842000C VERSION: 1 PROJECT: ROOF STUDY
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 34 QUARTERS/FOOTAGES: 2310' S line, 2310' E line
QUADRANGLE: KELL LONGITUDE: -88.968411 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.482166 DATE COLLECTED:
SURFACE ELEVATION (FT.): 610.0 LOGGED (FT.): 802.5 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
-170.0	MODESTO	PIASA	LIMESTONE	2.0	780.0
-172.0	MODESTO		SHALE	4.5	782.0
-176.5	CARBONDALE		SHALE	4.5	786.5
-181.0	CARBONDALE	LAWSON	SHALE	5.0	791.0
-186.0	CARBONDALE	BRERETON	LIMESTONE	4.5	796.0
-190.0	CARBONDALE	HERRIN	COAL	2.5	800.0

MAPID: 12101441000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 35 QUARTERS/FOOTAGES: 330' S line, 330' W line of SE NE
QUADRANGLE: KELL LONGITUDE: -88.944909 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.484546 DATE COLLECTED: 0 / 0 / 1945
SURFACE ELEVATION (FT.): 574.0 LOGGED (FT.): 2382.0 LOG TYPE:
SOURCE: FLOREEN A, MARCH M 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
167.0	BOND	CARTHAGE	LIMESTONE	-	407.0
-214.0	CARBONDALE	HERRIN	COAL	-	788.0

MAPID: 12101441000C VERSION: 2 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 35 QUARTERS/FOOTAGES: 330' S line, 330' W line of SE NE
QUADRANGLE: KELL LONGITUDE: -88.944909 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.484546 DATE COLLECTED:
SURFACE ELEVATION (FT.): 577.0 LOGGED (FT.): 845.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
165.0	BOND	CARTHAGE	LIMESTONE	10.0	412.0
53.0	MODESTO	TRIVOLI	SANDSTONE	84.0	524.0
-247.0	CARBONDALE	BRIAR HILL	COAL	2.5	824.0
-263.0	CARBONDALE	SPRINGFIELD	COAL	5.0	840.0

MAPID: 12101940000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 35 QUARTERS/FOOTAGES: 330' N line, 330' E line of SW
QUADRANGLE: KELL LONGITUDE: -88.951995 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.482545 DATE COLLECTED:
SURFACE ELEVATION (FT.): 588.0 LOGGED (FT.): 891.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
158.0	BOND	CARTHAGE	LIMESTONE	11.0	430.0
3.0	MODESTO	TRIVOLI	SANDSTONE	96.0	585.0
-251.0	CARBONDALE	BRIAR HILL	COAL	5.0	839.0
-269.0	CARBONDALE	SPRINGFIELD	COAL	5.5	857.0
-303.0	CARBONDALE	HOUCHIN CREEK	COAL	-	891.0

MAPID: 12101940000C VERSION: 2 PROJECT: ROOF STUDY
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 35 QUARTERS/FOOTAGES: 330' N line, 330' E line of SW
QUADRANGLE: KELL LONGITUDE: -88.951995 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.482545 DATE COLLECTED:
SURFACE ELEVATION (FT.): 588.0 LOGGED (FT.): 804.5 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
-193.0	MODESTO	PIASA	LIMESTONE	4.5	781.0
-197.5	MODESTO		SHALE	3.5	785.5
-201.0	CARBONDALE		SHALE	3.5	789.0
-204.5	CARBONDALE	LAWSON	SHALE	4.0	792.5
-208.5	CARBONDALE	BRERETON	LIMESTONE	5.5	796.5
-213.0	CARBONDALE	HERRIN	COAL	3.5	801.0

MAPID: 12101940000C VERSION: 3 PROJECT: J JOHNSON
COUNTY: MARION TWP/RNG: 1N 2E SECTION: 35 QUARTERS/FOOTAGES: 330' N line, 330' E line of SW
QUADRANGLE: KELL LONGITUDE: -88.951995 GEOLOGIST: J JOHNSON
CONFIDENTIAL: N LATITUDE: 38.482545 DATE COLLECTED:
SURFACE ELEVATION (FT.): 589.0 LOGGED (FT.): 1906.0 LOG TYPE: Electric Log
SOURCE: ESGEN W K WELL TYPE: Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-274.0	CARBONDALE	SPRINGFIELD	COAL	-	863.0
-372.0	CARBONDALE	COLCHESTER	COAL	-	961.0
-1317.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1906.0

MAPID: 12100457000C **VERSION:** 1 **PROJECT:** CIRC 164
COUNTY: MARION **TWP/RNG:** 1N 2E **SECTION:** 36 **QUARTERS/FOOTAGES:** NE NE SE
QUADRANGLE: KELL **LONGITUDE:** -88.923405 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.483287 **DATE COLLECTED:** 0 / 0 / 1939
SURFACE ELEVATION (FT.): 606.0 **LOGGED (FT.):** 2440.0 **LOG TYPE:**
SOURCE: CHI SYND, WILLIAMS 1 **WELL TYPE:** Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
148.0	BOND	CARTHAGE	LIMESTONE	-	458.0
-239.0	CARBONDALE	HERRIN	COAL	-	845.0

MAPID: 12101901000C **VERSION:** 1 **PROJECT:** CGT-ECILL
COUNTY: MARION **TWP/RNG:** 1N 2E **SECTION:** 36 **QUARTERS/FOOTAGES:** 330' N line, 330' E line of SE SW
QUADRANGLE: KELL **LONGITUDE:** -88.933015 **GEOLOGIST:** C TREWORYG
CONFIDENTIAL: N **LATITUDE:** 38.479372 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 600.0 **LOGGED (FT.):** 1006.0 **LOG TYPE:** Electric Log
SOURCE: **WELL TYPE:** Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
168.0	BOND	CARTHAGE	LIMESTONE	10.0	432.0
10.0	MODESTO	TRIVOLI	SANDSTONE	20.0	590.0
-262.0	CARBONDALE	BRIAR HILL	COAL	-	862.0
-280.0	CARBONDALE	SPRINGFIELD	COAL	4.0	880.0
-320.0	CARBONDALE	HOUCHIN CREEK	COAL	-	920.0
-406.0	CARBONDALE	COLCHESTER	COAL	-	1006.0

MAPID: 12101901000C **VERSION:** 2 **PROJECT:** ROOF STUDY
COUNTY: MARION **TWP/RNG:** 1N 2E **SECTION:** 36 **QUARTERS/FOOTAGES:** 330' N line, 330' E line of SE SW
QUADRANGLE: KELL **LONGITUDE:** -88.933015 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.479372 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 600.0 **LOGGED (FT.):** 803.5 **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
-191.0	MODESTO	PIASA	LIMESTONE	2.0	791.0
-193.0	MODESTO		SHALE	6.5	793.0
-199.5	CARBONDALE		SHALE	6.5	799.5
-206.0	CARBONDALE	BANKSTON FORK	LIMESTONE	3.0	806.0
-209.0	CARBONDALE	LAWSON	SHALE	6.0	809.0
-215.0	CARBONDALE	BRERETON	LIMESTONE	4.0	815.0
-219.0	CARBONDALE	HERRIN	COAL	3.5	819.0

MAPID: 12101401000C **VERSION:** 1 **PROJECT:** CIRC 164
COUNTY: MARION **TWP/RNG:** 1N 3E **SECTION:** 1 **QUARTERS/FOOTAGES:** SE SE NW
QUADRANGLE: IUKA **LONGITUDE:** -88.819872 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.557515 **DATE COLLECTED:** 0 / 0 / 1944
SURFACE ELEVATION (FT.): 508.0 **LOGGED (FT.):** 2787.0 **LOG TYPE:**
SOURCE: OHIO OIL, SPANGLER W 1 **WELL TYPE:** Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-4.0	BOND	CARTHAGE	LIMESTONE	-	512.0
-392.0	CARBONDALE	HERRIN	COAL	-	900.0

MAPID: 12101401000C **VERSION:** 2 **PROJECT:** CGT-ECILL
COUNTY: MARION **TWP/RNG:** 1N 3E **SECTION:** 1 **QUARTERS/FOOTAGES:** SE SE NW
QUADRANGLE: IUKA **LONGITUDE:** -88.819872 **GEOLOGIST:** C TREWORY
CONFIDENTIAL: N **LATITUDE:** 38.557515 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 508.0 **LOGGED (FT.):** 1135.0 **LOG TYPE:** Electric Log
SOURCE: **WELL TYPE:** Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-5.0	BOND	CARTHAGE	LIMESTONE	7.0	513.0
-393.0	CARBONDALE	HERRIN	COAL	1.5	901.0
-435.0	CARBONDALE	BRIAR HILL	COAL	2.5	943.0
-452.0	CARBONDALE	SPRINGFIELD	COAL	3.5	960.0
-500.0	CARBONDALE	HOUCHIN CREEK	COAL	1.0	1008.0
-627.0	CARBONDALE	COLCHESTER	COAL	-	1135.0

MAPID: 12101434000C **VERSION:** 1 **PROJECT:** CGT-ECILL
COUNTY: MARION **TWP/RNG:** 1N 3E **SECTION:** 2 **QUARTERS/FOOTAGES:** 330' S line, 103' E line of NW
QUADRANGLE: IUKA **LONGITUDE:** -88.83774 **GEOLOGIST:** C TREWORY
CONFIDENTIAL: N **LATITUDE:** 38.556813 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 511.0 **LOGGED (FT.):** 953.5 **LOG TYPE:** Electric Log
SOURCE: **WELL TYPE:** Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
7.0	BOND	CARTHAGE	LIMESTONE	10.0	504.0
-421.0	CARBONDALE	BRIAR HILL	COAL	3.0	932.0
-439.0	CARBONDALE	SPRINGFIELD	COAL	3.5	950.0

MAPID: 12101434000C VERSION: 2 PROJECT: ROOF STUDY
COUNTY: MARION TWP/RNG: 1N 3E SECTION: 2 QUARTERS/FOOTAGES: 330' S line, 103' E line of NW
QUADRANGLE: IUKA LONGITUDE: -88.83774 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.556813 DATE COLLECTED:
SURFACE ELEVATION (FT.): 583.0 LOGGED (FT.): 818.0 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
-230.0	CARBONDALE	BRERETON	LIMESTONE	3.0	813.0
-233.0	CARBONDALE	HERRIN	COAL	2.0	816.0

MAPID: 12101434000C VERSION: 3 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 1N 3E SECTION: 2 QUARTERS/FOOTAGES: 330' S line, 103' E line of NW
QUADRANGLE: IUKA LONGITUDE: -88.83774 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.556813 DATE COLLECTED: 0 / 0 / 1947
SURFACE ELEVATION (FT.): 511.0 LOGGED (FT.): 2746.0 LOG TYPE:
SOURCE: AURORA GC, QUANDT E 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
8.0	BOND	CARTHAGE	LIMESTONE	-	503.0
-373.0	CARBONDALE	HERRIN	COAL	-	884.0

MAPID: 12102005000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 3E SECTION: 2 QUARTERS/FOOTAGES: 330' N line, 330' E line of NW NW
QUADRANGLE: IUKA LONGITUDE: -88.843071 GEOLOGIST: C TREWORYG
CONFIDENTIAL: N LATITUDE: 38.56139 DATE COLLECTED:
SURFACE ELEVATION (FT.): 531.0 LOGGED (FT.): 1010.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
2.0	BOND	CARTHAGE	LIMESTONE	10.0	529.0
-374.0	CARBONDALE	HERRIN	COAL	3.5	905.0
-422.0	CARBONDALE	BRIAR HILL	COAL	3.0	953.0
-435.0	CARBONDALE	SPRINGFIELD	COAL	4.0	966.0
-479.0	CARBONDALE	HOUCHIN CREEK	COAL	-	1010.0

MAPID: 12103124000C VERSION: 1 PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 1N 3E SECTION: 2 QUARTERS/FOOTAGES: 330' N line, 330' W line of SW

QUADRANGLE: IUKA LONGITUDE: -88.845566 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.554571 DATE COLLECTED:

SURFACE ELEVATION (FT.): 505.0 LOGGED (FT.): 986.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
3.0	BOND	CARTHAGE	LIMESTONE	10.0	502.0
-325.0	MODESTO	PIASA	LIMESTONE	5.0	830.0
-436.0	CARBONDALE	SPRINGFIELD	COAL	3.5	941.0
-481.0	CARBONDALE	HOUCHIN CREEK	COAL	-	986.0

MAPID: 12101677000C VERSION: 1 PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 1N 3E SECTION: 3 QUARTERS/FOOTAGES: 330' N line, 330' E line of SE SW

QUADRANGLE: IUKA LONGITUDE: -88.85733 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.551529 DATE COLLECTED:

SURFACE ELEVATION (FT.): 575.0 LOGGED (FT.): 1035.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
25.0	BOND	CARTHAGE	LIMESTONE	10.0	550.0
-301.0	MODESTO	PIASA	LIMESTONE	5.0	876.0
-332.0	CARBONDALE	DANVILLE	COAL	-	907.0
-411.0	CARBONDALE	SPRINGFIELD	COAL	4.0	986.0
-460.0	CARBONDALE	HOUCHIN CREEK	COAL	-	1035.0

MAPID: 12101735000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 3E SECTION: 3 QUARTERS/FOOTAGES: 330' N line, 330' E line of SW SE
QUADRANGLE: IUKA LONGITUDE: -88.852648 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.551472 DATE COLLECTED:
SURFACE ELEVATION (FT.): 561.0 LOGGED (FT.): 1041.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
1.0	BOND	CARTHAGE	LIMESTONE	6.0	560.0
-323.0	MODESTO	PIASA	LIMESTONE	4.0	884.0
-355.0	CARBONDALE	DANVILLE	COAL	1.5	916.0
-373.0	CARBONDALE	HERRIN	COAL	2.0	934.0
-419.0	CARBONDALE	BRIAR HILL	COAL	2.0	980.0
-435.0	CARBONDALE	SPRINGFIELD	COAL	4.0	996.0
-480.0	CARBONDALE	HOUCHIN CREEK	COAL	-	1041.0

MAPID: 12101753000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 3E SECTION: 3 QUARTERS/FOOTAGES: 330' S line, 330' E line of NW
QUADRANGLE: IUKA LONGITUDE: -88.857221 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.556992 DATE COLLECTED:
SURFACE ELEVATION (FT.): 532.0 LOGGED (FT.): 983.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
24.0	BOND	CARTHAGE	LIMESTONE	11.0	508.0
-295.0	MODESTO	PIASA	LIMESTONE	5.0	827.0
-322.0	CARBONDALE	DANVILLE	COAL	2.0	854.0
-394.0	CARBONDALE	BRIAR HILL	COAL	2.0	926.0
-407.0	CARBONDALE	SPRINGFIELD	COAL	2.5	939.0
-451.0	CARBONDALE	HOUCHIN CREEK	COAL	-	983.0

MAPID: 12101788000C VERSION: 1 PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 1N 3E SECTION: 3 QUARTERS/FOOTAGES: 330' S line, 330' W line of NE SW

QUADRANGLE: IUKA LONGITUDE: -88.859662 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.553377 DATE COLLECTED:

SURFACE ELEVATION (FT.): 557.0 LOGGED (FT.): 1015.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
26.0	BOND	CARTHAGE	LIMESTONE	10.0	531.0
-300.0	MODESTO	PIASA	LIMESTONE	6.0	857.0
-409.0	CARBONDALE	SPRINGFIELD	COAL	4.0	966.0
-458.0	CARBONDALE	HOUCHIN CREEK	COAL	-	1015.0

MAPID: 12105212000C VERSION: 1 PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 1N 3E SECTION: 4 QUARTERS/FOOTAGES: 330' S line, 330' E line of SW NE

QUADRANGLE: IUKA LONGITUDE: -88.871286 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.557213 DATE COLLECTED:

SURFACE ELEVATION (FT.): 580.0 LOGGED (FT.): 989.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
38.0	BOND	CARTHAGE	LIMESTONE	11.0	542.0
-272.0	MODESTO	PIASA	LIMESTONE	4.0	852.0
-294.0	CARBONDALE	DANVILLE	COAL	2.0	874.0
-352.0	CARBONDALE	BRIAR HILL	COAL	2.0	932.0
-364.0	CARBONDALE	SPRINGFIELD	COAL	4.0	944.0
-409.0	CARBONDALE	HOUCHIN CREEK	COAL	-	989.0

MAPID: 12105213000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 3E SECTION: 4 QUARTERS/FOOTAGES: 330' S line, 330' E line of NE
QUADRANGLE: IUKA LONGITUDE: -88.866611 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.557112 DATE COLLECTED:
SURFACE ELEVATION (FT.): 588.0 LOGGED (FT.): 1020.0 LOG TYPE: Nuclear Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
29.0	BOND	CARTHAGE	LIMESTONE	11.0	559.0
-310.0	CARBONDALE	DANVILLE	COAL	1.5	898.0
-325.0	CARBONDALE	HERRIN	COAL	2.0	913.0
-372.0	CARBONDALE	BRIAR HILL	COAL	2.0	960.0
-382.0	CARBONDALE	SPRINGFIELD	COAL	3.5	970.0
-431.0	CARBONDALE	HOUCHIN CREEK	COAL	1.0	1019.0

MAPID: 12105214000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 3E SECTION: 4 QUARTERS/FOOTAGES: 330' S line, 330' E line of NE SE
QUADRANGLE: IUKA LONGITUDE: -88.866668 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.553468 DATE COLLECTED:
SURFACE ELEVATION (FT.): 592.0 LOGGED (FT.): 1040.0 LOG TYPE: Nuclear Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
23.0	BOND	CARTHAGE	LIMESTONE	12.0	569.0
-321.0	CARBONDALE	DANVILLE	COAL	2.5	913.0
-338.0	CARBONDALE	HERRIN	COAL	-	930.0
-391.0	CARBONDALE	BRIAR HILL	COAL	1.5	983.0
-401.0	CARBONDALE	SPRINGFIELD	COAL	3.0	993.0
-448.0	CARBONDALE	HOUCHIN CREEK	COAL	-	1040.0

MAPID: 12105216000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 3E SECTION: 4 QUARTERS/FOOTAGES: 330' S line, 330' E line of NW SE
QUADRANGLE: IUKA LONGITUDE: -88.871333 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.553568 DATE COLLECTED:
SURFACE ELEVATION (FT.): 574.0 LOGGED (FT.): 980.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
50.0	BOND	CARTHAGE	LIMESTONE	10.0	524.0
-263.0	MODESTO	PIASA	LIMESTONE	3.0	837.0
-286.0	CARBONDALE	DANVILLE	COAL	1.5	860.0
-303.0	CARBONDALE	HERRIN	COAL	-	877.0
-351.0	CARBONDALE	BRIAR HILL	COAL	2.0	925.0
-361.0	CARBONDALE	SPRINGFIELD	COAL	3.5	935.0
-406.0	CARBONDALE	HOUCHIN CREEK	COAL	-	980.0

MAPID: 12105217000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 3E SECTION: 4 QUARTERS/FOOTAGES: 330' N line, 330' W line of SW SE
QUADRANGLE: IUKA LONGITUDE: -88.873693 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.551798 DATE COLLECTED:
SURFACE ELEVATION (FT.): 559.0 LOGGED (FT.): 961.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
49.0	BOND	CARTHAGE	LIMESTONE	10.0	510.0
-256.0	MODESTO	PIASA	LIMESTONE	4.0	815.0
-287.0	CARBONDALE	DANVILLE	COAL	-	846.0
-303.0	CARBONDALE	HERRIN	COAL	1.5	862.0
-347.0	CARBONDALE	BRIAR HILL	COAL	2.0	906.0
-357.0	CARBONDALE	SPRINGFIELD	COAL	3.5	916.0
-402.0	CARBONDALE	HOUCHIN CREEK	COAL	-	961.0

MAPID: 12105218000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 3E SECTION: 4 QUARTERS/FOOTAGES: 330' N line, 330' W line of SE
QUADRANGLE: IUKA LONGITUDE: -88.873658 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.555442 DATE COLLECTED:
SURFACE ELEVATION (FT.): 558.0 LOGGED (FT.): 957.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
48.0	BOND	CARTHAGE	LIMESTONE	10.0	510.0
-263.0	MODESTO	PIASA	LIMESTONE	3.0	821.0
-283.0	CARBONDALE	DANVILLE	COAL	-	841.0
-300.0	CARBONDALE	HERRIN	COAL	2.5	858.0
-343.0	CARBONDALE	BRIAR HILL	COAL	2.0	901.0
-356.0	CARBONDALE	SPRINGFIELD	COAL	3.0	914.0
-399.0	CARBONDALE	HOUCHIN CREEK	COAL	-	957.0

MAPID: 12105220000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 3E SECTION: 4 QUARTERS/FOOTAGES: 430' S line, 330' E line of NE SW
QUADRANGLE: SALEM SOUTH LONGITUDE: -88.875995 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.553944 DATE COLLECTED:
SURFACE ELEVATION (FT.): 556.0 LOGGED (FT.): 955.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
56.0	BOND	CARTHAGE	LIMESTONE	10.0	500.0
-260.0	MODESTO	PIASA	LIMESTONE	4.0	816.0
-284.0	CARBONDALE	DANVILLE	COAL	-	840.0
-298.0	CARBONDALE	HERRIN	COAL	3.0	854.0
-342.0	CARBONDALE	BRIAR HILL	COAL	2.0	898.0
-352.0	CARBONDALE	SPRINGFIELD	COAL	4.0	908.0
-399.0	CARBONDALE	HOUCHIN CREEK	COAL	-	955.0

MAPID: 12105249000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 3E SECTION: 4 QUARTERS/FOOTAGES: 330' S line, 330' E line of SW
QUADRANGLE: SALEM SOUTH LONGITUDE: -88.876029 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.550024 DATE COLLECTED:
SURFACE ELEVATION (FT.): 558.0 LOGGED (FT.): 968.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
48.0	BOND	CARTHAGE	LIMESTONE	10.0	510.0
-270.0	MODESTO	PIASA	LIMESTONE	3.0	828.0
-291.0	CARBONDALE	DANVILLE	COAL	1.5	849.0
-307.0	CARBONDALE	HERRIN	COAL	-	865.0
-352.0	CARBONDALE	BRIAR HILL	COAL	2.0	910.0
-363.0	CARBONDALE	SPRINGFIELD	COAL	2.5	921.0
-410.0	CARBONDALE	HOUCHIN CREEK	COAL	-	968.0

MAPID: 12105262000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 3E SECTION: 4 QUARTERS/FOOTAGES: 330' S line, 330' E line of SW SE
QUADRANGLE: IUKA LONGITUDE: -88.871379 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.549924 DATE COLLECTED:
SURFACE ELEVATION (FT.): 563.0 LOGGED (FT.): 994.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
37.0	BOND	CARTHAGE	LIMESTONE	10.0	526.0
-283.0	MODESTO	PIASA	LIMESTONE	3.0	846.0
-306.0	CARBONDALE	DANVILLE	COAL	1.5	869.0
-324.0	CARBONDALE	HERRIN	COAL	2.0	887.0
-376.0	CARBONDALE	BRIAR HILL	COAL	1.5	939.0
-386.0	CARBONDALE	SPRINGFIELD	COAL	3.5	949.0
-431.0	CARBONDALE	HOUCHIN CREEK	COAL	-	994.0

MAPID: 12105313000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 3E SECTION: 8 QUARTERS/FOOTAGES: 330' N line, 330' E line
QUADRANGLE: SALEM SOUTH LONGITUDE: -88.885356 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.548379 DATE COLLECTED:
SURFACE ELEVATION (FT.): 560.0 LOGGED (FT.): 943.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
69.0	BOND	CARTHAGE	LIMESTONE	10.0	491.0	
-328.0	CARBONDALE	BRIAR HILL	COAL	2.0	888.0	
-337.0	CARBONDALE	SPRINGFIELD	COAL	3.5	897.0	
-383.0	CARBONDALE	HOUCHIN CREEK	COAL	-	943.0	

MAPID: 12105257000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 3E SECTION: 9 QUARTERS/FOOTAGES: 330' N line, 330' W line of NE NE
QUADRANGLE: IUKA LONGITUDE: -88.869079 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.548054 DATE COLLECTED:
SURFACE ELEVATION (FT.): 573.0 LOGGED (FT.): 1010.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
28.0	BOND	CARTHAGE	LIMESTONE	10.0	545.0	
-97.0	MODESTO	WEST FRANKLIN	LIMESTONE	5.0	670.0	
-376.0	CARBONDALE	BRIAR HILL	COAL	-	949.0	
-394.0	CARBONDALE	SPRINGFIELD	COAL	3.5	967.0	
-437.0	CARBONDALE	HOUCHIN CREEK	COAL	-	1010.0	

MAPID: 12101996000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 3E SECTION: 10 QUARTERS/FOOTAGES: 330' N line, 330' E line of NW
QUADRANGLE: IUKA LONGITUDE: -88.857391 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.547885 DATE COLLECTED:
SURFACE ELEVATION (FT.): 575.0 LOGGED (FT.): 1052.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
13.0	BOND	CARTHAGE	LIMESTONE	8.0	562.0	
-365.0	CARBONDALE	HERRIN	COAL	3.0	940.0	
-409.0	CARBONDALE	BRIAR HILL	COAL	3.0	984.0	
-427.0	CARBONDALE	SPRINGFIELD	COAL	4.0	1002.0	
-477.0	CARBONDALE	HOUCHIN CREEK	COAL	-	1052.0	

MAPID: 12101910000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 3E SECTION: 11 QUARTERS/FOOTAGES: 330' N line, 330' W line
QUADRANGLE: IUKA LONGITUDE: -88.845717 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.547753 DATE COLLECTED:
SURFACE ELEVATION (FT.): 544.0 LOGGED (FT.): 1170.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-4.0	BOND	CARTHAGE	LIMESTONE	9.0	548.0	
-436.0	CARBONDALE	BRIAR HILL	COAL	2.0	980.0	
-502.0	CARBONDALE	HOUCHIN CREEK	COAL	-	1046.0	
-626.0	CARBONDALE	COLCHESTER	COAL	-	1170.0	

MAPID: 12103128000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 3E SECTION: 11 QUARTERS/FOOTAGES: 330' N line, 330' E line of SE SW
QUADRANGLE: IUKA LONGITUDE: -88.838903 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.536809 DATE COLLECTED:
SURFACE ELEVATION (FT.): 583.0 LOGGED (FT.): 1073.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
10.0	BOND	CARTHAGE	LIMESTONE	8.0	573.0	
-161.0	MODESTO	TRIVOLI	SANDSTONE	36.0	744.0	
-423.0	CARBONDALE	BRIAR HILL	COAL	-	1006.0	
-443.0	CARBONDALE	SPRINGFIELD	COAL	3.5	1026.0	
-490.0	CARBONDALE	HOUCHIN CREEK	COAL	-	1073.0	

MAPID: 12105443000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 3E SECTION: 11 QUARTERS/FOOTAGES: 330' S line, 990' E line of SW NE
QUADRANGLE: IUKA LONGITUDE: -88.836522 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.542248 DATE COLLECTED:
SURFACE ELEVATION (FT.): 578.0 LOGGED (FT.): 1195.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-1.0	BOND	CARTHAGE	LIMESTONE	10.0	579.0	
-435.0	CARBONDALE	BRIAR HILL	COAL	-	1013.0	
-455.0	CARBONDALE	SPRINGFIELD	COAL	3.5	1033.0	
-502.0	CARBONDALE	HOUCHIN CREEK	COAL	-	1080.0	
-617.0	CARBONDALE	COLCHESTER	COAL	-	1195.0	

MAPID: 12101911000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 3E SECTION: 12 QUARTERS/FOOTAGES: 330' S line, 330' W line of NE SW
QUADRANGLE: IUKA LONGITUDE: -88.822597 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.539102 DATE COLLECTED:
SURFACE ELEVATION (FT.): 529.0 LOGGED (FT.): 1156.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
3.0	BOND	CARTHAGE	LIMESTONE	10.0	526.0
-136.0	MODESTO	TRIVOLI	SANDSTONE	65.0	665.0
-467.0	CARBONDALE	SPRINGFIELD	COAL	3.5	996.0
-513.0	CARBONDALE	HOUCHIN CREEK	COAL	-	1042.0
-627.0	CARBONDALE	COLCHESTER	COAL	-	1156.0

MAPID: 12105244000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 3E SECTION: 12 QUARTERS/FOOTAGES: 330' N line, 330' W line of SE NE
QUADRANGLE: IUKA LONGITUDE: -88.813069 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.545427 DATE COLLECTED:
SURFACE ELEVATION (FT.): 557.0 LOGGED (FT.): 1197.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-6.0	BOND	CARTHAGE	LIMESTONE	10.0	563.0
-444.0	CARBONDALE	BRIAR HILL	COAL	-	1001.0
-465.0	CARBONDALE	SPRINGFIELD	COAL	3.5	1022.0
-513.0	CARBONDALE	HOUCHIN CREEK	COAL	-	1070.0
-640.0	CARBONDALE	COLCHESTER	COAL	-	1197.0

MAPID: 12105235000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 3E SECTION: 13 QUARTERS/FOOTAGES: 990' N line, 990' E line of SW
QUADRANGLE: IUKA LONGITUDE: -88.822707 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.524559 DATE COLLECTED:
SURFACE ELEVATION (FT.): 566.0 LOGGED (FT.): 1171.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
15.0	BOND	CARTHAGE	LIMESTONE	7.0	551.0
-172.0	MODESTO	TRIVOLI	SANDSTONE	18.0	738.0
-449.0	CARBONDALE	SPRINGFIELD	COAL	3.5	1015.0
-499.0	CARBONDALE	HOUCHIN CREEK	COAL	-	1065.0
-605.0	CARBONDALE	COLCHESTER	COAL	-	1171.0

MAPID: 12103130000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 3E SECTION: 15 QUARTERS/FOOTAGES: 990' S line, 330' E line
QUADRANGLE: IUKA LONGITUDE: -88.848322 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.522343 DATE COLLECTED:
SURFACE ELEVATION (FT.): 570.0 LOGGED (FT.): 1170.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: POOR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
16.0	BOND	CARTHAGE	LIMESTONE	10.0	554.0
-150.0	MODESTO	TRIVOLI	SANDSTONE	38.0	720.0
-420.0	CARBONDALE	BRIAR HILL	COAL	-	990.0
-440.0	CARBONDALE	SPRINGFIELD	COAL	4.0	1010.0
-502.0	CARBONDALE	HOUCHIN CREEK	COAL	-	1072.0
-600.0	CARBONDALE	COLCHESTER	COAL	-	1170.0

MAPID: 12100459000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 1N 3E SECTION: 16 QUARTERS/FOOTAGES: NW NE NE
QUADRANGLE: IUKA LONGITUDE: -88.869187 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.533455 DATE COLLECTED: 0 / 0 / 1900
SURFACE ELEVATION (FT.): 580.9 LOGGED (FT.): 2056.0 LOG TYPE:
SOURCE: BENOIST&FN, FINN 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
30.9	BOND	CARTHAGE	LIMESTONE	-	550.0
-399.1	CARBONDALE	HERRIN	COAL	-	980.0

MAPID: 12105247000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 3E SECTION: 21 QUARTERS/FOOTAGES: 330' N line, 330' W line of SW NW
QUADRANGLE: SALEM SOUTH LONGITUDE: -88.883391 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.515467 DATE COLLECTED:
SURFACE ELEVATION (FT.): 555.0 LOGGED (FT.): 1104.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
53.0	BOND	CARTHAGE	LIMESTONE	10.0	502.0
-74.0	MODESTO	TRIVOLI	SANDSTONE	82.0	629.0
-281.0	MODESTO	PIASA	LIMESTONE	6.0	836.0
-404.0	CARBONDALE	SPRINGFIELD	COAL	3.5	959.0
-453.0	CARBONDALE	HOUCHIN CREEK	COAL	-	1008.0
-549.0	CARBONDALE	COLCHESTER	COAL	-	1104.0

MAPID: 12101372000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 1N 3E SECTION: 23 QUARTERS/FOOTAGES: 330' S line, 330' E line of NE NW
QUADRANGLE: IUKA LONGITUDE: -88.839114 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.516813 DATE COLLECTED: 0 / 0 / 1943
SURFACE ELEVATION (FT.): 571.0 LOGGED (FT.): 2869.0 LOG TYPE:
SOURCE: GULF REF, HINDERER G 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
13.0	BOND	CARTHAGE	LIMESTONE	-	558.0
-409.0	CARBONDALE	HERRIN	COAL	-	980.0

MAPID: 12101372000C VERSION: 2 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 3E SECTION: 23 QUARTERS/FOOTAGES: 330' S line, 330' E line of NE NW
QUADRANGLE: IUKA LONGITUDE: -88.839114 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.516813 DATE COLLECTED:
SURFACE ELEVATION (FT.): 571.0 LOGGED (FT.): 1180.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
61.0	BOND	CARTHAGE	LIMESTONE	10.0	510.0
-143.0	MODESTO	TRIVOLI	SANDSTONE	29.0	714.0
-452.0	CARBONDALE	BRIAR HILL	COAL	-	1023.0
-475.0	CARBONDALE	SPRINGFIELD	COAL	4.5	1046.0
-535.0	CARBONDALE	HOUCHIN CREEK	COAL	-	1106.0
-609.0	CARBONDALE	COLCHESTER	COAL	-	1180.0

MAPID: 12101912000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 3E SECTION: 23 QUARTERS/FOOTAGES: 330' S line, 330' E line of SE
QUADRANGLE: IUKA LONGITUDE: -88.829958 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.505778 DATE COLLECTED:
SURFACE ELEVATION (FT.): 596.0 LOGGED (FT.): 1220.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
12.0	BOND	CARTHAGE	LIMESTONE	8.0	584.0
-138.0	MODESTO	TRIVOLI	SANDSTONE	42.0	734.0
-462.0	CARBONDALE	SPRINGFIELD	COAL	4.5	1058.0
-522.0	CARBONDALE	HOUCHIN CREEK	COAL	-	1118.0
-624.0	CARBONDALE	COLCHESTER	COAL	-	1220.0

MAPID: 12101357000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 1N 3E SECTION: 25 QUARTERS/FOOTAGES: SE SE NW
QUADRANGLE: HARMONY LONGITUDE: -88.820596 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.499365 DATE COLLECTED: 0 / 0 / 1943
SURFACE ELEVATION (FT.): 530.0 LOGGED (FT.): 2763.0 LOG TYPE:
SOURCE: GULF REF, BLNKN SHP W 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
14.0	BOND	CARTHAGE	LIMESTONE	-	516.0
-414.0	CARBONDALE	HERRIN	COAL	-	944.0

MAPID: 12101358000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 1N 3E SECTION: 25 QUARTERS/FOOTAGES: SE SW NW
QUADRANGLE: HARMONY LONGITUDE: -88.825287 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.498917 DATE COLLECTED: 0 / 0 / 1943
SURFACE ELEVATION (FT.): 541.0 LOGGED (FT.): 2738.0 LOG TYPE:
SOURCE: GULF REF, BLNKN SHP J 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
15.0	BOND	CARTHAGE	LIMESTONE	-	526.0
-407.0	CARBONDALE	HERRIN	COAL	-	948.0

MAPID: 12101359000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 1N 3E SECTION: 25 QUARTERS/FOOTAGES: SE SW NE
QUADRANGLE: HARMONY LONGITUDE: -88.815905 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.499809 DATE COLLECTED: 0 / 0 / 1943
SURFACE ELEVATION (FT.): 546.0 LOGGED (FT.): 2830.0 LOG TYPE:
SOURCE: MAGNOLIA, WHITE EDNA 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
23.0	BOND	CARTHAGE	LIMESTONE	-	523.0
-398.0	CARBONDALE	HERRIN	COAL	-	944.0

MAPID: 12101402000C **VERSION:** 1 **PROJECT:** CIRC 164
COUNTY: MARION **TWP/RNG:** 1N 3E **SECTION:** 25 **QUARTERS/FOOTAGES:** SE NE SW
QUADRANGLE: HARMONY **LONGITUDE:** -88.820588 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.495767 **DATE COLLECTED:** 0 / 0 / 1944
SURFACE ELEVATION (FT.): 530.0 **LOGGED (FT.):** 2830.0 **LOG TYPE:**
SOURCE: GULF REF, EAGLESTN T 1 **WELL TYPE:** Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
13.0	BOND	CARTHAGE	LIMESTONE	-	517.0
-417.0	CARBONDALE	HERRIN	COAL	-	947.0

MAPID: 12105054000C **VERSION:** 1 **PROJECT:** CGT-ECILL
COUNTY: MARION **TWP/RNG:** 1N 3E **SECTION:** 25 **QUARTERS/FOOTAGES:** 373' S line, 330' W line of NW SW
QUADRANGLE: HARMONY **LONGITUDE:** -88.827643 **GEOLOGIST:** C TREWORY
CONFIDENTIAL: N **LATITUDE:** 38.495237 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 537.0 **LOGGED (FT.):** 1137.0 **LOG TYPE:** Electric Log
SOURCE: **WELL TYPE:** Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
18.0	BOND	CARTHAGE	LIMESTONE	10.0	519.0
-398.0	CARBONDALE	HERRIN	COAL	2.0	935.0
-441.0	CARBONDALE	BRIAR HILL	COAL	-	978.0
-464.0	CARBONDALE	SPRINGFIELD	COAL	4.0	1001.0
-528.0	CARBONDALE	HOUCHIN CREEK	COAL	-	1065.0
-600.0	CARBONDALE	COLCHESTER	COAL	-	1137.0

MAPID: 12101913000C **VERSION:** 1 **PROJECT:** CGT-ECILL
COUNTY: MARION **TWP/RNG:** 1N 3E **SECTION:** 26 **QUARTERS/FOOTAGES:** 330' S line, 330' E line of NE
QUADRANGLE: HARMONY **LONGITUDE:** -88.829962 **GEOLOGIST:** C TREWORY
CONFIDENTIAL: N **LATITUDE:** 38.49861 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 547.0 **LOGGED (FT.):** 1076.0 **LOG TYPE:** Electric Log
SOURCE: **WELL TYPE:** Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
7.0	BOND	CARTHAGE	LIMESTONE	10.0	540.0
-165.0	MODESTO	TRIVOLI	SANDSTONE	24.0	712.0
-458.0	CARBONDALE	BRIAR HILL	COAL	-	1005.0
-482.0	CARBONDALE	SPRINGFIELD	COAL	5.0	1029.0
-529.0	CARBONDALE	HOUCHIN CREEK	COAL	-	1076.0

MAPID: 12101554000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 3E SECTION: 27 QUARTERS/FOOTAGES: 330' N line, 330' E line of SE
QUADRANGLE: HARMONY LONGITUDE: -88.848487 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.497018 DATE COLLECTED:
SURFACE ELEVATION (FT.): 505.0 LOGGED (FT.): 1114.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
41.0	BOND	CARTHAGE	LIMESTONE	10.0	464.0
-146.0	MODESTO	TRIVOLI	SANDSTONE	19.0	651.0
-414.0	CARBONDALE	BRIAR HILL	COAL	-	919.0
-445.0	CARBONDALE	SPRINGFIELD	COAL	3.5	950.0
-500.0	CARBONDALE	HOUCHIN CREEK	COAL	-	1005.0
-609.0	CARBONDALE	COLCHESTER	COAL	-	1114.0

MAPID: 12101524000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 3E SECTION: 31 QUARTERS/FOOTAGES: 330' N line, 330' E line of NW NW
QUADRANGLE: KELL LONGITUDE: -88.9187 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.490524 DATE COLLECTED:
SURFACE ELEVATION (FT.): 608.0 LOGGED (FT.): 1045.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
133.0	BOND	CARTHAGE	LIMESTONE	12.0	475.0
-292.0	CARBONDALE	BRIAR HILL	COAL	2.5	900.0
-307.0	CARBONDALE	SPRINGFIELD	COAL	4.0	915.0
-349.0	CARBONDALE	HOUCHIN CREEK	COAL	-	957.0
-437.0	CARBONDALE	COLCHESTER	COAL	-	1045.0

MAPID: 12101040000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 1N 3E SECTION: 32 QUARTERS/FOOTAGES: 330' N line, 330' E line of SW SE
QUADRANGLE: KELL LONGITUDE: -88.890925 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.479302 DATE COLLECTED: 0 / 0 / 1942
SURFACE ELEVATION (FT.): 613.0 LOGGED (FT.): 2720.0 LOG TYPE:
SOURCE: OIL INC, KEELE COMM 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
64.0	BOND	CARTHAGE	LIMESTONE	-	549.0
-335.0	CARBONDALE	HERRIN	COAL	-	948.0

MAPID: 12101040000C VERSION: 2 PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 1N 3E SECTION: 32 QUARTERS/FOOTAGES: 330' N line, 330' E line of SW SE

QUADRANGLE: KELL LONGITUDE: -88.890925 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.479302 DATE COLLECTED:

SURFACE ELEVATION (FT.): 613.0 LOGGED (FT.): 1066.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
65.0	BOND	CARTHAGE	LIMESTONE	11.0	548.0
-63.0	MODESTO	TRIVOLI	SANDSTONE	75.0	676.0
-275.0	MODESTO	PIASA	LIMESTONE	8.0	888.0
-403.0	CARBONDALE	SPRINGFIELD	COAL	5.0	1016.0
-453.0	CARBONDALE	HOUCHIN CREEK	COAL	-	1066.0

MAPID: 12101507000C VERSION: 1 PROJECT: CIRC 164

COUNTY: MARION TWP/RNG: 1N 3E SECTION: 32 QUARTERS/FOOTAGES: 330' S line, 330' E line of SW SW

QUADRANGLE: KELL LONGITUDE: -88.900405 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.477623 DATE COLLECTED: 0 / 0 / 1943

SURFACE ELEVATION (FT.): 596.0 LOGGED (FT.): 1670.0 LOG TYPE:

SOURCE: MITCHELL M, LEONARD 2 WELL TYPE: Oil and Gas Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
344.0	BOND	CARTHAGE	LIMESTONE	-	252.0
-66.0	CARBONDALE	HERRIN	COAL	-	662.0

MAPID: 12101507000C VERSION: 2 PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 1N 3E SECTION: 32 QUARTERS/FOOTAGES: 330' S line, 330' E line of SW SW

QUADRANGLE: KELL LONGITUDE: -88.900405 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.477623 DATE COLLECTED:

SURFACE ELEVATION (FT.): 596.0 LOGGED (FT.): 944.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
99.0	BOND	CARTHAGE	LIMESTONE	9.0	497.0
-344.0	CARBONDALE	SPRINGFIELD	COAL	4.0	940.0

MAPID: 12105180000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 3E SECTION: 33 QUARTERS/FOOTAGES: 330' S line, 330' W line of SE SW
QUADRANGLE: KELL LONGITUDE: -88.879187 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.477381 DATE COLLECTED:
SURFACE ELEVATION (FT.): 575.0 LOGGED (FT.): 1107.5 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
59.0	BOND	CARTHAGE	LIMESTONE	9.0	516.0
-55.0	MODESTO	TRIVOLI	SANDSTONE	76.0	630.0
-280.0	MODESTO	PIASA	LIMESTONE	8.0	855.0
-389.0	CARBONDALE	BRIAR HILL	COAL	-	964.0
-410.0	CARBONDALE	SPRINGFIELD	COAL	4.5	985.0
-460.0	CARBONDALE	HOUCHIN CREEK	COAL	2.5	1035.0
-530.0	CARBONDALE	COLCHESTER	COAL	2.5	1105.0

MAPID: 12101508000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 3E SECTION: 34 QUARTERS/FOOTAGES: 330' S line, 330' W line of NE
QUADRANGLE: HARMONY LONGITUDE: -88.855637 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.484533 DATE COLLECTED:
SURFACE ELEVATION (FT.): 574.0 LOGGED (FT.): 1158.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
55.0	BOND	CARTHAGE	LIMESTONE	11.0	519.0
-86.0	MODESTO	TRIVOLI	SANDSTONE	30.0	660.0
-289.0	MODESTO	PIASA	LIMESTONE	7.0	863.0
-423.0	CARBONDALE	SPRINGFIELD	COAL	5.0	997.0
-482.0	CARBONDALE	HOUCHIN CREEK	COAL	-	1056.0
-584.0	CARBONDALE	COLCHESTER	COAL	-	1158.0

MAPID: 12101411000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 1N 4E SECTION: 2 QUARTERS/FOOTAGES: NE NE NE
QUADRANGLE: ORCHARDVILLE LONGITUDE: -88.718849 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.561339 DATE COLLECTED: 0 / 0 / 1946
SURFACE ELEVATION (FT.): 458.0 LOGGED (FT.): 2995.0 LOG TYPE:
SOURCE: LHMN&JHNSN, HOLM 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-50.0	BOND	CARTHAGE	LIMESTONE	-	508.0
-462.0	CARBONDALE	HERRIN	COAL	-	920.0

MAPID: 12101411000C VERSION: 2 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 4E SECTION: 2 QUARTERS/FOOTAGES: NE NE NE
QUADRANGLE: ORCHARDVILLE LONGITUDE: -88.718849 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.561339 DATE COLLECTED:
SURFACE ELEVATION (FT.): 458.0 LOGGED (FT.): 986.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-51.0	BOND	CARTHAGE	LIMESTONE	10.0	509.0
-206.0	MODESTO	TRIVOLI	SANDSTONE	78.0	664.0
-462.0	CARBONDALE	HERRIN	COAL	2.5	920.0
-524.0	CARBONDALE	SPRINGFIELD	COAL	4.0	982.0

MAPID: 12101667000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 4E SECTION: 6 QUARTERS/FOOTAGES: NE SW SE
QUADRANGLE: IUKA LONGITUDE: -88.797861 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.551196 DATE COLLECTED:
SURFACE ELEVATION (FT.): 556.0 LOGGED (FT.): 1171.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-7.0	BOND	CARTHAGE	LIMESTONE	10.0	563.0
-137.0	MODESTO	TRIVOLI	SANDSTONE	85.0	693.0
-404.0	CARBONDALE	HERRIN	COAL	5.0	960.0
-446.0	CARBONDALE	BRIAR HILL	COAL	3.0	1002.0
-465.0	CARBONDALE	SPRINGFIELD	COAL	4.0	1021.0
-518.0	CARBONDALE	HOUCHIN CREEK	COAL	2.0	1074.0
-615.0	CARBONDALE	COLCHESTER	COAL	-	1171.0

MAPID: 12101539000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 4E SECTION: 7 QUARTERS/FOOTAGES: 330' N line, 330' W line of SE
QUADRANGLE: IUKA LONGITUDE: -88.800338 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.540262 DATE COLLECTED:
SURFACE ELEVATION (FT.): 528.0 LOGGED (FT.): 1030.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
15.0	BOND	CARTHAGE	LIMESTONE	10.0	513.0
-152.0	MODESTO	TRIVOLI	SANDSTONE	30.0	680.0
-388.0	CARBONDALE	SPRINGFIELD	COAL	4.0	916.0
-502.0	CARBONDALE	HOUCHIN CREEK	COAL	-	1030.0

MAPID: 12101410000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 1N 4E SECTION: 8 QUARTERS/FOOTAGES: 330' S line, 330' E line of SW NW
QUADRANGLE: IUKA LONGITUDE: -88.788688 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.542046 DATE COLLECTED: 0 / 0 / 1947
SURFACE ELEVATION (FT.): 541.0 LOGGED (FT.): 2859.0 LOG TYPE:
SOURCE: OHIO OIL, GOOSETRE M 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
15.0	BOND	CARTHAGE	LIMESTONE	-	526.0
-373.0	CARBONDALE	HERRIN	COAL	-	914.0

MAPID: 12101410000C VERSION: 2 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 4E SECTION: 8 QUARTERS/FOOTAGES: 330' S line, 330' E line of SW NW
QUADRANGLE: IUKA LONGITUDE: -88.788688 GEOLOGIST: C TREWORYG
CONFIDENTIAL: N LATITUDE: 38.542046 DATE COLLECTED:
SURFACE ELEVATION (FT.): 541.0 LOGGED (FT.): 1029.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
14.0	BOND	CARTHAGE	LIMESTONE	8.0	527.0
-105.0	MODESTO	TRIVOLI	SANDSTONE	71.0	646.0
-430.0	CARBONDALE	SPRINGFIELD	COAL	4.0	971.0
-488.0	CARBONDALE	HOUCHIN CREEK	COAL	-	1029.0

MAPID: 12101406000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 1N 4E SECTION: 9 QUARTERS/FOOTAGES: SW SE NE
QUADRANGLE: IUKA LONGITUDE: -88.758477 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.54179 DATE COLLECTED: 0 / 0 / 1945
SURFACE ELEVATION (FT.): 525.0 LOGGED (FT.): 2999.0 LOG TYPE:
SOURCE: FRYER R J, KUNTSMAN A 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-28.0	BOND	CARTHAGE	LIMESTONE	-	553.0
-441.0	CARBONDALE	HERRIN	COAL	-	966.0

MAPID: 12101406000C VERSION: 2 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 4E SECTION: 9 QUARTERS/FOOTAGES: SW SE NE
QUADRANGLE: IUKA LONGITUDE: -88.758477 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.54179 DATE COLLECTED:
SURFACE ELEVATION (FT.): 525.0 LOGGED (FT.): 1186.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-29.0	BOND	CARTHAGE	LIMESTONE	8.0	554.0
-139.0	MODESTO	TRIVOLI	SANDSTONE	100.0	664.0
-437.0	CARBONDALE	HERRIN	COAL	5.5	962.0
-503.0	CARBONDALE	SPRINGFIELD	COAL	4.0	1028.0
-571.0	CARBONDALE	HOUCHIN CREEK	COAL	2.0	1096.0
-661.0	CARBONDALE	COLCHESTER	COAL	-	1186.0

MAPID: 12100341000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 1N 4E SECTION: 11 QUARTERS/FOOTAGES: NE SE SE
QUADRANGLE: ORCHARDVILLE LONGITUDE: -88.718945 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.5359 DATE COLLECTED: 0 / 0 / 1942
SURFACE ELEVATION (FT.): 506.0 LOGGED (FT.): 3074.0 LOG TYPE:
SOURCE: SNCLR WYOM, SINCLAIR N 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-77.0	BOND	CARTHAGE	LIMESTONE	-	583.0
-488.0	CARBONDALE	HERRIN	COAL	-	994.0

MAPID: 12105504000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 4E SECTION: 16 QUARTERS/FOOTAGES: 330' N line, 330' W line of SW
QUADRANGLE: IUKA LONGITUDE: -88.772508 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.52543 DATE COLLECTED:
SURFACE ELEVATION (FT.): 494.0 LOGGED (FT.): 1150.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: POOR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
0.0	BOND	CARTHAGE	LIMESTONE	11.0	494.0
-472.0	CARBONDALE	SPRINGFIELD	COAL	4.0	966.0
-556.0	CARBONDALE	HOUCHIN CREEK	COAL	-	1050.0
-656.0	CARBONDALE	COLCHESTER	COAL	-	1150.0

MAPID: 12100463000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 1N 4E SECTION: 20 QUARTERS/FOOTAGES: NE NW SW
QUADRANGLE: IUKA LONGITUDE: -88.788927 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.511051 DATE COLLECTED: 0 / 0 / 1939
SURFACE ELEVATION (FT.): 492.0 LOGGED (FT.): 2990.0 LOG TYPE:
SOURCE: PAPOOSE OC, WEEMS J L 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
20.0	BOND	CARTHAGE	LIMESTONE	-	472.0
-391.0	CARBONDALE	HERRIN	COAL	-	883.0

MAPID: 12100463000C VERSION: 2 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 4E SECTION: 20 QUARTERS/FOOTAGES: NE NW SW
QUADRANGLE: IUKA LONGITUDE: -88.788927 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.511051 DATE COLLECTED:
SURFACE ELEVATION (FT.): 494.0 LOGGED (FT.): 927.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: POOR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
19.0	BOND	CARTHAGE	LIMESTONE	12.0	475.0
-453.0	CARBONDALE	SPRINGFIELD	COAL	4.0	947.0

MAPID: 12100933000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 1N 4E SECTION: 20 QUARTERS/FOOTAGES: 330' N line, 330' E line of NW NE
QUADRANGLE: IUKA LONGITUDE: -88.779589 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.518194 DATE COLLECTED: 0 / 0 / 1942
SURFACE ELEVATION (FT.): 517.0 LOGGED (FT.): 2874.0 LOG TYPE:
SOURCE: BECK C S, PHELPS L 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
2.0	BOND	CARTHAGE	LIMESTONE	-	515.0
-400.0	CARBONDALE	HERRIN	COAL	-	917.0

MAPID: 12100933000C VERSION: 2 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 4E SECTION: 20 QUARTERS/FOOTAGES: 330' N line, 330' E line of NW NE
QUADRANGLE: IUKA LONGITUDE: -88.779589 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.518194 DATE COLLECTED:
SURFACE ELEVATION (FT.): 517.0 LOGGED (FT.): 1054.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
1.0	BOND	CARTHAGE	LIMESTONE	8.0	516.0
-461.0	CARBONDALE	SPRINGFIELD	COAL	4.0	978.0
-537.0	CARBONDALE	HOUCHIN CREEK	COAL	-	1054.0

MAPID: 12101567000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 4E SECTION: 20 QUARTERS/FOOTAGES: 330' S line, 330' E line of SW
QUADRANGLE: IUKA LONGITUDE: -88.784302 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.505584 DATE COLLECTED:
SURFACE ELEVATION (FT.): 513.0 LOGGED (FT.): 1159.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
10.0	BOND	CARTHAGE	LIMESTONE	11.0	503.0
-463.0	CARBONDALE	SPRINGFIELD	COAL	4.0	976.0
-532.0	CARBONDALE	HOUCHIN CREEK	COAL	-	1045.0
-646.0	CARBONDALE	COLCHESTER	COAL	-	1159.0

MAPID: 12101409000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 1N 4E SECTION: 21 QUARTERS/FOOTAGES: 330' S line, 330' W line of NW SE
QUADRANGLE: IUKA LONGITUDE: -88.763357 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.509061 DATE COLLECTED: 0 / 0 / 1946
SURFACE ELEVATION (FT.): 492.0 LOGGED (FT.): 3002.0 LOG TYPE:
SOURCE: CONTNTL OC, HORMAN M 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-2.0	BOND	CARTHAGE	LIMESTONE	-	494.0
-404.0	CARBONDALE	HERRIN	COAL	-	896.0

MAPID: 12101409000C VERSION: 2 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 4E SECTION: 21 QUARTERS/FOOTAGES: 330' S line, 330' W line of NW SE
QUADRANGLE: IUKA LONGITUDE: -88.763357 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.509061 DATE COLLECTED:
SURFACE ELEVATION (FT.): 494.0 LOGGED (FT.): 1042.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
0.0	BOND	CARTHAGE	LIMESTONE	9.0	494.0
-464.0	CARBONDALE	SPRINGFIELD	COAL	4.5	958.0
-544.0	CARBONDALE	HOUCHIN CREEK	COAL	4.0	1038.0

MAPID: 12101403000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 1N 4E SECTION: 22 QUARTERS/FOOTAGES: 330' N line, 330' E line of SE
QUADRANGLE: ORCHARDVILLE LONGITUDE: -88.737608 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.510782 DATE COLLECTED: 0 / 0 / 1944
SURFACE ELEVATION (FT.): 439.0 LOGGED (FT.): 2862.0 LOG TYPE:
SOURCE: CONTNTL OC, SIMMONS F 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
1.0	BOND	CARTHAGE	LIMESTONE	-	438.0
-411.0	CARBONDALE	HERRIN	COAL	-	850.0

MAPID: 12101403000C VERSION: 2 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 4E SECTION: 22 QUARTERS/FOOTAGES: 330' N line, 330' E line of SE
QUADRANGLE: ORCHARDVILLE LONGITUDE: -88.737608 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.510782 DATE COLLECTED:
SURFACE ELEVATION (FT.): 439.0 LOGGED (FT.): 918.5 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
0.0	BOND	CARTHAGE	LIMESTONE	10.0	439.0
-475.0	CARBONDALE	SPRINGFIELD	COAL	4.5	914.0

MAPID: 12105143000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 1N 4E SECTION: 22 QUARTERS/FOOTAGES: 330' N line, 330' W line of SW NW
QUADRANGLE: IUKA LONGITUDE: -88.754004 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.514429 DATE COLLECTED:
SURFACE ELEVATION (FT.): 488.0 LOGGED (FT.): 1180.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-19.0	BOND	CARTHAGE	LIMESTONE	10.0	507.0
-206.0	MODESTO	WEST FRANKLIN	LIMESTONE	6.0	694.0
-499.0	CARBONDALE	SPRINGFIELD	COAL	3.0	987.0
-578.0	CARBONDALE	HOUCHIN CREEK	COAL	4.0	1066.0
-692.0	CARBONDALE	COLCHESTER	COAL	-	1180.0

MAPID: 12101654000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 1N 4E SECTION: 23 QUARTERS/FOOTAGES: 330' S line, 330' W line of SE SE
QUADRANGLE: ORCHARDVILLE LONGITUDE: -88.721366 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.505091 DATE COLLECTED:
SURFACE ELEVATION (FT.): 438.0 LOGGED (FT.): 1080.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
22.0	BOND	CARTHAGE	LIMESTONE	9.0	416.0
-162.0	MODESTO	WEST FRANKLIN	LIMESTONE	7.0	600.0
-432.0	CARBONDALE	BRIAR HILL	COAL	2.0	870.0
-455.0	CARBONDALE	SPRINGFIELD	COAL	4.0	893.0
-537.0	CARBONDALE	HOUCHIN CREEK	COAL	-	975.0
-642.0	CARBONDALE	COLCHESTER	COAL	-	1080.0

MAPID: 12101405000C VERSION: 1

PROJECT: CIRC 164

COUNTY: MARION TWP/RNG: 1N 4E SECTION: 25 QUARTERS/FOOTAGES: NW NE NW
QUADRANGLE: ORCHARDVILLE LONGITUDE: -88.711996 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.503175 DATE COLLECTED: 0 / 0 / 1945
SURFACE ELEVATION (FT.): 487.0 LOGGED (FT.): 3018.0 LOG TYPE:
SOURCE: HAMMR&BRHM, MEDDER 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
15.0	BOND	CARTHAGE	LIMESTONE	-	472.0
-393.0	CARBONDALE	HERRIN	COAL	-	880.0

MAPID: 12101408000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 1N 4E SECTION: 25 QUARTERS/FOOTAGES: 330' N line, 330' E line of SE
QUADRANGLE: SHIELDS LONGITUDE: -88.700213 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.495889 DATE COLLECTED: 0 / 0 / 1947
SURFACE ELEVATION (FT.): 476.0 LOGGED (FT.): 3010.0 LOG TYPE:
SOURCE: GEO&WRTHR, WARREN 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-10.0	BOND	CARTHAGE	LIMESTONE	-	486.0
-428.0	CARBONDALE	HERRIN	COAL	-	904.0

MAPID: 12101408000C VERSION: 2 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 4E SECTION: 25 QUARTERS/FOOTAGES: 330' N line, 330' E line of SE
QUADRANGLE: SHIELDS LONGITUDE: -88.700213 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.495889 DATE COLLECTED:
SURFACE ELEVATION (FT.): 476.0 LOGGED (FT.): 1054.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-11.0	BOND	CARTHAGE	LIMESTONE	11.0	487.0
-201.0	MODESTO	WEST FRANKLIN	LIMESTONE	5.0	677.0
-499.0	CARBONDALE	SPRINGFIELD	COAL	4.0	975.0
-578.0	CARBONDALE	HOUCHIN CREEK	COAL	-	1054.0

MAPID: 12101618000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 4E SECTION: 27 QUARTERS/FOOTAGES: 330' N line, 330' E line of NW
QUADRANGLE: ORCHARDVILLE LONGITUDE: -88.747016 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.503594 DATE COLLECTED:
SURFACE ELEVATION (FT.): 508.0 LOGGED (FT.): 1181.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
1.0	BOND	CARTHAGE	LIMESTONE	9.0	507.0
-448.0	CARBONDALE	BRIAR HILL	COAL	2.5	956.0
-474.0	CARBONDALE	SPRINGFIELD	COAL	4.0	982.0
-562.0	CARBONDALE	HOUCHIN CREEK	COAL	-	1070.0
-673.0	CARBONDALE	COLCHESTER	COAL	-	1181.0

MAPID: 12101794000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 4E SECTION: 27 QUARTERS/FOOTAGES: 330' S line, 330' W line of SE NW
QUADRANGLE: SHIELDS LONGITUDE: -88.749311 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.498175 DATE COLLECTED:
SURFACE ELEVATION (FT.): 517.0 LOGGED (FT.): 1194.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
5.0	BOND	CARTHAGE	LIMESTONE	9.0	512.0	
-178.0	MODESTO	WEST FRANKLIN	LIMESTONE	6.0	695.0	
-488.0	CARBONDALE	SPRINGFIELD	COAL	4.0	1005.0	
-562.0	CARBONDALE	HOUCHIN CREEK	COAL	-	1079.0	
-677.0	CARBONDALE	COLCHESTER	COAL	-	1194.0	

MAPID: 12103137000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 4E SECTION: 27 QUARTERS/FOOTAGES: 330' S line, 330' E line of NE SE
QUADRANGLE: SHIELDS LONGITUDE: -88.737603 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.494471 DATE COLLECTED:
SURFACE ELEVATION (FT.): 499.0 LOGGED (FT.): 1150.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
20.0	BOND	CARTHAGE	LIMESTONE	9.0	479.0	
-462.0	CARBONDALE	SPRINGFIELD	COAL	4.0	961.0	
-545.0	CARBONDALE	HOUCHIN CREEK	COAL	-	1044.0	
-651.0	CARBONDALE	COLCHESTER	COAL	-	1150.0	

MAPID: 12105135000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 4E SECTION: 27 QUARTERS/FOOTAGES: 330' N line, 330' W line of SE NE
QUADRANGLE: SHIELDS LONGITUDE: -88.739993 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.499953 DATE COLLECTED:
SURFACE ELEVATION (FT.): 498.0 LOGGED (FT.): 1150.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
14.0	BOND	CARTHAGE	LIMESTONE	8.0	484.0	
-167.0	MODESTO	WEST FRANKLIN	LIMESTONE	5.0	665.0	
-438.0	CARBONDALE	BRIAR HILL	COAL	-	936.0	
-458.0	CARBONDALE	SPRINGFIELD	COAL	4.0	956.0	
-548.0	CARBONDALE	HOUCHIN CREEK	COAL	-	1046.0	
-652.0	CARBONDALE	COLCHESTER	COAL	-	1150.0	

MAPID: 12101881000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 4E SECTION: 28 QUARTERS/FOOTAGES: 330' S line, 330' E line of NW SE
QUADRANGLE: HARMONY LONGITUDE: -88.760913 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.494633 DATE COLLECTED:
SURFACE ELEVATION (FT.): 535.0 LOGGED (FT.): 1196.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
2.0	BOND	CARTHAGE	LIMESTONE	9.0	533.0
-170.0	MODESTO	WEST FRANKLIN	LIMESTONE	6.0	705.0
-470.0	CARBONDALE	SPRINGFIELD	COAL	3.5	1005.0
-546.0	CARBONDALE	HOUCHIN CREEK	COAL	-	1081.0
-661.0	CARBONDALE	COLCHESTER	COAL	-	1196.0

MAPID: 12105444000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 4E SECTION: 28 QUARTERS/FOOTAGES: 330' N line, 330' E line of SW SW
QUADRANGLE: HARMONY LONGITUDE: -88.770213 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.492868 DATE COLLECTED:
SURFACE ELEVATION (FT.): 537.0 LOGGED (FT.): 1196.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
11.0	BOND	CARTHAGE	LIMESTONE	9.0	526.0
-163.0	MODESTO	WEST FRANKLIN	LIMESTONE	4.0	700.0
-446.0	CARBONDALE	BRIAR HILL	COAL	-	983.0
-473.0	CARBONDALE	SPRINGFIELD	COAL	3.5	1010.0
-549.0	CARBONDALE	HOUCHIN CREEK	COAL	-	1086.0
-659.0	CARBONDALE	COLCHESTER	COAL	-	1196.0

MAPID: 12101407000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 1N 4E SECTION: 29 QUARTERS/FOOTAGES: 330' N line, 330' W line of SW NW
QUADRANGLE: IUKA LONGITUDE: -88.791273 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.500216 DATE COLLECTED: 0 / 0 / 1946
SURFACE ELEVATION (FT.): 512.0 LOGGED (FT.): 2931.0 LOG TYPE:
SOURCE: CHERRY KD, HAWKINS 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
5.0	BOND	CARTHAGE	LIMESTONE	-	507.0
-409.0	CARBONDALE	HERRIN	COAL	-	921.0

MAPID: 12101407000C VERSION: 2 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 4E SECTION: 29 QUARTERS/FOOTAGES: 330' N line, 330' W line of SW NW
QUADRANGLE: IUKA LONGITUDE: -88.791273 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.500216 DATE COLLECTED:
SURFACE ELEVATION (FT.): 515.0 LOGGED (FT.): 1167.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
3.0	BOND	CARTHAGE	LIMESTONE	8.0	512.0
-477.0	CARBONDALE	SPRINGFIELD	COAL	4.0	992.0
-542.0	CARBONDALE	HOUCHIN CREEK	COAL	-	1057.0
-652.0	CARBONDALE	COLCHESTER	COAL	-	1167.0

MAPID: 12101503000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 1N 4E SECTION: 29 QUARTERS/FOOTAGES: SE SE NW
QUADRANGLE: HARMONY LONGITUDE: -88.784279 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.498367 DATE COLLECTED: 0 / 0 / 1946
SURFACE ELEVATION (FT.): 514.0 LOGGED (FT.): 2888.0 LOG TYPE:
SOURCE: SOHIO PET, HAWKNS R 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
16.0	BOND	CARTHAGE	LIMESTONE	-	498.0
-406.0	CARBONDALE	HERRIN	COAL	-	920.0

MAPID: 12101602000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 4E SECTION: 29 QUARTERS/FOOTAGES: 330' N line, 330' E line of NW SE
QUADRANGLE: HARMONY LONGITUDE: -88.779594 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.496521 DATE COLLECTED:
SURFACE ELEVATION (FT.): 528.0 LOGGED (FT.): 1110.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
14.0	BOND	CARTHAGE	LIMESTONE	10.0	514.0
-178.0	MODESTO	WEST FRANKLIN	LIMESTONE	6.0	706.0
-448.0	CARBONDALE	BRIAR HILL	COAL	3.0	976.0
-543.0	CARBONDALE	HOUCHIN CREEK	COAL	-	1071.0
-582.0	CARBONDALE	COLCHESTER	COAL	-	1110.0

MAPID: 12101915000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 1N 4E SECTION: 29 QUARTERS/FOOTAGES: 330' S line, 990' W line of SW SW
QUADRANGLE: HARMONY LONGITUDE: -88.788992 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.491193 DATE COLLECTED:
SURFACE ELEVATION (FT.): 534.0 LOGGED (FT.): 1160.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
28.0	BOND	CARTHAGE	LIMESTONE	12.0	506.0
-163.0	MODESTO	WEST FRANKLIN	LIMESTONE	5.0	697.0
-426.0	CARBONDALE	BRIAR HILL	COAL	2.5	960.0
-451.0	CARBONDALE	SPRINGFIELD	COAL	5.5	985.0
-516.0	CARBONDALE	HOUCHIN CREEK	COAL	-	1050.0
-626.0	CARBONDALE	COLCHESTER	COAL	-	1160.0

MAPID: 12103138000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 1N 4E SECTION: 29 QUARTERS/FOOTAGES: 330' S line, 330' E line of NE NE
QUADRANGLE: IUKA LONGITUDE: -88.775 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.501904 DATE COLLECTED:
SURFACE ELEVATION (FT.): 511.0 LOGGED (FT.): 1160.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
17.0	BOND	CARTHAGE	LIMESTONE	10.0	494.0
-173.0	MODESTO	WEST FRANKLIN	LIMESTONE	6.0	684.0
-442.0	CARBONDALE	BRIAR HILL	COAL	-	953.0
-460.0	CARBONDALE	SPRINGFIELD	COAL	4.5	971.0
-535.0	CARBONDALE	HOUCHIN CREEK	COAL	-	1046.0
-649.0	CARBONDALE	COLCHESTER	COAL	-	1160.0

MAPID: 12101574000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 1N 4E SECTION: 30 QUARTERS/FOOTAGES: 330' S line, 330' W line of NE SE
QUADRANGLE: HARMONY LONGITUDE: -88.795932 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.494838 DATE COLLECTED:
SURFACE ELEVATION (FT.): 524.0 LOGGED (FT.): 1168.5 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
10.0	BOND	CARTHAGE	LIMESTONE	10.0	514.0
-182.0	MODESTO	WEST FRANKLIN	LIMESTONE	3.0	706.0
-446.0	CARBONDALE	BRIAR HILL	COAL	2.5	970.0
-470.0	CARBONDALE	SPRINGFIELD	COAL	4.5	994.0
-527.0	CARBONDALE	HOUCHIN CREEK	COAL	-	1051.0
-642.0	CARBONDALE	COLCHESTER	COAL	2.5	1166.0

MAPID: 12105243000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 1N 4E SECTION: 30 QUARTERS/FOOTAGES: 330' S line, 470' W line of NW NE
QUADRANGLE: IUKA LONGITUDE: -88.800049 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.502058 DATE COLLECTED:
SURFACE ELEVATION (FT.): 539.0 LOGGED (FT.): 1179.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
10.0	BOND	CARTHAGE	LIMESTONE	11.0	529.0
-185.0	MODESTO	WEST FRANKLIN	LIMESTONE	4.0	724.0
-440.0	CARBONDALE	BRIAR HILL	COAL	2.5	979.0
-465.0	CARBONDALE	SPRINGFIELD	COAL	4.5	1004.0
-525.0	CARBONDALE	HOUCHIN CREEK	COAL	-	1064.0
-640.0	CARBONDALE	COLCHESTER	COAL	-	1179.0

MAPID: 12101916000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 4E SECTION: 31 QUARTERS/FOOTAGES: 330' N line, 330' W line of SW NE
QUADRANGLE: HARMONY LONGITUDE: -88.800581 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.485803 DATE COLLECTED:
SURFACE ELEVATION (FT.): 520.0 LOGGED (FT.): 1181.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
0.0	BOND	CARTHAGE	LIMESTONE	9.0	520.0
-197.0	MODESTO	WEST FRANKLIN	LIMESTONE	5.0	717.0
-460.0	CARBONDALE	BRIAR HILL	COAL	-	980.0
-490.0	CARBONDALE	SPRINGFIELD	COAL	4.0	1010.0
-549.0	CARBONDALE	HOUCHIN CREEK	COAL	-	1069.0
-661.0	CARBONDALE	COLCHESTER	COAL	-	1181.0

MAPID: 12100934000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 1N 4E SECTION: 32 QUARTERS/FOOTAGES: NW NW NW
QUADRANGLE: HARMONY LONGITUDE: -88.791296 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.489388 DATE COLLECTED: 0 / 0 / 1939
SURFACE ELEVATION (FT.): 538.0 LOGGED (FT.): 2998.0 LOG TYPE:
SOURCE: QUINS D&PC, HAWKINS 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
30.0	BOND	CARTHAGE	LIMESTONE	-	508.0
-382.0	CARBONDALE	HERRIN	COAL	-	920.0

MAPID: 12101506000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 4E SECTION: 32 QUARTERS/FOOTAGES: 330' N line, 330' W line of NW NW SE
QUADRANGLE: HARMONY LONGITUDE: -88.781928 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.482099 DATE COLLECTED:
SURFACE ELEVATION (FT.): 560.0 LOGGED (FT.): 1188.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
15.0	BOND	CARTHAGE	LIMESTONE	11.0	545.0
-170.0	MODESTO	WEST FRANKLIN	LIMESTONE	6.0	730.0
-320.0	MODESTO	PIASA	LIMESTONE	4.0	880.0
-458.0	CARBONDALE	SPRINGFIELD	COAL	4.5	1018.0
-526.0	CARBONDALE	HOUCHIN CREEK	COAL	-	1086.0
-628.0	CARBONDALE	COLCHESTER	COAL	-	1188.0

MAPID: 12101917000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 4E SECTION: 32 QUARTERS/FOOTAGES: 330' N line, 500' W line
QUADRANGLE: HARMONY LONGITUDE: -88.790717 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.489378 DATE COLLECTED:
SURFACE ELEVATION (FT.): 541.0 LOGGED (FT.): 1147.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
33.0	BOND	CARTHAGE	LIMESTONE	10.0	508.0
-154.0	MODESTO	WEST FRANKLIN	LIMESTONE	5.0	695.0
-306.0	MODESTO	PIASA	LIMESTONE	4.0	847.0
-415.0	CARBONDALE	BRIAR HILL	COAL	3.0	956.0
-444.0	CARBONDALE	SPRINGFIELD	COAL	5.0	985.0
-502.0	CARBONDALE	HOUCHIN CREEK	COAL	-	1043.0
-606.0	CARBONDALE	COLCHESTER	COAL	-	1147.0

MAPID: 12100464000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 1N 4E SECTION: 33 QUARTERS/FOOTAGES: NE NW SW
QUADRANGLE: HARMONY LONGITUDE: -88.770207 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.482053 DATE COLLECTED: 0 / 0 / 1941
SURFACE ELEVATION (FT.): 556.4 LOGGED (FT.): 2952.0 LOG TYPE:
SOURCE: DEATON&BRS, SUNOFSKY 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
8.4	BOND	CARTHAGE	LIMESTONE	-	548.0
-411.6	CARBONDALE	HERRIN	COAL	-	968.0

MAPID: 12101594000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 4E SECTION: 33 QUARTERS/FOOTAGES: 330' N line, 330' W line of SW SE
QUADRANGLE: HARMONY LONGITUDE: -88.763221 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.478387 DATE COLLECTED:
SURFACE ELEVATION (FT.): 523.0 LOGGED (FT.): 1205.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-20.0	BOND	CARTHAGE	LIMESTONE	12.0	543.0
-197.0	MODESTO	WEST FRANKLIN	LIMESTONE	7.0	720.0
-472.0	CARBONDALE	BRIAR HILL	COAL	-	995.0
-501.0	CARBONDALE	SPRINGFIELD	COAL	4.0	1024.0
-577.0	CARBONDALE	HOUCHIN CREEK	COAL	3.0	1100.0
-682.0	CARBONDALE	COLCHESTER	COAL	-	1205.0

MAPID: 12101601000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 1N 4E SECTION: 33 QUARTERS/FOOTAGES: 330' S line, 330' E line of SE SE NW
QUADRANGLE: HARMONY LONGITUDE: -88.765528 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.483837 DATE COLLECTED:
SURFACE ELEVATION (FT.): 521.0 LOGGED (FT.): 1172.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-1.0	BOND	CARTHAGE	LIMESTONE	10.0	522.0
-181.0	MODESTO	WEST FRANKLIN	LIMESTONE	5.0	702.0
-331.0	MODESTO	PIASA	LIMESTONE	4.0	852.0
-447.0	CARBONDALE	BRIAR HILL	COAL	-	968.0
-473.0	CARBONDALE	SPRINGFIELD	COAL	4.0	994.0
-548.0	CARBONDALE	HOUCHIN CREEK	COAL	3.5	1069.0
-651.0	CARBONDALE	COLCHESTER	COAL	-	1172.0

MAPID: 12101509000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 1N 4E SECTION: 34 QUARTERS/FOOTAGES: 330' N line, 330' E line of SE NW
QUADRANGLE: SHIELDS LONGITUDE: -88.746867 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.485468 DATE COLLECTED:
SURFACE ELEVATION (FT.): 514.0 LOGGED (FT.): 1204.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-19.0	BOND	CARTHAGE	LIMESTONE	9.0	533.0
-204.0	MODESTO	WEST FRANKLIN	LIMESTONE	6.0	718.0
-504.0	CARBONDALE	SPRINGFIELD	COAL	4.5	1018.0
-586.0	CARBONDALE	HOUCHIN CREEK	COAL	2.5	1100.0
-690.0	CARBONDALE	COLCHESTER	COAL	-	1204.0

MAPID: 12101918000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 4E SECTION: 35 QUARTERS/FOOTAGES: 330' N line, 330' E line of SW
QUADRANGLE: SHIELDS LONGITUDE: -88.728261 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.481574 DATE COLLECTED:
SURFACE ELEVATION (FT.): 434.0 LOGGED (FT.): 1086.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-4.0	BOND	CARTHAGE	LIMESTONE	10.0	438.0
-189.0	MODESTO	WEST FRANKLIN	LIMESTONE	10.0	623.0
-461.0	CARBONDALE	BRIAR HILL	COAL	-	895.0
-481.0	CARBONDALE	SPRINGFIELD	COAL	4.0	915.0
-562.0	CARBONDALE	HOUCHIN CREEK	COAL	3.0	996.0
-652.0	CARBONDALE	COLCHESTER	COAL	-	1086.0

MAPID: 12101404000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 1N 4E SECTION: 36 QUARTERS/FOOTAGES: SE SE NW
QUADRANGLE: SHIELDS LONGITUDE: -88.709593 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.483181 DATE COLLECTED: 0 / 0 / 1944
SURFACE ELEVATION (FT.): 432.0 LOGGED (FT.): 2952.0 LOG TYPE:
SOURCE: SKELLY OC, WILSON E E 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
8.0	BOND	CARTHAGE	LIMESTONE	-	424.0
-397.0	CARBONDALE	HERRIN	COAL	-	829.0

MAPID: 12101919000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 1N 4E SECTION: 36 QUARTERS/FOOTAGES: 330' S line, 330' W line of SE SW
QUADRANGLE: SHIELDS LONGITUDE: -88.712002 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.475892 DATE COLLECTED:
SURFACE ELEVATION (FT.): 481.0 LOGGED (FT.): 1110.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-1.0	BOND	CARTHAGE	LIMESTONE	9.0	482.0
-176.0	MODESTO	WEST FRANKLIN	LIMESTONE	5.0	657.0
-449.0	CARBONDALE	BRIAR HILL	COAL	3.5	930.0
-468.0	CARBONDALE	SPRINGFIELD	COAL	4.0	949.0
-540.0	CARBONDALE	HOUCHIN CREEK	COAL	2.5	1021.0
-629.0	CARBONDALE	COLCHESTER	COAL	-	1110.0

MAPID: 12101399000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 2N 1E SECTION: 1 QUARTERS/FOOTAGES: 330' S line, 330' W line of NW NW
QUADRANGLE: FAIRMAN LONGITUDE: -89.048538 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.64608 DATE COLLECTED: 0 / 0 / 1938
SURFACE ELEVATION (FT.): 533.0 LOGGED (FT.): 2131.0 LOG TYPE:
SOURCE: RICHLND CO, BEACH T R 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
196.0	BOND	CARTHAGE	LIMESTONE	-	337.0
-200.0	CARBONDALE	HERRIN	COAL	-	733.0

MAPID: 12101399000C VERSION: 2 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 2N 1E SECTION: 1 QUARTERS/FOOTAGES: 330' S line, 330' W line of NW NW
QUADRANGLE: FAIRMAN LONGITUDE: -89.048538 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.64608 DATE COLLECTED:
SURFACE ELEVATION (FT.): 533.0 LOGGED (FT.): 784.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: POOR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
197.0	BOND	CARTHAGE	LIMESTONE	12.0	336.0
-139.0	MODESTO	PIASA	LIMESTONE	8.0	672.0
-200.0	CARBONDALE	HERRIN	COAL	5.5	733.0
-247.0	CARBONDALE	SPRINGFIELD	COAL	4.0	780.0

MAPID: 12101485000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 2N 1E SECTION: 1 QUARTERS/FOOTAGES: 330' N line, 330' W line of SE
QUADRANGLE: FAIRMAN LONGITUDE: -89.039287 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.640591 DATE COLLECTED:
SURFACE ELEVATION (FT.): 542.0 LOGGED (FT.): 858.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
196.0	BOND	CARTHAGE	LIMESTONE	12.0	346.0
-138.0	MODESTO	PIASA	LIMESTONE	5.0	680.0
-166.0	CARBONDALE	DANVILLE	COAL	2.0	708.0
-198.0	CARBONDALE	HERRIN	COAL	5.0	740.0
-241.0	CARBONDALE	SPRINGFIELD	COAL	4.0	783.0
-316.0	CARBONDALE	HOUCHIN CREEK	COAL	-	858.0

MAPID: 12101485000C VERSION: 2 PROJECT: ROOF STUDY

COUNTY: MARION TWP/RNG: 2N 1E SECTION: 1 QUARTERS/FOOTAGES: 330' N line, 330' W line of SE

QUADRANGLE: FAIRMAN LONGITUDE: -89.039287 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.640591 DATE COLLECTED:

SURFACE ELEVATION (FT.): 542.0 LOGGED (FT.): 745.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-138.0	MODESTO	PIASA	LIMESTONE	5.0	680.0
-143.0	MODESTO		SHALE	23.0	685.0
-166.0	CARBONDALE	DANVILLE	COAL	2.5	708.0
-168.5	CARBONDALE		SHALE	3.5	710.5
-172.0	CARBONDALE		SHALE	3.0	714.0
-175.0	CARBONDALE	BANKSTON FORK	LIMESTONE	3.0	717.0
-178.0	CARBONDALE	BANKSTON FORK	SHALE	4.0	720.0
-182.0	CARBONDALE	BANKSTON FORK	LIMESTONE	4.0	724.0
-186.0	CARBONDALE	LAWSON	SHALE	4.5	728.0
-190.5	CARBONDALE	BRERETON	LIMESTONE	5.5	732.5
-196.0	CARBONDALE	ANNA	BLACK SHALE	2.5	738.0
-198.0	CARBONDALE	HERRIN	COAL	5.0	740.0

MAPID: 12101485000C VERSION: 3 PROJECT: CIRC 164

COUNTY: MARION TWP/RNG: 2N 1E SECTION: 1 QUARTERS/FOOTAGES: 330' N line, 330' W line of SE

QUADRANGLE: FAIRMAN LONGITUDE: -89.039287 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.640591 DATE COLLECTED: 0 / 0 / 1945

SURFACE ELEVATION (FT.): 542.0 LOGGED (FT.): 2160.0 LOG TYPE:

SOURCE: BUEL&DORAN, SLOAN ETAL 1 WELL TYPE: Oil and Gas Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
196.0	BOND	CARTHAGE	LIMESTONE	-	346.0
-198.0	CARBONDALE	HERRIN	COAL	-	740.0

MAPID: 12101902000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 2N 1E SECTION: 2 QUARTERS/FOOTAGES: 330' N line, 330' W line of NE NW
QUADRANGLE: FAIRMAN LONGITUDE: -89.062563 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.647812 DATE COLLECTED:
SURFACE ELEVATION (FT.): 532.0 LOGGED (FT.): 861.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
247.0	BOND	CARTHAGE	LIMESTONE	10.0	285.0
-86.0	MODESTO	PIASA	LIMESTONE	7.0	618.0
-117.0	CARBONDALE	DANVILLE	COAL	1.5	649.0
-149.0	CARBONDALE	HERRIN	COAL	5.0	681.0
-189.0	CARBONDALE	SPRINGFIELD	COAL	3.0	721.0
-255.0	CARBONDALE	HOUCHIN CREEK	COAL	-	787.0
-329.0	CARBONDALE	COLCHESTER	COAL	-	861.0

MAPID: 12103148000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 2N 1E SECTION: 2 QUARTERS/FOOTAGES: 330' N line, 990' W line of SE
QUADRANGLE: FAIRMAN LONGITUDE: -89.055591 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.640812 DATE COLLECTED:
SURFACE ELEVATION (FT.): 541.0 LOGGED (FT.): 879.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
232.0	BOND	CARTHAGE	LIMESTONE	9.0	309.0
-127.0	CARBONDALE	DANVILLE	COAL	2.0	668.0
-157.0	CARBONDALE	HERRIN	COAL	5.0	698.0
-203.0	CARBONDALE	SPRINGFIELD	COAL	3.5	744.0
-268.0	CARBONDALE	HOUCHIN CREEK	COAL	-	809.0
-338.0	CARBONDALE	COLCHESTER	COAL	-	879.0

MAPID: 12103148000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: MARION TWP/RNG: 2N 1E SECTION: 2 QUARTERS/FOOTAGES: 330' N line, 990' W line of SE
QUADRANGLE: FAIRMAN LONGITUDE: -89.055591 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.640812 DATE COLLECTED:
SURFACE ELEVATION (FT.): 541.0 LOGGED (FT.): 702.5 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
-101.0	MODESTO	PIASA	LIMESTONE	3.5	642.0
-104.5	MODESTO		SHALE	13.0	645.5
-117.5	CARBONDALE	DANVILLE	BONE COAL	1.0	658.5
-118.5	CARBONDALE		SHALE	8.0	659.5
-126.5	CARBONDALE		SHALE	1.0	667.5
-127.5	CARBONDALE	ALLENBY	COAL	2.0	668.5
-129.5	CARBONDALE		SHALE	7.5	670.5
-137.0	CARBONDALE	BANKSTON FORK	LIMESTONE	2.5	678.0
-139.5	CARBONDALE	LAWSON	SHALE	4.5	680.5
-144.0	CARBONDALE	CONANT	LIMESTONE	2.0	685.0
-146.0	CARBONDALE		SHALE	3.5	687.0
-149.5	CARBONDALE	BRERETON	LIMESTONE	7.0	690.5
-156.5	CARBONDALE	ANNA	BLACK SHALE	2.0	697.5
-157.0	CARBONDALE	HERRIN	COAL	4.5	698.0

MAPID: 12103148000C VERSION: 3

PROJECT: J JOHNSON

COUNTY: MARION TWP/RNG: 2N 1E SECTION: 2 QUARTERS/FOOTAGES: 330' N line, 990' W line of SE
QUADRANGLE: FAIRMAN LONGITUDE: -89.055591 GEOLOGIST: J JOHNSON
CONFIDENTIAL: N LATITUDE: 38.640812 DATE COLLECTED:
SURFACE ELEVATION (FT.): 541.0 LOGGED (FT.): 1669.0 LOG TYPE: Electric Log
SOURCE: FISCHER, J. O. & C. M. WELL TYPE: Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-204.0	CARBONDALE	SPRINGFIELD	COAL	-	745.0
-337.0	CARBONDALE	COLCHESTER	COAL	-	878.0
-1128.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1669.0

MAPID: 12101035000C

VERSION: 1

PROJECT: CIRC 164

COUNTY: MARION

TWP/RNG: 2N 1E

SECTION: 4

QUARTERS/FOOTAGES: SW SW NW

QUADRANGLE: FAIRMAN

LONGITUDE: -89.103739

GEOLOGIST:

CONFIDENTIAL: N

LATITUDE: 38.642773

DATE COLLECTED: 0 / 0 / 1939

SURFACE ELEVATION (FT.): 517.0

LOGGED (FT.): 3075.0

LOG TYPE:

SOURCE: PRAY OC, LANGNFLD J 1

WELL TYPE: Oil and Gas Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
308.0	BOND	CARTHAGE	LIMESTONE	-	209.0
-77.0	CARBONDALE	HERRIN	COAL	-	594.0

MAPID: 12101036000C

VERSION: 1

PROJECT: CGT-ECILL

COUNTY: MARION

TWP/RNG: 2N 1E

SECTION: 4

QUARTERS/FOOTAGES: 25' S line, 238' E line of NW SE SW

QUADRANGLE: FAIRMAN

LONGITUDE: -89.098836

GEOLOGIST: C TREWORGY

CONFIDENTIAL: N

LATITUDE: 38.636431

DATE COLLECTED:

SURFACE ELEVATION (FT.): 523.0

LOGGED (FT.): 625.0

LOG TYPE: Electric Log

SOURCE:

WELL TYPE: Oil and Gas Test

COMMENT: POOR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
319.0	BOND	CARTHAGE	LIMESTONE	11.0	204.0
-97.0	CARBONDALE	SPRINGFIELD	COAL	5.0	620.0

MAPID: 12101036000C VERSION: 2 PROJECT: ROOF STUDY

COUNTY: MARION TWP/RNG: 2N 1E SECTION: 4 QUARTERS/FOOTAGES: 25' S line, 238' E line of NW SE SW

QUADRANGLE: FAIRMAN LONGITUDE: -89.098836 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.636431 DATE COLLECTED:

SURFACE ELEVATION (FT.): 523.0 LOGGED (FT.): 586.0 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
-1.0	MODESTO	PIASA	LIMESTONE	6.0	524.0
-7.0	MODESTO		SHALE	10.0	530.0
-17.0	CARBONDALE	DANVILLE	BONE COAL	0.5	540.0
-17.5	CARBONDALE		SHALE	10.0	540.5
-27.5	CARBONDALE		SHALE	1.0	550.5
-28.5	CARBONDALE	ALLENBY	COAL	3.5	551.5
-32.0	CARBONDALE		SHALE	3.0	555.0
-35.0	CARBONDALE	BANKSTON FORK	LIMESTONE	4.0	558.0
-39.0	CARBONDALE	LAWSON	SHALE	5.0	562.0
-44.0	CARBONDALE		CALCAREOUS SHALE	5.0	567.0
-49.0	CARBONDALE	BRERETON	LIMESTONE	6.5	572.0
-55.5	CARBONDALE	ANNA	BLACK SHALE	2.0	578.5
-58.0	CARBONDALE	HERRIN	COAL	5.0	581.0

MAPID: 12101036000C VERSION: 3 PROJECT: CIRC 164

COUNTY: MARION TWP/RNG: 2N 1E SECTION: 4 QUARTERS/FOOTAGES: 25' S line, 238' E line of NW SE SW

QUADRANGLE: FAIRMAN LONGITUDE: -89.098836 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.636431 DATE COLLECTED: 0 / 0 / 1939

SURFACE ELEVATION (FT.): 520.0 LOGGED (FT.): 2984.0 LOG TYPE:

SOURCE: MENHLL ETL, ROBINSON 2 WELL TYPE: Oil and Gas Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
319.0	BOND	CARTHAGE	LIMESTONE	-	201.0
-58.0	CARBONDALE	HERRIN	COAL	-	578.0

MAPID: 12101037000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 2N 1E SECTION: 4 QUARTERS/FOOTAGES: 61' S line, 39' W line of SE SW
QUADRANGLE: FAIRMAN LONGITUDE: -89.100172 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.634732 DATE COLLECTED:
SURFACE ELEVATION (FT.): 523.0 LOGGED (FT.): 620.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: POOR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
317.0	BOND	CARTHAGE	LIMESTONE	14.0	206.0	
-93.0	CARBONDALE	SPRINGFIELD	COAL	4.0	616.0	

MAPID: 12125948000C VERSION: 1 PROJECT: J JOHNSON
COUNTY: MARION TWP/RNG: 2N 1E SECTION: 4 QUARTERS/FOOTAGES: 330' N line, 330' W line of SE SW
QUADRANGLE: FAIRMAN LONGITUDE: -89.099134 GEOLOGIST: J JOHNSON
CONFIDENTIAL: N LATITUDE: 38.63726 DATE COLLECTED:
SURFACE ELEVATION (FT.): 526.0 LOGGED (FT.): 2950.0 LOG TYPE: Electric Log
SOURCE: GOOSE CREEK MNG WELL TYPE: Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-94.0	CARBONDALE	SPRINGFIELD	COAL	-	620.0	
-182.0	CARBONDALE	COLCHESTER	COAL	-	708.0	
-852.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1378.0	
-2344.0	DEVONIAN	UPPER DEVONIAN S	UNCLASSIFIED	-	2870.0	TOP OF NEW ALBANY
-2356.0	DEVONIAN	GRASSY CREEK	UNCLASSIFIED	-	2882.0	
-2424.0	DEVONIAN	BASE UPPER DEVON	UNCLASSIFIED	-	2950.0	BASE OF NEW ALBANY

MAPID: 12100021000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 2N 1E SECTION: 5 QUARTERS/FOOTAGES: NW SE SW
QUADRANGLE: FAIRMAN LONGITUDE: -89.11753 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.637182 DATE COLLECTED: 0 / 0 / 1913
SURFACE ELEVATION (FT.): 509.0 LOGGED (FT.): 1550.0 LOG TYPE:
SOURCE: OHIO OIL, WARFIELD B 7 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
309.0	BOND	CARTHAGE	LIMESTONE	-	200.0	
-91.0	CARBONDALE	HERRIN	COAL	-	600.0	

MAPID: 12101206000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 2N 1E SECTION: 5 QUARTERS/FOOTAGES: SW NE SE
QUADRANGLE: FAIRMAN LONGITUDE: -89.108336 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.639103 DATE COLLECTED: 0 / 0 / 1914
SURFACE ELEVATION (FT.): 513.3 LOGGED (FT.): 1559.0 LOG TYPE:
SOURCE: SOWSTRN OG, STEIN L 10 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-74.7	CARBONDALE	HERRIN	COAL	-	588.0	

MAPID: 12101647000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 2N 1E SECTION: 5 QUARTERS/FOOTAGES: 330' S line, 990' E line
QUADRANGLE: FAIRMAN LONGITUDE: -89.108394 GEOLOGIST: C TREWORYG
CONFIDENTIAL: N LATITUDE: 38.635475 DATE COLLECTED:
SURFACE ELEVATION (FT.): 525.0 LOGGED (FT.): 743.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
328.0	BOND	CARTHAGE	LIMESTONE	12.0	197.0	
0.0	MODESTO	PIASA	LIMESTONE	3.0	525.0	
-20.0	CARBONDALE	DANVILLE	COAL	-	545.0	
-49.0	CARBONDALE	HERRIN	COAL	4.5	574.0	
-84.0	CARBONDALE	SPRINGFIELD	COAL	3.5	609.0	
-135.0	CARBONDALE	HOUCHIN CREEK	COAL	-	660.0	
-218.0	CARBONDALE	COLCHESTER	COAL	-	743.0	

MAPID: 12101647000C **VERSION:** 2 **PROJECT:** ROOF STUDY
COUNTY: MARION **TWP/RNG:** 2N 1E **SECTION:** 5 **QUARTERS/FOOTAGES:** 330' S line, 990' E line
QUADRANGLE: FAIRMAN **LONGITUDE:** -89.108394 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.635475 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 522.0 **LOGGED (FT.):** 579.0 **LOG TYPE:** Electric Log
SOURCE: **WELL TYPE:** Oil and Gas Test
COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-3.0	MODESTO	PIASA	LIMESTONE & SHALE	3.0	525.0	
-6.0	MODESTO		SHALE	24.0	528.0	
-30.0	CARBONDALE	BANKSTON FORK	LIMESTONE	3.5	552.0	
-33.5	CARBONDALE	BANKSTON FORK	SHALE	2.5	555.5	
-36.0	CARBONDALE	BANKSTON FORK	LIMESTONE	2.0	558.0	
-38.0	CARBONDALE	LAWSON	SHALE	5.5	560.0	
-43.5	CARBONDALE	BRERETON	LIMESTONE	8.5	565.5	
-52.0	CARBONDALE	ANNA	BLACK SHALE	2.5	574.0	
-53.0	CARBONDALE	HERRIN	COAL	4.0	575.0	

MAPID: 12126602000C **VERSION:** 1 **PROJECT:** J JOHNSON
COUNTY: MARION **TWP/RNG:** 2N 1E **SECTION:** 5 **QUARTERS/FOOTAGES:** 330' S line, 330' E line of SW NW
QUADRANGLE: FAIRMAN **LONGITUDE:** -89.119747 **GEOLOGIST:** J JOHNSON
CONFIDENTIAL: N **LATITUDE:** 38.642556 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 512.0 **LOGGED (FT.):** 2989.0 **LOG TYPE:** Electric Log
SOURCE: WYMAN, ROSS & NORMA R. **WELL TYPE:** Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-140.0	CARBONDALE	SPRINGFIELD	COAL	-	652.0	
-876.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1388.0	
-2398.0	DEVONIAN	UPPER DEVONIAN S	UNCLASSIFIED	-	2910.0	TOP OF NEW ALBANY
-2412.0	DEVONIAN	GRASSY CREEK	UNCLASSIFIED	-	2924.0	
-2477.0	DEVONIAN	BASE UPPER DEVON	UNCLASSIFIED	-	2989.0	BASE OF NEW ALBANY

MAPID: 12101804000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 2N 1E SECTION: 6 QUARTERS/FOOTAGES: 330' S line, 330' W line
QUADRANGLE: BOULDER LONGITUDE: -89.138848 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.635475 DATE COLLECTED:
SURFACE ELEVATION (FT.): 494.0 LOGGED (FT.): 749.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: POOR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
296.0	BOND	CARTHAGE	LIMESTONE	11.0	198.0
-36.0	CARBONDALE	DANVILLE	COAL	-	530.0
-120.0	CARBONDALE	SPRINGFIELD	COAL	3.5	614.0
-179.0	CARBONDALE	HOUCHIN CREEK	COAL	-	673.0
-255.0	CARBONDALE	COLCHESTER	COAL	-	749.0

MAPID: 12101804000C VERSION: 2 PROJECT: BLM
COUNTY: MARION TWP/RNG: 2N 1E SECTION: 6 QUARTERS/FOOTAGES: 330' S line, 330' W line
QUADRANGLE: BOULDER LONGITUDE: -89.138848 GEOLOGIST: TREWORGY,J
CONFIDENTIAL: N LATITUDE: 38.635475 DATE COLLECTED: 4 / 0 / 1958
SURFACE ELEVATION (FT.): 494.0 LOGGED (FT.): 749.0 LOG TYPE: Electric Log
SOURCE: J. E. CARTER WELL TYPE: Oil and Gas Test
COMMENT: CORRELATED BY C. TREWORGY

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
494.0			UNKNOWN	530.0	0.0
-36.0	CARBONDALE	DANVILLE	COAL	-	530.0
-36.0	CARBONDALE		ROCK	84.0	530.0
-120.0	CARBONDALE	SPRINGFIELD	COAL	3.5	614.0
-123.5	CARBONDALE		ROCK	55.5	617.5
-179.0	CARBONDALE	HOUCHIN CREEK	COAL	-	673.0
-179.0	CARBONDALE		ROCK	76.0	673.0
-255.0	CARBONDALE	COLCHESTER	COAL	-	749.0

MAPID: 12103163000C VERSION: 1 PROJECT: ROOF STUDY
COUNTY: MARION TWP/RNG: 2N 1E SECTION: 6 QUARTERS/FOOTAGES: 2636' N line, 2166' W line
QUADRANGLE: BOULDER LONGITUDE: -89.132175 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.641547 DATE COLLECTED:
SURFACE ELEVATION (FT.): 509.0 LOGGED (FT.): 597.5 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
-27.0	MODESTO	PIASA	LIMESTONE & SHALE	10.0	536.0
-37.0	MODESTO		SILTY SHALE	26.0	546.0
-63.0	CARBONDALE	BANKSTON FORK	LIMESTONE	2.5	572.0
-65.5	CARBONDALE	BANKSTON FORK	SHALE	2.0	574.5
-67.5	CARBONDALE	BANKSTON FORK	LIMESTONE	2.0	576.5
-69.5	CARBONDALE	LAWSON	SHALE	3.0	578.5
-72.5	CARBONDALE	CONANT	LIMESTONE	1.5	581.5
-74.0	CARBONDALE		SHALE	1.5	583.0
-75.5	CARBONDALE	BRERETON	LIMESTONE	5.5	584.5
-81.0	CARBONDALE	ANNA	BLACK SHALE	3.0	590.0
-84.0	CARBONDALE	HERRIN	COAL	4.5	593.0

MAPID: 12100022000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 2N 1E SECTION: 7 QUARTERS/FOOTAGES: NE NE NE
QUADRANGLE: FAIRMAN LONGITUDE: -89.124501 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.633527 DATE COLLECTED: 0 / 0 / 1900
SURFACE ELEVATION (FT.): 502.0 LOGGED (FT.): 1572.0 LOG TYPE:
SOURCE: LINDEN OC, CARMCHAL C 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-73.0	CARBONDALE	HERRIN	COAL	-	575.0

MAPID: 12100023000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 2N 1E SECTION: 7 QUARTERS/FOOTAGES: SW NW SE
QUADRANGLE: CENTRALIA WEST LONGITUDE: -89.131591 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.624459 DATE COLLECTED: 0 / 0 / 1912
SURFACE ELEVATION (FT.): 508.0 LOGGED (FT.): 1587.0 LOG TYPE:
SOURCE: OHIO OIL, SEIDL HRS 2 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
293.0	BOND	CARTHAGE	LIMESTONE	-	215.0
-100.0	CARBONDALE	HERRIN	COAL	-	608.0

MAPID: 12101696000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 2N 1E SECTION: 7 QUARTERS/FOOTAGES: 330' N line, 330' E line of NE NE
QUADRANGLE: FAIRMAN LONGITUDE: -89.124501 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.633527 DATE COLLECTED:
SURFACE ELEVATION (FT.): 506.0 LOGGED (FT.): 750.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
305.0	BOND	CARTHAGE	LIMESTONE	11.0	201.0
-34.0	CARBONDALE	DANVILLE	COAL	-	540.0
-69.0	CARBONDALE	HERRIN	COAL	5.0	575.0
-104.0	CARBONDALE	SPRINGFIELD	COAL	4.0	610.0
-159.0	CARBONDALE	HOUCHIN CREEK	COAL	-	665.0
-244.0	CARBONDALE	COLCHESTER	COAL	-	750.0

MAPID: 12101696000C VERSION: 2 PROJECT: ROOF STUDY
COUNTY: MARION TWP/RNG: 2N 1E SECTION: 7 QUARTERS/FOOTAGES: 330' N line, 330' E line of NE NE
QUADRANGLE: FAIRMAN LONGITUDE: -89.124501 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.633527 DATE COLLECTED:
SURFACE ELEVATION (FT.): 506.0 LOGGED (FT.): 580.5 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
-54.0	CARBONDALE	CONANT	LIMESTONE	2.5	560.0
-56.5	CARBONDALE		SHALE	3.0	562.5
-59.5	CARBONDALE	BRERETON	LIMESTONE	8.0	565.5
-67.5	CARBONDALE	ANNA	BLACK SHALE	2.5	573.5
-70.0	CARBONDALE	HERRIN	COAL	4.5	576.0

MAPID: 12101951000C VERSION: 1 PROJECT: J JOHNSON
COUNTY: MARION TWP/RNG: 2N 1E SECTION: 7 QUARTERS/FOOTAGES: 550' N line, 550' E line
QUADRANGLE: BOULDER LONGITUDE: -89.125282 GEOLOGIST: J JOHNSON
CONFIDENTIAL: N LATITUDE: 38.632925 DATE COLLECTED:
SURFACE ELEVATION (FT.): 504.0 LOGGED (FT.): 2978.0 LOG TYPE: Electric Log
SOURCE: BROWNING, H. L. WELL TYPE: Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
-117.0	CARBONDALE	SPRINGFIELD	COAL	-	621.0	
-244.0	CARBONDALE	COLCHESTER	COAL	-	748.0	
-872.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1376.0	
-2396.0	DEVONIAN	UPPER DEVONIAN S	UNCLASSIFIED	-	2900.0	TOP OF NEW ALBANY
-2403.0	DEVONIAN	GRASSY CREEK	UNCLASSIFIED	-	2907.0	
-2474.0	DEVONIAN	BASE UPPER DEVON	UNCLASSIFIED	-	2978.0	BASE OF NEW ALBANY

MAPID: 12100024000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 2N 1E SECTION: 8 QUARTERS/FOOTAGES: SE NE NW
QUADRANGLE: FAIRMAN LONGITUDE: -89.115299 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.631752 DATE COLLECTED: 0 / 0 / 1910
SURFACE ELEVATION (FT.): 514.9 LOGGED (FT.): 1566.0 LOG TYPE:
SOURCE: TREAT&CRAW, BENOIST 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
322.9	BOND	CARTHAGE	LIMESTONE	-	192.0	
-55.1	CARBONDALE	HERRIN	COAL	-	570.0	

MAPID: 12100027000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 2N 1E SECTION: 8 QUARTERS/FOOTAGES: SW SE NW
QUADRANGLE: FAIRMAN LONGITUDE: -89.117646 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.628083 DATE COLLECTED: 0 / 0 / 1910
SURFACE ELEVATION (FT.): 512.0 LOGGED (FT.): 1560.0 LOG TYPE:
SOURCE: TREAT&CRAW, BENOIST 4 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
302.0	BOND	CARTHAGE	LIMESTONE	-	210.0	
-73.0	CARBONDALE	HERRIN	COAL	-	585.0	

MAPID: 12100475000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 2N 1E SECTION: 8 QUARTERS/FOOTAGES: NE NE NW
QUADRANGLE: FAIRMAN LONGITUDE: -89.115279 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.633585 DATE COLLECTED: 0 / 0 / 1913
SURFACE ELEVATION (FT.): 515.8 LOGGED (FT.): 1556.0 LOG TYPE:
SOURCE: OHIO OIL, BENOIST 9 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
315.8	BOND	CARTHAGE	LIMESTONE	-	200.0
-64.2	CARBONDALE	HERRIN	COAL	-	580.0

MAPID: 12101039000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 2N 1E SECTION: 8 QUARTERS/FOOTAGES: 1012' N line, 30' E line of NW
QUADRANGLE: FAIRMAN LONGITUDE: -89.114254 GEOLOGIST: C TREWORYG
CONFIDENTIAL: N LATITUDE: 38.631718 DATE COLLECTED:
SURFACE ELEVATION (FT.): 515.0 LOGGED (FT.): 607.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: POOR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
327.0	BOND	CARTHAGE	LIMESTONE	13.0	188.0
-56.0	CARBONDALE	HERRIN	COAL	-	571.0
-92.0	CARBONDALE	SPRINGFIELD	COAL	-	607.0

MAPID: 12101039000C VERSION: 2 PROJECT: ROOF STUDY
COUNTY: MARION TWP/RNG: 2N 1E SECTION: 8 QUARTERS/FOOTAGES: 1012' N line, 30' E line of NW
QUADRANGLE: FAIRMAN LONGITUDE: -89.114254 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.631718 DATE COLLECTED:
SURFACE ELEVATION (FT.): 515.0 LOGGED (FT.): 578.0 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
-35.0	CARBONDALE	BANKSTON FORK	LIMESTONE	3.0	550.0
-38.0	CARBONDALE	BANKSTON FORK	SHALE	1.5	553.0
-39.5	CARBONDALE	BANKSTON FORK	LIMESTONE	2.5	554.5
-42.0	CARBONDALE	LAWSON	SHALE	4.5	557.0
-46.5	CARBONDALE	BRERETON	LIMESTONE	8.5	561.5
-55.0	CARBONDALE	ANNA	BLACK SHALE	3.0	570.0
-58.0	CARBONDALE	HERRIN	COAL	5.0	573.0

MAPID: 12101392000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 2N 1E SECTION: 8 QUARTERS/FOOTAGES: SE NW SE
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.11076 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.624418 DATE COLLECTED: 0 / 0 / 1944
SURFACE ELEVATION (FT.): 512.0 LOGGED (FT.): 1022.0 LOG TYPE:
SOURCE: SOWSTRN OG, BENOIST 1SWD WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
327.0	BOND	CARTHAGE	LIMESTONE	-	185.0
-58.0	CARBONDALE	HERRIN	COAL	-	570.0

MAPID: 12101443000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 2N 1E SECTION: 8 QUARTERS/FOOTAGES: 1200' N line, 1185' W line of NE
QUADRANGLE: FAIRMAN LONGITUDE: -89.10998 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.631237 DATE COLLECTED: 0 / 0 / 1945
SURFACE ELEVATION (FT.): 515.0 LOGGED (FT.): 2954.0 LOG TYPE:
SOURCE: SOWSTRN OG, BENOIST 28 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
332.0	BOND	CARTHAGE	LIMESTONE	-	183.0
-50.0	CARBONDALE	HERRIN	COAL	-	565.0

MAPID: 12101443000C VERSION: 2 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 2N 1E SECTION: 8 QUARTERS/FOOTAGES: 1200' N line, 1185' W line of NE
QUADRANGLE: FAIRMAN LONGITUDE: -89.10998 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.631237 DATE COLLECTED:
SURFACE ELEVATION (FT.): 518.0 LOGGED (FT.): 655.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: POOR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
323.0	BOND	CARTHAGE	LIMESTONE	-	195.0
-50.0	CARBONDALE	HERRIN	COAL	-	568.0
-86.0	CARBONDALE	SPRINGFIELD	COAL	4.0	604.0
-137.0	CARBONDALE	HOUCHIN CREEK	COAL	-	655.0

MAPID: 12101443000C VERSION: 3 PROJECT: J JOHNSON
COUNTY: MARION TWP/RNG: 2N 1E SECTION: 8 QUARTERS/FOOTAGES: 1200' N line, 1185' W line of NE
QUADRANGLE: FAIRMAN LONGITUDE: -89.10998 GEOLOGIST: J JOHNSON
CONFIDENTIAL: N LATITUDE: 38.631237 DATE COLLECTED:
SURFACE ELEVATION (FT.): 518.0 LOGGED (FT.): 2840.0 LOG TYPE: Electric Log
SOURCE: SOUTHWESTERN OIL & GAS WELL TYPE: Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-87.0	CARBONDALE	SPRINGFIELD	COAL	-	605.0	
-207.0	CARBONDALE	COLCHESTER	COAL	-	725.0	
-825.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1343.0	
-2307.0	DEVONIAN	UPPER DEVONIAN S	UNCLASSIFIED	-	2825.0	TOP OF NEW ALBANY
-2322.0	DEVONIAN	GRASSY CREEK	UNCLASSIFIED	-	2840.0	

MAPID: 12101800000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 2N 1E SECTION: 8 QUARTERS/FOOTAGES: 330' S line, 330' E line of NW NW
QUADRANGLE: FAIRMAN LONGITUDE: -89.119917 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.631723 DATE COLLECTED:
SURFACE ELEVATION (FT.): 511.0 LOGGED (FT.): 765.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
301.0	BOND	CARTHAGE	LIMESTONE	10.0	210.0	
-35.0	CARBONDALE	DANVILLE	COAL	-	546.0	
-108.0	CARBONDALE	SPRINGFIELD	COAL	3.0	619.0	
-161.0	CARBONDALE	HOUCHIN CREEK	COAL	-	672.0	
-254.0	CARBONDALE	COLCHESTER	COAL	-	765.0	

MAPID: 12100466000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 2N 1E SECTION: 9 QUARTERS/FOOTAGES: NW NW SW
QUADRANGLE: FAIRMAN LONGITUDE: -89.103824 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.626264 DATE COLLECTED: 0 / 0 / 1900
SURFACE ELEVATION (FT.): 514.0 LOGGED (FT.): 1941.0 LOG TYPE:
SOURCE: SOWSTRN OG, COMBS 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-91.0	CARBONDALE	HERRIN	COAL	-	605.0	

MAPID: 12100483000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 2N 1E SECTION: 9 QUARTERS/FOOTAGES: 73' N line, 365' W line of NE NW
QUADRANGLE: FAIRMAN LONGITUDE: -89.099027 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.634353 DATE COLLECTED:
SURFACE ELEVATION (FT.): 523.0 LOGGED (FT.): 626.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: POOR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
308.0	BOND	CARTHAGE	LIMESTONE	11.0	215.0
-62.0	CARBONDALE	HERRIN	COAL	-	585.0
-99.0	CARBONDALE	SPRINGFIELD	COAL	4.0	622.0

MAPID: 12100483000C VERSION: 2 PROJECT: ROOF STUDY
COUNTY: MARION TWP/RNG: 2N 1E SECTION: 9 QUARTERS/FOOTAGES: 73' N line, 365' W line of NE NW
QUADRANGLE: FAIRMAN LONGITUDE: -89.099027 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.634353 DATE COLLECTED:
SURFACE ELEVATION (FT.): 523.0 LOGGED (FT.): 589.5 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
-46.5	CARBONDALE	BANKSTON FORK	LIMESTONE & SHALE	4.0	569.5
-50.5	CARBONDALE	LAWSON	SHALE	3.0	573.5
-53.5	CARBONDALE	BRERETON	LIMESTONE	7.5	576.5
-61.0	CARBONDALE	HERRIN	COAL	5.5	584.0

MAPID: 12100483000C VERSION: 3 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 2N 1E SECTION: 9 QUARTERS/FOOTAGES: 73' N line, 365' W line of NE NW
QUADRANGLE: FAIRMAN LONGITUDE: -89.099027 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.634353 DATE COLLECTED: 0 / 0 / 1939
SURFACE ELEVATION (FT.): 520.0 LOGGED (FT.): 2987.0 LOG TYPE:
SOURCE: BIG 4 OG, CHAFFIN J 2 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
313.0	BOND	CARTHAGE	LIMESTONE	-	207.0
-59.0	CARBONDALE	HERRIN	COAL	-	579.0

MAPID: 12126004000C VERSION: 1 PROJECT: J JOHNSON
COUNTY: MARION TWP/RNG: 2N 1E SECTION: 9 QUARTERS/FOOTAGES: 330' N line, 330' W line of NE NW
QUADRANGLE: FAIRMAN LONGITUDE: -89.099154 GEOLOGIST: J JOHNSON
CONFIDENTIAL: N LATITUDE: 38.633644 DATE COLLECTED:
SURFACE ELEVATION (FT.): 522.0 LOGGED (FT.): 2960.0 LOG TYPE: Electric Log
SOURCE: GOOSE CREEK MNG WELL TYPE: Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
-98.0	CARBONDALE	SPRINGFIELD	COAL	-	620.0	
-238.0	CARBONDALE	COLCHESTER	COAL	-	760.0	
-876.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1398.0	
-2358.0	DEVONIAN	UPPER DEVONIAN S	UNCLASSIFIED	-	2880.0	TOP OF NEW ALBANY
-2369.0	DEVONIAN	GRASSY CREEK	UNCLASSIFIED	-	2891.0	
-2438.0	DEVONIAN	BASE UPPER DEVON	UNCLASSIFIED	-	2960.0	BASE OF NEW ALBANY

MAPID: 12126212000C VERSION: 1 PROJECT: CONF
COUNTY: MARION TWP/RNG: 2N 1E SECTION: 9 QUARTERS/FOOTAGES: NE NW
QUADRANGLE: FAIRMAN LONGITUDE: -89.098026 GEOLOGIST: LOG BOOK
CONFIDENTIAL: N LATITUDE: 38.632704 DATE COLLECTED: 5 / 5 / 1979
SURFACE ELEVATION (FT.): 522.0 LOGGED (FT.): 640.0 LOG TYPE: Survey Core Study
SOURCE: VIICA COAL ASSOCIATION 921-1AB WELL TYPE: Coal Test
COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
-95.3	CARBONDALE	SPRINGFIELD	COAL	4.3	617.3	

MAPID: 12100485000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 2N 1E SECTION: 10 QUARTERS/FOOTAGES: NE NE NW
QUADRANGLE: FAIRMAN LONGITUDE: -89.078556 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.633631 DATE COLLECTED: 0 / 0 / 1939
SURFACE ELEVATION (FT.): 524.0 LOGGED (FT.): 3330.0 LOG TYPE:
SOURCE: FLORNCE OC, MEREDITH I 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
250.0	BOND	CARTHAGE	LIMESTONE	-	274.0	
-143.0	CARBONDALE	HERRIN	COAL	-	667.0	

MAPID: 12100486000C **VERSION:** 1 **PROJECT:** CIRC 164
COUNTY: MARION **TWP/RNG:** 2N 1E **SECTION:** 11 **QUARTERS/FOOTAGES:** SE SE SW NE
QUADRANGLE: FAIRMAN **LONGITUDE:** -89.055012 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.627569 **DATE COLLECTED:** 0 / 0 / 1938
SURFACE ELEVATION (FT.): 530.0 **LOGGED (FT.):** 2217.0 **LOG TYPE:**
SOURCE: FIRMAN F W, SUGGS 1 **WELL TYPE:** Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
238.0	BOND	CARTHAGE	LIMESTONE	-	292.0
-157.0	CARBONDALE	HERRIN	COAL	-	687.0

MAPID: 12100486000C **VERSION:** 2 **PROJECT:** ROOF STUDY
COUNTY: MARION **TWP/RNG:** 2N 1E **SECTION:** 11 **QUARTERS/FOOTAGES:** SE SE SW NE
QUADRANGLE: FAIRMAN **LONGITUDE:** -89.055012 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.627569 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 533.0 **LOGGED (FT.):** 695.5 **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
-91.0	MODESTO	PIASA	LIMESTONE	5.5	624.0
-96.5	MODESTO		SHALE	16.0	629.5
-112.5	CARBONDALE	DANVILLE	COAL	2.0	645.5
-114.5	CARBONDALE		SHALE	7.0	647.5
-121.5	CARBONDALE		SHALE	2.5	654.5
-124.0	CARBONDALE		COAL	3.0	657.0
-127.0	CARBONDALE	ALLENBY	DARK GRAY SHALE	2.5	660.0
-129.5	CARBONDALE		LIMESTONE	2.0	662.5
-131.5	CARBONDALE	BANKSTON FORK	SHALE	1.5	664.5
-133.0	CARBONDALE	BANKSTON FORK	LIMESTONE	4.0	666.0
-137.0	CARBONDALE	LAWSON	SHALE	5.0	670.0
-142.0	CARBONDALE	CONANT	LIMESTONE	2.0	675.0
-144.0	CARBONDALE		SHALE	2.5	677.0
-146.5	CARBONDALE		LIMESTONE	9.0	679.5
-155.5	CARBONDALE	ANNA	BLACK SHALE	1.5	688.5
-158.0	CARBONDALE	HERRIN	COAL	4.5	691.0

MAPID: 12103183000C VERSION: 1 PROJECT: J JOHNSON
COUNTY: MARION TWP/RNG: 2N 1E SECTION: 11 QUARTERS/FOOTAGES: 660' S line, 330' E line of SW
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.067085 GEOLOGIST: J JOHNSON
CONFIDENTIAL: N LATITUDE: 38.621522 DATE COLLECTED:
SURFACE ELEVATION (FT.): 529.0 LOGGED (FT.): 1718.0 LOG TYPE: Electric Log
SOURCE: CAVATAIO JOE W WELL TYPE: Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-202.0	CARBONDALE	SPRINGFIELD	COAL	-	731.0
-329.0	CARBONDALE	COLCHESTER	COAL	-	858.0
-1189.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1718.0

MAPID: 12103183000C VERSION: 2 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 2N 1E SECTION: 11 QUARTERS/FOOTAGES: 660' S line, 330' E line of SW
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.067085 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.621522 DATE COLLECTED:
SURFACE ELEVATION (FT.): 529.0 LOGGED (FT.): 860.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
236.0	BOND	CARTHAGE	LIMESTONE	11.0	293.0
-124.0	CARBONDALE	DANVILLE	COAL	2.5	653.0
-157.0	CARBONDALE	HERRIN	COAL	5.0	686.0
-200.0	CARBONDALE	SPRINGFIELD	COAL	4.0	729.0
-262.0	CARBONDALE	HOUCHIN CREEK	COAL	-	791.0
-331.0	CARBONDALE	COLCHESTER	COAL	-	860.0

MAPID: 12101486000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 2N 1E SECTION: 12 QUARTERS/FOOTAGES: 330' S line, 990' W line of NE
QUADRANGLE: FAIRMAN LONGITUDE: -89.037039 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.627869 DATE COLLECTED:
SURFACE ELEVATION (FT.): 541.0 LOGGED (FT.): 895.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
216.0	BOND	CARTHAGE	LIMESTONE	9.0	325.0
-141.0	CARBONDALE	DANVILLE	COAL	2.5	682.0
-176.0	CARBONDALE	HERRIN	COAL	6.0	717.0
-213.0	CARBONDALE	SPRINGFIELD	COAL	4.0	754.0
-275.0	CARBONDALE	HOUCHIN CREEK	COAL	-	816.0
-354.0	CARBONDALE	COLCHESTER	COAL	-	895.0

MAPID: 12101486000C VERSION: 2 PROJECT: ROOF STUDY

COUNTY: MARION TWP/RNG: 2N 1E SECTION: 12 QUARTERS/FOOTAGES: 330' S line, 990' W line of NE

QUADRANGLE: FAIRMAN LONGITUDE: -89.037039 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.627869 DATE COLLECTED:

SURFACE ELEVATION (FT.): 541.0 LOGGED (FT.): 723.0 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
-113.0	MODESTO	PIASA	LIMESTONE	5.0	654.0
-118.0	MODESTO		SHALE	10.0	659.0
-128.0	CARBONDALE	DANVILLE	BONE COAL	1.0	669.0
-129.0	CARBONDALE		SHALE	10.0	670.0
-139.0	CARBONDALE		SHALE	2.0	680.0
-141.0	CARBONDALE		COAL	3.0	682.0
-144.0	CARBONDALE		SHALE	5.0	685.0
-149.0	CARBONDALE		LIMESTONE	4.5	690.0
-153.5	CARBONDALE	BANKSTON FORK	SHALE	3.5	694.5
-157.0	CARBONDALE	BANKSTON FORK	LIMESTONE	5.0	698.0
-162.0	CARBONDALE	LAWSON	SHALE	4.5	703.0
-166.5	CARBONDALE	BRERETON	LIMESTONE	6.0	707.5
-172.5	CARBONDALE	ANNA	BLACK SHALE	3.0	713.5
-176.0	CARBONDALE	HERRIN	COAL	6.0	717.0

MAPID: 12101486000C VERSION: 3 PROJECT: CIRC 164

COUNTY: MARION TWP/RNG: 2N 1E SECTION: 12 QUARTERS/FOOTAGES: 330' S line, 990' W line of NE

QUADRANGLE: FAIRMAN LONGITUDE: -89.037039 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.627869 DATE COLLECTED: 0 / 0 / 1945

SURFACE ELEVATION (FT.): 541.0 LOGGED (FT.): 1933.0 LOG TYPE:

SOURCE: BUEL&DORAN, WOODWARD 1 WELL TYPE: Oil and Gas Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
217.0	BOND	CARTHAGE	LIMESTONE	-	324.0
-175.0	CARBONDALE	HERRIN	COAL	-	716.0

MAPID: 12101487000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 2N 1E SECTION: 12 QUARTERS/FOOTAGES: NE SW SE
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.037064 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.622391 DATE COLLECTED: 0 / 0 / 1945
SURFACE ELEVATION (FT.): 538.0 LOGGED (FT.): 1823.0 LOG TYPE:
SOURCE: SCHLY&SLKA, YOUNG M 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
223.0	BOND	CARTHAGE	LIMESTONE	-	315.0
-177.0	CARBONDALE	HERRIN	COAL	-	715.0

MAPID: 12101488000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 2N 1E SECTION: 12 QUARTERS/FOOTAGES: SE NE SE
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.032421 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.624192 DATE COLLECTED: 0 / 0 / 1945
SURFACE ELEVATION (FT.): 540.0 LOGGED (FT.): 1760.0 LOG TYPE:
SOURCE: BUEL&DORAN, YOUNG M J 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
216.0	BOND	CARTHAGE	LIMESTONE	-	324.0
-166.0	CARBONDALE	HERRIN	COAL	-	706.0

MAPID: 12101489000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 2N 1E SECTION: 12 QUARTERS/FOOTAGES: NE SE NE
QUADRANGLE: FAIRMAN LONGITUDE: -89.032368 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.629639 DATE COLLECTED: 0 / 0 / 1945
SURFACE ELEVATION (FT.): 546.0 LOGGED (FT.): 1762.0 LOG TYPE:
SOURCE: BUEL&DORAN, YOUNG M J 4 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
214.0	BOND	CARTHAGE	LIMESTONE	-	332.0
-177.0	CARBONDALE	HERRIN	COAL	-	723.0

MAPID: 12100043000C **VERSION:** 1 **PROJECT:** CGT-ECILL
COUNTY: MARION **TWP/RNG:** 2N 1E **SECTION:** 13 **QUARTERS/FOOTAGES:** NW NW
QUADRANGLE: CENTRALIA EAST **LONGITUDE:** -89.047472 **GEOLOGIST:** C TREWORY
CONFIDENTIAL: N **LATITUDE:** 38.617838 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 535.0 **LOGGED (FT.):** 702.0 **LOG TYPE:** Drillers Log
SOURCE: **WELL TYPE:** Coal Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
254.0	BOND	CARTHAGE	LIMESTONE	10.0	281.0
-123.0	CARBONDALE	DANVILLE	COAL	3.1	658.0
-160.0	CARBONDALE	HERRIN	COAL	7.0	695.0

MAPID: 12100043000C **VERSION:** 2 **PROJECT:** ROOF STUDY
COUNTY: MARION **TWP/RNG:** 2N 1E **SECTION:** 13 **QUARTERS/FOOTAGES:** NW NW
QUADRANGLE: CENTRALIA EAST **LONGITUDE:** -89.047472 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.617838 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 535.0 **LOGGED (FT.):** 702.0 **LOG TYPE:** Drillers Log
SOURCE: **WELL TYPE:** Coal Test
COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-86.0	MODESTO	PIASA	LIMESTONE	14.0	621.0
-100.0	MODESTO		GRAY SHALE	10.5	635.0
-110.5	CARBONDALE	DANVILLE	COAL	1.3	645.5
-111.8	CARBONDALE		SHALE	8.7	646.8
-120.5	CARBONDALE		SHALE	2.0	655.5
-122.5	CARBONDALE	ALLENBY	COAL	3.2	657.5
-125.7	CARBONDALE		CLAYSTONE	4.0	660.7
-129.7	CARBONDALE	BANKSTON FORK	LIMESTONE W/ SHALE	13.0	664.7
-142.7	CARBONDALE	LAWSON	LIMESTONE W/ SHALE	6.0	677.7
-148.7	CARBONDALE	BRERETON	LIMESTONE W/ SHALE	7.0	683.7
-155.7	CARBONDALE	ANNA	BLACK SHALE	4.0	690.7
-160.0	CARBONDALE	HERRIN	COAL	7.0	695.0

MAPID: 12100043000C VERSION: 3 PROJECT: CIRC 164

COUNTY: MARION TWP/RNG: 2N 1E SECTION: 13 QUARTERS/FOOTAGES: NW NW

QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.047472 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.617838 DATE COLLECTED: 0 / 0 / 1900

SURFACE ELEVATION (FT.): 535.3 LOGGED (FT.): 702.0 LOG TYPE: Measured section

SOURCE: ODIN CC, MAIN SHAFT WELL TYPE: Underground mine

COMMENT:

ELEVATION		FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
TOP (FT.)					UNIT	OVERBURDEN	
254.3		BOND	CARTHAGE	LIMESTONE	-	281.0	
-159.7		CARBONDALE	HERRIN	COAL	7.0	695.0	

MAPID: 12100043000C VERSION: 4

PROJECT: NCRDS87

COUNTY: MARION TWP/RNG: 2N 1E SECTION: 13 QUARTERS/FOOTAGES: NW NW

QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.047472 GEOLOGIST: WEIBEL

CONFIDENTIAL: N LATITUDE: 38.617838 DATE COLLECTED:

SURFACE ELEVATION (FT.): 532.0 LOGGED (FT.): 701.8 LOG TYPE: Drillers Log

SOURCE: ODIN COAL SHAFT WELL TYPE: Mine Shaft

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
532.0			UNCONSOLIDATED	100.0	0.0	
432.0	BOND		SHALE	1.3	100.0	
430.7	BOND		COAL	0.8	101.3	
430.0	BOND		SHALE	39.0	102.0	
391.0	BOND		BONE COAL	3.8	141.0	
387.2	BOND		SHALE	14.5	144.8	
372.7	BOND		COAL	0.6	159.3	
372.1	BOND		SHALE & SANDSTONE	20.0	159.9	
352.1	BOND		SHALE	12.5	179.9	
339.6	BOND		UNCLASSIFIED	8.0	192.4	
331.6	BOND		SHALE	3.0	200.4	
328.6	BOND		COAL	0.2	203.4	
328.4	BOND		CLAYSTONE	0.5	203.6	
327.9	BOND		SHALE	14.2	204.1	
313.7	BOND		COAL	0.6	218.3	
313.2	BOND		SHALE	63.0	218.8	
250.2	BOND	CARTHAGE	LIMESTONE	10.0	281.8	
240.2	MODESTO		BLACK SHALE	3.0	291.8	
237.2	MODESTO		COAL	0.2	294.8	
237.0	MODESTO		UNDERCLAY	5.0	295.0	
232.0	MODESTO		SHALE & SANDSTONE	56.5	300.0	
175.5	MODESTO		UNDERCLAY	11.8	356.5	
163.7	MODESTO		UNCLASSIFIED	5.6	368.3	
158.2	MODESTO		SHALE	18.0	373.8	
140.2	MODESTO		SANDSTONE	63.0	391.8	
77.2	MODESTO		SHALE	28.0	454.8	
49.2	MODESTO		BLACK SHALE	7.0	482.8	
42.2	MODESTO	CHAPEL	COAL	0.8	489.8	UNCERTAIN CORRELATION
41.3	MODESTO		UNDERCLAY	2.5	490.7	
38.8	MODESTO		SHALE & SANDSTONE	117.0	493.2	
-78.2	MODESTO		SHALE	11.0	610.2	
-89.2	MODESTO		LIMESTONE	14.0	621.2	
-103.2	MODESTO		SHALE	10.5	635.2	
-113.7	MODESTO		COAL	1.3	645.7	
-115.0	MODESTO		SHALE	10.7	647.0	
-125.7	CARBONDALE	DANVILLE	COAL	3.2	657.7	
-128.8	CARBONDALE		UNDERCLAY	4.0	660.8	
-132.8	CARBONDALE		UNCLASSIFIED	26.0	664.8	
-158.8	CARBONDALE	ANNA	BLACK SHALE	4.0	690.8	

-162.8 CARBONDALE HERRIN

COAL

7.0 694.8

MAPID: 12103189000C VERSION: 1

PROJECT: J JOHNSON

COUNTY: MARION TWP/RNG: 2N 1E SECTION: 13 QUARTERS/FOOTAGES: 350' N line, 330' E line of NW SW

QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.046418

GEOLOGIST: J JOHNSON

CONFIDENTIAL: N LATITUDE: 38.611424

DATE COLLECTED:

SURFACE ELEVATION (FT.): 522.0 LOGGED (FT.): 1756.0

LOG TYPE: Electric Log

SOURCE: WELLMAN WALTER C

WELL TYPE: Oil and Gas Test

COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-248.0	CARBONDALE	SPRINGFIELD	COAL	-	770.0
-386.0	CARBONDALE	COLCHESTER	COAL	-	908.0
-1234.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1756.0

MAPID: 12103189000C VERSION: 2

PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 2N 1E SECTION: 13 QUARTERS/FOOTAGES: 350' N line, 330' E line of NW SW

QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.046418

GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.611424

DATE COLLECTED:

SURFACE ELEVATION (FT.): 522.0 LOGGED (FT.): 909.5

LOG TYPE: Electric Log

SOURCE:

WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
198.0	BOND	CARTHAGE	LIMESTONE	10.0	324.0
-173.0	CARBONDALE	DANVILLE	COAL	2.0	695.0
-208.0	CARBONDALE	HERRIN	COAL	6.0	730.0
-246.0	CARBONDALE	SPRINGFIELD	COAL	3.0	768.0
-320.0	CARBONDALE	HOUCHIN CREEK	COAL	2.0	842.0
-386.0	CARBONDALE	COLCHESTER	COAL	1.5	908.0

MAPID: 12100044000C VERSION: 1

PROJECT: CIRC 164

COUNTY: MARION TWP/RNG: 2N 1E SECTION: 15 QUARTERS/FOOTAGES: NE NE NE

QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.0694

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.6188

DATE COLLECTED: 0 / 0 / 1910

SURFACE ELEVATION (FT.): 523.6 LOGGED (FT.): 1741.0

LOG TYPE:

SOURCE: OHIO OIL, WOODWARD S 1

WELL TYPE: Oil and Gas Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
243.6	BOND	CARTHAGE	LIMESTONE	-	280.0
-144.4	CARBONDALE	HERRIN	COAL	-	668.0

MAPID: 12101606000C VERSION: 1 PROJECT: J JOHNSON
COUNTY: MARION TWP/RNG: 2N 1E SECTION: 15 QUARTERS/FOOTAGES: 330' S line, 330' E line of SW NE
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.074102 GEOLOGIST: J JOHNSON
CONFIDENTIAL: N LATITUDE: 38.613365 DATE COLLECTED:
SURFACE ELEVATION (FT.): 522.0 LOGGED (FT.): 1633.0 LOG TYPE: Electric Log
SOURCE: MONTGOMERY, BILL WELL TYPE: Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-165.0	CARBONDALE	SPRINGFIELD	COAL	-	687.0
-277.0	CARBONDALE	COLCHESTER	COAL	-	799.0
-1111.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1633.0

MAPID: 12101606000C VERSION: 2 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 2N 1E SECTION: 15 QUARTERS/FOOTAGES: 330' S line, 330' E line of SW NE
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.074102 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.613365 DATE COLLECTED:
SURFACE ELEVATION (FT.): 534.0 LOGGED (FT.): 698.5 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: POOR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
264.0	BOND	CARTHAGE	LIMESTONE	10.0	270.0
-161.0	CARBONDALE	SPRINGFIELD	COAL	3.5	695.0

MAPID: 12126213000C VERSION: 1 PROJECT: CONF
COUNTY: MARION TWP/RNG: 2N 1E SECTION: 16 QUARTERS/FOOTAGES: NE SE NE
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.087906 GEOLOGIST: LOG BOOK
CONFIDENTIAL: N LATITUDE: 38.615228 DATE COLLECTED: 5 / 9 / 1979
SURFACE ELEVATION (FT.): 510.0 LOGGED (FT.): 700.0 LOG TYPE: Survey Core Study
SOURCE: VIICA COAL ASSOCIATION 1621-1DA WELL TYPE: Coal Test
COMMENT: TOPS & THICK. FROM COAL SEC. LOG BOOK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-123.7	CARBONDALE	HERRIN	COAL	5.9	633.7
-156.8	CARBONDALE	BRIAR HILL	COAL	1.7	666.8
-162.8	CARBONDALE	SPRINGFIELD	COAL	5.0	672.8

MAPID: 12100045000C **VERSION:** 1 **PROJECT:** CGT-ECILL
COUNTY: MARION **TWP/RNG:** 2N 1E **SECTION:** 17 **QUARTERS/FOOTAGES:** SW NE
QUADRANGLE: CENTRALIA EAST **LONGITUDE:** -89.112061 **GEOLOGIST:** C TREWORY
CONFIDENTIAL: N **LATITUDE:** 38.614359 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 495.0 **LOGGED (FT.):** 618.0 **LOG TYPE:** Drillers Log
SOURCE: **WELL TYPE:** Coal Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
273.0	BOND	CARTHAGE	LIMESTONE	10.0	222.0
-116.0	CARBONDALE	HERRIN	COAL	7.0	611.0

MAPID: 12100045000C **VERSION:** 2 **PROJECT:** ROOF STUDY
COUNTY: MARION **TWP/RNG:** 2N 1E **SECTION:** 17 **QUARTERS/FOOTAGES:** SW NE
QUADRANGLE: CENTRALIA EAST **LONGITUDE:** -89.112061 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.614359 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 495.0 **LOGGED (FT.):** 618.0 **LOG TYPE:** Drillers Log
SOURCE: **WELL TYPE:** Coal Test
COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-48.0	MODESTO	PIASA	LIMESTONE	4.0	543.0
-52.0	MODESTO		SHALE	12.7	547.0
-64.7	CARBONDALE		COAL	0.8	559.7
-65.5	CARBONDALE		SHALE	11.0	560.5
-76.5	CARBONDALE		SHALE	3.0	571.5
-79.5	CARBONDALE	BANKSTON FORK	SHALE	4.0	574.5
-83.5	CARBONDALE		LIMESTONE	1.5	578.5
-85.0	CARBONDALE		SHALE	1.0	580.0
-86.0	CARBONDALE		LIMESTONE	6.7	581.0
-92.7	CARBONDALE		SHALE	3.0	587.7
-95.7	CARBONDALE	BRERETON	LIMESTONE	12.0	590.7
-116.0	CARBONDALE	HERRIN	COAL	7.0	611.0

MAPID: 12100153000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 2N 1E SECTION: 17 QUARTERS/FOOTAGES: SE NW SW
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.120263 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.60984 DATE COLLECTED: 0 / 0 / 1900
SURFACE ELEVATION (FT.): 506.0 LOGGED (FT.): 0.0 LOG TYPE: Measured section
SOURCE: CHI SND CC SH2, WELL TYPE: Underground mine
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
284.0	BOND	CARTHAGE	LIMESTONE	-	222.0
-134.0	CARBONDALE	HERRIN	COAL	7.0	640.0

MAPID: 12102030000C VERSION: 1 PROJECT: J JOHNSON
COUNTY: MARION TWP/RNG: 2N 1E SECTION: 18 QUARTERS/FOOTAGES: 330' N line, 330' E line of SW NE
QUADRANGLE: CENTRALIA WEST LONGITUDE: -89.129429 GEOLOGIST: J JOHNSON
CONFIDENTIAL: N LATITUDE: 38.615338 DATE COLLECTED:
SURFACE ELEVATION (FT.): 507.0 LOGGED (FT.): 1417.0 LOG TYPE: Electric Log
SOURCE: SUMMERLEA WELL TYPE: Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-128.0	CARBONDALE	SPRINGFIELD	COAL	-	635.0
-252.0	CARBONDALE	COLCHESTER	COAL	-	759.0
-910.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1417.0

MAPID: 12102030000C VERSION: 2 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 2N 1E SECTION: 18 QUARTERS/FOOTAGES: 330' N line, 330' E line of SW NE
QUADRANGLE: CENTRALIA WEST LONGITUDE: -89.129429 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.615338 DATE COLLECTED:
SURFACE ELEVATION (FT.): 511.0 LOGGED (FT.): 762.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
298.0	BOND	CARTHAGE	LIMESTONE	10.0	213.0
-39.0	CARBONDALE	DANVILLE	COAL	-	550.0
-84.0	CARBONDALE	HERRIN	COAL	5.0	595.0
-119.0	CARBONDALE	SPRINGFIELD	COAL	4.5	630.0
-177.0	CARBONDALE	HOUCHIN CREEK	COAL	-	688.0
-251.0	CARBONDALE	COLCHESTER	COAL	-	762.0

MAPID: 12126509000C VERSION: 1 PROJECT: J JOHNSON
COUNTY: MARION TWP/RNG: 2N 1E SECTION: 18 QUARTERS/FOOTAGES: 330' N line, 660' W line of SW SE
QUADRANGLE: CENTRALIA WEST LONGITUDE: -89.130747 GEOLOGIST: J JOHNSON
CONFIDENTIAL: N LATITUDE: 38.60806 DATE COLLECTED:
SURFACE ELEVATION (FT.): 501.0 LOGGED (FT.): 3105.0 LOG TYPE: Electric Log
SOURCE: BLH & ASSOCIATES, INC. WELL TYPE: Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-906.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1407.0	
-2518.0	DEVONIAN	UPPER DEVONIAN S	UNCLASSIFIED	-	3019.0	TOP OF NEW ALBANY
-2529.0	DEVONIAN	GRASSY CREEK	UNCLASSIFIED	-	3030.0	
-2604.0	DEVONIAN	BASE UPPER DEVON	UNCLASSIFIED	-	3105.0	BASE OF NEW ALBANY

MAPID: 12100046000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 2N 1E SECTION: 19 QUARTERS/FOOTAGES: NE NE SE
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.125042 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.597039 DATE COLLECTED: 0 / 0 / 1922
SURFACE ELEVATION (FT.): 495.0 LOGGED (FT.): 852.0 LOG TYPE:
SOURCE: GORMAN J, MATH&GILLY 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
257.0	BOND	CARTHAGE	LIMESTONE	-	238.0	
-117.0	CARBONDALE	HERRIN	COAL	-	612.0	

MAPID: 12101241000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 2N 1E SECTION: 20 QUARTERS/FOOTAGES: SE SE SW
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.115785 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.591512 DATE COLLECTED: 0 / 0 / 1900
SURFACE ELEVATION (FT.): 500.0 LOGGED (FT.): 0.0 LOG TYPE:
SOURCE: MALLOY ETL, MCCLELLAND WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-100.0	CARBONDALE	HERRIN	COAL	-	600.0	

MAPID: 12100047000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 2N 1E SECTION: 21 QUARTERS/FOOTAGES: SE NW NW
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.101839 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.602481 DATE COLLECTED: 0 / 0 / 1909
SURFACE ELEVATION (FT.): 507.0 LOGGED (FT.): 1592.0 LOG TYPE:
SOURCE: GIBSON C E, MARTIN WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-126.0	CARBONDALE	HERRIN	COAL	-	633.0	

MAPID: 12126009000C VERSION: 1 PROJECT: J JOHNSON
COUNTY: MARION TWP/RNG: 2N 1E SECTION: 21 QUARTERS/FOOTAGES: 330' N line, 330' W line of SW NW
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.104129 GEOLOGIST: J JOHNSON
CONFIDENTIAL: N LATITUDE: 38.600658 DATE COLLECTED:
SURFACE ELEVATION (FT.): 518.0 LOGGED (FT.): 3262.0 LOG TYPE: Electric Log
SOURCE: JAHN, E. HOMER WELL TYPE: Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-182.0	CARBONDALE	SPRINGFIELD	COAL	-	700.0	
-392.0	CARBONDALE	COLCHESTER	COAL	-	910.0	
-1032.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1550.0	
-2652.0	DEVONIAN	UPPER DEVONIAN S	UNCLASSIFIED	-	3170.0	TOP OF NEW ALBANY
-2667.0	DEVONIAN	GRASSY CREEK	UNCLASSIFIED	-	3185.0	
-2744.0	DEVONIAN	BASE UPPER DEVON	UNCLASSIFIED	-	3262.0	BASE OF NEW ALBANY

MAPID: 12101444000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 2N 1E SECTION: 22 QUARTERS/FOOTAGES: 2310' S line, 990' E line
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.071984 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.596955 DATE COLLECTED: 0 / 0 / 1946
SURFACE ELEVATION (FT.): 514.0 LOGGED (FT.): 1979.0 LOG TYPE:
SOURCE: WINN&BECK, DEADMOND 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
222.0	BOND	CARTHAGE	LIMESTONE	-	292.0	
-184.0	CARBONDALE	HERRIN	COAL	-	698.0	

MAPID: 12101444000C VERSION: 2 PROJECT: ROOF STUDY

COUNTY: MARION TWP/RNG: 2N 1E SECTION: 22 QUARTERS/FOOTAGES: 2310' S line, 990' E line

QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.071984 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.596955 DATE COLLECTED:

SURFACE ELEVATION (FT.): 514.0 LOGGED (FT.): 704.5 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-121.0	MODESTO	PIASA	LIMESTONE	4.5	635.0
-125.5	MODESTO		SHALE	11.0	639.5
-136.5	CARBONDALE	DANVILLE	BONE COAL	1.5	650.5
-138.0	CARBONDALE		SHALE	8.0	652.0
-146.0	CARBONDALE		SHALE	2.0	660.0
-148.0	CARBONDALE	ALLENBY	COAL	3.5	662.0
-151.5	CARBONDALE		SHALE	8.5	665.5
-160.0	CARBONDALE	BANKSTON FORK	LIMESTONE	2.0	674.0
-162.0	CARBONDALE	BANKSTON FORK	SHALE	2.5	676.0
-164.5	CARBONDALE	BANKSTON FORK	LIMESTONE	3.5	678.5
-168.0	CARBONDALE	LAWSON	SHALE	5.0	682.0
-173.0	CARBONDALE	CONANT	LIMESTONE	3.0	687.0
-176.0	CARBONDALE		SHALE	2.0	690.0
-178.0	CARBONDALE	BRERETON	LIMESTONE	4.0	692.0
-182.0	CARBONDALE	ANNA	BLACK SHALE	3.0	696.0
-185.0	CARBONDALE	HERRIN	COAL	5.5	699.0

MAPID: 12103191000C VERSION: 1 PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 2N 1E SECTION: 22 QUARTERS/FOOTAGES: 330' S line, 330' E line of SW SE

QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.074307 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.59148 DATE COLLECTED:

SURFACE ELEVATION (FT.): 510.0 LOGGED (FT.): 800.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
226.0	BOND	CARTHAGE	LIMESTONE	11.0	284.0
22.0	MODESTO	TRIVOLI	SANDSTONE	85.0	488.0
-147.0	CARBONDALE	DANVILLE	COAL	3.0	657.0
-188.0	CARBONDALE	HERRIN	COAL	7.0	698.0
-223.0	CARBONDALE	SPRINGFIELD	COAL	4.0	733.0
-290.0	CARBONDALE	HOUCHIN CREEK	COAL	-	800.0

MAPID: 12103192000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 2N 1E SECTION: 23 QUARTERS/FOOTAGES: 330' S line, 330' E line of SW NE
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.055801 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.598771 DATE COLLECTED:
SURFACE ELEVATION (FT.): 498.0 LOGGED (FT.): 880.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
204.0	BOND	CARTHAGE	LIMESTONE	11.0	294.0
-125.0	MODESTO	PIASA	LIMESTONE	7.0	623.0
-162.0	CARBONDALE	DANVILLE	COAL	-	660.0
-196.0	CARBONDALE	HERRIN	COAL	5.0	694.0
-240.0	CARBONDALE	SPRINGFIELD	COAL	4.0	738.0
-308.0	CARBONDALE	HOUCHIN CREEK	COAL	-	806.0
-382.0	CARBONDALE	COLCHESTER	COAL	-	880.0

MAPID: 12103192000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: MARION TWP/RNG: 2N 1E SECTION: 23 QUARTERS/FOOTAGES: 330' S line, 330' E line of SW NE
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.055801 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.598771 DATE COLLECTED:
SURFACE ELEVATION (FT.): 498.0 LOGGED (FT.): 700.0 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
-125.0	MODESTO	PIASA	LIMESTONE	7.0	623.0
-132.0	MODESTO		SHALE	19.0	630.0
-151.0	CARBONDALE	DANVILLE	BONE COAL	1.0	649.0
-152.0	CARBONDALE		SHALE	8.0	650.0
-160.0	CARBONDALE		SHALE	2.0	658.0
-162.0	CARBONDALE	ALLENBY	COAL	3.0	660.0
-165.0	CARBONDALE		SHALE	5.0	663.0
-170.0	CARBONDALE	BANKSTON FORK	LIMESTONE	2.5	668.0
-172.5	CARBONDALE	BANKSTON FORK	SHALE	3.0	670.5
-175.5	CARBONDALE	BANKSTON FORK	LIMESTONE	4.5	673.5
-180.0	CARBONDALE	LAWSON	SHALE	3.5	678.0
-183.5	CARBONDALE		CALCAREOUS SHALE	4.0	681.5
-187.5	CARBONDALE	BRERETON	LIMESTONE	4.5	685.5
-192.0	CARBONDALE	ANNA	BLACK SHALE	3.0	690.0
-196.0	CARBONDALE	HERRIN	COAL	6.0	694.0

MAPID: 12103192000C **VERSION:** 3 **PROJECT:** J JOHNSON
COUNTY: MARION **TWP/RNG:** 2N 1E **SECTION:** 23 **QUARTERS/FOOTAGES:** 330' S line, 330' E line of SW NE
QUADRANGLE: CENTRALIA EAST **LONGITUDE:** -89.055801 **GEOLOGIST:** J JOHNSON
CONFIDENTIAL: N **LATITUDE:** 38.598771 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 498.0 **LOGGED (FT.):** 3430.0 **LOG TYPE:** Electric Log
SOURCE: TEXAS COMPANY, THE **WELL TYPE:** Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-244.0	CARBONDALE	SPRINGFIELD	COAL	-	742.0	
-382.0	CARBONDALE	COLCHESTER	COAL	-	880.0	
-1217.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1715.0	
-2834.0	DEVONIAN	UPPER DEVONIAN S	UNCLASSIFIED	-	3332.0	TOP OF NEW ALBANY
-2847.0	DEVONIAN	GRASSY CREEK	UNCLASSIFIED	-	3345.0	
-2932.0	DEVONIAN	BASE UPPER DEVON	UNCLASSIFIED	-	3430.0	BASE OF NEW ALBANY

MAPID: 12100489000C **VERSION:** 1 **PROJECT:** J JOHNSON
COUNTY: MARION **TWP/RNG:** 2N 1E **SECTION:** 25 **QUARTERS/FOOTAGES:** 150' N line, 150' E line of SE SW
QUADRANGLE: CENTRALIA EAST **LONGITUDE:** -89.04146 **GEOLOGIST:** J JOHNSON
CONFIDENTIAL: N **LATITUDE:** 38.579257 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 530.0 **LOGGED (FT.):** 3563.0 **LOG TYPE:** Electric Log
SOURCE: FISHER OIL ETAL **WELL TYPE:** Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-260.0	CARBONDALE	SPRINGFIELD	COAL	-	790.0	
-365.0	CARBONDALE	COLCHESTER	COAL	-	895.0	
-1300.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1830.0	
-2926.0	DEVONIAN	UPPER DEVONIAN S	UNCLASSIFIED	-	3456.0	TOP OF NEW ALBANY
-2940.0	DEVONIAN	GRASSY CREEK	UNCLASSIFIED	-	3470.0	
-3033.0	DEVONIAN	BASE UPPER DEVON	UNCLASSIFIED	-	3563.0	BASE OF NEW ALBANY

MAPID: 12100489000C VERSION: 2

PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 2N 1E SECTION: 25 QUARTERS/FOOTAGES: 150' N line, 150' E line of SE SW
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.04146 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.579257 DATE COLLECTED:
SURFACE ELEVATION (FT.): 530.0 LOGGED (FT.): 855.5 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: POOR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
180.0	BOND	CARTHAGE	LIMESTONE	9.0	350.0
-150.0	MODESTO	PIASA	LIMESTONE	-	680.0
-177.0	CARBONDALE	DANVILLE	COAL	3.0	707.0
-209.0	CARBONDALE	HERRIN	COAL	-	739.0
-255.0	CARBONDALE	SPRINGFIELD	COAL	5.0	785.0
-324.0	CARBONDALE	HOUCHIN CREEK	COAL	1.5	854.0

MAPID: 12101445000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 2N 1E SECTION: 26 QUARTERS/FOOTAGES: 330' N line, 330' E line of NW NE
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.055875 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.589672 DATE COLLECTED:
SURFACE ELEVATION (FT.): 522.0 LOGGED (FT.): 843.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
205.0	BOND	CARTHAGE	LIMESTONE	12.0	317.0
-36.0	MODESTO	TRIVOLI	SANDSTONE	22.0	558.0
-144.0	MODESTO	PIASA	LIMESTONE	10.0	666.0
-166.0	CARBONDALE	DANVILLE	COAL	3.0	688.0
-204.0	CARBONDALE	HERRIN	COAL	6.0	726.0
-241.0	CARBONDALE	SPRINGFIELD	COAL	4.0	763.0
-321.0	CARBONDALE	HOUCHIN CREEK	COAL	-	843.0

MAPID: 12101445000C VERSION: 2 PROJECT: ROOF STUDY

COUNTY: MARION TWP/RNG: 2N 1E SECTION: 26 QUARTERS/FOOTAGES: 330' N line, 330' E line of NW NE

QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.055875 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.589672 DATE COLLECTED:

SURFACE ELEVATION (FT.): 516.0 LOGGED (FT.): 723.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-141.0	MODESTO	PIASA	LIMESTONE	8.0	657.0
-149.0	MODESTO		SHALE	11.5	665.0
-160.5	CARBONDALE	DANVILLE	BONE COAL	1.0	676.5
-161.5	CARBONDALE		CLAYSTONE	3.0	677.5
-164.5	CARBONDALE		SHALE	7.0	680.5
-171.5	CARBONDALE	ALLENBY	COAL	3.5	687.5
-175.0	CARBONDALE		SHALE	9.0	691.0
-184.0	CARBONDALE	BANKSTON FORK	LIMESTONE	2.0	700.0
-186.0	CARBONDALE	BANKSTON FORK	SHALE	3.5	702.0
-189.5	CARBONDALE	BANKSTON FORK	LIMESTONE	4.5	705.5
-194.0	CARBONDALE	LAWSON	SHALE	3.5	710.0
-197.5	CARBONDALE	CONANT	LIMESTONE	2.0	713.5
-199.5	CARBONDALE		CALCAREOUS SHALE	3.0	715.5
-202.5	CARBONDALE	BRERETON	LIMESTONE	4.5	718.5
-207.0	CARBONDALE	ANNA	BLACK SHALE	3.5	723.0
-201.0	CARBONDALE	HERRIN	COAL	6.0	717.0

MAPID: 12101445000C VERSION: 3 PROJECT: CIRC 164

COUNTY: MARION TWP/RNG: 2N 1E SECTION: 26 QUARTERS/FOOTAGES: 330' N line, 330' E line of NW NE

QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.055875 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.589672 DATE COLLECTED: 0 / 0 / 1946

SURFACE ELEVATION (FT.): 521.0 LOGGED (FT.): 2030.0 LOG TYPE:

SOURCE: BRITTON W, BUNDY D H 1 WELL TYPE: Oil and Gas Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
205.0	BOND	CARTHAGE	LIMESTONE	-	316.0
-205.0	CARBONDALE	HERRIN	COAL	-	726.0

MAPID: 12101490000C **VERSION:** 1 **PROJECT:** CIRC 164
COUNTY: MARION **TWP/RNG:** 2N 1E **SECTION:** 26 **QUARTERS/FOOTAGES:** SE NW SW
QUADRANGLE: CENTRALIA EAST **LONGITUDE:** -89.06514 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.580585 **DATE COLLECTED:** 0 / 0 / 1945
SURFACE ELEVATION (FT.): 490.0 **LOGGED (FT.):** 2146.0 **LOG TYPE:**
SOURCE: GARFIELD C, LYNCH N B 1 **WELL TYPE:** Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
199.0	BOND	CARTHAGE	LIMESTONE	-	291.0	
-220.0	CARBONDALE	HERRIN	COAL	-	710.0	

MAPID: 12126617000C **VERSION:** 1 **PROJECT:** J JOHNSON
COUNTY: MARION **TWP/RNG:** 2N 1E **SECTION:** 26 **QUARTERS/FOOTAGES:** 330' S line, 660' E line of NW SE
QUADRANGLE: CENTRALIA EAST **LONGITUDE:** -89.057082 **GEOLOGIST:** J JOHNSON
CONFIDENTIAL: N **LATITUDE:** 38.580591 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 515.0 **LOGGED (FT.):** 3490.0 **LOG TYPE:** Electric Log
SOURCE: FARRAR OIL CO., INC. **WELL TYPE:** Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-1252.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1767.0	
-2874.0	DEVONIAN	UPPER DEVONIAN S	UNCLASSIFIED	-	3389.0	TOP OF NEW ALBANY
-2887.0	DEVONIAN	GRASSY CREEK	UNCLASSIFIED	-	3402.0	
-2975.0	DEVONIAN	BASE UPPER DEVON	UNCLASSIFIED	-	3490.0	BASE OF NEW ALBANY

MAPID: 12101698000C **VERSION:** 1 **PROJECT:** CGT-ECILL
COUNTY: MARION **TWP/RNG:** 2N 1E **SECTION:** 27 **QUARTERS/FOOTAGES:** 330' S line, 330' W line of SE SW
QUADRANGLE: CENTRALIA EAST **LONGITUDE:** -89.081312 **GEOLOGIST:** C TREWORGY
CONFIDENTIAL: N **LATITUDE:** 38.576937 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 507.0 **LOGGED (FT.):** 816.5 **LOG TYPE:** Electric Log
SOURCE: **WELL TYPE:** Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
222.0	BOND	CARTHAGE	LIMESTONE	10.0	285.0	
-35.0	MODESTO	TRIVOLI	SANDSTONE	30.0	542.0	
-150.0	CARBONDALE	DANVILLE	COAL	-	657.0	
-188.0	CARBONDALE	HERRIN	COAL	5.0	695.0	
-233.0	CARBONDALE	SPRINGFIELD	COAL	4.0	740.0	
-308.0	CARBONDALE	HOUCHIN CREEK	COAL	1.5	815.0	

MAPID: 12101698000C VERSION: 2 PROJECT: ROOF STUDY

COUNTY: MARION TWP/RNG: 2N 1E SECTION: 27 QUARTERS/FOOTAGES: 330' S line, 330' W line of SE SW

QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.081312 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.576937 DATE COLLECTED:

SURFACE ELEVATION (FT.): 507.0 LOGGED (FT.): 700.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-151.5	CARBONDALE	DANVILLE	COAL	1.0	658.5	
-152.5	CARBONDALE		SHALE	4.0	659.5	
-156.5	CARBONDALE		SHALE	4.0	663.5	
-160.5	CARBONDALE	BANKSTON FORK	LIMESTONE	1.5	667.5	
-162.0	CARBONDALE	BANKSTON FORK	SHALE	2.0	669.0	
-164.0	CARBONDALE	BANKSTON FORK	LIMESTONE	4.0	671.0	
-168.0	CARBONDALE	LAWSON	SHALE	5.5	675.0	
-173.5	CARBONDALE	CONANT	CALCAREOUS SHALE	2.0	680.5	
-175.5	CARBONDALE		CALCAREOUS SHALE	6.0	682.5	
-181.5	CARBONDALE	BRERETON	LIMESTONE	3.5	688.5	
-185.0	CARBONDALE	ANNA	BLACK SHALE	3.0	692.0	
-188.0	CARBONDALE	HERRIN	COAL	5.0	695.0	

MAPID: 12101698000C VERSION: 3 PROJECT: J JOHNSON

COUNTY: MARION TWP/RNG: 2N 1E SECTION: 27 QUARTERS/FOOTAGES: 330' S line, 330' W line of SE SW

QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.081312 GEOLOGIST: J JOHNSON

CONFIDENTIAL: N LATITUDE: 38.576937 DATE COLLECTED:

SURFACE ELEVATION (FT.): 507.0 LOGGED (FT.): 3472.0 LOG TYPE: Electric Log

SOURCE: TEXAS COMPANY, THE WELL TYPE: Oil and Gas Test

COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-233.0	CARBONDALE	SPRINGFIELD	COAL	-	740.0	
-405.0	CARBONDALE	COLCHESTER	COAL	-	912.0	
-1207.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1714.0	
-2868.0	DEVONIAN	UPPER DEVONIAN S	UNCLASSIFIED	-	3375.0	TOP OF NEW ALBANY
-2879.0	DEVONIAN	GRASSY CREEK	UNCLASSIFIED	-	3386.0	
-2965.0	DEVONIAN	BASE UPPER DEVON	UNCLASSIFIED	-	3472.0	BASE OF NEW ALBANY

MAPID: 12100490000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 2N 1E SECTION: 28 QUARTERS/FOOTAGES: SE SW SW
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.101922 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.576897 DATE COLLECTED: 0 / 0 / 1900
SURFACE ELEVATION (FT.): 488.7 LOGGED (FT.): 1625.0 LOG TYPE:
SOURCE: OHIO OIL, GUTHRIE 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
308.7	BOND	CARTHAGE	LIMESTONE	-	180.0
-76.3	CARBONDALE	HERRIN	COAL	-	565.0

MAPID: 12100048000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 2N 1E SECTION: 29 QUARTERS/FOOTAGES: 1070' N line, 1100' E line
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.10921 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.587633 DATE COLLECTED:
SURFACE ELEVATION (FT.): 500.0 LOGGED (FT.): 619.5 LOG TYPE: Drillers Log
SOURCE: WELL TYPE: Coal Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
285.0	BOND	CARTHAGE	LIMESTONE	10.0	215.0
-68.0	CARBONDALE	DANVILLE	COAL	1.0	568.0
-114.0	CARBONDALE	HERRIN	COAL	5.5	614.0

MAPID: 12100048000C VERSION: 2 PROJECT: ROOF STUDY
COUNTY: MARION TWP/RNG: 2N 1E SECTION: 29 QUARTERS/FOOTAGES: 1070' N line, 1100' E line
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.10921 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.587633 DATE COLLECTED:
SURFACE ELEVATION (FT.): 500.0 LOGGED (FT.): 619.6 LOG TYPE: Drillers Log
SOURCE: WELL TYPE: Coal Test
COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-114.0	CARBONDALE	HERRIN	COAL	5.6	614.0

MAPID: 12100048000C VERSION: 3 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 2N 1E SECTION: 29 QUARTERS/FOOTAGES: 1070' N line, 1100' E line
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.10921 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.587633 DATE COLLECTED: 0 / 0 / 1921
SURFACE ELEVATION (FT.): 500.0 LOGGED (FT.): 621.0 LOG TYPE:
SOURCE: MARION CCC, WELL TYPE: Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
285.0	BOND	CARTHAGE	LIMESTONE	-	215.0
-114.0	CARBONDALE	HERRIN	COAL	5.6	614.0

MAPID: 12100491000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 2N 1E SECTION: 29 QUARTERS/FOOTAGES: SW SW SE
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.113483 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.576867 DATE COLLECTED: 0 / 0 / 1938
SURFACE ELEVATION (FT.): 495.0 LOGGED (FT.): 2001.0 LOG TYPE:
SOURCE: MCBRIDEINC, CLOW J C 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
294.0	BOND	CARTHAGE	LIMESTONE	-	201.0
-87.0	CARBONDALE	HERRIN	COAL	-	582.0

MAPID: 12100049000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 2N 1E SECTION: 30 QUARTERS/FOOTAGES: SE SE SE
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.125107 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.576853 DATE COLLECTED: 0 / 0 / 1926
SURFACE ELEVATION (FT.): 488.3 LOGGED (FT.): 574.0 LOG TYPE:
SOURCE: FOX&ALSPCH, MARION CCC 2 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-54.7	CARBONDALE	HERRIN	COAL	-	543.0

MAPID: 12101850000C VERSION: 1 PROJECT: J JOHNSON
COUNTY: MARION TWP/RNG: 2N 1E SECTION: 30 QUARTERS/FOOTAGES: 380' S line, 130' W line
QUADRANGLE: CENTRALIA WEST LONGITUDE: -89.141276 GEOLOGIST: J JOHNSON
CONFIDENTIAL: N LATITUDE: 38.577205 DATE COLLECTED:
SURFACE ELEVATION (FT.): 491.0 LOGGED (FT.): 1295.0 LOG TYPE: Electric Log
SOURCE: SPICKLER, M. M. WELL TYPE: Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-804.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1295.0

MAPID: 12100050000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 2N 1E SECTION: 31 QUARTERS/FOOTAGES: 50' N line, 100' E line
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.124303 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.575784 DATE COLLECTED: 0 / 0 / 1926
SURFACE ELEVATION (FT.): 490.9 LOGGED (FT.): 690.0 LOG TYPE:
SOURCE: FOX&ALSPCH, MARION CCC 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
325.9	BOND	CARTHAGE	LIMESTONE	-	165.0
-57.1	CARBONDALE	HERRIN	COAL	-	548.0

MAPID: 12100050000C VERSION: 2 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 2N 1E SECTION: 31 QUARTERS/FOOTAGES: 50' N line, 100' E line
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.124303 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.575784 DATE COLLECTED:
SURFACE ELEVATION (FT.): 491.0 LOGGED (FT.): 582.5 LOG TYPE: Drillers Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
326.0	BOND	CARTHAGE	LIMESTONE	12.0	165.0
-23.0	CARBONDALE	DANVILLE	COAL	2.0	514.0
-57.0	CARBONDALE	HERRIN	COAL	6.0	548.0
-87.0	CARBONDALE	SPRINGFIELD	COAL	4.5	578.0

MAPID: 12100051000C VERSION: 1

PROJECT: CIRC 164

COUNTY: MARION TWP/RNG: 2N 1E SECTION: 31 QUARTERS/FOOTAGES: NE NE

QUADRANGLE: CENTRALIA WEST LONGITUDE: -89.126299 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.574096 DATE COLLECTED: 0 / 0 / 1900

SURFACE ELEVATION (FT.): 492.1 LOGGED (FT.): 601.0 LOG TYPE: Measured section

SOURCE: MARION CCC, JUN MN CEN WELL TYPE: Underground mine

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
269.1	BOND	CARTHAGE	LIMESTONE	-	223.0
-101.9	CARBONDALE	HERRIN	COAL	6.0	594.0

MAPID: 12100051000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: MARION TWP/RNG: 2N 1E SECTION: 31 QUARTERS/FOOTAGES: NE NE

QUADRANGLE: CENTRALIA WEST LONGITUDE: -89.126299 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.574096 DATE COLLECTED:

SURFACE ELEVATION (FT.): 490.0 LOGGED (FT.): 601.0 LOG TYPE: Drillers Log

SOURCE: WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-53.0	MODESTO	PIASA	LIMESTONE	4.5	543.0
-57.5	MODESTO		SHALE	10.5	547.5
-68.0	CARBONDALE		DARK GRAY SHALE	4.5	558.0
-72.5	CARBONDALE	ALLENBY	BLACK SHALE	2.0	562.5
-74.5	CARBONDALE		COAL	3.0	564.5
-77.5	CARBONDALE		CLAYSTONE	1.5	567.5
-79.0	CARBONDALE	BANKSTON FORK	LIMESTONE	4.0	569.0
-83.0	CARBONDALE	BANKSTON FORK	SHALE	2.0	573.0
-85.0	CARBONDALE	BANKSTON FORK	LIMESTONE	3.0	575.0
-88.0	CARBONDALE	LAWSON	GRAY SHALE	2.0	578.0
-90.0	CARBONDALE	BRERETON	LIMESTONE W/ SHALE	13.0	580.0
-103.0	CARBONDALE		LIMESTONE	2.0	593.0
-105.0	CARBONDALE		BLACK SHALE	0.5	595.0
-105.0	CARBONDALE	HERRIN	COAL	6.0	595.0

MAPID: 12100492000C VERSION: 1

PROJECT: J JOHNSON

COUNTY: MARION TWP/RNG: 2N 1E SECTION: 31 QUARTERS/FOOTAGES: 365' S line, 360' W line of NW NE

QUADRANGLE: CENTRALIA WEST LONGITUDE: -89.132011 GEOLOGIST: J JOHNSON

CONFIDENTIAL: N LATITUDE: 38.573319 DATE COLLECTED:

SURFACE ELEVATION (FT.): 491.0 LOGGED (FT.): 3133.0 LOG TYPE: Electric Log

SOURCE: PONTING WAYNE WELL TYPE: Oil and Gas Test

COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-919.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1410.0	
-2561.0	DEVONIAN	UPPER DEVONIAN S	UNCLASSIFIED	-	3052.0	TOP OF NEW ALBANY
-2569.0	DEVONIAN	GRASSY CREEK	UNCLASSIFIED	-	3060.0	
-2642.0	DEVONIAN	BASE UPPER DEVON	UNCLASSIFIED	-	3133.0	BASE OF NEW ALBANY

MAPID: 12100053000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 2N 1E SECTION: 32 QUARTERS/FOOTAGES: NW NE NE

QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.108847 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.575049 DATE COLLECTED:

SURFACE ELEVATION (FT.): 468.0 LOGGED (FT.): 647.0 LOG TYPE: Drillers Log

SOURCE: WELL TYPE: Coal Test

COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
313.0	BOND	CARTHAGE	LIMESTONE	10.0	155.0	
-41.0	CARBONDALE	DANVILLE	COAL	2.0	509.0	
-79.0	CARBONDALE	HERRIN	COAL	6.5	547.0	
-113.0	CARBONDALE	SPRINGFIELD	COAL	4.5	581.0	
-178.0	CARBONDALE	HOUCHIN CREEK	COAL	1.0	646.0	

MAPID: 12100053000C VERSION: 2 PROJECT: ROOF STUDY

COUNTY: MARION TWP/RNG: 2N 1E SECTION: 32 QUARTERS/FOOTAGES: NW NE NE

QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.108847 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.575049 DATE COLLECTED:

SURFACE ELEVATION (FT.): 468.0 LOGGED (FT.): 554.5 LOG TYPE: Drillers Log

SOURCE: WELL TYPE: Coal Test

COMMENT: POOR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-13.5	MODESTO		DARK GRAY SHALE	12.0	481.5
-25.5	CARBONDALE	DANVILLE	COAL	0.4	493.5
-25.9	CARBONDALE		CLAYSTONE	13.6	493.9
-39.5	CARBONDALE		DARK GRAY SHALE	2.0	507.5
-41.5	CARBONDALE	ALLENBY	COAL	2.1	509.5
-43.6	CARBONDALE		CLAYSTONE	2.9	511.6
-46.5	CARBONDALE	BANKSTON FORK	LIMESTONE	5.0	514.5
-51.5	CARBONDALE	LAWSON	SHALE	6.0	519.5
-57.5	CARBONDALE		LIMESTONE W/ SHALE	16.0	525.5
-73.5	CARBONDALE	BRERETON	LIMESTONE	3.5	541.5
-77.0	CARBONDALE	ANNA	BLACK SHALE	3.0	545.0
-80.0	CARBONDALE	HERRIN	COAL	6.5	548.0

MAPID: 12100053000C VERSION: 3 PROJECT: CIRC 164

COUNTY: MARION TWP/RNG: 2N 1E SECTION: 32 QUARTERS/FOOTAGES: NW NE NE

QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.108847 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.575049 DATE COLLECTED: 0 / 0 / 1921

SURFACE ELEVATION (FT.): 468.5 LOGGED (FT.): 1000.0 LOG TYPE:

SOURCE: MARION CCC 1, WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
313.5	BOND	CARTHAGE	LIMESTONE	-	155.0
-79.5	CARBONDALE	HERRIN	COAL	6.5	548.0

MAPID: 12100493000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 2N 1E SECTION: 32 QUARTERS/FOOTAGES: SE SW NW
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.120563 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.569461 DATE COLLECTED: 0 / 0 / 1942
SURFACE ELEVATION (FT.): 489.0 LOGGED (FT.): 697.0 LOG TYPE:
SOURCE: WHITTON N, FYKE 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
337.0	BOND	CARTHAGE	LIMESTONE	-	152.0
-50.0	CARBONDALE	HERRIN	COAL	-	539.0

MAPID: 12101895000C VERSION: 1 PROJECT: J JOHNSON
COUNTY: MARION TWP/RNG: 2N 1E SECTION: 32 QUARTERS/FOOTAGES: 650' N line, 330' W line of NE SE
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.10898 GEOLOGIST: J JOHNSON
CONFIDENTIAL: N LATITUDE: 38.566822 DATE COLLECTED:
SURFACE ELEVATION (FT.): 494.0 LOGGED (FT.): 1508.0 LOG TYPE: Electric Log
SOURCE: ROHMAN G W WELL TYPE: Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-70.0	CARBONDALE	SPRINGFIELD	COAL	-	564.0
-152.0	CARBONDALE	COLCHESTER	COAL	-	646.0
-1014.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1508.0

MAPID: 12100283000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 2N 1E SECTION: 33 QUARTERS/FOOTAGES: SW NE SW
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.099768 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.565912 DATE COLLECTED: 0 / 0 / 1938
SURFACE ELEVATION (FT.): 499.0 LOGGED (FT.): 2007.0 LOG TYPE:
SOURCE: SHEDDN ETL, PAWLICA T 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-107.0	CARBONDALE	HERRIN	COAL	-	606.0

MAPID: 12100494000C **VERSION:** 1 **PROJECT:** CIRC 164
COUNTY: MARION **TWP/RNG:** 2N 1E **SECTION:** 33 **QUARTERS/FOOTAGES:** NE SE SW
QUADRANGLE: CENTRALIA EAST **LONGITUDE:** -89.097493 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.564091 **DATE COLLECTED:** 0 / 0 / 1933
SURFACE ELEVATION (FT.): 496.7 **LOGGED (FT.):** 915.0 **LOG TYPE:**
SOURCE: BRYANT ETL, VOGT GEO **WELL TYPE:** Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
291.7	BOND	CARTHAGE	LIMESTONE	-	205.0	
-100.3	CARBONDALE	HERRIN	COAL	-	597.0	

MAPID: 12103199000C **VERSION:** 1 **PROJECT:** CGT-ECILL
COUNTY: MARION **TWP/RNG:** 2N 1E **SECTION:** 33 **QUARTERS/FOOTAGES:** 330' S line, 330' E line of SW
QUADRANGLE: CENTRALIA EAST **LONGITUDE:** -89.097525 **GEOLOGIST:** C TREWORYG
CONFIDENTIAL: N **LATITUDE:** 38.562255 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 502.0 **LOGGED (FT.):** 600.0 **LOG TYPE:** Drillers Log
SOURCE: **WELL TYPE:** Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-68.0	CARBONDALE	HERRIN	COAL	6.0	570.0	
-93.0	CARBONDALE	SPRINGFIELD	COAL	5.0	595.0	

MAPID: 12101699000C **VERSION:** 1 **PROJECT:** J JOHNSON
COUNTY: MARION **TWP/RNG:** 2N 1E **SECTION:** 34 **QUARTERS/FOOTAGES:** 330' S line, 330' E line of SE
QUADRANGLE: CENTRALIA EAST **LONGITUDE:** -89.069844 **GEOLOGIST:** J JOHNSON
CONFIDENTIAL: N **LATITUDE:** 38.562307 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 509.0 **LOGGED (FT.):** 3498.0 **LOG TYPE:** Electric Log
SOURCE: WHITE, IVAN **WELL TYPE:** Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-191.0	CARBONDALE	SPRINGFIELD	COAL	-	700.0	
-306.0	CARBONDALE	COLCHESTER	COAL	-	815.0	
-1219.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1728.0	
-2886.0	DEVONIAN	UPPER DEVONIAN S	UNCLASSIFIED	-	3395.0	TOP OF NEW ALBANY
-2898.0	DEVONIAN	GRASSY CREEK	UNCLASSIFIED	-	3407.0	
-2989.0	DEVONIAN	BASE UPPER DEVON	UNCLASSIFIED	-	3498.0	BASE OF NEW ALBANY

MAPID: 12101699000C VERSION: 2

PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 2N 1E SECTION: 34 QUARTERS/FOOTAGES: 330' S line, 330' E line of SE
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.069844 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.562307 DATE COLLECTED:
SURFACE ELEVATION (FT.): 509.0 LOGGED (FT.): 818.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
219.0	BOND	CARTHAGE	LIMESTONE	11.0	290.0
14.0	MODESTO	TRIVOLI	SANDSTONE	60.0	495.0
-134.0	MODESTO	PIASA	LIMESTONE	3.0	643.0
-156.0	CARBONDALE	DANVILLE	COAL	3.0	665.0
-195.0	CARBONDALE	HERRIN	COAL	6.0	704.0
-233.0	CARBONDALE	SPRINGFIELD	COAL	4.0	742.0
-309.0	CARBONDALE	HOUCHIN CREEK	COAL	-	818.0

MAPID: 12101952000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: MARION TWP/RNG: 2N 1E SECTION: 34 QUARTERS/FOOTAGES: 990' S line, 1650' W line
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.081356 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.564127 DATE COLLECTED:
SURFACE ELEVATION (FT.): 482.0 LOGGED (FT.): 653.3 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
-106.0	MODESTO	PIASA	LIMESTONE	4.0	588.0
-110.0	MODESTO		SHALE	16.0	592.0
-126.0	CARBONDALE	DANVILLE	COAL	2.0	608.0
-128.0	CARBONDALE		SHALE	2.5	610.0
-130.5	CARBONDALE		SHALE	2.0	612.5
-132.5	CARBONDALE	ALLENBY	COAL	2.5	614.5
-135.0	CARBONDALE		SHALE	2.5	617.0
-137.5	CARBONDALE	BANKSTON FORK	LIMESTONE	2.0	619.5
-139.5	CARBONDALE	BANKSTON FORK	SHALE	2.0	621.5
-141.5	CARBONDALE	BANKSTON FORK	LIMESTONE	4.0	623.5
-145.5	CARBONDALE	LAWSON	SHALE	5.0	627.5
-150.5	CARBONDALE	CONANT	LIMESTONE	5.0	632.5
-155.5	CARBONDALE		SHALE	2.5	637.5
-158.0	CARBONDALE	BRERETON	LIMESTONE	3.5	640.0
-161.5	CARBONDALE	ANNA	BLACK SHALE	3.8	643.5
-165.0	CARBONDALE	HERRIN	COAL	6.3	647.0

MAPID: 12100495000C **VERSION:** 1 **PROJECT:** CIRC 164
COUNTY: MARION **TWP/RNG:** 2N 1E **SECTION:** 35 **QUARTERS/FOOTAGES:** NE NE SW
QUADRANGLE: CENTRALIA EAST **LONGITUDE:** -89.060573 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.567827 **DATE COLLECTED:** 0 / 0 / 1909
SURFACE ELEVATION (FT.): 516.0 **LOGGED (FT.):** 1865.0 **LOG TYPE:**
SOURCE: GIBSON C E, FRANK ERNA **WELL TYPE:** Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-211.0	CARBONDALE	HERRIN	COAL	-	727.0	

MAPID: 12100495000C **VERSION:** 2 **PROJECT:** CGT-ECILL
COUNTY: MARION **TWP/RNG:** 2N 1E **SECTION:** 35 **QUARTERS/FOOTAGES:** NE NE SW
QUADRANGLE: CENTRALIA EAST **LONGITUDE:** -89.060573 **GEOLOGIST:** C TREWORYG
CONFIDENTIAL: N **LATITUDE:** 38.567827 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 516.0 **LOGGED (FT.):** 760.0 **LOG TYPE:** Drillers Log
SOURCE: **WELL TYPE:** Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-211.0	CARBONDALE	HERRIN	COAL	-	727.0	
-244.0	CARBONDALE	SPRINGFIELD	COAL	-	760.0	

MAPID: 12100497000C **VERSION:** 1 **PROJECT:** J JOHNSON
COUNTY: MARION **TWP/RNG:** 2N 1E **SECTION:** 36 **QUARTERS/FOOTAGES:** 588' N line, 126' E line
QUADRANGLE: CENTRALIA EAST **LONGITUDE:** -89.03221 **GEOLOGIST:** J JOHNSON
CONFIDENTIAL: N **LATITUDE:** 38.5744 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 514.0 **LOGGED (FT.):** 3488.0 **LOG TYPE:** Electric Log
SOURCE: THOMPSON DRILLING CO **WELL TYPE:** Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-199.0	CARBONDALE	SPRINGFIELD	COAL	-	713.0	
-296.0	CARBONDALE	COLCHESTER	COAL	-	810.0	
-1231.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1745.0	
-2862.0	DEVONIAN	UPPER DEVONIAN S	UNCLASSIFIED	-	3376.0	TOP OF NEW ALBANY
-2881.0	DEVONIAN	GRASSY CREEK	UNCLASSIFIED	-	3395.0	
-2974.0	DEVONIAN	BASE UPPER DEVON	UNCLASSIFIED	-	3488.0	BASE OF NEW ALBANY

MAPID: 12100498000C **VERSION:** 1 **PROJECT:** CIRC 164
COUNTY: MARION **TWP/RNG:** 2N 1E **SECTION:** 36 **QUARTERS/FOOTAGES:** NE SE NE
QUADRANGLE: CENTRALIA EAST **LONGITUDE:** -89.032933 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.571487 **DATE COLLECTED:** 0 / 0 / 1939
SURFACE ELEVATION (FT.): 504.0 **LOGGED (FT.):** 2211.0 **LOG TYPE:**
SOURCE: TEXAS CO, WRIGHT W C 1 **WELL TYPE:** Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.) UNIT OVERBURDEN	COMMENT
-170.0	CARBONDALE	HERRIN	COAL	- 674.0	

MAPID: 12100947000C **VERSION:** 1 **PROJECT:** CIRC 164
COUNTY: MARION **TWP/RNG:** 2N 1E **SECTION:** 36 **QUARTERS/FOOTAGES:** 1036' N line, 67' E line
QUADRANGLE: CENTRALIA EAST **LONGITUDE:** -89.032015 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.573165 **DATE COLLECTED:** 0 / 0 / 1940
SURFACE ELEVATION (FT.): 511.0 **LOGGED (FT.):** 3536.0 **LOG TYPE:**
SOURCE: HAYNES&TOM, WALLACE 2 **WELL TYPE:** Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.) UNIT OVERBURDEN	COMMENT
204.0	BOND	CARTHAGE	LIMESTONE	- 307.0	
-164.0	CARBONDALE	HERRIN	COAL	- 675.0	

MAPID: 12100947000C **VERSION:** 2 **PROJECT:** ROOF STUDY
COUNTY: MARION **TWP/RNG:** 2N 1E **SECTION:** 36 **QUARTERS/FOOTAGES:** 1036' N line, 67' E line
QUADRANGLE: CENTRALIA EAST **LONGITUDE:** -89.032015 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.573165 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 511.0 **LOGGED (FT.):** 682.5 **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
-115.0	MODESTO	PIASA	LIMESTONE	9.0 626.0	
-124.0	MODESTO		SHALE	14.0 635.0	
-138.0	CARBONDALE	DANVILLE	COAL	2.5 649.0	
-140.5	CARBONDALE		SHALE	4.0 651.5	
-144.5	CARBONDALE	BANKSTON FORK	LIMESTONE	4.0 655.5	
-148.5	CARBONDALE	LAWSON	SHALE	3.0 659.5	
-151.5	CARBONDALE	BRERETON	LIMESTONE	10.0 662.5	
-161.5	CARBONDALE	ANNA	BLACK SHALE	3.5 672.5	
-165.0	CARBONDALE	HERRIN	COAL	6.5 676.0	

MAPID: 12101700000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 2N 2E SECTION: 1 QUARTERS/FOOTAGES: 330' N line, 330' E line of NW
QUADRANGLE: SALEM NORTH LONGITUDE: -88.932095 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.648588 DATE COLLECTED:
SURFACE ELEVATION (FT.): 559.0 LOGGED (FT.): 970.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
133.0	BOND	CARTHAGE	LIMESTONE	9.0	426.0
14.0	MODESTO	TRIVOLI	SANDSTONE	29.0	545.0
-260.0	CARBONDALE	BRIAR HILL	COAL	-	819.0
-270.0	CARBONDALE	SPRINGFIELD	COAL	5.0	829.0
-316.0	CARBONDALE	HOUCHIN CREEK	COAL	-	875.0
-411.0	CARBONDALE	COLCHESTER	COAL	-	970.0

MAPID: 12101700000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: MARION TWP/RNG: 2N 2E SECTION: 1 QUARTERS/FOOTAGES: 330' N line, 330' E line of NW
QUADRANGLE: SALEM NORTH LONGITUDE: -88.932095 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.648588 DATE COLLECTED:
SURFACE ELEVATION (FT.): 559.0 LOGGED (FT.): 789.5 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
-171.0	MODESTO	PIASA	LIMESTONE	6.0	730.0
-177.0	MODESTO		SHALE	14.0	736.0
-191.0	CARBONDALE	DANVILLE	CARBONACEOUS SHALE	1.0	750.0
-192.0	CARBONDALE		SHALE	11.0	751.0
-203.0	CARBONDALE	BANKSTON FORK	LIMESTONE	2.0	762.0
-205.0	CARBONDALE	BANKSTON FORK	SHALE	2.0	764.0
-207.0	CARBONDALE	BANKSTON FORK	LIMESTONE	4.0	766.0
-211.0	CARBONDALE	LAWSON	SHALE	6.0	770.0
-217.0	CARBONDALE	CONANT	LIMESTONE & SHALE	2.5	776.0
-219.5	CARBONDALE		SHALE	3.5	778.5
-223.0	CARBONDALE	BRERETON	LIMESTONE	4.0	782.0
-227.0	CARBONDALE	HERRIN	COAL	3.5	786.0

MAPID: 12101700000C **VERSION:** 3 **PROJECT:** J JOHNSON
COUNTY: MARION **TWP/RNG:** 2N 2E **SECTION:** 1 **QUARTERS/FOOTAGES:** 330' N line, 330' E line of NW
QUADRANGLE: SALEM NORTH **LONGITUDE:** -88.932095 **GEOLOGIST:** J JOHNSON
CONFIDENTIAL: N **LATITUDE:** 38.648588 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 556.0 **LOGGED (FT.):** 1951.0 **LOG TYPE:** Electric Log
SOURCE: PEARSON, CHRIS JR. **WELL TYPE:** Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-274.0	CARBONDALE	SPRINGFIELD	COAL	-	830.0	
-411.0	CARBONDALE	COLCHESTER	COAL	-	967.0	
-1395.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1951.0	

MAPID: 12100499000C **VERSION:** 1 **PROJECT:** CIRC 164
COUNTY: MARION **TWP/RNG:** 2N 2E **SECTION:** 3 **QUARTERS/FOOTAGES:** NW NE SW
QUADRANGLE: SALEM NORTH **LONGITUDE:** -88.971356 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.640977 **DATE COLLECTED:** 0 / 0 / 1940
SURFACE ELEVATION (FT.): 568.0 **LOGGED (FT.):** 2324.0 **LOG TYPE:**
SOURCE: TEXAS CO, DONOHUE F 1 **WELL TYPE:** Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
198.0	BOND	CARTHAGE	LIMESTONE	-	370.0	
-154.0	CARBONDALE	HERRIN	COAL	-	722.0	

MAPID: 12100954000C **VERSION:** 1 **PROJECT:** J JOHNSON
COUNTY: MARION **TWP/RNG:** 2N 2E **SECTION:** 3 **QUARTERS/FOOTAGES:** 472' N line, 200' W line of NW
QUADRANGLE: SALEM NORTH **LONGITUDE:** -88.976416 **GEOLOGIST:** J JOHNSON
CONFIDENTIAL: N **LATITUDE:** 38.647894 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 565.0 **LOGGED (FT.):** 3547.0 **LOG TYPE:** Electric Log
SOURCE: ABSHER & BOOTH **WELL TYPE:** Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-168.0	CARBONDALE	SPRINGFIELD	COAL	-	733.0	
-310.0	CARBONDALE	COLCHESTER	COAL	-	875.0	
-1195.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1760.0	
-2865.0	DEVONIAN	UPPER DEVONIAN S	UNCLASSIFIED	-	3430.0	TOP OF NEW ALBANY
-2885.0	DEVONIAN	GRASSY CREEK	UNCLASSIFIED	-	3450.0	
-2982.0	DEVONIAN	BASE UPPER DEVON	UNCLASSIFIED	-	3547.0	BASE OF NEW ALBANY

MAPID: 12103205000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 2N 2E SECTION: 3 QUARTERS/FOOTAGES: 330' N line, 330' W line of SW NW
QUADRANGLE: SALEM NORTH LONGITUDE: -88.975944 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.644618 DATE COLLECTED:
SURFACE ELEVATION (FT.): 559.0 LOGGED (FT.): 885.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
203.0	BOND	CARTHAGE	LIMESTONE	13.0	356.0
-175.0	CARBONDALE	BRIAR HILL	COAL	-	734.0
-183.0	CARBONDALE	SPRINGFIELD	COAL	5.0	742.0
-233.0	CARBONDALE	HOUCHIN CREEK	COAL	-	792.0
-326.0	CARBONDALE	COLCHESTER	COAL	-	885.0

MAPID: 12103206000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 2N 2E SECTION: 3 QUARTERS/FOOTAGES: 340' N line, 320' E line
QUADRANGLE: SALEM NORTH LONGITUDE: -88.959764 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.648301 DATE COLLECTED:
SURFACE ELEVATION (FT.): 568.0 LOGGED (FT.): 916.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
189.0	BOND	CARTHAGE	LIMESTONE	15.0	379.0
34.0	MODESTO	TRIVOLI	SANDSTONE	19.0	534.0
-215.0	CARBONDALE	SPRINGFIELD	COAL	4.5	783.0
-269.0	CARBONDALE	HOUCHIN CREEK	COAL	-	837.0
-348.0	CARBONDALE	COLCHESTER	COAL	-	916.0

MAPID: 12100501000C VERSION: 1 PROJECT: J JOHNSON
COUNTY: MARION TWP/RNG: 2N 2E SECTION: 4 QUARTERS/FOOTAGES: 330' N line, 990' E line
QUADRANGLE: SALEM NORTH LONGITUDE: -88.980606 GEOLOGIST: J JOHNSON
CONFIDENTIAL: N LATITUDE: 38.648247 DATE COLLECTED:
SURFACE ELEVATION (FT.): 566.0 LOGGED (FT.): 3560.0 LOG TYPE: Electric Log
SOURCE: TEXACO, INC. WELL TYPE: Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-179.0	CARBONDALE	SPRINGFIELD	COAL	-	745.0	
-316.0	CARBONDALE	COLCHESTER	COAL	-	882.0	
-1195.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1761.0	
-2879.0	DEVONIAN	UPPER DEVONIAN S	UNCLASSIFIED	-	3445.0	TOP OF NEW ALBANY
-2898.0	DEVONIAN	GRASSY CREEK	UNCLASSIFIED	-	3464.0	
-2994.0	DEVONIAN	BASE UPPER DEVON	UNCLASSIFIED	-	3560.0	BASE OF NEW ALBANY

MAPID: 12101343000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 2N 2E SECTION: 4 QUARTERS/FOOTAGES: NW SW NE
QUADRANGLE: SALEM NORTH LONGITUDE: -88.98516 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.644521 DATE COLLECTED: 0 / 0 / 1943
SURFACE ELEVATION (FT.): 562.0 LOGGED (FT.): 2141.0 LOG TYPE:
SOURCE: TEXAS CO, HAMLIN J E 9 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
203.0	BOND	CARTHAGE	LIMESTONE	-	359.0	
-157.0	CARBONDALE	HERRIN	COAL	-	719.0	

MAPID: 12101351000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 2N 2E SECTION: 4 QUARTERS/FOOTAGES: NE SW NE
QUADRANGLE: SALEM NORTH LONGITUDE: -88.982858 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.644544 DATE COLLECTED: 0 / 0 / 1943
SURFACE ELEVATION (FT.): 563.0 LOGGED (FT.): 2025.0 LOG TYPE:
SOURCE: TEXAS CO, HAMLIN J E 10 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
204.0	BOND	CARTHAGE	LIMESTONE	-	359.0	
-163.0	CARBONDALE	HERRIN	COAL	-	726.0	

MAPID: 12101479000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 2N 2E SECTION: 4 QUARTERS/FOOTAGES: SW NW SE
QUADRANGLE: SALEM NORTH LONGITUDE: -88.985109 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.639016 DATE COLLECTED: 0 / 0 / 1946
SURFACE ELEVATION (FT.): 558.0 LOGGED (FT.): 2174.0 LOG TYPE:
SOURCE: SLAGTR AJR, BRANCH L 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
198.0	BOND	CARTHAGE	LIMESTONE	-	360.0
-170.0	CARBONDALE	HERRIN	COAL	-	728.0

MAPID: 12101480000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 2N 2E SECTION: 4 QUARTERS/FOOTAGES: NW NW SE
QUADRANGLE: SALEM NORTH LONGITUDE: -88.985127 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.640852 DATE COLLECTED: 0 / 0 / 1946
SURFACE ELEVATION (FT.): 562.0 LOGGED (FT.): 2181.0 LOG TYPE:
SOURCE: TEXAS CO, HAMLIN J E 11 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
202.0	BOND	CARTHAGE	LIMESTONE	-	360.0
-172.0	CARBONDALE	HERRIN	COAL	-	734.0

MAPID: 12101481000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 2N 2E SECTION: 4 QUARTERS/FOOTAGES: NE NW SE
QUADRANGLE: SALEM NORTH LONGITUDE: -88.982828 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.640875 DATE COLLECTED: 0 / 0 / 1947
SURFACE ELEVATION (FT.): 555.0 LOGGED (FT.): 2148.0 LOG TYPE:
SOURCE: TEXAS CO, HAMLIN J E 12 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
201.0	BOND	CARTHAGE	LIMESTONE	-	354.0
-153.0	CARBONDALE	HERRIN	COAL	-	708.0

MAPID: 12101482000C **VERSION:** 1 **PROJECT:** CIRC 164
COUNTY: MARION **TWP/RNG:** 2N 2E **SECTION:** 4 **QUARTERS/FOOTAGES:** SE NE SW
QUADRANGLE: SALEM NORTH **LONGITUDE:** -88.987404 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.638993 **DATE COLLECTED:** 0 / 0 / 1946
SURFACE ELEVATION (FT.): 557.0 **LOGGED (FT.):** 2180.0 **LOG TYPE:**
SOURCE: SLAGTR AJR, WILLIAMS E 1 **WELL TYPE:** Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
197.0	BOND	CARTHAGE	LIMESTONE	-	360.0
-161.0	CARBONDALE	HERRIN	COAL	-	718.0

MAPID: 12105083000C **VERSION:** 1 **PROJECT:** CGT-ECILL
COUNTY: MARION **TWP/RNG:** 2N 2E **SECTION:** 4 **QUARTERS/FOOTAGES:** 330' S line, 330' E line of NE
QUADRANGLE: SALEM NORTH **LONGITUDE:** -88.978256 **GEOLOGIST:** C TREWORY
CONFIDENTIAL: N **LATITUDE:** 38.642751 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 561.0 **LOGGED (FT.):** 797.0 **LOG TYPE:** Nuclear Log
SOURCE: **WELL TYPE:** Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
211.0	BOND	CARTHAGE	LIMESTONE	10.0	350.0
-170.0	CARBONDALE	BRIAR HILL	COAL	3.0	731.0
-179.0	CARBONDALE	SPRINGFIELD	COAL	4.5	740.0
-236.0	CARBONDALE	HOUCHIN CREEK	COAL	-	797.0

MAPID: 12125830000C **VERSION:** 1 **PROJECT:** CGT-ECILL
COUNTY: MARION **TWP/RNG:** 2N 2E **SECTION:** 4 **QUARTERS/FOOTAGES:** 1100' N line, 1320' E line
QUADRANGLE: SALEM NORTH **LONGITUDE:** -88.981759 **GEOLOGIST:** C TREWORY
CONFIDENTIAL: N **LATITUDE:** 38.646107 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 576.0 **LOGGED (FT.):** 822.0 **LOG TYPE:** Nuclear Log
SOURCE: **WELL TYPE:** Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-126.0	CARBONDALE	HERRIN	COAL	3.5	702.0
-179.0	CARBONDALE	BRIAR HILL	COAL	3.0	755.0
-189.0	CARBONDALE	SPRINGFIELD	COAL	4.0	765.0
-246.0	CARBONDALE	HOUCHIN CREEK	COAL	-	822.0

MAPID: 12126827000C VERSION: 1 PROJECT: J JOHNSON
COUNTY: MARION TWP/RNG: 2N 2E SECTION: 4 QUARTERS/FOOTAGES: 405' S line, 330' E line of NE SW
QUADRANGLE: SALEM NORTH LONGITUDE: -88.98742 GEOLOGIST: J JOHNSON
CONFIDENTIAL: N LATITUDE: 38.639194 DATE COLLECTED:
SURFACE ELEVATION (FT.): 565.0 LOGGED (FT.): 3597.0 LOG TYPE: Electric Log
SOURCE: LIPPERT, MARSHALL WELL TYPE: Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-1221.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1786.0	
-2915.0	DEVONIAN	UPPER DEVONIAN S	UNCLASSIFIED	-	3480.0	TOP OF NEW ALBANY
-2935.0	DEVONIAN	GRASSY CREEK	UNCLASSIFIED	-	3500.0	
-3032.0	DEVONIAN	BASE UPPER DEVON	UNCLASSIFIED	-	3597.0	BASE OF NEW ALBANY

MAPID: 12100508000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 2N 2E SECTION: 5 QUARTERS/FOOTAGES: 330' N line, 658' E line of SE
QUADRANGLE: SALEM NORTH LONGITUDE: -88.997779 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.640731 DATE COLLECTED: 0 / 0 / 1940
SURFACE ELEVATION (FT.): 556.0 LOGGED (FT.): 2296.0 LOG TYPE:
SOURCE: TEXAS CO, CHANCE P 2 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
207.0	BOND	CARTHAGE	LIMESTONE	-	349.0	
-166.0	CARBONDALE	HERRIN	COAL	-	722.0	

MAPID: 12100508000C VERSION: 2 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 2N 2E SECTION: 5 QUARTERS/FOOTAGES: 330' N line, 658' E line of SE
QUADRANGLE: SALEM NORTH LONGITUDE: -88.997779 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.640731 DATE COLLECTED:
SURFACE ELEVATION (FT.): 559.0 LOGGED (FT.): 825.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
206.0	BOND	CARTHAGE	LIMESTONE	11.0	353.0	
-205.0	CARBONDALE	SPRINGFIELD	COAL	5.0	764.0	
-266.0	CARBONDALE	HOUCHIN CREEK	COAL	-	825.0	

MAPID: 12102068000C VERSION: 1 PROJECT: J JOHNSON
COUNTY: MARION TWP/RNG: 2N 2E SECTION: 5 QUARTERS/FOOTAGES: 330' N line, 330' E line of SW NE
QUADRANGLE: FAIRMAN LONGITUDE: -89.001299 GEOLOGIST: J JOHNSON
CONFIDENTIAL: N LATITUDE: 38.644368 DATE COLLECTED:
SURFACE ELEVATION (FT.): 559.0 LOGGED (FT.): 1804.0 LOG TYPE: Electric Log
SOURCE: HOLSAPPLE & PURSLEY WELL TYPE: Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-205.0	CARBONDALE	SPRINGFIELD	COAL	-	764.0
-346.0	CARBONDALE	COLCHESTER	COAL	-	905.0
-1245.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1804.0

MAPID: 12103233000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 2N 2E SECTION: 5 QUARTERS/FOOTAGES: 636' N line, 990' E line
QUADRANGLE: SALEM NORTH LONGITUDE: -88.999054 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.647207 DATE COLLECTED:
SURFACE ELEVATION (FT.): 561.0 LOGGED (FT.): 890.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
219.0	BOND	CARTHAGE	LIMESTONE	11.0	342.0
-193.0	CARBONDALE	SPRINGFIELD	COAL	5.0	754.0
-253.0	CARBONDALE	HOUCHIN CREEK	COAL	-	814.0
-329.0	CARBONDALE	COLCHESTER	COAL	-	890.0

MAPID: 12101483000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 2N 2E SECTION: 6 QUARTERS/FOOTAGES: SW SW SW
QUADRANGLE: FAIRMAN LONGITUDE: -89.030044 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.635068 DATE COLLECTED: 0 / 0 / 1947
SURFACE ELEVATION (FT.): 547.0 LOGGED (FT.): 1943.0 LOG TYPE:
SOURCE: DORAN PAUL, ZOLLAR 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
213.0	BOND	CARTHAGE	LIMESTONE	-	334.0
-169.0	CARBONDALE	HERRIN	COAL	-	716.0

MAPID: 12101491000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 2N 2E SECTION: 6 QUARTERS/FOOTAGES: SW SE SW
QUADRANGLE: FAIRMAN LONGITUDE: -89.026316 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.635075 DATE COLLECTED: 0 / 0 / 1945
SURFACE ELEVATION (FT.): 550.0 LOGGED (FT.): 1935.0 LOG TYPE:
SOURCE: SCHLY&SLKA, YOUNG B F 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
214.0	BOND	CARTHAGE	LIMESTONE	-	336.0
-168.0	CARBONDALE	HERRIN	COAL	-	718.0

MAPID: 12103236000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 2N 2E SECTION: 6 QUARTERS/FOOTAGES: 330' S line, 990' W line of NW SW
QUADRANGLE: FAIRMAN LONGITUDE: -89.027637 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.638708 DATE COLLECTED:
SURFACE ELEVATION (FT.): 550.0 LOGGED (FT.): 906.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
210.0	BOND	CARTHAGE	LIMESTONE	10.0	340.0
-195.0	CARBONDALE	BRIAR HILL	COAL	-	745.0
-212.0	CARBONDALE	SPRINGFIELD	COAL	4.0	762.0
-279.0	CARBONDALE	HOUCHIN CREEK	COAL	-	829.0
-356.0	CARBONDALE	COLCHESTER	COAL	-	906.0

MAPID: 12103236000C VERSION: 2 PROJECT: ROOF STUDY

COUNTY: MARION TWP/RNG: 2N 2E SECTION: 6 QUARTERS/FOOTAGES: 330' S line, 990' W line of NW SW

QUADRANGLE: FAIRMAN LONGITUDE: -89.027637 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.638708 DATE COLLECTED:

SURFACE ELEVATION (FT.): 550.0 LOGGED (FT.): 719.0 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
-116.0	MODESTO	PIASA	LIMESTONE	3.5	666.0
-119.5	MODESTO		SHALE	10.0	669.5
-129.5	CARBONDALE	DANVILLE	COAL	1.0	679.5
-130.5	CARBONDALE		SHALE	10.0	680.5
-140.5	CARBONDALE		SHALE	1.5	690.5
-142.0	CARBONDALE	ALLENBY	COAL	2.5	692.0
-144.5	CARBONDALE		SHALE	6.0	694.5
-150.5	CARBONDALE	BANKSTON FORK	LIMESTONE	5.0	700.5
-155.5	CARBONDALE	LAWSON	SHALE	3.5	705.5
-159.0	CARBONDALE	BRERETON	LIMESTONE	4.0	709.0
-163.0	CARBONDALE	ANNA	SHALE	1.5	713.0
-165.0	CARBONDALE	HERRIN	COAL	4.0	715.0

MAPID: 12103237000C VERSION: 1 PROJECT: J JOHNSON

COUNTY: MARION TWP/RNG: 2N 2E SECTION: 6 QUARTERS/FOOTAGES: 330' S line, 990' W line of SE SW SE

QUADRANGLE: FAIRMAN LONGITUDE: -89.017024 GEOLOGIST: J JOHNSON

CONFIDENTIAL: N LATITUDE: 38.635086 DATE COLLECTED:

SURFACE ELEVATION (FT.): 544.0 LOGGED (FT.): 1684.0 LOG TYPE: Electric Log

SOURCE: DORAN PAUL EST WELL TYPE: Oil and Gas Test

COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-199.0	CARBONDALE	SPRINGFIELD	COAL	-	743.0
-336.0	CARBONDALE	COLCHESTER	COAL	-	880.0
-1140.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1684.0

MAPID: 12100509000C **VERSION:** 1 **PROJECT:** J JOHNSON
COUNTY: MARION **TWP/RNG:** 2N 2E **SECTION:** 7 **QUARTERS/FOOTAGES:** SW SW SW
QUADRANGLE: CENTRALIA EAST **LONGITUDE:** -89.029732 **GEOLOGIST:** J JOHNSON
CONFIDENTIAL: N **LATITUDE:** 38.621014 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 538.0 **LOGGED (FT.):** 3464.0 **LOG TYPE:** Electric Log
SOURCE: HUDSON HESS DRLG **WELL TYPE:** Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-216.0	CARBONDALE	SPRINGFIELD	COAL	-	754.0	
-352.0	CARBONDALE	COLCHESTER	COAL	-	890.0	
-1202.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1740.0	
-2823.0	DEVONIAN	UPPER DEVONIAN S	UNCLASSIFIED	-	3361.0	TOP OF NEW ALBANY
-2838.0	DEVONIAN	GRASSY CREEK	UNCLASSIFIED	-	3376.0	
-2926.0	DEVONIAN	BASE UPPER DEVON	UNCLASSIFIED	-	3464.0	BASE OF NEW ALBANY

MAPID: 12100509000C **VERSION:** 2 **PROJECT:** CIRC 164
COUNTY: MARION **TWP/RNG:** 2N 2E **SECTION:** 7 **QUARTERS/FOOTAGES:** SW SW SW
QUADRANGLE: CENTRALIA EAST **LONGITUDE:** -89.029732 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.621014 **DATE COLLECTED:** 0 / 0 / 1941
SURFACE ELEVATION (FT.): 538.0 **LOGGED (FT.):** 3597.0 **LOG TYPE:**
SOURCE: HUDESS DRC, YOUNG B F 1 **WELL TYPE:** Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
217.0	BOND	CARTHAGE	LIMESTONE	-	321.0	
-164.0	CARBONDALE	HERRIN	COAL	-	702.0	

MAPID: 12100511000C **VERSION:** 1 **PROJECT:** CIRC 164
COUNTY: MARION **TWP/RNG:** 2N 2E **SECTION:** 7 **QUARTERS/FOOTAGES:** SE SW NE
QUADRANGLE: FAIRMAN **LONGITUDE:** -89.0194 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.62778 **DATE COLLECTED:** 0 / 0 / 1941
SURFACE ELEVATION (FT.): 547.0 **LOGGED (FT.):** 2240.0 **LOG TYPE:**
SOURCE: TEXAS CO, KAGY A L 1 **WELL TYPE:** Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
221.0	BOND	CARTHAGE	LIMESTONE	-	326.0	
-165.0	CARBONDALE	HERRIN	COAL	-	712.0	

MAPID: 12101484000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 2N 2E SECTION: 7 QUARTERS/FOOTAGES: 330' N line, 1205' W line of SW
QUADRANGLE: FAIRMAN LONGITUDE: -89.027004 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.625918 DATE COLLECTED: 0 / 0 / 1945
SURFACE ELEVATION (FT.): 533.0 LOGGED (FT.): 1741.0 LOG TYPE:
SOURCE: CENTRLPIPE, ELLIOTT 3 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
223.0	BOND	CARTHAGE	LIMESTONE	-	310.0
-171.0	CARBONDALE	HERRIN	COAL	-	704.0

MAPID: 12101484000C VERSION: 2 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 2N 2E SECTION: 7 QUARTERS/FOOTAGES: 330' N line, 1205' W line of SW
QUADRANGLE: FAIRMAN LONGITUDE: -89.027004 GEOLOGIST: C TREWORYG
CONFIDENTIAL: N LATITUDE: 38.625918 DATE COLLECTED:
SURFACE ELEVATION (FT.): 533.0 LOGGED (FT.): 806.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
222.0	BOND	CARTHAGE	LIMESTONE	11.0	311.0
115.0	MODESTO	TRIVOLI	SANDSTONE	36.0	418.0
-172.0	CARBONDALE	HERRIN	COAL	4.0	705.0
-208.0	CARBONDALE	SPRINGFIELD	COAL	4.0	741.0
-273.0	CARBONDALE	HOUCHIN CREEK	COAL	-	806.0

MAPID: 12101492000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 2N 2E SECTION: 7 QUARTERS/FOOTAGES: NE SE SW
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.02409 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.622267 DATE COLLECTED: 0 / 0 / 1945
SURFACE ELEVATION (FT.): 543.0 LOGGED (FT.): 2132.0 LOG TYPE:
SOURCE: TAYLOR D D, KAGY J L WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
221.0	BOND	CARTHAGE	LIMESTONE	-	322.0
-162.0	CARBONDALE	HERRIN	COAL	-	705.0

MAPID: 12101779000C **VERSION:** 1 **PROJECT:** J JOHNSON
COUNTY: MARION **TWP/RNG:** 2N 2E **SECTION:** 7 **QUARTERS/FOOTAGES:** 330' S line, 380' W line of NW
QUADRANGLE: FAIRMAN **LONGITUDE:** -89.029885 **GEOLOGIST:** J JOHNSON
CONFIDENTIAL: N **LATITUDE:** 38.627721 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 543.0 **LOGGED (FT.):** 3451.0 **LOG TYPE:** Electric Log
SOURCE: WAUSAU PETRO. CORP. **WELL TYPE:** Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-221.0	CARBONDALE	SPRINGFIELD	COAL	-	764.0	
-361.0	CARBONDALE	COLCHESTER	COAL	-	904.0	
-1184.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1727.0	
-2807.0	DEVONIAN	UPPER DEVONIAN S	UNCLASSIFIED	-	3350.0	TOP OF NEW ALBANY
-2821.0	DEVONIAN	GRASSY CREEK	UNCLASSIFIED	-	3364.0	
-2908.0	DEVONIAN	BASE UPPER DEVON	UNCLASSIFIED	-	3451.0	BASE OF NEW ALBANY

MAPID: 12103242000C **VERSION:** 1 **PROJECT:** ROOF STUDY
COUNTY: MARION **TWP/RNG:** 2N 2E **SECTION:** 7 **QUARTERS/FOOTAGES:** 1650' S line, 1650' W line
QUADRANGLE: CENTRALIA EAST **LONGITUDE:** -89.025461 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.624061 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 546.0 **LOGGED (FT.):** 705.5 **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	
-104.0	MODESTO	PIASA	LIMESTONE	8.0	650.0	
-112.0	MODESTO		SHALE	11.5	658.0	
-123.5	CARBONDALE	DANVILLE	CARBONACEOUS SHALE	1.0	669.5	
-124.5	CARBONDALE		SHALE	4.5	670.5	
-129.0	CARBONDALE		DARK GRAY SHALE	3.0	675.0	
-132.0	CARBONDALE	ALLENBY	COAL	3.0	678.0	
-135.0	CARBONDALE		SHALE	4.0	681.0	
-139.0	CARBONDALE	BANKSTON FORK	LIMESTONE	3.5	685.0	
-142.5	CARBONDALE	LAWSON	SHALE	3.5	688.5	
-146.0	CARBONDALE	BRERETON	LIMESTONE	5.5	692.0	
-151.5	CARBONDALE	ANNA	SHALE	5.0	697.5	
-156.0	CARBONDALE	HERRIN	COAL	3.5	702.0	

MAPID: 12103259000C VERSION: 1 PROJECT: J JOHNSON
COUNTY: MARION TWP/RNG: 2N 2E SECTION: 8 QUARTERS/FOOTAGES: 330' S line, 330' W line of NW
QUADRANGLE: FAIRMAN LONGITUDE: -89.012431 GEOLOGIST: J JOHNSON
CONFIDENTIAL: N LATITUDE: 38.627823 DATE COLLECTED:
SURFACE ELEVATION (FT.): 544.0 LOGGED (FT.): 1774.0 LOG TYPE: Electric Log
SOURCE: DORAN PAUL EST WELL TYPE: Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-238.0	CARBONDALE	SPRINGFIELD	COAL	-	782.0
-368.0	CARBONDALE	COLCHESTER	COAL	-	912.0
-1230.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1774.0

MAPID: 12103259000C VERSION: 2 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 2N 2E SECTION: 8 QUARTERS/FOOTAGES: 330' S line, 330' W line of NW
QUADRANGLE: FAIRMAN LONGITUDE: -89.012431 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.627823 DATE COLLECTED:
SURFACE ELEVATION (FT.): 544.0 LOGGED (FT.): 914.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
194.0	BOND	CARTHAGE	LIMESTONE	10.0	350.0
88.0	MODESTO	TRIVOLI	SANDSTONE	26.0	456.0
-124.0	MODESTO	PIASA	LIMESTONE	8.0	668.0
-183.0	CARBONDALE	HERRIN	COAL	5.0	727.0
-234.0	CARBONDALE	SPRINGFIELD	COAL	5.0	778.0
-301.0	CARBONDALE	HOUCHIN CREEK	COAL	-	845.0
-370.0	CARBONDALE	COLCHESTER	COAL	-	914.0

MAPID: 12101347000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 2N 2E SECTION: 9 QUARTERS/FOOTAGES: 2310' N line, 1650' E line
QUADRANGLE: SALEM NORTH LONGITUDE: -88.982841 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.628075 DATE COLLECTED: 0 / 0 / 1943
SURFACE ELEVATION (FT.): 557.0 LOGGED (FT.): 2166.0 LOG TYPE:
SOURCE: BRISCL ETL, MCFADDEN L 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
170.0	BOND	CARTHAGE	LIMESTONE	-	387.0
-193.0	CARBONDALE	HERRIN	COAL	-	750.0

MAPID: 12101347000C **VERSION:** 2 **PROJECT:** ROOF STUDY
COUNTY: MARION **TWP/RNG:** 2N 2E **SECTION:** 9 **QUARTERS/FOOTAGES:** 2310' N line, 1650' E line
QUADRANGLE: SALEM NORTH **LONGITUDE:** -88.982841 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.628075 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 557.0 **LOGGED (FT.):** 750.0 **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
-138.0	MODESTO	PIASA	LIMESTONE	7.0	695.0
-145.0	MODESTO		SHALE	12.0	702.0
-157.0	CARBONDALE	DANVILLE	CARBONACEOUS SHALE	1.0	714.0
-158.0	CARBONDALE		SHALE	7.0	715.0
-165.0	CARBONDALE	ALLENBY	SHALE	3.0	722.0
-168.0	CARBONDALE		COAL	2.0	725.0
-170.0	CARBONDALE		SHALE	11.0	727.0
-181.0	CARBONDALE	BANKSTON FORK	LIMESTONE	6.0	738.0
-187.0	CARBONDALE	BRERETON	LIMESTONE	6.0	744.0

MAPID: 12101367000C **VERSION:** 1 **PROJECT:** CIRC 164
COUNTY: MARION **TWP/RNG:** 2N 2E **SECTION:** 9 **QUARTERS/FOOTAGES:** SW SE SE
QUADRANGLE: SALEM SOUTH **LONGITUDE:** -88.980472 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.620807 **DATE COLLECTED:** 0 / 0 / 1944
SURFACE ELEVATION (FT.): 549.0 **LOGGED (FT.):** 1890.0 **LOG TYPE:**
SOURCE: TEXAS CO, SHANAFLT F 13 **WELL TYPE:** Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
177.0	BOND	CARTHAGE	LIMESTONE	-	372.0
-157.0	CARBONDALE	HERRIN	COAL	-	706.0

MAPID: 12101371000C **VERSION:** 1 **PROJECT:** CIRC 164
COUNTY: MARION **TWP/RNG:** 2N 2E **SECTION:** 9 **QUARTERS/FOOTAGES:** SE SW SE
QUADRANGLE: SALEM SOUTH **LONGITUDE:** -88.982781 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.620803 **DATE COLLECTED:** 0 / 0 / 1943
SURFACE ELEVATION (FT.): 552.0 **LOGGED (FT.):** 1894.0 **LOG TYPE:**
SOURCE: TEXAS CO, SHANAFLT F 12 **WELL TYPE:** Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
186.0	BOND	CARTHAGE	LIMESTONE	-	366.0
-152.0	CARBONDALE	HERRIN	COAL	-	704.0

MAPID: 12103260000C VERSION: 1 PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 2N 2E SECTION: 9 QUARTERS/FOOTAGES: 1010' N line, 395' W line of NE

QUADRANGLE: SALEM NORTH LONGITUDE: -88.984824 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.631646 DATE COLLECTED:

SURFACE ELEVATION (FT.): 550.0 LOGGED (FT.): 825.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
188.0	BOND	CARTHAGE	LIMESTONE	10.0	362.0
60.0	MODESTO	TRIVOLI	SANDSTONE	57.0	490.0
-203.0	CARBONDALE	BRIAR HILL	COAL	-	753.0
-211.0	CARBONDALE	SPRINGFIELD	COAL	4.0	761.0
-275.0	CARBONDALE	HOUCHIN CREEK	COAL	-	825.0

MAPID: 12100232000C VERSION: 1 PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 2N 2E SECTION: 10 QUARTERS/FOOTAGES: SW SW NW

QUADRANGLE: SALEM NORTH LONGITUDE: -88.975893 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.62813 DATE COLLECTED:

SURFACE ELEVATION (FT.): 561.0 LOGGED (FT.): 825.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: POOR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
175.0	BOND	CARTHAGE	LIMESTONE	10.0	386.0
61.0	MODESTO	TRIVOLI	SANDSTONE	58.0	500.0
-214.0	CARBONDALE	SPRINGFIELD	COAL	4.0	775.0
-264.0	CARBONDALE	HOUCHIN CREEK	COAL	-	825.0

MAPID: 12100232000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: MARION TWP/RNG: 2N 2E SECTION: 10
QUADRANGLE: SALEM NORTH LONGITUDE: -88.975893
CONFIDENTIAL: N LATITUDE: 38.62813
SURFACE ELEVATION (FT.): 561.0 LOGGED (FT.): 737.5
SOURCE:
COMMENT: POOR DESCRIPTION

GEOLOGIST:
DATE COLLECTED:
LOG TYPE: Electric Log
WELL TYPE: Oil and Gas Test

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-135.0	MODESTO	PIASA	LIMESTONE	6.0	696.0
-141.0	MODESTO		SHALE	11.0	702.0
-152.0	CARBONDALE		SHALE	7.0	713.0
-159.0	CARBONDALE		SHALE	2.0	720.0
-161.0	CARBONDALE	ALLENBY	COAL	2.0	722.0
-163.0	CARBONDALE	BANKSTON FORK	SHALE	5.5	724.0
-168.5	CARBONDALE		LIMESTONE	3.5	729.5
-172.0	CARBONDALE		LIMESTONE	4.0	733.0
-174.0	CARBONDALE	HERRIN	COAL	2.5	735.0

MAPID: 12100232000C VERSION: 3

PROJECT: CIRC 164

COUNTY: MARION TWP/RNG: 2N 2E SECTION: 10
QUADRANGLE: SALEM NORTH LONGITUDE: -88.975893
CONFIDENTIAL: N LATITUDE: 38.62813
SURFACE ELEVATION (FT.): 561.0 LOGGED (FT.): 1975.0
SOURCE: REDWNE L&F, PRUDEN M K 1
COMMENT:

GEOLOGIST:
DATE COLLECTED: 0 / 0 / 1938
LOG TYPE:
WELL TYPE: Oil and Gas Test

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
175.0	BOND	CARTHAGE	LIMESTONE	-	386.0
-176.0	CARBONDALE	HERRIN	COAL	-	737.0

MAPID: 12100232000C VERSION: 4

PROJECT: J JOHNSON

COUNTY: MARION TWP/RNG: 2N 2E SECTION: 10
QUADRANGLE: SALEM NORTH LONGITUDE: -88.975893
CONFIDENTIAL: N LATITUDE: 38.62813
SURFACE ELEVATION (FT.): 561.0 LOGGED (FT.): 1800.0
SOURCE: REDWINE, LEWIS & FROST
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

GEOLOGIST: J JOHNSON
DATE COLLECTED:
LOG TYPE: Electric Log
WELL TYPE: Oil and Gas Test

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-212.0	CARBONDALE	SPRINGFIELD	COAL	-	773.0
-325.0	CARBONDALE	COLCHESTER	COAL	-	886.0
-1239.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1800.0

MAPID: 12100016000C VERSION: 1 PROJECT: CIRC 164

COUNTY: MARION TWP/RNG: 2N 2E SECTION: 11 QUARTERS/FOOTAGES: 680' S line, 1400' W line

QUADRANGLE: SALEM SOUTH LONGITUDE: -88.95383 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.622056 DATE COLLECTED: 0 / 0 / 1900

SURFACE ELEVATION (FT.): 535.0 LOGGED (FT.): 887.0 LOG TYPE: Measured section

SOURCE: SALEM SHFT WELL TYPE: Underground mine

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
28.0	BOND	CARTHAGE	LIMESTONE	-	507.0
-314.0	CARBONDALE	HERRIN	COAL	-	849.0

MAPID: 12100016000C VERSION: 2 PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 2N 2E SECTION: 11 QUARTERS/FOOTAGES: 680' S line, 1400' W line

QUADRANGLE: SALEM SOUTH LONGITUDE: -88.95383 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.622056 DATE COLLECTED:

SURFACE ELEVATION (FT.): 535.0 LOGGED (FT.): 895.5 LOG TYPE: Drillers Log

SOURCE:

COMMENT: GOOD LOG WELL TYPE: Coal Test

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
28.0	BOND	CARTHAGE	LIMESTONE	14.0	507.0
6.0	MODESTO	TRIVOLI	SANDSTONE	62.0	529.0
-290.0	CARBONDALE	DANVILLE	COAL	0.5	825.0
-347.0	CARBONDALE	BRIAR HILL	COAL	2.0	882.0
-356.0	CARBONDALE	SPRINGFIELD	COAL	4.5	891.0

MAPID: 12100016000C VERSION: 3

PROJECT: NCRDS87

COUNTY: MARION TWP/RNG: 2N 2E SECTION: 11 QUARTERS/FOOTAGES: 680' S line, 1400' W line

QUADRANGLE: SALEM SOUTH LONGITUDE: -88.95383 GEOLOGIST: WEIBEL

CONFIDENTIAL: N LATITUDE: 38.622056 DATE COLLECTED:

SURFACE ELEVATION (FT.): 535.0 LOGGED (FT.): 899.8 LOG TYPE: Drillers Log

SOURCE: SALEM COAL SHAFT WELL TYPE: Mine Shaft

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
535.0			UNCONSOLIDATED	126.0	0.0	
409.0	MATTOON		SANDSTONE	0.5	126.0	
408.5	MATTOON		SHALE	8.0	126.5	
400.5	MATTOON	OMEGA	LIMESTONE	1.8	134.5	UNCERTAIN CORRELATION
398.7	MATTOON		COAL	1.2	136.3	
397.5	MATTOON		UNDERCLAY	1.6	137.5	
395.9	MATTOON		UNCLASSIFIED	4.6	139.1	
391.3	MATTOON		SHALE	64.2	143.7	
327.2	MATTOON		COAL	0.4	207.8	
326.7	MATTOON		UNDERCLAY	0.6	208.3	
326.2	MATTOON		SHALE	9.0	208.8	
317.2	BOND	MILLERSVILLE	LIMESTONE	7.7	217.8	UNCERTAIN CORRELATION
309.5	BOND		UNDERCLAY	3.0	225.5	
306.5	BOND		SHALE	11.0	228.5	
295.5	BOND		COAL	0.3	239.5	
295.2	BOND		UNDERCLAY	0.8	239.8	
294.3	BOND		SANDSTONE	14.0	240.7	
280.3	BOND		SHALE	57.8	254.7	
222.5	BOND		LIMESTONE	5.0	312.5	
217.5	BOND		UNDERCLAY	2.3	317.5	
215.2	BOND		SANDSTONE	11.0	319.8	
204.2	BOND		SHALE	14.8	330.8	
189.5	BOND		BLACK SHALE	2.5	345.5	
187.0	BOND		COAL	0.8	348.0	
186.2	BOND		UNDERCLAY	0.3	348.8	
186.0	BOND		UNCLASSIFIED	3.5	349.0	
182.5	BOND		SANDSTONE	9.0	352.5	
173.5	BOND		SHALE	48.0	361.5	
125.5	BOND		LIMESTONE	12.0	409.5	
113.5	BOND		SANDSTONE	8.0	421.5	
105.5	BOND		SHALE	44.0	429.5	
61.5	BOND		COAL	0.3	473.5	
61.2	BOND		UNDERCLAY	1.2	473.8	
60.0	BOND		UNCLASSIFIED	7.0	475.0	
53.0	BOND		SHALE	25.3	482.0	
27.7	BOND	CARTHAGE	LIMESTONE	14.0	507.3	
13.7	MODESTO		BLACK SHALE	3.0	521.3	
10.7	MODESTO		COAL	0.2	524.3	
10.5	MODESTO		UNDERCLAY	4.5	524.5	

6.0	MODESTO		SANDSTONE	4.0	529.0
2.0	MODESTO		SHALE	65.5	533.0
-63.5	MODESTO		UNCLASSIFIED	1.5	598.5
-65.0	MODESTO		BLACK SHALE	2.2	600.0
-67.2	MODESTO		LIMESTONE	0.5	602.2
-67.7	MODESTO		COAL	0.1	602.7
-67.8	MODESTO		UNDERCLAY	4.3	602.8
-72.0	MODESTO		SHALE	9.0	607.0
-81.0	MODESTO		COAL	0.3	616.0
-81.3	MODESTO		SHALE	14.7	616.3
-96.0	MODESTO		UNCLASSIFIED	5.3	631.0
-101.3	MODESTO		SHALE	6.0	636.3
-107.3	MODESTO		SANDSTONE	10.3	642.3
-117.5	MODESTO		SHALE	31.0	652.5
-148.5	MODESTO		LIMESTONE	0.2	683.5
-148.7	MODESTO		SHALE	2.5	683.7
-151.2	MODESTO		UNCLASSIFIED	0.8	686.2
-152.0	MODESTO		SHALE	3.0	687.0
-155.0	MODESTO		LIMESTONE	1.0	690.0
-156.0	MODESTO		SHALE	6.0	691.0
-162.0	MODESTO		COAL	1.3	697.0
-163.3	MODESTO		UNDERCLAY	1.5	698.3
-164.8	MODESTO		UNCLASSIFIED	3.0	699.8
-167.8	MODESTO		SHALE	5.0	702.8
-172.8	MODESTO		SANDSTONE	15.0	707.8
-187.8	MODESTO		SHALE	62.8	722.8
-250.6	MODESTO		UNDERCLAY	1.4	785.6
-252.0	MODESTO		UNCLASSIFIED	3.0	787.0
-255.0	MODESTO		UNDERCLAY	7.0	790.0
-262.0	MODESTO	PIASA	LIMESTONE	9.0	797.0
-271.0	MODESTO		SHALE	19.5	806.0
-290.5	CARBONDALE	DANVILLE	COAL	0.5	825.5
-291.0	CARBONDALE		UNDERCLAY	3.5	826.0
-294.5	CARBONDALE		LIMESTONE	2.2	829.5
-296.7	CARBONDALE		SHALE	0.8	831.7
-297.5	CARBONDALE		LIMESTONE	5.0	832.5
-302.5	CARBONDALE		SHALE	2.5	837.5
-305.0	CARBONDALE		UNCLASSIFIED	7.0	840.0
-312.0	CARBONDALE		LIMESTONE	2.0	847.0
-314.0	CARBONDALE		SHALE	33.3	849.0
-347.3	CARBONDALE		COAL	2.2	882.3
-349.5	CARBONDALE		UNDERCLAY	0.8	884.5
-350.3	CARBONDALE		BLACK SHALE	2.3	885.3
-352.6	CARBONDALE	ST. DAVID	LIMESTONE	1.9	887.6
-354.5	CARBONDALE	TURNER MINE	BLACK SHALE	1.5	889.5
-356.0	CARBONDALE	SPRINGFIELD	COAL	4.5	891.0
-360.5	CARBONDALE		UNDERCLAY	4.3	895.5

MAPID: 12101504000C VERSION: 1 PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 2N 2E SECTION: 14 QUARTERS/FOOTAGES: 330' S line, 390' E line

QUADRANGLE: SALEM SOUTH LONGITUDE: -88.941282 GEOLOGIST: C TREWORYG

CONFIDENTIAL: N LATITUDE: 38.606685 DATE COLLECTED:

SURFACE ELEVATION (FT.): 526.0 LOGGED (FT.): 997.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
48.0	BOND	CARTHAGE	LIMESTONE	11.0	478.0
-352.0	CARBONDALE	SPRINGFIELD	COAL	4.0	878.0
-390.0	CARBONDALE	HOUCHIN CREEK	COAL	-	916.0
-471.0	CARBONDALE	COLCHESTER	COAL	-	997.0

MAPID: 12101504000C VERSION: 2 PROJECT: ROOF STUDY

COUNTY: MARION TWP/RNG: 2N 2E SECTION: 14 QUARTERS/FOOTAGES: 330' S line, 390' E line

QUADRANGLE: SALEM SOUTH LONGITUDE: -88.941282 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.606685 DATE COLLECTED:

SURFACE ELEVATION (FT.): 526.0 LOGGED (FT.): 832.0 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
-297.0	CARBONDALE	BRERETON	LIMESTONE	7.0	823.0
-304.0	CARBONDALE	HERRIN	COAL	2.0	830.0

MAPID: 12101504000C VERSION: 3 PROJECT: CIRC 164

COUNTY: MARION TWP/RNG: 2N 2E SECTION: 14 QUARTERS/FOOTAGES: 330' S line, 390' E line

QUADRANGLE: SALEM SOUTH LONGITUDE: -88.941282 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.606685 DATE COLLECTED: 0 / 0 / 1947

SURFACE ELEVATION (FT.): 522.0 LOGGED (FT.): 2335.0 LOG TYPE:

SOURCE: PERR&PERR, WILLIAMS 1 WELL TYPE: Oil and Gas Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
47.0	BOND	CARTHAGE	LIMESTONE	-	475.0
-303.0	CARBONDALE	HERRIN	COAL	-	825.0

MAPID: 12101504000C **VERSION:** 4 **PROJECT:** J JOHNSON
COUNTY: MARION **TWP/RNG:** 2N 2E **SECTION:** 14 **QUARTERS/FOOTAGES:** 330' S line, 390' E line
QUADRANGLE: SALEM SOUTH **LONGITUDE:** -88.941282 **GEOLOGIST:** J JOHNSON
CONFIDENTIAL: N **LATITUDE:** 38.606685 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 526.0 **LOGGED (FT.):** 1947.0 **LOG TYPE:** Electric Log
SOURCE: PERRINE J **WELL TYPE:** Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-353.0	CARBONDALE	SPRINGFIELD	COAL	-	879.0
-468.0	CARBONDALE	COLCHESTER	COAL	-	994.0
-1421.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1947.0

MAPID: 12101941000C **VERSION:** 1 **PROJECT:** J JOHNSON
COUNTY: MARION **TWP/RNG:** 2N 2E **SECTION:** 15 **QUARTERS/FOOTAGES:** 330' N line, 330' W line of SW NW
QUADRANGLE: SALEM SOUTH **LONGITUDE:** -88.97586 **GEOLOGIST:** J JOHNSON
CONFIDENTIAL: N **LATITUDE:** 38.615364 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 536.0 **LOGGED (FT.):** 1739.0 **LOG TYPE:** Electric Log
SOURCE: TAYLOR & SCHUMACHER **WELL TYPE:** Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-217.0	CARBONDALE	SPRINGFIELD	COAL	-	753.0
-312.0	CARBONDALE	COLCHESTER	COAL	-	848.0
-1203.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1739.0

MAPID: 12101941000C **VERSION:** 2 **PROJECT:** CGT-ECILL
COUNTY: MARION **TWP/RNG:** 2N 2E **SECTION:** 15 **QUARTERS/FOOTAGES:** 330' N line, 330' W line of SW NW
QUADRANGLE: SALEM SOUTH **LONGITUDE:** -88.97586 **GEOLOGIST:** C TREWORYG
CONFIDENTIAL: N **LATITUDE:** 38.615364 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 536.0 **LOGGED (FT.):** 800.0 **LOG TYPE:** Electric Log
SOURCE: **WELL TYPE:** Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
159.0	BOND	CARTHAGE	LIMESTONE	11.0	377.0
-206.0	CARBONDALE	BRIAR HILL	COAL	-	742.0
-216.0	CARBONDALE	SPRINGFIELD	COAL	4.0	752.0
-249.0	CARBONDALE	HOUCHIN CREEK	COAL	-	785.0
-264.0	CARBONDALE	COLCHESTER	COAL	-	800.0

MAPID: 12103272000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 2N 2E SECTION: 15 QUARTERS/FOOTAGES: 330' N line, 330' E line of SE NE
QUADRANGLE: SALEM SOUTH LONGITUDE: -88.959841 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.615577 DATE COLLECTED:
SURFACE ELEVATION (FT.): 543.0 LOGGED (FT.): 998.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
58.0	BOND	CARTHAGE	LIMESTONE	12.0	485.0
-337.0	CARBONDALE	SPRINGFIELD	COAL	4.0	880.0
-377.0	CARBONDALE	HOUCHIN CREEK	COAL	-	920.0
-455.0	CARBONDALE	COLCHESTER	COAL	-	998.0

MAPID: 12100235000C VERSION: 1 PROJECT: J JOHNSON
COUNTY: MARION TWP/RNG: 2N 2E SECTION: 16 QUARTERS/FOOTAGES: 990' N line, 80' E line of SW
QUADRANGLE: SALEM SOUTH LONGITUDE: -88.986523 GEOLOGIST: J JOHNSON
CONFIDENTIAL: N LATITUDE: 38.609862 DATE COLLECTED:
SURFACE ELEVATION (FT.): 533.0 LOGGED (FT.): 1656.0 LOG TYPE: Electric Log
SOURCE: MAGNOLIA PETROLEUM WELL TYPE: Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-245.0	CARBONDALE	SPRINGFIELD	COAL	-	778.0
-318.0	CARBONDALE	COLCHESTER	COAL	-	851.0
-1123.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1656.0

MAPID: 12101047000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 2N 2E SECTION: 16 QUARTERS/FOOTAGES: SE NW SE
QUADRANGLE: SALEM SOUTH LONGITUDE: -88.98279 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.609873 DATE COLLECTED: 0 / 0 / 1939
SURFACE ELEVATION (FT.): 531.0 LOGGED (FT.): 2084.0 LOG TYPE:
SOURCE: PRAY DRC, COLE 3 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
166.0	BOND	CARTHAGE	LIMESTONE	-	365.0
-174.0	CARBONDALE	HERRIN	COAL	-	705.0

MAPID: 12101048000C VERSION: 1 PROJECT: J JOHNSON
COUNTY: MARION TWP/RNG: 2N 2E SECTION: 16 QUARTERS/FOOTAGES: 50' N line, 50' E line of SE NW SE
QUADRANGLE: SALEM SOUTH LONGITUDE: -88.981817 GEOLOGIST: J JOHNSON
CONFIDENTIAL: N LATITUDE: 38.61065 DATE COLLECTED:
SURFACE ELEVATION (FT.): 535.0 LOGGED (FT.): 3494.0 LOG TYPE: Electric Log
SOURCE: PRAY, MAX DRLG. CO. WELL TYPE: Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
-2844.0	DEVONIAN	UPPER DEVONIAN S	UNCLASSIFIED	-	3379.0	TOP OF NEW ALBANY
-2860.0	DEVONIAN	GRASSY CREEK	UNCLASSIFIED	-	3395.0	
-2959.0	DEVONIAN	BASE UPPER DEVON	UNCLASSIFIED	-	3494.0	BASE OF NEW ALBANY

MAPID: 12101268000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 2N 2E SECTION: 16 QUARTERS/FOOTAGES: SE SW NW
QUADRANGLE: SALEM SOUTH LONGITUDE: -88.992004 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.613495 DATE COLLECTED: 0 / 0 / 1939
SURFACE ELEVATION (FT.): 540.0 LOGGED (FT.): 2108.0 LOG TYPE:
SOURCE: TEXAS CO, SHANAFLT A 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
170.0	BOND	CARTHAGE	LIMESTONE	-	370.0	
-170.0	CARBONDALE	HERRIN	COAL	-	710.0	

MAPID: 12101336000C VERSION: 1 PROJECT: J JOHNSON
COUNTY: MARION TWP/RNG: 2N 2E SECTION: 16 QUARTERS/FOOTAGES: 150' S line, 385' E line of NW
QUADRANGLE: SALEM SOUTH LONGITUDE: -88.987598 GEOLOGIST: J JOHNSON
CONFIDENTIAL: N LATITUDE: 38.613006 DATE COLLECTED:
SURFACE ELEVATION (FT.): 542.0 LOGGED (FT.): 3470.0 LOG TYPE: Electric Log
SOURCE: KINGWOOD OIL CO. WELL TYPE: Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
-196.0	CARBONDALE	SPRINGFIELD	COAL	-	738.0	
-303.0	CARBONDALE	COLCHESTER	COAL	-	845.0	
-1128.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1670.0	
-2814.0	DEVONIAN	UPPER DEVONIAN S	UNCLASSIFIED	-	3356.0	TOP OF NEW ALBANY
-2832.0	DEVONIAN	GRASSY CREEK	UNCLASSIFIED	-	3374.0	
-2928.0	DEVONIAN	BASE UPPER DEVON	UNCLASSIFIED	-	3470.0	BASE OF NEW ALBANY

MAPID: 12101342000C **VERSION:** 2 **PROJECT:** CIRC 164
COUNTY: MARION **TWP/RNG:** 2N 2E **SECTION:** 16 **QUARTERS/FOOTAGES:** 330' N line, 330' E line of NW NE
QUADRANGLE: SALEM SOUTH **LONGITUDE:** -88.982791 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.618984 **DATE COLLECTED:** 0 / 0 / 1943
SURFACE ELEVATION (FT.): 542.0 **LOGGED (FT.):** 1889.0 **LOG TYPE:**
SOURCE: TEXAS CO, SHANAFELT 11 **WELL TYPE:** Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
190.0	BOND	CARTHAGE	LIMESTONE	-	352.0
-149.0	CARBONDALE	HERRIN	COAL	-	691.0

MAPID: 12101342000C **VERSION:** 3 **PROJECT:** CONTROL
COUNTY: MARION **TWP/RNG:** 2N 2E **SECTION:** 16 **QUARTERS/FOOTAGES:** 330' N line, 330' E line of NW NE
QUADRANGLE: SALEM SOUTH **LONGITUDE:** -88.982791 **GEOLOGIST:** HINES
CONFIDENTIAL: N **LATITUDE:** 38.618984 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): **LOGGED (FT.):** 1889.0 **LOG TYPE:** Survey Sample Study
SOURCE: TEXACO, INC. **WELL TYPE:** Oil and Gas Test
COMMENT: OILWELLS LOGGED BY COAL SECT-LOGS IN GRU

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-			NO RECORD	0.0	0.0

MAPID: 12103362000C **VERSION:** 1 **PROJECT:** CGT-ECILL
COUNTY: MARION **TWP/RNG:** 2N 2E **SECTION:** 16 **QUARTERS/FOOTAGES:** 330' N line, 654' W line of SW NE
QUADRANGLE: SALEM SOUTH **LONGITUDE:** -88.983943 **GEOLOGIST:** C TREWORGY
CONFIDENTIAL: N **LATITUDE:** 38.615336 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 523.0 **LOGGED (FT.):** 737.0 **LOG TYPE:** Nuclear Log
SOURCE: **WELL TYPE:** Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-95.0	CARBONDALE	HERRIN	COAL	3.5	618.0
-171.0	CARBONDALE	BRIAR HILL	COAL	2.0	694.0
-180.0	CARBONDALE	SPRINGFIELD	COAL	4.0	703.0
-214.0	CARBONDALE	HOUCHIN CREEK	COAL	-	737.0

MAPID: 12105702000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 2N 2E SECTION: 16 QUARTERS/FOOTAGES: 664' S line, 329' W line of NE
QUADRANGLE: SALEM SOUTH LONGITUDE: -88.985086 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.614433 DATE COLLECTED:
SURFACE ELEVATION (FT.): 518.0 LOGGED (FT.): 732.0 LOG TYPE: Nuclear Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
191.0	BOND	CARTHAGE	LIMESTONE	10.0	327.0
-170.0	CARBONDALE	BRIAR HILL	COAL	2.5	688.0
-178.0	CARBONDALE	SPRINGFIELD	COAL	5.5	696.0
-214.0	CARBONDALE	HOUCHIN CREEK	COAL	-	732.0

MAPID: 12105704000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 2N 2E SECTION: 16 QUARTERS/FOOTAGES: 334' S line, 0' W line of NE
QUADRANGLE: SALEM SOUTH LONGITUDE: -88.986244 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.613519 DATE COLLECTED:
SURFACE ELEVATION (FT.): 516.0 LOGGED (FT.): 736.0 LOG TYPE: Nuclear Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
188.0	BOND	CARTHAGE	LIMESTONE	10.0	328.0
-178.0	CARBONDALE	BRIAR HILL	COAL	2.0	694.0
-184.0	CARBONDALE	SPRINGFIELD	COAL	4.0	700.0
-220.0	CARBONDALE	HOUCHIN CREEK	COAL	-	736.0

MAPID: 12101052000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 2N 2E SECTION: 17 QUARTERS/FOOTAGES: SE NE SE
QUADRANGLE: SALEM SOUTH LONGITUDE: -88.996583 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.609812 DATE COLLECTED: 0 / 0 / 1940
SURFACE ELEVATION (FT.): 501.0 LOGGED (FT.): 2120.0 LOG TYPE:
SOURCE: OHIO OIL, YONG MAT H 46 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
142.0	BOND	CARTHAGE	LIMESTONE	-	359.0
-192.0	CARBONDALE	HERRIN	COAL	-	693.0

MAPID: 12126226000C VERSION: 1 PROJECT: J JOHNSON

COUNTY: MARION TWP/RNG: 2N 2E SECTION: 17 QUARTERS/FOOTAGES: 430' S line, 330' E line of NE SW

QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.00572 GEOLOGIST: J JOHNSON

CONFIDENTIAL: N LATITUDE: 38.609943 DATE COLLECTED:

SURFACE ELEVATION (FT.): 542.0 LOGGED (FT.): 3524.0 LOG TYPE: Electric Log

SOURCE: WELKER OIL CO., LTD. WELL TYPE: Oil and Gas Test

COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-222.0	CARBONDALE	SPRINGFIELD	COAL	-	764.0	
-355.0	CARBONDALE	COLCHESTER	COAL	-	897.0	
-1248.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1790.0	
-2872.0	DEVONIAN	UPPER DEVONIAN S	UNCLASSIFIED	-	3414.0	TOP OF NEW ALBANY
-2888.0	DEVONIAN	GRASSY CREEK	UNCLASSIFIED	-	3430.0	
-2982.0	DEVONIAN	BASE UPPER DEVON	UNCLASSIFIED	-	3524.0	BASE OF NEW ALBANY

MAPID: 12126339000C VERSION: 1 PROJECT: J JOHNSON

COUNTY: MARION TWP/RNG: 2N 2E SECTION: 17 QUARTERS/FOOTAGES: 330' S line, 270' E line of NW SE

QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.00095 GEOLOGIST: J JOHNSON

CONFIDENTIAL: N LATITUDE: 38.60974 DATE COLLECTED:

SURFACE ELEVATION (FT.): 537.0 LOGGED (FT.): 3490.0 LOG TYPE: Electric Log

SOURCE: WELKER OIL CO., LTD. WELL TYPE: Oil and Gas Test

COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-1204.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1741.0	
-2847.0	DEVONIAN	UPPER DEVONIAN S	UNCLASSIFIED	-	3384.0	TOP OF NEW ALBANY
-2859.0	DEVONIAN	GRASSY CREEK	UNCLASSIFIED	-	3396.0	
-2953.0	DEVONIAN	BASE UPPER DEVON	UNCLASSIFIED	-	3490.0	BASE OF NEW ALBANY

MAPID: 12100523000C VERSION: 1 PROJECT: J JOHNSON

COUNTY: MARION TWP/RNG: 2N 2E SECTION: 18 QUARTERS/FOOTAGES: 2310' N line, 1980' E line

QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.020621 GEOLOGIST: J JOHNSON

CONFIDENTIAL: N LATITUDE: 38.613203 DATE COLLECTED:

SURFACE ELEVATION (FT.): 539.0 LOGGED (FT.): 3486.0 LOG TYPE: Electric Log

SOURCE: TEXACO, INC. WELL TYPE: Oil and Gas Test

COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-226.0	CARBONDALE	SPRINGFIELD	COAL	-	765.0	
-353.0	CARBONDALE	COLCHESTER	COAL	-	892.0	
-1201.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1740.0	
-2848.0	DEVONIAN	UPPER DEVONIAN S	UNCLASSIFIED	-	3387.0	TOP OF NEW ALBANY
-2859.0	DEVONIAN	GRASSY CREEK	UNCLASSIFIED	-	3398.0	
-2947.0	DEVONIAN	BASE UPPER DEVON	UNCLASSIFIED	-	3486.0	BASE OF NEW ALBANY

MAPID: 12100523000C VERSION: 2 PROJECT: ROOF STUDY

COUNTY: MARION TWP/RNG: 2N 2E SECTION: 18 QUARTERS/FOOTAGES: 2310' N line, 1980' E line

QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.020621 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.613203 DATE COLLECTED:

SURFACE ELEVATION (FT.): 539.0 LOGGED (FT.): 718.0 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	
-126.0	MODESTO	PIASA	LIMESTONE	4.0	665.0	
-130.0	MODESTO		SHALE	8.0	669.0	
-138.0	CARBONDALE		SHALE	6.0	677.0	
-144.0	CARBONDALE		SHALE	3.5	683.0	
-147.5	CARBONDALE	BANKSTON FORK	LIMESTONE	2.5	686.5	
-150.0	CARBONDALE	BANKSTON FORK	SHALE	4.0	689.0	
-154.0	CARBONDALE	BANKSTON FORK	LIMESTONE	4.5	693.0	
-158.5	CARBONDALE	LAWSON	SHALE	6.5	697.5	
-165.0	CARBONDALE	BRERETON	LIMESTONE	6.0	704.0	
-171.0	CARBONDALE	ANNA	BLACK SHALE	3.0	710.0	
-175.0	CARBONDALE	HERRIN	COAL	4.0	714.0	

MAPID: 12101493000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 2N 2E SECTION: 18 QUARTERS/FOOTAGES: NW NE NW
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.026433 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.618596 DATE COLLECTED: 0 / 0 / 1945
SURFACE ELEVATION (FT.): 536.6 LOGGED (FT.): 1840.0 LOG TYPE:
SOURCE: CENTRLPIPE, WHITECHURCH 3 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
208.6	BOND	CARTHAGE	LIMESTONE	-	328.0
-160.4	CARBONDALE	HERRIN	COAL	-	697.0

MAPID: 12103400000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 2N 2E SECTION: 18 QUARTERS/FOOTAGES: 62' N line, 330' W line
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.030159 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.619291 DATE COLLECTED:
SURFACE ELEVATION (FT.): 539.0 LOGGED (FT.): 718.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: POOR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
215.0	BOND	CARTHAGE	LIMESTONE	8.0	324.0
111.0	MODESTO	TRIVOLI	SANDSTONE	24.0	428.0
-174.0	CARBONDALE	SPRINGFIELD	COAL	5.0	713.0

MAPID: 12100526000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 2N 2E SECTION: 19 QUARTERS/FOOTAGES: 330' N line, 330' E line of SE
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.014849 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.596837 DATE COLLECTED: 0 / 0 / 1940
SURFACE ELEVATION (FT.): 532.0 LOGGED (FT.): 2120.0 LOG TYPE:
SOURCE: TEXAS CO, WALLIS N B 2 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
156.0	BOND	CARTHAGE	LIMESTONE	-	376.0
-215.0	CARBONDALE	HERRIN	COAL	-	747.0

MAPID: 12100526000C VERSION: 2 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 2N 2E SECTION: 19 QUARTERS/FOOTAGES: 330' N line, 330' E line of SE
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.014849 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.596837 DATE COLLECTED:
SURFACE ELEVATION (FT.): 535.0 LOGGED (FT.): 846.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: POOR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
155.0	BOND	CARTHAGE	LIMESTONE	10.0	380.0
-260.0	CARBONDALE	SPRINGFIELD	COAL	5.0	795.0
-311.0	CARBONDALE	HOUCHIN CREEK	COAL	-	846.0

MAPID: 12100526000C VERSION: 3 PROJECT: J JOHNSON
COUNTY: MARION TWP/RNG: 2N 2E SECTION: 19 QUARTERS/FOOTAGES: 330' N line, 330' E line of SE
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.014849 GEOLOGIST: J JOHNSON
CONFIDENTIAL: N LATITUDE: 38.596837 DATE COLLECTED:
SURFACE ELEVATION (FT.): 532.0 LOGGED (FT.): 1769.0 LOG TYPE: Electric Log
SOURCE: TEXAS COMPANY, THE WELL TYPE: Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-265.0	CARBONDALE	SPRINGFIELD	COAL	-	797.0
-374.0	CARBONDALE	COLCHESTER	COAL	-	906.0
-1237.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1769.0

MAPID: 12100545000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 2N 2E SECTION: 20 QUARTERS/FOOTAGES: SW NE SW
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.007948 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.595105 DATE COLLECTED: 0 / 0 / 1939
SURFACE ELEVATION (FT.): 535.0 LOGGED (FT.): 2088.0 LOG TYPE:
SOURCE: OHIO OIL, YOUNG M HR 13 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
190.0	BOND	CARTHAGE	LIMESTONE	-	345.0
-145.0	CARBONDALE	HERRIN	COAL	-	680.0

MAPID: 12101055000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 2N 2E SECTION: 20 QUARTERS/FOOTAGES: 330' N line, 380' E line of NW
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.005883 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.604182 DATE COLLECTED:
SURFACE ELEVATION (FT.): 529.0 LOGGED (FT.): 749.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: POOR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
176.0	BOND	CARTHAGE	LIMESTONE	11.0	353.0	
-201.0	CARBONDALE	SPRINGFIELD	COAL	4.0	730.0	
-220.0	CARBONDALE	HOUCHIN CREEK	COAL	-	749.0	

MAPID: 12101062000C VERSION: 1 PROJECT: J JOHNSON
COUNTY: MARION TWP/RNG: 2N 2E SECTION: 20 QUARTERS/FOOTAGES: SW SE NW
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.007994 GEOLOGIST: J JOHNSON
CONFIDENTIAL: N LATITUDE: 38.598592 DATE COLLECTED:
SURFACE ELEVATION (FT.): 538.0 LOGGED (FT.): 3371.0 LOG TYPE: Electric Log
SOURCE: OHIO OIL CO., THE WELL TYPE: Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-189.0	CARBONDALE	SPRINGFIELD	COAL	-	727.0	
-293.0	CARBONDALE	COLCHESTER	COAL	-	831.0	
-1085.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1623.0	
-2728.0	DEVONIAN	UPPER DEVONIAN S	UNCLASSIFIED	-	3266.0	TOP OF NEW ALBANY
-2741.0	DEVONIAN	GRASSY CREEK	UNCLASSIFIED	-	3279.0	
-2833.0	DEVONIAN	BASE UPPER DEVON	UNCLASSIFIED	-	3371.0	BASE OF NEW ALBANY

MAPID: 12101062000C VERSION: 2 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 2N 2E SECTION: 20 QUARTERS/FOOTAGES: SW SE NW
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.007994 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.598592 DATE COLLECTED: 0 / 0 / 1944
SURFACE ELEVATION (FT.): 538.0 LOGGED (FT.): 4628.0 LOG TYPE:
SOURCE: OHIO OIL, YOUNG M J 21 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
191.0	BOND	CARTHAGE	LIMESTONE	-	347.0	
-139.0	CARBONDALE	HERRIN	COAL	-	677.0	

MAPID: 12101063000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 2N 2E SECTION: 20 QUARTERS/FOOTAGES: NW SE NW
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.007963 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.600533 DATE COLLECTED: 0 / 0 / 1940
SURFACE ELEVATION (FT.): 534.0 LOGGED (FT.): 3470.0 LOG TYPE:
SOURCE: OHIO OIL, YOUNG M J 24 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
192.0	BOND	CARTHAGE	LIMESTONE	-	342.0
-151.0	CARBONDALE	HERRIN	COAL	-	685.0

MAPID: 12101126000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 2N 2E SECTION: 20 QUARTERS/FOOTAGES: SE SE SW
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.005637 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.591511 DATE COLLECTED: 0 / 0 / 1940
SURFACE ELEVATION (FT.): 532.5 LOGGED (FT.): 4620.0 LOG TYPE:
SOURCE: OHIO OIL, YONG MAT H 37 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
184.5	BOND	CARTHAGE	LIMESTONE	-	348.0
-139.5	CARBONDALE	HERRIN	COAL	-	672.0

MAPID: 12101129000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 2N 2E SECTION: 20 QUARTERS/FOOTAGES: SW SW SW
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.012543 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.59143 DATE COLLECTED: 0 / 0 / 1940
SURFACE ELEVATION (FT.): 538.0 LOGGED (FT.): 3522.0 LOG TYPE:
SOURCE: OHIO OIL, YONG MAT H 48 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
166.0	BOND	CARTHAGE	LIMESTONE	-	372.0
-180.0	CARBONDALE	HERRIN	COAL	-	718.0

MAPID: 12101331000C **VERSION:** 1 **PROJECT:** CIRC 164
COUNTY: MARION **TWP/RNG:** 2N 2E **SECTION:** 20 **QUARTERS/FOOTAGES:** NW SE NE
QUADRANGLE: SALEM SOUTH **LONGITUDE:** -88.998808 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.600667 **DATE COLLECTED:** 0 / 0 / 1944
SURFACE ELEVATION (FT.): 538.0 **LOGGED (FT.):** 4625.0 **LOG TYPE:**
SOURCE: TEXAS CO, YOUNG N 21 **WELL TYPE:** Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
188.0	BOND	CARTHAGE	LIMESTONE	-	350.0	
-149.0	CARBONDALE	HERRIN	COAL	-	687.0	

MAPID: 12103428000C **VERSION:** 1 **PROJECT:** J JOHNSON
COUNTY: MARION **TWP/RNG:** 2N 2E **SECTION:** 20 **QUARTERS/FOOTAGES:** 277' S line, 998' W line of SE
QUADRANGLE: CENTRALIA EAST **LONGITUDE:** -89.000973 **GEOLOGIST:** J JOHNSON
CONFIDENTIAL: N **LATITUDE:** 38.591425 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 534.0 **LOGGED (FT.):** 3318.0 **LOG TYPE:** Electric Log
SOURCE: TEXACO, INC. **WELL TYPE:** Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-216.0	CARBONDALE	SPRINGFIELD	COAL	-	750.0	
-288.0	CARBONDALE	COLCHESTER	COAL	-	822.0	
-1051.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1585.0	
-2673.0	DEVONIAN	UPPER DEVONIAN S	UNCLASSIFIED	-	3207.0	TOP OF NEW ALBANY
-2689.0	DEVONIAN	GRASSY CREEK	UNCLASSIFIED	-	3223.0	
-2784.0	DEVONIAN	BASE UPPER DEVON	UNCLASSIFIED	-	3318.0	BASE OF NEW ALBANY

MAPID: 12101388000C **VERSION:** 1 **PROJECT:** CIRC 164
COUNTY: MARION **TWP/RNG:** 2N 2E **SECTION:** 21 **QUARTERS/FOOTAGES:** NE NE NE
QUADRANGLE: SALEM SOUTH **LONGITUDE:** -88.978199 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.604441 **DATE COLLECTED:** 0 / 0 / 1943
SURFACE ELEVATION (FT.): 526.0 **LOGGED (FT.):** 2073.0 **LOG TYPE:**
SOURCE: MITCHELL M, HESTER D 2B **WELL TYPE:** Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
116.0	BOND	CARTHAGE	LIMESTONE	-	410.0	
-218.0	CARBONDALE	HERRIN	COAL	-	744.0	

MAPID: 12101432000C **VERSION:** 1 **PROJECT:** J JOHNSON
COUNTY: MARION **TWP/RNG:** 2N 2E **SECTION:** 21 **QUARTERS/FOOTAGES:** NW SW NW
QUADRANGLE: SALEM SOUTH **LONGITUDE:** -88.994462 **GEOLOGIST:** J JOHNSON
CONFIDENTIAL: N **LATITUDE:** 38.600886 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 539.0 **LOGGED (FT.):** 3376.0 **LOG TYPE:** Electric Log
SOURCE: TEXAS COMPANY, THE **WELL TYPE:** Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-218.0	CARBONDALE	SPRINGFIELD	COAL	-	757.0	
-261.0	CARBONDALE	COLCHESTER	COAL	-	800.0	
-1070.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1609.0	
-2724.0	DEVONIAN	UPPER DEVONIAN S	UNCLASSIFIED	-	3263.0	TOP OF NEW ALBANY
-2741.0	DEVONIAN	GRASSY CREEK	UNCLASSIFIED	-	3280.0	
-2837.0	DEVONIAN	BASE UPPER DEVON	UNCLASSIFIED	-	3376.0	BASE OF NEW ALBANY

MAPID: 12101432000C **VERSION:** 2 **PROJECT:** CIRC 164
COUNTY: MARION **TWP/RNG:** 2N 2E **SECTION:** 21 **QUARTERS/FOOTAGES:** NW SW NW
QUADRANGLE: SALEM SOUTH **LONGITUDE:** -88.994462 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.600886 **DATE COLLECTED:** 0 / 0 / 1944
SURFACE ELEVATION (FT.): 539.0 **LOGGED (FT.):** 4666.0 **LOG TYPE:**
SOURCE: TEXAS CO, YOUNG D 19 **WELL TYPE:** Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
159.0	BOND	CARTHAGE	LIMESTONE	-	380.0	
-164.0	CARBONDALE	HERRIN	COAL	-	703.0	

MAPID: 12101496000C **VERSION:** 1 **PROJECT:** CIRC 164
COUNTY: MARION **TWP/RNG:** 2N 2E **SECTION:** 21 **QUARTERS/FOOTAGES:** 2145' S line, 990' E line
QUADRANGLE: SALEM SOUTH **LONGITUDE:** -88.980507 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.596823 **DATE COLLECTED:** 0 / 0 / 1946
SURFACE ELEVATION (FT.): 519.0 **LOGGED (FT.):** 1919.0 **LOG TYPE:**
SOURCE: LICHLTR DC, ROGERS 1 **WELL TYPE:** Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
89.0	BOND	CARTHAGE	LIMESTONE	-	430.0	
-258.0	CARBONDALE	HERRIN	COAL	-	777.0	

MAPID: 12101496000C VERSION: 2 PROJECT: ROOF STUDY
COUNTY: MARION TWP/RNG: 2N 2E SECTION: 21 QUARTERS/FOOTAGES: 2145' S line, 990' E line
QUADRANGLE: SALEM SOUTH LONGITUDE: -88.980507 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.596823 DATE COLLECTED:
SURFACE ELEVATION (FT.): 522.0 LOGGED (FT.): 765.0 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
-204.0	MODESTO	PIASA	LIMESTONE	5.0	726.0
-209.0	MODESTO		SHALE	9.0	731.0
-218.0	CARBONDALE		SHALE	7.0	740.0
-225.0	CARBONDALE		SHALE	3.0	747.0
-228.0	CARBONDALE	BANKSTON FORK	LIMESTONE	3.5	750.0
-231.5	CARBONDALE	LAWSON	SHALE	5.5	753.5
-237.0	CARBONDALE	BRERETON	LIMESTONE	6.0	759.0

MAPID: 12103624000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 2N 2E SECTION: 21 QUARTERS/FOOTAGES: 330' S line, 660' W line of NE SE
QUADRANGLE: SALEM SOUTH LONGITUDE: -88.979272 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.595435 DATE COLLECTED:
SURFACE ELEVATION (FT.): 528.0 LOGGED (FT.): 834.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
102.0	BOND	CARTHAGE	LIMESTONE	10.0	426.0
-302.0	CARBONDALE	SPRINGFIELD	COAL	4.0	830.0

MAPID: 12103637000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 2N 2E SECTION: 21 QUARTERS/FOOTAGES: 350' S line, 330' W line of SE
QUADRANGLE: SALEM SOUTH LONGITUDE: -88.984983 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.591816 DATE COLLECTED:
SURFACE ELEVATION (FT.): 527.0 LOGGED (FT.): 798.0 LOG TYPE: Nuclear Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: POOR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-239.0	CARBONDALE	SPRINGFIELD	COAL	3.5	766.0
-271.0	CARBONDALE	HOUCHIN CREEK	COAL	-	798.0

MAPID: 12103739000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 2N 2E SECTION: 21 QUARTERS/FOOTAGES: 330' N line, 854' E line of SW
QUADRANGLE: SALEM SOUTH LONGITUDE: -88.989183 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.597133 DATE COLLECTED:
SURFACE ELEVATION (FT.): 534.0 LOGGED (FT.): 796.0 LOG TYPE: Nuclear Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: POOR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
150.0	BOND	CARTHAGE	LIMESTONE	9.0	384.0
-229.0	CARBONDALE	SPRINGFIELD	COAL	3.5	763.0
-262.0	CARBONDALE	HOUCHIN CREEK	COAL	-	796.0

MAPID: 12100959000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 2N 2E SECTION: 22 QUARTERS/FOOTAGES: SW NW NW
QUADRANGLE: SALEM SOUTH LONGITUDE: -88.97589 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.602661 DATE COLLECTED: 0 / 0 / 1939
SURFACE ELEVATION (FT.): 520.0 LOGGED (FT.): 2147.0 LOG TYPE:
SOURCE: QUINCY OC, HESTOR C 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
85.0	BOND	CARTHAGE	LIMESTONE	-	435.0
-250.0	CARBONDALE	HERRIN	COAL	-	770.0

MAPID: 12101944000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 2N 2E SECTION: 22 QUARTERS/FOOTAGES: 330' S line, 330' W line of SE SE
QUADRANGLE: SALEM SOUTH LONGITUDE: -88.962141 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.592041 DATE COLLECTED:
SURFACE ELEVATION (FT.): 514.0 LOGGED (FT.): 830.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
108.0	BOND	CARTHAGE	LIMESTONE	12.0	406.0
-279.0	CARBONDALE	BRIAR HILL	COAL	3.0	793.0
-286.0	CARBONDALE	SPRINGFIELD	COAL	4.0	800.0
-316.0	CARBONDALE	HOUCHIN CREEK	COAL	-	830.0

MAPID: 12103741000C **VERSION:** 1 **PROJECT:** J JOHNSON
COUNTY: MARION **TWP/RNG:** 2N 2E **SECTION:** 22 **QUARTERS/FOOTAGES:** 319' N line, 330' W line of NW SW NW
QUADRANGLE: SALEM SOUTH **LONGITUDE:** -88.975879 **GEOLOGIST:** J JOHNSON
CONFIDENTIAL: N **LATITUDE:** 38.60088 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 505.0 **LOGGED (FT.):** 1709.0 **LOG TYPE:** Electric Log
SOURCE: MAGNOLIA PETROLEUM **WELL TYPE:** Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-309.0	CARBONDALE	SPRINGFIELD	COAL	-	814.0
-415.0	CARBONDALE	COLCHESTER	COAL	-	920.0
-1204.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1709.0

MAPID: 12103741000C **VERSION:** 2 **PROJECT:** CGT-ECILL
COUNTY: MARION **TWP/RNG:** 2N 2E **SECTION:** 22 **QUARTERS/FOOTAGES:** 319' N line, 330' W line of NW SW NW
QUADRANGLE: SALEM SOUTH **LONGITUDE:** -88.975879 **GEOLOGIST:** C TREWORGY
CONFIDENTIAL: N **LATITUDE:** 38.60088 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 505.0 **LOGGED (FT.):** 922.0 **LOG TYPE:** Electric Log
SOURCE: **WELL TYPE:** Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
79.0	BOND	CARTHAGE	LIMESTONE	12.0	426.0
-305.0	CARBONDALE	SPRINGFIELD	COAL	4.0	810.0
-338.0	CARBONDALE	HOUCHIN CREEK	COAL	-	843.0
-417.0	CARBONDALE	COLCHESTER	COAL	-	922.0

MAPID: 12103745000C **VERSION:** 1 **PROJECT:** ROOF STUDY
COUNTY: MARION **TWP/RNG:** 2N 2E **SECTION:** 22 **QUARTERS/FOOTAGES:** 990' N line, 1650' W line
QUADRANGLE: SALEM SOUTH **LONGITUDE:** -88.971239 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.602695 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 513.0 **LOGGED (FT.):** 779.0 **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
-247.0	MODESTO	PIASA	LIMESTONE	2.5	760.0
-249.5	MODESTO		SHALE	3.0	762.5
-252.5	CARBONDALE		SHALE	2.5	765.5
-255.0	CARBONDALE	BANKSTON FORK	LIMESTONE	2.0	768.0
-257.0	CARBONDALE	LAWSON	SHALE	3.0	770.0
-260.0	CARBONDALE	BRERETON	LIMESTONE	6.0	773.0

MAPID: 12101704000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 2N 2E SECTION: 26 QUARTERS/FOOTAGES: 330' S line, 330' E line of NE SE
QUADRANGLE: SALEM SOUTH LONGITUDE: -88.941277 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.581274 DATE COLLECTED:
SURFACE ELEVATION (FT.): 517.0 LOGGED (FT.): 870.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
87.0	BOND	CARTHAGE	LIMESTONE	10.0	430.0
-258.0	CARBONDALE	HERRIN	COAL	3.0	775.0
-303.0	CARBONDALE	BRIAR HILL	COAL	3.0	820.0
-316.0	CARBONDALE	SPRINGFIELD	COAL	5.0	833.0
-353.0	CARBONDALE	HOUCHIN CREEK	COAL	-	870.0

MAPID: 12101704000C VERSION: 2 PROJECT: ROOF STUDY
COUNTY: MARION TWP/RNG: 2N 2E SECTION: 26 QUARTERS/FOOTAGES: 330' S line, 330' E line of NE SE
QUADRANGLE: SALEM SOUTH LONGITUDE: -88.941277 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.581274 DATE COLLECTED:
SURFACE ELEVATION (FT.): 517.0 LOGGED (FT.): 778.0 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
-227.0	MODESTO	PIASA	LIMESTONE	4.0	744.0
-231.0	MODESTO		SHALE	10.0	748.0
-241.0	CARBONDALE		SHALE	7.0	758.0
-248.0	CARBONDALE	LAWSON	SHALE	4.0	765.0
-252.0	CARBONDALE	BRERETON	LIMESTONE	4.5	769.0
-256.5	CARBONDALE	ANNA	SHALE	0.5	773.5
-258.0	CARBONDALE	HERRIN	COAL	3.0	775.0

MAPID: 12101704000C VERSION: 3 PROJECT: J JOHNSON
COUNTY: MARION TWP/RNG: 2N 2E SECTION: 26 QUARTERS/FOOTAGES: 330' S line, 330' E line of NE SE
QUADRANGLE: SALEM SOUTH LONGITUDE: -88.941277 GEOLOGIST: J JOHNSON
CONFIDENTIAL: N LATITUDE: 38.581274 DATE COLLECTED:
SURFACE ELEVATION (FT.): 522.0 LOGGED (FT.): 1890.0 LOG TYPE: Electric Log
SOURCE: WELKER OIL CO., LTD. WELL TYPE: Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-316.0	CARBONDALE	SPRINGFIELD	COAL	-	838.0
-393.0	CARBONDALE	COLCHESTER	COAL	-	915.0
-1368.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1890.0

MAPID: 12100557000C **VERSION:** 1 **PROJECT:** CIRC 164
COUNTY: MARION **TWP/RNG:** 2N 2E **SECTION:** 27 **QUARTERS/FOOTAGES:** NW NW SW
QUADRANGLE: SALEM SOUTH **LONGITUDE:** -88.97585 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.582863 **DATE COLLECTED:** 0 / 0 / 1939
SURFACE ELEVATION (FT.): 490.0 **LOGGED (FT.):** 2071.0 **LOG TYPE:**
SOURCE: DUNN H P, LANKFORD 2 **WELL TYPE:** Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
133.0	BOND	CARTHAGE	LIMESTONE	-	357.0
-204.0	CARBONDALE	HERRIN	COAL	-	694.0

MAPID: 12101945000C **VERSION:** 1 **PROJECT:** CGT-ECILL
COUNTY: MARION **TWP/RNG:** 2N 2E **SECTION:** 27 **QUARTERS/FOOTAGES:** 330' S line, 330' W line of NW
QUADRANGLE: SALEM SOUTH **LONGITUDE:** -88.97584 **GEOLOGIST:** C TREWORYG
CONFIDENTIAL: N **LATITUDE:** 38.584674 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 483.0 **LOGGED (FT.):** 790.0 **LOG TYPE:** Electric Log
SOURCE: **WELL TYPE:** Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
118.0	BOND	CARTHAGE	LIMESTONE	11.0	365.0
-272.0	CARBONDALE	BRIAR HILL	COAL	-	755.0
-273.0	CARBONDALE	SPRINGFIELD	COAL	4.5	756.0
-307.0	CARBONDALE	HOUCHIN CREEK	COAL	-	790.0

MAPID: 12101945000C **VERSION:** 2 **PROJECT:** ROOF STUDY
COUNTY: MARION **TWP/RNG:** 2N 2E **SECTION:** 27 **QUARTERS/FOOTAGES:** 330' S line, 330' W line of NW
QUADRANGLE: SALEM SOUTH **LONGITUDE:** -88.97584 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.584674 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 483.0 **LOGGED (FT.):** 702.5 **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
-193.0	MODESTO	PIASA	LIMESTONE & SHALE	3.0	676.0
-196.0	MODESTO		SHALE	8.0	679.0
-204.0	CARBONDALE		SHALE	6.0	687.0
-210.0	CARBONDALE	LAWSON	SHALE	4.5	693.0
-214.5	CARBONDALE	BRERETON	LIMESTONE	5.0	697.5

MAPID: 12100567000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 2N 2E SECTION: 28 QUARTERS/FOOTAGES: 1090' N line, 330' E line of NW
QUADRANGLE: SALEM SOUTH LONGITUDE: -88.987312 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.587812 DATE COLLECTED:
SURFACE ELEVATION (FT.): 528.0 LOGGED (FT.): 793.0 LOG TYPE: Nuclear Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: POOR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
158.0	BOND	CARTHAGE	LIMESTONE	22.0	370.0
-231.0	CARBONDALE	SPRINGFIELD	COAL	3.0	759.0
-265.0	CARBONDALE	HOUCHIN CREEK	COAL	-	793.0

MAPID: 12101142000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 2N 2E SECTION: 28 QUARTERS/FOOTAGES: NW NW NE
QUADRANGLE: SALEM SOUTH LONGITUDE: -88.984996 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.58995 DATE COLLECTED: 0 / 0 / 1940
SURFACE ELEVATION (FT.): 527.0 LOGGED (FT.): 3532.0 LOG TYPE:
SOURCE: TEXAS CO, KLNSHMIT C 15 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
140.0	BOND	CARTHAGE	LIMESTONE	-	387.0
-189.0	CARBONDALE	HERRIN	COAL	-	716.0

MAPID: 12101149000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 2N 2E SECTION: 28 QUARTERS/FOOTAGES: NW NW SE
QUADRANGLE: SALEM SOUTH LONGITUDE: -88.985034 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.582744 DATE COLLECTED: 0 / 0 / 1940
SURFACE ELEVATION (FT.): 519.0 LOGGED (FT.): 3506.0 LOG TYPE:
SOURCE: OHIO OIL, LOYD C E 31 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
144.0	BOND	CARTHAGE	LIMESTONE	-	375.0
-194.0	CARBONDALE	HERRIN	COAL	-	713.0

MAPID: 12101152000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 2N 2E SECTION: 28 QUARTERS/FOOTAGES: 2240' N line, 318' W line of SE
QUADRANGLE: SALEM SOUTH LONGITUDE: -88.98509 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.57746 DATE COLLECTED:
SURFACE ELEVATION (FT.): 485.0 LOGGED (FT.): 750.0 LOG TYPE: Nuclear Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: POOR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
151.0	BOND	CARTHAGE	LIMESTONE	10.0	334.0
-232.0	CARBONDALE	SPRINGFIELD	COAL	4.0	717.0
-265.0	CARBONDALE	HOUCHIN CREEK	COAL	-	750.0

MAPID: 12101154000C VERSION: 1 PROJECT: J JOHNSON
COUNTY: MARION TWP/RNG: 2N 2E SECTION: 28 QUARTERS/FOOTAGES: 249' S line, 270' W line of NW
QUADRANGLE: SALEM SOUTH LONGITUDE: -88.994394 GEOLOGIST: J JOHNSON
CONFIDENTIAL: N LATITUDE: 38.584207 DATE COLLECTED:
SURFACE ELEVATION (FT.): 495.0 LOGGED (FT.): 3330.0 LOG TYPE: Electric Log
SOURCE: MAGNOLIA PETROLEUM WELL TYPE: Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-241.0	CARBONDALE	SPRINGFIELD	COAL	-	736.0
-327.0	CARBONDALE	COLCHESTER	COAL	-	822.0
-1187.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1682.0
-2722.0	DEVONIAN	UPPER DEVONIAN S	UNCLASSIFIED	-	3217.0 TOP OF NEW ALBANY
-2736.0	DEVONIAN	GRASSY CREEK	UNCLASSIFIED	-	3231.0
-2835.0	DEVONIAN	BASE UPPER DEVON	UNCLASSIFIED	-	3330.0 BASE OF NEW ALBANY

MAPID: 12103778000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 2N 2E SECTION: 28 QUARTERS/FOOTAGES: 361' S line, 286' E line of NE SW
QUADRANGLE: SALEM SOUTH LONGITUDE: -88.987196 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.581009 DATE COLLECTED:
SURFACE ELEVATION (FT.): 499.0 LOGGED (FT.): 766.0 LOG TYPE: Nuclear Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: POOR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
147.0	BOND	CARTHAGE	LIMESTONE	9.0	352.0
-225.0	CARBONDALE	BRIAR HILL	COAL	2.5	724.0
-235.0	CARBONDALE	SPRINGFIELD	COAL	3.5	734.0
-267.0	CARBONDALE	HOUCHIN CREEK	COAL	-	766.0

MAPID: 12100211000C **VERSION:** 1 **PROJECT:** J JOHNSON
COUNTY: MARION **TWP/RNG:** 2N 2E **SECTION:** 29 **QUARTERS/FOOTAGES:** 280' N line, 330' W line
QUADRANGLE: CENTRALIA EAST **LONGITUDE:** -89.012541 **GEOLOGIST:** J JOHNSON
CONFIDENTIAL: N **LATITUDE:** 38.589754 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 541.0 **LOGGED (FT.):** 3456.0 **LOG TYPE:** Electric Log
SOURCE: TEXACO, INC. **WELL TYPE:** Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-218.0	CARBONDALE	SPRINGFIELD	COAL	-	759.0	
-324.0	CARBONDALE	COLCHESTER	COAL	-	865.0	
-1182.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1723.0	
-2805.0	DEVONIAN	UPPER DEVONIAN S	UNCLASSIFIED	-	3346.0	TOP OF NEW ALBANY
-2822.0	DEVONIAN	GRASSY CREEK	UNCLASSIFIED	-	3363.0	
-2915.0	DEVONIAN	BASE UPPER DEVON	UNCLASSIFIED	-	3456.0	BASE OF NEW ALBANY

MAPID: 12101158000C **VERSION:** 1 **PROJECT:** CIRC 164
COUNTY: MARION **TWP/RNG:** 2N 2E **SECTION:** 29 **QUARTERS/FOOTAGES:** NW NW SE
QUADRANGLE: CENTRALIA EAST **LONGITUDE:** -89.00341 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.582504 **DATE COLLECTED:** 0 / 0 / 1941
SURFACE ELEVATION (FT.): 518.0 **LOGGED (FT.):** 4630.0 **LOG TYPE:**
SOURCE: TEXAS CO, FOSSIECK W 13 **WELL TYPE:** Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
195.0	BOND	CARTHAGE	LIMESTONE	-	323.0	
-132.0	CARBONDALE	HERRIN	COAL	-	650.0	

MAPID: 12101269000C **VERSION:** 1 **PROJECT:** CIRC 164
COUNTY: MARION **TWP/RNG:** 2N 2E **SECTION:** 29 **QUARTERS/FOOTAGES:** SW NE SW
QUADRANGLE: CENTRALIA EAST **LONGITUDE:** -89.008024 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.580638 **DATE COLLECTED:** 0 / 0 / 1941
SURFACE ELEVATION (FT.): 540.0 **LOGGED (FT.):** 4620.0 **LOG TYPE:**
SOURCE: ROSSI P, BROOKS 8 **WELL TYPE:** Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
208.0	BOND	CARTHAGE	LIMESTONE	-	332.0	
-115.0	CARBONDALE	HERRIN	COAL	-	655.0	

MAPID: 12101333000C **VERSION:** 1 **PROJECT:** CIRC 164
COUNTY: MARION **TWP/RNG:** 2N 2E **SECTION:** 29 **QUARTERS/FOOTAGES:** SE SW NW
QUADRANGLE: CENTRALIA EAST **LONGITUDE:** -89.010292 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.584226 **DATE COLLECTED:** 0 / 0 / 1941
SURFACE ELEVATION (FT.): 542.0 **LOGGED (FT.):** 4636.0 **LOG TYPE:**
SOURCE: TEXAS CO, FRIEDRCH R 16 **WELL TYPE:** Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
202.0	BOND	CARTHAGE	LIMESTONE	-	340.0
-132.0	CARBONDALE	HERRIN	COAL	-	674.0

MAPID: 12103936000C **VERSION:** 1 **PROJECT:** CGT-ECILL
COUNTY: MARION **TWP/RNG:** 2N 2E **SECTION:** 29 **QUARTERS/FOOTAGES:** 950' N line, 330' W line
QUADRANGLE: CENTRALIA EAST **LONGITUDE:** -89.012553 **GEOLOGIST:** C TREWORYG
CONFIDENTIAL: N **LATITUDE:** 38.587905 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 549.0 **LOGGED (FT.):** 803.0 **LOG TYPE:** Nuclear Log
SOURCE: **WELL TYPE:** Oil and Gas Test
COMMENT: POOR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
181.0	BOND	CARTHAGE	LIMESTONE	10.0	368.0
-206.0	CARBONDALE	SPRINGFIELD	COAL	4.5	755.0
-254.0	CARBONDALE	HOUCHIN CREEK	COAL	-	803.0

MAPID: 12100587000C **VERSION:** 1 **PROJECT:** CGT-ECILL
COUNTY: MARION **TWP/RNG:** 2N 2E **SECTION:** 30 **QUARTERS/FOOTAGES:** 295' S line, 340' E line of SW
QUADRANGLE: CENTRALIA EAST **LONGITUDE:** -89.023985 **GEOLOGIST:** C TREWORYG
CONFIDENTIAL: N **LATITUDE:** 38.576948 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 488.0 **LOGGED (FT.):** 695.0 **LOG TYPE:** Nuclear Log
SOURCE: **WELL TYPE:** Oil and Gas Test
COMMENT: POOR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
220.0	BOND	CARTHAGE	LIMESTONE	11.0	268.0
-152.0	CARBONDALE	BRIAR HILL	COAL	3.0	640.0
-164.0	CARBONDALE	SPRINGFIELD	COAL	4.5	652.0
-207.0	CARBONDALE	HOUCHIN CREEK	COAL	-	695.0

MAPID: 12100591000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 2N 2E SECTION: 30 QUARTERS/FOOTAGES: SE SW SW
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.028412 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.577071 DATE COLLECTED: 0 / 0 / 1940
SURFACE ELEVATION (FT.): 526.0 LOGGED (FT.): 3536.0 LOG TYPE:
SOURCE: PUGH&DEKAL, TOULME H 3 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
214.0	BOND	CARTHAGE	LIMESTONE	-	312.0
-139.0	CARBONDALE	HERRIN	COAL	-	665.0

MAPID: 12101185000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 2N 2E SECTION: 30 QUARTERS/FOOTAGES: 2565' N line, 2565' W line
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.022629 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.58346 DATE COLLECTED: 0 / 0 / 1940
SURFACE ELEVATION (FT.): 527.0 LOGGED (FT.): 3540.0 LOG TYPE:
SOURCE: OXNR&BRODS, WOOTERS S 3 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
181.0	BOND	CARTHAGE	LIMESTONE	-	346.0
-187.0	CARBONDALE	HERRIN	COAL	-	714.0

MAPID: 12101185000C VERSION: 2 PROJECT: ROOF STUDY
COUNTY: MARION TWP/RNG: 2N 2E SECTION: 30 QUARTERS/FOOTAGES: 2565' N line, 2565' W line
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.022629 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.58346 DATE COLLECTED:
SURFACE ELEVATION (FT.): 527.0 LOGGED (FT.): 714.0 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
-137.0	MODESTO	PIASA	LIMESTONE	8.0	664.0
-145.0	MODESTO		SHALE	11.0	672.0
-156.0	CARBONDALE		SHALE	8.0	683.0
-164.0	CARBONDALE	BANKSTON FORK	LIMESTONE	3.5	691.0
-167.5	CARBONDALE	LAWSON	SHALE	4.5	694.5
-172.0	CARBONDALE	BRERETON	LIMESTONE	9.0	699.0
-181.0	CARBONDALE	HERRIN	COAL	6.0	708.0

MAPID: 12104081000C **VERSION:** 1 **PROJECT:** J JOHNSON
COUNTY: MARION **TWP/RNG:** 2N 2E **SECTION:** 30 **QUARTERS/FOOTAGES:** 313' N line, 377' E line of SE SE
QUADRANGLE: CENTRALIA EAST **LONGITUDE:** -89.015106 **GEOLOGIST:** J JOHNSON
CONFIDENTIAL: N **LATITUDE:** 38.578807 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 534.0 **LOGGED (FT.):** 3313.0 **LOG TYPE:** Electric Log
SOURCE: TEXAS COMPANY, THE **WELL TYPE:** Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-2666.0	DEVONIAN	UPPER DEVONIAN S	UNCLASSIFIED	-	3200.0	TOP OF NEW ALBANY
-2685.0	DEVONIAN	GRASSY CREEK	UNCLASSIFIED	-	3219.0	
-2779.0	DEVONIAN	BASE UPPER DEVON	UNCLASSIFIED	-	3313.0	BASE OF NEW ALBANY

MAPID: 12104093000C **VERSION:** 1 **PROJECT:** CGT-ECILL
COUNTY: MARION **TWP/RNG:** 2N 2E **SECTION:** 30 **QUARTERS/FOOTAGES:** 360' S line, 370' E line of NE
QUADRANGLE: CENTRALIA EAST **LONGITUDE:** -89.01504 **GEOLOGIST:** C TREWORGY
CONFIDENTIAL: N **LATITUDE:** 38.584279 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 533.0 **LOGGED (FT.):** 748.0 **LOG TYPE:** Nuclear Log
SOURCE: **WELL TYPE:** Oil and Gas Test
COMMENT: POOR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
200.0	BOND	CARTHAGE	LIMESTONE	9.0	333.0	
-178.0	CARBONDALE	SPRINGFIELD	COAL	4.5	711.0	
-215.0	CARBONDALE	HOUCHIN CREEK	COAL	-	748.0	

MAPID: 12104122000C **VERSION:** 1 **PROJECT:** CGT-ECILL
COUNTY: MARION **TWP/RNG:** 2N 2E **SECTION:** 30 **QUARTERS/FOOTAGES:** 373' S line, 350' E line of NW SE
QUADRANGLE: CENTRALIA EAST **LONGITUDE:** -89.019535 **GEOLOGIST:** C TREWORGY
CONFIDENTIAL: N **LATITUDE:** 38.580734 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 529.0 **LOGGED (FT.):** 735.0 **LOG TYPE:** Nuclear Log
SOURCE: **WELL TYPE:** Oil and Gas Test
COMMENT: POOR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
212.0	BOND	CARTHAGE	LIMESTONE	9.0	317.0	
-168.0	CARBONDALE	SPRINGFIELD	COAL	5.5	697.0	
-206.0	CARBONDALE	HOUCHIN CREEK	COAL	-	735.0	

MAPID: 12100220000C VERSION: 1 PROJECT: ROOF STUDY
COUNTY: MARION TWP/RNG: 2N 2E SECTION: 31 QUARTERS/FOOTAGES: 2310' S line, 1650' W line
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.025997 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.567931 DATE COLLECTED:
SURFACE ELEVATION (FT.): 476.0 LOGGED (FT.): 579.0 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
-73.0	MODESTO	PIASA	LIMESTONE	6.0	549.0
-79.0	MODESTO		SHALE	8.0	555.0
-87.0	CARBONDALE		SHALE	5.0	563.0
-92.0	CARBONDALE	LAWSON	SHALE	5.0	568.0
-97.0	CARBONDALE	BRERETON	LIMESTONE	4.0	573.0
-100.0	CARBONDALE	HERRIN	COAL	3.0	576.0

MAPID: 12100607000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 2N 2E SECTION: 31 QUARTERS/FOOTAGES: SE SE SE
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.01515 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.562535 DATE COLLECTED: 0 / 0 / 1940
SURFACE ELEVATION (FT.): 483.0 LOGGED (FT.): 3345.0 LOG TYPE:
SOURCE: TEXAS CO, WILLIAMS M 23 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
235.0	BOND	CARTHAGE	LIMESTONE	-	248.0
-99.0	CARBONDALE	HERRIN	COAL	-	582.0

MAPID: 12101072000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 2N 2E SECTION: 31 QUARTERS/FOOTAGES: NE NE SW
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.024207 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.567937 DATE COLLECTED: 0 / 0 / 1942
SURFACE ELEVATION (FT.): 487.0 LOGGED (FT.): 4620.0 LOG TYPE:
SOURCE: LAIN OG, DEMPSEY A 11 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
236.0	BOND	CARTHAGE	LIMESTONE	-	251.0
-99.0	CARBONDALE	HERRIN	COAL	-	586.0

MAPID: 12104162000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 2N 2E SECTION: 31 QUARTERS/FOOTAGES: 248' S line, 251' W line of NE SW
QUADRANGLE: CENTRALIA EAST LONGITUDE: -89.026847 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.565883 DATE COLLECTED:
SURFACE ELEVATION (FT.): 476.0 LOGGED (FT.): 669.0 LOG TYPE: Nuclear Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: POOR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
220.0	BOND	CARTHAGE	LIMESTONE	10.0	256.0	
-144.0	CARBONDALE	BRIAR HILL	COAL	3.0	620.0	
-155.0	CARBONDALE	SPRINGFIELD	COAL	5.5	631.0	
-193.0	CARBONDALE	HOUCHIN CREEK	COAL	-	669.0	

MAPID: 12100619000C VERSION: 1

PROJECT: J JOHNSON

COUNTY: MARION TWP/RNG: 2N 2E SECTION: 32 QUARTERS/FOOTAGES: NW SE NE
QUADRANGLE: SALEM SOUTH LONGITUDE: -88.998988 GEOLOGIST: J JOHNSON
CONFIDENTIAL: N LATITUDE: 38.571621 DATE COLLECTED:
SURFACE ELEVATION (FT.): 505.0 LOGGED (FT.): 3344.0 LOG TYPE: Electric Log
SOURCE: TEXACO, INC. WELL TYPE: Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-184.0	CARBONDALE	SPRINGFIELD	COAL	-	689.0	
-269.0	CARBONDALE	COLCHESTER	COAL	-	774.0	
-1065.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1570.0	
-2724.0	DEVONIAN	UPPER DEVONIAN S	UNCLASSIFIED	-	3229.0	TOP OF NEW ALBANY
-2743.0	DEVONIAN	GRASSY CREEK	UNCLASSIFIED	-	3248.0	
-2839.0	DEVONIAN	BASE UPPER DEVON	UNCLASSIFIED	-	3344.0	BASE OF NEW ALBANY

MAPID: 12100619000C VERSION: 2

PROJECT: CIRC 164

COUNTY: MARION TWP/RNG: 2N 2E SECTION: 32 QUARTERS/FOOTAGES: NW SE NE
QUADRANGLE: SALEM SOUTH LONGITUDE: -88.998988 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.571621 DATE COLLECTED: 0 / 0 / 1940
SURFACE ELEVATION (FT.): 502.0 LOGGED (FT.): 3461.0 LOG TYPE:
SOURCE: MAGNOLIA, SHANAFLT D 32 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
181.0	BOND	CARTHAGE	LIMESTONE	-	321.0	
-142.0	CARBONDALE	HERRIN	COAL	-	644.0	

MAPID: 12104351000C VERSION: 1 PROJECT: J JOHNSON
COUNTY: MARION TWP/RNG: 2N 2E SECTION: 32 QUARTERS/FOOTAGES: 320' S line, 280' W line of SE SE
QUADRANGLE: SALEM SOUTH LONGITUDE: -88.999157 GEOLOGIST: J JOHNSON
CONFIDENTIAL: N LATITUDE: 38.562647 DATE COLLECTED:
SURFACE ELEVATION (FT.): 539.0 LOGGED (FT.): 3397.0 LOG TYPE: Electric Log
SOURCE: TEXACO, INC. WELL TYPE: Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-2742.0	DEVONIAN	UPPER DEVONIAN S	UNCLASSIFIED	-	3281.0	TOP OF NEW ALBANY
-2762.0	DEVONIAN	GRASSY CREEK	UNCLASSIFIED	-	3301.0	
-2858.0	DEVONIAN	BASE UPPER DEVON	UNCLASSIFIED	-	3397.0	BASE OF NEW ALBANY

MAPID: 12105192000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 2N 2E SECTION: 32 QUARTERS/FOOTAGES: 502' S line, 30' W line of NE SE
QUADRANGLE: SALEM SOUTH LONGITUDE: -89.000004 GEOLOGIST: C TREWORYG
CONFIDENTIAL: N LATITUDE: 38.566761 DATE COLLECTED:
SURFACE ELEVATION (FT.): 531.0 LOGGED (FT.): 869.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
171.0	BOND	CARTHAGE	LIMESTONE	10.0	360.0	
-198.0	CARBONDALE	BRIAR HILL	COAL	-	729.0	
-206.0	CARBONDALE	SPRINGFIELD	COAL	4.5	737.0	
-239.0	CARBONDALE	HOUCHIN CREEK	COAL	-	770.0	
-338.0	CARBONDALE	COLCHESTER	COAL	-	869.0	

MAPID: 12100628000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 2N 2E SECTION: 33 QUARTERS/FOOTAGES: 662' N line, 340' W line of SE SW
QUADRANGLE: SALEM SOUTH LONGITUDE: -88.989719 GEOLOGIST: C TREWORYG
CONFIDENTIAL: N LATITUDE: 38.563632 DATE COLLECTED:
SURFACE ELEVATION (FT.): 520.0 LOGGED (FT.): 778.0 LOG TYPE: Nuclear Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: POOR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
165.0	BOND	CARTHAGE	LIMESTONE	8.0	355.0	
-226.0	CARBONDALE	SPRINGFIELD	COAL	4.0	746.0	
-258.0	CARBONDALE	HOUCHIN CREEK	COAL	-	778.0	

MAPID: 12101089000C VERSION: 1 PROJECT: J JOHNSON
COUNTY: MARION TWP/RNG: 2N 2E SECTION: 33 QUARTERS/FOOTAGES: SE SE SW
QUADRANGLE: SALEM SOUTH LONGITUDE: -88.988389 GEOLOGIST: J JOHNSON
CONFIDENTIAL: N LATITUDE: 38.562743 DATE COLLECTED:
SURFACE ELEVATION (FT.): 524.0 LOGGED (FT.): 3411.0 LOG TYPE: Electric Log
SOURCE: TEXAS COMPANY, THE WELL TYPE: Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-240.0	CARBONDALE	SPRINGFIELD	COAL	-	764.0	
-308.0	CARBONDALE	COLCHESTER	COAL	-	832.0	
-1135.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1659.0	
-2807.0	DEVONIAN	UPPER DEVONIAN S	UNCLASSIFIED	-	3331.0	TOP OF NEW ALBANY
-2828.0	DEVONIAN	GRASSY CREEK	UNCLASSIFIED	-	3352.0	
-2887.0	DEVONIAN	BASE UPPER DEVON	UNCLASSIFIED	-	3411.0	BASE OF NEW ALBANY

MAPID: 12101089000C VERSION: 2 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 2N 2E SECTION: 33 QUARTERS/FOOTAGES: SE SE SW
QUADRANGLE: SALEM SOUTH LONGITUDE: -88.988389 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.562743 DATE COLLECTED: 0 / 0 / 1940
SURFACE ELEVATION (FT.): 521.0 LOGGED (FT.): 3525.0 LOG TYPE:
SOURCE: TEXAS CO, CTY OF CEN 73 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
155.0	BOND	CARTHAGE	LIMESTONE	-	366.0	
-189.0	CARBONDALE	HERRIN	COAL	-	710.0	

MAPID: 12101092000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 2N 2E SECTION: 33 QUARTERS/FOOTAGES: SW NE SE
QUADRANGLE: SALEM SOUTH LONGITUDE: -88.980528 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.566446 DATE COLLECTED: 0 / 0 / 1940
SURFACE ELEVATION (FT.): 569.0 LOGGED (FT.): 3592.0 LOG TYPE:
SOURCE: ZEPHYR DRC, LANKFORD 7 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
160.0	BOND	CARTHAGE	LIMESTONE	-	409.0	
-183.0	CARBONDALE	HERRIN	COAL	-	752.0	

MAPID: 12101095000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 2N 2E SECTION: 33 QUARTERS/FOOTAGES: SW NW SE
QUADRANGLE: SALEM SOUTH LONGITUDE: -88.985135 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.566409 DATE COLLECTED: 0 / 0 / 1939
SURFACE ELEVATION (FT.): 528.0 LOGGED (FT.): 2082.0 LOG TYPE:
SOURCE: OHIO OIL, LOYD C E 10 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
164.0	BOND	CARTHAGE	LIMESTONE	-	364.0
-176.0	CARBONDALE	HERRIN	COAL	-	704.0

MAPID: 12101099000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 2N 2E SECTION: 33 QUARTERS/FOOTAGES: NW NW NW
QUADRANGLE: SALEM SOUTH LONGITUDE: -88.994291 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.575397 DATE COLLECTED: 0 / 0 / 1940
SURFACE ELEVATION (FT.): 506.0 LOGGED (FT.): 3448.0 LOG TYPE:
SOURCE: WISER OC, WEEMS A H 10 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
172.0	BOND	CARTHAGE	LIMESTONE	-	334.0
-158.0	CARBONDALE	HERRIN	COAL	-	664.0

MAPID: 12101362000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 2N 2E SECTION: 33 QUARTERS/FOOTAGES: NE NE NE
QUADRANGLE: SALEM SOUTH LONGITUDE: -88.978154 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.575626 DATE COLLECTED: 0 / 0 / 1943
SURFACE ELEVATION (FT.): 525.0 LOGGED (FT.): 1856.0 LOG TYPE:
SOURCE: TEXAS CO, PARKER S 15 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
155.0	BOND	CARTHAGE	LIMESTONE	-	370.0
-197.0	CARBONDALE	HERRIN	COAL	-	722.0

MAPID: 12104475000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 2N 2E SECTION: 33 QUARTERS/FOOTAGES: 200' S line, 200' E line of NW
QUADRANGLE: SALEM SOUTH LONGITUDE: -88.986968 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.569677 DATE COLLECTED:
SURFACE ELEVATION (FT.): 564.0 LOGGED (FT.): 816.0 LOG TYPE: Nuclear Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: POOR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
165.0	BOND	CARTHAGE	LIMESTONE	10.0	399.0
-224.0	CARBONDALE	SPRINGFIELD	COAL	3.5	788.0
-252.0	CARBONDALE	HOUCHIN CREEK	COAL	-	816.0

MAPID: 12104477000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 2N 2E SECTION: 33 QUARTERS/FOOTAGES: 310' N line, 260' E line of SE NW
QUADRANGLE: SALEM SOUTH LONGITUDE: -88.987163 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.571912 DATE COLLECTED:
SURFACE ELEVATION (FT.): 528.0 LOGGED (FT.): 781.0 LOG TYPE: Nuclear Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: POOR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
166.0	BOND	CARTHAGE	LIMESTONE	10.0	362.0
-223.0	CARBONDALE	SPRINGFIELD	COAL	4.5	751.0
-253.0	CARBONDALE	HOUCHIN CREEK	COAL	-	781.0

MAPID: 12104487000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 2N 2E SECTION: 33 QUARTERS/FOOTAGES: 398' S line, 608' W line of NE SW
QUADRANGLE: SALEM SOUTH LONGITUDE: -88.988756 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.566568 DATE COLLECTED:
SURFACE ELEVATION (FT.): 534.0 LOGGED (FT.): 784.0 LOG TYPE: Nuclear Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: POOR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
168.0	BOND	CARTHAGE	LIMESTONE	11.0	366.0
-205.0	CARBONDALE	BRIAR HILL	COAL	3.0	739.0
-220.0	CARBONDALE	SPRINGFIELD	COAL	4.0	754.0
-250.0	CARBONDALE	HOUCHIN CREEK	COAL	-	784.0

MAPID: 12104535000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 2N 2E SECTION: 33 QUARTERS/FOOTAGES: 424' N line, 333' E line of NW
QUADRANGLE: SALEM SOUTH LONGITUDE: -88.987396 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.575234 DATE COLLECTED:
SURFACE ELEVATION (FT.): 485.0 LOGGED (FT.): 794.0 LOG TYPE: Nuclear Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: POOR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
148.0	BOND	CARTHAGE	LIMESTONE	9.0	337.0
-277.0	CARBONDALE	SPRINGFIELD	COAL	4.5	762.0
-309.0	CARBONDALE	HOUCHIN CREEK	COAL	-	794.0

MAPID: 12101034000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 2N 2E SECTION: 34 QUARTERS/FOOTAGES: 330' S line, 330' W line of NW NW
QUADRANGLE: SALEM SOUTH LONGITUDE: -88.975857 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.57381 DATE COLLECTED: 0 / 0 / 1944
SURFACE ELEVATION (FT.): 533.0 LOGGED (FT.): 1880.0 LOG TYPE:
SOURCE: TEXAS CO, PETERS C 2 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
149.0	BOND	CARTHAGE	LIMESTONE	-	384.0
-190.0	CARBONDALE	HERRIN	COAL	-	723.0

MAPID: 12101034000C VERSION: 2 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 2N 2E SECTION: 34 QUARTERS/FOOTAGES: 330' S line, 330' W line of NW NW
QUADRANGLE: SALEM SOUTH LONGITUDE: -88.975857 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.57381 DATE COLLECTED:
SURFACE ELEVATION (FT.): 533.0 LOGGED (FT.): 800.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
148.0	BOND	CARTHAGE	LIMESTONE	11.0	385.0
-239.0	CARBONDALE	SPRINGFIELD	COAL	5.5	772.0
-267.0	CARBONDALE	HOUCHIN CREEK	COAL	-	800.0

MAPID: 12101101000C **VERSION:** 1 **PROJECT:** CIRC 164
COUNTY: MARION **TWP/RNG:** 2N 2E **SECTION:** 34 **QUARTERS/FOOTAGES:** SW NE SW
QUADRANGLE: SALEM SOUTH **LONGITUDE:** -88.971258 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.566509 **DATE COLLECTED:** 0 / 0 / 1939
SURFACE ELEVATION (FT.): 545.0 **LOGGED (FT.):** 2140.0 **LOG TYPE:**
SOURCE: ZEPHYR DRC, LANKFORD C 5 **WELL TYPE:** Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
156.0	BOND	CARTHAGE	LIMESTONE	-	389.0
-182.0	CARBONDALE	HERRIN	COAL	-	727.0

MAPID: 12101101000C **VERSION:** 2 **PROJECT:** CGT-ECILL
COUNTY: MARION **TWP/RNG:** 2N 2E **SECTION:** 34 **QUARTERS/FOOTAGES:** SW NE SW
QUADRANGLE: SALEM SOUTH **LONGITUDE:** -88.971258 **GEOLOGIST:** C TREWORGY
CONFIDENTIAL: N **LATITUDE:** 38.566509 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 548.0 **LOGGED (FT.):** 812.0 **LOG TYPE:** Electric Log
SOURCE: **WELL TYPE:** Oil and Gas Test
COMMENT: POOR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
158.0	BOND	CARTHAGE	LIMESTONE	10.0	390.0
-258.0	CARBONDALE	SPRINGFIELD	COAL	6.0	806.0

MAPID: 12101102000C **VERSION:** 1 **PROJECT:** J JOHNSON
COUNTY: MARION **TWP/RNG:** 2N 2E **SECTION:** 34 **QUARTERS/FOOTAGES:** NW NW SW
QUADRANGLE: SALEM SOUTH **LONGITUDE:** -88.975897 **GEOLOGIST:** J JOHNSON
CONFIDENTIAL: N **LATITUDE:** 38.568314 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 560.0 **LOGGED (FT.):** 1743.0 **LOG TYPE:** Electric Log
SOURCE: ZEPHYR DRLG CO **WELL TYPE:** Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-243.0	CARBONDALE	SPRINGFIELD	COAL	-	803.0
-295.0	CARBONDALE	COLCHESTER	COAL	-	855.0
-1183.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1743.0

MAPID: 12101948000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 2N 3E SECTION: 5 QUARTERS/FOOTAGES: NW SE NW
QUADRANGLE: SALEM NORTH LONGITUDE: -88.895687 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.645099 DATE COLLECTED:
SURFACE ELEVATION (FT.): 544.0 LOGGED (FT.): 938.5 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
42.0	BOND	CARTHAGE	LIMESTONE	9.0	502.0
-284.0	CARBONDALE	HERRIN	COAL	5.0	828.0
-333.0	CARBONDALE	BRIAR HILL	COAL	2.5	877.0
-340.0	CARBONDALE	SPRINGFIELD	COAL	5.0	884.0
-393.0	CARBONDALE	HOUCHIN CREEK	COAL	1.5	937.0

MAPID: 12101948000C VERSION: 2 PROJECT: ROOF STUDY
COUNTY: MARION TWP/RNG: 2N 3E SECTION: 5 QUARTERS/FOOTAGES: NW SE NW
QUADRANGLE: SALEM NORTH LONGITUDE: -88.895687 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.645099 DATE COLLECTED:
SURFACE ELEVATION (FT.): 544.0 LOGGED (FT.): 833.0 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
-241.0	MODESTO	PIASA	LIMESTONE & SHALE	10.0	785.0
-251.0	MODESTO		SHALE	21.0	795.0
-272.0	CARBONDALE	DANVILLE	COAL	2.0	816.0
-274.0	CARBONDALE		SHALE	4.0	818.0
-278.0	CARBONDALE	LAWSON	SHALE	3.0	822.0
-281.0	CARBONDALE	BRERETON	LIMESTONE	3.5	825.0
-284.5	CARBONDALE	ANNA	SHALE	1.5	828.5
-285.0	CARBONDALE	HERRIN	COAL	4.0	829.0

MAPID: 12105598000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 2N 3E SECTION: 5 QUARTERS/FOOTAGES: 330' N line, 330' W line of NE
QUADRANGLE: SALEM NORTH LONGITUDE: -88.890985 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.648641 DATE COLLECTED:
SURFACE ELEVATION (FT.): 545.0 LOGGED (FT.): 910.0 LOG TYPE: Nuclear Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
70.0	BOND	CARTHAGE	LIMESTONE	9.0	475.0
-301.0	CARBONDALE	BRIAR HILL	COAL	2.5	846.0
-309.0	CARBONDALE	SPRINGFIELD	COAL	4.0	854.0
-363.0	CARBONDALE	HOUCHIN CREEK	COAL	2.0	908.0

MAPID: 12125853000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 2N 3E SECTION: 6 QUARTERS/FOOTAGES: 330' N line, 330' E line
QUADRANGLE: SALEM NORTH LONGITUDE: -88.902624 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.648608 DATE COLLECTED:
SURFACE ELEVATION (FT.): 551.0 LOGGED (FT.): 857.5 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
86.0	BOND	CARTHAGE	LIMESTONE	9.0	465.0
-293.0	CARBONDALE	BRIAR HILL	COAL	2.0	844.0
-302.0	CARBONDALE	SPRINGFIELD	COAL	4.5	853.0

MAPID: 12101494000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 2N 3E SECTION: 12 QUARTERS/FOOTAGES: 330' S line, 330' E line of NW
QUADRANGLE: OMEGA LONGITUDE: -88.81911 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.628771 DATE COLLECTED:
SURFACE ELEVATION (FT.): 521.0 LOGGED (FT.): 1104.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-121.0	BOND	CARTHAGE	LIMESTONE	9.0	642.0
-402.0	MODESTO	PIASA	LIMESTONE	11.0	923.0
-507.0	CARBONDALE	BRIAR HILL	COAL	-	1028.0
-516.0	CARBONDALE	SPRINGFIELD	COAL	4.0	1037.0
-583.0	CARBONDALE	HOUCHIN CREEK	COAL	-	1104.0

MAPID: 12101494000C **VERSION:** 2 **PROJECT:** BLM
COUNTY: MARION **TWP/RNG:** 2N 3E **SECTION:** 12 **QUARTERS/FOOTAGES:** 330' S line, 330' E line of NW
QUADRANGLE: OMEGA **LONGITUDE:** -88.81911 **GEOLOGIST:** TREWORGY,J
CONFIDENTIAL: N **LATITUDE:** 38.628771 **DATE COLLECTED:** 9 / 0 / 1945
SURFACE ELEVATION (FT.): 521.0 **LOGGED (FT.):** 1104.0 **LOG TYPE:** Electric Log
SOURCE: GEORGE S. ENGLE **WELL TYPE:** Oil and Gas Test
COMMENT: INTERPRETED BY C. TREWORGY

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
521.0			ROCK	1028.0	0.0
-507.0			COAL	-	1028.0
-507.0			ROCK	9.0	1028.0
-516.0	CARBONDALE	SPRINGFIELD	COAL	4.0	1037.0
-520.0	CARBONDALE		ROCK	63.0	1041.0
-583.0	CARBONDALE	HOUCHIN CREEK	COAL	-	1104.0

MAPID: 12101494000C **VERSION:** 3 **PROJECT:** CIRC 164
COUNTY: MARION **TWP/RNG:** 2N 3E **SECTION:** 12 **QUARTERS/FOOTAGES:** 330' S line, 330' E line of NW
QUADRANGLE: OMEGA **LONGITUDE:** -88.81911 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.628771 **DATE COLLECTED:** 0 / 0 / 1945
SURFACE ELEVATION (FT.): 521.6 **LOGGED (FT.):** 2774.0 **LOG TYPE:**
SOURCE: ENGLE G S, VURSELL C 1 **WELL TYPE:** Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-119.4	BOND	CARTHAGE	LIMESTONE	-	641.0
-456.4	CARBONDALE	HERRIN	COAL	-	978.0

MAPID: 12101584000C **VERSION:** 1 **PROJECT:** CGT-ECILL
COUNTY: MARION **TWP/RNG:** 2N 3E **SECTION:** 13 **QUARTERS/FOOTAGES:** 330' N line, 330' E line of SW
QUADRANGLE: IUKA **LONGITUDE:** -88.819122 **GEOLOGIST:** C TREWORGY
CONFIDENTIAL: N **LATITUDE:** 38.612413 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 548.0 **LOGGED (FT.):** 1161.0 **LOG TYPE:** Electric Log
SOURCE: **WELL TYPE:** Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-27.0	BOND	CARTHAGE	LIMESTONE	10.0	575.0
-344.0	MODESTO	PIASA	LIMESTONE	5.0	892.0
-425.0	CARBONDALE	BRIAR HILL	COAL	2.0	973.0
-434.0	CARBONDALE	SPRINGFIELD	COAL	4.5	982.0
-511.0	CARBONDALE	HOUCHIN CREEK	COAL	-	1059.0
-613.0	CARBONDALE	COLCHESTER	COAL	-	1161.0

MAPID: 12101584000C VERSION: 2 PROJECT: ROOF STUDY

COUNTY: MARION TWP/RNG: 2N 3E SECTION: 13 QUARTERS/FOOTAGES: 330' N line, 330' E line of SW

QUADRANGLE: IUKA LONGITUDE: -88.819122 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.612413 DATE COLLECTED:

SURFACE ELEVATION (FT.): 548.0 LOGGED (FT.): 931.0 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
-335.0	MODESTO	PIASA	LIMESTONE & SHALE	5.0	883.0
-340.0	MODESTO		SHALE	23.0	888.0
-363.0	CARBONDALE	DANVILLE	COAL	2.5	911.0
-365.5	CARBONDALE		SHALE	4.5	913.5
-370.0	CARBONDALE	LAWSON	SHALE	4.5	918.0
-374.5	CARBONDALE	BRERETON	LIMESTONE	4.5	922.5
-379.0	CARBONDALE	ANNA	SHALE	3.0	927.0
-380.0	CARBONDALE	HERRIN	COAL	3.0	928.0

MAPID: 12101615000C VERSION: 1 PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 2N 3E SECTION: 13 QUARTERS/FOOTAGES: 330' N line, 330' E line of SE

QUADRANGLE: IUKA LONGITUDE: -88.809868 GEOLOGIST: C TREWORYG

CONFIDENTIAL: N LATITUDE: 38.612405 DATE COLLECTED:

SURFACE ELEVATION (FT.): 534.0 LOGGED (FT.): 1188.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-56.0	BOND	CARTHAGE	LIMESTONE	12.0	590.0
-241.0	MODESTO	WEST FRANKLIN	LIMESTONE	5.0	775.0
-462.0	CARBONDALE	BRIAR HILL	COAL	2.5	996.0
-469.0	CARBONDALE	SPRINGFIELD	COAL	5.0	1003.0
-566.0	CARBONDALE	HOUCHIN CREEK	COAL	-	1100.0
-654.0	CARBONDALE	COLCHESTER	COAL	-	1188.0

MAPID: 12101625000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 2N 3E SECTION: 13 QUARTERS/FOOTAGES: 330' N line, 330' W line of SE SW
QUADRANGLE: IUKA LONGITUDE: -88.821451 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.608777 DATE COLLECTED:
SURFACE ELEVATION (FT.): 546.0 LOGGED (FT.): 1147.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-15.0	BOND	CARTHAGE	LIMESTONE	10.0	561.0
-207.0	MODESTO	TRIVOLI	SANDSTONE	10.0	753.0
-412.0	CARBONDALE	BRIAR HILL	COAL	2.5	958.0
-422.0	CARBONDALE	SPRINGFIELD	COAL	5.0	968.0
-497.0	CARBONDALE	HOUCHIN CREEK	COAL	-	1043.0
-601.0	CARBONDALE	COLCHESTER	COAL	-	1147.0

MAPID: 12101614000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 2N 3E SECTION: 14 QUARTERS/FOOTAGES: 330' S line, 330' W line of SE NE
QUADRANGLE: IUKA LONGITUDE: -88.830682 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.61425 DATE COLLECTED:
SURFACE ELEVATION (FT.): 547.0 LOGGED (FT.): 1183.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-51.0	BOND	CARTHAGE	LIMESTONE	10.0	598.0
-228.0	MODESTO	WEST FRANKLIN	LIMESTONE	5.0	775.0
-347.0	MODESTO	PIASA	LIMESTONE	11.0	894.0
-451.0	CARBONDALE	BRIAR HILL	COAL	-	998.0
-459.0	CARBONDALE	SPRINGFIELD	COAL	4.0	1006.0
-516.0	CARBONDALE	HOUCHIN CREEK	COAL	-	1063.0
-636.0	CARBONDALE	COLCHESTER	COAL	-	1183.0

MAPID: 12104583000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 2N 3E SECTION: 14 QUARTERS/FOOTAGES: 330' N line, 330' W line of SW NW
QUADRANGLE: IUKA LONGITUDE: -88.844582 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.6161 DATE COLLECTED:
SURFACE ELEVATION (FT.): 543.0 LOGGED (FT.): 1151.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-43.0	BOND	CARTHAGE	LIMESTONE	6.0	586.0
-341.0	MODESTO	PIASA	LIMESTONE	9.0	884.0
-435.0	CARBONDALE	BRIAR HILL	COAL	2.5	978.0
-447.0	CARBONDALE	SPRINGFIELD	COAL	3.5	990.0
-500.0	CARBONDALE	HOUCHIN CREEK	COAL	-	1043.0
-608.0	CARBONDALE	COLCHESTER	COAL	-	1151.0

MAPID: 12104583000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: MARION TWP/RNG: 2N 3E SECTION: 14 QUARTERS/FOOTAGES: 330' N line, 330' W line of SW NW
QUADRANGLE: IUKA LONGITUDE: -88.844582 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.6161 DATE COLLECTED:
SURFACE ELEVATION (FT.): 543.0 LOGGED (FT.): 936.0 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
-341.0	MODESTO	PIASA	LIMESTONE & SHALE	9.0	884.0
-350.0	MODESTO		SHALE	25.0	893.0
-375.0	CARBONDALE	DANVILLE	COAL	1.0	918.0
-376.0	CARBONDALE		SHALE	4.5	919.0
-380.5	CARBONDALE	LAWSON	SHALE	4.5	923.5
-385.0	CARBONDALE	BRERETON	LIMESTONE	3.0	928.0
-388.0	CARBONDALE	ANNA	SHALE	3.0	931.0
-391.0	CARBONDALE	HERRIN	COAL	2.0	934.0

MAPID: 12105088000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 2N 3E SECTION: 14 QUARTERS/FOOTAGES: 330' S line, 330' E line
QUADRANGLE: IUKA LONGITUDE: -88.828414 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.606973 DATE COLLECTED:
SURFACE ELEVATION (FT.): 552.0 LOGGED (FT.): 1141.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-21.0	BOND	CARTHAGE	LIMESTONE	10.0	573.0	
-409.0	CARBONDALE	BRIAR HILL	COAL	2.5	961.0	
-428.0	CARBONDALE	SPRINGFIELD	COAL	4.0	980.0	
-498.0	CARBONDALE	HOUCHIN CREEK	COAL	-	1050.0	
-589.0	CARBONDALE	COLCHESTER	COAL	-	1141.0	

MAPID: 12125738000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 2N 3E SECTION: 15 QUARTERS/FOOTAGES: 330' S line, 330' E line of SW
QUADRANGLE: IUKA LONGITUDE: -88.856226 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.607137 DATE COLLECTED:
SURFACE ELEVATION (FT.): 534.0 LOGGED (FT.): 976.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: POOR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-32.0	BOND	CARTHAGE	LIMESTONE	7.0	566.0	
-439.0	CARBONDALE	SPRINGFIELD	COAL	3.0	973.0	

MAPID: 12100646000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 2N 3E SECTION: 20 QUARTERS/FOOTAGES: SW SE SW
QUADRANGLE: SALEM SOUTH LONGITUDE: -88.89562 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.592576 DATE COLLECTED: 0 / 0 / 1938
SURFACE ELEVATION (FT.): 526.0 LOGGED (FT.): 2505.0 LOG TYPE:
SOURCE: PYRAMD PET, RODDY R O 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
29.0	BOND	CARTHAGE	LIMESTONE	-	497.0	
-310.0	CARBONDALE	HERRIN	COAL	-	836.0	

MAPID: 12101518000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 2N 3E SECTION: 22 QUARTERS/FOOTAGES: NE NW NW
QUADRANGLE: IUKA LONGITUDE: -88.860855 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.605352 DATE COLLECTED:
SURFACE ELEVATION (FT.): 540.0 LOGGED (FT.): 1027.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-26.0	BOND	CARTHAGE	LIMESTONE	7.0	566.0
-377.0	CARBONDALE	HERRIN	COAL	5.0	917.0
-424.0	CARBONDALE	BRIAR HILL	COAL	2.5	964.0
-434.0	CARBONDALE	SPRINGFIELD	COAL	3.5	974.0
-486.0	CARBONDALE	HOUCHIN CREEK	COAL	1.0	1026.0

MAPID: 12102037000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 2N 3E SECTION: 23 QUARTERS/FOOTAGES: 330' N line, 330' W line of SE NW
QUADRANGLE: IUKA LONGITUDE: -88.840089 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.601555 DATE COLLECTED:
SURFACE ELEVATION (FT.): 560.0 LOGGED (FT.): 1005.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-28.0	BOND	CARTHAGE	LIMESTONE	11.0	588.0
-332.0	MODESTO	PIASA	LIMESTONE	8.0	892.0
-432.0	CARBONDALE	BRIAR HILL	COAL	-	992.0
-442.0	CARBONDALE	SPRINGFIELD	COAL	3.0	1002.0

MAPID: 12100014000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 2N 3E SECTION: 24 QUARTERS/FOOTAGES: NW SE NW
QUADRANGLE: IUKA LONGITUDE: -88.821552 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.601505 DATE COLLECTED: 0 / 0 / 1900
SURFACE ELEVATION (FT.): 511.1 LOGGED (FT.): 2236.0 LOG TYPE:
SOURCE: KELLEY&FIN, WILLIAMS WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-378.9	CARBONDALE	HERRIN	COAL	-	890.0

MAPID: 12101634000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 2N 3E SECTION: 24 QUARTERS/FOOTAGES: 330' N line, 330' W line
QUADRANGLE: IUKA LONGITUDE: -88.826113 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.605143 DATE COLLECTED:
SURFACE ELEVATION (FT.): 538.0 LOGGED (FT.): 1133.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-10.0	BOND	CARTHAGE	LIMESTONE	10.0	548.0	
-412.0	CARBONDALE	BRIAR HILL	COAL	-	950.0	
-418.0	CARBONDALE	SPRINGFIELD	COAL	5.0	956.0	
-491.0	CARBONDALE	HOUCHIN CREEK	COAL	-	1029.0	
-595.0	CARBONDALE	COLCHESTER	COAL	-	1133.0	

MAPID: 12101578000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 2N 3E SECTION: 25 QUARTERS/FOOTAGES: 330' N line, 330' E line of SE SW
QUADRANGLE: IUKA LONGITUDE: -88.81951 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.579633 DATE COLLECTED:
SURFACE ELEVATION (FT.): 525.0 LOGGED (FT.): 981.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-12.0	BOND	CARTHAGE	LIMESTONE	6.0	537.0	
-440.0	CARBONDALE	BRIAR HILL	COAL	3.0	965.0	
-452.0	CARBONDALE	SPRINGFIELD	COAL	4.0	977.0	

MAPID: 12101797000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 2N 3E SECTION: 26 QUARTERS/FOOTAGES: 300' S line, 330' E line of SW NW
QUADRANGLE: IUKA LONGITUDE: -88.842599 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.585078 DATE COLLECTED:
SURFACE ELEVATION (FT.): 551.0 LOGGED (FT.): 985.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-29.0	BOND	CARTHAGE	LIMESTONE	9.0	580.0	
-339.0	MODESTO	PIASA	LIMESTONE	8.0	890.0	
-431.0	CARBONDALE	BRIAR HILL	COAL	3.0	982.0	

MAPID: 12101797000C VERSION: 2 PROJECT: ROOF STUDY

COUNTY: MARION TWP/RNG: 2N 3E SECTION: 26 QUARTERS/FOOTAGES: 300' S line, 330' E line of SW NW

QUADRANGLE: IUKA LONGITUDE: -88.842599 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.585078 DATE COLLECTED:

SURFACE ELEVATION (FT.): 551.0 LOGGED (FT.): 949.0 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
-341.0	MODESTO	PIASA	LIMESTONE & SHALE	8.0	892.0
-349.0	MODESTO		SHALE	28.0	900.0
-377.0	CARBONDALE	DANVILLE	COAL	1.5	928.0
-378.5	CARBONDALE		SHALE	5.0	929.5
-383.5	CARBONDALE	LAWSON	SHALE	5.0	934.5
-388.5	CARBONDALE	BRERETON	LIMESTONE	5.0	939.5
-393.5	CARBONDALE	ANNA	SHALE	2.5	944.5
-395.0	CARBONDALE	HERRIN	COAL	3.0	946.0

MAPID: 12101949000C VERSION: 1 PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 2N 3E SECTION: 28 QUARTERS/FOOTAGES: SW SW SE

QUADRANGLE: IUKA LONGITUDE: -88.872612 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.577965 DATE COLLECTED:

SURFACE ELEVATION (FT.): 596.0 LOGGED (FT.): 1072.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-20.0	BOND	CARTHAGE	LIMESTONE	7.0	616.0
-373.0	CARBONDALE	HERRIN	COAL	4.0	969.0
-419.0	CARBONDALE	BRIAR HILL	COAL	2.5	1015.0
-431.0	CARBONDALE	SPRINGFIELD	COAL	2.5	1027.0
-476.0	CARBONDALE	HOUCHIN CREEK	COAL	-	1072.0

MAPID: 12101949000C VERSION: 2 PROJECT: ROOF STUDY
COUNTY: MARION TWP/RNG: 2N 3E SECTION: 28 QUARTERS/FOOTAGES: SW SW SE
QUADRANGLE: IUKA LONGITUDE: -88.872612 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.577965 DATE COLLECTED:
SURFACE ELEVATION (FT.): 596.0 LOGGED (FT.): 973.0 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
-333.0	MODESTO	PIASA	LIMESTONE	5.0	929.0
-338.0	MODESTO		SHALE	22.0	934.0
-360.0	CARBONDALE	DANVILLE	COAL	2.0	956.0
-362.0	CARBONDALE		SHALE	3.5	958.0
-365.5	CARBONDALE	LAWSON	SHALE	3.0	961.5
-368.5	CARBONDALE	BRERETON	LIMESTONE	5.0	964.5
-373.5	CARBONDALE	ANNA	SHALE	0.5	969.5
-374.0	CARBONDALE	HERRIN	COAL	3.0	970.0

MAPID: 12105405000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 2N 3E SECTION: 34 QUARTERS/FOOTAGES: 330' S line, 330' W line of SW
QUADRANGLE: IUKA LONGITUDE: -88.863455 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.563282 DATE COLLECTED:
SURFACE ELEVATION (FT.): 572.0 LOGGED (FT.): 964.5 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
17.0	BOND	CARTHAGE	LIMESTONE	10.0	555.0
-377.0	CARBONDALE	BRIAR HILL	COAL	2.0	949.0
-390.0	CARBONDALE	SPRINGFIELD	COAL	2.5	962.0

MAPID: 12101950000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 2N 3E SECTION: 35 QUARTERS/FOOTAGES: 330' N line, 330' W line of SE NW
QUADRANGLE: IUKA LONGITUDE: -88.840455 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.572369 DATE COLLECTED:
SURFACE ELEVATION (FT.): 544.0 LOGGED (FT.): 1057.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-23.0	BOND	CARTHAGE	LIMESTONE	10.0	567.0
-452.0	CARBONDALE	BRIAR HILL	COAL	2.0	996.0
-463.0	CARBONDALE	SPRINGFIELD	COAL	4.0	1007.0
-513.0	CARBONDALE	HOUCHIN CREEK	COAL	-	1057.0

MAPID: 12105079000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 2N 3E SECTION: 35 QUARTERS/FOOTAGES: 330' N line, 330' E line of SW SE
QUADRANGLE: IUKA LONGITUDE: -88.833673 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.565044 DATE COLLECTED:
SURFACE ELEVATION (FT.): 515.0 LOGGED (FT.): 1113.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
1.0	BOND	CARTHAGE	LIMESTONE	10.0	514.0
-435.0	CARBONDALE	SPRINGFIELD	COAL	4.0	950.0
-483.0	CARBONDALE	HOUCHIN CREEK	COAL	-	998.0
-598.0	CARBONDALE	COLCHESTER	COAL	-	1113.0

MAPID: 12105226000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 2N 3E SECTION: 36 QUARTERS/FOOTAGES: 350' N line, 330' W line of NE NE
QUADRANGLE: IUKA LONGITUDE: -88.81262 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.575912 DATE COLLECTED:
SURFACE ELEVATION (FT.): 524.0 LOGGED (FT.): 1034.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-24.0	BOND	CARTHAGE	LIMESTONE	9.0	548.0
-451.0	CARBONDALE	BRIAR HILL	COAL	-	975.0
-465.0	CARBONDALE	SPRINGFIELD	COAL	4.0	989.0
-510.0	CARBONDALE	HOUCHIN CREEK	COAL	-	1034.0

MAPID: 12101519000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 2N 4E SECTION: 2 QUARTERS/FOOTAGES: 330' N line, 330' E line of NW SW
QUADRANGLE: XENIA LONGITUDE: -88.731544 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.641398 DATE COLLECTED:
SURFACE ELEVATION (FT.): 495.0 LOGGED (FT.): 1071.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: POOR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-101.0	BOND	CARTHAGE	LIMESTONE	10.0	596.0
-221.0	MODESTO	WEST FRANKLIN	LIMESTONE	4.0	716.0
-487.0	CARBONDALE	BRIAR HILL	COAL	2.5	982.0
-496.0	CARBONDALE	SPRINGFIELD	COAL	4.5	991.0
-572.0	CARBONDALE	HOUCHIN CREEK	COAL	4.0	1067.0

MAPID: 12102042000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 2N 4E SECTION: 2 QUARTERS/FOOTAGES: 330' N line, 330' W line of SE NW
QUADRANGLE: XENIA LONGITUDE: -88.729146 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.645065 DATE COLLECTED:
SURFACE ELEVATION (FT.): 496.0 LOGGED (FT.): 1049.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-89.0	BOND	CARTHAGE	LIMESTONE	7.0	585.0
-464.0	CARBONDALE	BRIAR HILL	COAL	3.0	960.0
-475.0	CARBONDALE	SPRINGFIELD	COAL	3.0	971.0
-549.0	CARBONDALE	HOUCHIN CREEK	COAL	4.0	1045.0

MAPID: 12102043000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 2N 4E SECTION: 2 QUARTERS/FOOTAGES: 330' S line, 330' W line of NW NW
QUADRANGLE: XENIA LONGITUDE: -88.733675 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.646878 DATE COLLECTED:
SURFACE ELEVATION (FT.): 465.0 LOGGED (FT.): 1115.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-94.0	BOND	CARTHAGE	LIMESTONE	10.0	559.0
-474.0	CARBONDALE	BRIAR HILL	COAL	2.5	939.0
-483.0	CARBONDALE	SPRINGFIELD	COAL	4.0	948.0
-560.0	CARBONDALE	HOUCHIN CREEK	COAL	5.0	1025.0
-646.0	CARBONDALE	COLCHESTER	COAL	4.0	1111.0

MAPID: 12104587000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 2N 4E SECTION: 2 QUARTERS/FOOTAGES: 330' S line, 330' W line
QUADRANGLE: XENIA LONGITUDE: -88.733948 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.635875 DATE COLLECTED:
SURFACE ELEVATION (FT.): 463.0 LOGGED (FT.): 1025.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-111.0	BOND	CARTHAGE	LIMESTONE	11.0	574.0
-283.0	MODESTO	WEST FRANKLIN	LIMESTONE	4.0	746.0
-489.0	CARBONDALE	BRIAR HILL	COAL	2.5	952.0
-498.0	CARBONDALE	SPRINGFIELD	COAL	4.0	961.0
-562.0	CARBONDALE	HOUCHIN CREEK	COAL	-	1025.0

MAPID: 12101520000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 2N 4E SECTION: 3 QUARTERS/FOOTAGES: 330' N line, 330' E line of SW
QUADRANGLE: XENIA LONGITUDE: -88.745397 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.64137 DATE COLLECTED:
SURFACE ELEVATION (FT.): 500.0 LOGGED (FT.): 1107.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-135.0	BOND	CARTHAGE	LIMESTONE	12.0	635.0
-248.0	MODESTO	WEST FRANKLIN	LIMESTONE	6.0	748.0
-526.0	CARBONDALE	SPRINGFIELD	COAL	4.0	1026.0
-603.0	CARBONDALE	HOUCHIN CREEK	COAL	4.0	1103.0

MAPID: 12102070000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 2N 4E SECTION: 3 QUARTERS/FOOTAGES: 330' N line, 400' E line of SE NE
QUADRANGLE: XENIA LONGITUDE: -88.736289 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.645051 DATE COLLECTED:
SURFACE ELEVATION (FT.): 467.0 LOGGED (FT.): 1029.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-100.0	BOND	CARTHAGE	LIMESTONE	10.0	567.0
-260.0	MODESTO	WEST FRANKLIN	LIMESTONE	3.0	727.0
-474.0	CARBONDALE	BRIAR HILL	COAL	-	941.0
-483.0	CARBONDALE	SPRINGFIELD	COAL	4.5	950.0
-558.0	CARBONDALE	HOUCHIN CREEK	COAL	4.0	1025.0

MAPID: 12104589000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 2N 4E SECTION: 3 QUARTERS/FOOTAGES: 330' S line, 330' W line of SE SE
QUADRANGLE: XENIA LONGITUDE: -88.73857 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.635856 DATE COLLECTED:
SURFACE ELEVATION (FT.): 476.0 LOGGED (FT.): 1053.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-117.0	BOND	CARTHAGE	LIMESTONE	10.0	593.0
-285.0	MODESTO	WEST FRANKLIN	LIMESTONE	6.0	761.0
-508.0	CARBONDALE	BRIAR HILL	COAL	3.0	984.0
-516.0	CARBONDALE	SPRINGFIELD	COAL	4.5	992.0
-577.0	CARBONDALE	HOUCHIN CREEK	COAL	-	1053.0

MAPID: 12101495000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 2N 4E SECTION: 4 QUARTERS/FOOTAGES: SW SW NW
QUADRANGLE: OMEGA LONGITUDE: -88.770343 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.643245 DATE COLLECTED:
SURFACE ELEVATION (FT.): 503.0 LOGGED (FT.): 1112.5 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: POOR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-123.0	BOND	CARTHAGE	LIMESTONE	8.0	626.0
-302.0	MODESTO	WEST FRANKLIN	LIMESTONE	5.0	805.0
-410.0	MODESTO	PIASA	LIMESTONE	8.0	913.0
-478.0	CARBONDALE	HERRIN	COAL	4.0	981.0
-530.0	CARBONDALE	SPRINGFIELD	COAL	4.0	1033.0
-607.0	CARBONDALE	HOUCHIN CREEK	COAL	2.5	1110.0

MAPID: 12101495000C VERSION: 2 PROJECT: BLM
COUNTY: MARION TWP/RNG: 2N 4E SECTION: 4 QUARTERS/FOOTAGES: SW SW NW
QUADRANGLE: OMEGA LONGITUDE: -88.770343 GEOLOGIST: TREWORGY,J
CONFIDENTIAL: N LATITUDE: 38.643245 DATE COLLECTED: 2 / 0 / 1946
SURFACE ELEVATION (FT.): 503.0 LOGGED (FT.): 1112.5 LOG TYPE: Electric Log
SOURCE: S. H. LEAVITT WELL TYPE: Oil and Gas Test
COMMENT: INTERPRETED BY C. TREWORGY

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
503.0			ROCK	981.0	0.0
-478.0	CARBONDALE	HERRIN	COAL	4.0	981.0
-482.0	CARBONDALE		ROCK	48.0	985.0
-530.0	CARBONDALE	SPRINGFIELD	COAL	4.0	1033.0
-534.0	CARBONDALE		ROCK	73.0	1037.0
-607.0	CARBONDALE	HOUCHIN CREEK	COAL	2.5	1110.0

MAPID: 12101495000C VERSION: 3 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 2N 4E SECTION: 4 QUARTERS/FOOTAGES: SW SW NW
QUADRANGLE: OMEGA LONGITUDE: -88.770343 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.643245 DATE COLLECTED: 0 / 0 / 1946
SURFACE ELEVATION (FT.): 503.0 LOGGED (FT.): 2816.0 LOG TYPE:
SOURCE: LEAVITT S, MAGILL E A 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-122.0	BOND	CARTHAGE	LIMESTONE	-	625.0
-478.0	CARBONDALE	HERRIN	COAL	-	981.0

MAPID: 12101954000C **VERSION:** 1 **PROJECT:** CGT-ECILL
COUNTY: MARION **TWP/RNG:** 2N 4E **SECTION:** 4 **QUARTERS/FOOTAGES:** 330' S line, 330' E line of NE NE
QUADRANGLE: OMEGA **LONGITUDE:** -88.754548 **GEOLOGIST:** C TREWORGY
CONFIDENTIAL: N **LATITUDE:** 38.64686 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 505.0 **LOGGED (FT.):** 1098.0 **LOG TYPE:** Electric Log
SOURCE: **WELL TYPE:** Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-111.0	BOND	CARTHAGE	LIMESTONE	10.0	616.0
-285.0	MODESTO	WEST FRANKLIN	LIMESTONE	4.0	790.0
-388.0	MODESTO	PIASA	LIMESTONE	4.0	893.0
-504.0	CARBONDALE	BRIAR HILL	COAL	2.0	1009.0
-511.0	CARBONDALE	SPRINGFIELD	COAL	4.0	1016.0
-593.0	CARBONDALE	HOUCHIN CREEK	COAL	-	1098.0

MAPID: 12101954000C **VERSION:** 2 **PROJECT:** BLM
COUNTY: MARION **TWP/RNG:** 2N 4E **SECTION:** 4 **QUARTERS/FOOTAGES:** 330' S line, 330' E line of NE NE
QUADRANGLE: OMEGA **LONGITUDE:** -88.754548 **GEOLOGIST:** TREWORGY,J
CONFIDENTIAL: N **LATITUDE:** 38.64686 **DATE COLLECTED:** 10 / 0 / 1952
SURFACE ELEVATION (FT.): 505.0 **LOGGED (FT.):** 1098.0 **LOG TYPE:** Electric Log
SOURCE: N. V. DUNCAN **WELL TYPE:** Oil and Gas Test
COMMENT: INTERPRETED BY C. TREWORGY

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
505.0			ROCK	1009.0	0.0
-504.0			COAL	2.0	1009.0
-506.0			ROCK	5.0	1011.0
-511.0	CARBONDALE	SPRINGFIELD	COAL	4.0	1016.0
-515.0	CARBONDALE		ROCK	78.0	1020.0
-593.0	CARBONDALE	HOUCHIN CREEK	COAL	-	1098.0

MAPID: 12104593000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 2N 4E SECTION: 4 QUARTERS/FOOTAGES: 330' S line, 330' W line of NW SE
QUADRANGLE: OMEGA LONGITUDE: -88.76138 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.639543 DATE COLLECTED:
SURFACE ELEVATION (FT.): 467.0 LOGGED (FT.): 1063.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-124.0	BOND	CARTHAGE	LIMESTONE	12.0	591.0
-294.0	MODESTO	WEST FRANKLIN	LIMESTONE	4.0	761.0
-510.0	CARBONDALE	BRIAR HILL	COAL	2.5	977.0
-521.0	CARBONDALE	SPRINGFIELD	COAL	4.0	988.0
-596.0	CARBONDALE	HOUCHIN CREEK	COAL	-	1063.0

MAPID: 12104593000C VERSION: 2 PROJECT: BLM
COUNTY: MARION TWP/RNG: 2N 4E SECTION: 4 QUARTERS/FOOTAGES: 330' S line, 330' W line of NW SE
QUADRANGLE: OMEGA LONGITUDE: -88.76138 GEOLOGIST: TREWORGY,J
CONFIDENTIAL: N LATITUDE: 38.639543 DATE COLLECTED: 8 / 0 / 1954
SURFACE ELEVATION (FT.): 467.0 LOGGED (FT.): 1063.0 LOG TYPE: Electric Log
SOURCE: T. M. CONREY WELL TYPE: Oil and Gas Test
COMMENT: INTERPRETED BY C. TREWORGY

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
467.0			ROCK	977.0	0.0
-510.0			COAL	2.5	977.0
-512.5			ROCK	8.5	979.5
-521.0	CARBONDALE	SPRINGFIELD	COAL	4.0	988.0
-525.0	CARBONDALE		ROCK	71.0	992.0
-596.0	CARBONDALE	HOUCHIN CREEK	COAL	-	1063.0

MAPID: 12101955000C **VERSION:** 1 **PROJECT:** CGT-ECILL
COUNTY: MARION **TWP/RNG:** 2N 4E **SECTION:** 6 **QUARTERS/FOOTAGES:** 330' N line, 330' W line of SE
QUADRANGLE: OMEGA **LONGITUDE:** -88.798273 **GEOLOGIST:** C TREWORGY
CONFIDENTIAL: N **LATITUDE:** 38.641432 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 510.0 **LOGGED (FT.):** 1140.0 **LOG TYPE:** Electric Log
SOURCE: **WELL TYPE:** Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-157.0	BOND	CARTHAGE	LIMESTONE	10.0	667.0
-454.0	MODESTO	PIASA	LIMESTONE	7.0	964.0
-513.0	CARBONDALE	HERRIN	COAL	3.0	1023.0
-557.0	CARBONDALE	BRIAR HILL	COAL	2.5	1067.0
-568.0	CARBONDALE	SPRINGFIELD	COAL	4.5	1078.0
-630.0	CARBONDALE	HOUCHIN CREEK	COAL	-	1140.0

MAPID: 12101955000C **VERSION:** 2 **PROJECT:** BLM
COUNTY: MARION **TWP/RNG:** 2N 4E **SECTION:** 6 **QUARTERS/FOOTAGES:** 330' N line, 330' W line of SE
QUADRANGLE: OMEGA **LONGITUDE:** -88.798273 **GEOLOGIST:** TREWORGY,J
CONFIDENTIAL: N **LATITUDE:** 38.641432 **DATE COLLECTED:** 10 / 0 / 1954
SURFACE ELEVATION (FT.): 510.0 **LOGGED (FT.):** 1140.0 **LOG TYPE:** Electric Log
SOURCE: JOSEPH H. HALL **WELL TYPE:** Oil and Gas Test
COMMENT: INTERPRETED BY C. TREWORGY

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
510.0			ROCK	1023.0	0.0
-513.0	CARBONDALE	HERRIN	COAL	3.0	1023.0
-516.0	CARBONDALE		ROCK	41.0	1026.0
-557.0	CARBONDALE		COAL	2.5	1067.0
-559.5	CARBONDALE		ROCK	8.5	1069.5
-568.0	CARBONDALE	SPRINGFIELD	COAL	4.5	1078.0
-572.5	CARBONDALE		ROCK	57.5	1082.5
-630.0	CARBONDALE	HOUCHIN CREEK	COAL	-	1140.0

MAPID: 12101956000C **VERSION:** 1 **PROJECT:** CGT-ECILL
COUNTY: MARION **TWP/RNG:** 2N 4E **SECTION:** 8 **QUARTERS/FOOTAGES:** 330' S line, 330' W line of NE
QUADRANGLE: OMEGA **LONGITUDE:** -88.779811 **GEOLOGIST:** C TREWORYG
CONFIDENTIAL: N **LATITUDE:** 38.628721 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 513.0 **LOGGED (FT.):** 1010.0 **LOG TYPE:** Electric Log
SOURCE: **WELL TYPE:** Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-81.0	BOND	CARTHAGE	LIMESTONE	10.0	594.0
-367.0	MODESTO	PIASA	LIMESTONE	9.0	880.0
-442.0	CARBONDALE	HERRIN	COAL	3.0	955.0
-493.0	CARBONDALE	SPRINGFIELD	COAL	4.0	1006.0

MAPID: 12101956000C **VERSION:** 2 **PROJECT:** BLM
COUNTY: MARION **TWP/RNG:** 2N 4E **SECTION:** 8 **QUARTERS/FOOTAGES:** 330' S line, 330' W line of NE
QUADRANGLE: OMEGA **LONGITUDE:** -88.779811 **GEOLOGIST:** TREWORYG,J
CONFIDENTIAL: N **LATITUDE:** 38.628721 **DATE COLLECTED:** 12 / 0 / 1951
SURFACE ELEVATION (FT.): 513.0 **LOGGED (FT.):** 1010.0 **LOG TYPE:** Electric Log
SOURCE: THOMAS S DORAN **WELL TYPE:** Oil and Gas Test
COMMENT: INTERPRETED BY C. TREWORYG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
513.0			ROCK	955.0	0.0
-442.0	CARBONDALE	HERRIN	COAL	3.0	955.0
-445.0	CARBONDALE		ROCK	48.0	958.0
-493.0	CARBONDALE	SPRINGFIELD	COAL	4.0	1006.0

MAPID: 12101591000C **VERSION:** 1 **PROJECT:** CGT-ECILL
COUNTY: MARION **TWP/RNG:** 2N 4E **SECTION:** 9 **QUARTERS/FOOTAGES:** 330' N line, 330' E line of SW
QUADRANGLE: OMEGA **LONGITUDE:** -88.763827 **GEOLOGIST:** C TREWORYG
CONFIDENTIAL: N **LATITUDE:** 38.626884 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 500.0 **LOGGED (FT.):** 1018.0 **LOG TYPE:** Electric Log
SOURCE: **WELL TYPE:** Oil and Gas Test
COMMENT: POOR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-105.0	BOND	CARTHAGE	LIMESTONE	9.0	605.0
-391.0	MODESTO	PIASA	LIMESTONE	8.0	891.0
-504.0	CARBONDALE	BRIAR HILL	COAL	-	1004.0
-514.0	CARBONDALE	SPRINGFIELD	COAL	4.0	1014.0

MAPID: 12101591000C VERSION: 2 PROJECT: BLM
COUNTY: MARION TWP/RNG: 2N 4E SECTION: 9 QUARTERS/FOOTAGES: 330' N line, 330' E line of SW
QUADRANGLE: OMEGA LONGITUDE: -88.763827 GEOLOGIST: TREWORGY,J
CONFIDENTIAL: N LATITUDE: 38.626884 DATE COLLECTED: 0 / 0 / 1956
SURFACE ELEVATION (FT.): 500.0 LOGGED (FT.): 1018.0 LOG TYPE: Electric Log
SOURCE: TEXAS COMPANY, THE WELL TYPE: Oil and Gas Test
COMMENT: INTERPRETED BY C. TREWORGY

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
500.0			ROCK	1004.0	0.0
-504.0			COAL	-	1004.0
-504.0			ROCK	10.0	1004.0
-514.0	CARBONDALE	SPRINGFIELD	COAL	4.0	1014.0

MAPID: 12101568000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 2N 4E SECTION: 10 QUARTERS/FOOTAGES: 330' S line, 330' E line of NW SW
QUADRANGLE: IUKA LONGITUDE: -88.750145 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.625029 DATE COLLECTED:
SURFACE ELEVATION (FT.): 465.0 LOGGED (FT.): 1106.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-132.0	BOND	CARTHAGE	LIMESTONE	10.0	597.0
-315.0	MODESTO	WEST FRANKLIN	LIMESTONE	5.0	780.0
-553.0	CARBONDALE	BRIAR HILL	COAL	-	1018.0
-562.0	CARBONDALE	SPRINGFIELD	COAL	4.5	1027.0
-641.0	CARBONDALE	HOUCHIN CREEK	COAL	-	1106.0

MAPID: 12101596000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 2N 4E SECTION: 10 QUARTERS/FOOTAGES: 330' N line, 330' E line of SW SE
QUADRANGLE: ORCHARDVILLE LONGITUDE: -88.740916 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.623166 DATE COLLECTED:
SURFACE ELEVATION (FT.): 478.0 LOGGED (FT.): 1024.5 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-128.0	BOND	CARTHAGE	LIMESTONE	9.0	606.0
-299.0	MODESTO	WEST FRANKLIN	LIMESTONE	6.0	777.0
-403.0	MODESTO	PIASA	LIMESTONE	7.0	881.0
-542.0	CARBONDALE	SPRINGFIELD	COAL	4.5	1020.0

MAPID: 12102046000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 2N 4E SECTION: 10 QUARTERS/FOOTAGES: 270' N line, 330' W line of SE
QUADRANGLE: XENIA LONGITUDE: -88.743209 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.626958 DATE COLLECTED:
SURFACE ELEVATION (FT.): 461.0 LOGGED (FT.): 1194.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-139.0	BOND	CARTHAGE	LIMESTONE	9.0	600.0
-312.0	MODESTO	WEST FRANKLIN	LIMESTONE	5.0	773.0
-540.0	CARBONDALE	BRIAR HILL	COAL	-	1001.0
-547.0	CARBONDALE	SPRINGFIELD	COAL	5.0	1008.0
-625.0	CARBONDALE	HOUCHIN CREEK	COAL	5.0	1086.0
-733.0	CARBONDALE	COLCHESTER	COAL	-	1194.0

MAPID: 12104595000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 2N 4E SECTION: 10 QUARTERS/FOOTAGES: 330' N line, 330' E line of NW NE
QUADRANGLE: XENIA LONGITUDE: -88.740916 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.63403 DATE COLLECTED:
SURFACE ELEVATION (FT.): 481.0 LOGGED (FT.): 1067.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-111.0	BOND	CARTHAGE	LIMESTONE	9.0	592.0
-291.0	MODESTO	WEST FRANKLIN	LIMESTONE	4.0	772.0
-514.0	CARBONDALE	BRIAR HILL	COAL	-	995.0
-522.0	CARBONDALE	SPRINGFIELD	COAL	5.0	1003.0
-586.0	CARBONDALE	HOUCHIN CREEK	COAL	-	1067.0

MAPID: 12104611000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 2N 4E SECTION: 11 QUARTERS/FOOTAGES: 455' S line, 330' W line of NE
QUADRANGLE: XENIA LONGITUDE: -88.724758 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.629053 DATE COLLECTED:
SURFACE ELEVATION (FT.): 510.0 LOGGED (FT.): 1158.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-116.0	BOND	CARTHAGE	LIMESTONE	9.0	626.0
-290.0	MODESTO	WEST FRANKLIN	LIMESTONE	3.0	800.0
-505.0	CARBONDALE	BRIAR HILL	COAL	-	1015.0
-515.0	CARBONDALE	SPRINGFIELD	COAL	4.5	1025.0
-575.0	CARBONDALE	HOUCHIN CREEK	COAL	-	1085.0
-648.0	CARBONDALE	COLCHESTER	COAL	-	1158.0

MAPID: 12101957000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 2N 4E SECTION: 13 QUARTERS/FOOTAGES: 330' S line, 330' E line of NE NW
QUADRANGLE: ORCHARDVILLE LONGITUDE: -88.708672 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.617823 DATE COLLECTED:
SURFACE ELEVATION (FT.): 500.0 LOGGED (FT.): 986.5 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-52.0	BOND	CARTHAGE	LIMESTONE	9.0	552.0
-168.0	MODESTO	TRIVOLI	SANDSTONE	85.0	668.0
-430.0	CARBONDALE	HERRIN	COAL	2.0	930.0
-467.0	CARBONDALE	BRIAR HILL	COAL	2.5	967.0
-483.0	CARBONDALE	SPRINGFIELD	COAL	3.5	983.0

MAPID: 12101497000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 2N 4E SECTION: 14 QUARTERS/FOOTAGES: 330' N line, 330' E line of SW NW
QUADRANGLE: ORCHARDVILLE LONGITUDE: -88.73177 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.615916 DATE COLLECTED: 0 / 0 / 1947
SURFACE ELEVATION (FT.): 495.0 LOGGED (FT.): 2902.0 LOG TYPE:
SOURCE: ROSSI P, BACHMAN 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-87.0	BOND	CARTHAGE	LIMESTONE	-	582.0
-443.0	CARBONDALE	HERRIN	COAL	-	938.0

MAPID: 12101497000C VERSION: 2 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 2N 4E SECTION: 14 QUARTERS/FOOTAGES: 330' N line, 330' E line of SW NW
QUADRANGLE: ORCHARDVILLE LONGITUDE: -88.73177 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.615916 DATE COLLECTED:
SURFACE ELEVATION (FT.): 495.0 LOGGED (FT.): 996.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-88.0	BOND	CARTHAGE	LIMESTONE	11.0	583.0
-261.0	MODESTO	WEST FRANKLIN	LIMESTONE	6.0	756.0
-496.0	CARBONDALE	SPRINGFIELD	COAL	5.0	991.0

MAPID: 12101498000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 2N 4E SECTION: 14 QUARTERS/FOOTAGES: NW NW NE
QUADRANGLE: ORCHARDVILLE LONGITUDE: -88.724815 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.61963 DATE COLLECTED: 0 / 0 / 1947
SURFACE ELEVATION (FT.): 512.0 LOGGED (FT.): 2911.0 LOG TYPE:
SOURCE: GULF REF, EBE 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-94.0	BOND	CARTHAGE	LIMESTONE	-	606.0
-452.0	CARBONDALE	HERRIN	COAL	-	964.0

MAPID: 12104616000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 2N 4E SECTION: 14 QUARTERS/FOOTAGES: 330' N line, 330' W line of NW NW
QUADRANGLE: ORCHARDVILLE LONGITUDE: -88.733994 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.619523 DATE COLLECTED:
SURFACE ELEVATION (FT.): 459.0 LOGGED (FT.): 977.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-94.0	BOND	CARTHAGE	LIMESTONE	11.0	553.0
-505.0	CARBONDALE	BRIAR HILL	COAL	-	964.0
-514.0	CARBONDALE	SPRINGFIELD	COAL	4.0	973.0

MAPID: 12104619000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 2N 4E SECTION: 14 QUARTERS/FOOTAGES: 330' S line, 330' E line of SW SW
QUADRANGLE: ORCHARDVILLE LONGITUDE: -88.731896 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.606834 DATE COLLECTED:
SURFACE ELEVATION (FT.): 500.0 LOGGED (FT.): 1040.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-117.0	BOND	CARTHAGE	LIMESTONE	10.0	617.0
-301.0	MODESTO	WEST FRANKLIN	LIMESTONE	4.0	801.0
-523.0	CARBONDALE	BRIAR HILL	COAL	3.0	1023.0
-536.0	CARBONDALE	SPRINGFIELD	COAL	4.0	1036.0

MAPID: 12101652000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 2N 4E SECTION: 15 QUARTERS/FOOTAGES: 330' N line, 330' W line of SE SW
QUADRANGLE: ORCHARDVILLE LONGITUDE: -88.7479 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.608654 DATE COLLECTED:
SURFACE ELEVATION (FT.): 456.0 LOGGED (FT.): 1157.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-85.0	BOND	CARTHAGE	LIMESTONE	10.0	541.0
-458.0	CARBONDALE	HERRIN	COAL	2.5	914.0
-496.0	CARBONDALE	BRIAR HILL	COAL	3.0	952.0
-507.0	CARBONDALE	SPRINGFIELD	COAL	4.0	963.0
-613.0	CARBONDALE	HOUCHIN CREEK	COAL	-	1069.0
-701.0	CARBONDALE	COLCHESTER	COAL	-	1157.0

MAPID: 12104622000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 2N 4E SECTION: 15 QUARTERS/FOOTAGES: 330' N line, 330' W line of NE
QUADRANGLE: ORCHARDVILLE LONGITUDE: -88.743214 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.619562 DATE COLLECTED:
SURFACE ELEVATION (FT.): 502.0 LOGGED (FT.): 1224.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-116.0	BOND	CARTHAGE	LIMESTONE	9.0	618.0
-301.0	MODESTO	WEST FRANKLIN	LIMESTONE	6.0	803.0
-526.0	CARBONDALE	BRIAR HILL	COAL	2.5	1028.0
-536.0	CARBONDALE	SPRINGFIELD	COAL	4.5	1038.0
-722.0	CARBONDALE	COLCHESTER	COAL	-	1224.0

MAPID: 12101412000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 2N 4E SECTION: 16 QUARTERS/FOOTAGES: 990' N line, 330' E line of SW
QUADRANGLE: IUKA LONGITUDE: -88.763897 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.610543 DATE COLLECTED: 0 / 0 / 1946
SURFACE ELEVATION (FT.): 506.0 LOGGED (FT.): 2853.0 LOG TYPE:
SOURCE: NAT CONSUM, PICKETT H 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-94.0	BOND	CARTHAGE	LIMESTONE	-	600.0	
-459.0	CARBONDALE	HERRIN	COAL	-	965.0	

MAPID: 12101412000C VERSION: 2 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 2N 4E SECTION: 16 QUARTERS/FOOTAGES: 990' N line, 330' E line of SW
QUADRANGLE: IUKA LONGITUDE: -88.763897 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.610543 DATE COLLECTED:
SURFACE ELEVATION (FT.): 506.0 LOGGED (FT.): 1029.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: POOR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-94.0	BOND	CARTHAGE	LIMESTONE	8.0	600.0	
-519.0	CARBONDALE	SPRINGFIELD	COAL	4.0	1025.0	

MAPID: 12104624000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 2N 4E SECTION: 16 QUARTERS/FOOTAGES: 330' N line, 330' E line
QUADRANGLE: IUKA LONGITUDE: -88.754756 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.619636 DATE COLLECTED:
SURFACE ELEVATION (FT.): 500.0 LOGGED (FT.): 1057.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-133.0	BOND	CARTHAGE	LIMESTONE	10.0	633.0	
-310.0	MODESTO	WEST FRANKLIN	LIMESTONE	5.0	810.0	
-544.0	CARBONDALE	BRIAR HILL	COAL	2.0	1044.0	
-553.0	CARBONDALE	SPRINGFIELD	COAL	4.0	1053.0	

MAPID: 12104625000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 2N 4E SECTION: 16 QUARTERS/FOOTAGES: 330' N line, 330' W line
QUADRANGLE: IUKA LONGITUDE: -88.770629 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.619743 DATE COLLECTED:
SURFACE ELEVATION (FT.): 485.0 LOGGED (FT.): 999.5 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-94.0	BOND	CARTHAGE	LIMESTONE	9.0	579.0
-381.0	MODESTO	PIASA	LIMESTONE	12.0	866.0
-510.0	CARBONDALE	SPRINGFIELD	COAL	4.5	995.0

MAPID: 12101958000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 2N 4E SECTION: 17 QUARTERS/FOOTAGES: 330' S line, 330' W line of NE
QUADRANGLE: IUKA LONGITUDE: -88.779874 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.614185 DATE COLLECTED:
SURFACE ELEVATION (FT.): 511.0 LOGGED (FT.): 1000.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-75.0	BOND	CARTHAGE	LIMESTONE	8.0	586.0
-259.0	MODESTO	WEST FRANKLIN	LIMESTONE	4.0	770.0
-367.0	MODESTO	PIASA	LIMESTONE	7.0	878.0
-485.0	CARBONDALE	SPRINGFIELD	COAL	4.0	996.0

MAPID: 12101607000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 2N 4E SECTION: 18 QUARTERS/FOOTAGES: 330' N line, 330' W line of SW
QUADRANGLE: IUKA LONGITUDE: -88.807546 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.6124 DATE COLLECTED:
SURFACE ELEVATION (FT.): 528.0 LOGGED (FT.): 1090.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-50.0	BOND	CARTHAGE	LIMESTONE	10.0	578.0
-236.0	MODESTO	WEST FRANKLIN	LIMESTONE	4.0	764.0
-347.0	MODESTO	PIASA	LIMESTONE	10.0	875.0
-460.0	CARBONDALE	BRIAR HILL	COAL	2.5	988.0
-469.0	CARBONDALE	SPRINGFIELD	COAL	4.0	997.0
-562.0	CARBONDALE	HOUCHIN CREEK	COAL	-	1090.0

MAPID: 12105624000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 2N 4E SECTION: 19 QUARTERS/FOOTAGES: 330' S line, 330' E line of SW SE
QUADRANGLE: IUKA LONGITUDE: -88.796269 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.59239 DATE COLLECTED:
SURFACE ELEVATION (FT.): 529.0 LOGGED (FT.): 1140.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-26.0	BOND	CARTHAGE	LIMESTONE	9.0	555.0
-286.0	MODESTO	PIASA	LIMESTONE	7.0	815.0
-454.0	CARBONDALE	BRIAR HILL	COAL	-	983.0
-467.0	CARBONDALE	SPRINGFIELD	COAL	3.0	996.0
-611.0	CARBONDALE	COLCHESTER	COAL	-	1140.0

MAPID: 12100649000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 2N 4E SECTION: 20 QUARTERS/FOOTAGES: 330' N line, 330' W line of SW NE
QUADRANGLE: IUKA LONGITUDE: -88.779972 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.601392 DATE COLLECTED: 0 / 0 / 1941
SURFACE ELEVATION (FT.): 520.0 LOGGED (FT.): 2896.0 LOG TYPE:
SOURCE: KINGWOODOC, MC GUIRE G 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-42.0	BOND	CARTHAGE	LIMESTONE	-	562.0
-406.0	CARBONDALE	HERRIN	COAL	-	926.0

MAPID: 12100649000C VERSION: 2 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 2N 4E SECTION: 20 QUARTERS/FOOTAGES: 330' N line, 330' W line of SW NE
QUADRANGLE: IUKA LONGITUDE: -88.779972 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.601392 DATE COLLECTED:
SURFACE ELEVATION (FT.): 520.0 LOGGED (FT.): 986.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: POOR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-43.0	BOND	CARTHAGE	LIMESTONE	9.0	563.0
-336.0	MODESTO	PIASA	LIMESTONE	10.0	856.0
-462.0	CARBONDALE	SPRINGFIELD	COAL	4.0	982.0

MAPID: 12105519000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 2N 4E SECTION: 20 QUARTERS/FOOTAGES: 330' S line, 330' E line of SW
QUADRANGLE: IUKA LONGITUDE: -88.782456 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.592305 DATE COLLECTED:
SURFACE ELEVATION (FT.): 470.0 LOGGED (FT.): 1102.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-54.0	BOND	CARTHAGE	LIMESTONE	10.0	524.0
-250.0	MODESTO	WEST FRANKLIN	LIMESTONE	3.0	720.0
-478.0	CARBONDALE	BRIAR HILL	COAL	-	948.0
-489.0	CARBONDALE	SPRINGFIELD	COAL	3.0	959.0
-574.0	CARBONDALE	HOUCHIN CREEK	COAL	-	1044.0
-632.0	CARBONDALE	COLCHESTER	COAL	-	1102.0

MAPID: 12101560000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 2N 4E SECTION: 21 QUARTERS/FOOTAGES: 380' N line, 330' E line of SW SE
QUADRANGLE: IUKA LONGITUDE: -88.759541 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.593944 DATE COLLECTED:
SURFACE ELEVATION (FT.): 506.0 LOGGED (FT.): 1024.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-78.0	BOND	CARTHAGE	LIMESTONE	9.0	584.0
-241.0	MODESTO	TRIVOLI	SANDSTONE	25.0	747.0
-513.0	CARBONDALE	SPRINGFIELD	COAL	5.0	1019.0

MAPID: 12101839000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 2N 4E SECTION: 21 QUARTERS/FOOTAGES: 330' S line, 330' E line of NW NE
QUADRANGLE: IUKA LONGITUDE: -88.759403 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.603198 DATE COLLECTED:
SURFACE ELEVATION (FT.): 502.0 LOGGED (FT.): 1013.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: POOR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-73.0	BOND	CARTHAGE	LIMESTONE	11.0	575.0
-508.0	CARBONDALE	SPRINGFIELD	COAL	3.0	1010.0

MAPID: 12100650000C **VERSION:** 1 **PROJECT:** CIRC 164
COUNTY: MARION **TWP/RNG:** 2N 4E **SECTION:** 22 **QUARTERS/FOOTAGES:** 660' N line, 330' E line of SW
QUADRANGLE: ORCHARDVILLE **LONGITUDE:** -88.74576 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.596815 **DATE COLLECTED:** 0 / 0 / 1942
SURFACE ELEVATION (FT.): 453.0 **LOGGED (FT.):** 2764.0 **LOG TYPE:**
SOURCE: NAT PET, LINDLEY E 1 **WELL TYPE:** Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-86.0	BOND	CARTHAGE	LIMESTONE	-	539.0
-458.0	CARBONDALE	HERRIN	COAL	-	911.0

MAPID: 12100650000C **VERSION:** 2 **PROJECT:** CGT-ECILL
COUNTY: MARION **TWP/RNG:** 2N 4E **SECTION:** 22 **QUARTERS/FOOTAGES:** 660' N line, 330' E line of SW
QUADRANGLE: ORCHARDVILLE **LONGITUDE:** -88.74576 **GEOLOGIST:** C TREWORYG
CONFIDENTIAL: N **LATITUDE:** 38.596815 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 459.0 **LOGGED (FT.):** 977.0 **LOG TYPE:** Electric Log
SOURCE: **WELL TYPE:** Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-82.0	BOND	CARTHAGE	LIMESTONE	11.0	541.0
-513.0	CARBONDALE	SPRINGFIELD	COAL	5.0	972.0

MAPID: 12101772000C **VERSION:** 1 **PROJECT:** CGT-ECILL
COUNTY: MARION **TWP/RNG:** 2N 4E **SECTION:** 22 **QUARTERS/FOOTAGES:** 330' N line, 1650' W line
QUADRANGLE: ORCHARDVILLE **LONGITUDE:** -88.747851 **GEOLOGIST:** C TREWORYG
CONFIDENTIAL: N **LATITUDE:** 38.605006 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 455.0 **LOGGED (FT.):** 1156.0 **LOG TYPE:** Electric Log
SOURCE: **WELL TYPE:** Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-83.0	BOND	CARTHAGE	LIMESTONE	10.0	538.0
-374.0	MODESTO	PIASA	LIMESTONE	9.0	829.0
-503.0	CARBONDALE	BRIAR HILL	COAL	-	958.0
-511.0	CARBONDALE	SPRINGFIELD	COAL	4.0	966.0
-615.0	CARBONDALE	HOUCHIN CREEK	COAL	-	1070.0
-701.0	CARBONDALE	COLCHESTER	COAL	-	1156.0

MAPID: 12105608000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 2N 4E SECTION: 22 QUARTERS/FOOTAGES: 660' S line, 330' W line of SW
QUADRANGLE: IUKA LONGITUDE: -88.752651 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.593188 DATE COLLECTED:
SURFACE ELEVATION (FT.): 498.0 LOGGED (FT.): 1010.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-75.0	BOND	CARTHAGE	LIMESTONE	10.0	573.0	
-508.0	CARBONDALE	SPRINGFIELD	COAL	4.0	1006.0	

MAPID: 12101413000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 2N 4E SECTION: 28 QUARTERS/FOOTAGES: 330' N line, 330' E line of SW
QUADRANGLE: IUKA LONGITUDE: -88.764198 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.58314 DATE COLLECTED: 0 / 0 / 1946
SURFACE ELEVATION (FT.): 505.0 LOGGED (FT.): 2840.0 LOG TYPE:
SOURCE: SLAGTR AJR, WENDLING P 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-76.0	BOND	CARTHAGE	LIMESTONE	-	581.0	
-457.0	CARBONDALE	HERRIN	COAL	-	962.0	

MAPID: 12101413000C VERSION: 2 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 2N 4E SECTION: 28 QUARTERS/FOOTAGES: 330' N line, 330' E line of SW
QUADRANGLE: IUKA LONGITUDE: -88.764198 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.58314 DATE COLLECTED:
SURFACE ELEVATION (FT.): 508.0 LOGGED (FT.): 1024.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-76.0	BOND	CARTHAGE	LIMESTONE	8.0	584.0	
-238.0	MODESTO	TRIVOLI	SANDSTONE	23.0	746.0	
-512.0	CARBONDALE	SPRINGFIELD	COAL	4.0	1020.0	

MAPID: 12105228000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 2N 4E SECTION: 29 QUARTERS/FOOTAGES: 330' S line, 390' W line of NE SW
QUADRANGLE: IUKA LONGITUDE: -88.784652 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.581344 DATE COLLECTED:
SURFACE ELEVATION (FT.): 513.0 LOGGED (FT.): 1183.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-46.0	BOND	CARTHAGE	LIMESTONE	9.0	559.0
-193.0	MODESTO	TRIVOLI	SANDSTONE	40.0	706.0
-478.0	CARBONDALE	BRIAR HILL	COAL	2.5	991.0
-604.0	CARBONDALE	HOUCHIN CREEK	COAL	-	1117.0
-670.0	CARBONDALE	COLCHESTER	COAL	-	1183.0

MAPID: 12105510000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 2N 4E SECTION: 29 QUARTERS/FOOTAGES: 330' N line, 330' W line of NE NW
QUADRANGLE: IUKA LONGITUDE: -88.784736 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.590503 DATE COLLECTED:
SURFACE ELEVATION (FT.): 499.0 LOGGED (FT.): 998.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-61.0	BOND	CARTHAGE	LIMESTONE	10.0	560.0
-485.0	CARBONDALE	BRIAR HILL	COAL	-	984.0
-496.0	CARBONDALE	SPRINGFIELD	COAL	3.0	995.0

MAPID: 12101959000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 2N 4E SECTION: 30 QUARTERS/FOOTAGES: 330' N line, 330' E line of SE SW
QUADRANGLE: IUKA LONGITUDE: -88.80108 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.579589 DATE COLLECTED:
SURFACE ELEVATION (FT.): 505.0 LOGGED (FT.): 970.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-35.0	BOND	CARTHAGE	LIMESTONE	8.0	540.0
-461.0	CARBONDALE	SPRINGFIELD	COAL	4.0	966.0

MAPID: 12104628000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 2N 4E SECTION: 30 QUARTERS/FOOTAGES: 330' N line, 330' W line of SE NW
QUADRANGLE: IUKA LONGITUDE: -88.80333 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.586919 DATE COLLECTED:
SURFACE ELEVATION (FT.): 533.0 LOGGED (FT.): 992.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-24.0	BOND	CARTHAGE	LIMESTONE	10.0	557.0
-322.0	MODESTO	PIASA	LIMESTONE	5.0	855.0
-444.0	CARBONDALE	BRIAR HILL	COAL	2.0	977.0
-456.0	CARBONDALE	SPRINGFIELD	COAL	3.0	989.0

MAPID: 12105245000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 2N 4E SECTION: 30 QUARTERS/FOOTAGES: 330' N line, 330' E line of NE
QUADRANGLE: IUKA LONGITUDE: -88.791633 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.590559 DATE COLLECTED:
SURFACE ELEVATION (FT.): 517.0 LOGGED (FT.): 995.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-48.0	BOND	CARTHAGE	LIMESTONE	10.0	565.0
-464.0	CARBONDALE	BRIAR HILL	COAL	2.0	981.0
-475.0	CARBONDALE	SPRINGFIELD	COAL	3.0	992.0

MAPID: 12105364000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 2N 4E SECTION: 30 QUARTERS/FOOTAGES: 330' S line, 330' E line of NE SE
QUADRANGLE: IUKA LONGITUDE: -88.791798 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.581377 DATE COLLECTED:
SURFACE ELEVATION (FT.): 513.0 LOGGED (FT.): 981.5 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-51.0	BOND	CARTHAGE	LIMESTONE	10.0	564.0
-211.0	MODESTO	TRIVOLI	SANDSTONE	28.0	724.0
-466.0	CARBONDALE	BRIAR HILL	COAL	2.5	979.0

MAPID: 12105594000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 2N 4E SECTION: 31 QUARTERS/FOOTAGES: 990' N line, 660' E line of NE
QUADRANGLE: IUKA LONGITUDE: -88.793046 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.574069 DATE COLLECTED:
SURFACE ELEVATION (FT.): 465.0 LOGGED (FT.): 1050.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-30.0	BOND	CARTHAGE	LIMESTONE	10.0	495.0
-458.0	CARBONDALE	BRIAR HILL	COAL	-	923.0
-468.0	CARBONDALE	SPRINGFIELD	COAL	3.0	933.0
-585.0	CARBONDALE	HOUCHIN CREEK	COAL	-	1050.0

MAPID: 12100158000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 2N 4E SECTION: 32 QUARTERS/FOOTAGES: 330' S line, 330' W line of NE SE
QUADRANGLE: IUKA LONGITUDE: -88.775733 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.566736 DATE COLLECTED: 0 / 0 / 1942
SURFACE ELEVATION (FT.): 510.0 LOGGED (FT.): 2848.0 LOG TYPE:
SOURCE: ARROW DRC, STNECPHR E 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-45.0	BOND	CARTHAGE	LIMESTONE	-	555.0
-435.0	CARBONDALE	HERRIN	COAL	-	945.0

MAPID: 12100158000C VERSION: 2 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 2N 4E SECTION: 32 QUARTERS/FOOTAGES: 330' S line, 330' W line of NE SE
QUADRANGLE: IUKA LONGITUDE: -88.775733 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.566736 DATE COLLECTED:
SURFACE ELEVATION (FT.): 510.0 LOGGED (FT.): 1011.5 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-46.0	BOND	CARTHAGE	LIMESTONE	10.0	556.0
-177.0	MODESTO	TRIVOLI	SANDSTONE	71.0	687.0
-498.0	CARBONDALE	SPRINGFIELD	COAL	3.5	1008.0

MAPID: 12101720000C VERSION: 1 PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 2N 4E SECTION: 33 QUARTERS/FOOTAGES: 330' S line, 330' W line of NE NW

QUADRANGLE: IUKA LONGITUDE: -88.76648 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.574036 DATE COLLECTED:

SURFACE ELEVATION (FT.): 467.0 LOGGED (FT.): 988.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-67.0	BOND	CARTHAGE	LIMESTONE	9.0	534.0
-232.0	MODESTO	TRIVOLI	SANDSTONE	40.0	699.0
-385.0	MODESTO	PIASA	LIMESTONE	10.0	852.0
-517.0	CARBONDALE	SPRINGFIELD	COAL	4.0	984.0

MAPID: 12101297000C VERSION: 1 PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 3N 1E SECTION: 2 QUARTERS/FOOTAGES: 330' S line, 330' E line of SE

QUADRANGLE: FAIRMAN LONGITUDE: -89.050844 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.722296 DATE COLLECTED:

SURFACE ELEVATION (FT.): 540.0 LOGGED (FT.): 738.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: POOR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
284.0	BOND	CARTHAGE	LIMESTONE	12.0	256.0
34.0	MODESTO	TRIVOLI	SANDSTONE	28.0	506.0
-14.0	MODESTO	PIASA	LIMESTONE	9.0	554.0
-93.0	CARBONDALE	HERRIN	COAL	5.0	633.0
-134.0	CARBONDALE	SPRINGFIELD	COAL	4.0	674.0
-198.0	CARBONDALE	HOUCHIN CREEK	COAL	-	738.0

MAPID: 12101297000C VERSION: 2 PROJECT: ROOF STUDY

COUNTY: MARION TWP/RNG: 3N 1E SECTION: 2 QUARTERS/FOOTAGES: 330' S line, 330' E line of SE

QUADRANGLE: FAIRMAN LONGITUDE: -89.050844 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.722296 DATE COLLECTED:

SURFACE ELEVATION (FT.): 540.0 LOGGED (FT.): 631.0 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
-16.0	MODESTO	PIASA	LIMESTONE	6.0	556.0
-22.0	MODESTO		SHALE	8.0	562.0
-30.0	CARBONDALE		SILTY SHALE	22.0	570.0
-52.0	CARBONDALE		SHALE	7.0	592.0
-59.0	CARBONDALE		SHALE	7.0	599.0
-66.0	CARBONDALE	BANKSTON FORK	LIMESTONE	7.0	606.0
-73.0	CARBONDALE	LAWSON	SHALE	4.5	613.0
-77.5	CARBONDALE	CONANT	LIMESTONE	2.5	617.5
-80.0	CARBONDALE	BRERETON	SHALE	2.0	620.0
-82.0	CARBONDALE		LIMESTONE	4.0	622.0
-86.0	CARBONDALE	HERRIN	COAL	5.0	626.0

MAPID: 12101297000C VERSION: 3 PROJECT: CIRC 164

COUNTY: MARION TWP/RNG: 3N 1E SECTION: 2 QUARTERS/FOOTAGES: 330' S line, 330' E line of SE

QUADRANGLE: FAIRMAN LONGITUDE: -89.050844 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.722296 DATE COLLECTED: 0 / 0 / 1942

SURFACE ELEVATION (FT.): 540.0 LOGGED (FT.): 2027.0 LOG TYPE:

SOURCE: MULLER W P, SLOAN D 1 WELL TYPE: Oil and Gas Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
286.0	BOND	CARTHAGE	LIMESTONE	-	254.0
-92.0	CARBONDALE	HERRIN	COAL	-	632.0

MAPID: 12101297000C VERSION: 4 PROJECT: J JOHNSON
COUNTY: MARION TWP/RNG: 3N 1E SECTION: 2 QUARTERS/FOOTAGES: 330' S line, 330' E line of SE
QUADRANGLE: FAIRMAN LONGITUDE: -89.050844 GEOLOGIST: J JOHNSON
CONFIDENTIAL: N LATITUDE: 38.722296 DATE COLLECTED:
SURFACE ELEVATION (FT.): 540.0 LOGGED (FT.): 1548.0 LOG TYPE: Electric Log
SOURCE: MULLER WILLIAM P WELL TYPE: Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-134.0	CARBONDALE	SPRINGFIELD	COAL	-	674.0
-270.0	CARBONDALE	COLCHESTER	COAL	-	810.0
-1008.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1548.0

MAPID: 12100652000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 3N 1E SECTION: 3 QUARTERS/FOOTAGES: NW SE SW
QUADRANGLE: FAIRMAN LONGITUDE: -89.080782 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.724136 DATE COLLECTED: 0 / 0 / 1937
SURFACE ELEVATION (FT.): 500.0 LOGGED (FT.): 1575.0 LOG TYPE:
SOURCE: BENST RETL, BELCHER C 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
344.0	BOND	CARTHAGE	LIMESTONE	-	156.0
-28.0	CARBONDALE	HERRIN	COAL	-	528.0

MAPID: 12100653000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 3N 1E SECTION: 3 QUARTERS/FOOTAGES: NW NW SW
QUADRANGLE: FAIRMAN LONGITUDE: -89.085433 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.727824 DATE COLLECTED: 0 / 0 / 1937
SURFACE ELEVATION (FT.): 512.0 LOGGED (FT.): 1607.0 LOG TYPE:
SOURCE: ADAMS OG, ROGIER 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
367.0	BOND	CARTHAGE	LIMESTONE	-	145.0
-9.0	CARBONDALE	HERRIN	COAL	-	521.0

MAPID: 12101708000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 3N 1E SECTION: 3 QUARTERS/FOOTAGES: 330' N line, 330' W line of NE SW
QUADRANGLE: FAIRMAN LONGITUDE: -89.080799 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.727808 DATE COLLECTED:
SURFACE ELEVATION (FT.): 512.0 LOGGED (FT.): 698.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
359.0	BOND	CARTHAGE	LIMESTONE	11.0	153.0
62.0	MODESTO	PIASA	LIMESTONE	7.0	450.0
-11.0	CARBONDALE	HERRIN	COAL	4.0	523.0
-53.0	CARBONDALE	SPRINGFIELD	COAL	4.0	565.0
-126.0	CARBONDALE	HOUCHIN CREEK	COAL	2.0	638.0
-186.0	CARBONDALE	COLCHESTER	COAL	-	698.0

MAPID: 12101708000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: MARION TWP/RNG: 3N 1E SECTION: 3 QUARTERS/FOOTAGES: 330' N line, 330' W line of NE SW
QUADRANGLE: FAIRMAN LONGITUDE: -89.080799 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.727808 DATE COLLECTED:
SURFACE ELEVATION (FT.): 512.0 LOGGED (FT.): 528.0 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
60.0	MODESTO	PIASA	LIMESTONE & SHALE	7.0	452.0
53.0	MODESTO		SHALE	6.0	459.0
47.0	CARBONDALE		SILTY SHALE	21.0	465.0
26.0	CARBONDALE		SHALE	9.0	486.0
17.0	CARBONDALE	ALLENBY	COAL	2.5	495.0
14.5	CARBONDALE		SHALE	7.5	497.5
7.0	CARBONDALE	BANKSTON FORK	LIMESTONE	7.0	505.0
0.0	CARBONDALE	LAWSON	SHALE	4.5	512.0
-4.5	CARBONDALE	CONANT	LIMESTONE	2.5	516.5
-7.0	CARBONDALE		SHALE	2.0	519.0
-9.0	CARBONDALE	BRERETON	LIMESTONE	3.0	521.0
-12.0	CARBONDALE	ANNA	SHALE	2.5	524.0
-12.0	CARBONDALE	HERRIN	COAL	4.0	524.0

MAPID: 12101897000C VERSION: 1 PROJECT: J JOHNSON

COUNTY: MARION TWP/RNG: 3N 1E SECTION: 3 QUARTERS/FOOTAGES: 330' S line, 330' E line of NW NE

QUADRANGLE: FAIRMAN LONGITUDE: -89.073911 GEOLOGIST: J JOHNSON

CONFIDENTIAL: N LATITUDE: 38.733257 DATE COLLECTED:

SURFACE ELEVATION (FT.): 518.0 LOGGED (FT.): 1360.0 LOG TYPE: Electric Log

SOURCE: SHULMAN BROS. INC. WELL TYPE: Oil and Gas Test

COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-64.0	CARBONDALE	SPRINGFIELD	COAL	-	582.0
-190.0	CARBONDALE	COLCHESTER	COAL	-	708.0
-842.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1360.0

MAPID: 12100654000C VERSION: 1 PROJECT: CIRC 164

COUNTY: MARION TWP/RNG: 3N 1E SECTION: 4 QUARTERS/FOOTAGES: NW SE SE

QUADRANGLE: FAIRMAN LONGITUDE: -89.090019 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.724147 DATE COLLECTED: 0 / 0 / 1941

SURFACE ELEVATION (FT.): 507.0 LOGGED (FT.): 1518.0 LOG TYPE:

SOURCE: CONREY T M, ROGIER 1 WELL TYPE: Oil and Gas Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
355.0	BOND	CARTHAGE	LIMESTONE	-	152.0
-63.0	CARBONDALE	HERRIN	COAL	-	570.0

MAPID: 12104634000C

VERSION: 1

PROJECT: ROOF STUDY

COUNTY: MARION

TWP/RNG: 3N 1E

SECTION: 4

QUARTERS/FOOTAGES: 2310' S line, 990' W line

QUADRANGLE: FAIRMAN

LONGITUDE: -89.101488

GEOLOGIST:

CONFIDENTIAL: N

LATITUDE: 38.727718

DATE COLLECTED:

SURFACE ELEVATION (FT.): 507.0

LOGGED (FT.): 529.5

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
43.0	MODESTO	PIASA	LIMESTONE	5.0	464.0
38.0	MODESTO		SHALE & SANDSTONE	20.5	469.0
17.5	CARBONDALE	DANVILLE	CARBONACEOUS SHALE	1.0	489.5
16.5	CARBONDALE		SHALE	5.0	490.5
11.5	CARBONDALE		SHALE	2.5	495.5
9.0	CARBONDALE		COAL	2.5	498.0
6.5	CARBONDALE		SHALE	5.0	500.5
1.5	CARBONDALE		LIMESTONE	5.0	505.5
-3.5	CARBONDALE	LAWSON	SHALE	4.0	510.5
-7.5	CARBONDALE	CONANT	LIMESTONE	1.5	514.5
-9.0	CARBONDALE		SHALE	0.5	516.0
-9.5	CARBONDALE	BRERETON	LIMESTONE	4.0	516.5
-13.5	CARBONDALE	ANNA	BLACK SHALE	5.0	520.5
-18.0	CARBONDALE	HERRIN	COAL	4.5	525.0

MAPID: 12104981000C

VERSION: 1

PROJECT: CGT-ECILL

COUNTY: MARION

TWP/RNG: 3N 1E

SECTION: 4

QUARTERS/FOOTAGES: 330' S line, 330' W line of NE

QUADRANGLE: FAIRMAN

LONGITUDE: -89.094625

GEOLOGIST: C TREWORGY

CONFIDENTIAL: N

LATITUDE: 38.729657

DATE COLLECTED:

SURFACE ELEVATION (FT.): 513.0

LOGGED (FT.): 0.0

LOG TYPE: Electric Log

SOURCE:

WELL TYPE: Oil and Gas Test

COMMENT: POOR LOG

MAPID: 12101879000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: MARION TWP/RNG: 3N 1E SECTION: 5 QUARTERS/FOOTAGES: 2310' N line, 1650' E line
QUADRANGLE: FAIRMAN LONGITUDE: -89.110788 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.729803 DATE COLLECTED:
SURFACE ELEVATION (FT.): 497.0 LOGGED (FT.): 513.5 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
48.0	MODESTO	PIASA	LIMESTONE	3.5	449.0
44.5	MODESTO		SHALE & SANDSTONE	23.0	452.5
21.5	CARBONDALE	DANVILLE	COAL	1.5	475.5
20.0	CARBONDALE		SHALE	9.0	477.0
11.0	CARBONDALE		SHALE	3.0	486.0
8.0	CARBONDALE	ALLENBY	COAL	1.5	489.0
6.5	CARBONDALE		SHALE	2.5	490.5
4.0	CARBONDALE	BANKSTON FORK	LIMESTONE	5.0	493.0
-1.0	CARBONDALE	LAWSON	SHALE	5.0	498.0
-6.0	CARBONDALE	CONANT	LIMESTONE	2.0	503.0
-8.0	CARBONDALE		SHALE	1.0	505.0
-9.0	CARBONDALE	BRERETON	LIMESTONE	2.5	506.0
-11.5	CARBONDALE	ANNA	SHALE	2.0	508.5
-13.0	CARBONDALE	HERRIN	COAL	3.5	510.0

MAPID: 12101997000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 3N 1E SECTION: 5 QUARTERS/FOOTAGES: 330' N line, 330' E line of SE SW
QUADRANGLE: FAIRMAN LONGITUDE: -89.115238 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.724203 DATE COLLECTED:
SURFACE ELEVATION (FT.): 494.0 LOGGED (FT.): 699.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
344.0	BOND	CARTHAGE	LIMESTONE	8.0	150.0
-78.0	CARBONDALE	SPRINGFIELD	COAL	3.0	572.0
-144.0	CARBONDALE	HOUCHIN CREEK	COAL	1.5	638.0
-205.0	CARBONDALE	COLCHESTER	COAL	-	699.0

MAPID: 12125751000C VERSION: 1 PROJECT: J JOHNSON
COUNTY: MARION TWP/RNG: 3N 1E SECTION: 5 QUARTERS/FOOTAGES: 660' S line, 820' E line of SW
QUADRANGLE: FAIRMAN LONGITUDE: -89.11697 GEOLOGIST: J JOHNSON
CONFIDENTIAL: N LATITUDE: 38.723259 DATE COLLECTED:
SURFACE ELEVATION (FT.): 503.0 LOGGED (FT.): 2927.0 LOG TYPE: Electric Log
SOURCE: TROOP, R. H. ETAL WELL TYPE: Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
-77.0	CARBONDALE	SPRINGFIELD	COAL	-	580.0	
-202.0	CARBONDALE	COLCHESTER	COAL	-	705.0	
-797.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1300.0	
-2341.0	DEVONIAN	UPPER DEVONIAN S	UNCLASSIFIED	-	2844.0	TOP OF NEW ALBANY
-2367.0	DEVONIAN	GRASSY CREEK	UNCLASSIFIED	-	2870.0	
-2424.0	DEVONIAN	BASE UPPER DEVON	UNCLASSIFIED	-	2927.0	BASE OF NEW ALBANY

MAPID: 12125769000C VERSION: 1 PROJECT: J JOHNSON
COUNTY: MARION TWP/RNG: 3N 1E SECTION: 5 QUARTERS/FOOTAGES: 380' N line, 330' W line of SW SE
QUADRANGLE: FAIRMAN LONGITUDE: -89.112913 GEOLOGIST: J JOHNSON
CONFIDENTIAL: N LATITUDE: 38.724049 DATE COLLECTED:
SURFACE ELEVATION (FT.): 507.0 LOGGED (FT.): 2935.0 LOG TYPE: Electric Log
SOURCE: REDMAN, LOWELL WELL TYPE: Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
-792.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1299.0	
-2345.0	DEVONIAN	UPPER DEVONIAN S	UNCLASSIFIED	-	2852.0	TOP OF NEW ALBANY
-2368.0	DEVONIAN	GRASSY CREEK	UNCLASSIFIED	-	2875.0	
-2428.0	DEVONIAN	BASE UPPER DEVON	UNCLASSIFIED	-	2935.0	BASE OF NEW ALBANY

MAPID: 12100656000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 3N 1E SECTION: 6 QUARTERS/FOOTAGES: NE NE NW
QUADRANGLE: BOULDER LONGITUDE: -89.133602 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.735366 DATE COLLECTED: 0 / 0 / 1941
SURFACE ELEVATION (FT.): 492.0 LOGGED (FT.): 1687.0 LOG TYPE:
SOURCE: ADAMS OG, JOLLIFF C 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
374.0	BOND	CARTHAGE	LIMESTONE	-	118.0	
2.0	CARBONDALE	HERRIN	COAL	-	490.0	

MAPID: 12100657000C **VERSION:** 1 **PROJECT:** CIRC 164
COUNTY: MARION **TWP/RNG:** 3N 1E **SECTION:** 6 **QUARTERS/FOOTAGES:** 1650' N line, 330' E line
QUADRANGLE: FAIRMAN **LONGITUDE:** -89.124309 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.731675 **DATE COLLECTED:** 0 / 0 / 1941
SURFACE ELEVATION (FT.): 488.0 **LOGGED (FT.):** 1513.0 **LOG TYPE:**
SOURCE: DORAN PAUL, VERVERS WM 1 **WELL TYPE:** Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
360.0	BOND	CARTHAGE	LIMESTONE	-	128.0
-9.0	CARBONDALE	HERRIN	COAL	-	497.0

MAPID: 12100657000C **VERSION:** 2 **PROJECT:** ROOF STUDY
COUNTY: MARION **TWP/RNG:** 3N 1E **SECTION:** 6 **QUARTERS/FOOTAGES:** 1650' N line, 330' E line
QUADRANGLE: FAIRMAN **LONGITUDE:** -89.124309 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.731675 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 492.0 **LOGGED (FT.):** 505.0 **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
52.0	MODESTO	PIASA	LIMESTONE & SHALE	6.0	440.0
46.0	MODESTO		SHALE	8.0	446.0
38.0	CARBONDALE		SHALE & SANDSTONE	10.0	454.0
28.0	CARBONDALE		SHALE	5.0	464.0
23.0	CARBONDALE		SHALE	5.0	469.0
18.0	CARBONDALE	BANKSTON FORK	LIMESTONE	5.0	474.0
13.0	CARBONDALE	BANKSTON FORK	SHALE	2.0	479.0
11.0	CARBONDALE	BANKSTON FORK	LIMESTONE	4.0	481.0
7.0	CARBONDALE	LAWSON	SHALE	3.0	485.0
4.0	CARBONDALE	CONANT	LIMESTONE	2.0	488.0
2.0	CARBONDALE		SHALE	1.5	490.0
0.5	CARBONDALE	BRERETON	LIMESTONE	4.0	491.5
-3.5	CARBONDALE	ANNA	SHALE	3.0	495.5
-8.0	CARBONDALE	HERRIN	COAL	5.0	500.0

MAPID: 12101732000C **VERSION:** 1 **PROJECT:** CGT-ECILL
COUNTY: MARION **TWP/RNG:** 3N 1E **SECTION:** 6 **QUARTERS/FOOTAGES:** 330' N line, 330' E line of SE NW
QUADRANGLE: BOULDER **LONGITUDE:** -89.133614 **GEOLOGIST:** C TREWORGY
CONFIDENTIAL: N **LATITUDE:** 38.731689 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 493.0 **LOGGED (FT.):** 665.0 **LOG TYPE:** Electric Log
SOURCE: **WELL TYPE:** Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
359.0	BOND	CARTHAGE	LIMESTONE	10.0	134.0
-14.0	CARBONDALE	HERRIN	COAL	4.0	507.0
-57.0	CARBONDALE	SPRINGFIELD	COAL	4.0	550.0
-106.0	CARBONDALE	HOUCHIN CREEK	COAL	-	599.0
-172.0	CARBONDALE	COLCHESTER	COAL	-	665.0

MAPID: 12101732000C **VERSION:** 2 **PROJECT:** BLM
COUNTY: MARION **TWP/RNG:** 3N 1E **SECTION:** 6 **QUARTERS/FOOTAGES:** 330' N line, 330' E line of SE NW
QUADRANGLE: BOULDER **LONGITUDE:** -89.133614 **GEOLOGIST:** TREWORGY,J
CONFIDENTIAL: N **LATITUDE:** 38.731689 **DATE COLLECTED:** 7 / 0 / 1957
SURFACE ELEVATION (FT.): 493.0 **LOGGED (FT.):** 665.0 **LOG TYPE:** Electric Log
SOURCE: NATIONAL ASSOC. PETROLEUM CO. **WELL TYPE:** Oil and Gas Test
COMMENT: CORRELATED BY C. TREWORGY

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
493.0			UNKNOWN	507.0	0.0
-14.0	CARBONDALE	HERRIN	COAL	4.0	507.0
-18.0	CARBONDALE		ROCK	39.0	511.0
-57.0	CARBONDALE	SPRINGFIELD	COAL	4.0	550.0
-61.0	CARBONDALE		ROCK	45.0	554.0
-106.0	CARBONDALE	HOUCHIN CREEK	COAL	-	599.0
-106.0	CARBONDALE		ROCK	66.0	599.0
-172.0	CARBONDALE	COLCHESTER	COAL	-	665.0

MAPID: 12101764000C VERSION: 1 PROJECT: J JOHNSON
COUNTY: MARION TWP/RNG: 3N 1E SECTION: 6 QUARTERS/FOOTAGES: 330' S line, 330' W line of NW NE
QUADRANGLE: BOULDER LONGITUDE: -89.131282 GEOLOGIST: J JOHNSON
CONFIDENTIAL: N LATITUDE: 38.733498 DATE COLLECTED:
SURFACE ELEVATION (FT.): 495.0 LOGGED (FT.): 2889.0 LOG TYPE: Electric Log
SOURCE: KEWANEE OIL CO. WELL TYPE: Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
-50.0	CARBONDALE	SPRINGFIELD	COAL	-	545.0	
-160.0	CARBONDALE	COLCHESTER	COAL	-	655.0	
-776.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1271.0	
-2311.0	DEVONIAN	UPPER DEVONIAN S	UNCLASSIFIED	-	2806.0	TOP OF NEW ALBANY
-2339.0	DEVONIAN	GRASSY CREEK	UNCLASSIFIED	-	2834.0	
-2394.0	DEVONIAN	BASE UPPER DEVON	UNCLASSIFIED	-	2889.0	BASE OF NEW ALBANY

MAPID: 12100659000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 3N 1E SECTION: 7 QUARTERS/FOOTAGES: SE SE SW
QUADRANGLE: BOULDER LONGITUDE: -89.133695 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.707811 DATE COLLECTED: 0 / 0 / 1941
SURFACE ELEVATION (FT.): 496.0 LOGGED (FT.): 1471.0 LOG TYPE:
SOURCE: SHELL OC, ADAMS C A 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
351.0	BOND	CARTHAGE	LIMESTONE	-	145.0	
-21.0	CARBONDALE	HERRIN	COAL	-	517.0	

MAPID: 12100662000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 3N 1E SECTION: 7 QUARTERS/FOOTAGES: SE SW NE
QUADRANGLE: BOULDER LONGITUDE: -89.129017 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.715101 DATE COLLECTED: 0 / 0 / 1938
SURFACE ELEVATION (FT.): 479.0 LOGGED (FT.): 1514.0 LOG TYPE:
SOURCE: ADAMS C A, HAWKINS 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		
				UNIT	OVERBURDEN	COMMENT
-31.0	CARBONDALE	HERRIN	COAL	-	510.0	

MAPID: 12101452000C **VERSION:** 1 **PROJECT:** CIRC 164
COUNTY: MARION **TWP/RNG:** 3N 1E **SECTION:** 7 **QUARTERS/FOOTAGES:** SW NW SE
QUADRANGLE: BOULDER **LONGITUDE:** -89.131358 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.711453 **DATE COLLECTED:** 0 / 0 / 1946
SURFACE ELEVATION (FT.): 467.0 **LOGGED (FT.):** 1463.0 **LOG TYPE:**
SOURCE: CLAUD NEON, ADAMS T A 1 **WELL TYPE:** Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
344.0	BOND	CARTHAGE	LIMESTONE	-	123.0
-28.0	CARBONDALE	HERRIN	COAL	-	495.0

MAPID: 12101743000C **VERSION:** 1 **PROJECT:** CGT-ECILL
COUNTY: MARION **TWP/RNG:** 3N 1E **SECTION:** 7 **QUARTERS/FOOTAGES:** 330' S line, 330' W line of SE
QUADRANGLE: BOULDER **LONGITUDE:** -89.13137 **GEOLOGIST:** C TREWORGY
CONFIDENTIAL: N **LATITUDE:** 38.707787 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 473.0 **LOGGED (FT.):** 682.0 **LOG TYPE:** Electric Log
SOURCE: **WELL TYPE:** Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
352.0	BOND	CARTHAGE	LIMESTONE	10.0	121.0
-29.0	CARBONDALE	HERRIN	COAL	4.0	502.0
-70.0	CARBONDALE	SPRINGFIELD	COAL	3.0	543.0
-132.0	CARBONDALE	HOUCHIN CREEK	COAL	1.5	605.0
-209.0	CARBONDALE	COLCHESTER	COAL	-	682.0

MAPID: 12101743000C **VERSION:** 2 **PROJECT:** BLM
COUNTY: MARION **TWP/RNG:** 3N 1E **SECTION:** 7 **QUARTERS/FOOTAGES:** 330' S line, 330' W line of SE
QUADRANGLE: BOULDER **LONGITUDE:** -89.13137 **GEOLOGIST:** TREWORGY,J
CONFIDENTIAL: N **LATITUDE:** 38.707787 **DATE COLLECTED:** 8 / 0 / 1957
SURFACE ELEVATION (FT.): 473.0 **LOGGED (FT.):** 682.0 **LOG TYPE:** Electric Log
SOURCE: NATIONAL ASSOC. PETROLEUM CO. **WELL TYPE:** Oil and Gas Test
COMMENT: CORRELATED BY C. TREWORGY

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
473.0			UNKNOWN	502.0	0.0
-29.0	CARBONDALE	HERRIN	COAL	4.0	502.0
-33.0	CARBONDALE		ROCK	37.0	506.0
-70.0	CARBONDALE	SPRINGFIELD	COAL	3.0	543.0
-73.0	CARBONDALE		ROCK	59.0	546.0
-132.0	CARBONDALE	HOUCHIN CREEK	COAL	1.5	605.0
-133.5	CARBONDALE		ROCK	75.5	606.5
-209.0	CARBONDALE	COLCHESTER	COAL	-	682.0

MAPID: 12101748000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 3N 1E SECTION: 7 QUARTERS/FOOTAGES: SW SE SW
QUADRANGLE: BOULDER LONGITUDE: -89.13602 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.707829 DATE COLLECTED:
SURFACE ELEVATION (FT.): 492.0 LOGGED (FT.): 689.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
355.0	BOND	CARTHAGE	LIMESTONE	11.0	137.0
214.0	MODESTO	TRIVOLI	SANDSTONE	36.0	278.0
-15.0	CARBONDALE	HERRIN	COAL	5.0	507.0
-51.0	CARBONDALE	BRIAR HILL	COAL	2.5	543.0
-58.0	CARBONDALE	SPRINGFIELD	COAL	3.5	550.0
-119.0	CARBONDALE	HOUCHIN CREEK	COAL	1.0	611.0
-196.0	CARBONDALE	COLCHESTER	COAL	1.0	688.0

MAPID: 12101748000C VERSION: 2 PROJECT: BLM
COUNTY: MARION TWP/RNG: 3N 1E SECTION: 7 QUARTERS/FOOTAGES: SW SE SW
QUADRANGLE: BOULDER LONGITUDE: -89.13602 GEOLOGIST: TREWORGY,J
CONFIDENTIAL: N LATITUDE: 38.707829 DATE COLLECTED: 9 / 0 / 1957
SURFACE ELEVATION (FT.): 492.0 LOGGED (FT.): 689.0 LOG TYPE: Electric Log
SOURCE: NATIONAL ASSOC. PETROLEUM CO. WELL TYPE: Oil and Gas Test
COMMENT: CORRELATED BY C. TREWORGY

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
492.0			UNKNOWN	507.0	0.0
-15.0	CARBONDALE	HERRIN	COAL	5.0	507.0
-20.0	CARBONDALE		ROCK	31.0	512.0
-51.0	CARBONDALE		COAL	2.5	543.0
-53.5	CARBONDALE		ROCK	4.5	545.5
-58.0	CARBONDALE	SPRINGFIELD	COAL	3.5	550.0
-61.5	CARBONDALE		ROCK	57.5	553.5
-119.0	CARBONDALE	HOUCHIN CREEK	COAL	1.0	611.0
-120.0	CARBONDALE		ROCK	76.0	612.0
-196.0	CARBONDALE	COLCHESTER	COAL	1.0	688.0

MAPID: 12101756000C **VERSION:** 1 **PROJECT:** J JOHNSON
COUNTY: MARION **TWP/RNG:** 3N 1E **SECTION:** 7 **QUARTERS/FOOTAGES:** 330' N line, 330' E line of NW
QUADRANGLE: BOULDER **LONGITUDE:** -89.131994 **GEOLOGIST:** J JOHNSON
CONFIDENTIAL: N **LATITUDE:** 38.720615 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 491.0 **LOGGED (FT.):** 2937.0 **LOG TYPE:** Electric Log
SOURCE: SHULMAN BROS. INC. **WELL TYPE:** Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-73.0	CARBONDALE	SPRINGFIELD	COAL	-	564.0	
-191.0	CARBONDALE	COLCHESTER	COAL	-	682.0	
-808.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1299.0	
-2364.0	DEVONIAN	UPPER DEVONIAN S	UNCLASSIFIED	-	2855.0	TOP OF NEW ALBANY
-2389.0	DEVONIAN	GRASSY CREEK	UNCLASSIFIED	-	2880.0	
-2446.0	DEVONIAN	BASE UPPER DEVON	UNCLASSIFIED	-	2937.0	BASE OF NEW ALBANY

MAPID: 12104647000C **VERSION:** 1 **PROJECT:** ROOF STUDY
COUNTY: MARION **TWP/RNG:** 3N 1E **SECTION:** 7 **QUARTERS/FOOTAGES:** 330' N line, 2310' E line
QUADRANGLE: BOULDER **LONGITUDE:** -89.131324 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.720613 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 495.0 **LOGGED (FT.):** 522.0 **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	
29.0	MODESTO	PIASA	LIMESTONE & SHALE	9.0	466.0	
20.0	MODESTO		SHALE	9.0	475.0	
11.0	CARBONDALE	DANVILLE	COAL	2.5	484.0	
8.5	CARBONDALE		SHALE	8.0	486.5	
0.5	CARBONDALE		SHALE	1.0	494.5	
-0.5	CARBONDALE		SHALE	1.0	495.5	
-1.5	CARBONDALE		SHALE	1.0	495.5	
-1.5	CARBONDALE	BANKSTON FORK	LIMESTONE	4.5	496.5	
-6.0	CARBONDALE	BANKSTON FORK	SHALE	3.0	501.0	
-9.0	CARBONDALE	BANKSTON FORK	LIMESTONE	3.5	504.0	
-12.5	CARBONDALE	LAWSON	SHALE	2.5	507.5	
-15.0	CARBONDALE	CONANT	LIMESTONE	2.0	510.0	
-17.0	CARBONDALE		SHALE	2.0	512.0	
-19.0	CARBONDALE	BRERETON	LIMESTONE	2.5	514.0	
-21.5	CARBONDALE	ANNA	SHALE	1.5	516.5	
-23.0	CARBONDALE	HERRIN	COAL	4.0	518.0	

MAPID: 12101315000C

VERSION: 1

PROJECT: CIRC 164

COUNTY: MARION

TWP/RNG: 3N 1E

SECTION: 8

QUARTERS/FOOTAGES: 330' N line, 330' W line of NE

QUADRANGLE: FAIRMAN

LONGITUDE: -89.112925

GEOLOGIST:

CONFIDENTIAL: N

LATITUDE: 38.72049

DATE COLLECTED: 0 / 0 / 1942

SURFACE ELEVATION (FT.): 501.0

LOGGED (FT.): 1726.0

LOG TYPE:

SOURCE: HAMMER A J, ADAMS CEPH 1

WELL TYPE: Oil and Gas Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
356.0	BOND	CARTHAGE	LIMESTONE	-	145.0
-27.0	CARBONDALE	HERRIN	COAL	-	528.0

MAPID: 12101315000C

VERSION: 2

PROJECT: CGT-ECILL

COUNTY: MARION

TWP/RNG: 3N 1E

SECTION: 8

QUARTERS/FOOTAGES: 330' N line, 330' W line of NE

QUADRANGLE: FAIRMAN

LONGITUDE: -89.112925

GEOLOGIST: C TREWORYG

CONFIDENTIAL: N

LATITUDE: 38.72049

DATE COLLECTED:

SURFACE ELEVATION (FT.): 501.0

LOGGED (FT.): 699.0

LOG TYPE: Electric Log

SOURCE:

WELL TYPE: Oil and Gas Test

COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
356.0	BOND	CARTHAGE	LIMESTONE	10.0	145.0
249.0	MODESTO	TRIVOLI	SANDSTONE	22.0	252.0
-28.0	CARBONDALE	HERRIN	COAL	5.0	529.0
-69.0	CARBONDALE	SPRINGFIELD	COAL	3.5	570.0
-135.0	CARBONDALE	HOUCHIN CREEK	COAL	2.0	636.0
-198.0	CARBONDALE	COLCHESTER	COAL	-	699.0

MAPID: 12104649000C **VERSION:** 1 **PROJECT:** CGT-ECILL
COUNTY: MARION **TWP/RNG:** 3N 1E **SECTION:** 8 **QUARTERS/FOOTAGES:** 990' N line, 330' E line of SE NW
QUADRANGLE: FAIRMAN **LONGITUDE:** -89.115263 **GEOLOGIST:** C TREWORY
CONFIDENTIAL: N **LATITUDE:** 38.715029 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 508.0 **LOGGED (FT.):** 708.0 **LOG TYPE:** Electric Log
SOURCE: **WELL TYPE:** Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
360.0	BOND	CARTHAGE	LIMESTONE	12.0	148.0
150.0	MODESTO	TRIVOLI	SANDSTONE	70.0	358.0
39.0	MODESTO	PIASA	LIMESTONE	5.0	469.0
11.0	CARBONDALE	DANVILLE	COAL	2.0	497.0
-32.0	CARBONDALE	HERRIN	COAL	4.5	540.0
-74.0	CARBONDALE	SPRINGFIELD	COAL	5.0	582.0
-127.0	CARBONDALE	HOUCHIN CREEK	COAL	-	635.0
-200.0	CARBONDALE	COLCHESTER	COAL	-	708.0

MAPID: 12104649000C **VERSION:** 2 **PROJECT:** ROOF STUDY
COUNTY: MARION **TWP/RNG:** 3N 1E **SECTION:** 8 **QUARTERS/FOOTAGES:** 990' N line, 330' E line of SE NW
QUADRANGLE: FAIRMAN **LONGITUDE:** -89.115263 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.715029 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 508.0 **LOGGED (FT.):** 542.0 **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
39.0	MODESTO	PIASA	LIMESTONE	3.5	469.0
35.5	MODESTO		SHALE & SANDSTONE	23.0	472.5
12.5	CARBONDALE	DANVILLE	COAL	2.0	495.5
10.5	CARBONDALE		SHALE	5.5	497.5
5.0	CARBONDALE		SHALE	1.0	503.0
4.0	CARBONDALE		SHALE	1.0	504.0
3.0	CARBONDALE	BANKSTON FORK	LIMESTONE	5.5	505.0
-2.5	CARBONDALE	LAWSON	SHALE	4.5	510.5
-7.0	CARBONDALE	LAWSON	SANDSTONE	8.5	515.0
-15.5	CARBONDALE		SHALE	3.0	523.5
-18.5	CARBONDALE	BRERETON	LIMESTONE	5.5	526.5
-24.0	CARBONDALE	ANNA	SHALE	5.0	532.0
-29.0	CARBONDALE	HERRIN	COAL	5.0	537.0

MAPID: 12125759000C **VERSION:** 1 **PROJECT:** J JOHNSON
COUNTY: MARION **TWP/RNG:** 3N 1E **SECTION:** 8 **QUARTERS/FOOTAGES:** 330' N line, 330' W line of SW NW
QUADRANGLE: FAIRMAN **LONGITUDE:** -89.122033 **GEOLOGIST:** J JOHNSON
CONFIDENTIAL: N **LATITUDE:** 38.716901 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 506.0 **LOGGED (FT.):** 2931.0 **LOG TYPE:** Electric Log
SOURCE: REDMAN, LOWELL **WELL TYPE:** Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-59.0	CARBONDALE	SPRINGFIELD	COAL	-	565.0	
-189.0	CARBONDALE	COLCHESTER	COAL	-	695.0	
-802.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1308.0	
-2343.0	DEVONIAN	UPPER DEVONIAN S	UNCLASSIFIED	-	2849.0	TOP OF NEW ALBANY
-2368.0	DEVONIAN	GRASSY CREEK	UNCLASSIFIED	-	2874.0	
-2425.0	DEVONIAN	BASE UPPER DEVON	UNCLASSIFIED	-	2931.0	BASE OF NEW ALBANY

MAPID: 12101588000C **VERSION:** 1 **PROJECT:** ROOF STUDY
COUNTY: MARION **TWP/RNG:** 3N 1E **SECTION:** 9 **QUARTERS/FOOTAGES:** 1650' N line, 990' W line
QUADRANGLE: FAIRMAN **LONGITUDE:** -89.101507 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.716785 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 506.0 **LOGGED (FT.):** 530.0 **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	
38.0	MODESTO	PIASA	LIMESTONE	3.0	468.0	
35.0	MODESTO		SHALE & SANDSTONE	24.0	471.0	
11.0	CARBONDALE	DANVILLE	COAL	2.0	495.0	
9.0	CARBONDALE		SHALE	4.0	497.0	
5.0	CARBONDALE	LAWSON	SHALE & SANDSTONE	12.0	501.0	
-7.0	CARBONDALE	BRERETON	LIMESTONE	5.5	513.0	
-12.5	CARBONDALE	ANNA	SHALE	5.5	518.5	
-19.0	CARBONDALE	HERRIN	COAL	5.0	525.0	

MAPID: 12101749000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 3N 1E SECTION: 9 QUARTERS/FOOTAGES: 330' S line, 330' W line of NE SW
QUADRANGLE: FAIRMAN LONGITUDE: -89.099223 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.711302 DATE COLLECTED:
SURFACE ELEVATION (FT.): 510.0 LOGGED (FT.): 692.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
368.0	BOND	CARTHAGE	LIMESTONE	11.0	142.0
-12.0	CARBONDALE	HERRIN	COAL	-	522.0
-50.0	CARBONDALE	SPRINGFIELD	COAL	2.0	560.0
-109.0	CARBONDALE	HOUCHIN CREEK	COAL	-	619.0
-182.0	CARBONDALE	COLCHESTER	COAL	-	692.0

MAPID: 12104658000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 3N 1E SECTION: 9 QUARTERS/FOOTAGES: NE NE NW
QUADRANGLE: FAIRMAN LONGITUDE: -89.096919 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.720447 DATE COLLECTED:
SURFACE ELEVATION (FT.): 510.0 LOGGED (FT.): 707.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
359.0	BOND	CARTHAGE	LIMESTONE	12.0	151.0
252.0	MODESTO	TRIVOLI	SANDSTONE	28.0	258.0
-16.0	CARBONDALE	HERRIN	COAL	4.5	526.0
-52.0	CARBONDALE	BRIAR HILL	COAL	5.0	562.0
-64.0	CARBONDALE	SPRINGFIELD	COAL	3.0	574.0
-132.0	CARBONDALE	HOUCHIN CREEK	COAL	2.0	642.0
-196.0	CARBONDALE	COLCHESTER	COAL	1.0	706.0

MAPID: 12102078000C VERSION: 1 PROJECT: J JOHNSON
COUNTY: MARION TWP/RNG: 3N 1E SECTION: 10 QUARTERS/FOOTAGES: 330' S line, 330' W line of SE NW NW
QUADRANGLE: FAIRMAN LONGITUDE: -89.083066 GEOLOGIST: J JOHNSON
CONFIDENTIAL: N LATITUDE: 38.718636 DATE COLLECTED:
SURFACE ELEVATION (FT.): 511.0 LOGGED (FT.): 1330.0 LOG TYPE: Electric Log
SOURCE: PFEFFER, WILLIAM J. WELL TYPE: Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-57.0	CARBONDALE	SPRINGFIELD	COAL	-	568.0
-191.0	CARBONDALE	COLCHESTER	COAL	-	702.0
-819.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1330.0

MAPID: 12101453000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 3N 1E SECTION: 11 QUARTERS/FOOTAGES: 330' N line, 330' W line of SE
QUADRANGLE: FAIRMAN LONGITUDE: -89.057713 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.713156 DATE COLLECTED:
SURFACE ELEVATION (FT.): 491.0 LOGGED (FT.): 764.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
305.0	BOND	CARTHAGE	LIMESTONE	14.0	186.0
62.0	MODESTO	TRIVOLI	SANDSTONE	41.0	429.0
-15.0	MODESTO	PIASA	LIMESTONE	7.0	506.0
-89.0	CARBONDALE	HERRIN	COAL	4.0	580.0
-132.0	CARBONDALE	SPRINGFIELD	COAL	4.5	623.0
-204.0	CARBONDALE	HOUCHIN CREEK	COAL	-	695.0
-273.0	CARBONDALE	COLCHESTER	COAL	-	764.0

MAPID: 12101453000C VERSION: 2 PROJECT: ROOF STUDY
COUNTY: MARION TWP/RNG: 3N 1E SECTION: 11 QUARTERS/FOOTAGES: 330' N line, 330' W line of SE
QUADRANGLE: FAIRMAN LONGITUDE: -89.057713 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.713156 DATE COLLECTED:
SURFACE ELEVATION (FT.): 488.0 LOGGED (FT.): 584.0 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
-18.0	MODESTO	PIASA	LIMESTONE	5.5	506.0
-23.5	MODESTO		SHALE & SANDSTONE	31.0	511.5
-54.5	CARBONDALE		COAL	3.0	542.5
-57.5	CARBONDALE		SHALE	5.0	545.5
-62.5	CARBONDALE		SHALE	0.5	550.5
-63.0	CARBONDALE	BANKSTON FORK	SHALE	0.5	551.0
-63.5	CARBONDALE		LIMESTONE	5.5	551.5
-69.0	CARBONDALE		SHALE	4.5	557.0
-73.5	CARBONDALE		LIMESTONE	3.0	561.5
-76.5	CARBONDALE		SHALE	7.0	564.5
-83.5	CARBONDALE	BRERETON	LIMESTONE	5.5	571.5
-89.0	CARBONDALE	ANNA	BLACK SHALE	2.5	577.0
-92.0	CARBONDALE	HERRIN	COAL	4.0	580.0

MAPID: 12101453000C VERSION: 3 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 3N 1E SECTION: 11 QUARTERS/FOOTAGES: 330' N line, 330' W line of SE
QUADRANGLE: FAIRMAN LONGITUDE: -89.057713 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.713156 DATE COLLECTED: 0 / 0 / 1946
SURFACE ELEVATION (FT.): 490.0 LOGGED (FT.): 1575.0 LOG TYPE:
SOURCE: DORAN PAUL, SMITH L H 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
305.0	BOND	CARTHAGE	LIMESTONE	-	185.0
-89.0	CARBONDALE	HERRIN	COAL	-	579.0

MAPID: 12101453000C VERSION: 4 PROJECT: J JOHNSON
COUNTY: MARION TWP/RNG: 3N 1E SECTION: 11 QUARTERS/FOOTAGES: 330' N line, 330' W line of SE
QUADRANGLE: FAIRMAN LONGITUDE: -89.057713 GEOLOGIST: J JOHNSON
CONFIDENTIAL: N LATITUDE: 38.713156 DATE COLLECTED:
SURFACE ELEVATION (FT.): 491.0 LOGGED (FT.): 1457.0 LOG TYPE: Electric Log
SOURCE: DORAN PAUL EST WELL TYPE: Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-139.0	CARBONDALE	SPRINGFIELD	COAL	-	630.0
-272.0	CARBONDALE	COLCHESTER	COAL	-	763.0
-966.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1457.0

MAPID: 12101514000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 3N 1E SECTION: 12 QUARTERS/FOOTAGES: NE NW SW
QUADRANGLE: FAIRMAN LONGITUDE: -89.046233 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.713145 DATE COLLECTED: 0 / 0 / 1943
SURFACE ELEVATION (FT.): 492.0 LOGGED (FT.): 1812.0 LOG TYPE:
SOURCE: BRGNDTHL E, SLOAN 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
290.0	BOND	CARTHAGE	LIMESTONE	-	202.0
-91.0	CARBONDALE	HERRIN	COAL	-	583.0

MAPID: 12101514000C VERSION: 2 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 3N 1E SECTION: 12 QUARTERS/FOOTAGES: NE NW SW
QUADRANGLE: FAIRMAN LONGITUDE: -89.046233 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.713145 DATE COLLECTED:
SURFACE ELEVATION (FT.): 492.0 LOGGED (FT.): 632.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
288.0	BOND	CARTHAGE	LIMESTONE	12.0	204.0
177.0	MODESTO	TRIVOLI	SANDSTONE	35.0	315.0
-136.0	CARBONDALE	SPRINGFIELD	COAL	4.0	628.0

MAPID: 12101514000C VERSION: 3 PROJECT: J JOHNSON
COUNTY: MARION TWP/RNG: 3N 1E SECTION: 12 QUARTERS/FOOTAGES: NE NW SW
QUADRANGLE: FAIRMAN LONGITUDE: -89.046233 GEOLOGIST: J JOHNSON
CONFIDENTIAL: N LATITUDE: 38.713145 DATE COLLECTED:
SURFACE ELEVATION (FT.): 488.0 LOGGED (FT.): 1486.0 LOG TYPE: Electric Log
SOURCE: BERGUNDTHAL E J WELL TYPE: Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-134.0	CARBONDALE	SPRINGFIELD	COAL	-	622.0
-268.0	CARBONDALE	COLCHESTER	COAL	-	756.0
-998.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1486.0

MAPID: 12101709000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 3N 1E SECTION: 12 QUARTERS/FOOTAGES: 330' S line, 330' W line of NE
QUADRANGLE: FAIRMAN LONGITUDE: -89.039234 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.714939 DATE COLLECTED:
SURFACE ELEVATION (FT.): 493.0 LOGGED (FT.): 765.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
283.0	BOND	CARTHAGE	LIMESTONE	12.0	210.0
88.0	MODESTO	TRIVOLI	SANDSTONE	65.0	405.0
-89.0	CARBONDALE	HERRIN	COAL	4.0	582.0
-127.0	CARBONDALE	SPRINGFIELD	COAL	4.5	620.0
-200.0	CARBONDALE	HOUCHIN CREEK	COAL	2.0	693.0
-272.0	CARBONDALE	COLCHESTER	COAL	-	765.0

MAPID: 12101709000C VERSION: 2 PROJECT: ROOF STUDY
COUNTY: MARION TWP/RNG: 3N 1E SECTION: 12 QUARTERS/FOOTAGES: 330' S line, 330' W line of NE
QUADRANGLE: FAIRMAN LONGITUDE: -89.039234 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.714939 DATE COLLECTED:
SURFACE ELEVATION (FT.): 493.0 LOGGED (FT.): 586.0 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
-14.0	MODESTO	PIASA	LIMESTONE & SHALE	6.0	507.0
-20.0	MODESTO		SHALE & SANDSTONE	37.0	513.0
-57.0	CARBONDALE	DANVILLE	COAL	2.0	550.0
-59.0	CARBONDALE		SHALE	9.0	552.0
-68.0	CARBONDALE		SHALE	1.0	561.0
-69.0	CARBONDALE		SHALE	1.0	562.0
-70.0	CARBONDALE	BANKSTON FORK	LIMESTONE	6.0	563.0
-76.0	CARBONDALE	BANKSTON FORK	SHALE	5.0	569.0
-81.0	CARBONDALE	BANKSTON FORK	LIMESTONE	3.0	574.0
-84.0	CARBONDALE	LAWSON	SHALE	5.0	577.0
-89.0	CARBONDALE	BRERETON	LIMESTONE	6.0	582.0
-95.0	CARBONDALE	ANNA	BLACK SHALE	2.0	588.0
-88.0	CARBONDALE	HERRIN	COAL	5.0	581.0

MAPID: 12101709000C VERSION: 3 PROJECT: J JOHNSON
COUNTY: MARION TWP/RNG: 3N 1E SECTION: 12 QUARTERS/FOOTAGES: 330' S line, 330' W line of NE
QUADRANGLE: FAIRMAN LONGITUDE: -89.039234 GEOLOGIST: J JOHNSON
CONFIDENTIAL: N LATITUDE: 38.714939 DATE COLLECTED:
SURFACE ELEVATION (FT.): 493.0 LOGGED (FT.): 1513.0 LOG TYPE: Electric Log
SOURCE: HOPKINS, DALE WELL TYPE: Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-128.0	CARBONDALE	SPRINGFIELD	COAL	-	621.0
-273.0	CARBONDALE	COLCHESTER	COAL	-	766.0
-1020.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1513.0

MAPID: 12101454000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 3N 1E SECTION: 13 QUARTERS/FOOTAGES: 330' N line, 330' E line of SW
QUADRANGLE: FAIRMAN LONGITUDE: -89.041595 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.69858 DATE COLLECTED:
SURFACE ELEVATION (FT.): 547.0 LOGGED (FT.): 815.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
289.0	BOND	CARTHAGE	LIMESTONE	9.0	258.0
43.0	MODESTO	TRIVOLI	SANDSTONE	20.0	504.0
-21.0	MODESTO	PIASA	LIMESTONE	5.0	568.0
-53.0	CARBONDALE	DANVILLE	COAL	-	600.0
-82.0	CARBONDALE	HERRIN	COAL	4.0	629.0
-122.0	CARBONDALE	SPRINGFIELD	COAL	3.0	669.0
-191.0	CARBONDALE	HOUCHIN CREEK	COAL	-	738.0
-268.0	CARBONDALE	COLCHESTER	COAL	-	815.0

MAPID: 12101454000C VERSION: 2 PROJECT: ROOF STUDY
COUNTY: MARION TWP/RNG: 3N 1E SECTION: 13 QUARTERS/FOOTAGES: 330' N line, 330' E line of SW
QUADRANGLE: FAIRMAN LONGITUDE: -89.041595 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.69858 DATE COLLECTED:
SURFACE ELEVATION (FT.): 547.0 LOGGED (FT.): 632.5 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
-70.5	CARBONDALE	CONANT	LIMESTONE	2.0	617.5
-72.5	CARBONDALE		SHALE	3.5	619.5
-76.0	CARBONDALE	BRERETON	LIMESTONE	3.5	623.0
-79.5	CARBONDALE	ANNA	BLACK SHALE	2.5	626.5
-82.0	CARBONDALE	HERRIN	COAL	3.5	629.0

MAPID: 12101454000C VERSION: 3 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 3N 1E SECTION: 13 QUARTERS/FOOTAGES: 330' N line, 330' E line of SW
QUADRANGLE: FAIRMAN LONGITUDE: -89.041595 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.69858 DATE COLLECTED: 0 / 0 / 1947
SURFACE ELEVATION (FT.): 547.0 LOGGED (FT.): 2195.0 LOG TYPE:
SOURCE: RUDY J W, TALBERT 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
289.0	BOND	CARTHAGE	LIMESTONE	-	258.0
-81.0	CARBONDALE	HERRIN	COAL	-	628.0

MAPID: 12101454000C VERSION: 4 PROJECT: J JOHNSON

COUNTY: MARION TWP/RNG: 3N 1E SECTION: 13 QUARTERS/FOOTAGES: 330' N line, 330' E line of SW

QUADRANGLE: FAIRMAN LONGITUDE: -89.041595 GEOLOGIST: J JOHNSON

CONFIDENTIAL: N LATITUDE: 38.69858 DATE COLLECTED:

SURFACE ELEVATION (FT.): 547.0 LOGGED (FT.): 1556.0 LOG TYPE: Electric Log

SOURCE: RUDY, J. W. COMPANY WELL TYPE: Oil and Gas Test

COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-125.0	CARBONDALE	SPRINGFIELD	COAL	-	672.0
-267.0	CARBONDALE	COLCHESTER	COAL	-	814.0
-1009.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1556.0

MAPID: 12101278000C VERSION: 1 PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 3N 1E SECTION: 14 QUARTERS/FOOTAGES: 330' S line, 330' W line of NE

QUADRANGLE: FAIRMAN LONGITUDE: -89.05769 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.700423 DATE COLLECTED:

SURFACE ELEVATION (FT.): 543.0 LOGGED (FT.): 663.5 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
303.0	BOND	CARTHAGE	LIMESTONE	11.0	240.0
99.0	MODESTO	TRIVOLI	SANDSTONE	50.0	444.0
-3.0	MODESTO	PIASA	LIMESTONE	11.0	546.0
-73.0	CARBONDALE	HERRIN	COAL	5.0	616.0
-116.0	CARBONDALE	SPRINGFIELD	COAL	4.5	659.0

MAPID: 12101278000C VERSION: 2 PROJECT: ROOF STUDY

COUNTY: MARION TWP/RNG: 3N 1E SECTION: 14 QUARTERS/FOOTAGES: 330' S line, 330' W line of NE

QUADRANGLE: FAIRMAN LONGITUDE: -89.05769 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.700423 DATE COLLECTED:

SURFACE ELEVATION (FT.): 543.0 LOGGED (FT.): 620.0 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
-4.0	MODESTO	PIASA	LIMESTONE & SHALE	10.0	547.0
-14.0	MODESTO		SHALE & SANDSTONE	30.0	557.0
-44.0	CARBONDALE	DANVILLE	COAL	1.5	587.0
-45.5	CARBONDALE		SHALE	3.0	588.5
-48.5	CARBONDALE		SHALE	1.0	591.5
-49.5	CARBONDALE		SHALE	0.5	592.5
-50.0	CARBONDALE	BANKSTON FORK	LIMESTONE	4.0	593.0
-54.0	CARBONDALE	BANKSTON FORK	SHALE	3.0	597.0
-57.0	CARBONDALE	BANKSTON FORK	LIMESTONE	3.0	600.0
-60.0	CARBONDALE	LAWSON	SHALE	3.5	603.0
-63.5	CARBONDALE	BRERETON	LIMESTONE	8.5	606.5
-72.0	CARBONDALE	ANNA	BLACK SHALE	2.0	615.0
-73.0	CARBONDALE	HERRIN	COAL	4.0	616.0

MAPID: 12101278000C VERSION: 3 PROJECT: CIRC 164

COUNTY: MARION TWP/RNG: 3N 1E SECTION: 14 QUARTERS/FOOTAGES: 330' S line, 330' W line of NE

QUADRANGLE: FAIRMAN LONGITUDE: -89.05769 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.700423 DATE COLLECTED: 0 / 0 / 1942

SURFACE ELEVATION (FT.): 543.0 LOGGED (FT.): 1832.0 LOG TYPE:

SOURCE: CAMERON OC, HILL C C 1 WELL TYPE: Oil and Gas Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
305.0	BOND	CARTHAGE	LIMESTONE	-	238.0
-73.0	CARBONDALE	HERRIN	COAL	-	616.0

MAPID: 12101278000C VERSION: 4 PROJECT: J JOHNSON
COUNTY: MARION TWP/RNG: 3N 1E SECTION: 14 QUARTERS/FOOTAGES: 330' S line, 330' W line of NE
QUADRANGLE: FAIRMAN LONGITUDE: -89.05769 GEOLOGIST: J JOHNSON
CONFIDENTIAL: N LATITUDE: 38.700423 DATE COLLECTED:
SURFACE ELEVATION (FT.): 543.0 LOGGED (FT.): 1506.0 LOG TYPE: Electric Log
SOURCE: CAMERON OIL CO. WELL TYPE: Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-117.0	CARBONDALE	SPRINGFIELD	COAL	-	660.0
-262.0	CARBONDALE	COLCHESTER	COAL	-	805.0
-963.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1506.0

MAPID: 12101296000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 3N 1E SECTION: 14 QUARTERS/FOOTAGES: NE NW NE
QUADRANGLE: FAIRMAN LONGITUDE: -89.055469 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.705856 DATE COLLECTED: 0 / 0 / 1943
SURFACE ELEVATION (FT.): 544.0 LOGGED (FT.): 3344.0 LOG TYPE:
SOURCE: SHELL OC, SUGG HEIRS 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
310.0	BOND	CARTHAGE	LIMESTONE	-	234.0
-72.0	CARBONDALE	HERRIN	COAL	-	616.0

MAPID: 12125847000C VERSION: 1 PROJECT: J JOHNSON
COUNTY: MARION TWP/RNG: 3N 1E SECTION: 14 QUARTERS/FOOTAGES: 330' N line, 330' W line of SE SE
QUADRANGLE: FAIRMAN LONGITUDE: -89.05312 GEOLOGIST: J JOHNSON
CONFIDENTIAL: N LATITUDE: 38.69497 DATE COLLECTED:
SURFACE ELEVATION (FT.): 549.0 LOGGED (FT.): 822.0 LOG TYPE: Electric Log
SOURCE: EGO OIL COMPANY WELL TYPE: Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-121.0	CARBONDALE	SPRINGFIELD	COAL	-	670.0
-273.0	CARBONDALE	COLCHESTER	COAL	-	822.0

MAPID: 12101710000C VERSION: 1 PROJECT: J JOHNSON

COUNTY: MARION TWP/RNG: 3N 1E SECTION: 15 QUARTERS/FOOTAGES: 330' N line, 330' E line

QUADRANGLE: FAIRMAN LONGITUDE: -89.069157 GEOLOGIST: J JOHNSON

CONFIDENTIAL: N LATITUDE: 38.705872 DATE COLLECTED:

SURFACE ELEVATION (FT.): 510.0 LOGGED (FT.): 1427.0 LOG TYPE: Electric Log

SOURCE: DORAN PAUL EST WELL TYPE: Oil and Gas Test

COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-96.0	CARBONDALE	SPRINGFIELD	COAL	-	606.0
-232.0	CARBONDALE	COLCHESTER	COAL	-	742.0
-917.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1427.0

MAPID: 12101710000C VERSION: 2 PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 3N 1E SECTION: 15 QUARTERS/FOOTAGES: 330' N line, 330' E line

QUADRANGLE: FAIRMAN LONGITUDE: -89.069157 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.705872 DATE COLLECTED:

SURFACE ELEVATION (FT.): 510.0 LOGGED (FT.): 745.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
331.0	BOND	CARTHAGE	LIMESTONE	12.0	179.0
83.0	MODESTO	TRIVOLI	SANDSTONE	21.0	427.0
-52.0	CARBONDALE	HERRIN	COAL	4.5	562.0
-95.0	CARBONDALE	SPRINGFIELD	COAL	3.5	605.0
-160.0	CARBONDALE	HOUCHIN CREEK	COAL	-	670.0
-235.0	CARBONDALE	COLCHESTER	COAL	-	745.0

MAPID: 12101843000C VERSION: 1 PROJECT: ROOF STUDY
COUNTY: MARION TWP/RNG: 3N 1E SECTION: 16 QUARTERS/FOOTAGES: 2310' N line, 990' E line
QUADRANGLE: FAIRMAN LONGITUDE: -89.08997 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.700348 DATE COLLECTED:
SURFACE ELEVATION (FT.): 488.0 LOGGED (FT.): 493.0 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
30.0	MODESTO	PIASA	LIMESTONE	5.0	458.0
25.0	MODESTO		SHALE	5.0	463.0
20.0	CARBONDALE	BANKSTON FORK	LIMESTONE	6.5	468.0
13.5	CARBONDALE	LAWSON	SHALE	3.5	474.5
10.0	CARBONDALE	BRERETON	LIMESTONE	5.5	478.0
4.5	CARBONDALE	ANNA	BLACK SHALE	3.5	483.5
1.0	CARBONDALE	HERRIN	COAL	6.0	487.0

MAPID: 12101908000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 3N 1E SECTION: 16 QUARTERS/FOOTAGES: 330' N line, 330' W line of SW SW NE
QUADRANGLE: FAIRMAN LONGITUDE: -89.094592 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.700373 DATE COLLECTED:
SURFACE ELEVATION (FT.): 486.0 LOGGED (FT.): 674.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
378.0	BOND	CARTHAGE	LIMESTONE	9.0	108.0
26.0	CARBONDALE	DANVILLE	COAL	2.5	460.0
-4.0	CARBONDALE	HERRIN	COAL	-	490.0
-45.0	CARBONDALE	SPRINGFIELD	COAL	3.0	531.0
-105.0	CARBONDALE	HOUCHIN CREEK	COAL	-	591.0
-188.0	CARBONDALE	COLCHESTER	COAL	-	674.0

MAPID: 12100008000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 3N 1E SECTION: 17 QUARTERS/FOOTAGES: SE SE NE
QUADRANGLE: FAIRMAN LONGITUDE: -89.106169 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.700402 DATE COLLECTED: 0 / 0 / 1900
SURFACE ELEVATION (FT.): 516.0 LOGGED (FT.): 1736.0 LOG TYPE:
SOURCE: CASEY F J, GERRISH W WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
376.0	BOND	CARTHAGE	LIMESTONE	-	140.0
-54.0	CARBONDALE	HERRIN	COAL	-	570.0

MAPID: 12100664000C **VERSION:** 1 **PROJECT:** CIRC 164
COUNTY: MARION **TWP/RNG:** 3N 1E **SECTION:** 17 **QUARTERS/FOOTAGES:** 2310' S line, 330' W line
QUADRANGLE: FAIRMAN **LONGITUDE:** -89.122173 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.698672 **DATE COLLECTED:** 0 / 0 / 1941
SURFACE ELEVATION (FT.): 480.0 **LOGGED (FT.):** 1494.0 **LOG TYPE:**
SOURCE: ILL ROYLTY, BROWN F L 1 **WELL TYPE:** Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
362.0	BOND	CARTHAGE	LIMESTONE	-	118.0
-10.0	CARBONDALE	HERRIN	COAL	-	490.0

MAPID: 12100664000C **VERSION:** 2 **PROJECT:** ROOF STUDY
COUNTY: MARION **TWP/RNG:** 3N 1E **SECTION:** 17 **QUARTERS/FOOTAGES:** 2310' S line, 330' W line
QUADRANGLE: FAIRMAN **LONGITUDE:** -89.122173 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.698672 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 480.0 **LOGGED (FT.):** 494.5 **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
58.0	MODESTO	PIASA	LIMESTONE & SHALE	7.5	422.0
50.5	MODESTO		SHALE	11.0	429.5
39.5	CARBONDALE	DANVILLE	COAL	0.5	440.5
39.0	CARBONDALE		SHALE	6.0	441.0
33.0	CARBONDALE		SANDSTONE	7.5	447.0
25.5	CARBONDALE	ALLENBY	COAL	0.5	454.5
25.0	CARBONDALE		SHALE	9.0	455.0
16.0	CARBONDALE	BANKSTON FORK	LIMESTONE	2.0	464.0
14.0	CARBONDALE	BANKSTON FORK	SHALE	4.0	466.0
10.0	CARBONDALE	BANKSTON FORK	LIMESTONE	5.0	470.0
5.0	CARBONDALE	LAWSON	SHALE	4.0	475.0
1.0	CARBONDALE	CONANT	LIMESTONE	2.5	479.0
-1.5	CARBONDALE		SHALE	1.5	481.5
-3.0	CARBONDALE	BRERETON	LIMESTONE	4.0	483.0
-7.0	CARBONDALE	ANNA	BLACK SHALE	3.5	487.0
-10.0	CARBONDALE	HERRIN	COAL	4.5	490.0

MAPID: 12104665000C VERSION: 1 PROJECT: J JOHNSON
COUNTY: MARION TWP/RNG: 3N 1E SECTION: 17 QUARTERS/FOOTAGES: 330' S line, 330' W line of NE NE
QUADRANGLE: FAIRMAN LONGITUDE: -89.108417 GEOLOGIST: J JOHNSON
CONFIDENTIAL: N LATITUDE: 38.70404 DATE COLLECTED:
SURFACE ELEVATION (FT.): 511.0 LOGGED (FT.): 1321.0 LOG TYPE: Electric Log
SOURCE: INLAND OIL CO WELL TYPE: Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-67.0	CARBONDALE	SPRINGFIELD	COAL	-	578.0
-183.0	CARBONDALE	COLCHESTER	COAL	-	694.0
-810.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1321.0

MAPID: 12104665000C VERSION: 2 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 3N 1E SECTION: 17 QUARTERS/FOOTAGES: 330' S line, 330' W line of NE NE
QUADRANGLE: FAIRMAN LONGITUDE: -89.108417 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.70404 DATE COLLECTED:
SURFACE ELEVATION (FT.): 512.0 LOGGED (FT.): 578.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
357.0	BOND	CARTHAGE	LIMESTONE	11.0	155.0
-14.0	CARBONDALE	HERRIN	COAL	-	526.0
-62.0	CARBONDALE	SPRINGFIELD	COAL	4.0	574.0

MAPID: 12100667000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 3N 1E SECTION: 18 QUARTERS/FOOTAGES: SW NE NE
QUADRANGLE: BOULDER LONGITUDE: -89.126756 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.70412 DATE COLLECTED: 0 / 0 / 1937
SURFACE ELEVATION (FT.): 473.0 LOGGED (FT.): 1706.0 LOG TYPE:
SOURCE: SHELL PET, LUTZ 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
383.0	BOND	CARTHAGE	LIMESTONE	-	90.0
-17.0	CARBONDALE	HERRIN	COAL	-	490.0

MAPID: 12100668000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 3N 1E SECTION: 18 QUARTERS/FOOTAGES: NW NW SE
QUADRANGLE: BOULDER LONGITUDE: -89.131473 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.698713 DATE COLLECTED: 0 / 0 / 1939
SURFACE ELEVATION (FT.): 463.0 LOGGED (FT.): 1442.0 LOG TYPE:
SOURCE: SHELL OC, LUTZ FRED 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
355.0	BOND	CARTHAGE	LIMESTONE	-	108.0	
-13.0	CARBONDALE	HERRIN	COAL	-	476.0	

MAPID: 12100669000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 3N 1E SECTION: 18 QUARTERS/FOOTAGES: NW NW NE
QUADRANGLE: BOULDER LONGITUDE: -89.131383 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.705981 DATE COLLECTED: 0 / 0 / 1941
SURFACE ELEVATION (FT.): 466.0 LOGGED (FT.): 1443.0 LOG TYPE:
SOURCE: RUWALDT E, MASON J 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
351.0	BOND	CARTHAGE	LIMESTONE	-	115.0	
-19.0	CARBONDALE	HERRIN	COAL	-	485.0	

MAPID: 12101189000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 3N 1E SECTION: 18 QUARTERS/FOOTAGES: NE NW SW
QUADRANGLE: BOULDER LONGITUDE: -89.135831 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.698746 DATE COLLECTED: 0 / 0 / 1939
SURFACE ELEVATION (FT.): 473.0 LOGGED (FT.): 1442.0 LOG TYPE:
SOURCE: SHELL OC, AHLF W 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-19.0	CARBONDALE	HERRIN	COAL	-	492.0	

MAPID: 12101773000C VERSION: 1 PROJECT: J JOHNSON
COUNTY: MARION TWP/RNG: 3N 1E SECTION: 18 QUARTERS/FOOTAGES: 330' N line, 825' W line of SW NE
QUADRANGLE: BOULDER LONGITUDE: -89.129686 GEOLOGIST: J JOHNSON
CONFIDENTIAL: N LATITUDE: 38.702329 DATE COLLECTED:
SURFACE ELEVATION (FT.): 470.0 LOGGED (FT.): 2884.0 LOG TYPE: Electric Log
SOURCE: NAT'L. ASSOC. PETRO. CO. WELL TYPE: Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-60.0	CARBONDALE	SPRINGFIELD	COAL	-	530.0	
-191.0	CARBONDALE	COLCHESTER	COAL	-	661.0	
-807.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1277.0	
-2334.0	DEVONIAN	UPPER DEVONIAN S	UNCLASSIFIED	-	2804.0	TOP OF NEW ALBANY
-2356.0	DEVONIAN	GRASSY CREEK	UNCLASSIFIED	-	2826.0	
-2414.0	DEVONIAN	BASE UPPER DEVON	UNCLASSIFIED	-	2884.0	BASE OF NEW ALBANY

MAPID: 12101802000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 3N 1E SECTION: 18 QUARTERS/FOOTAGES: 990' N line, 660' W line of SE
QUADRANGLE: BOULDER LONGITUDE: -89.130334 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.696879 DATE COLLECTED:
SURFACE ELEVATION (FT.): 472.0 LOGGED (FT.): 680.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
348.0	BOND	CARTHAGE	LIMESTONE	10.0	124.0	
-17.0	CARBONDALE	HERRIN	COAL	4.0	489.0	
-56.0	CARBONDALE	SPRINGFIELD	COAL	4.0	528.0	
-108.0	CARBONDALE	HOUCHIN CREEK	COAL	-	580.0	
-208.0	CARBONDALE	COLCHESTER	COAL	-	680.0	

MAPID: 12101802000C VERSION: 2

PROJECT: BLM

COUNTY: MARION TWP/RNG: 3N 1E SECTION: 18 QUARTERS/FOOTAGES: 990' N line, 660' W line of SE
QUADRANGLE: BOULDER LONGITUDE: -89.130334 GEOLOGIST: TREWORY,J
CONFIDENTIAL: N LATITUDE: 38.696879 DATE COLLECTED: 2 / 0 / 1958
SURFACE ELEVATION (FT.): 472.0 LOGGED (FT.): 680.0 LOG TYPE: Electric Log
SOURCE: NATIONAL ASSOC. PETROLEUM CO. WELL TYPE: Oil and Gas Test
COMMENT: CORRELATED BY C. TREWORY

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
472.0			UNKNOWN	489.0	0.0
-17.0	CARBONDALE	HERRIN	COAL	4.0	489.0
-21.0	CARBONDALE		ROCK	35.0	493.0
-56.0	CARBONDALE	SPRINGFIELD	COAL	4.0	528.0
-60.0	CARBONDALE		ROCK	48.0	532.0
-108.0	CARBONDALE	HOUCHIN CREEK	COAL	-	580.0
-108.0	CARBONDALE		ROCK	100.0	580.0
-208.0	CARBONDALE	COLCHESTER	COAL	-	680.0

MAPID: 12104670000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: MARION TWP/RNG: 3N 1E SECTION: 18 QUARTERS/FOOTAGES: 330' N line, 330' E line
QUADRANGLE: FAIRMAN LONGITUDE: -89.124407 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.705909 DATE COLLECTED:
SURFACE ELEVATION (FT.): 476.0 LOGGED (FT.): 494.0 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
55.0	MODESTO	PIASA	LIMESTONE & SHALE	5.5	421.0
49.5	MODESTO		SILTY SHALE	14.0	426.5
35.5	CARBONDALE		SHALE	7.0	440.5
28.5	CARBONDALE		SHALE	6.0	447.5
22.5	CARBONDALE		SHALE	7.0	453.5
15.5	CARBONDALE	BANKSTON FORK	LIMESTONE	4.0	460.5
11.5	CARBONDALE	BANKSTON FORK	SHALE	3.0	464.5
8.5	CARBONDALE	BANKSTON FORK	LIMESTONE	4.0	467.5
4.5	CARBONDALE	LAWSON	SHALE	4.0	471.5
0.5	CARBONDALE	CONANT	LIMESTONE	2.5	475.5
-2.0	CARBONDALE		SHALE	2.5	478.0
-4.5	CARBONDALE	BRERETON	LIMESTONE	5.0	480.5
-9.5	CARBONDALE	ANNA	BLACK SHALE	3.0	485.5
-13.0	CARBONDALE	HERRIN	COAL	5.0	489.0

MAPID: 12100674000C **VERSION:** 1 **PROJECT:** J JOHNSON
COUNTY: MARION **TWP/RNG:** 3N 1E **SECTION:** 20 **QUARTERS/FOOTAGES:** 334' N line, 330' W line of SW NW
QUADRANGLE: FAIRMAN **LONGITUDE:** -89.12227 **GEOLOGIST:** J JOHNSON
CONFIDENTIAL: N **LATITUDE:** 38.687756 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 510.0 **LOGGED (FT.):** 1347.0 **LOG TYPE:** Electric Log
SOURCE: BORAH, OTTO E. **WELL TYPE:** Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-94.0	CARBONDALE	SPRINGFIELD	COAL	-	604.0	
-223.0	CARBONDALE	COLCHESTER	COAL	-	733.0	
-837.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1347.0	

MAPID: 12101766000C **VERSION:** 1 **PROJECT:** CGT-ECILL
COUNTY: MARION **TWP/RNG:** 3N 1E **SECTION:** 21 **QUARTERS/FOOTAGES:** 330' N line, 330' E line of NW
QUADRANGLE: FAIRMAN **LONGITUDE:** -89.096898 **GEOLOGIST:** C TREWORGY
CONFIDENTIAL: N **LATITUDE:** 38.691298 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 478.0 **LOGGED (FT.):** 674.0 **LOG TYPE:** Electric Log
SOURCE: **WELL TYPE:** Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
360.0	BOND	CARTHAGE	LIMESTONE	10.0	118.0	
-55.0	CARBONDALE	SPRINGFIELD	COAL	3.5	533.0	
-196.0	CARBONDALE	COLCHESTER	COAL	-	674.0	

MAPID: 12101834000C **VERSION:** 1 **PROJECT:** J JOHNSON
COUNTY: MARION **TWP/RNG:** 3N 1E **SECTION:** 21 **QUARTERS/FOOTAGES:** 330' N line, 990' E line
QUADRANGLE: FAIRMAN **LONGITUDE:** -89.089923 **GEOLOGIST:** J JOHNSON
CONFIDENTIAL: N **LATITUDE:** 38.691282 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 521.0 **LOGGED (FT.):** 3033.0 **LOG TYPE:** Electric Log
SOURCE: VANDENBARK JAMES H **WELL TYPE:** Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-50.0	CARBONDALE	SPRINGFIELD	COAL	-	571.0	
-193.0	CARBONDALE	COLCHESTER	COAL	-	714.0	
-813.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1334.0	
-2423.0	DEVONIAN	UPPER DEVONIAN S	UNCLASSIFIED	-	2944.0	TOP OF NEW ALBANY
-2440.0	DEVONIAN	GRASSY CREEK	UNCLASSIFIED	-	2961.0	
-2512.0	DEVONIAN	BASE UPPER DEVON	UNCLASSIFIED	-	3033.0	BASE OF NEW ALBANY

MAPID: 12101834000C VERSION: 2 PROJECT: ROOF STUDY

COUNTY: MARION TWP/RNG: 3N 1E SECTION: 21 QUARTERS/FOOTAGES: 330' N line, 990' E line

QUADRANGLE: FAIRMAN LONGITUDE: -89.089923 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.691282 DATE COLLECTED:

SURFACE ELEVATION (FT.): 531.0 LOGGED (FT.): 542.5 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
50.0	MODESTO	PIASA	LIMESTONE & SHALE	2.0	481.0
48.0	MODESTO		SHALE	19.0	483.0
29.0	CARBONDALE	DANVILLE	COAL	2.0	502.0
27.0	CARBONDALE		SHALE	6.0	504.0
21.0	CARBONDALE		SHALE	2.0	510.0
19.0	CARBONDALE	ALLENBY	COAL	2.0	512.0
17.0	CARBONDALE		SHALE	4.5	514.0
12.5	CARBONDALE	BANKSTON FORK	LIMESTONE	3.5	518.5
9.0	CARBONDALE	LAWSON	SHALE	4.0	522.0
5.0	CARBONDALE	CONANT	LIMESTONE	2.5	526.0
2.5	CARBONDALE		SHALE	1.5	528.5
1.0	CARBONDALE	BRERETON	LIMESTONE	6.5	530.0
-5.5	CARBONDALE	ANNA	BLACK SHALE	3.0	536.5
-8.0	CARBONDALE	HERRIN	COAL	3.5	539.0

MAPID: 12101666000C VERSION: 1 PROJECT: J JOHNSON

COUNTY: MARION TWP/RNG: 3N 1E SECTION: 22 QUARTERS/FOOTAGES: 330' N line, 1180' W line

QUADRANGLE: FAIRMAN LONGITUDE: -89.082279 GEOLOGIST: J JOHNSON

CONFIDENTIAL: N LATITUDE: 38.691288 DATE COLLECTED:

SURFACE ELEVATION (FT.): 530.0 LOGGED (FT.): 1378.0 LOG TYPE: Electric Log

SOURCE: PATTERSON B A WELL TYPE: Oil and Gas Test

COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-57.0	CARBONDALE	SPRINGFIELD	COAL	-	587.0
-215.0	CARBONDALE	COLCHESTER	COAL	-	745.0
-848.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1378.0

MAPID: 12101666000C VERSION: 2 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 3N 1E SECTION: 22 QUARTERS/FOOTAGES: 330' N line, 1180' W line
QUADRANGLE: FAIRMAN LONGITUDE: -89.082279 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.691288 DATE COLLECTED:
SURFACE ELEVATION (FT.): 532.0 LOGGED (FT.): 583.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: POOR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
357.0	BOND	CARTHAGE	LIMESTONE	10.0	175.0
-48.0	CARBONDALE	SPRINGFIELD	COAL	3.0	580.0

MAPID: 12101455000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 3N 1E SECTION: 25 QUARTERS/FOOTAGES: 330' S line, 360' W line of NW SW
QUADRANGLE: FAIRMAN LONGITUDE: -89.048509 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.667808 DATE COLLECTED:
SURFACE ELEVATION (FT.): 539.0 LOGGED (FT.): 856.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
247.0	BOND	CARTHAGE	LIMESTONE	10.0	292.0
-131.0	CARBONDALE	HERRIN	COAL	3.0	670.0
-173.0	CARBONDALE	SPRINGFIELD	COAL	4.0	712.0
-243.0	CARBONDALE	HOUCHIN CREEK	COAL	-	782.0
-317.0	CARBONDALE	COLCHESTER	COAL	-	856.0

MAPID: 12101455000C VERSION: 2 PROJECT: ROOF STUDY

COUNTY: MARION TWP/RNG: 3N 1E SECTION: 25 QUARTERS/FOOTAGES: 330' S line, 360' W line of NW SW

QUADRANGLE: FAIRMAN LONGITUDE: -89.048509 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.667808 DATE COLLECTED:

SURFACE ELEVATION (FT.): 539.0 LOGGED (FT.): 673.0 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
-74.0	MODESTO	PIASA	LIMESTONE	4.5	613.0
-78.5	MODESTO		SHALE & SANDSTONE	14.5	617.5
-93.0	CARBONDALE	DANVILLE	COAL	1.0	632.0
-94.0	CARBONDALE		SHALE	6.0	633.0
-100.0	CARBONDALE		SHALE	2.0	639.0
-102.0	CARBONDALE	ALLENBY	COAL	1.5	641.0
-103.5	CARBONDALE		SHALE	4.0	642.5
-107.5	CARBONDALE	BANKSTON FORK	LIMESTONE	2.5	646.5
-110.0	CARBONDALE	BANKSTON FORK	SHALE	2.0	649.0
-112.0	CARBONDALE	BANKSTON FORK	LIMESTONE	2.5	651.0
-114.5	CARBONDALE	LAWSON	SHALE	3.5	653.5
-118.0	CARBONDALE	CONANT	LIMESTONE	3.0	657.0
-121.0	CARBONDALE		SHALE	3.5	660.0
-124.5	CARBONDALE	BRERETON	LIMESTONE	4.0	663.5
-128.5	CARBONDALE	ANNA	BLACK SHALE	2.0	667.5
-131.0	CARBONDALE	HERRIN	COAL	3.0	670.0

MAPID: 12101455000C VERSION: 3 PROJECT: CIRC 164

COUNTY: MARION TWP/RNG: 3N 1E SECTION: 25 QUARTERS/FOOTAGES: 330' S line, 360' W line of NW SW

QUADRANGLE: FAIRMAN LONGITUDE: -89.048509 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.667808 DATE COLLECTED: 0 / 0 / 1947

SURFACE ELEVATION (FT.): 536.0 LOGGED (FT.): 1805.0 LOG TYPE:

SOURCE: DORAN PAUL, CHARLTON WELL TYPE: Oil and Gas Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
248.0	BOND	CARTHAGE	LIMESTONE	-	288.0
-130.0	CARBONDALE	HERRIN	COAL	-	666.0

MAPID: 12101456000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 3N 1E SECTION: 26 QUARTERS/FOOTAGES: 330' S line, 330' E line of NW
QUADRANGLE: FAIRMAN LONGITUDE: -89.059995 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.671383 DATE COLLECTED:
SURFACE ELEVATION (FT.): 542.0 LOGGED (FT.): 686.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
270.0	BOND	CARTHAGE	LIMESTONE	10.0	272.0
-103.0	CARBONDALE	HERRIN	COAL	3.0	645.0
-140.0	CARBONDALE	SPRINGFIELD	COAL	4.0	682.0

MAPID: 12101456000C VERSION: 2 PROJECT: ROOF STUDY
COUNTY: MARION TWP/RNG: 3N 1E SECTION: 26 QUARTERS/FOOTAGES: 330' S line, 330' E line of NW
QUADRANGLE: FAIRMAN LONGITUDE: -89.059995 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.671383 DATE COLLECTED:
SURFACE ELEVATION (FT.): 542.0 LOGGED (FT.): 648.5 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
-46.0	MODESTO	PIASA	LIMESTONE & SHALE	6.0	588.0
-52.0	MODESTO		SHALE	12.5	594.0
-64.5	CARBONDALE	DANVILLE	COAL	1.5	606.5
-66.0	CARBONDALE		SHALE	7.5	608.0
-73.5	CARBONDALE		SHALE	2.0	615.5
-75.5	CARBONDALE	ALLENBY	COAL	1.0	617.5
-76.5	CARBONDALE		SHALE	5.5	618.5
-82.0	CARBONDALE	BANKSTON FORK	LIMESTONE	2.5	624.0
-84.5	CARBONDALE	BANKSTON FORK	SHALE	2.5	626.5
-87.0	CARBONDALE	BANKSTON FORK	LIMESTONE	3.0	629.0
-90.0	CARBONDALE	LAWSON	SHALE	6.0	632.0
-96.0	CARBONDALE	BRERETON	LIMESTONE	5.5	638.0
-101.5	CARBONDALE	ANNA	BLACK SHALE	2.5	643.5
-104.0	CARBONDALE	HERRIN	COAL	2.5	646.0

MAPID: 12101456000C VERSION: 3 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 3N 1E SECTION: 26 QUARTERS/FOOTAGES: 330' S line, 330' E line of NW
QUADRANGLE: FAIRMAN LONGITUDE: -89.059995 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.671383 DATE COLLECTED: 0 / 0 / 1945
SURFACE ELEVATION (FT.): 542.0 LOGGED (FT.): 2012.0 LOG TYPE:
SOURCE: RYAN OC, GALBRETH A 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
271.0	BOND	CARTHAGE	LIMESTONE	-	271.0
-100.0	CARBONDALE	HERRIN	COAL	-	642.0

MAPID: 12101456000C VERSION: 4 PROJECT: J JOHNSON
COUNTY: MARION TWP/RNG: 3N 1E SECTION: 26 QUARTERS/FOOTAGES: 330' S line, 330' E line of NW
QUADRANGLE: FAIRMAN LONGITUDE: -89.059995 GEOLOGIST: J JOHNSON
CONFIDENTIAL: N LATITUDE: 38.671383 DATE COLLECTED:
SURFACE ELEVATION (FT.): 542.0 LOGGED (FT.): 1584.0 LOG TYPE: Electric Log
SOURCE: RYAN OIL CO., ETAL WELL TYPE: Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-150.0	CARBONDALE	SPRINGFIELD	COAL	-	692.0
-292.0	CARBONDALE	COLCHESTER	COAL	-	834.0
-1042.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1584.0

MAPID: 12100675000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 3N 1E SECTION: 27 QUARTERS/FOOTAGES: SW SW NE
QUADRANGLE: FAIRMAN LONGITUDE: -89.075984 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.671335 DATE COLLECTED: 0 / 0 / 1900
SURFACE ELEVATION (FT.): 531.0 LOGGED (FT.): 2280.0 LOG TYPE:
SOURCE: ODIN OC, SEBASTIAN 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
275.0	BOND	CARTHAGE	LIMESTONE	-	256.0
-112.0	CARBONDALE	HERRIN	COAL	-	643.0

MAPID: 12100967000C VERSION: 1 PROJECT: CIRC 164

COUNTY: MARION TWP/RNG: 3N 1E SECTION: 27 QUARTERS/FOOTAGES: SE NW SW

QUADRANGLE: FAIRMAN LONGITUDE: -89.082964 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.667716 DATE COLLECTED: 0 / 0 / 1941

SURFACE ELEVATION (FT.): 528.0 LOGGED (FT.): 712.0 LOG TYPE:

SOURCE: DUNBAR P, TESHNER 1 WELL TYPE: Oil and Gas Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-110.0	CARBONDALE	HERRIN	COAL	-	638.0

MAPID: 12100677000C VERSION: 1 PROJECT: CIRC 164

COUNTY: MARION TWP/RNG: 3N 1E SECTION: 28 QUARTERS/FOOTAGES: NW NW SW

QUADRANGLE: FAIRMAN LONGITUDE: -89.103878 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.66952 DATE COLLECTED: 0 / 0 / 1940

SURFACE ELEVATION (FT.): 522.0 LOGGED (FT.): 1593.0 LOG TYPE:

SOURCE: KREIGH C H, KERWIN T 1 WELL TYPE: Oil and Gas Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
295.0	BOND	CARTHAGE	LIMESTONE	-	227.0
-75.0	CARBONDALE	HERRIN	COAL	-	597.0

MAPID: 12101711000C **VERSION:** 1 **PROJECT:** ROOF STUDY
COUNTY: MARION **TWP/RNG:** 3N 1E **SECTION:** 29 **QUARTERS/FOOTAGES:** 1650' N line, 2310' W line
QUADRANGLE: FAIRMAN **LONGITUDE:** -89.115398 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.673244 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 518.0 **LOGGED (FT.):** 607.5 **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
-21.0	MODESTO	PIASA	LIMESTONE & SHALE	3.0	539.0
-24.0	MODESTO		SHALE & SANDSTONE	20.0	542.0
-44.0	CARBONDALE	DANVILLE	COAL	2.3	562.0
-46.3	CARBONDALE		SHALE	5.0	564.3
-51.3	CARBONDALE		SHALE	2.0	569.3
-53.3	CARBONDALE		SHALE	3.0	571.3
-56.3	CARBONDALE	BANKSTON FORK	LIMESTONE	2.3	574.3
-58.5	CARBONDALE	BANKSTON FORK	SHALE	2.3	576.5
-60.8	CARBONDALE	BANKSTON FORK	LIMESTONE	4.5	578.8
-65.3	CARBONDALE	LAWSON	SHALE	3.0	583.3
-68.3	CARBONDALE	CONANT	LIMESTONE	2.3	586.3
-70.5	CARBONDALE		SHALE	3.0	588.5
-73.5	CARBONDALE	BRERETON	LIMESTONE	5.0	591.5
-78.5	CARBONDALE	ANNA	SHALE	5.0	596.5
-86.0	CARBONDALE	HERRIN	COAL	3.5	604.0

MAPID: 12101894000C **VERSION:** 1 **PROJECT:** J JOHNSON
COUNTY: MARION **TWP/RNG:** 3N 1E **SECTION:** 29 **QUARTERS/FOOTAGES:** 330' S line, 330' E line of NE NW
QUADRANGLE: FAIRMAN **LONGITUDE:** -89.115424 **GEOLOGIST:** J JOHNSON
CONFIDENTIAL: N **LATITUDE:** 38.675058 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 522.0 **LOGGED (FT.):** 3016.0 **LOG TYPE:** Electric Log
SOURCE: V S & S DRLG CO, INC **WELL TYPE:** Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-106.0	CARBONDALE	SPRINGFIELD	COAL	-	628.0
-218.0	CARBONDALE	COLCHESTER	COAL	-	740.0
-854.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1376.0
-2413.0	DEVONIAN	UPPER DEVONIAN S	UNCLASSIFIED	-	2935.0 TOP OF NEW ALBANY
-2432.0	DEVONIAN	GRASSY CREEK	UNCLASSIFIED	-	2954.0
-2494.0	DEVONIAN	BASE UPPER DEVON	UNCLASSIFIED	-	3016.0 BASE OF NEW ALBANY

MAPID: 12101712000C VERSION: 1

PROJECT: BLM

COUNTY: MARION TWP/RNG: 3N 1E SECTION: 30 QUARTERS/FOOTAGES: 330' N line, 330' E line of SE SW
QUADRANGLE: BOULDER LONGITUDE: -89.132586 GEOLOGIST: TREWORGY,J
CONFIDENTIAL: N LATITUDE: 38.666119 DATE COLLECTED: 10 / 0 / 1951
SURFACE ELEVATION (FT.): 514.0 LOGGED (FT.): 760.0 LOG TYPE: Electric Log
SOURCE: SANDERS-FYE DRILLING CO. WELL TYPE: Oil and Gas Test
COMMENT: CORRELATED BY C. TREWORGY

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
514.0			UNKNOWN	565.0	0.0
-51.0	CARBONDALE	DANVILLE	COAL	2.5	565.0
-53.5	CARBONDALE		ROCK	23.5	567.5
-77.0	CARBONDALE	HERRIN	COAL	5.0	591.0
-82.0	CARBONDALE		ROCK	31.0	596.0
-113.0	CARBONDALE	SPRINGFIELD	COAL	4.0	627.0
-117.0	CARBONDALE		ROCK	57.0	631.0
-174.0	CARBONDALE	HOUCHIN CREEK	COAL	-	688.0
-174.0	CARBONDALE		ROCK	72.0	688.0
-246.0	CARBONDALE	COLCHESTER	COAL	-	760.0

MAPID: 12101712000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: MARION TWP/RNG: 3N 1E SECTION: 30 QUARTERS/FOOTAGES: 330' N line, 330' E line of SE SW
QUADRANGLE: BOULDER LONGITUDE: -89.132586 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.666119 DATE COLLECTED:
SURFACE ELEVATION (FT.): 514.0 LOGGED (FT.): 596.0 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
-25.0	MODESTO	PIASA	LIMESTONE	5.0	539.0
-30.0	MODESTO		SHALE	5.0	544.0
-35.0	CARBONDALE	DANVILLE	COAL	1.3	549.0
-36.3	CARBONDALE		SHALE	10.0	550.3
-46.3	CARBONDALE		SHALE	5.0	560.3
-51.3	CARBONDALE	ALLENBY	COAL	2.0	565.3
-53.3	CARBONDALE		SHALE	4.0	567.3
-57.3	CARBONDALE	BANKSTON FORK	LIMESTONE	1.5	571.3
-58.8	CARBONDALE	BANKSTON FORK	SHALE	2.0	572.8
-60.8	CARBONDALE	BANKSTON FORK	LIMESTONE	1.5	574.8
-62.3	CARBONDALE	LAWSON	SHALE	2.5	576.3
-64.8	CARBONDALE	CONANT	LIMESTONE	1.0	578.8
-65.8	CARBONDALE		SHALE	2.5	579.8
-68.3	CARBONDALE	BRERETON	LIMESTONE	6.0	582.3
-74.3	CARBONDALE	ANNA	SHALE	2.3	588.3
-78.0	CARBONDALE	HERRIN	COAL	4.0	592.0

MAPID: 12101712000C VERSION: 3

PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 3N 1E SECTION: 30 QUARTERS/FOOTAGES: 330' N line, 330' E line of SE SW
 QUADRANGLE: BOULDER LONGITUDE: -89.132586 GEOLOGIST: C TREWORY
 CONFIDENTIAL: N LATITUDE: 38.666119 DATE COLLECTED:
 SURFACE ELEVATION (FT.): 514.0 LOGGED (FT.): 760.0 LOG TYPE: Electric Log
 SOURCE: WELL TYPE: Oil and Gas Test
 COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
296.0	BOND	CARTHAGE	LIMESTONE	12.0	218.0
-28.0	MODESTO	PIASA	LIMESTONE	4.0	542.0
-51.0	CARBONDALE	DANVILLE	COAL	2.5	565.0
-77.0	CARBONDALE	HERRIN	COAL	5.0	591.0
-113.0	CARBONDALE	SPRINGFIELD	COAL	4.0	627.0
-174.0	CARBONDALE	HOUCHIN CREEK	COAL	-	688.0
-246.0	CARBONDALE	COLCHESTER	COAL	-	760.0

MAPID: 12101712000C VERSION: 4

PROJECT: J JOHNSON

COUNTY: MARION TWP/RNG: 3N 1E SECTION: 30 QUARTERS/FOOTAGES: 330' N line, 330' E line of SE SW
 QUADRANGLE: BOULDER LONGITUDE: -89.132586 GEOLOGIST: J JOHNSON
 CONFIDENTIAL: N LATITUDE: 38.666119 DATE COLLECTED:
 SURFACE ELEVATION (FT.): 514.0 LOGGED (FT.): 2987.0 LOG TYPE: Electric Log
 SOURCE: SANDERS & FYE OIL WELL TYPE: Oil and Gas Test
 COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-117.0	CARBONDALE	SPRINGFIELD	COAL	-	631.0
-246.0	CARBONDALE	COLCHESTER	COAL	-	760.0
-875.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1389.0
-2400.0	DEVONIAN	UPPER DEVONIAN S	UNCLASSIFIED	-	2914.0 TOP OF NEW ALBANY
-2413.0	DEVONIAN	GRASSY CREEK	UNCLASSIFIED	-	2927.0
-2473.0	DEVONIAN	BASE UPPER DEVON	UNCLASSIFIED	-	2987.0 BASE OF NEW ALBANY

MAPID: 12101393000C VERSION: 1

PROJECT: CIRC 164

COUNTY: MARION TWP/RNG: 3N 1E SECTION: 31 QUARTERS/FOOTAGES: SE NE NE
 QUADRANGLE: FAIRMAN LONGITUDE: -89.124826 GEOLOGIST:
 CONFIDENTIAL: N LATITUDE: 38.660551 DATE COLLECTED: 0 / 0 / 1945
 SURFACE ELEVATION (FT.): 518.0 LOGGED (FT.): 1604.0 LOG TYPE:
 SOURCE: QUICK B W, HENNING 1 WELL TYPE: Oil and Gas Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
293.0	BOND	CARTHAGE	LIMESTONE	-	225.0
-86.0	CARBONDALE	HERRIN	COAL	-	604.0

MAPID: 12101457000C VERSION: 1

PROJECT: BLM

COUNTY: MARION TWP/RNG: 3N 1E SECTION: 31 QUARTERS/FOOTAGES: 330' S line, 330' W line of SE
QUADRANGLE: BOULDER LONGITUDE: -89.131798 GEOLOGIST: TREWORGY,J
CONFIDENTIAL: N LATITUDE: 38.649734 DATE COLLECTED: 7 / 0 / 1945
SURFACE ELEVATION (FT.): 507.0 LOGGED (FT.): 635.5 LOG TYPE: Electric Log
SOURCE: TEXAS COMPANY, THE WELL TYPE: Oil and Gas Test
COMMENT: CORRELATED BY C. TREWORGY

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
507.0			UNKNOWN	595.0	0.0
-88.0	CARBONDALE	HERRIN	COAL	5.0	595.0
-93.0			ROCK	31.0	600.0
-124.0	CARBONDALE	SPRINGFIELD	COAL	4.5	631.0

MAPID: 12101457000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: MARION TWP/RNG: 3N 1E SECTION: 31 QUARTERS/FOOTAGES: 330' S line, 330' W line of SE
QUADRANGLE: BOULDER LONGITUDE: -89.131798 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.649734 DATE COLLECTED:
SURFACE ELEVATION (FT.): 507.0 LOGGED (FT.): 599.5 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
-38.0	MODESTO	PIASA	LIMESTONE	3.0	545.0
-41.0	MODESTO		SHALE	6.0	548.0
-47.0	CARBONDALE	DANVILLE	COAL	2.0	554.0
-49.0	CARBONDALE		SHALE	9.0	556.0
-58.0	CARBONDALE		SHALE	2.0	565.0
-60.0	CARBONDALE		SHALE	2.0	567.0
-62.0	CARBONDALE	BANKSTON FORK	LIMESTONE	2.5	569.0
-64.5	CARBONDALE	BANKSTON FORK	SHALE	3.0	571.5
-67.5	CARBONDALE	BANKSTON FORK	LIMESTONE	2.0	574.5
-69.5	CARBONDALE	LAWSON	SHALE	6.0	576.5
-75.5	CARBONDALE	CONANT	LIMESTONE	1.5	582.5
-77.0	CARBONDALE		SHALE	2.5	584.0
-79.5	CARBONDALE	BRERETON	LIMESTONE	5.0	586.5
-84.5	CARBONDALE	ANNA	SHALE	3.0	591.5
-88.0	CARBONDALE	HERRIN	COAL	4.5	595.0

MAPID: 12101457000C VERSION: 3 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 3N 1E SECTION: 31 QUARTERS/FOOTAGES: 330' S line, 330' W line of SE
QUADRANGLE: BOULDER LONGITUDE: -89.131798 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.649734 DATE COLLECTED:
SURFACE ELEVATION (FT.): 507.0 LOGGED (FT.): 635.5 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
281.0	BOND	CARTHAGE	LIMESTONE	12.0	226.0
-37.0	MODESTO	PIASA	LIMESTONE	4.0	544.0
-88.0	CARBONDALE	HERRIN	COAL	5.0	595.0
-124.0	CARBONDALE	SPRINGFIELD	COAL	4.5	631.0

MAPID: 12101457000C VERSION: 4 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 3N 1E SECTION: 31 QUARTERS/FOOTAGES: 330' S line, 330' W line of SE
QUADRANGLE: BOULDER LONGITUDE: -89.131798 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.649734 DATE COLLECTED: 0 / 0 / 1945
SURFACE ELEVATION (FT.): 507.0 LOGGED (FT.): 1834.0 LOG TYPE:
SOURCE: TEXAS CO, AHLF F 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
281.0	BOND	CARTHAGE	LIMESTONE	-	226.0
-87.0	CARBONDALE	HERRIN	COAL	-	594.0

MAPID: 12101457000C VERSION: 5 PROJECT: J JOHNSON
COUNTY: MARION TWP/RNG: 3N 1E SECTION: 31 QUARTERS/FOOTAGES: 330' S line, 330' W line of SE
QUADRANGLE: BOULDER LONGITUDE: -89.131798 GEOLOGIST: J JOHNSON
CONFIDENTIAL: N LATITUDE: 38.649734 DATE COLLECTED:
SURFACE ELEVATION (FT.): 507.0 LOGGED (FT.): 1394.0 LOG TYPE: Electric Log
SOURCE: TEXAS INC WELL TYPE: Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-128.0	CARBONDALE	SPRINGFIELD	COAL	-	635.0
-263.0	CARBONDALE	COLCHESTER	COAL	-	770.0
-887.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1394.0

MAPID: 12101713000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 3N 1E SECTION: 32 QUARTERS/FOOTAGES: 330' S line, 380' E line of NE
QUADRANGLE: FAIRMAN LONGITUDE: -89.106502 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.656799 DATE COLLECTED:
SURFACE ELEVATION (FT.): 523.0 LOGGED (FT.): 800.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
263.0	BOND	CARTHAGE	LIMESTONE	10.0	260.0
-109.0	CARBONDALE	HERRIN	COAL	4.0	632.0
-147.0	CARBONDALE	SPRINGFIELD	COAL	4.0	670.0
-213.0	CARBONDALE	HOUCHIN CREEK	COAL	-	736.0
-277.0	CARBONDALE	COLCHESTER	COAL	-	800.0

MAPID: 12101713000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: MARION TWP/RNG: 3N 1E SECTION: 32 QUARTERS/FOOTAGES: 330' S line, 380' E line of NE
QUADRANGLE: FAIRMAN LONGITUDE: -89.106502 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.656799 DATE COLLECTED:
SURFACE ELEVATION (FT.): 523.0 LOGGED (FT.): 635.5 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
-43.0	MODESTO	PIASA	LIMESTONE	6.0	566.0
-49.0	MODESTO		SILTY SHALE	18.0	572.0
-67.0	CARBONDALE	DANVILLE	COAL	1.0	590.0
-68.0	CARBONDALE		SHALE	8.0	591.0
-76.0	CARBONDALE		SHALE	2.0	599.0
-78.0	CARBONDALE	ALLENBY	COAL	1.5	601.0
-79.5	CARBONDALE		SHALE	5.5	602.5
-85.0	CARBONDALE	BANKSTON FORK	LIMESTONE	6.0	608.0
-91.0	CARBONDALE	LAWSON	SHALE	4.0	614.0
-95.0	CARBONDALE	CONANT	LIMESTONE	1.0	618.0
-96.0	CARBONDALE		SHALE	3.0	619.0
-99.0	CARBONDALE	BRERETON	LIMESTONE	4.0	622.0
-103.0	CARBONDALE	ANNA	SHALE	4.0	626.0
-107.0	CARBONDALE	HERRIN	COAL	5.5	630.0

MAPID: 12101713000C VERSION: 3 PROJECT: J JOHNSON
COUNTY: MARION TWP/RNG: 3N 1E SECTION: 32 QUARTERS/FOOTAGES: 330' S line, 380' E line of NE
QUADRANGLE: FAIRMAN LONGITUDE: -89.106502 GEOLOGIST: J JOHNSON
CONFIDENTIAL: N LATITUDE: 38.656799 DATE COLLECTED:
SURFACE ELEVATION (FT.): 523.0 LOGGED (FT.): 1424.0 LOG TYPE: Electric Log
SOURCE: JARVIS, S. D. ETAL WELL TYPE: Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-147.0	CARBONDALE	SPRINGFIELD	COAL	-	670.0
-278.0	CARBONDALE	COLCHESTER	COAL	-	801.0
-901.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1424.0

MAPID: 12100009000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 3N 1E SECTION: 33 QUARTERS/FOOTAGES: SE SE SW
QUADRANGLE: FAIRMAN LONGITUDE: -89.097153 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.649569 DATE COLLECTED: 0 / 0 / 1900
SURFACE ELEVATION (FT.): 518.0 LOGGED (FT.): 1640.0 LOG TYPE:
SOURCE: OHIO OIL, MC GEE 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
268.0	BOND	CARTHAGE	LIMESTONE	-	250.0
-120.0	CARBONDALE	HERRIN	COAL	-	638.0

MAPID: 12101714000C VERSION: 1 PROJECT: J JOHNSON
COUNTY: MARION TWP/RNG: 3N 1E SECTION: 34 QUARTERS/FOOTAGES: 330' S line, 330' E line of NW
QUADRANGLE: FAIRMAN LONGITUDE: -89.078443 GEOLOGIST: J JOHNSON
CONFIDENTIAL: N LATITUDE: 38.656863 DATE COLLECTED:
SURFACE ELEVATION (FT.): 535.0 LOGGED (FT.): 3262.0 LOG TYPE: Electric Log
SOURCE: LESTER JOHN L WELL TYPE: Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-160.0	CARBONDALE	SPRINGFIELD	COAL	-	695.0
-295.0	CARBONDALE	COLCHESTER	COAL	-	830.0
-1005.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1540.0
-2629.0	DEVONIAN	UPPER DEVONIAN S	UNCLASSIFIED	-	3164.0 TOP OF NEW ALBANY
-2644.0	DEVONIAN	GRASSY CREEK	UNCLASSIFIED	-	3179.0
-2727.0	DEVONIAN	BASE UPPER DEVON	UNCLASSIFIED	-	3262.0 BASE OF NEW ALBANY

MAPID: 12101714000C VERSION: 2 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 3N 1E SECTION: 34 QUARTERS/FOOTAGES: 330' S line, 330' E line of NW
QUADRANGLE: FAIRMAN LONGITUDE: -89.078443 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.656863 DATE COLLECTED:
SURFACE ELEVATION (FT.): 535.0 LOGGED (FT.): 831.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
274.0	BOND	CARTHAGE	LIMESTONE	11.0	261.0
62.0	MODESTO	TRIVOLI	SANDSTONE	49.0	473.0
-58.0	MODESTO	PIASA	LIMESTONE	5.0	593.0
-85.0	CARBONDALE	DANVILLE	COAL	3.0	620.0
-115.0	CARBONDALE	HERRIN	COAL	5.0	650.0
-158.0	CARBONDALE	SPRINGFIELD	COAL	4.0	693.0
-225.0	CARBONDALE	HOUCHIN CREEK	COAL	-	760.0
-296.0	CARBONDALE	COLCHESTER	COAL	-	831.0

MAPID: 12100010000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 3N 1E SECTION: 35 QUARTERS/FOOTAGES: NE SE SW
QUADRANGLE: FAIRMAN LONGITUDE: -89.060013 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.651447 DATE COLLECTED: 0 / 0 / 1900
SURFACE ELEVATION (FT.): 530.0 LOGGED (FT.): 1680.0 LOG TYPE:
SOURCE: STEINR&GBS, CANNON 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-179.0	CARBONDALE	HERRIN	COAL	-	709.0

MAPID: 12101715000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 3N 1E SECTION: 35 QUARTERS/FOOTAGES: 330' N line, 330' W line
QUADRANGLE: FAIRMAN LONGITUDE: -89.066763 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.662298 DATE COLLECTED:
SURFACE ELEVATION (FT.): 540.0 LOGGED (FT.): 852.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
255.0	BOND	CARTHAGE	LIMESTONE	12.0	285.0
-117.0	CARBONDALE	HERRIN	COAL	6.0	657.0
-170.0	CARBONDALE	SPRINGFIELD	COAL	4.0	710.0
-235.0	CARBONDALE	HOUCHIN CREEK	COAL	-	775.0
-312.0	CARBONDALE	COLCHESTER	COAL	-	852.0

MAPID: 12101715000C

VERSION: 2

PROJECT: ROOF STUDY

COUNTY: MARION

TWP/RNG: 3N 1E

SECTION: 35

QUARTERS/FOOTAGES: 330' N line, 330' W line

QUADRANGLE: FAIRMAN

LONGITUDE: -89.066763

GEOLOGIST:

CONFIDENTIAL: N

LATITUDE: 38.662298

DATE COLLECTED:

SURFACE ELEVATION (FT.): 536.0

LOGGED (FT.): 663.0

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
-73.0	MODESTO	PIASA	LIMESTONE & SHALE	3.0	609.0
-76.0	MODESTO		SILTY SHALE	14.0	612.0
-90.0	CARBONDALE	DANVILLE	COAL	1.0	626.0
-91.0	CARBONDALE		SHALE	8.0	627.0
-99.0	CARBONDALE		SHALE	1.0	635.0
-100.0	CARBONDALE	ALLENBY	COAL	1.5	636.0
-101.5	CARBONDALE		SHALE	4.0	637.5
-105.5	CARBONDALE	BANKSTON FORK	LIMESTONE	2.5	641.5
-108.0	CARBONDALE	LAWSON	SHALE	3.0	644.0
-111.0	CARBONDALE	CONANT	LIMESTONE	1.0	647.0
-112.0	CARBONDALE		SHALE	1.5	648.0
-113.5	CARBONDALE	BRERETON	LIMESTONE	2.0	649.5
-115.5	CARBONDALE	ANNA	SHALE	4.0	651.5
-122.0	CARBONDALE	HERRIN	COAL	5.0	658.0

MAPID: 12101458000C

VERSION: 1

PROJECT: CGT-ECILL

COUNTY: MARION

TWP/RNG: 3N 1E

SECTION: 36

QUARTERS/FOOTAGES: 330' S line, 330' W line

QUADRANGLE: FAIRMAN

LONGITUDE: -89.048501

GEOLOGIST: C TREWORGY

CONFIDENTIAL: N

LATITUDE: 38.649647

DATE COLLECTED:

SURFACE ELEVATION (FT.): 540.0

LOGGED (FT.): 838.0

LOG TYPE: Electric Log

SOURCE:

WELL TYPE: Oil and Gas Test

COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
214.0	BOND	CARTHAGE	LIMESTONE	13.0	326.0
-120.0	MODESTO	PIASA	LIMESTONE	4.0	660.0
-177.0	CARBONDALE	HERRIN	COAL	4.0	717.0
-226.0	CARBONDALE	SPRINGFIELD	COAL	4.0	766.0
-298.0	CARBONDALE	HOUCHIN CREEK	COAL	-	838.0

MAPID: 12101458000C

VERSION: 2

PROJECT: ROOF STUDY

COUNTY: MARION

TWP/RNG: 3N 1E

SECTION: 36

QUARTERS/FOOTAGES: 330' S line, 330' W line

QUADRANGLE: FAIRMAN

LONGITUDE: -89.048501

GEOLOGIST:

CONFIDENTIAL: N

LATITUDE: 38.649647

DATE COLLECTED:

SURFACE ELEVATION (FT.): 540.0

LOGGED (FT.): 720.5

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
-120.0	MODESTO	PIASA	LIMESTONE & SHALE	4.0	660.0
-124.0	MODESTO		SILTY SHALE	13.0	664.0
-137.0	CARBONDALE	DANVILLE	COAL	1.0	677.0
-138.0	CARBONDALE		SHALE	8.0	678.0
-146.0	CARBONDALE		SHALE	1.0	686.0
-147.0	CARBONDALE	ALLENBY	COAL	2.0	687.0
-149.0	CARBONDALE		SHALE	9.0	689.0
-158.0	CARBONDALE	BANKSTON FORK	LIMESTONE	2.5	698.0
-160.5	CARBONDALE	LAWSON	SHALE	4.5	700.5
-165.0	CARBONDALE	CONANT	LIMESTONE	2.0	705.0
-167.0	CARBONDALE		SHALE	1.0	707.0
-168.0	CARBONDALE	BRERETON	LIMESTONE	6.0	708.0
-174.0	CARBONDALE	ANNA	SHALE	3.0	714.0
-177.0	CARBONDALE	HERRIN	COAL	3.5	717.0

MAPID: 12101458000C

VERSION: 3

PROJECT: CIRC 164

COUNTY: MARION

TWP/RNG: 3N 1E

SECTION: 36

QUARTERS/FOOTAGES: 330' S line, 330' W line

QUADRANGLE: FAIRMAN

LONGITUDE: -89.048501

GEOLOGIST:

CONFIDENTIAL: N

LATITUDE: 38.649647

DATE COLLECTED: 0 / 0 / 1945

SURFACE ELEVATION (FT.): 540.0

LOGGED (FT.): 2104.0

LOG TYPE:

SOURCE: ROBISN H F, VAUGHAN 1

WELL TYPE: Oil and Gas Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
212.0	BOND	CARTHAGE	LIMESTONE	-	328.0
-176.0	CARBONDALE	HERRIN	COAL	-	716.0

MAPID: 12101458000C VERSION: 4 PROJECT: J JOHNSON

COUNTY: MARION TWP/RNG: 3N 1E SECTION: 36 QUARTERS/FOOTAGES: 330' S line, 330' W line

QUADRANGLE: FAIRMAN LONGITUDE: -89.048501 GEOLOGIST: J JOHNSON

CONFIDENTIAL: N LATITUDE: 38.649647 DATE COLLECTED:

SURFACE ELEVATION (FT.): 540.0 LOGGED (FT.): 1663.0 LOG TYPE: Electric Log

SOURCE: ROBINSON, H. F., INC. WELL TYPE: Oil and Gas Test

COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-230.0	CARBONDALE	SPRINGFIELD	COAL	-	770.0
-361.0	CARBONDALE	COLCHESTER	COAL	-	901.0
-1123.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1663.0

MAPID: 12101961000C VERSION: 1 PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 3N 2E SECTION: 1 QUARTERS/FOOTAGES: 330' S line, 330' E line of NW SW

QUADRANGLE: SALEM NORTH LONGITUDE: -88.938854 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.72845 DATE COLLECTED:

SURFACE ELEVATION (FT.): 588.0 LOGGED (FT.): 963.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
178.0	BOND	CARTHAGE	LIMESTONE	9.0	410.0
-185.0	CARBONDALE	HERRIN	COAL	3.0	773.0
-208.0	CARBONDALE	BRIAR HILL	COAL	2.0	796.0
-218.0	CARBONDALE	SPRINGFIELD	COAL	4.0	806.0
-290.0	CARBONDALE	HOUCHIN CREEK	COAL	2.0	878.0
-375.0	CARBONDALE	COLCHESTER	COAL	-	963.0

MAPID: 12101961000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: MARION TWP/RNG: 3N 2E SECTION: 1 QUARTERS/FOOTAGES: 330' S line, 330' E line of NW SW
QUADRANGLE: SALEM NORTH LONGITUDE: -88.938854 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.72845 DATE COLLECTED:
SURFACE ELEVATION (FT.): 588.0 LOGGED (FT.): 775.5 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
-96.0	MODESTO	PIASA	LIMESTONE	4.0	684.0
-100.0	MODESTO		SILTY SHALE	53.0	688.0
-153.0	CARBONDALE	DANVILLE	COAL	2.0	741.0
-155.0	CARBONDALE		SHALE	6.0	743.0
-161.0	CARBONDALE	ALLENBY	COAL	1.0	749.0
-162.0	CARBONDALE		SHALE	3.0	750.0
-165.0	CARBONDALE	BANKSTON FORK	LIMESTONE	5.0	753.0
-170.0	CARBONDALE	LAWSON	SHALE	4.0	758.0
-174.0	CARBONDALE	CONANT	LIMESTONE	2.0	762.0
-176.0	CARBONDALE		CALCAREOUS SHALE	3.0	764.0
-179.0	CARBONDALE	BRERETON	LIMESTONE	5.0	767.0
-184.0	CARBONDALE	ANNA	SHALE	1.5	772.0
-185.0	CARBONDALE	HERRIN	COAL	2.5	773.0

MAPID: 12101961000C VERSION: 3

PROJECT: J JOHNSON

COUNTY: MARION TWP/RNG: 3N 2E SECTION: 1 QUARTERS/FOOTAGES: 330' S line, 330' E line of NW SW
QUADRANGLE: SALEM NORTH LONGITUDE: -88.938854 GEOLOGIST: J JOHNSON
CONFIDENTIAL: N LATITUDE: 38.72845 DATE COLLECTED:
SURFACE ELEVATION (FT.): 588.0 LOGGED (FT.): 1866.0 LOG TYPE: Electric Log
SOURCE: NATION OIL & DUNCAN WELL TYPE: Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-221.0	CARBONDALE	SPRINGFIELD	COAL	-	809.0
-372.0	CARBONDALE	COLCHESTER	COAL	-	960.0
-1278.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1866.0

MAPID: 12100679000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 3N 2E SECTION: 2 QUARTERS/FOOTAGES: SW SW NE
QUADRANGLE: SALEM NORTH LONGITUDE: -88.948116 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.730226 DATE COLLECTED: 0 / 0 / 1940
SURFACE ELEVATION (FT.): 584.0 LOGGED (FT.): 2208.0 LOG TYPE:
SOURCE: SWAN KING, BILEK J V 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-186.0	CARBONDALE	HERRIN	COAL	-	770.0	

MAPID: 12101734000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 3N 2E SECTION: 2 QUARTERS/FOOTAGES: SE SW NW
QUADRANGLE: SALEM NORTH LONGITUDE: -88.955056 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.730212 DATE COLLECTED:
SURFACE ELEVATION (FT.): 569.0 LOGGED (FT.): 957.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
176.0	BOND	CARTHAGE	LIMESTONE	6.0	393.0	
-187.0	CARBONDALE	HERRIN	COAL	2.5	756.0	
-221.0	CARBONDALE	BRIAR HILL	COAL	3.0	790.0	
-229.0	CARBONDALE	SPRINGFIELD	COAL	3.0	798.0	
-304.0	CARBONDALE	HOUCHIN CREEK	COAL	2.0	873.0	
-388.0	CARBONDALE	COLCHESTER	COAL	-	957.0	

MAPID: 12101734000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: MARION TWP/RNG: 3N 2E SECTION: 2 QUARTERS/FOOTAGES: SE SW NW

QUADRANGLE: SALEM NORTH LONGITUDE: -88.955056

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.730212

DATE COLLECTED:

SURFACE ELEVATION (FT.): 569.0 LOGGED (FT.): 758.0

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
-96.0	MODESTO	PIASA	LIMESTONE	3.0	665.0
-99.0	MODESTO		SILTY SHALE	57.0	668.0
-156.0	CARBONDALE	DANVILLE	COAL	1.5	725.0
-157.5	CARBONDALE		SHALE	5.5	726.5
-163.0	CARBONDALE	ALLENBY	COAL	1.0	732.0
-164.0	CARBONDALE		SHALE	4.5	733.0
-168.5	CARBONDALE	BANKSTON FORK	LIMESTONE	5.0	737.5
-173.5	CARBONDALE	LAWSON	SHALE	4.0	742.5
-177.5	CARBONDALE	CONANT	LIMESTONE	2.0	746.5
-179.5	CARBONDALE		CALCAREOUS SHALE	4.0	748.5
-183.5	CARBONDALE	BRERETON	LIMESTONE	6.0	752.5
-187.0	CARBONDALE	HERRIN	COAL	2.0	756.0

MAPID: 12101734000C VERSION: 3

PROJECT: J JOHNSON

COUNTY: MARION TWP/RNG: 3N 2E SECTION: 2 QUARTERS/FOOTAGES: SE SW NW

QUADRANGLE: SALEM NORTH LONGITUDE: -88.955056

GEOLOGIST: J JOHNSON

CONFIDENTIAL: N LATITUDE: 38.730212

DATE COLLECTED:

SURFACE ELEVATION (FT.): 569.0 LOGGED (FT.): 1815.0

LOG TYPE: Electric Log

SOURCE: PRUETT T M

WELL TYPE: Oil and Gas Test

COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-232.0	CARBONDALE	SPRINGFIELD	COAL	-	801.0
-386.0	CARBONDALE	COLCHESTER	COAL	-	955.0
-1246.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1815.0

MAPID: 12127488000C **VERSION:** 1 **PROJECT:** J JOHNSON
COUNTY: MARION **TWP/RNG:** 3N 2E **SECTION:** 3 **QUARTERS/FOOTAGES:** 330' N line, 330' W line of NW SW
QUADRANGLE: SALEM NORTH **LONGITUDE:** -88.975717 **GEOLOGIST:** J JOHNSON
CONFIDENTIAL: N **LATITUDE:** 38.728258 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 516.0 **LOGGED (FT.):** 3680.0 **LOG TYPE:** Electric Log
SOURCE: DAL-LONG OIL COMPANY **WELL TYPE:** Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-329.0	CARBONDALE	SPRINGFIELD	COAL	-	845.0	
-493.0	CARBONDALE	COLCHESTER	COAL	-	1009.0	
-1334.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1850.0	
-3044.0	DEVONIAN	UPPER DEVONIAN S	UNCLASSIFIED	-	3560.0	TOP OF NEW ALBANY
-3068.0	DEVONIAN	GRASSY CREEK	UNCLASSIFIED	-	3584.0	
-3164.0	DEVONIAN	BASE UPPER DEVON	UNCLASSIFIED	-	3680.0	BASE OF NEW ALBANY

MAPID: 12101825000C **VERSION:** 1 **PROJECT:** CGT-ECILL
COUNTY: MARION **TWP/RNG:** 3N 2E **SECTION:** 4 **QUARTERS/FOOTAGES:** SW NE SW
QUADRANGLE: SALEM NORTH **LONGITUDE:** -88.989585 **GEOLOGIST:** C TREWORYG
CONFIDENTIAL: N **LATITUDE:** 38.726363 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 557.0 **LOGGED (FT.):** 972.0 **LOG TYPE:** Electric Log
SOURCE: **WELL TYPE:** Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
172.0	BOND	CARTHAGE	LIMESTONE	9.0	385.0	
-206.0	CARBONDALE	HERRIN	COAL	4.0	763.0	
-251.0	CARBONDALE	BRIAR HILL	COAL	-	808.0	
-255.0	CARBONDALE	SPRINGFIELD	COAL	3.5	812.0	
-328.0	CARBONDALE	HOUCHIN CREEK	COAL	1.0	885.0	
-415.0	CARBONDALE	COLCHESTER	COAL	-	972.0	

MAPID: 12101825000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: MARION TWP/RNG: 3N 2E SECTION: 4 QUARTERS/FOOTAGES: SW NE SW

QUADRANGLE: SALEM NORTH LONGITUDE: -88.989585

GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.726363

DATE COLLECTED:

SURFACE ELEVATION (FT.): 554.0 LOGGED (FT.): 767.0

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
-114.0	MODESTO	PIASA	LIMESTONE	4.0	668.0
-118.0	MODESTO		SILTY SHALE	47.0	672.0
-165.0	CARBONDALE	DANVILLE	COAL	2.0	719.0
-167.0	CARBONDALE		SHALE	6.0	721.0
-173.0	CARBONDALE	ALLENBY	COAL	1.0	727.0
-174.0	CARBONDALE		SHALE	5.0	728.0
-179.0	CARBONDALE	BANKSTON FORK	LIMESTONE	4.5	733.0
-183.5	CARBONDALE	LAWSON	SHALE	9.0	737.5
-192.5	CARBONDALE	CONANT	LIMESTONE	2.5	746.5
-195.0	CARBONDALE		CALCAREOUS SHALE	4.0	749.0
-199.0	CARBONDALE	BRERETON	LIMESTONE	6.5	753.0
-205.5	CARBONDALE	ANNA	SHALE	2.5	759.5
-209.0	CARBONDALE	HERRIN	COAL	4.0	763.0

MAPID: 12101825000C VERSION: 3

PROJECT: J JOHNSON

COUNTY: MARION TWP/RNG: 3N 2E SECTION: 4 QUARTERS/FOOTAGES: SW NE SW

QUADRANGLE: SALEM NORTH LONGITUDE: -88.989585

GEOLOGIST: J JOHNSON

CONFIDENTIAL: N LATITUDE: 38.726363

DATE COLLECTED:

SURFACE ELEVATION (FT.): 554.0 LOGGED (FT.): 1855.0

LOG TYPE: Electric Log

SOURCE: NATIONAL ASSOC. PETROLEUM CO.

WELL TYPE: Oil and Gas Test

COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-261.0	CARBONDALE	SPRINGFIELD	COAL	-	815.0
-416.0	CARBONDALE	COLCHESTER	COAL	-	970.0
-1301.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1855.0

MAPID: 12101579000C VERSION: 1 PROJECT: J JOHNSON
COUNTY: MARION TWP/RNG: 3N 2E SECTION: 8 QUARTERS/FOOTAGES: 330' N line, 330' W line of NE SE
QUADRANGLE: SALEM NORTH LONGITUDE: -88.998902 GEOLOGIST: J JOHNSON
CONFIDENTIAL: N LATITUDE: 38.713607 DATE COLLECTED:
SURFACE ELEVATION (FT.): 551.0 LOGGED (FT.): 1859.0 LOG TYPE: Electric Log
SOURCE: GORDON DR WELL TYPE: Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-248.0	CARBONDALE	SPRINGFIELD	COAL	-	799.0
-365.0	CARBONDALE	COLCHESTER	COAL	-	916.0
-1308.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1859.0

MAPID: 12101450000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 3N 2E SECTION: 9 QUARTERS/FOOTAGES: 330' S line, 330' E line of NW NE
QUADRANGLE: SALEM NORTH LONGITUDE: -88.982705 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.719259 DATE COLLECTED:
SURFACE ELEVATION (FT.): 552.0 LOGGED (FT.): 956.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
171.0	BOND	CARTHAGE	LIMESTONE	10.0	381.0
62.0	MODESTO	TRIVOLI	SANDSTONE	26.0	490.0
-117.0	MODESTO	PIASA	LIMESTONE	10.0	669.0
-207.0	CARBONDALE	HERRIN	COAL	4.0	759.0
-254.0	CARBONDALE	SPRINGFIELD	COAL	3.5	806.0
-323.0	CARBONDALE	HOUCHIN CREEK	COAL	-	875.0
-404.0	CARBONDALE	COLCHESTER	COAL	-	956.0

MAPID: 12101450000C VERSION: 2 PROJECT: ROOF STUDY

COUNTY: MARION TWP/RNG: 3N 2E SECTION: 9 QUARTERS/FOOTAGES: 330' S line, 330' E line of NW NE

QUADRANGLE: SALEM NORTH LONGITUDE: -88.982705 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.719259 DATE COLLECTED:

SURFACE ELEVATION (FT.): 552.0 LOGGED (FT.): 763.0 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
-118.0	MODESTO	PIASA	LIMESTONE & SHALE	6.0	670.0
-124.0	MODESTO		SILTY SHALE	39.0	676.0
-163.0	CARBONDALE	DANVILLE	COAL	1.0	715.0
-164.0	CARBONDALE		SHALE	6.0	716.0
-170.0	CARBONDALE		SHALE	4.0	722.0
-174.0	CARBONDALE	BANKSTON FORK	LIMESTONE	6.0	726.0
-180.0	CARBONDALE	LAWSON	SHALE	9.0	732.0
-189.0	CARBONDALE	CONANT	LIMESTONE	3.0	741.0
-192.0	CARBONDALE		CALCAREOUS SHALE	6.0	744.0
-198.0	CARBONDALE	BRERETON	LIMESTONE	6.0	750.0
-204.0	CARBONDALE	ANNA	SHALE	3.0	756.0
-206.0	CARBONDALE	HERRIN	COAL	5.0	758.0

MAPID: 12101450000C VERSION: 3 PROJECT: CIRC 164

COUNTY: MARION TWP/RNG: 3N 2E SECTION: 9 QUARTERS/FOOTAGES: 330' S line, 330' E line of NW NE

QUADRANGLE: SALEM NORTH LONGITUDE: -88.982705 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.719259 DATE COLLECTED: 0 / 0 / 1945

SURFACE ELEVATION (FT.): 552.0 LOGGED (FT.): 2298.0 LOG TYPE:

SOURCE: NAT ASSOC, BRYAN ETAL 1 WELL TYPE: Oil and Gas Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
172.0	BOND	CARTHAGE	LIMESTONE	-	380.0
-206.0	CARBONDALE	HERRIN	COAL	-	758.0

MAPID: 12101450000C

VERSION: 4

PROJECT: J JOHNSON

COUNTY: MARION

TWP/RNG: 3N 2E

SECTION: 9

QUARTERS/FOOTAGES: 330' S line, 330' E line of NW NE

QUADRANGLE: SALEM NORTH

LONGITUDE: -88.982705

GEOLOGIST: J JOHNSON

CONFIDENTIAL: N

LATITUDE: 38.719259

DATE COLLECTED:

SURFACE ELEVATION (FT.): 552.0

LOGGED (FT.): 1832.0

LOG TYPE: Electric Log

SOURCE: NATIONAL ASSOC. PETROLEUM CO.

WELL TYPE: Oil and Gas Test

COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-256.0	CARBONDALE	SPRINGFIELD	COAL	-	808.0
-403.0	CARBONDALE	COLCHESTER	COAL	-	955.0
-1280.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1832.0

MAPID: 12101448000C

VERSION: 1

PROJECT: CGT-ECILL

COUNTY: MARION

TWP/RNG: 3N 2E

SECTION: 10

QUARTERS/FOOTAGES: 330' N line, 330' W line of NE SE

QUADRANGLE: SALEM NORTH

LONGITUDE: -88.96201

GEOLOGIST: C TREWORGY

CONFIDENTIAL: N

LATITUDE: 38.71395

DATE COLLECTED:

SURFACE ELEVATION (FT.): 597.0

LOGGED (FT.): 1018.0

LOG TYPE: Electric Log

SOURCE:

WELL TYPE: Oil and Gas Test

COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
138.0	BOND	CARTHAGE	LIMESTONE	12.0	459.0
23.0	MODESTO	TRIVOLI	SANDSTONE	57.0	574.0
-150.0	MODESTO	PIASA	LIMESTONE	12.0	747.0
-227.0	CARBONDALE	HERRIN	COAL	3.5	824.0
-275.0	CARBONDALE	SPRINGFIELD	COAL	4.0	872.0
-336.0	CARBONDALE	HOUCHIN CREEK	COAL	-	933.0
-421.0	CARBONDALE	COLCHESTER	COAL	-	1018.0

MAPID: 12101448000C **VERSION:** 2 **PROJECT:** ROOF STUDY
COUNTY: MARION **TWP/RNG:** 3N 2E **SECTION:** 10 **QUARTERS/FOOTAGES:** 330' N line, 330' W line of NE SE
QUADRANGLE: SALEM NORTH **LONGITUDE:** -88.96201 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.71395 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 597.0 **LOGGED (FT.):** 825.0 **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
-153.0	MODESTO	PIASA	LIMESTONE & SHALE	7.0	750.0
-160.0	MODESTO		SILTY SHALE	35.0	757.0
-195.0	CARBONDALE	DANVILLE	COAL	1.0	792.0
-196.0	CARBONDALE		SHALE	6.0	793.0
-202.0	CARBONDALE		SHALE	4.0	799.0
-206.0	CARBONDALE	BANKSTON FORK	LIMESTONE & SHALE	4.0	803.0
-	CARBONDALE	BANKSTON FORK	ROCK	2.0	
-210.0	CARBONDALE	BANKSTON FORK	LIMESTONE	2.0	807.0
-212.0	CARBONDALE	LAWSON	CALCAREOUS SHALE	4.0	809.0
-216.0	CARBONDALE	BRERETON	LIMESTONE	12.0	813.0

MAPID: 12101448000C **VERSION:** 3 **PROJECT:** CIRC 164
COUNTY: MARION **TWP/RNG:** 3N 2E **SECTION:** 10 **QUARTERS/FOOTAGES:** 330' N line, 330' W line of NE SE
QUADRANGLE: SALEM NORTH **LONGITUDE:** -88.96201 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.71395 **DATE COLLECTED:** 0 / 0 / 1944
SURFACE ELEVATION (FT.): 597.0 **LOGGED (FT.):** 2370.0 **LOG TYPE:**
SOURCE: ABSHER&BTH, JONES L 1 **WELL TYPE:** Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
137.0	BOND	CARTHAGE	LIMESTONE	-	460.0
-227.0	CARBONDALE	HERRIN	COAL	-	824.0

MAPID: 12101448000C **VERSION:** 4 **PROJECT:** J JOHNSON
COUNTY: MARION **TWP/RNG:** 3N 2E **SECTION:** 10 **QUARTERS/FOOTAGES:** 330' N line, 330' W line of NE SE
QUADRANGLE: SALEM NORTH **LONGITUDE:** -88.96201 **GEOLOGIST:** J JOHNSON
CONFIDENTIAL: N **LATITUDE:** 38.71395 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 597.0 **LOGGED (FT.):** 1923.0 **LOG TYPE:** Electric Log
SOURCE: ABSHER & BOOTH **WELL TYPE:** Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-278.0	CARBONDALE	SPRINGFIELD	COAL	-	875.0
-419.0	CARBONDALE	COLCHESTER	COAL	-	1016.0
-1326.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1923.0

MAPID: 12100682000C **VERSION:** 1 **PROJECT:** CIRC 164
COUNTY: MARION **TWP/RNG:** 3N 2E **SECTION:** 12 **QUARTERS/FOOTAGES:** SE SE SW
QUADRANGLE: SALEM NORTH **LONGITUDE:** -88.932003 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.708586 **DATE COLLECTED:** 0 / 0 / 1941
SURFACE ELEVATION (FT.): 636.0 **LOGGED (FT.):** 2438.0 **LOG TYPE:**
SOURCE: AUSTIN OG, SMITH P 1 **WELL TYPE:** Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
132.0	BOND	CARTHAGE	LIMESTONE	-	504.0
-211.0	CARBONDALE	HERRIN	COAL	-	847.0

MAPID: 12100682000C **VERSION:** 2 **PROJECT:** CGT-ECILL
COUNTY: MARION **TWP/RNG:** 3N 2E **SECTION:** 12 **QUARTERS/FOOTAGES:** SE SE SW
QUADRANGLE: SALEM NORTH **LONGITUDE:** -88.932003 **GEOLOGIST:** C TREWORYG
CONFIDENTIAL: N **LATITUDE:** 38.708586 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 639.0 **LOGGED (FT.):** 972.0 **LOG TYPE:** Electric Log
SOURCE: **WELL TYPE:** Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
132.0	BOND	CARTHAGE	LIMESTONE	9.0	507.0
21.0	MODESTO	TRIVOLI	SANDSTONE	18.0	618.0
-151.0	MODESTO	PIASA	LIMESTONE	9.0	790.0
-213.0	CARBONDALE	HERRIN	COAL	3.0	852.0
-268.0	CARBONDALE	SPRINGFIELD	COAL	3.0	907.0
-331.0	CARBONDALE	HOUCHIN CREEK	COAL	2.0	970.0

MAPID: 12100683000C **VERSION:** 1 **PROJECT:** CGT-ECILL
COUNTY: MARION **TWP/RNG:** 3N 2E **SECTION:** 13 **QUARTERS/FOOTAGES:** 335' N line, 805' E line
QUADRANGLE: SALEM NORTH **LONGITUDE:** -88.924413 **GEOLOGIST:** C TREWORYG
CONFIDENTIAL: N **LATITUDE:** 38.706825 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 625.0 **LOGGED (FT.):** 1068.0 **LOG TYPE:** Electric Log
SOURCE: **WELL TYPE:** Oil and Gas Test
COMMENT: POOR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
122.0	BOND	CARTHAGE	LIMESTONE	9.0	503.0
-225.0	CARBONDALE	HERRIN	COAL	3.5	850.0
-269.0	CARBONDALE	BRIAR HILL	COAL	2.5	894.0
-279.0	CARBONDALE	SPRINGFIELD	COAL	4.0	904.0
-348.0	CARBONDALE	HOUCHIN CREEK	COAL	1.0	973.0
-443.0	CARBONDALE	COLCHESTER	COAL	-	1068.0

MAPID: 12100683000C VERSION: 2 PROJECT: ROOF STUDY
COUNTY: MARION TWP/RNG: 3N 2E SECTION: 13 QUARTERS/FOOTAGES: 335' N line, 805' E line
QUADRANGLE: SALEM NORTH LONGITUDE: -88.924413 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.706825 DATE COLLECTED:
SURFACE ELEVATION (FT.): 625.0 LOGGED (FT.): 569.5 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
63.5	CARBONDALE	BANKSTON FORK	LIMESTONE	8.0	561.5

MAPID: 12100683000C VERSION: 3 PROJECT: J JOHNSON
COUNTY: MARION TWP/RNG: 3N 2E SECTION: 13 QUARTERS/FOOTAGES: 335' N line, 805' E line
QUADRANGLE: SALEM NORTH LONGITUDE: -88.924413 GEOLOGIST: J JOHNSON
CONFIDENTIAL: N LATITUDE: 38.706825 DATE COLLECTED:
SURFACE ELEVATION (FT.): 625.0 LOGGED (FT.): 2021.0 LOG TYPE: Electric Log
SOURCE: EASLEY NED WELL TYPE: Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-287.0	CARBONDALE	SPRINGFIELD	COAL	-	912.0
-435.0	CARBONDALE	COLCHESTER	COAL	-	1060.0
-1396.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	2021.0

MAPID: 12101394000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 3N 2E SECTION: 14 QUARTERS/FOOTAGES: NW NW SW
QUADRANGLE: SALEM NORTH LONGITUDE: -88.957505 GEOLOGIST: C TREWORYG
CONFIDENTIAL: N LATITUDE: 38.699443 DATE COLLECTED:
SURFACE ELEVATION (FT.): 599.0 LOGGED (FT.): 1028.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
135.0	BOND	CARTHAGE	LIMESTONE	12.0	464.0
-218.0	CARBONDALE	HERRIN	COAL	3.5	817.0
-260.0	CARBONDALE	BRIAR HILL	COAL	3.5	859.0
-272.0	CARBONDALE	SPRINGFIELD	COAL	4.0	871.0
-331.0	CARBONDALE	HOUCHIN CREEK	COAL	-	930.0
-429.0	CARBONDALE	COLCHESTER	COAL	-	1028.0

MAPID: 12101394000C **VERSION:** 2 **PROJECT:** ROOF STUDY
COUNTY: MARION **TWP/RNG:** 3N 2E **SECTION:** 14 **QUARTERS/FOOTAGES:** NW NW SW
QUADRANGLE: SALEM NORTH **LONGITUDE:** -88.957505 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.699443 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 599.0 **LOGGED (FT.):** 820.0 **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
-157.0	MODESTO	PIASA	LIMESTONE & SHALE	8.0	756.0
-165.0	MODESTO		SILTY SHALE	28.0	764.0
-193.0	CARBONDALE	DANVILLE	COAL	1.0	792.0
-194.0	CARBONDALE		SHALE	7.0	793.0
-201.0	CARBONDALE	ALLENBY	COAL	0.5	800.0
-201.5	CARBONDALE		SHALE	5.5	800.5
-207.0	CARBONDALE	BANKSTON FORK	LIMESTONE	4.0	806.0
-211.0	CARBONDALE	BANKSTON FORK	SHALE	2.0	810.0
-213.0	CARBONDALE	BANKSTON FORK	LIMESTONE	8.0	812.0

MAPID: 12101394000C **VERSION:** 3 **PROJECT:** CIRC 164
COUNTY: MARION **TWP/RNG:** 3N 2E **SECTION:** 14 **QUARTERS/FOOTAGES:** NW NW SW
QUADRANGLE: SALEM NORTH **LONGITUDE:** -88.957505 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.699443 **DATE COLLECTED:** 0 / 0 / 1944
SURFACE ELEVATION (FT.): 599.0 **LOGGED (FT.):** 2390.0 **LOG TYPE:**
SOURCE: TEXAS CO, RHOADS COM 1 **WELL TYPE:** Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
131.0	BOND	CARTHAGE	LIMESTONE	-	468.0
-216.0	CARBONDALE	HERRIN	COAL	-	815.0

MAPID: 12125849000C **VERSION:** 1 **PROJECT:** J JOHNSON
COUNTY: MARION **TWP/RNG:** 3N 2E **SECTION:** 14 **QUARTERS/FOOTAGES:** 990' N line, 990' E line of NW NE
QUADRANGLE: SALEM NORTH **LONGITUDE:** -88.948239 **GEOLOGIST:** J JOHNSON
CONFIDENTIAL: N **LATITUDE:** 38.704879 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 636.0 **LOGGED (FT.):** 1970.0 **LOG TYPE:** Electric Log
SOURCE: EGO OIL COMPANY **WELL TYPE:** Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-324.0	CARBONDALE	SPRINGFIELD	COAL	-	960.0
-459.0	CARBONDALE	COLCHESTER	COAL	-	1095.0
-1334.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1970.0

MAPID: 12101767000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 3N 2E SECTION: 21 QUARTERS/FOOTAGES: SW SE SE
QUADRANGLE: SALEM NORTH LONGITUDE: -88.980752 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.679282 DATE COLLECTED:
SURFACE ELEVATION (FT.): 585.0 LOGGED (FT.): 1012.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
133.0	BOND	CARTHAGE	LIMESTONE	9.0	452.0
-235.0	CARBONDALE	HERRIN	COAL	3.0	820.0
-270.0	CARBONDALE	BRIAR HILL	COAL	2.5	855.0
-279.0	CARBONDALE	SPRINGFIELD	COAL	4.0	864.0
-343.0	CARBONDALE	HOUCHIN CREEK	COAL	1.0	928.0
-427.0	CARBONDALE	COLCHESTER	COAL	-	1012.0

MAPID: 12101767000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: MARION TWP/RNG: 3N 2E SECTION: 21 QUARTERS/FOOTAGES: SW SE SE
QUADRANGLE: SALEM NORTH LONGITUDE: -88.980752 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.679282 DATE COLLECTED:
SURFACE ELEVATION (FT.): 585.0 LOGGED (FT.): 823.0 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
-171.0	MODESTO	PIASA	LIMESTONE & SHALE	11.0	756.0
-182.0	MODESTO		SILTY SHALE	29.0	767.0
-211.0	CARBONDALE	DANVILLE	COAL	1.0	796.0
-212.0	CARBONDALE		SHALE	6.0	797.0
-218.0	CARBONDALE	ALLENBY	COAL	1.5	803.0
-219.5	CARBONDALE		SHALE	7.0	804.5
-226.5	CARBONDALE	BANKSTON FORK	LIMESTONE	3.0	811.5
-229.5	CARBONDALE	BANKSTON FORK	SHALE	3.0	814.5
-232.5	CARBONDALE	BANKSTON FORK	LIMESTONE	5.0	817.5
-237.5	CARBONDALE	LAWSON	SHALE	4.0	822.5
-241.5	CARBONDALE	BRERETON	LIMESTONE	4.0	826.5
-245.5	CARBONDALE	ANNA	SHALE	2.0	830.5
-236.0	CARBONDALE	HERRIN	COAL	2.0	821.0

MAPID: 12101767000C VERSION: 3 PROJECT: J JOHNSON
COUNTY: MARION TWP/RNG: 3N 2E SECTION: 21 QUARTERS/FOOTAGES: SW SE SE
QUADRANGLE: SALEM NORTH LONGITUDE: -88.980752 GEOLOGIST: J JOHNSON
CONFIDENTIAL: N LATITUDE: 38.679282 DATE COLLECTED:
SURFACE ELEVATION (FT.): 584.0 LOGGED (FT.): 1938.0 LOG TYPE: Electric Log
SOURCE: GILLIN, H. CLAIR, JR. WELL TYPE: Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-280.0	CARBONDALE	SPRINGFIELD	COAL	-	864.0
-425.0	CARBONDALE	COLCHESTER	COAL	-	1009.0
-1354.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1938.0

MAPID: 12101718000C VERSION: 1 PROJECT: J JOHNSON
COUNTY: MARION TWP/RNG: 3N 2E SECTION: 22 QUARTERS/FOOTAGES: NE SW NE
QUADRANGLE: SALEM NORTH LONGITUDE: -88.964577 GEOLOGIST: J JOHNSON
CONFIDENTIAL: N LATITUDE: 38.688493 DATE COLLECTED:
SURFACE ELEVATION (FT.): 604.0 LOGGED (FT.): 1976.0 LOG TYPE: Electric Log
SOURCE: BLH & ASSOCIATES, INC. WELL TYPE: Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-291.0	CARBONDALE	SPRINGFIELD	COAL	-	895.0
-436.0	CARBONDALE	COLCHESTER	COAL	-	1040.0
-1372.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1976.0

MAPID: 12101718000C VERSION: 2 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 3N 2E SECTION: 22 QUARTERS/FOOTAGES: NE SW NE
QUADRANGLE: SALEM NORTH LONGITUDE: -88.964577 GEOLOGIST: C TREWORYG
CONFIDENTIAL: N LATITUDE: 38.688493 DATE COLLECTED:
SURFACE ELEVATION (FT.): 559.0 LOGGED (FT.): 955.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
73.0	BOND	CARTHAGE	LIMESTONE	10.0	486.0
-222.0	MODESTO	PIASA	LIMESTONE	12.0	781.0
-331.0	CARBONDALE	SPRINGFIELD	COAL	4.0	890.0
-396.0	CARBONDALE	HOUCHIN CREEK	COAL	-	955.0

MAPID: 12101719000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 3N 2E SECTION: 24 QUARTERS/FOOTAGES: SW NW SW
QUADRANGLE: SALEM NORTH LONGITUDE: -88.939022 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.683082 DATE COLLECTED:
SURFACE ELEVATION (FT.): 588.0 LOGGED (FT.): 1005.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
138.0	BOND	CARTHAGE	LIMESTONE	11.0	450.0
-202.0	CARBONDALE	HERRIN	COAL	4.0	790.0
-259.0	CARBONDALE	SPRINGFIELD	COAL	4.0	847.0
-310.0	CARBONDALE	HOUCHIN CREEK	COAL	-	898.0
-417.0	CARBONDALE	COLCHESTER	COAL	-	1005.0

MAPID: 12101719000C VERSION: 2 PROJECT: ROOF STUDY
COUNTY: MARION TWP/RNG: 3N 2E SECTION: 24 QUARTERS/FOOTAGES: SW NW SW
QUADRANGLE: SALEM NORTH LONGITUDE: -88.939022 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.683082 DATE COLLECTED:
SURFACE ELEVATION (FT.): 588.0 LOGGED (FT.): 794.0 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
-151.0	MODESTO	PIASA	LIMESTONE & SHALE	11.0	739.0
-162.0	MODESTO		SHALE	22.5	750.0
-184.5	CARBONDALE	DANVILLE	COAL	1.5	772.5
-186.0	CARBONDALE		SHALE	6.0	774.0
-192.0	CARBONDALE	LAWSON	SHALE	6.0	780.0
-198.0	CARBONDALE	BRERETON	LIMESTONE	2.3	786.0
-200.3	CARBONDALE	ANNA	SHALE	1.8	788.3
-202.0	CARBONDALE	HERRIN	COAL	4.0	790.0

MAPID: 12104688000C VERSION: 1 PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 3N 2E SECTION: 24 QUARTERS/FOOTAGES: NW NE NE

QUADRANGLE: SALEM NORTH LONGITUDE: -88.92972 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.692208 DATE COLLECTED:

SURFACE ELEVATION (FT.): 598.0 LOGGED (FT.): 1042.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
117.0	BOND	CARTHAGE	LIMESTONE	10.0	481.0
-170.0	MODESTO	PIASA	LIMESTONE	14.0	768.0
-227.0	CARBONDALE	HERRIN	COAL	3.5	825.0
-277.0	CARBONDALE	BRIAR HILL	COAL	-	875.0
-285.0	CARBONDALE	SPRINGFIELD	COAL	4.0	883.0
-348.0	CARBONDALE	HOUCHIN CREEK	COAL	-	946.0
-444.0	CARBONDALE	COLCHESTER	COAL	-	1042.0

MAPID: 12104688000C VERSION: 2 PROJECT: ROOF STUDY

COUNTY: MARION TWP/RNG: 3N 2E SECTION: 24 QUARTERS/FOOTAGES: NW NE NE

QUADRANGLE: SALEM NORTH LONGITUDE: -88.92972 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.692208 DATE COLLECTED:

SURFACE ELEVATION (FT.): 598.0 LOGGED (FT.): 834.0 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
-172.0	MODESTO	PIASA	LIMESTONE W/ SHALE	12.0	770.0
-184.0	MODESTO		SHALE & SANDSTONE	26.0	782.0
-210.0	CARBONDALE	DANVILLE	COAL	1.0	808.0
-211.0	CARBONDALE		SHALE	5.0	809.0
-216.0	CARBONDALE	ALLENBY	COAL	1.0	814.0
-217.0	CARBONDALE		SHALE	7.0	815.0
-224.0	CARBONDALE	BANKSTON FORK	LIMESTONE	7.5	822.0
-231.5	CARBONDALE	LAWSON	SHALE	4.5	829.5

MAPID: 12104688000C VERSION: 3 PROJECT: J JOHNSON
COUNTY: MARION TWP/RNG: 3N 2E SECTION: 24 QUARTERS/FOOTAGES: NW NE NE
QUADRANGLE: SALEM NORTH LONGITUDE: -88.92972 GEOLOGIST: J JOHNSON
CONFIDENTIAL: N LATITUDE: 38.692208 DATE COLLECTED:
SURFACE ELEVATION (FT.): 598.0 LOGGED (FT.): 2034.0 LOG TYPE: Electric Log
SOURCE: DERICKSON T BLAKE WELL TYPE: Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-290.0	CARBONDALE	SPRINGFIELD	COAL	-	888.0	
-442.0	CARBONDALE	COLCHESTER	COAL	-	1040.0	
-1436.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	2034.0	

MAPID: 12125717000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 3N 2E SECTION: 25 QUARTERS/FOOTAGES: NE NE NE
QUADRANGLE: SALEM NORTH LONGITUDE: -88.922698 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.677718 DATE COLLECTED:
SURFACE ELEVATION (FT.): 578.0 LOGGED (FT.): 815.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
161.0	BOND	CARTHAGE	LIMESTONE	7.0	417.0	
-173.0	CARBONDALE	HERRIN	COAL	4.0	751.0	
-234.0	CARBONDALE	SPRINGFIELD	COAL	3.0	812.0	

MAPID: 12125718000C VERSION: 1 PROJECT: J JOHNSON
COUNTY: MARION TWP/RNG: 3N 2E SECTION: 25 QUARTERS/FOOTAGES: 330' S line, 330' E line of SW NE
QUADRANGLE: SALEM NORTH LONGITUDE: -88.92738 GEOLOGIST: J JOHNSON
CONFIDENTIAL: N LATITUDE: 38.672261 DATE COLLECTED:
SURFACE ELEVATION (FT.): 564.0 LOGGED (FT.): 3804.0 LOG TYPE: Electric Log
SOURCE: GOOSE CREEK MNG WELL TYPE: Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-231.0	CARBONDALE	SPRINGFIELD	COAL	-	795.0	
-354.0	CARBONDALE	COLCHESTER	COAL	-	918.0	
-1408.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1972.0	
-3116.0	DEVONIAN	UPPER DEVONIAN S	UNCLASSIFIED	-	3680.0	TOP OF NEW ALBANY
-3143.0	DEVONIAN	GRASSY CREEK	UNCLASSIFIED	-	3707.0	
-3240.0	DEVONIAN	BASE UPPER DEVON	UNCLASSIFIED	-	3804.0	BASE OF NEW ALBANY

MAPID: 12101449000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 3N 2E SECTION: 26 QUARTERS/FOOTAGES: NE SE SE
QUADRANGLE: SALEM NORTH LONGITUDE: -88.94139 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.666752 DATE COLLECTED:
SURFACE ELEVATION (FT.): 576.0 LOGGED (FT.): 942.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
173.0	BOND	CARTHAGE	LIMESTONE	9.0	403.0
-117.0	MODESTO	PIASA	LIMESTONE	9.0	693.0
-160.0	CARBONDALE	HERRIN	COAL	4.0	736.0
-212.0	CARBONDALE	BRIAR HILL	COAL	1.0	788.0
-220.0	CARBONDALE	SPRINGFIELD	COAL	4.0	796.0
-271.0	CARBONDALE	HOUCHIN CREEK	COAL	-	847.0
-366.0	CARBONDALE	COLCHESTER	COAL	-	942.0

MAPID: 12101449000C VERSION: 2 PROJECT: ROOF STUDY
COUNTY: MARION TWP/RNG: 3N 2E SECTION: 26 QUARTERS/FOOTAGES: NE SE SE
QUADRANGLE: SALEM NORTH LONGITUDE: -88.94139 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.666752 DATE COLLECTED:
SURFACE ELEVATION (FT.): 576.0 LOGGED (FT.): 745.0 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
-118.0	MODESTO	PIASA	LIMESTONE	6.0	694.0
-124.0	MODESTO		SILTY SHALE	21.0	700.0
-145.0	CARBONDALE	DANVILLE	COAL	1.0	721.0
-146.0	CARBONDALE		SHALE	5.0	722.0
-151.0	CARBONDALE		SHALE	6.0	727.0
-157.0	CARBONDALE	BANKSTON FORK	LIMESTONE	7.0	733.0
-164.0	CARBONDALE	LAWSON	SHALE	5.0	740.0

MAPID: 12101449000C **VERSION:** 3 **PROJECT:** CIRC 164
COUNTY: MARION **TWP/RNG:** 3N 2E **SECTION:** 26 **QUARTERS/FOOTAGES:** NE SE SE
QUADRANGLE: SALEM NORTH **LONGITUDE:** -88.94139 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.666752 **DATE COLLECTED:** 0 / 0 / 1946
SURFACE ELEVATION (FT.): 576.0 **LOGGED (FT.):** 2380.0 **LOG TYPE:**
SOURCE: ILL EXPLOR, BREWER 1 **WELL TYPE:** Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
174.0	BOND	CARTHAGE	LIMESTONE	-	402.0
-160.0	CARBONDALE	HERRIN	COAL	-	736.0

MAPID: 12104689000C **VERSION:** 1 **PROJECT:** J JOHNSON
COUNTY: MARION **TWP/RNG:** 3N 2E **SECTION:** 26 **QUARTERS/FOOTAGES:** NE NE SE
QUADRANGLE: SALEM NORTH **LONGITUDE:** -88.941387 **GEOLOGIST:** J JOHNSON
CONFIDENTIAL: N **LATITUDE:** 38.670372 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 578.0 **LOGGED (FT.):** 1925.0 **LOG TYPE:** Electric Log
SOURCE: STEELE J W **WELL TYPE:** Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-222.0	CARBONDALE	SPRINGFIELD	COAL	-	800.0
-366.0	CARBONDALE	COLCHESTER	COAL	-	944.0
-1347.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1925.0

MAPID: 12104689000C **VERSION:** 2 **PROJECT:** CGT-ECILL
COUNTY: MARION **TWP/RNG:** 3N 2E **SECTION:** 26 **QUARTERS/FOOTAGES:** NE NE SE
QUADRANGLE: SALEM NORTH **LONGITUDE:** -88.941387 **GEOLOGIST:** C TREWORGY
CONFIDENTIAL: N **LATITUDE:** 38.670372 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 575.0 **LOGGED (FT.):** 943.0 **LOG TYPE:** Electric Log
SOURCE: **WELL TYPE:** Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
173.0	BOND	CARTHAGE	LIMESTONE	10.0	402.0
-117.0	MODESTO	PIASA	LIMESTONE	11.0	692.0
-161.0	CARBONDALE	HERRIN	COAL	4.0	736.0
-212.0	CARBONDALE	BRIAR HILL	COAL	2.0	787.0
-221.0	CARBONDALE	SPRINGFIELD	COAL	4.0	796.0
-272.0	CARBONDALE	HOUCHIN CREEK	COAL	-	847.0
-368.0	CARBONDALE	COLCHESTER	COAL	-	943.0

MAPID: 12101717000C VERSION: 1 PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 3N 2E SECTION: 27 QUARTERS/FOOTAGES: SW NE SW

QUADRANGLE: SALEM NORTH LONGITUDE: -88.97156 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.668413 DATE COLLECTED:

SURFACE ELEVATION (FT.): 578.0 LOGGED (FT.): 938.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
167.0	BOND	CARTHAGE	LIMESTONE	10.0	411.0
-129.0	MODESTO	PIASA	LIMESTONE	12.0	707.0
-179.0	CARBONDALE	HERRIN	COAL	4.0	757.0
-218.0	CARBONDALE	BRIAR HILL	COAL	2.0	796.0
-228.0	CARBONDALE	SPRINGFIELD	COAL	4.0	806.0
-286.0	CARBONDALE	HOUCHIN CREEK	COAL	-	864.0
-360.0	CARBONDALE	COLCHESTER	COAL	-	938.0

MAPID: 12101717000C VERSION: 2 PROJECT: ROOF STUDY

COUNTY: MARION TWP/RNG: 3N 2E SECTION: 27 QUARTERS/FOOTAGES: SW NE SW

QUADRANGLE: SALEM NORTH LONGITUDE: -88.97156 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.668413 DATE COLLECTED:

SURFACE ELEVATION (FT.): 578.0 LOGGED (FT.): 766.0 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
-130.0	MODESTO	PIASA	LIMESTONE & SHALE	10.0	708.0
-140.0	MODESTO		SHALE	18.0	718.0
-158.0	CARBONDALE	DANVILLE	COAL	0.5	736.0
-158.5	CARBONDALE		SHALE	7.5	736.5
-166.0	CARBONDALE	ALLENBY	COAL	2.0	744.0
-168.0	CARBONDALE		SHALE	6.0	746.0
-174.0	CARBONDALE	BANKSTON FORK	LIMESTONE	9.0	752.0
-183.0	CARBONDALE	LAWSON	SHALE	5.0	761.0

MAPID: 12101717000C **VERSION:** 3 **PROJECT:** J JOHNSON
COUNTY: MARION **TWP/RNG:** 3N 2E **SECTION:** 27 **QUARTERS/FOOTAGES:** SW NE SW
QUADRANGLE: SALEM NORTH **LONGITUDE:** -88.97156 **GEOLOGIST:** J JOHNSON
CONFIDENTIAL: N **LATITUDE:** 38.668413 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 578.0 **LOGGED (FT.):** 3682.0 **LOG TYPE:** Electric Log
SOURCE: GULF REFINING CO-EPD **WELL TYPE:** Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-231.0	CARBONDALE	SPRINGFIELD	COAL	-	809.0	
-357.0	CARBONDALE	COLCHESTER	COAL	-	935.0	
-1325.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1903.0	
-2990.0	DEVONIAN	UPPER DEVONIAN S	UNCLASSIFIED	-	3568.0	TOP OF NEW ALBANY
-3008.0	DEVONIAN	GRASSY CREEK	UNCLASSIFIED	-	3586.0	
-3104.0	DEVONIAN	BASE UPPER DEVON	UNCLASSIFIED	-	3682.0	BASE OF NEW ALBANY

MAPID: 12101451000C **VERSION:** 1 **PROJECT:** CGT-ECILL
COUNTY: MARION **TWP/RNG:** 3N 2E **SECTION:** 30 **QUARTERS/FOOTAGES:** SW SW SW
QUADRANGLE: FAIRMAN **LONGITUDE:** -89.030081 **GEOLOGIST:** C TREWORYG
CONFIDENTIAL: N **LATITUDE:** 38.66404 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 529.0 **LOGGED (FT.):** 874.0 **LOG TYPE:** Electric Log
SOURCE: **WELL TYPE:** Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
223.0	BOND	CARTHAGE	LIMESTONE	12.0	306.0	
-89.0	MODESTO	PIASA	LIMESTONE	14.0	618.0	
-160.0	CARBONDALE	HERRIN	COAL	4.0	689.0	
-197.0	CARBONDALE	SPRINGFIELD	COAL	4.0	726.0	
-271.0	CARBONDALE	HOUCHIN CREEK	COAL	-	800.0	
-345.0	CARBONDALE	COLCHESTER	COAL	-	874.0	

MAPID: 12101451000C VERSION: 2 PROJECT: ROOF STUDY

COUNTY: MARION TWP/RNG: 3N 2E SECTION: 30 QUARTERS/FOOTAGES: SW SW SW

QUADRANGLE: FAIRMAN LONGITUDE: -89.030081 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.66404 DATE COLLECTED:

SURFACE ELEVATION (FT.): 523.0 LOGGED (FT.): 693.5 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
-96.0	MODESTO	PIASA	LIMESTONE & SHALE	13.0	619.0
-109.0	MODESTO		SHALE	16.0	632.0
-125.0	CARBONDALE	DANVILLE	COAL	1.0	648.0
-126.0	CARBONDALE		SHALE	8.0	649.0
-134.0	CARBONDALE	ALLENBY	COAL	2.0	657.0
-136.0	CARBONDALE		SHALE	5.5	659.0
-141.5	CARBONDALE	BANKSTON FORK	LIMESTONE W/ SHALE	2.5	664.5
-144.0	CARBONDALE	BANKSTON FORK	SHALE	2.5	667.0
-146.5	CARBONDALE	BANKSTON FORK	LIMESTONE	2.0	669.5
-148.5	CARBONDALE	LAWSON	SHALE	3.5	671.5
-152.0	CARBONDALE	CONANT	LIMESTONE	3.5	675.0
-155.5	CARBONDALE		SHALE	4.0	678.5
-159.5	CARBONDALE	BRERETON	LIMESTONE	4.0	682.5
-163.5	CARBONDALE	ANNA	SHALE	3.5	686.5
-167.0	CARBONDALE	HERRIN	COAL	3.5	690.0

MAPID: 12101451000C VERSION: 3 PROJECT: CIRC 164

COUNTY: MARION TWP/RNG: 3N 2E SECTION: 30 QUARTERS/FOOTAGES: SW SW SW

QUADRANGLE: FAIRMAN LONGITUDE: -89.030081 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.66404 DATE COLLECTED: 0 / 0 / 1946

SURFACE ELEVATION (FT.): 523.0 LOGGED (FT.): 2046.0 LOG TYPE:

SOURCE: MCDEVIT G, ZOLLAR 1 WELL TYPE: Oil and Gas Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
218.0	BOND	CARTHAGE	LIMESTONE	-	305.0
-165.0	CARBONDALE	HERRIN	COAL	-	688.0

MAPID: 12100690000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 3N 2E SECTION: 31 QUARTERS/FOOTAGES: NE NE NE
QUADRANGLE: FAIRMAN LONGITUDE: -89.015341 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.662503 DATE COLLECTED: 0 / 0 / 1939
SURFACE ELEVATION (FT.): 562.0 LOGGED (FT.): 2349.0 LOG TYPE:
SOURCE: KINGWOODOC, LOOMIS 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
188.0	BOND	CARTHAGE	LIMESTONE	-	374.0
-197.0	CARBONDALE	HERRIN	COAL	-	759.0

MAPID: 12100690000C VERSION: 2 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 3N 2E SECTION: 31 QUARTERS/FOOTAGES: NE NE NE
QUADRANGLE: FAIRMAN LONGITUDE: -89.015341 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.662503 DATE COLLECTED:
SURFACE ELEVATION (FT.): 565.0 LOGGED (FT.): 972.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
188.0	BOND	CARTHAGE	LIMESTONE	12.0	377.0
-120.0	MODESTO	PIASA	LIMESTONE	18.0	685.0
-198.0	CARBONDALE	HERRIN	COAL	5.0	763.0
-252.0	CARBONDALE	SPRINGFIELD	COAL	4.0	817.0
-325.0	CARBONDALE	HOUCHIN CREEK	COAL	-	890.0
-407.0	CARBONDALE	COLCHESTER	COAL	-	972.0

MAPID: 12100690000C VERSION: 3 PROJECT: J JOHNSON
COUNTY: MARION TWP/RNG: 3N 2E SECTION: 31 QUARTERS/FOOTAGES: NE NE NE
QUADRANGLE: FAIRMAN LONGITUDE: -89.015341 GEOLOGIST: J JOHNSON
CONFIDENTIAL: N LATITUDE: 38.662503 DATE COLLECTED:
SURFACE ELEVATION (FT.): 565.0 LOGGED (FT.): 1826.0 LOG TYPE: Electric Log
SOURCE: KINGWOOD OIL CO. WELL TYPE: Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-242.0	CARBONDALE	SPRINGFIELD	COAL	-	807.0
-363.0	CARBONDALE	COLCHESTER	COAL	-	928.0
-1261.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1826.0

MAPID: 12102285000C VERSION: 1 PROJECT: J JOHNSON
COUNTY: MARION TWP/RNG: 3N 2E SECTION: 32 QUARTERS/FOOTAGES: SE SE SW
QUADRANGLE: FAIRMAN LONGITUDE: -89.006069 GEOLOGIST: J JOHNSON
CONFIDENTIAL: N LATITUDE: 38.649819 DATE COLLECTED:
SURFACE ELEVATION (FT.): 556.0 LOGGED (FT.): 1821.0 LOG TYPE: Electric Log
SOURCE: MONTGOMERY BILL WELL TYPE: Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-227.0	CARBONDALE	SPRINGFIELD	COAL	-	783.0
-357.0	CARBONDALE	COLCHESTER	COAL	-	913.0
-1265.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1821.0

MAPID: 12102285000C VERSION: 2 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 3N 2E SECTION: 32 QUARTERS/FOOTAGES: SE SE SW
QUADRANGLE: FAIRMAN LONGITUDE: -89.006069 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.649819 DATE COLLECTED:
SURFACE ELEVATION (FT.): 563.0 LOGGED (FT.): 920.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
200.0	BOND	CARTHAGE	LIMESTONE	11.0	363.0
-107.0	MODESTO	PIASA	LIMESTONE	15.0	670.0
-172.0	CARBONDALE	HERRIN	COAL	4.5	735.0
-217.0	CARBONDALE	BRIAR HILL	COAL	1.0	780.0
-224.0	CARBONDALE	SPRINGFIELD	COAL	3.5	787.0
-288.0	CARBONDALE	HOUCHIN CREEK	COAL	-	851.0
-357.0	CARBONDALE	COLCHESTER	COAL	-	920.0

MAPID: 12101108000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 3N 2E SECTION: 33 QUARTERS/FOOTAGES: SW SE SE
QUADRANGLE: SALEM NORTH LONGITUDE: -88.980621 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.650069 DATE COLLECTED: 0 / 0 / 1940
SURFACE ELEVATION (FT.): 569.0 LOGGED (FT.): 3565.0 LOG TYPE:
SOURCE: TEX HARVEY, KAGY ETAL 7B WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
214.0	BOND	CARTHAGE	LIMESTONE	-	355.0
-131.0	CARBONDALE	HERRIN	COAL	-	700.0

MAPID: 12101108000C **VERSION:** 2 **PROJECT:** CGT-ECILL
COUNTY: MARION **TWP/RNG:** 3N 2E **SECTION:** 33 **QUARTERS/FOOTAGES:** SW SE SE
QUADRANGLE: SALEM NORTH **LONGITUDE:** -88.980621 **GEOLOGIST:** C TREWORY
CONFIDENTIAL: N **LATITUDE:** 38.650069 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 570.0 **LOGGED (FT.):** 882.0 **LOG TYPE:** Electric Log
SOURCE: **WELL TYPE:** Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
216.0	BOND	CARTHAGE	LIMESTONE	9.0	354.0	
-130.0	CARBONDALE	HERRIN	COAL	2.5	700.0	
-167.0	CARBONDALE	BRIAR HILL	COAL	1.5	737.0	
-175.0	CARBONDALE	SPRINGFIELD	COAL	3.0	745.0	
-232.0	CARBONDALE	HOUCHIN CREEK	COAL	1.0	802.0	
-312.0	CARBONDALE	COLCHESTER	COAL	-	882.0	

MAPID: 12101108000C **VERSION:** 3 **PROJECT:** J JOHNSON
COUNTY: MARION **TWP/RNG:** 3N 2E **SECTION:** 33 **QUARTERS/FOOTAGES:** SW SE SE
QUADRANGLE: SALEM NORTH **LONGITUDE:** -88.980621 **GEOLOGIST:** J JOHNSON
CONFIDENTIAL: N **LATITUDE:** 38.650069 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 570.0 **LOGGED (FT.):** 3514.0 **LOG TYPE:** Electric Log
SOURCE: STALEY, A. E. MANFCT. CO **WELL TYPE:** Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-180.0	CARBONDALE	SPRINGFIELD	COAL	-	750.0	
-310.0	CARBONDALE	COLCHESTER	COAL	-	880.0	
-1185.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1755.0	
-2837.0	DEVONIAN	UPPER DEVONIAN S	UNCLASSIFIED	-	3407.0	TOP OF NEW ALBANY
-2855.0	DEVONIAN	GRASSY CREEK	UNCLASSIFIED	-	3425.0	
-2944.0	DEVONIAN	BASE UPPER DEVON	UNCLASSIFIED	-	3514.0	BASE OF NEW ALBANY

MAPID: 12101109000C **VERSION:** 1 **PROJECT:** CIRC 164
COUNTY: MARION **TWP/RNG:** 3N 2E **SECTION:** 33 **QUARTERS/FOOTAGES:** NW SW SE
QUADRANGLE: SALEM NORTH **LONGITUDE:** -88.985245 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.651837 **DATE COLLECTED:** 0 / 0 / 1939
SURFACE ELEVATION (FT.): 597.0 **LOGGED (FT.):** 2145.0 **LOG TYPE:**
SOURCE: KING MRS L, KAGY 6 **WELL TYPE:** Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
233.0	BOND	CARTHAGE	LIMESTONE	-	364.0	
-120.0	CARBONDALE	HERRIN	COAL	-	717.0	

MAPID: 12101304000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 3N 2E SECTION: 33 QUARTERS/FOOTAGES: SW SW SE
QUADRANGLE: SALEM NORTH LONGITUDE: -88.985219 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.650015 DATE COLLECTED:
SURFACE ELEVATION (FT.): 571.0 LOGGED (FT.): 896.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
211.0	BOND	CARTHAGE	LIMESTONE	10.0	360.0	
-177.0	CARBONDALE	BRIAR HILL	COAL	2.0	748.0	
-187.0	CARBONDALE	SPRINGFIELD	COAL	3.5	758.0	
-244.0	CARBONDALE	HOUCHIN CREEK	COAL	-	815.0	
-325.0	CARBONDALE	COLCHESTER	COAL	-	896.0	

MAPID: 12101305000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 3N 2E SECTION: 33 QUARTERS/FOOTAGES: SW SW SE
QUADRANGLE: SALEM NORTH LONGITUDE: -88.985219 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.650015 DATE COLLECTED:
SURFACE ELEVATION (FT.): 571.0 LOGGED (FT.): 765.5 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
206.0	BOND	CARTHAGE	LIMESTONE	10.0	365.0	
-191.0	CARBONDALE	SPRINGFIELD	COAL	3.5	762.0	

MAPID: 12101350000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 3N 2E SECTION: 33 QUARTERS/FOOTAGES: NE NE SE
QUADRANGLE: SALEM NORTH LONGITUDE: -88.978356 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.655572 DATE COLLECTED: 0 / 0 / 1939
SURFACE ELEVATION (FT.): 574.0 LOGGED (FT.): 2180.0 LOG TYPE:
SOURCE: HARVEY A, MARIN CB&L 2 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
204.0	BOND	CARTHAGE	LIMESTONE	-	370.0	
-138.0	CARBONDALE	HERRIN	COAL	-	712.0	

MAPID: 12101112000C VERSION: 1 PROJECT: J JOHNSON
COUNTY: MARION TWP/RNG: 3N 2E SECTION: 34 QUARTERS/FOOTAGES: SW SW SW
QUADRANGLE: SALEM NORTH LONGITUDE: -88.976367 GEOLOGIST: J JOHNSON
CONFIDENTIAL: N LATITUDE: 38.650644 DATE COLLECTED:
SURFACE ELEVATION (FT.): 569.0 LOGGED (FT.): 3487.0 LOG TYPE: Electric Log
SOURCE: ABSHER & BOOTH WELL TYPE: Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-167.0	CARBONDALE	SPRINGFIELD	COAL	-	736.0	
-253.0	CARBONDALE	COLCHESTER	COAL	-	822.0	
-1184.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1753.0	
-2807.0	DEVONIAN	UPPER DEVONIAN S	UNCLASSIFIED	-	3376.0	TOP OF NEW ALBANY
-2826.0	DEVONIAN	GRASSY CREEK	UNCLASSIFIED	-	3395.0	
-2918.0	DEVONIAN	BASE UPPER DEVON	UNCLASSIFIED	-	3487.0	BASE OF NEW ALBANY

MAPID: 12101112000C VERSION: 2 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 3N 2E SECTION: 34 QUARTERS/FOOTAGES: SW SW SW
QUADRANGLE: SALEM NORTH LONGITUDE: -88.976367 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.650644 DATE COLLECTED:
SURFACE ELEVATION (FT.): 569.0 LOGGED (FT.): 786.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
225.0	BOND	CARTHAGE	LIMESTONE	9.0	344.0	
-112.0	CARBONDALE	HERRIN	COAL	4.0	681.0	
-155.0	CARBONDALE	BRIAR HILL	COAL	2.0	724.0	
-165.0	CARBONDALE	SPRINGFIELD	COAL	2.0	734.0	
-215.0	CARBONDALE	HOUCHIN CREEK	COAL	2.0	784.0	

MAPID: 12101266000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 3N 2E SECTION: 34 QUARTERS/FOOTAGES: 330' S line, 990' W line
QUADRANGLE: SALEM NORTH LONGITUDE: -88.97365 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.650115 DATE COLLECTED: 0 / 0 / 1941
SURFACE ELEVATION (FT.): 566.0 LOGGED (FT.): 2020.0 LOG TYPE:
SOURCE: ABSHER&BTH, MCMACKIN C 10 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
214.0	BOND	CARTHAGE	LIMESTONE	-	352.0	
-125.0	CARBONDALE	HERRIN	COAL	-	691.0	

MAPID: 12101266000C VERSION: 2 PROJECT: ROOF STUDY

COUNTY: MARION TWP/RNG: 3N 2E SECTION: 34 QUARTERS/FOOTAGES: 330' S line, 990' W line

QUADRANGLE: SALEM NORTH LONGITUDE: -88.97365 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.650115 DATE COLLECTED:

SURFACE ELEVATION (FT.): 566.0 LOGGED (FT.): 702.0 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
-86.0	MODESTO	PIASA	LIMESTONE	8.0	652.0
-94.0	MODESTO		SHALE	13.5	660.0
-107.5	CARBONDALE	DANVILLE	COAL	1.0	673.5
-108.5	CARBONDALE		SHALE	7.5	674.5
-116.0	CARBONDALE	ALLENBY	COAL	1.0	682.0
-117.0	CARBONDALE		SHALE	7.0	683.0
-124.0	CARBONDALE	BANKSTON FORK	LIMESTONE	6.5	690.0
-130.5	CARBONDALE	LAWSON	SHALE	5.5	696.5

MAPID: 12101323000C VERSION: 1 PROJECT: CIRC 164

COUNTY: MARION TWP/RNG: 3N 2E SECTION: 34 QUARTERS/FOOTAGES: SW NW SW

QUADRANGLE: SALEM NORTH LONGITUDE: -88.97602 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.653765 DATE COLLECTED: 0 / 0 / 1941

SURFACE ELEVATION (FT.): 568.0 LOGGED (FT.): 2027.0 LOG TYPE:

SOURCE: ABSHER&BTH, MCMACKIN C 4B WELL TYPE: Oil and Gas Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
210.0	BOND	CARTHAGE	LIMESTONE	-	358.0
-130.0	CARBONDALE	HERRIN	COAL	-	698.0

MAPID: 12101323000C VERSION: 2 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 3N 2E SECTION: 34 QUARTERS/FOOTAGES: SW NW SW
QUADRANGLE: SALEM NORTH LONGITUDE: -88.97602 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.653765 DATE COLLECTED:
SURFACE ELEVATION (FT.): 568.0 LOGGED (FT.): 884.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: POOR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
210.0	BOND	CARTHAGE	LIMESTONE	11.0	358.0	
-132.0	CARBONDALE	HERRIN	COAL	4.0	700.0	
-172.0	CARBONDALE	BRIAR HILL	COAL	-	740.0	
-182.0	CARBONDALE	SPRINGFIELD	COAL	4.0	750.0	
-242.0	CARBONDALE	HOUCHIN CREEK	COAL	-	810.0	
-316.0	CARBONDALE	COLCHESTER	COAL	-	884.0	

MAPID: 12125806000C VERSION: 1 PROJECT: J JOHNSON
COUNTY: MARION TWP/RNG: 3N 2E SECTION: 35 QUARTERS/FOOTAGES: SE SE NE
QUADRANGLE: SALEM NORTH LONGITUDE: -88.941342 GEOLOGIST: J JOHNSON
CONFIDENTIAL: N LATITUDE: 38.657647 DATE COLLECTED:
SURFACE ELEVATION (FT.): 571.0 LOGGED (FT.): 3754.0 LOG TYPE: Electric Log
SOURCE: BREHM, C. E. DRLG.&PROD. WELL TYPE: Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-235.0	CARBONDALE	SPRINGFIELD	COAL	-	806.0	
-382.0	CARBONDALE	COLCHESTER	COAL	-	953.0	
-1358.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	1929.0	
-3060.0	DEVONIAN	UPPER DEVONIAN S	UNCLASSIFIED	-	3631.0	TOP OF NEW ALBANY
-3081.0	DEVONIAN	GRASSY CREEK	UNCLASSIFIED	-	3652.0	
-3183.0	DEVONIAN	BASE UPPER DEVON	UNCLASSIFIED	-	3754.0	BASE OF NEW ALBANY

MAPID: 12125806000C VERSION: 2 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 3N 2E SECTION: 35 QUARTERS/FOOTAGES: SE SE NE
QUADRANGLE: SALEM NORTH LONGITUDE: -88.941342 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.657647 DATE COLLECTED:
SURFACE ELEVATION (FT.): 571.0 LOGGED (FT.): 809.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
171.0	BOND	CARTHAGE	LIMESTONE	9.0	400.0	
-236.0	CARBONDALE	SPRINGFIELD	COAL	2.0	807.0	

MAPID: 12101645000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 3N 2E SECTION: 36 QUARTERS/FOOTAGES: SE NE NW
QUADRANGLE: SALEM NORTH LONGITUDE: -88.93207 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.661346 DATE COLLECTED:
SURFACE ELEVATION (FT.): 560.0 LOGGED (FT.): 940.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
175.0	BOND	CARTHAGE	LIMESTONE	10.0	385.0
-172.0	CARBONDALE	HERRIN	COAL	4.0	732.0
-220.0	CARBONDALE	BRIAR HILL	COAL	1.5	780.0
-228.0	CARBONDALE	SPRINGFIELD	COAL	4.0	788.0
-287.0	CARBONDALE	HOUCHIN CREEK	COAL	1.0	847.0
-380.0	CARBONDALE	COLCHESTER	COAL	-	940.0

MAPID: 12101645000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: MARION TWP/RNG: 3N 2E SECTION: 36 QUARTERS/FOOTAGES: SE NE NW
QUADRANGLE: SALEM NORTH LONGITUDE: -88.93207 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.661346 DATE COLLECTED:
SURFACE ELEVATION (FT.): 560.0 LOGGED (FT.): 741.0 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
-124.0	MODESTO	PIASA	LIMESTONE & SHALE	10.0	684.0
-134.0	MODESTO		SHALE	20.0	694.0
-154.0	CARBONDALE	DANVILLE	COAL	2.5	714.0
-156.5	CARBONDALE		SHALE	6.5	716.5
-163.0	CARBONDALE	ALLENBY	COAL	2.0	723.0
-165.0	CARBONDALE		SHALE	3.0	725.0
-168.0	CARBONDALE	BANKSTON FORK	LIMESTONE	2.5	728.0
-170.5	CARBONDALE	BANKSTON FORK	SHALE	2.0	730.5
-172.5	CARBONDALE	BANKSTON FORK	LIMESTONE	4.0	732.5
-176.5	CARBONDALE	LAWSON	SHALE	4.5	736.5

MAPID: 12105655000C **VERSION:** 1 **PROJECT:** J JOHNSON
COUNTY: MARION **TWP/RNG:** 3N 2E **SECTION:** 36 **QUARTERS/FOOTAGES:** SW SE SE
QUADRANGLE: SALEM NORTH **LONGITUDE:** -88.925158 **GEOLOGIST:** J JOHNSON
CONFIDENTIAL: N **LATITUDE:** 38.65045 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 560.0 **LOGGED (FT.):** 3843.0 **LOG TYPE:** Electric Log
SOURCE: FULK, PERRY **WELL TYPE:** Oil and Gas Test
COMMENT: COLLECTED FOR JOEL JOHNSONS MS THESIS

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-280.0	CARBONDALE	SPRINGFIELD	COAL	-	840.0	
-426.0	CARBONDALE	COLCHESTER	COAL	-	986.0	
-1442.0	MISSISSIPPIAN	BEECH CREEK	UNCLASSIFIED	-	2002.0	
-3156.0	DEVONIAN	UPPER DEVONIAN S	UNCLASSIFIED	-	3716.0	TOP OF NEW ALBANY
-3181.0	DEVONIAN	GRASSY CREEK	UNCLASSIFIED	-	3741.0	
-3283.0	DEVONIAN	BASE UPPER DEVON	UNCLASSIFIED	-	3843.0	BASE OF NEW ALBANY

MAPID: 12105655000C **VERSION:** 2 **PROJECT:** CGT-ECILL
COUNTY: MARION **TWP/RNG:** 3N 2E **SECTION:** 36 **QUARTERS/FOOTAGES:** SW SE SE
QUADRANGLE: SALEM NORTH **LONGITUDE:** -88.925158 **GEOLOGIST:** C TREWORGY
CONFIDENTIAL: N **LATITUDE:** 38.65045 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 560.0 **LOGGED (FT.):** 987.0 **LOG TYPE:** Electric Log
SOURCE: **WELL TYPE:** Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
120.0	BOND	CARTHAGE	LIMESTONE	8.0	440.0	
-222.0	CARBONDALE	HERRIN	COAL	2.5	782.0	
-268.0	CARBONDALE	BRIAR HILL	COAL	2.0	828.0	
-277.0	CARBONDALE	SPRINGFIELD	COAL	3.0	837.0	
-331.0	CARBONDALE	HOUCHIN CREEK	COAL	-	891.0	
-427.0	CARBONDALE	COLCHESTER	COAL	-	987.0	

MAPID: 12101705000C **VERSION:** 1 **PROJECT:** CGT-ECILL
COUNTY: MARION **TWP/RNG:** 3N 3E **SECTION:** 1 **QUARTERS/FOOTAGES:** 330' N line, 330' W line of SE
QUADRANGLE: OMEGA **LONGITUDE:** -88.816522 **GEOLOGIST:** C TREWORGY
CONFIDENTIAL: N **LATITUDE:** 38.728572 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 588.0 **LOGGED (FT.):** 1095.0 **LOG TYPE:** Electric Log
SOURCE: **WELL TYPE:** Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
50.0	BOND	CARTHAGE	LIMESTONE	9.0	538.0
-278.0	CARBONDALE	DANVILLE	COAL	-	866.0
-329.0	CARBONDALE	BRIAR HILL	COAL	2.5	917.0
-336.0	CARBONDALE	SPRINGFIELD	COAL	4.0	924.0
-404.0	CARBONDALE	HOUCHIN CREEK	COAL	-	992.0
-507.0	CARBONDALE	COLCHESTER	COAL	-	1095.0

MAPID: 12101705000C **VERSION:** 2 **PROJECT:** BLM
COUNTY: MARION **TWP/RNG:** 3N 3E **SECTION:** 1 **QUARTERS/FOOTAGES:** 330' N line, 330' W line of SE
QUADRANGLE: OMEGA **LONGITUDE:** -88.816522 **GEOLOGIST:** TREWORGY,J
CONFIDENTIAL: N **LATITUDE:** 38.728572 **DATE COLLECTED:** 11 / 0 / 1954
SURFACE ELEVATION (FT.): 588.0 **LOGGED (FT.):** 1095.0 **LOG TYPE:** Electric Log
SOURCE: THEODORE R. LINDSAY **WELL TYPE:** Oil and Gas Test
COMMENT: INTERPRETED BY C. TREWORGY

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
588.0			ROCK	866.0	0.0
-278.0	CARBONDALE	DANVILLE	COAL	-	866.0
-278.0	CARBONDALE		ROCK	51.0	866.0
-329.0	CARBONDALE		COAL	2.5	917.0
-331.5	CARBONDALE		ROCK	4.5	919.5
-336.0	CARBONDALE	SPRINGFIELD	COAL	4.0	924.0
-340.0	CARBONDALE		ROCK	64.0	928.0
-404.0	CARBONDALE	HOUCHIN CREEK	COAL	-	992.0
-404.0	CARBONDALE		ROCK	103.0	992.0
-507.0	CARBONDALE	COLCHESTER	COAL	-	1095.0

MAPID: 12100696000C **VERSION:** 1 **PROJECT:** CIRC 164
COUNTY: MARION **TWP/RNG:** 3N 3E **SECTION:** 5 **QUARTERS/FOOTAGES:** SW SW SW
QUADRANGLE: SALEM NORTH **LONGITUDE:** -88.900516 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.723316 **DATE COLLECTED:** 0 / 0 / 1939
SURFACE ELEVATION (FT.): 607.0 **LOGGED (FT.):** 2480.0 **LOG TYPE:**
SOURCE: ALGONA OC, BROOM J A 1 **WELL TYPE:** Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
121.0	BOND	CARTHAGE	LIMESTONE	-	486.0
-226.0	CARBONDALE	HERRIN	COAL	-	833.0

MAPID: 12100696000C **VERSION:** 2 **PROJECT:** CGT-ECILL
COUNTY: MARION **TWP/RNG:** 3N 3E **SECTION:** 5 **QUARTERS/FOOTAGES:** SW SW SW
QUADRANGLE: SALEM NORTH **LONGITUDE:** -88.900516 **GEOLOGIST:** C TREWORGY
CONFIDENTIAL: N **LATITUDE:** 38.723316 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 610.0 **LOGGED (FT.):** 879.0 **LOG TYPE:** Electric Log
SOURCE: **WELL TYPE:** Oil and Gas Test
COMMENT: POOR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
120.0	BOND	CARTHAGE	LIMESTONE	9.0	490.0
-265.0	CARBONDALE	SPRINGFIELD	COAL	4.0	875.0

MAPID: 12101386000C **VERSION:** 1 **PROJECT:** CGT-ECILL
COUNTY: MARION **TWP/RNG:** 3N 3E **SECTION:** 9 **QUARTERS/FOOTAGES:** 330' S line, 330' E line of NE SW
QUADRANGLE: OMEGA **LONGITUDE:** -88.874931 **GEOLOGIST:** C TREWORGY
CONFIDENTIAL: N **LATITUDE:** 38.712361 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 589.0 **LOGGED (FT.):** 928.0 **LOG TYPE:** Electric Log
SOURCE: **WELL TYPE:** Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
90.0	BOND	CARTHAGE	LIMESTONE	9.0	499.0
-23.0	MODESTO	TRIVOLI	SANDSTONE	18.0	612.0
-173.0	MODESTO	PIASA	LIMESTONE	7.0	762.0
-282.0	CARBONDALE	SPRINGFIELD	COAL	3.5	871.0
-339.0	CARBONDALE	HOUCHIN CREEK	COAL	-	928.0

MAPID: 12101386000C **VERSION:** 2 **PROJECT:** BLM
COUNTY: MARION **TWP/RNG:** 3N 3E **SECTION:** 9 **QUARTERS/FOOTAGES:** 330' S line, 330' E line of NE SW
QUADRANGLE: OMEGA **LONGITUDE:** -88.874931 **GEOLOGIST:** TREWORGY,J
CONFIDENTIAL: N **LATITUDE:** 38.712361 **DATE COLLECTED:** 6 / 27 / 1944
SURFACE ELEVATION (FT.): 589.0 **LOGGED (FT.):** 928.0 **LOG TYPE:** Electric Log
SOURCE: TEXAS COMPANY, THE **WELL TYPE:** Oil and Gas Test
COMMENT: INTERPRETED BY C. TREWORGY

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN
589.0			ROCK	871.0	0.0
-282.0	CARBONDALE	SPRINGFIELD	COAL	3.5	871.0
-285.5	CARBONDALE		ROCK	53.5	874.5
-339.0	CARBONDALE	HOUCHIN CREEK	COAL	-	928.0

MAPID: 12101386000C **VERSION:** 3 **PROJECT:** CIRC 164
COUNTY: MARION **TWP/RNG:** 3N 3E **SECTION:** 9 **QUARTERS/FOOTAGES:** 330' S line, 330' E line of NE SW
QUADRANGLE: OMEGA **LONGITUDE:** -88.874931 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.712361 **DATE COLLECTED:** 0 / 0 / 1944
SURFACE ELEVATION (FT.): 589.0 **LOGGED (FT.):** 2568.0 **LOG TYPE:**
SOURCE: TEXAS CO, CARLISLE F 1 **WELL TYPE:** Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN
91.0	BOND	CARTHAGE	LIMESTONE	-	498.0
-237.0	CARBONDALE	HERRIN	COAL	-	826.0

MAPID: 12105056000C **VERSION:** 1 **PROJECT:** CGT-ECILL
COUNTY: MARION **TWP/RNG:** 3N 3E **SECTION:** 9 **QUARTERS/FOOTAGES:** 330' S line, 330' E line of NE SE
QUADRANGLE: OMEGA **LONGITUDE:** -88.865696 **GEOLOGIST:** C TREWORGY
CONFIDENTIAL: N **LATITUDE:** 38.712319 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 573.0 **LOGGED (FT.):** 1007.0 **LOG TYPE:** Electric Log
SOURCE: **WELL TYPE:** Oil and Gas Test
COMMENT: POOR LOG, 0000

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN
94.0	BOND	CARTHAGE	LIMESTONE	9.0	479.0
-170.0	MODESTO	PIASA	LIMESTONE	4.0	743.0
-267.0	CARBONDALE	BRIAR HILL	COAL	2.5	840.0
-277.0	CARBONDALE	SPRINGFIELD	COAL	4.0	850.0
-340.0	CARBONDALE	HOUCHIN CREEK	COAL	-	913.0
-434.0	CARBONDALE	COLCHESTER	COAL	-	1007.0

MAPID: 12105056000C VERSION: 2

PROJECT: BLM

COUNTY: MARION TWP/RNG: 3N 3E SECTION: 9 QUARTERS/FOOTAGES: 330' S line, 330' E line of NE SE
QUADRANGLE: OMEGA LONGITUDE: -88.865696 GEOLOGIST: TREWORGY,J
CONFIDENTIAL: N LATITUDE: 38.712319 DATE COLLECTED: 6 / 22 / 1963
SURFACE ELEVATION (FT.): 573.0 LOGGED (FT.): 1007.0 LOG TYPE: Electric Log
SOURCE: DALE HOPKINS WELL TYPE: Oil and Gas Test
COMMENT: INTERPRETED BY C. TREWORGY

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
573.0			ROCK	840.0	0.0
-267.0			COAL	2.5	840.0
-269.5			ROCK	7.5	842.5
-277.0	CARBONDALE	SPRINGFIELD	COAL	4.0	850.0
-281.0	CARBONDALE		ROCK	59.0	854.0
-340.0	CARBONDALE	HOUCHIN CREEK	COAL	-	913.0
-340.0	CARBONDALE		ROCK	65.0	913.0
-405.0	CARBONDALE		COAL	-	978.0
-405.0	CARBONDALE		ROCK	29.0	978.0
-434.0	CARBONDALE	COLCHESTER	COAL	-	1007.0

MAPID: 12101418000C VERSION: 1

PROJECT: BLM

COUNTY: MARION TWP/RNG: 3N 3E SECTION: 10 QUARTERS/FOOTAGES: NW NW SE
QUADRANGLE: OMEGA LONGITUDE: -88.85404 GEOLOGIST: TREWORGY,J
CONFIDENTIAL: N LATITUDE: 38.714212 DATE COLLECTED: 8 / 0 / 1946
SURFACE ELEVATION (FT.): 578.0 LOGGED (FT.): 932.0 LOG TYPE: Electric Log
SOURCE: GEORGE J. MCDEVITT WELL TYPE: Oil and Gas Test
COMMENT: INTERPRETED BY C. TREWORGY

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
578.0			ROCK	831.0	0.0
-253.0	CARBONDALE	HERRIN	COAL	-	831.0
-253.0	CARBONDALE		ROCK	32.0	831.0
-285.0	CARBONDALE		COAL	1.0	863.0
-286.0	CARBONDALE		ROCK	8.0	864.0
-294.0	CARBONDALE	SPRINGFIELD	COAL	4.5	872.0
-298.5	CARBONDALE		ROCK	55.5	876.5
-354.0	CARBONDALE	HOUCHIN CREEK	COAL	-	932.0

MAPID: 12101418000C VERSION: 2 PROJECT: ROOF STUDY
COUNTY: MARION TWP/RNG: 3N 3E SECTION: 10 QUARTERS/FOOTAGES: NW NW SE
QUADRANGLE: OMEGA LONGITUDE: -88.85404 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.714212 DATE COLLECTED:
SURFACE ELEVATION (FT.): 578.0 LOGGED (FT.): 826.0 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
-186.0	MODESTO	PIASA	LIMESTONE	4.0	764.0
-190.0	MODESTO		SILTY SHALE	44.0	768.0
-234.0	CARBONDALE	DANVILLE	COAL	1.5	812.0
-235.5	CARBONDALE		SHALE	5.5	813.5
-241.0	CARBONDALE	LAWSON	SHALE	4.0	819.0
-245.0	CARBONDALE	BRERETON	LIMESTONE & SHALE	3.0	823.0

MAPID: 12101418000C VERSION: 3 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 3N 3E SECTION: 10 QUARTERS/FOOTAGES: NW NW SE
QUADRANGLE: OMEGA LONGITUDE: -88.85404 GEOLOGIST: C TREWORYG
CONFIDENTIAL: N LATITUDE: 38.714212 DATE COLLECTED:
SURFACE ELEVATION (FT.): 578.0 LOGGED (FT.): 932.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
75.0	BOND	CARTHAGE	LIMESTONE	9.0	503.0
-253.0	CARBONDALE	HERRIN	COAL	-	831.0
-285.0	CARBONDALE	BRIAR HILL	COAL	1.0	863.0
-294.0	CARBONDALE	SPRINGFIELD	COAL	4.5	872.0
-354.0	CARBONDALE	HOUCHIN CREEK	COAL	-	932.0

MAPID: 12101418000C VERSION: 4 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 3N 3E SECTION: 10 QUARTERS/FOOTAGES: NW NW SE
QUADRANGLE: OMEGA LONGITUDE: -88.85404 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.714212 DATE COLLECTED: 0 / 0 / 1946
SURFACE ELEVATION (FT.): 575.0 LOGGED (FT.): 2489.0 LOG TYPE:
SOURCE: MCDEVT GEO, FORD 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
76.0	BOND	CARTHAGE	LIMESTONE	-	499.0
-254.0	CARBONDALE	HERRIN	COAL	-	829.0

MAPID: 121230A0001F VERSION: 1 PROJECT: BLM
 COUNTY: MARION TWP/RNG: 3N 3E SECTION: 10 QUARTERS/FOOTAGES: SW NW NW
 QUADRANGLE: OMEGA LONGITUDE: -88.863453 GEOLOGIST: TREWORGY,J
 CONFIDENTIAL: N LATITUDE: 38.719643 DATE COLLECTED: 9 / 26 / 1934
 SURFACE ELEVATION (FT.): 575.0 LOGGED (FT.): 5.2 LOG TYPE: Measured section
 SOURCE: FLD NOTES-J. WELLER WELL TYPE: Outcrop
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
575.0			SHALE	4.0	0.0	
571.0			COAL	0.7	4.0	
570.3			UNDERCLAY	0.5	4.7	

MAPID: 121230A0002F VERSION: 1 PROJECT: BLM
 COUNTY: MARION TWP/RNG: 3N 3E SECTION: 10 QUARTERS/FOOTAGES: SW SW NW
 QUADRANGLE: OMEGA LONGITUDE: -88.863408 GEOLOGIST: TREWORGY,J
 CONFIDENTIAL: N LATITUDE: 38.715984 DATE COLLECTED: 0 / 0 / 1943
 SURFACE ELEVATION (FT.): 570.0 LOGGED (FT.): 9.0 LOG TYPE: Measured section
 SOURCE: FLD NOTES-PAYNE & EDDINGS WELL TYPE: Outcrop
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
570.0			ROCK	8.3	0.0	
561.7			COAL	0.6	8.3	
561.1			ROCK	0.1	8.9	

MAPID: 12125735000C VERSION: 1 PROJECT: CGT-ECILL
 COUNTY: MARION TWP/RNG: 3N 3E SECTION: 13 QUARTERS/FOOTAGES: 330' S line, 330' E line of SW
 QUADRANGLE: OMEGA LONGITUDE: -88.818985 GEOLOGIST: C TREWORGY
 CONFIDENTIAL: N LATITUDE: 38.694111 DATE COLLECTED:
 SURFACE ELEVATION (FT.): 560.0 LOGGED (FT.): 922.0 LOG TYPE: Electric Log
 SOURCE: WELL TYPE: Oil and Gas Test
 COMMENT: POOR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-358.0	CARBONDALE	SPRINGFIELD	COAL	4.0	918.0	

MAPID: 12125735000C VERSION: 2 PROJECT: BLM
COUNTY: MARION TWP/RNG: 3N 3E SECTION: 13 QUARTERS/FOOTAGES: 330' S line, 330' E line of SW
QUADRANGLE: OMEGA LONGITUDE: -88.818985 GEOLOGIST: TREWORGY,J
CONFIDENTIAL: N LATITUDE: 38.694111 DATE COLLECTED: 12 / 12 / 1973
SURFACE ELEVATION (FT.): 560.0 LOGGED (FT.): 922.0 LOG TYPE: Electric Log
SOURCE: R. L. VAN FOSSAN WELL TYPE: Oil and Gas Test
COMMENT: INTERPRETED BY C. TREWORGY

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
560.0			ROCK	918.0	0.0
-358.0	CARBONDALE	SPRINGFIELD	COAL	4.0	918.0

MAPID: 12101706000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 3N 3E SECTION: 14 QUARTERS/FOOTAGES: 990' N line, 990' W line of SW SW
QUADRANGLE: OMEGA LONGITUDE: -88.842361 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.69418 DATE COLLECTED:
SURFACE ELEVATION (FT.): 555.0 LOGGED (FT.): 1080.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
20.0	BOND	CARTHAGE	LIMESTONE	10.0	535.0
-265.0	MODESTO	PIASA	LIMESTONE	6.0	820.0
-303.0	CARBONDALE	DANVILLE	COAL	2.0	858.0
-358.0	CARBONDALE	BRIAR HILL	COAL	2.5	913.0
-366.0	CARBONDALE	SPRINGFIELD	COAL	4.5	921.0
-525.0	CARBONDALE	COLCHESTER	COAL	-	1080.0

MAPID: 12101706000C VERSION: 2

PROJECT: BLM

COUNTY: MARION TWP/RNG: 3N 3E SECTION: 14 QUARTERS/FOOTAGES: 990' N line, 990' W line of SW SW
QUADRANGLE: OMEGA LONGITUDE: -88.842361 GEOLOGIST: TREWORGY,J
CONFIDENTIAL: N LATITUDE: 38.69418 DATE COLLECTED: 11 / 0 / 1954
SURFACE ELEVATION (FT.): 555.0 LOGGED (FT.): 1080.0 LOG TYPE: Electric Log
SOURCE: E. G. WELKER WELL TYPE: Oil and Gas Test
COMMENT: INTERPRETED BY C. TREWORGY

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
555.0			ROCK	858.0	0.0
-303.0	CARBONDALE	DANVILLE	COAL	2.0	858.0
-305.0	CARBONDALE		ROCK	53.0	860.0
-358.0	CARBONDALE		COAL	2.5	913.0
-360.5	CARBONDALE		ROCK	5.5	915.5
-366.0	CARBONDALE	SPRINGFIELD	COAL	4.5	921.0
-370.5	CARBONDALE		ROCK	73.5	925.5
-444.0	CARBONDALE	HOUCHIN CREEK	COAL	3.0	999.0
-447.0	CARBONDALE		ROCK	78.0	1002.0
-525.0	CARBONDALE	COLCHESTER	COAL	-	1080.0

MAPID: 12101348000C VERSION: 1

PROJECT: BLM

COUNTY: MARION TWP/RNG: 3N 3E SECTION: 15 QUARTERS/FOOTAGES: 330' N line, 330' W line of SE
QUADRANGLE: OMEGA LONGITUDE: -88.854021 GEOLOGIST: TREWORGY,J
CONFIDENTIAL: N LATITUDE: 38.699638 DATE COLLECTED: 7 / 0 / 1943
SURFACE ELEVATION (FT.): 566.0 LOGGED (FT.): 996.0 LOG TYPE: Electric Log
SOURCE: BIG CHIEF DRLG. CO. WELL TYPE: Oil and Gas Test
COMMENT: INTERPRETED BY C. TREWORGY

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
566.0			ROCK	910.0	0.0
-344.0			COAL	-	910.0
-344.0			ROCK	8.0	910.0
-352.0	CARBONDALE	SPRINGFIELD	COAL	4.5	918.0
-356.5	CARBONDALE		ROCK	71.5	922.5
-428.0	CARBONDALE	HOUCHIN CREEK	COAL	2.0	994.0

MAPID: 12101348000C VERSION: 2 PROJECT: ROOF STUDY
COUNTY: MARION TWP/RNG: 3N 3E SECTION: 15 QUARTERS/FOOTAGES: 330' N line, 330' W line of SE
QUADRANGLE: OMEGA LONGITUDE: -88.854021 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.699638 DATE COLLECTED:
SURFACE ELEVATION (FT.): 564.0 LOGGED (FT.): 865.5 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
-244.0	MODESTO	PIASA	LIMESTONE & SHALE	9.0	808.0
-253.0	MODESTO		SILTY SHALE	33.3	817.0
-286.3	CARBONDALE	DANVILLE	COAL	1.5	850.3
-287.8	CARBONDALE		SHALE	5.3	851.8
-293.0	CARBONDALE	LAWSON	SHALE	4.0	857.0
-297.0	CARBONDALE	BRERETON	LIMESTONE	4.5	861.0

MAPID: 12101348000C VERSION: 3 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 3N 3E SECTION: 15 QUARTERS/FOOTAGES: 330' N line, 330' W line of SE
QUADRANGLE: OMEGA LONGITUDE: -88.854021 GEOLOGIST: C TREWORYG
CONFIDENTIAL: N LATITUDE: 38.699638 DATE COLLECTED:
SURFACE ELEVATION (FT.): 566.0 LOGGED (FT.): 996.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: POOR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
42.0	BOND	CARTHAGE	LIMESTONE	8.0	524.0
-242.0	MODESTO	PIASA	LIMESTONE	9.0	808.0
-344.0	CARBONDALE	BRIAR HILL	COAL	-	910.0
-352.0	CARBONDALE	SPRINGFIELD	COAL	4.5	918.0
-428.0	CARBONDALE	HOUCHIN CREEK	COAL	2.0	994.0

MAPID: 12101348000C VERSION: 4 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 3N 3E SECTION: 15 QUARTERS/FOOTAGES: 330' N line, 330' W line of SE
QUADRANGLE: OMEGA LONGITUDE: -88.854021 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.699638 DATE COLLECTED: 0 / 0 / 1943
SURFACE ELEVATION (FT.): 564.0 LOGGED (FT.): 2508.0 LOG TYPE:
SOURCE: BIG CHIEF WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
42.0	BOND	CARTHAGE	LIMESTONE	-	522.0
-300.0	CARBONDALE	HERRIN	COAL	-	864.0

MAPID: 12101414000C VERSION: 1 PROJECT: BLM

COUNTY: MARION TWP/RNG: 3N 3E SECTION: 16 QUARTERS/FOOTAGES: SE SE SE

QUADRANGLE: OMEGA LONGITUDE: -88.865682 GEOLOGIST: TREWORY,J

CONFIDENTIAL: N LATITUDE: 38.69417 DATE COLLECTED: 2 / 8 / 1944

SURFACE ELEVATION (FT.): 574.0 LOGGED (FT.): 1071.0 LOG TYPE: Electric Log

SOURCE: TEXAS COMPANY, THE WELL TYPE: Oil and Gas Test

COMMENT: INTERPRETED BY C. TREWORY

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
574.0			ROCK	897.0	0.0
-323.0			COAL	0.0	897.0
-323.0			ROCK	9.0	897.0
-332.0	CARBONDALE	SPRINGFIELD	COAL	4.0	906.0
-336.0	CARBONDALE		ROCK	59.0	910.0
-395.0	CARBONDALE	HOUCHIN CREEK	COAL	2.0	969.0
-397.0	CARBONDALE		ROCK	100.0	971.0
-497.0	CARBONDALE	COLCHESTER	COAL	-	1071.0

MAPID: 12101414000C VERSION: 2 PROJECT: ROOF STUDY

COUNTY: MARION TWP/RNG: 3N 3E SECTION: 16 QUARTERS/FOOTAGES: SE SE SE

QUADRANGLE: OMEGA LONGITUDE: -88.865682 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.69417 DATE COLLECTED:

SURFACE ELEVATION (FT.): 574.0 LOGGED (FT.): 0.0 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
-	CARBONDALE	DANVILLE	COAL	1.0	
-	CARBONDALE		SHALE	5.5	
-	CARBONDALE	LAWSON	SHALE	4.0	
-	CARBONDALE	BRERETON	LIMESTONE	4.0	

MAPID: 12101414000C VERSION: 3 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 3N 3E SECTION: 16 QUARTERS/FOOTAGES: SE SE SE
QUADRANGLE: OMEGA LONGITUDE: -88.865682 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.69417 DATE COLLECTED:
SURFACE ELEVATION (FT.): 574.0 LOGGED (FT.): 1071.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
64.0	BOND	CARTHAGE	LIMESTONE	9.0	510.0	
-323.0	CARBONDALE	BRIAR HILL	COAL	-	897.0	
-332.0	CARBONDALE	SPRINGFIELD	COAL	4.0	906.0	
-395.0	CARBONDALE	HOUCHIN CREEK	COAL	2.0	969.0	
-497.0	CARBONDALE	COLCHESTER	COAL	-	1071.0	

MAPID: 12101414000C VERSION: 4 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 3N 3E SECTION: 16 QUARTERS/FOOTAGES: SE SE SE
QUADRANGLE: OMEGA LONGITUDE: -88.865682 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.69417 DATE COLLECTED: 0 / 0 / 1944
SURFACE ELEVATION (FT.): 574.0 LOGGED (FT.): 2588.0 LOG TYPE:
SOURCE: TEXAS CO, HIESTAND C 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
64.0	BOND	CARTHAGE	LIMESTONE	-	510.0	
-272.0	CARBONDALE	HERRIN	COAL	-	846.0	

MAPID: 12100698000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 3N 3E SECTION: 19 QUARTERS/FOOTAGES: 330' N line, 330' W line of SW
QUADRANGLE: SALEM NORTH LONGITUDE: -88.920427 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.684987 DATE COLLECTED: 0 / 0 / 1940
SURFACE ELEVATION (FT.): 582.0 LOGGED (FT.): 3957.0 LOG TYPE:
SOURCE: KINGWOODOC, SPENCER H 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
144.0	BOND	CARTHAGE	LIMESTONE	-	438.0	
-196.0	CARBONDALE	HERRIN	COAL	-	778.0	

MAPID: 12100698000C VERSION: 2

PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 3N 3E SECTION: 19 QUARTERS/FOOTAGES: 330' N line, 330' W line of SW
QUADRANGLE: SALEM NORTH LONGITUDE: -88.920427 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.684987 DATE COLLECTED:
SURFACE ELEVATION (FT.): 585.0 LOGGED (FT.): 838.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: POOR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
143.0	BOND	CARTHAGE	LIMESTONE	10.0	442.0
-142.0	MODESTO	PIASA	LIMESTONE	10.0	727.0
-249.0	CARBONDALE	SPRINGFIELD	COAL	4.0	834.0

MAPID: 12101964000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 3N 3E SECTION: 19 QUARTERS/FOOTAGES: 330' N line, 891' E line of SW
QUADRANGLE: SALEM NORTH LONGITUDE: -88.914657 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.68501 DATE COLLECTED:
SURFACE ELEVATION (FT.): 578.0 LOGGED (FT.): 982.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
130.0	BOND	CARTHAGE	LIMESTONE	8.0	448.0
-162.0	MODESTO	PIASA	LIMESTONE	6.0	740.0
-197.0	CARBONDALE	DANVILLE	COAL	-	775.0
-256.0	CARBONDALE	BRIAR HILL	COAL	2.0	834.0
-268.0	CARBONDALE	SPRINGFIELD	COAL	4.0	846.0
-312.0	CARBONDALE	HOUCHIN CREEK	COAL	-	890.0
-404.0	CARBONDALE	COLCHESTER	COAL	-	982.0

MAPID: 12101648000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 3N 3E SECTION: 21 QUARTERS/FOOTAGES: SW NW SW
QUADRANGLE: SALEM NORTH LONGITUDE: -88.881717 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.683282 DATE COLLECTED:
SURFACE ELEVATION (FT.): 572.0 LOGGED (FT.): 1015.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
107.0	BOND	CARTHAGE	LIMESTONE	10.0	465.0
-230.0	CARBONDALE	HERRIN	COAL	2.0	802.0
-279.0	CARBONDALE	BRIAR HILL	COAL	2.0	851.0
-287.0	CARBONDALE	SPRINGFIELD	COAL	4.0	859.0
-356.0	CARBONDALE	HOUCHIN CREEK	COAL	3.5	928.0
-443.0	CARBONDALE	COLCHESTER	COAL	-	1015.0

MAPID: 12101707000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 3N 3E SECTION: 22 QUARTERS/FOOTAGES: 330' S line, 330' W line of SE
QUADRANGLE: OMEGA LONGITUDE: -88.853921 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.679649 DATE COLLECTED:
SURFACE ELEVATION (FT.): 558.0 LOGGED (FT.): 1064.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
32.0	BOND	CARTHAGE	LIMESTONE	10.0	526.0
-254.0	MODESTO	PIASA	LIMESTONE	12.0	812.0
-354.0	CARBONDALE	BRIAR HILL	COAL	2.0	912.0
-364.0	CARBONDALE	SPRINGFIELD	COAL	4.0	922.0
-438.0	CARBONDALE	HOUCHIN CREEK	COAL	2.5	996.0
-506.0	CARBONDALE	COLCHESTER	COAL	-	1064.0

MAPID: 12101707000C **VERSION:** 2 **PROJECT:** BLM
COUNTY: MARION **TWP/RNG:** 3N 3E **SECTION:** 22 **QUARTERS/FOOTAGES:** 330' S line, 330' W line of SE
QUADRANGLE: OMEGA **LONGITUDE:** -88.853921 **GEOLOGIST:** TREWORGY,J
CONFIDENTIAL: N **LATITUDE:** 38.679649 **DATE COLLECTED:** 5 / 0 / 1951
SURFACE ELEVATION (FT.): 558.0 **LOGGED (FT.):** 1064.0 **LOG TYPE:** Electric Log
SOURCE: J. M. MILLER **WELL TYPE:** Oil and Gas Test
COMMENT: INTERPRETED BY C. TREWORGY

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
558.0			ROCK	912.0	0.0	
-354.0			COAL	2.0	912.0	
-356.0			ROCK	8.0	914.0	
-364.0	CARBONDALE	SPRINGFIELD	COAL	4.0	922.0	
-368.0	CARBONDALE		ROCK	70.0	926.0	
-438.0	CARBONDALE	HOUCHIN CREEK	COAL	2.5	996.0	
-440.5	CARBONDALE		ROCK	65.5	998.5	
-506.0	CARBONDALE	COLCHESTER	COAL	-	1064.0	

MAPID: 12100269000C **VERSION:** 1 **PROJECT:** CGT-ECILL
COUNTY: MARION **TWP/RNG:** 3N 3E **SECTION:** 24 **QUARTERS/FOOTAGES:** NW NE SW
QUADRANGLE: OMEGA **LONGITUDE:** -88.821315 **GEOLOGIST:** C TREWORGY
CONFIDENTIAL: N **LATITUDE:** 38.685042 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 558.0 **LOGGED (FT.):** 999.0 **LOG TYPE:** Electric Log
SOURCE: **WELL TYPE:** Oil and Gas Test
COMMENT: POOR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
24.0	BOND	CARTHAGE	LIMESTONE	9.0	534.0	
-262.0	MODESTO	PIASA	LIMESTONE	9.0	820.0	
-368.0	CARBONDALE	SPRINGFIELD	COAL	4.0	926.0	
-438.0	CARBONDALE	HOUCHIN CREEK	COAL	3.0	996.0	

MAPID: 12100269000C VERSION: 2 PROJECT: BLM

COUNTY: MARION TWP/RNG: 3N 3E SECTION: 24 QUARTERS/FOOTAGES: NW NE SW

QUADRANGLE: OMEGA LONGITUDE: -88.821315 GEOLOGIST: TREWORGY,J

CONFIDENTIAL: N LATITUDE: 38.685042 DATE COLLECTED: 0 / 0 / 1938

SURFACE ELEVATION (FT.): 553.0 LOGGED (FT.): 999.0 LOG TYPE: Electric Log

SOURCE: DEVONIAN OIL CO WELL TYPE: Oil and Gas Test

COMMENT: INTERPRETED BY C. TREWORGY

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
553.0			ROCK	926.0	0.0	
-373.0	CARBONDALE	SPRINGFIELD	COAL	4.0	926.0	
-377.0	CARBONDALE		ROCK	66.0	930.0	
-443.0	CARBONDALE	HOUCHIN CREEK	COAL	3.0	996.0	

MAPID: 12125827000C VERSION: 1 PROJECT: BLM

COUNTY: MARION TWP/RNG: 3N 3E SECTION: 25 QUARTERS/FOOTAGES: 200' S line, 2290' W line

QUADRANGLE: OMEGA LONGITUDE: -88.819108 GEOLOGIST: TREWORGY,J

CONFIDENTIAL: N LATITUDE: 38.664654 DATE COLLECTED: 12 / 17 / 1974

SURFACE ELEVATION (FT.): 540.0 LOGGED (FT.): 242.0 LOG TYPE: Drillers Log

SOURCE: OLEN L. WILSON WELL TYPE: Water Well

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
540.0			UNCONSOLIDATED	28.0	0.0	
512.0			ROCK	150.0	28.0	
362.0			SHALE	55.0	178.0	
307.0			LIMESTONE	1.0	233.0	
306.0			COAL	3.0	234.0	
303.0			ROCK	5.0	237.0	

MAPID: 12101415000C VERSION: 1 PROJECT: BLM

COUNTY: MARION TWP/RNG: 3N 3E SECTION: 28 QUARTERS/FOOTAGES: NW NW SE

QUADRANGLE: OMEGA LONGITUDE: -88.872454 GEOLOGIST: TREWORGY,J

CONFIDENTIAL: N LATITUDE: 38.670527 DATE COLLECTED: 11 / 24 / 1943

SURFACE ELEVATION (FT.): 559.0 LOGGED (FT.): 915.0 LOG TYPE: Electric Log

SOURCE: SCHOONMAKER-GUY MABEE DRLG. CO. WELL TYPE: Oil and Gas Test

COMMENT: INTERPRETED BY C. TREWORGY

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
559.0			ROCK	798.0	0.0
-239.0	CARBONDALE	HERRIN	COAL	4.0	798.0
-243.0	CARBONDALE		ROCK	44.0	802.0
-287.0	CARBONDALE		COAL	3.0	846.0
-290.0	CARBONDALE		ROCK	7.0	849.0
-297.0	CARBONDALE	SPRINGFIELD	COAL	4.0	856.0
-301.0	CARBONDALE		ROCK	53.0	860.0
-354.0	CARBONDALE	HOUCHIN CREEK	COAL	2.0	913.0

MAPID: 12101415000C VERSION: 2 PROJECT: ROOF STUDY

COUNTY: MARION TWP/RNG: 3N 3E SECTION: 28 QUARTERS/FOOTAGES: NW NW SE

QUADRANGLE: OMEGA LONGITUDE: -88.872454 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.670527 DATE COLLECTED:

SURFACE ELEVATION (FT.): 559.0 LOGGED (FT.): 0.0 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
-	CARBONDALE	DANVILLE	COAL	0.8	
-	CARBONDALE		SHALE	6.5	
-	CARBONDALE	LAWSON	SHALE	5.0	
-	CARBONDALE	BRERETON	LIMESTONE	4.5	

MAPID: 12101415000C VERSION: 3 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 3N 3E SECTION: 28 QUARTERS/FOOTAGES: NW NW SE
QUADRANGLE: OMEGA LONGITUDE: -88.872454 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.670527 DATE COLLECTED:
SURFACE ELEVATION (FT.): 559.0 LOGGED (FT.): 915.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
95.0	BOND	CARTHAGE	LIMESTONE	9.0	464.0
-239.0	CARBONDALE	HERRIN	COAL	4.0	798.0
-287.0	CARBONDALE	BRIAR HILL	COAL	3.0	846.0
-297.0	CARBONDALE	SPRINGFIELD	COAL	4.0	856.0
-354.0	CARBONDALE	HOUCHIN CREEK	COAL	2.0	913.0

MAPID: 12101415000C VERSION: 4 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 3N 3E SECTION: 28 QUARTERS/FOOTAGES: NW NW SE
QUADRANGLE: OMEGA LONGITUDE: -88.872454 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.670527 DATE COLLECTED: 0 / 0 / 1943
SURFACE ELEVATION (FT.): 559.0 LOGGED (FT.): 2494.0 LOG TYPE:
SOURCE: SCHONMKR G, GABRIEL F 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
97.0	BOND	CARTHAGE	LIMESTONE	-	462.0
-239.0	CARBONDALE	HERRIN	COAL	-	798.0

MAPID: 12100699000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 3N 3E SECTION: 29 QUARTERS/FOOTAGES: 330' S line, 660' E line
QUADRANGLE: SALEM NORTH LONGITUDE: -88.885189 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.66506 DATE COLLECTED: 0 / 0 / 1940
SURFACE ELEVATION (FT.): 550.0 LOGGED (FT.): 2500.0 LOG TYPE:
SOURCE: CLEVETEX, SQUIBB E 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
114.0	BOND	CARTHAGE	LIMESTONE	-	436.0
-214.0	CARBONDALE	HERRIN	COAL	-	764.0

MAPID: 12100699000C VERSION: 2 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 3N 3E SECTION: 29 QUARTERS/FOOTAGES: 330' S line, 660' E line
QUADRANGLE: SALEM NORTH LONGITUDE: -88.885189 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.66506 DATE COLLECTED:
SURFACE ELEVATION (FT.): 550.0 LOGGED (FT.): 896.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
114.0	BOND	CARTHAGE	LIMESTONE	11.0	436.0
-167.0	MODESTO	PIASA	LIMESTONE	14.0	717.0
-271.0	CARBONDALE	SPRINGFIELD	COAL	4.5	821.0
-344.0	CARBONDALE	HOUCHIN CREEK	COAL	2.0	894.0

MAPID: 12101965000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 3N 3E SECTION: 29 QUARTERS/FOOTAGES: 330' S line, 330' W line
QUADRANGLE: SALEM NORTH LONGITUDE: -88.900166 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.665058 DATE COLLECTED:
SURFACE ELEVATION (FT.): 564.0 LOGGED (FT.): 894.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
120.0	BOND	CARTHAGE	LIMESTONE	11.0	444.0
-164.0	MODESTO	PIASA	LIMESTONE	13.0	728.0
-262.0	CARBONDALE	BRIAR HILL	COAL	3.0	826.0
-272.0	CARBONDALE	SPRINGFIELD	COAL	4.0	836.0
-330.0	CARBONDALE	HOUCHIN CREEK	COAL	-	894.0

MAPID: 12105650000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 3N 3E SECTION: 29 QUARTERS/FOOTAGES: 330' N line, 330' W line
QUADRANGLE: SALEM NORTH LONGITUDE: -88.900333 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.6778 DATE COLLECTED:
SURFACE ELEVATION (FT.): 558.0 LOGGED (FT.): 1108.0 LOG TYPE: Nuclear Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG, 1100 80

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
128.0	BOND	CARTHAGE	LIMESTONE	10.0	430.0
-152.0	MODESTO	PIASA	LIMESTONE	10.0	710.0
-209.0	CARBONDALE	HERRIN	COAL	-	767.0
-249.0	CARBONDALE	BRIAR HILL	COAL	2.0	807.0
-260.0	CARBONDALE	SPRINGFIELD	COAL	5.0	818.0
-542.0			COAL	8.0	1100.0

MAPID: 12101663000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 3N 3E SECTION: 30 QUARTERS/FOOTAGES: 330' S line, 360' E line of NW NW
QUADRANGLE: SALEM NORTH LONGITUDE: -88.917789 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.675926 DATE COLLECTED:
SURFACE ELEVATION (FT.): 571.0 LOGGED (FT.): 829.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
148.0	BOND	CARTHAGE	LIMESTONE	9.0	423.0
-143.0	MODESTO	PIASA	LIMESTONE	5.0	714.0
-196.0	CARBONDALE	HERRIN	COAL	3.0	767.0
-242.0	CARBONDALE	BRIAR HILL	COAL	-	813.0
-254.0	CARBONDALE	SPRINGFIELD	COAL	4.0	825.0

MAPID: 12101844000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 3N 3E SECTION: 30 QUARTERS/FOOTAGES: 400' S line, 573' W line of NW NE SW
QUADRANGLE: SALEM NORTH LONGITUDE: -88.9145 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.670686 DATE COLLECTED:
SURFACE ELEVATION (FT.): 569.0 LOGGED (FT.): 974.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
153.0	BOND	CARTHAGE	LIMESTONE	10.0	416.0
37.0	MODESTO	TRIVOLI	SANDSTONE	55.0	532.0
-140.0	MODESTO	PIASA	LIMESTONE	12.0	709.0
-190.0	CARBONDALE	HERRIN	COAL	4.0	759.0
-236.0	CARBONDALE	BRIAR HILL	COAL	2.0	805.0
-247.0	CARBONDALE	SPRINGFIELD	COAL	4.5	816.0
-298.0	CARBONDALE	HOUCHIN CREEK	COAL	-	867.0
-405.0	CARBONDALE	COLCHESTER	COAL	-	974.0

MAPID: 12101844000C VERSION: 2 PROJECT: ROOF STUDY

COUNTY: MARION TWP/RNG: 3N 3E SECTION: 30 QUARTERS/FOOTAGES: 400' S line, 573' W line of NW NE SW

QUADRANGLE: SALEM NORTH LONGITUDE: -88.9145 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.670686 DATE COLLECTED:

SURFACE ELEVATION (FT.): 569.0 LOGGED (FT.): 762.8 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
-140.0	MODESTO	PIASA	LIMESTONE & SHALE	13.0	709.0
-153.0	MODESTO		SHALE	20.0	722.0
-173.0	CARBONDALE	DANVILLE	COAL	1.0	742.0
-174.0	CARBONDALE		SHALE	6.0	743.0
-180.0	CARBONDALE	LAWSON	SHALE	6.0	749.0
-186.0	CARBONDALE	BRERETON	LIMESTONE	3.0	755.0
-189.0	CARBONDALE	ANNA	SHALE	1.3	758.0
-190.0	CARBONDALE	HERRIN	COAL	3.8	759.0

MAPID: 12125765000C VERSION: 1 PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 3N 3E SECTION: 30 QUARTERS/FOOTAGES: 330' S line, 330' W line of SW SE NE

QUADRANGLE: SALEM NORTH LONGITUDE: -88.905292 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.672329 DATE COLLECTED:

SURFACE ELEVATION (FT.): 550.0 LOGGED (FT.): 802.5 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
142.0	BOND	CARTHAGE	LIMESTONE	11.0	408.0
-140.0	MODESTO	PIASA	LIMESTONE	7.0	690.0
-190.0	CARBONDALE	HERRIN	COAL	4.0	740.0
-238.0	CARBONDALE	BRIAR HILL	COAL	2.0	788.0
-248.0	CARBONDALE	SPRINGFIELD	COAL	4.5	798.0

MAPID: 12101416000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 3N 3E SECTION: 31 QUARTERS/FOOTAGES: 330' N line, 330' E line of NW NW
QUADRANGLE: SALEM NORTH LONGITUDE: -88.917685 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.66322 DATE COLLECTED:
SURFACE ELEVATION (FT.): 566.0 LOGGED (FT.): 810.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
160.0	BOND	CARTHAGE	LIMESTONE	10.0	406.0
46.0	MODESTO	TRIVOLI	SANDSTONE	49.0	520.0
-129.0	MODESTO	PIASA	LIMESTONE	15.0	695.0
-179.0	CARBONDALE	HERRIN	COAL	5.0	745.0
-229.0	CARBONDALE	BRIAR HILL	COAL	3.0	795.0
-239.0	CARBONDALE	SPRINGFIELD	COAL	5.0	805.0

MAPID: 12101416000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: MARION TWP/RNG: 3N 3E SECTION: 31 QUARTERS/FOOTAGES: 330' N line, 330' E line of NW NW
QUADRANGLE: SALEM NORTH LONGITUDE: -88.917685 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.66322 DATE COLLECTED:
SURFACE ELEVATION (FT.): 566.0 LOGGED (FT.): 750.0 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
-129.0	MODESTO	PIASA	LIMESTONE & SHALE	15.0	695.0
-144.0	MODESTO		SHALE	20.0	710.0
-164.0	CARBONDALE	DANVILLE	COAL	1.0	730.0
-165.0	CARBONDALE		SHALE	5.0	731.0
-170.0	CARBONDALE	LAWSON	SHALE	5.0	736.0
-175.0	CARBONDALE	BRERETON	LIMESTONE	4.0	741.0
-179.0	CARBONDALE	HERRIN	COAL	5.0	745.0

MAPID: 12101416000C VERSION: 3

PROJECT: CIRC 164

COUNTY: MARION TWP/RNG: 3N 3E SECTION: 31 QUARTERS/FOOTAGES: 330' N line, 330' E line of NW NW
QUADRANGLE: SALEM NORTH LONGITUDE: -88.917685 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.66322 DATE COLLECTED: 0 / 0 / 1945
SURFACE ELEVATION (FT.): 566.0 LOGGED (FT.): 2437.0 LOG TYPE:
SOURCE: SKELLY OC, JACOBS 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
161.0	BOND	CARTHAGE	LIMESTONE	-	405.0
-179.0	CARBONDALE	HERRIN	COAL	-	745.0

MAPID: 12125892000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 3N 3E SECTION: 31 QUARTERS/FOOTAGES: 990' N line, 330' E line of SE
QUADRANGLE: SALEM NORTH LONGITUDE: -88.902571 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.654099 DATE COLLECTED:
SURFACE ELEVATION (FT.): 554.0 LOGGED (FT.): 989.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
109.0	BOND	CARTHAGE	LIMESTONE	9.0	445.0
-179.0	MODESTO	PIASA	LIMESTONE	11.0	733.0
-223.0	CARBONDALE	HERRIN	COAL	4.0	777.0
-271.0	CARBONDALE	BRIAR HILL	COAL	2.0	825.0
-282.0	CARBONDALE	SPRINGFIELD	COAL	4.5	836.0
-335.0	CARBONDALE	HOUCHIN CREEK	COAL	-	889.0
-435.0	CARBONDALE	COLCHESTER	COAL	-	989.0

MAPID: 12105651000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 3N 3E SECTION: 32 QUARTERS/FOOTAGES: 330' S line, 330' W line
QUADRANGLE: SALEM NORTH LONGITUDE: -88.900282 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.650432 DATE COLLECTED:
SURFACE ELEVATION (FT.): 547.0 LOGGED (FT.): 911.0 LOG TYPE: Nuclear Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
85.0	BOND	CARTHAGE	LIMESTONE	10.0	462.0
-208.0	MODESTO	PIASA	LIMESTONE	7.0	755.0
-216.0	CARBONDALE	DANVILLE	COAL	1.5	763.0
-254.0	CARBONDALE	HERRIN	COAL	3.0	801.0
-295.0	CARBONDALE	BRIAR HILL	COAL	3.5	842.0
-307.0	CARBONDALE	SPRINGFIELD	COAL	4.5	854.0
-363.0	CARBONDALE	HOUCHIN CREEK	COAL	1.0	910.0

MAPID: 12101598000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 3N 4E SECTION: 4 QUARTERS/FOOTAGES: 330' S line, 330' E line of SW SE
QUADRANGLE: OMEGA LONGITUDE: -88.758335 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.723631 DATE COLLECTED:
SURFACE ELEVATION (FT.): 497.0 LOGGED (FT.): 1080.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-44.0	BOND	CARTHAGE	LIMESTONE	10.0	541.0
-296.0	MODESTO	PIASA	LIMESTONE	5.0	793.0
-356.0	CARBONDALE	DANVILLE	COAL	-	853.0
-407.0	CARBONDALE	BRIAR HILL	COAL	2.0	904.0
-415.0	CARBONDALE	SPRINGFIELD	COAL	4.0	912.0
-480.0	CARBONDALE	HOUCHIN CREEK	COAL	-	977.0
-583.0	CARBONDALE	COLCHESTER	COAL	-	1080.0

MAPID: 12101598000C VERSION: 2

PROJECT: BLM

COUNTY: MARION TWP/RNG: 3N 4E SECTION: 4 QUARTERS/FOOTAGES: 330' S line, 330' E line of SW SE
QUADRANGLE: OMEGA LONGITUDE: -88.758335 GEOLOGIST: TREWORGY,J
CONFIDENTIAL: N LATITUDE: 38.723631 DATE COLLECTED: 12 / 0 / 1955
SURFACE ELEVATION (FT.): 497.0 LOGGED (FT.): 1080.0 LOG TYPE: Electric Log
SOURCE: WELKER OIL CO. WELL TYPE: Oil and Gas Test
COMMENT: INTERPRETED BY C. TREWORGY

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
497.0			ROCK	853.0	0.0
-356.0	CARBONDALE	DANVILLE	COAL	-	853.0
-356.0	CARBONDALE		ROCK	51.0	853.0
-407.0	CARBONDALE		COAL	2.0	904.0
-409.0	CARBONDALE		ROCK	6.0	906.0
-415.0	CARBONDALE	SPRINGFIELD	COAL	4.0	912.0
-419.0	CARBONDALE		ROCK	61.0	916.0
-480.0	CARBONDALE	HOUCHIN CREEK	COAL	-	977.0
-480.0	CARBONDALE		ROCK	103.0	977.0
-583.0	CARBONDALE	COLCHESTER	COAL	-	1080.0

MAPID: 12105055000C VERSION: 1 PROJECT: BLM
COUNTY: MARION TWP/RNG: 3N 4E SECTION: 5 QUARTERS/FOOTAGES: 2005' S line, 150' E line
QUADRANGLE: OMEGA LONGITUDE: -88.771778 GEOLOGIST: TREWORGY,J
CONFIDENTIAL: N LATITUDE: 38.728296 DATE COLLECTED: 6 / 0 / 1963
SURFACE ELEVATION (FT.): 520.0 LOGGED (FT.): 205.0 LOG TYPE: Drillers Log
SOURCE: L. F. WOODWARD-DEPT. CONSERV. WELL TYPE: Water Well
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
520.0			UNCONSOLIDATED	20.0	0.0	
500.0			ROCK	155.0	20.0	
345.0			COAL	5.0	175.0	
340.0			ROCK	25.0	180.0	

MAPID: 12125804000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 3N 4E SECTION: 6 QUARTERS/FOOTAGES: 330' S line, 330' W line
QUADRANGLE: OMEGA LONGITUDE: -88.807255 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.723622 DATE COLLECTED:
SURFACE ELEVATION (FT.): 584.0 LOGGED (FT.): 1077.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-280.0	CARBONDALE	DANVILLE	COAL	-	864.0	
-326.0	CARBONDALE	BRIAR HILL	COAL	3.0	910.0	
-333.0	CARBONDALE	SPRINGFIELD	COAL	4.5	917.0	
-395.0	CARBONDALE	HOUCHIN CREEK	COAL	-	979.0	
-493.0	CARBONDALE	COLCHESTER	COAL	-	1077.0	

MAPID: 12125804000C **VERSION:** 2 **PROJECT:** BLM
COUNTY: MARION **TWP/RNG:** 3N 4E **SECTION:** 6 **QUARTERS/FOOTAGES:** 330' S line, 330' W line
QUADRANGLE: OMEGA **LONGITUDE:** -88.807255 **GEOLOGIST:** TREWORGY,J
CONFIDENTIAL: N **LATITUDE:** 38.723622 **DATE COLLECTED:** 12 / 27 / 1974
SURFACE ELEVATION (FT.): 584.0 **LOGGED (FT.):** 1077.0 **LOG TYPE:** Electric Log
SOURCE: C. E. BREHM DRLG. & PRODUCING **WELL TYPE:** Oil and Gas Test
COMMENT: INTERPRETED BY C. TREWORGY

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
584.0			ROCK	864.0	0.0
-280.0	CARBONDALE	DANVILLE	COAL	-	864.0
-280.0	CARBONDALE		ROCK	46.0	864.0
-326.0	CARBONDALE		COAL	3.0	910.0
-329.0	CARBONDALE		ROCK	4.0	913.0
-333.0	CARBONDALE	SPRINGFIELD	COAL	4.5	917.0
-337.5	CARBONDALE		ROCK	57.5	921.5
-395.0	CARBONDALE	HOUCHIN CREEK	COAL	-	979.0
-395.0	CARBONDALE		ROCK	98.0	979.0
-493.0	CARBONDALE	COLCHESTER	COAL	-	1077.0

MAPID: 12100700000C **VERSION:** 1 **PROJECT:** CGT-ECILL
COUNTY: MARION **TWP/RNG:** 3N 4E **SECTION:** 8 **QUARTERS/FOOTAGES:** 330' S line, 330' W line of NW
QUADRANGLE: OMEGA **LONGITUDE:** -88.788865 **GEOLOGIST:** C TREWORGY
CONFIDENTIAL: N **LATITUDE:** 38.716277 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 570.0 **LOGGED (FT.):** 1043.0 **LOG TYPE:** Electric Log
SOURCE: **WELL TYPE:** Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-30.0	BOND	CARTHAGE	LIMESTONE	9.0	600.0
-117.0	MODESTO	TRIVOLI	SANDSTONE	20.0	687.0
-280.0	MODESTO	PIASA	LIMESTONE	9.0	850.0
-347.0	CARBONDALE	HERRIN	COAL	4.0	917.0
-393.0	CARBONDALE	SPRINGFIELD	COAL	4.0	963.0
-471.0	CARBONDALE	HOUCHIN CREEK	COAL	2.0	1041.0

MAPID: 12100700000C VERSION: 2 PROJECT: BLM

COUNTY: MARION TWP/RNG: 3N 4E SECTION: 8 QUARTERS/FOOTAGES: 330' S line, 330' W line of NW

QUADRANGLE: OMEGA LONGITUDE: -88.788865 GEOLOGIST: TREWORGY,J

CONFIDENTIAL: N LATITUDE: 38.716277 DATE COLLECTED: 4 / 0 / 1942

SURFACE ELEVATION (FT.): 570.0 LOGGED (FT.): 1043.0 LOG TYPE: Electric Log

SOURCE: SEABOARD OIL CO. OF DEL. WELL TYPE: Oil and Gas Test

COMMENT: INTERPRETED BY C. TREWORGY

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
570.0			ROCK	917.0	0.0	
-347.0	CARBONDALE	HERRIN	COAL	4.0	917.0	
-351.0	CARBONDALE		ROCK	42.0	921.0	
-393.0	CARBONDALE	SPRINGFIELD	COAL	4.0	963.0	
-397.0	CARBONDALE		ROCK	74.0	967.0	
-471.0	CARBONDALE	HOUCHIN CREEK	COAL	2.0	1041.0	

MAPID: 12100700000C VERSION: 3 PROJECT: CIRC 164

COUNTY: MARION TWP/RNG: 3N 4E SECTION: 8 QUARTERS/FOOTAGES: 330' S line, 330' W line of NW

QUADRANGLE: OMEGA LONGITUDE: -88.788865 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.716277 DATE COLLECTED: 0 / 0 / 1942

SURFACE ELEVATION (FT.): 570.0 LOGGED (FT.): 2539.0 LOG TYPE:

SOURCE: SEABOARD, MILLER FAN 1 WELL TYPE: Oil and Gas Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-30.0	BOND	CARTHAGE	LIMESTONE	-	600.0	
-350.0	CARBONDALE	HERRIN	COAL	-	920.0	

MAPID: 12101417000C VERSION: 1 PROJECT: CIRC 164

COUNTY: MARION TWP/RNG: 3N 4E SECTION: 9 QUARTERS/FOOTAGES: SW NW SW

QUADRANGLE: OMEGA LONGITUDE: -88.770212 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.712616 DATE COLLECTED: 0 / 0 / 1943

SURFACE ELEVATION (FT.): 559.0 LOGGED (FT.): 2561.0 LOG TYPE:

SOURCE: NAT ASSOC, CARTER W S 1 WELL TYPE: Oil and Gas Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-29.0	BOND	CARTHAGE	LIMESTONE	-	588.0	
-351.0	CARBONDALE	HERRIN	COAL	-	910.0	

MAPID: 12101827000C **VERSION:** 1 **PROJECT:** CGT-ECILL
COUNTY: MARION **TWP/RNG:** 3N 4E **SECTION:** 9 **QUARTERS/FOOTAGES:** 300' S line, 230' E line of SW
QUADRANGLE: OMEGA **LONGITUDE:** -88.762858 **GEOLOGIST:** C TREWORYG
CONFIDENTIAL: N **LATITUDE:** 38.708897 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 549.0 **LOGGED (FT.):** 1069.0 **LOG TYPE:** Electric Log
SOURCE: **WELL TYPE:** Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-13.0	BOND	CARTHAGE	LIMESTONE	8.0	562.0
-251.0	MODESTO	PIASA	LIMESTONE	6.0	800.0
-302.0	CARBONDALE	DANVILLE	COAL	-	851.0
-354.0	CARBONDALE	BRIAR HILL	COAL	2.0	903.0
-363.0	CARBONDALE	SPRINGFIELD	COAL	3.5	912.0
-425.0	CARBONDALE	HOUCHIN CREEK	COAL	-	974.0
-520.0	CARBONDALE	COLCHESTER	COAL	-	1069.0

MAPID: 12101827000C **VERSION:** 2 **PROJECT:** BLM
COUNTY: MARION **TWP/RNG:** 3N 4E **SECTION:** 9 **QUARTERS/FOOTAGES:** 300' S line, 230' E line of SW
QUADRANGLE: OMEGA **LONGITUDE:** -88.762858 **GEOLOGIST:** TREWORYG,J
CONFIDENTIAL: N **LATITUDE:** 38.708897 **DATE COLLECTED:** 8 / 0 / 1958
SURFACE ELEVATION (FT.): 549.0 **LOGGED (FT.):** 1069.0 **LOG TYPE:** Electric Log
SOURCE: INLAND PRODUCERS CO. **WELL TYPE:** Oil and Gas Test
COMMENT: INTERPRETED BY C. TREWORYG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
549.0			ROCK	851.0	0.0
-302.0	CARBONDALE	DANVILLE	COAL	-	851.0
-302.0	CARBONDALE		ROCK	52.0	851.0
-354.0	CARBONDALE		COAL	2.0	903.0
-356.0	CARBONDALE		ROCK	7.0	905.0
-363.0	CARBONDALE	SPRINGFIELD	COAL	3.5	912.0
-366.5	CARBONDALE		ROCK	58.5	915.5
-425.0	CARBONDALE	HOUCHIN CREEK	COAL	-	974.0
-425.0	CARBONDALE		ROCK	95.0	974.0
-520.0	CARBONDALE	COLCHESTER	COAL	-	1069.0

MAPID: 12104731000C **VERSION:** 1 **PROJECT:** CGT-ECILL
COUNTY: MARION **TWP/RNG:** 3N 4E **SECTION:** 9 **QUARTERS/FOOTAGES:** 330' N line, 330' W line of SE
QUADRANGLE: OMEGA **LONGITUDE:** -88.76083 **GEOLOGIST:** C TREWORYG
CONFIDENTIAL: N **LATITUDE:** 38.714495 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 540.0 **LOGGED (FT.):** 1114.0 **LOG TYPE:** Electric Log
SOURCE: **WELL TYPE:** Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-43.0	BOND	CARTHAGE	LIMESTONE	8.0	583.0
-292.0	MODESTO	PIASA	LIMESTONE	5.0	832.0
-357.0	CARBONDALE	HERRIN	COAL	2.5	897.0
-404.0	CARBONDALE	BRIAR HILL	COAL	1.5	944.0
-407.0	CARBONDALE	SPRINGFIELD	COAL	4.5	947.0
-477.0	CARBONDALE	HOUCHIN CREEK	COAL	3.0	1017.0
-573.0	CARBONDALE	COLCHESTER	COAL	1.0	1113.0

MAPID: 12104731000C **VERSION:** 2 **PROJECT:** BLM
COUNTY: MARION **TWP/RNG:** 3N 4E **SECTION:** 9 **QUARTERS/FOOTAGES:** 330' N line, 330' W line of SE
QUADRANGLE: OMEGA **LONGITUDE:** -88.76083 **GEOLOGIST:** TREWORYG,J
CONFIDENTIAL: N **LATITUDE:** 38.714495 **DATE COLLECTED:** 1 / 0 / 1955
SURFACE ELEVATION (FT.): 540.0 **LOGGED (FT.):** 1114.0 **LOG TYPE:** Electric Log
SOURCE: E. G. WELKER **WELL TYPE:** Oil and Gas Test
COMMENT: INTERPRETED BY C. TREWORYG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
540.0			ROCK	897.0	0.0
-357.0	CARBONDALE	HERRIN	COAL	2.5	897.0
-359.5	CARBONDALE		ROCK	44.5	899.5
-404.0	CARBONDALE		COAL	1.5	944.0
-405.5	CARBONDALE		ROCK	2.0	945.5
-407.5	CARBONDALE	SPRINGFIELD	COAL	4.5	947.5
-411.5	CARBONDALE		ROCK	65.5	951.5
-477.0	CARBONDALE	HOUCHIN CREEK	COAL	3.0	1017.0
-480.0	CARBONDALE		ROCK	93.0	1020.0
-573.0	CARBONDALE	COLCHESTER	COAL	1.0	1113.0

MAPID: 121230A0005F VERSION: 1 PROJECT: BLM
COUNTY: MARION TWP/RNG: 3N 4E SECTION: 9 QUARTERS/FOOTAGES: 700' N line, 1100' W line
QUADRANGLE: OMEGA LONGITUDE: -88.767485 GEOLOGIST: TREWORGY,J
CONFIDENTIAL: N LATITUDE: 38.720818 DATE COLLECTED: 0 / 0 / 1931
SURFACE ELEVATION (FT.): 530.0 LOGGED (FT.): 29.5 LOG TYPE: Measured section
SOURCE: FLD NOTES-EKBLAW WELL TYPE: Outcrop
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
530.0			ROCK	9.2	0.0	
520.8			COAL	1.3	9.2	
519.6			ROCK	19.0	10.4	

MAPID: 121230A0004F VERSION: 1 PROJECT: BLM
COUNTY: MARION TWP/RNG: 3N 4E SECTION: 9 QUARTERS/FOOTAGES:
QUADRANGLE: OMEGA LONGITUDE: -88.761983 GEOLOGIST: TREWORGY,J
CONFIDENTIAL: N LATITUDE: 38.715405 DATE COLLECTED: 0 / 0 / 1929
SURFACE ELEVATION (FT.): LOGGED (FT.): 15.2 LOG TYPE: Measured section
SOURCE: FLD NOTES-BELL WELL TYPE: Outcrop
COMMENT: QUESTIONABLE LOCATION IN NOTES

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			ROCK	8.0	0.0	
-			COAL	0.7	8.0	
-			ROCK	6.5	8.7	

MAPID: 121230A0003F VERSION: 1 PROJECT: BLM
COUNTY: MARION TWP/RNG: 3N 4E SECTION: 9 QUARTERS/FOOTAGES: NW SW NE
QUADRANGLE: OMEGA LONGITUDE: -88.760778 GEOLOGIST: TREWORGY,J
CONFIDENTIAL: N LATITUDE: 38.718152 DATE COLLECTED: 0 / 0 / 1929
SURFACE ELEVATION (FT.): 540.0 LOGGED (FT.): 10.3 LOG TYPE: Measured section
SOURCE: FLD NOTES-BELL WELL TYPE: Outcrop
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
540.0			LIMESTONE	4.0	0.0	
536.0			COAL	0.8	4.0	
535.2			ROCK	5.5	4.8	

MAPID: 12101966000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 3N 4E SECTION: 12 QUARTERS/FOOTAGES: 330' N line, 330' E line of NW SE
QUADRANGLE: XENIA LONGITUDE: -88.702879 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.714713 DATE COLLECTED:
SURFACE ELEVATION (FT.): 510.0 LOGGED (FT.): 1201.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-94.0	BOND	CARTHAGE	LIMESTONE	9.0	604.0
-216.0	MODESTO	TRIVOLI	SANDSTONE	34.0	726.0
-374.0	MODESTO	PIASA	LIMESTONE	6.0	884.0
-516.0	CARBONDALE	SPRINGFIELD	COAL	4.5	1026.0
-602.0	CARBONDALE	HOUCHIN CREEK	COAL	4.0	1112.0
-691.0	CARBONDALE	COLCHESTER	COAL	-	1201.0

MAPID: 12105022000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 3N 4E SECTION: 12 QUARTERS/FOOTAGES: 330' N line, 330' W line of NE
QUADRANGLE: XENIA LONGITUDE: -88.705049 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.721991 DATE COLLECTED:
SURFACE ELEVATION (FT.): 529.0 LOGGED (FT.): 1230.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-95.0	BOND	CARTHAGE	LIMESTONE	7.0	624.0
-206.0	MODESTO	TRIVOLI	SANDSTONE	51.0	735.0
-368.0	MODESTO	PIASA	LIMESTONE	6.0	897.0
-446.0	CARBONDALE	DANVILLE	COAL	-	975.0
-515.0	CARBONDALE	BRIAR HILL	COAL	-	1044.0
-522.0	CARBONDALE	SPRINGFIELD	COAL	3.0	1051.0
-603.0	CARBONDALE	HOUCHIN CREEK	COAL	-	1132.0
-701.0	CARBONDALE	COLCHESTER	COAL	-	1230.0

MAPID: 12101419000C **VERSION:** 1 **PROJECT:** CIRC 164
COUNTY: MARION **TWP/RNG:** 3N 4E **SECTION:** 16 **QUARTERS/FOOTAGES:** NE SE SW
QUADRANGLE: OMEGA **LONGITUDE:** -88.76337 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.696209 **DATE COLLECTED:** 0 / 0 / 1947
SURFACE ELEVATION (FT.): 535.0 **LOGGED (FT.):** 2571.0 **LOG TYPE:**
SOURCE: DORAN PAUL, MILLICAN A 1B **WELL TYPE:** Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN
-82.0	BOND	CARTHAGE	LIMESTONE	-	617.0
-417.0	CARBONDALE	HERRIN	COAL	-	952.0

MAPID: 12101420000C **VERSION:** 1 **PROJECT:** CGT-ECILL
COUNTY: MARION **TWP/RNG:** 3N 4E **SECTION:** 16 **QUARTERS/FOOTAGES:** 330' S line, 330' W line of SW SE
QUADRANGLE: OMEGA **LONGITUDE:** -88.761057 **GEOLOGIST:** C TREWORGY
CONFIDENTIAL: N **LATITUDE:** 38.694372 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 531.0 **LOGGED (FT.):** 1045.0 **LOG TYPE:** Electric Log
SOURCE: **WELL TYPE:** Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN
-78.0	BOND	CARTHAGE	LIMESTONE	9.0	609.0
-441.0	CARBONDALE	SPRINGFIELD	COAL	4.0	972.0
-511.0	CARBONDALE	HOUCHIN CREEK	COAL	3.0	1042.0

MAPID: 12101420000C **VERSION:** 2 **PROJECT:** BLM
COUNTY: MARION **TWP/RNG:** 3N 4E **SECTION:** 16 **QUARTERS/FOOTAGES:** 330' S line, 330' W line of SW SE
QUADRANGLE: OMEGA **LONGITUDE:** -88.761057 **GEOLOGIST:** TREWORGY,J
CONFIDENTIAL: N **LATITUDE:** 38.694372 **DATE COLLECTED:** 11 / 0 / 1946
SURFACE ELEVATION (FT.): 531.0 **LOGGED (FT.):** 1045.0 **LOG TYPE:** Electric Log
SOURCE: PAUL DORAN **WELL TYPE:** Oil and Gas Test
COMMENT: INTERPRETED BY C. TREWORGY

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN
531.0			ROCK	972.0	0.0
-441.0	CARBONDALE	SPRINGFIELD	COAL	4.0	972.0
-445.0	CARBONDALE		ROCK	66.0	976.0
-511.0	CARBONDALE	HOUCHIN CREEK	COAL	3.0	1042.0

MAPID: 12101420000C **VERSION:** 3 **PROJECT:** CIRC 164
COUNTY: MARION **TWP/RNG:** 3N 4E **SECTION:** 16 **QUARTERS/FOOTAGES:** 330' S line, 330' W line of SW SE
QUADRANGLE: OMEGA **LONGITUDE:** -88.761057 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.694372 **DATE COLLECTED:** 0 / 0 / 1946
SURFACE ELEVATION (FT.): 531.0 **LOGGED (FT.):** 2497.0 **LOG TYPE:**
SOURCE: DORAN PAUL, MILLCN EST 1 **WELL TYPE:** Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-77.0	BOND	CARTHAGE	LIMESTONE	-	608.0
-387.0	CARBONDALE	HERRIN	COAL	-	918.0

MAPID: 12101421000C **VERSION:** 1 **PROJECT:** CGT-ECILL
COUNTY: MARION **TWP/RNG:** 3N 4E **SECTION:** 16 **QUARTERS/FOOTAGES:** 500' S line, 330' W line of NE NE
QUADRANGLE: OMEGA **LONGITUDE:** -88.756245 **GEOLOGIST:** C TREWORGY
CONFIDENTIAL: N **LATITUDE:** 38.705835 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 529.0 **LOGGED (FT.):** 1012.0 **LOG TYPE:** Electric Log
SOURCE: **WELL TYPE:** Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-62.0	BOND	CARTHAGE	LIMESTONE	8.0	591.0
-301.0	MODESTO	PIASA	LIMESTONE	6.0	830.0
-406.0	CARBONDALE	BRIAR HILL	COAL	-	935.0
-412.0	CARBONDALE	SPRINGFIELD	COAL	4.5	941.0
-483.0	CARBONDALE	HOUCHIN CREEK	COAL	-	1012.0

MAPID: 12101421000C **VERSION:** 2 **PROJECT:** BLM
COUNTY: MARION **TWP/RNG:** 3N 4E **SECTION:** 16 **QUARTERS/FOOTAGES:** 500' S line, 330' W line of NE NE
QUADRANGLE: OMEGA **LONGITUDE:** -88.756245 **GEOLOGIST:** TREWORGY,J
CONFIDENTIAL: N **LATITUDE:** 38.705835 **DATE COLLECTED:** 5 / 0 / 1947
SURFACE ELEVATION (FT.): 529.0 **LOGGED (FT.):** 1012.0 **LOG TYPE:** Electric Log
SOURCE: PAUL DORAN **WELL TYPE:** Oil and Gas Test
COMMENT: INTERPRETED BY C. TREWORGY

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
529.0			ROCK	935.0	0.0
-406.0			COAL	-	935.0
-406.0			ROCK	6.0	935.0
-412.0	CARBONDALE	SPRINGFIELD	COAL	4.5	941.0
-416.5	CARBONDALE		ROCK	66.5	945.5
-483.0	CARBONDALE	HOUCHIN CREEK	COAL	-	1012.0

MAPID: 12101421000C VERSION: 3 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 3N 4E SECTION: 16 QUARTERS/FOOTAGES: 500' S line, 330' W line of NE NE
QUADRANGLE: OMEGA LONGITUDE: -88.756245 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.705835 DATE COLLECTED: 0 / 0 / 1947
SURFACE ELEVATION (FT.): 529.0 LOGGED (FT.): 2570.0 LOG TYPE:
SOURCE: DORAN PAUL, MULVNY&COP 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-61.0	BOND	CARTHAGE	LIMESTONE	-	590.0
-355.0	CARBONDALE	HERRIN	COAL	-	884.0

MAPID: 121230A0006F VERSION: 1 PROJECT: BLM
COUNTY: MARION TWP/RNG: 3N 4E SECTION: 17 QUARTERS/FOOTAGES: NW SW SE
QUADRANGLE: OMEGA LONGITUDE: -88.779713 GEOLOGIST: TREWORGY,J
CONFIDENTIAL: N LATITUDE: 38.696185 DATE COLLECTED: 0 / 0 / 1935
SURFACE ELEVATION (FT.): 525.0 LOGGED (FT.): 15.5 LOG TYPE: Measured section
SOURCE: FLD NOTES-EKBLAW & NEWTON WELL TYPE: Outcrop
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
525.0			ROCK	0.8	0.0
524.2			COAL	0.1	0.8
524.1			ROCK	14.6	0.9

MAPID: 12101306000C VERSION: 1 PROJECT: BLM
COUNTY: MARION TWP/RNG: 3N 4E SECTION: 18 QUARTERS/FOOTAGES: 330' N line, 330' E line of SE SE
QUADRANGLE: OMEGA LONGITUDE: -88.791328 GEOLOGIST: TREWORGY,J
CONFIDENTIAL: N LATITUDE: 38.696135 DATE COLLECTED: 3 / 0 / 1943
SURFACE ELEVATION (FT.): 555.0 LOGGED (FT.): 1058.5 LOG TYPE: Electric Log
SOURCE: SEABOARD OIL CO. OF DEL. WELL TYPE: Oil and Gas Test
COMMENT: INTERPRETED BY C. TREWORGY

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
555.0			ROCK	966.0	0.0
-411.0			COAL	4.0	966.0
-415.0			ROCK	3.0	970.0
-418.0	CARBONDALE	SPRINGFIELD	COAL	4.5	973.0
-422.5	CARBONDALE		ROCK	76.5	977.5
-499.0	CARBONDALE	HOUCHIN CREEK	COAL	4.5	1054.0

MAPID: 12101306000C VERSION: 2 PROJECT: ROOF STUDY
COUNTY: MARION TWP/RNG: 3N 4E SECTION: 18 QUARTERS/FOOTAGES: 330' N line, 330' E line of SE SE
QUADRANGLE: OMEGA LONGITUDE: -88.791328 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.696135 DATE COLLECTED:
SURFACE ELEVATION (FT.): 555.0 LOGGED (FT.): 930.0 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
-311.0	MODESTO	PIASA	LIMESTONE & SHALE	8.0	866.0
-319.0	MODESTO		SHALE	39.0	874.0
-358.0	CARBONDALE	DANVILLE	COAL	2.0	913.0
-360.0	CARBONDALE		SHALE	5.0	915.0
-365.0	CARBONDALE	LAWSON	SHALE	4.5	920.0
-369.5	CARBONDALE	BRERETON	LIMESTONE	3.5	924.5
-373.0	CARBONDALE	HERRIN	COAL	2.0	928.0

MAPID: 12101306000C VERSION: 3 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 3N 4E SECTION: 18 QUARTERS/FOOTAGES: 330' N line, 330' E line of SE SE
QUADRANGLE: OMEGA LONGITUDE: -88.791328 GEOLOGIST: C TREWORYG
CONFIDENTIAL: N LATITUDE: 38.696135 DATE COLLECTED:
SURFACE ELEVATION (FT.): 555.0 LOGGED (FT.): 1058.5 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-39.0	BOND	CARTHAGE	LIMESTONE	8.0	594.0
-309.0	MODESTO	PIASA	LIMESTONE	10.0	864.0
-411.0	CARBONDALE	BRIAR HILL	COAL	4.0	966.0
-418.0	CARBONDALE	SPRINGFIELD	COAL	4.5	973.0
-499.0	CARBONDALE	HOUCHIN CREEK	COAL	4.5	1054.0

MAPID: 12101306000C VERSION: 4 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 3N 4E SECTION: 18 QUARTERS/FOOTAGES: 330' N line, 330' E line of SE SE
QUADRANGLE: OMEGA LONGITUDE: -88.791328 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.696135 DATE COLLECTED: 0 / 0 / 1943
SURFACE ELEVATION (FT.): 555.0 LOGGED (FT.): 2628.0 LOG TYPE:
SOURCE: SEABOARD, KNISELEY N 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-39.0	BOND	CARTHAGE	LIMESTONE	-	594.0
-374.0	CARBONDALE	HERRIN	COAL	-	929.0

MAPID: 12101422000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 3N 4E SECTION: 21 QUARTERS/FOOTAGES: 330' N line, 330' E line of NW NE
QUADRANGLE: OMEGA LONGITUDE: -88.758705 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.692538 DATE COLLECTED:
SURFACE ELEVATION (FT.): 527.0 LOGGED (FT.): 1074.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-72.0	BOND	CARTHAGE	LIMESTONE	11.0	599.0
-335.0	MODESTO	PIASA	LIMESTONE	7.0	862.0
-451.0	CARBONDALE	SPRINGFIELD	COAL	4.0	978.0
-544.0	CARBONDALE	HOUCHIN CREEK	COAL	3.0	1071.0

MAPID: 12101422000C VERSION: 2 PROJECT: BLM
COUNTY: MARION TWP/RNG: 3N 4E SECTION: 21 QUARTERS/FOOTAGES: 330' N line, 330' E line of NW NE
QUADRANGLE: OMEGA LONGITUDE: -88.758705 GEOLOGIST: TREWORGY,J
CONFIDENTIAL: N LATITUDE: 38.692538 DATE COLLECTED: 12 / 0 / 1946
SURFACE ELEVATION (FT.): 527.0 LOGGED (FT.): 1074.0 LOG TYPE: Electric Log
SOURCE: JUSTRITE DRLG. CO. WELL TYPE: Oil and Gas Test
COMMENT: INTERPRETED BY C. TREWORGY

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
527.0			ROCK	978.0	0.0
-451.0	CARBONDALE	SPRINGFIELD	COAL	4.0	978.0
-455.0	CARBONDALE		ROCK	89.0	982.0
-544.0	CARBONDALE	HOUCHIN CREEK	COAL	3.0	1071.0

MAPID: 12101422000C VERSION: 3 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 3N 4E SECTION: 21 QUARTERS/FOOTAGES: 330' N line, 330' E line of NW NE
QUADRANGLE: OMEGA LONGITUDE: -88.758705 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.692538 DATE COLLECTED: 0 / 0 / 1946
SURFACE ELEVATION (FT.): 527.0 LOGGED (FT.): 2581.0 LOG TYPE:
SOURCE: JUSTRT DRC, MILLICAN 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-71.0	BOND	CARTHAGE	LIMESTONE	-	598.0
-395.0	CARBONDALE	HERRIN	COAL	-	922.0

MAPID: 12101967000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 3N 4E SECTION: 21 QUARTERS/FOOTAGES: 330' S line, 330' W line of NW NW
QUADRANGLE: OMEGA LONGITUDE: -88.770475 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.690749 DATE COLLECTED:
SURFACE ELEVATION (FT.): 531.0 LOGGED (FT.): 1099.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-96.0	BOND	CARTHAGE	LIMESTONE	10.0	627.0
-356.0	MODESTO	PIASA	LIMESTONE	11.0	887.0
-404.0	CARBONDALE	DANVILLE	COAL	3.0	935.0
-473.0	CARBONDALE	SPRINGFIELD	COAL	4.5	1004.0
-565.0	CARBONDALE	HOUCHIN CREEK	COAL	3.0	1096.0

MAPID: 12101967000C VERSION: 2

PROJECT: BLM

COUNTY: MARION TWP/RNG: 3N 4E SECTION: 21 QUARTERS/FOOTAGES: 330' S line, 330' W line of NW NW
QUADRANGLE: OMEGA LONGITUDE: -88.770475 GEOLOGIST: TREWORGY,J
CONFIDENTIAL: N LATITUDE: 38.690749 DATE COLLECTED: 10 / 0 / 1951
SURFACE ELEVATION (FT.): 531.0 LOGGED (FT.): 1099.0 LOG TYPE: Electric Log
SOURCE: R. L. ROBBINS WELL TYPE: Oil and Gas Test
COMMENT: INTERPRETED BY C. TREWORGY

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
531.0			ROCK	935.0	0.0
-404.0	CARBONDALE	DANVILLE	COAL	3.0	935.0
-407.0	CARBONDALE		ROCK	61.0	938.0
-468.0	CARBONDALE		COAL	1.5	999.0
-469.5	CARBONDALE		ROCK	3.5	1000.5
-473.0	CARBONDALE	SPRINGFIELD	COAL	4.5	1004.0
-477.5	CARBONDALE		ROCK	87.5	1008.5
-565.0	CARBONDALE	HOUCHIN CREEK	COAL	3.0	1096.0

MAPID: 12105295000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 3N 4E SECTION: 21 QUARTERS/FOOTAGES: 330' S line, 330' E line of NE SE
QUADRANGLE: OMEGA LONGITUDE: -88.754147 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.683461 DATE COLLECTED:
SURFACE ELEVATION (FT.): 522.0 LOGGED (FT.): 1025.5 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: POOR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-118.0	BOND	CARTHAGE	LIMESTONE	8.0	640.0
-378.0	MODESTO	PIASA	LIMESTONE	8.0	900.0
-491.0	CARBONDALE	BRIAR HILL	COAL	-	1013.0
-499.0	CARBONDALE	SPRINGFIELD	COAL	4.5	1021.0

MAPID: 12105295000C VERSION: 2 PROJECT: BLM
COUNTY: MARION TWP/RNG: 3N 4E SECTION: 21 QUARTERS/FOOTAGES: 330' S line, 330' E line of NE SE
QUADRANGLE: OMEGA LONGITUDE: -88.754147 GEOLOGIST: TREWORGY,J
CONFIDENTIAL: N LATITUDE: 38.683461 DATE COLLECTED: 3 / 2 / 1968
SURFACE ELEVATION (FT.): 522.0 LOGGED (FT.): 1025.5 LOG TYPE: Electric Log
SOURCE: NAT'L ASSOCIATED PETROL. CO. WELL TYPE: Oil and Gas Test
COMMENT: INTERPRETED BY C. TREWORGY

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
522.0			ROCK	1013.0	0.0
-491.0			COAL	-	1013.0
-491.0			ROCK	8.0	1013.0
-499.0	CARBONDALE	SPRINGFIELD	COAL	4.5	1021.0

MAPID: 12101423000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 3N 4E SECTION: 24 QUARTERS/FOOTAGES: 480' S line, 330' W line of SE NW
QUADRANGLE: XENIA LONGITUDE: -88.710182 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.687529 DATE COLLECTED: 0 / 0 / 1946
SURFACE ELEVATION (FT.): 494.0 LOGGED (FT.): 2815.0 LOG TYPE:
SOURCE: HENSON DC, WARREN S 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-130.0	BOND	CARTHAGE	LIMESTONE	-	624.0
-498.0	CARBONDALE	HERRIN	COAL	-	992.0

MAPID: 12101423000C VERSION: 2 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 3N 4E SECTION: 24 QUARTERS/FOOTAGES: 480' S line, 330' W line of SE NW
QUADRANGLE: XENIA LONGITUDE: -88.710182 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.687529 DATE COLLECTED:
SURFACE ELEVATION (FT.): 494.0 LOGGED (FT.): 1150.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-132.0	BOND	CARTHAGE	LIMESTONE	7.0	626.0
-406.0	MODESTO	PIASA	LIMESTONE	4.0	900.0
-554.0	CARBONDALE	SPRINGFIELD	COAL	3.5	1048.0
-651.0	CARBONDALE	HOUCHIN CREEK	COAL	5.0	1145.0

MAPID: 12101400000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 3N 4E SECTION: 26 QUARTERS/FOOTAGES: 360' S line, 330' W line of SE
QUADRANGLE: XENIA LONGITUDE: -88.724283 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.665226 DATE COLLECTED: 0 / 0 / 1945
SURFACE ELEVATION (FT.): 508.0 LOGGED (FT.): 2779.0 LOG TYPE:
SOURCE: MCKAIN W H, BEARD THOM 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-116.0	BOND	CARTHAGE	LIMESTONE	-	624.0
-478.0	CARBONDALE	HERRIN	COAL	-	986.0

MAPID: 12101400000C VERSION: 2 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 3N 4E SECTION: 26 QUARTERS/FOOTAGES: 360' S line, 330' W line of SE
QUADRANGLE: XENIA LONGITUDE: -88.724283 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.665226 DATE COLLECTED:
SURFACE ELEVATION (FT.): 508.0 LOGGED (FT.): 1134.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: POOR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-118.0	BOND	CARTHAGE	LIMESTONE	9.0	626.0
-393.0	MODESTO	PIASA	LIMESTONE	6.0	901.0
-528.0	CARBONDALE	SPRINGFIELD	COAL	4.0	1036.0
-620.0	CARBONDALE	HOUCHIN CREEK	COAL	6.0	1128.0

MAPID: 12101282000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 3N 4E SECTION: 27 QUARTERS/FOOTAGES: 660' N line, 330' W line of NW
QUADRANGLE: OMEGA LONGITUDE: -88.751928 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.6771 DATE COLLECTED:
SURFACE ELEVATION (FT.): 518.0 LOGGED (FT.): 1116.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-109.0	BOND	CARTHAGE	LIMESTONE	9.0	627.0
-227.0	MODESTO	TRIVOLI	SANDSTONE	36.0	745.0
-380.0	MODESTO	PIASA	LIMESTONE	8.0	898.0
-502.0	CARBONDALE	SPRINGFIELD	COAL	4.5	1020.0
-594.0	CARBONDALE	HOUCHIN CREEK	COAL	4.0	1112.0

MAPID: 12101282000C VERSION: 2 PROJECT: BLM
COUNTY: MARION TWP/RNG: 3N 4E SECTION: 27 QUARTERS/FOOTAGES: 660' N line, 330' W line of NW
QUADRANGLE: OMEGA LONGITUDE: -88.751928 GEOLOGIST: TREWORGY,J
CONFIDENTIAL: N LATITUDE: 38.6771 DATE COLLECTED: 10 / 0 / 1941
SURFACE ELEVATION (FT.): 518.0 LOGGED (FT.): 1116.0 LOG TYPE: Electric Log
SOURCE: CLARK C. NYE WELL TYPE: Oil and Gas Test
COMMENT: INTERPRETED BY C. TREWORGY

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
518.0			ROCK	1020.0	0.0
-502.0	CARBONDALE	SPRINGFIELD	COAL	4.5	1020.0
-506.5	CARBONDALE		ROCK	87.5	1024.5
-594.0	CARBONDALE	HOUCHIN CREEK	COAL	4.0	1112.0

MAPID: 12101282000C VERSION: 3 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 3N 4E SECTION: 27 QUARTERS/FOOTAGES: 660' N line, 330' W line of NW
QUADRANGLE: OMEGA LONGITUDE: -88.751928 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.6771 DATE COLLECTED: 0 / 0 / 1941
SURFACE ELEVATION (FT.): 518.0 LOGGED (FT.): 2679.0 LOG TYPE:
SOURCE: NYE C C, LONG H M 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-108.0	BOND	CARTHAGE	LIMESTONE	-	626.0
-442.0	CARBONDALE	HERRIN	COAL	-	960.0

MAPID: 121230A0007F **VERSION:** 1 **PROJECT:** BLM
COUNTY: MARION **TWP/RNG:** 3N 4E **SECTION:** 30 **QUARTERS/FOOTAGES:** NE NW NW NE
QUADRANGLE: OMEGA **LONGITUDE:** -88.798017 **GEOLOGIST:** TREWORGY,J
CONFIDENTIAL: N **LATITUDE:** 38.678437 **DATE COLLECTED:** 0 / 0 / 1960
SURFACE ELEVATION (FT.): 515.0 **LOGGED (FT.):** 25.2 **LOG TYPE:** Measured section
SOURCE: FLD. NOTES-KOSANKE ETAL. **WELL TYPE:** Outcrop
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
515.0			ROCK	21.3	0.0
493.7			COAL	0.1	21.3
493.7			ROCK	3.8	21.3

MAPID: 12148770000C **VERSION:** 1 **PROJECT:** BLM
COUNTY: MARION **TWP/RNG:** 3N 4E **SECTION:** 31 **QUARTERS/FOOTAGES:** 100' S line, 2490' W line
QUADRANGLE: OMEGA **LONGITUDE:** -88.799826 **GEOLOGIST:** TREWORGY,J
CONFIDENTIAL: N **LATITUDE:** 38.649904 **DATE COLLECTED:** 0 / 0 / 1964
SURFACE ELEVATION (FT.): 480.0 **LOGGED (FT.):** 105.0 **LOG TYPE:** Drillers Log
SOURCE: L. F. WOODWARD **WELL TYPE:** Water Well
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
480.0			UNCONSOLIDATED	50.0	0.0
430.0			ROCK	25.0	50.0
405.0			COAL	5.0	75.0
400.0			ROCK	25.0	80.0

MAPID: 12101968000C **VERSION:** 1 **PROJECT:** CGT-ECILL
COUNTY: MARION **TWP/RNG:** 3N 4E **SECTION:** 34 **QUARTERS/FOOTAGES:** 330' N line, 330' W line of NE SE
QUADRANGLE: XENIA **LONGITUDE:** -88.738263 **GEOLOGIST:** C TREWORGY
CONFIDENTIAL: N **LATITUDE:** 38.655998 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 468.0 **LOGGED (FT.):** 1044.0 **LOG TYPE:** Electric Log
SOURCE: **WELL TYPE:** Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-94.0	BOND	CARTHAGE	LIMESTONE	9.0	562.0
-478.0	CARBONDALE	BRIAR HILL	COAL	2.0	946.0
-488.0	CARBONDALE	SPRINGFIELD	COAL	3.0	956.0
-572.0	CARBONDALE	HOUCHIN CREEK	COAL	4.0	1040.0

MAPID: 12104733000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 3N 4E SECTION: 34 QUARTERS/FOOTAGES: 330' S line, 410' E line of NW
QUADRANGLE: XENIA LONGITUDE: -88.745493 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.657831 DATE COLLECTED:
SURFACE ELEVATION (FT.): 502.0 LOGGED (FT.): 1092.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-104.0	BOND	CARTHAGE	LIMESTONE	8.0	606.0
-378.0	MODESTO	PIASA	LIMESTONE	5.0	880.0
-587.0	CARBONDALE	HOUCHIN CREEK	COAL	3.0	1089.0

MAPID: 12105351000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 3N 4E SECTION: 34 QUARTERS/FOOTAGES: 990' N line, 990' W line of NW NE
QUADRANGLE: XENIA LONGITUDE: -88.740532 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.661462 DATE COLLECTED:
SURFACE ELEVATION (FT.): 512.0 LOGGED (FT.): 1166.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-88.0	BOND	CARTHAGE	LIMESTONE	8.0	600.0
-468.0	CARBONDALE	BRIAR HILL	COAL	-	980.0
-475.0	CARBONDALE	SPRINGFIELD	COAL	4.0	987.0
-564.0	CARBONDALE	HOUCHIN CREEK	COAL	-	1076.0
-654.0	CARBONDALE	COLCHESTER	COAL	-	1166.0

MAPID: 12105099000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 3N 4E SECTION: 35 QUARTERS/FOOTAGES: 330' S line, 330' E line of SW SW
QUADRANGLE: XENIA LONGITUDE: -88.731453 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.650544 DATE COLLECTED:
SURFACE ELEVATION (FT.): 471.0 LOGGED (FT.): 1139.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-111.0	BOND	CARTHAGE	LIMESTONE	11.0	582.0
-443.0	CARBONDALE	HERRIN	COAL	-	914.0
-485.0	CARBONDALE	BRIAR HILL	COAL	-	956.0
-494.0	CARBONDALE	SPRINGFIELD	COAL	3.0	965.0
-575.0	CARBONDALE	HOUCHIN CREEK	COAL	4.0	1046.0
-668.0	CARBONDALE	COLCHESTER	COAL	-	1139.0

MAPID: 12101316000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 4N 1E SECTION: 2 QUARTERS/FOOTAGES: SW NW SW
QUADRANGLE: PATOKA LONGITUDE: -89.066647 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.813108 DATE COLLECTED: 0 / 0 / 1943
SURFACE ELEVATION (FT.): 525.0 LOGGED (FT.): 1771.0 LOG TYPE:
SOURCE: CAMERON OC, BINNION A 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
267.0	BOND	CARTHAGE	LIMESTONE	-	258.0
-93.0	CARBONDALE	HERRIN	COAL	-	618.0

MAPID: 12101653000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 4N 1E SECTION: 2 QUARTERS/FOOTAGES: 990' N line, 395' W line of SW
QUADRANGLE: PATOKA LONGITUDE: -89.066414 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.813123 DATE COLLECTED:
SURFACE ELEVATION (FT.): 525.0 LOGGED (FT.): 802.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
263.0	BOND	CARTHAGE	LIMESTONE	10.0	262.0
-49.0	CARBONDALE	DANVILLE	COAL	2.0	574.0
-95.0	CARBONDALE	HERRIN	COAL	6.0	620.0
-130.0	CARBONDALE	SPRINGFIELD	COAL	5.0	655.0
-202.0	CARBONDALE	HOUCHIN CREEK	COAL	-	727.0
-277.0	CARBONDALE	COLCHESTER	COAL	-	802.0

MAPID: 12101653000C VERSION: 2 PROJECT: ROOF STUDY

COUNTY: MARION TWP/RNG: 4N 1E SECTION: 2 QUARTERS/FOOTAGES: 990' N line, 395' W line of SW

QUADRANGLE: PATOKA LONGITUDE: -89.066414 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.813123 DATE COLLECTED:

SURFACE ELEVATION (FT.): 525.0 LOGGED (FT.): 625.0 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
21.0	MODESTO	PIASA	LIMESTONE & SHALE	2.5	504.0
18.5	MODESTO		SHALE	69.0	506.5
-50.5	CARBONDALE	DANVILLE	COAL	2.0	575.5
-52.5	CARBONDALE		SHALE	10.0	577.5
-62.5	CARBONDALE		SHALE	1.0	587.5
-63.5	CARBONDALE	ALLENBY	COAL	1.0	588.5
-64.5	CARBONDALE		SHALE	5.0	589.5
-69.5	CARBONDALE	BANKSTON FORK	LIMESTONE	7.0	594.5
-76.5	CARBONDALE	BANKSTON FORK	SHALE	1.0	601.5
-77.5	CARBONDALE	BANKSTON FORK	LIMESTONE	3.0	602.5
-80.5	CARBONDALE	LAWSON	SHALE	5.0	605.5
-85.5	CARBONDALE	CONANT	LIMESTONE	1.5	610.5
-87.0	CARBONDALE		SHALE	4.0	612.0
-91.0	CARBONDALE	BRERETON	LIMESTONE	3.0	616.0
-94.0	CARBONDALE	ANNA	SHALE	3.5	619.0
-95.0	CARBONDALE	HERRIN	COAL	5.0	620.0

MAPID: 12101459000C VERSION: 1 PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 4N 1E SECTION: 4 QUARTERS/FOOTAGES: 330' N line, 380' E line of SE

QUADRANGLE: PATOKA LONGITUDE: -89.087702 GEOLOGIST: C TREWORYG

CONFIDENTIAL: N LATITUDE: 38.815119 DATE COLLECTED:

SURFACE ELEVATION (FT.): 526.0 LOGGED (FT.): 812.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
269.0	BOND	CARTHAGE	LIMESTONE	10.0	257.0
10.0	MODESTO	PIASA	LIMESTONE	5.0	516.0
-64.0	CARBONDALE	DANVILLE	COAL	2.0	590.0
-110.0	CARBONDALE	HERRIN	COAL	6.0	636.0
-144.0	CARBONDALE	SPRINGFIELD	COAL	4.0	670.0
-206.0	CARBONDALE	HOUCHIN CREEK	COAL	-	732.0
-286.0	CARBONDALE	COLCHESTER	COAL	-	812.0

MAPID: 12101459000C VERSION: 2 PROJECT: ROOF STUDY

COUNTY: MARION TWP/RNG: 4N 1E SECTION: 4 QUARTERS/FOOTAGES: 330' N line, 380' E line of SE

QUADRANGLE: PATOKA LONGITUDE: -89.087702 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.815119 DATE COLLECTED:

SURFACE ELEVATION (FT.): 526.0 LOGGED (FT.): 641.5 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
10.0	MODESTO	PIASA	LIMESTONE & SHALE	5.0	516.0
5.0	MODESTO		SHALE	69.0	521.0
-64.0	CARBONDALE	DANVILLE	COAL	2.0	590.0
-66.0	CARBONDALE		SHALE	11.0	592.0
-77.0	CARBONDALE		SHALE	1.5	603.0
-78.5	CARBONDALE	ALLENBY	COAL	1.5	604.5
-80.0	CARBONDALE		SHALE	3.0	606.0
-83.0	CARBONDALE	BANKSTON FORK	LIMESTONE	4.0	609.0
-87.0	CARBONDALE	BANKSTON FORK	SHALE	5.5	613.0
-92.5	CARBONDALE	BANKSTON FORK	LIMESTONE	2.5	618.5
-95.0	CARBONDALE	LAWSON	SHALE	2.0	621.0
-97.0	CARBONDALE	CONANT	LIMESTONE	1.5	623.0
-98.5	CARBONDALE		SHALE	2.5	624.5
-101.0	CARBONDALE	BRERETON	LIMESTONE	3.0	627.0
-104.0	CARBONDALE	ANNA	SHALE	4.0	630.0
-110.0	CARBONDALE	HERRIN	COAL	5.5	636.0

MAPID: 12101459000C VERSION: 3 PROJECT: CIRC 164

COUNTY: MARION TWP/RNG: 4N 1E SECTION: 4 QUARTERS/FOOTAGES: 330' N line, 380' E line of SE

QUADRANGLE: PATOKA LONGITUDE: -89.087702 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.815119 DATE COLLECTED: 0 / 0 / 1946

SURFACE ELEVATION (FT.): 526.0 LOGGED (FT.): 1890.0 LOG TYPE:

SOURCE: DORAN PAUL, BETTS 1 WELL TYPE: Oil and Gas Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
270.0	BOND	CARTHAGE	LIMESTONE	-	256.0
-110.0	CARBONDALE	HERRIN	COAL	-	636.0

MAPID: 12170007000C **VERSION:** 1 **PROJECT:** NCRDS
COUNTY: MARION **TWP/RNG:** 4N 1E **SECTION:** 5 **QUARTERS/FOOTAGES:** 2000' S line, 700' E line
QUADRANGLE: PATOKA **LONGITUDE:** -89.107277 **GEOLOGIST:** LOUCHIOS
CONFIDENTIAL: N **LATITUDE:** 38.81429 **DATE COLLECTED:** 0 / 0 / 1942
SURFACE ELEVATION (FT.): 509.0 **LOGGED (FT.):** 930.0 **LOG TYPE:** Drillers Log
SOURCE: UTAH INTERNATIONAL 01C703 **WELL TYPE:** Coal Test
COMMENT: CODED COAL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
509.0			NO RECORD	100.0	0.0
409.0			SHALE & SANDSTONE	100.0	100.0
309.0			SANDY SHALE	20.0	200.0
289.0			SHALE	80.0	220.0
209.0			COAL WITH SHALE	30.0	300.0
179.0			SANDY SHALE	200.0	330.0
-21.0			SHALY SANDSTONE	20.0	530.0
-41.0			SANDSTONE	40.0	550.0
-81.0			SHALE W/ COAL STREAKS	140.0	590.0
-221.0			SANDSTONE	60.0	730.0
-281.0	CARBONDALE	COLCHESTER	COAL WITH SHALE	5.0	790.0
-286.0			SANDSTONE	10.0	795.0
-296.0			UNCLASSIFIED	65.0	805.0
-361.0			SANDSTONE	50.0	870.0
-411.0			COAL WITH SHALE	10.0	920.0

MAPID: 12101283000C **VERSION:** 1 **PROJECT:** CIRC 164
COUNTY: MARION **TWP/RNG:** 4N 1E **SECTION:** 8 **QUARTERS/FOOTAGES:** SW NW SE
QUADRANGLE: PATOKA **LONGITUDE:** -89.113061 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.798719 **DATE COLLECTED:** 0 / 0 / 1942
SURFACE ELEVATION (FT.): 513.0 **LOGGED (FT.):** 1339.0 **LOG TYPE:**
SOURCE: NAT PET, WALRAVEN W 1 **WELL TYPE:** Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
273.0	BOND	CARTHAGE	LIMESTONE	-	240.0
-102.0	CARBONDALE	HERRIN	COAL	-	615.0

MAPID: 12100004000C VERSION: 1 PROJECT: CIRC 164

COUNTY: MARION TWP/RNG: 4N 1E SECTION: 9 QUARTERS/FOOTAGES: NE SE SE

QUADRANGLE: PATOKA LONGITUDE: -89.087586 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.796774 DATE COLLECTED: 0 / 0 / 1900

SURFACE ELEVATION (FT.): 509.0 LOGGED (FT.): 1633.0 LOG TYPE:

SOURCE: OHIO OIL, GREEN L E WELL TYPE: Oil and Gas Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
273.0	BOND	CARTHAGE	LIMESTONE	-	236.0	
-97.0	CARBONDALE	HERRIN	COAL	-	606.0	

MAPID: 12170006000C VERSION: 1

PROJECT: NCRDS

COUNTY: MARION TWP/RNG: 4N 1E SECTION: 9 QUARTERS/FOOTAGES: 2470' S line, 150' E line
 QUADRANGLE: PATOKA LONGITUDE: -89.086938 GEOLOGIST: LOUCHIOS
 CONFIDENTIAL: N LATITUDE: 38.800863 DATE COLLECTED: 0 / 0 / 1927
 SURFACE ELEVATION (FT.): 574.0 LOGGED (FT.): 898.0 LOG TYPE: Drillers Log
 SOURCE: UTAH INTERNATIONAL 02C4 WELL TYPE: Coal Test
 COMMENT: CODED COAL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
574.0			NO RECORD	67.0	0.0	
507.0			GREEN SHALE	38.0	67.0	
469.0			SANDSTONE	10.0	105.0	
459.0			BLACK SHALE	26.0	115.0	
433.0			GREEN SHALE	95.0	141.0	
338.0			LIMESTONE	12.0	236.0	
326.0			BLACK SHALE	77.0	248.0	
249.0			GREEN SHALE	85.0	325.0	
164.0			LIMESTONE	3.0	410.0	
161.0			SHALE	151.0	413.0	
10.0	CARBONDALE	HERRIN	COAL	3.0	564.0	UNCERTAIN CORRELATION
7.0	CARBONDALE		SHALE	3.0	567.0	
4.0	CARBONDALE		LIMESTONE	12.0	570.0	
-8.0	CARBONDALE	SPRINGFIELD	COAL	1.0	582.0	UNCERTAIN CORRELATION
-9.0	CARBONDALE		LIMESTONE	23.0	583.0	
-32.0	CARBONDALE	COLCHESTER	COAL	7.0	606.0	UNCERTAIN CORRELATION
-39.0			LIMESTONE	11.0	613.0	
-50.0			GREEN SHALE	11.0	624.0	
-61.0			BLACK SHALE	30.0	635.0	
-91.0			LIMESTONE	15.0	665.0	
-106.0			GREEN SHALE	35.0	680.0	
-141.0			BLACK SHALE	12.0	715.0	
-153.0			SANDSTONE	5.0	727.0	
-158.0			BLACK SHALE	78.0	732.0	
-236.0			SANDSTONE	5.0	810.0	
-241.0			SHALE	83.0	815.0	

MAPID: 12101515000C **VERSION:** 1 **PROJECT:** CIRC 164
COUNTY: MARION **TWP/RNG:** 4N 1E **SECTION:** 11 **QUARTERS/FOOTAGES:** 2310' S line, 990' W line
QUADRANGLE: PATOKA **LONGITUDE:** -89.06435 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.800369 **DATE COLLECTED:** 0 / 0 / 1943
SURFACE ELEVATION (FT.): 521.0 **LOGGED (FT.):** 1867.0 **LOG TYPE:**
SOURCE: MIDCON PET, KLIEMAN W 1 **WELL TYPE:** Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
281.0	BOND	CARTHAGE	LIMESTONE	-	240.0
-97.0	CARBONDALE	HERRIN	COAL	-	618.0

MAPID: 12101515000C **VERSION:** 2 **PROJECT:** ROOF STUDY
COUNTY: MARION **TWP/RNG:** 4N 1E **SECTION:** 11 **QUARTERS/FOOTAGES:** 2310' S line, 990' W line
QUADRANGLE: PATOKA **LONGITUDE:** -89.06435 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.800369 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 521.0 **LOGGED (FT.):** 622.0 **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
30.0	MODESTO	PIASA	LIMESTONE & SHALE	3.0	491.0
27.0	MODESTO		SHALE	76.0	494.0
-49.0	CARBONDALE	DANVILLE	COAL	3.0	570.0
-52.0	CARBONDALE		SHALE	7.0	573.0
-59.0	CARBONDALE		SHALE	0.5	580.0
-59.5	CARBONDALE	ALLENBY	COAL	0.5	580.5
-60.0	CARBONDALE		SHALE	6.0	581.0
-66.0	CARBONDALE	BANKSTON FORK	LIMESTONE	7.0	587.0
-73.0	CARBONDALE	BANKSTON FORK	SHALE	1.0	594.0
-74.0	CARBONDALE	BANKSTON FORK	LIMESTONE	3.0	595.0
-77.0	CARBONDALE	LAWSON	SHALE	12.0	598.0
-89.0	CARBONDALE	BRERETON	LIMESTONE	5.0	610.0
-94.0	CARBONDALE	ANNA	BLACK SHALE	3.0	615.0
-97.0	CARBONDALE	HERRIN	COAL	4.0	618.0

MAPID: 12101969000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 4N 1E SECTION: 11 QUARTERS/FOOTAGES: 330' N line, 330' E line of NW
 QUADRANGLE: PATOKA LONGITUDE: -89.059687 GEOLOGIST: C TREWORY
 CONFIDENTIAL: N LATITUDE: 38.807596 DATE COLLECTED:
 SURFACE ELEVATION (FT.): 522.0 LOGGED (FT.): 800.0 LOG TYPE: Electric Log
 SOURCE: WELL TYPE: Oil and Gas Test
 COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
276.0	BOND	CARTHAGE	LIMESTONE	10.0	246.0
33.0	MODESTO	PIASA	LIMESTONE	5.0	489.0
-51.0	CARBONDALE	DANVILLE	COAL	2.0	573.0
-100.0	CARBONDALE	HERRIN	COAL	5.5	622.0
-140.0	CARBONDALE	SPRINGFIELD	COAL	4.0	662.0
-210.0	CARBONDALE	HOUCHIN CREEK	COAL	-	732.0
-278.0	CARBONDALE	COLCHESTER	COAL	-	800.0

MAPID: 12170005000C VERSION: 1

PROJECT: NCRDS

COUNTY: MARION TWP/RNG: 4N 1E SECTION: 11 QUARTERS/FOOTAGES: 350' N line, 1080' W line
 QUADRANGLE: PATOKA LONGITUDE: -89.064014 GEOLOGIST: LOUCHIOS
 CONFIDENTIAL: N LATITUDE: 38.807551 DATE COLLECTED: 0 / 0 / 1943
 SURFACE ELEVATION (FT.): 521.0 LOGGED (FT.): 1148.0 LOG TYPE: Drillers Log
 SOURCE: UTAH INTERNATIONAL 03C1515 WELL TYPE: Coal Test
 COMMENT: CODED COAL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
521.0			SANDSTONE	236.0	0.0
285.0			SHALE	44.0	236.0
241.0			SANDSTONE	40.0	280.0
201.0			SANDY SHALE	179.0	320.0
22.0			SHALE & SANDSTONE	53.0	499.0
-31.0			SANDSTONE	30.0	552.0
-61.0	SHELBURN	DANVILLE	COAL	2.0	582.0
-63.0			SANDSTONE	50.0	584.0
-113.0			LIMESTONE	20.0	634.0
-133.0			SANDY SHALE	108.0	654.0
-241.0			SANDSTONE	20.0	762.0
-261.0			SHALE	58.0	782.0
-319.0			SHALE & SANDSTONE	65.0	840.0
-384.0			SANDSTONE	130.0	905.0
-514.0			SANDY SHALE	10.0	1035.0
-524.0			LIMESTONE	5.0	1045.0
-529.0			SANDY SHALE	98.0	1050.0

MAPID: 12101460000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 4N 1E SECTION: 12 QUARTERS/FOOTAGES: 330' N line, 330' W line of SW
QUADRANGLE: PATOKA LONGITUDE: -89.0481 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.80031 DATE COLLECTED:
SURFACE ELEVATION (FT.): 525.0 LOGGED (FT.): 0.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

MAPID: 12101460000C VERSION: 2 PROJECT: ROOF STUDY
COUNTY: MARION TWP/RNG: 4N 1E SECTION: 12 QUARTERS/FOOTAGES: 330' N line, 330' W line of SW
QUADRANGLE: PATOKA LONGITUDE: -89.0481 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.80031 DATE COLLECTED:
SURFACE ELEVATION (FT.): 525.0 LOGGED (FT.): 643.0 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
25.0	MODESTO	PIASA	LIMESTONE & SHALE	4.0	500.0
21.0	MODESTO		SILTY SHALE	86.0	504.0
-65.0	CARBONDALE	DANVILLE	COAL	3.5	590.0
-68.5	CARBONDALE		SHALE	6.0	593.5
-74.5	CARBONDALE		SHALE	0.5	599.5
-75.0	CARBONDALE	ALLENBY	COAL	0.5	600.0
-75.5	CARBONDALE		SHALE	6.0	600.5
-81.5	CARBONDALE	BANKSTON FORK	LIMESTONE	4.0	606.5
-85.5	CARBONDALE	BANKSTON FORK	SHALE	1.5	610.5
-87.0	CARBONDALE	BANKSTON FORK	LIMESTONE	3.5	612.0
-90.5	CARBONDALE	LAWSON	SHALE	13.0	615.5
-103.5	CARBONDALE	BRERETON	LIMESTONE	6.5	628.5
-110.0	CARBONDALE	ANNA	BLACK SHALE	2.5	635.0
-113.0	CARBONDALE	HERRIN	COAL	5.0	638.0

MAPID: 12101460000C VERSION: 3 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 4N 1E SECTION: 12 QUARTERS/FOOTAGES: 330' N line, 330' W line of SW
QUADRANGLE: PATOKA LONGITUDE: -89.0481 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.80031 DATE COLLECTED: 0 / 0 / 1947
SURFACE ELEVATION (FT.): 525.0 LOGGED (FT.): 1958.0 LOG TYPE:
SOURCE: DORAN PAUL, MERRITT 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
319.0	BOND	CARTHAGE	LIMESTONE	-	206.0
-113.0	CARBONDALE	HERRIN	COAL	-	638.0

MAPID: 12170004000C **VERSION:** 1 **PROJECT:** NCRDS
COUNTY: MARION **TWP/RNG:** 4N 1E **SECTION:** 12 **QUARTERS/FOOTAGES:** 2250' N line, 300' E line
QUADRANGLE: PATOKA **LONGITUDE:** -89.031811 **GEOLOGIST:** LOUCHIOS
CONFIDENTIAL: N **LATITUDE:** 38.802048 **DATE COLLECTED:** 0 / 0 / 1938
SURFACE ELEVATION (FT.): 522.0 **LOGGED (FT.):** 1400.0 **LOG TYPE:** Drillers Log
SOURCE: UTAH INTERNATIONAL 04C705 **WELL TYPE:** Coal Test
COMMENT: CODED COAL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
522.0			NO RECORD	67.0	0.0
455.0			SANDY SHALE	408.0	67.0
47.0			COAL	15.0	475.0
32.0			LIMESTONE	260.0	490.0
-228.0			SHALE & SANDSTONE	170.0	750.0
-398.0			SANDSTONE	8.0	920.0
-406.0			LIMESTONE	75.0	928.0
-481.0			SHALE	197.0	1003.0
-678.0			UNCLASSIFIED	200.0	1200.0

MAPID: 12101292000C **VERSION:** 1 **PROJECT:** CGT-ECILL
COUNTY: MARION **TWP/RNG:** 4N 1E **SECTION:** 16 **QUARTERS/FOOTAGES:** 330' N line, 330' W line of SW
QUADRANGLE: PATOKA **LONGITUDE:** -89.10392 **GEOLOGIST:** C TREWORYG
CONFIDENTIAL: N **LATITUDE:** 38.785953 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 503.0 **LOGGED (FT.):** 648.0 **LOG TYPE:** Electric Log
SOURCE: **WELL TYPE:** Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
319.0	BOND	CARTHAGE	LIMESTONE	10.0	184.0
51.0	MODESTO	PIASA	LIMESTONE	8.0	452.0
-7.0	CARBONDALE	DANVILLE	COAL	3.0	510.0
-45.0	CARBONDALE	HERRIN	COAL	5.5	548.0
-77.0	CARBONDALE	SPRINGFIELD	COAL	4.0	580.0
-145.0	CARBONDALE	HOUCHIN CREEK	COAL	-	648.0

MAPID: 12101292000C **VERSION:** 2 **PROJECT:** ROOF STUDY
COUNTY: MARION **TWP/RNG:** 4N 1E **SECTION:** 16 **QUARTERS/FOOTAGES:** 330' N line, 330' W line of SW
QUADRANGLE: PATOKA **LONGITUDE:** -89.10392 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.785953 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 503.0 **LOGGED (FT.):** 553.0 **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
51.0	MODESTO	PIASA	LIMESTONE	7.0	452.0
44.0	MODESTO		SILTY SHALE	51.0	459.0
-7.0	CARBONDALE	DANVILLE	COAL	3.0	510.0
-10.0	CARBONDALE		SHALE	11.0	513.0
-21.0	CARBONDALE		SHALE	2.0	524.0
-23.0	CARBONDALE		SHALE	6.0	526.0
-29.0	CARBONDALE	BANKSTON FORK	LIMESTONE	4.5	532.0
-33.5	CARBONDALE	LAWSON	SHALE	5.5	536.5
-39.0	CARBONDALE	BRERETON	LIMESTONE	4.0	542.0
-43.0	CARBONDALE	ANNA	BLACK SHALE	2.5	546.0
-45.0	CARBONDALE	HERRIN	COAL	5.0	548.0

MAPID: 12101292000C **VERSION:** 3 **PROJECT:** CIRC 164
COUNTY: MARION **TWP/RNG:** 4N 1E **SECTION:** 16 **QUARTERS/FOOTAGES:** 330' N line, 330' W line of SW
QUADRANGLE: PATOKA **LONGITUDE:** -89.10392 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.785953 **DATE COLLECTED:** 0 / 0 / 1942
SURFACE ELEVATION (FT.): 503.0 **LOGGED (FT.):** 1310.0 **LOG TYPE:**
SOURCE: NAT PET, SMITH J M 1 **WELL TYPE:** Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
319.0	BOND	CARTHAGE	LIMESTONE	-	184.0
-45.0	CARBONDALE	HERRIN	COAL	-	548.0

MAPID: 12100707000C **VERSION:** 1 **PROJECT:** CIRC 164
COUNTY: MARION **TWP/RNG:** 4N 1E **SECTION:** 18 **QUARTERS/FOOTAGES:** NW SE SE
QUADRANGLE: WILDCAT LAKE **LONGITUDE:** -89.127173 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.782466 **DATE COLLECTED:** 0 / 0 / 1937
SURFACE ELEVATION (FT.): 511.0 **LOGGED (FT.):** 1697.0 **LOG TYPE:**
SOURCE: AYERS ETAL, VANDVENTER 1 **WELL TYPE:** Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
288.0	BOND	CARTHAGE	LIMESTONE	-	223.0
-106.0	CARBONDALE	HERRIN	COAL	-	617.0

MAPID: 12102045000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 4N 1E SECTION: 18 QUARTERS/FOOTAGES: 330' S line, 330' E line of NW
QUADRANGLE: WILDCAT LAKE LONGITUDE: -89.134089 GEOLOGIST: C TREWORYG
CONFIDENTIAL: N LATITUDE: 38.788021 DATE COLLECTED:
SURFACE ELEVATION (FT.): 507.0 LOGGED (FT.): 781.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
279.0	BOND	CARTHAGE	LIMESTONE	8.0	228.0
-10.0	MODESTO	PIASA	LIMESTONE	5.0	517.0
-54.0	CARBONDALE	DANVILLE	COAL	-	561.0
-98.0	CARBONDALE	HERRIN	COAL	-	605.0
-134.0	CARBONDALE	SPRINGFIELD	COAL	3.5	641.0
-192.0	CARBONDALE	HOUCHIN CREEK	COAL	-	699.0
-274.0	CARBONDALE	COLCHESTER	COAL	-	781.0

MAPID: 12102045000C VERSION: 2

PROJECT: BLM

COUNTY: MARION TWP/RNG: 4N 1E SECTION: 18 QUARTERS/FOOTAGES: 330' S line, 330' E line of NW
QUADRANGLE: WILDCAT LAKE LONGITUDE: -89.134089 GEOLOGIST: TREWORYG,J
CONFIDENTIAL: N LATITUDE: 38.788021 DATE COLLECTED: 9 / 0 / 1960
SURFACE ELEVATION (FT.): 507.0 LOGGED (FT.): 781.0 LOG TYPE: Electric Log
SOURCE: YINGLING OIL, INC. WELL TYPE: Oil and Gas Test
COMMENT: CORRELATED BY C. TREWORYG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
507.0			UNKNOWN	561.0	0.0
-54.0	CARBONDALE	DANVILLE	COAL	-	561.0
-54.0	CARBONDALE		ROCK	44.0	561.0
-98.0	CARBONDALE	HERRIN	COAL	-	605.0
-98.0	CARBONDALE		ROCK	36.0	605.0
-134.0	CARBONDALE	SPRINGFIELD	COAL	3.5	641.0
-137.5	CARBONDALE		ROCK	54.5	644.5
-192.0	CARBONDALE	HOUCHIN CREEK	COAL	-	699.0
-192.0	CARBONDALE		ROCK	82.0	699.0
-274.0	CARBONDALE	COLCHESTER	COAL	-	781.0

MAPID: 12101722000C VERSION: 1

PROJECT: BLM

COUNTY: MARION TWP/RNG: 4N 1E SECTION: 19 QUARTERS/FOOTAGES: 330' N line, 330' W line of NE
QUADRANGLE: WILDCAT LAKE LONGITUDE: -89.129763 GEOLOGIST: TREWORGY,J
CONFIDENTIAL: N LATITUDE: 38.778869 DATE COLLECTED: 4 / 0 / 1953
SURFACE ELEVATION (FT.): 491.0 LOGGED (FT.): 738.0 LOG TYPE: Electric Log
SOURCE: RYAN OIL CO. WELL TYPE: Oil and Gas Test
COMMENT: CORRELATED BY C. TREWORGY

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
491.0			UNKNOWN	561.0	0.0
-70.0	CARBONDALE	HERRIN	COAL	5.0	561.0
-75.0	CARBONDALE		ROCK	33.0	566.0
-108.0	CARBONDALE	SPRINGFIELD	COAL	3.0	599.0
-111.0	CARBONDALE		ROCK	56.0	602.0
-167.0	CARBONDALE	HOUCHIN CREEK	COAL	-	658.0
-167.0	CARBONDALE		ROCK	80.0	658.0
-247.0	CARBONDALE	COLCHESTER	COAL	-	738.0

MAPID: 12101722000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: MARION TWP/RNG: 4N 1E SECTION: 19 QUARTERS/FOOTAGES: 330' N line, 330' W line of NE
QUADRANGLE: WILDCAT LAKE LONGITUDE: -89.129763 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.778869 DATE COLLECTED:
SURFACE ELEVATION (FT.): 491.0 LOGGED (FT.): 565.5 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
13.0	MODESTO	PIASA	LIMESTONE	3.0	478.0
10.0	MODESTO		SHALE & SANDSTONE	39.0	481.0
-29.0	CARBONDALE	DANVILLE	COAL	2.0	520.0
-31.0	CARBONDALE		SHALE	12.0	522.0
-43.0	CARBONDALE		SHALE	2.0	534.0
-45.0	CARBONDALE	ALLENBY	COAL	2.0	536.0
-47.0	CARBONDALE		SHALE	5.5	538.0
-52.5	CARBONDALE	BANKSTON FORK	LIMESTONE	3.0	543.5
-55.5	CARBONDALE	BANKSTON FORK	SHALE	0.5	546.5
-56.0	CARBONDALE	BANKSTON FORK	LIMESTONE	2.5	547.0
-58.5	CARBONDALE	LAWSON	SHALE	2.5	549.5
-61.0	CARBONDALE	CONANT	LIMESTONE	0.5	552.0
-61.5	CARBONDALE		SHALE	1.5	552.5
-63.0	CARBONDALE	BRERETON	LIMESTONE	4.5	554.0
-67.5	CARBONDALE	ANNA	BLACK SHALE	2.0	558.5
-70.0	CARBONDALE	HERRIN	COAL	4.5	561.0

MAPID: 12101722000C VERSION: 3 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 4N 1E SECTION: 19 QUARTERS/FOOTAGES: 330' N line, 330' W line of NE
QUADRANGLE: WILDCAT LAKE LONGITUDE: -89.129763 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.778869 DATE COLLECTED:
SURFACE ELEVATION (FT.): 491.0 LOGGED (FT.): 738.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
304.0	BOND	CARTHAGE	LIMESTONE	10.0	187.0	
15.0	MODESTO	PIASA	LIMESTONE	5.0	476.0	
-70.0	CARBONDALE	HERRIN	COAL	5.0	561.0	
-108.0	CARBONDALE	SPRINGFIELD	COAL	3.0	599.0	
-167.0	CARBONDALE	HOUCHIN CREEK	COAL	-	658.0	
-247.0	CARBONDALE	COLCHESTER	COAL	-	738.0	

MAPID: 12170002000C VERSION: 1 PROJECT: NCRDS
COUNTY: MARION TWP/RNG: 4N 1E SECTION: 19 QUARTERS/FOOTAGES: 1560' S line, 340' E line
QUADRANGLE: PATOKA LONGITUDE: -89.124873 GEOLOGIST: LOUCHIOS
CONFIDENTIAL: N LATITUDE: 38.769682 DATE COLLECTED: 0 / 0 / 1959
SURFACE ELEVATION (FT.): 483.0 LOGGED (FT.): 966.0 LOG TYPE: Drillers Log
SOURCE: UTAH INTERNATIONAL 06C2008 WELL TYPE: Coal Test
COMMENT: CODED COAL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
483.0			UNCLASSIFIED	522.0	0.0	
-39.0	CARBONDALE	HERRIN	COAL	7.0	522.0	UNCERTAIN CORRELATION
-46.0	CARBONDALE		UNCLASSIFIED	93.0	529.0	
-139.0	CARBONDALE	COLCHESTER	COAL	4.0	622.0	UNCERTAIN CORRELATION
-143.0			UNCLASSIFIED	340.0	626.0	

MAPID: 12101620000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 4N 1E SECTION: 20 QUARTERS/FOOTAGES: 990' S line, 330' E line of SW SE
QUADRANGLE: PATOKA LONGITUDE: -89.111038 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.767905 DATE COLLECTED:
SURFACE ELEVATION (FT.): 479.0 LOGGED (FT.): 679.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
339.0	BOND	CARTHAGE	LIMESTONE	10.0	140.0
68.0	MODESTO	PIASA	LIMESTONE	5.0	411.0
15.0	CARBONDALE	DANVILLE	COAL	3.0	464.0
-27.0	CARBONDALE	HERRIN	COAL	4.0	506.0
-64.0	CARBONDALE	SPRINGFIELD	COAL	3.0	543.0
-131.0	CARBONDALE	HOUCHIN CREEK	COAL	-	610.0
-200.0	CARBONDALE	COLCHESTER	COAL	-	679.0

MAPID: 12101620000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: MARION TWP/RNG: 4N 1E SECTION: 20 QUARTERS/FOOTAGES: 990' S line, 330' E line of SW SE
QUADRANGLE: PATOKA LONGITUDE: -89.111038 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.767905 DATE COLLECTED:
SURFACE ELEVATION (FT.): 478.0 LOGGED (FT.): 510.0 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
65.0	MODESTO	PIASA	LIMESTONE	4.0	413.0
61.0	MODESTO		SILTY SHALE	49.0	417.0
12.0	CARBONDALE	DANVILLE	COAL	2.0	466.0
10.0	CARBONDALE		SHALE	12.0	468.0
-2.0	CARBONDALE		SHALE	2.0	480.0
-4.0	CARBONDALE	ALLENBY	COAL	0.5	482.0
-4.5	CARBONDALE		SHALE	6.5	482.5
-11.0	CARBONDALE	BANKSTON FORK	LIMESTONE	3.0	489.0
-14.0	CARBONDALE	BANKSTON FORK	SHALE	2.0	492.0
-16.0	CARBONDALE	BANKSTON FORK	LIMESTONE	2.0	494.0
-18.0	CARBONDALE	LAWSON	SHALE	6.0	496.0
-24.0	CARBONDALE	BRERETON	LIMESTONE	4.5	502.0
-28.5	CARBONDALE	ANNA	SHALE	1.0	506.5
-28.0	CARBONDALE	HERRIN	COAL	4.0	506.0

MAPID: 12170001000C VERSION: 1 PROJECT: NCRDS

COUNTY: MARION TWP/RNG: 4N 1E SECTION: 20 QUARTERS/FOOTAGES: 640' S line, 390' E line

QUADRANGLE: PATOKA LONGITUDE: -89.106657 GEOLOGIST: LOUCHIOS

CONFIDENTIAL: N LATITUDE: 38.766872 DATE COLLECTED: 0 / 0 / 1944

SURFACE ELEVATION (FT.): 488.0 LOGGED (FT.): 1430.0 LOG TYPE: Drillers Log

SOURCE: UTAH INTERNATIONAL 07C4739 WELL TYPE: Coal Test

COMMENT: CODED COAL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
488.0			NO RECORD	20.0	0.0	
468.0			SHALE	45.0	20.0	FOSSIL SHELLS
423.0			SANDY SHALE	61.0	65.0	FOSSIL SHELLS
362.0			LIMESTONE	8.0	126.0	
354.0			COAL	3.0	134.0	
351.0			SANDY SHALE	69.0	137.0	
282.0			SHALE	84.0	206.0	FOSSIL SHELLS
198.0			COAL	3.0	290.0	
195.0			SANDY SHALE	102.0	293.0	
93.0			SHALE	81.0	395.0	FOSSIL SHELLS
12.0			COAL	19.0	476.0	
-7.0			SANDY SHALE	120.0	495.0	
-127.0			SHALE	140.0	615.0	
-267.0			SANDSTONE	155.0	755.0	
-422.0			SHALE	40.0	910.0	
-462.0			LIMESTONE	10.0	950.0	
-472.0			SHALE	70.0	960.0	
-542.0			SANDSTONE	70.0	1030.0	
-612.0			UNCLASSIFIED	330.0	1100.0	

MAPID: 12170003000C **VERSION:** 1 **PROJECT:** NCRDS
COUNTY: MARION **TWP/RNG:** 4N 1E **SECTION:** 20 **QUARTERS/FOOTAGES:** 1620' S line, 2220' W line
QUADRANGLE: PATOKA **LONGITUDE:** -89.115845 **GEOLOGIST:** LOUCHIOS
CONFIDENTIAL: N **LATITUDE:** 38.769716 **DATE COLLECTED:** 0 / 0 / 1940
SURFACE ELEVATION (FT.): 501.0 **LOGGED (FT.):** 715.0 **LOG TYPE:** Drillers Log
SOURCE: UTAH INTERNATIONAL 05C706 **WELL TYPE:** Coal Test
COMMENT: CODED COAL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
501.0			NO RECORD	100.0	0.0
401.0			SANDSTONE	60.0	100.0
341.0			SANDY SHALE	20.0	160.0
321.0			SANDSTONE	55.0	180.0
266.0			LIMESTONE	95.0	235.0
171.0			SHALE	100.0	330.0
71.0			SANDSTONE	90.0	430.0
-19.0			SHALE	10.0	520.0
-29.0			BLACK SHALE	5.0	530.0
-34.0			LIMESTONE	38.0	535.0
-72.0			BLACK SHALE	7.0	573.0
-79.0			SANDSTONE	10.0	580.0
-89.0			UNCLASSIFIED	18.0	590.0
-107.0			SANDSTONE	62.0	608.0
-169.0			LIMESTONE	12.0	670.0
-181.0			SANDSTONE	33.0	682.0

MAPID: 12100735000C **VERSION:** 1 **PROJECT:** CIRC 164
COUNTY: MARION **TWP/RNG:** 4N 1E **SECTION:** 21 **QUARTERS/FOOTAGES:** NE SE SW
QUADRANGLE: PATOKA **LONGITUDE:** -89.097134 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.767745 **DATE COLLECTED:** 0 / 0 / 1941
SURFACE ELEVATION (FT.): 503.0 **LOGGED (FT.):** 3142.0 **LOG TYPE:**
SOURCE: ADAMS OG, MERYMAN 22 **WELL TYPE:** Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
375.0	BOND	CARTHAGE	LIMESTONE	-	128.0
11.0	CARBONDALE	HERRIN	COAL	-	492.0

MAPID: 12101375000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 4N 1E SECTION: 21 QUARTERS/FOOTAGES: SW SW SW
QUADRANGLE: PATOKA LONGITUDE: -89.104101 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.765988 DATE COLLECTED: 0 / 0 / 1943
SURFACE ELEVATION (FT.): 491.0 LOGGED (FT.): 1448.0 LOG TYPE:
SOURCE: ADAMS&FLMT, MERYMAN 11W WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
367.0	BOND	CARTHAGE	LIMESTONE	-	124.0
3.0	CARBONDALE	HERRIN	COAL	-	488.0

MAPID: 12101446000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 4N 1E SECTION: 21 QUARTERS/FOOTAGES: 1980' S line, 330' W line
QUADRANGLE: PATOKA LONGITUDE: -89.104062 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.770546 DATE COLLECTED:
SURFACE ELEVATION (FT.): 473.0 LOGGED (FT.): 525.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
351.0	BOND	CARTHAGE	LIMESTONE	9.0	122.0
-15.0	CARBONDALE	HERRIN	COAL	5.0	488.0
-48.0	CARBONDALE	SPRINGFIELD	COAL	4.0	521.0

MAPID: 12101446000C VERSION: 2 PROJECT: ROOF STUDY

COUNTY: MARION TWP/RNG: 4N 1E SECTION: 21 QUARTERS/FOOTAGES: 1980' S line, 330' W line

QUADRANGLE: PATOKA LONGITUDE: -89.104062 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.770546 DATE COLLECTED:

SURFACE ELEVATION (FT.): 473.0 LOGGED (FT.): 492.0 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
85.0	MODESTO	PIASA	LIMESTONE & SHALE	3.5	388.0
81.5	MODESTO		SILTY SHALE	58.0	391.5
23.5	CARBONDALE		COAL	2.3	449.5
21.2	CARBONDALE		SHALE	7.0	451.8
14.2	CARBONDALE		SHALE	1.0	458.8
13.2	CARBONDALE	BANKSTON FORK	SHALE	5.0	459.8
8.2	CARBONDALE		LIMESTONE	5.0	464.8
3.2	CARBONDALE		SHALE	4.0	469.8
-0.8	CARBONDALE		LIMESTONE	3.0	473.8
-3.8	CARBONDALE		SHALE	5.0	476.8
-8.8	CARBONDALE	BRERETON	LIMESTONE	3.0	481.8
-11.8	CARBONDALE	ANNA	SHALE	3.0	484.8
-15.0	CARBONDALE	HERRIN	COAL	4.0	488.0

MAPID: 12101446000C VERSION: 3 PROJECT: CIRC 164

COUNTY: MARION TWP/RNG: 4N 1E SECTION: 21 QUARTERS/FOOTAGES: 1980' S line, 330' W line

QUADRANGLE: PATOKA LONGITUDE: -89.104062 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.770546 DATE COLLECTED: 0 / 0 / 1943

SURFACE ELEVATION (FT.): 473.0 LOGGED (FT.): 1582.0 LOG TYPE:

SOURCE: ADAMS&FLMT, HAMPY O1 WELL TYPE: Oil and Gas Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
355.0	BOND	CARTHAGE	LIMESTONE	-	118.0
-15.0	CARBONDALE	HERRIN	COAL	-	488.0

MAPID: 12170000000C **VERSION:** 1 **PROJECT:** NCRDS
COUNTY: MARION **TWP/RNG:** 4N 1E **SECTION:** 21 **QUARTERS/FOOTAGES:** 1090' S line, 1040' E line
QUADRANGLE: PATOKA **LONGITUDE:** -89.090369 **GEOLOGIST:** LOUCHIOS
CONFIDENTIAL: N **LATITUDE:** 38.767975 **DATE COLLECTED:** 0 / 0 / 1937
SURFACE ELEVATION (FT.): 488.0 **LOGGED (FT.):** 600.0 **LOG TYPE:** Drillers Log
SOURCE: UTAH INTERNATIONAL 08722 **WELL TYPE:** Coal Test
COMMENT: CODED COAL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
488.0			NO RECORD	67.0	0.0	
421.0			SHALE	8.0	67.0	
413.0			SANDY SHALE	25.0	75.0	
388.0			SANDY SHALE	20.0	100.0	FOSSIL SHELLS
368.0			UNCLASSIFIED	20.0	120.0	
348.0			SANDSTONE	60.0	140.0	
288.0			SANDSTONE	20.0	200.0	FOSSIL SHELLS
268.0			SANDY SHALE	60.0	220.0	
208.0			SHALE	20.0	280.0	
188.0			SANDY SHALE	40.0	300.0	
148.0			SANDY SHALE	40.0	340.0	
108.0			SANDSTONE	40.0	380.0	
68.0			SHALE & SANDSTONE	20.0	420.0	
48.0			SANDY SHALE	40.0	440.0	
8.0			LIMESTONE	11.0	480.0	
-3.0	CARBONDALE	HERRIN	COAL	8.0	491.0	
-11.0			UNCLASSIFIED	21.0	499.0	
-32.0			LIMESTONE	10.0	520.0	
-42.0	CARBONDALE	SPRINGFIELD	COAL	4.0	530.0	
-46.0			LIMESTONE	6.0	534.0	
-52.0			SHALE	20.0	540.0	
-72.0			SANDSTONE	20.0	560.0	
-92.0			SHALE	20.0	580.0	

MAPID: 12100737000C **VERSION:** 1 **PROJECT:** CIRC 164
COUNTY: MARION **TWP/RNG:** 4N 1E **SECTION:** 22 **QUARTERS/FOOTAGES:** NW NW SE
QUADRANGLE: PATOKA **LONGITUDE:** -89.076166 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.771292 **DATE COLLECTED:** 0 / 0 / 1937
SURFACE ELEVATION (FT.): 512.0 **LOGGED (FT.):** 1550.0 **LOG TYPE:**
SOURCE: BRWN R ETL, BACHMAN F 1 **WELL TYPE:** Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-32.0	CARBONDALE	HERRIN	COAL	-	544.0	

MAPID: 12170009000C VERSION: 1 PROJECT: NCRDS

COUNTY: MARION TWP/RNG: 4N 1E SECTION: 22 QUARTERS/FOOTAGES: 2100' S line, 2400' E line

QUADRANGLE: PATOKA LONGITUDE: -89.076483 GEOLOGIST: LOUCHIOS

CONFIDENTIAL: N LATITUDE: 38.770736 DATE COLLECTED: 0 / 0 / 1937

SURFACE ELEVATION (FT.): 510.0 LOGGED (FT.): 1445.0 LOG TYPE: Drillers Log

SOURCE: UTAH INTERNATIONAL 12C737 WELL TYPE: Coal Test

COMMENT: CODED COAL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
510.0			UNCLASSIFIED	544.0	0.0
-34.0	CARBONDALE	HERRIN	COAL	7.0	544.0
-41.0			UNCLASSIFIED	444.0	551.0
-485.0			COAL	1.0	995.0
-486.0			UNCLASSIFIED	449.0	996.0

MAPID: 12100006000C VERSION: 1 PROJECT: CIRC 164

COUNTY: MARION TWP/RNG: 4N 1E SECTION: 23 QUARTERS/FOOTAGES: SE SW NW

QUADRANGLE: PATOKA LONGITUDE: -89.064513 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.773102 DATE COLLECTED: 0 / 0 / 1900

SURFACE ELEVATION (FT.): 520.0 LOGGED (FT.): 1608.0 LOG TYPE:

SOURCE: COLUMBA OC, GREEN LUCY 1 WELL TYPE: Oil and Gas Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
320.0	BOND	CARTHAGE	LIMESTONE	-	200.0
-40.0	CARBONDALE	HERRIN	COAL	-	560.0

MAPID: 12170010000C VERSION: 1 PROJECT: NCRDS
COUNTY: MARION TWP/RNG: 4N 1E SECTION: 23 QUARTERS/FOOTAGES: 2490' S line, 1290' W line
QUADRANGLE: PATOKA LONGITUDE: -89.063467 GEOLOGIST: LOUCHIOS
CONFIDENTIAL: N LATITUDE: 38.771817 DATE COLLECTED:
SURFACE ELEVATION (FT.): 520.0 LOGGED (FT.): 1075.0 LOG TYPE: Drillers Log
SOURCE: UTAH INTERNATIONAL 13C6 WELL TYPE: Coal Test
COMMENT: CODED COAL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
520.0			NO RECORD	115.0	0.0
405.0			LIMESTONE	10.0	115.0
395.0			SHALE	75.0	125.0
320.0			LIMESTONE	15.0	200.0
305.0			SHALE	225.0	215.0
80.0			LIMESTONE	10.0	440.0
70.0			SHALE	80.0	450.0
-10.0			LIMESTONE	30.0	530.0
-40.0	CARBONDALE	HERRIN	COAL	2.0	560.0
-42.0	CARBONDALE		SHALE	13.0	562.0
-55.0	CARBONDALE		LIMESTONE	10.0	575.0
-65.0	CARBONDALE		SHALE	25.0	585.0
-90.0	CARBONDALE		LIMESTONE	5.0	610.0
-95.0	CARBONDALE	COLCHESTER	COAL	5.0	615.0
-100.0			SHALE	40.0	620.0
-140.0			LIMESTONE	10.0	660.0
-150.0			SHALE	30.0	670.0
-180.0			SANDSTONE	10.0	700.0
-190.0			SHALE	125.0	710.0
-315.0			SANDSTONE	125.0	835.0
-440.0			SHALE	10.0	960.0
-450.0			LIMESTONE	15.0	970.0
-465.0			SHALE	40.0	985.0
-505.0			LIMESTONE	10.0	1025.0
-515.0			SHALE	40.0	1035.0

MAPID: 12100741000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 4N 1E SECTION: 26 QUARTERS/FOOTAGES: SW SW SW
QUADRANGLE: PATOKA LONGITUDE: -89.066994 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.751353 DATE COLLECTED: 0 / 0 / 1941
SURFACE ELEVATION (FT.): 518.0 LOGGED (FT.): 1369.0 LOG TYPE:
SOURCE: GULF REF, HILL L P 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
381.0	BOND	CARTHAGE	LIMESTONE	-	137.0
13.0	CARBONDALE	HERRIN	COAL	-	505.0

MAPID: 12101553000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 4N 1E SECTION: 26 QUARTERS/FOOTAGES: 330' S line, 330' E line of SW NE
QUADRANGLE: PATOKA LONGITUDE: -89.055322 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.758592 DATE COLLECTED:
SURFACE ELEVATION (FT.): 520.0 LOGGED (FT.): 718.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
341.0	BOND	CARTHAGE	LIMESTONE	11.0	179.0
-27.0	CARBONDALE	HERRIN	COAL	4.0	547.0
-70.0	CARBONDALE	SPRINGFIELD	COAL	4.0	590.0
-95.0	CARBONDALE	HOUCHIN CREEK	COAL	-	615.0
-198.0	CARBONDALE	COLCHESTER	COAL	-	718.0

MAPID: 12104764000C

VERSION: 1

PROJECT: ROOF STUDY

COUNTY: MARION

TWP/RNG: 4N 1E

SECTION: 26

QUARTERS/FOOTAGES: 990' N line, 330' W line

QUADRANGLE: PATOKA

LONGITUDE: -89.066904

GEOLOGIST:

CONFIDENTIAL: N

LATITUDE: 38.762208

DATE COLLECTED:

SURFACE ELEVATION (FT.): 514.0

LOGGED (FT.): 543.0

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
24.0	CARBONDALE	DANVILLE	COAL	3.0	490.0
21.0	CARBONDALE		SHALE	7.0	493.0
14.0	CARBONDALE		SHALE	1.0	500.0
13.0	CARBONDALE	ALLENBY	COAL	0.5	501.0
12.5	CARBONDALE		SHALE	8.0	501.5
4.5	CARBONDALE	BANKSTON FORK	LIMESTONE	7.5	509.5
-3.0	CARBONDALE	BANKSTON FORK	SHALE	6.5	517.0
-9.5	CARBONDALE	BANKSTON FORK	LIMESTONE	2.0	523.5
-11.5	CARBONDALE	LAWSON	SHALE	5.5	525.5
-17.0	CARBONDALE	BRERETON	LIMESTONE	5.0	531.0
-22.0	CARBONDALE	ANNA	SHALE	3.0	536.0
-25.0	CARBONDALE	HERRIN	COAL	4.0	539.0

MAPID: 12170013000C **VERSION:** 1 **PROJECT:** NCRDS
COUNTY: MARION **TWP/RNG:** 4N 1E **SECTION:** 26 **QUARTERS/FOOTAGES:** 240' S line, 580' W line
QUADRANGLE: PATOKA **LONGITUDE:** -89.066114 **GEOLOGIST:** LOUCHIOS
CONFIDENTIAL: N **LATITUDE:** 38.751107 **DATE COLLECTED:** 0 / 0 / 1941
SURFACE ELEVATION (FT.): 515.0 **LOGGED (FT.):** 1355.0 **LOG TYPE:** Drillers Log
SOURCE: UTAH INTERNATIONAL 14C743 **WELL TYPE:** Coal Test
COMMENT: CODED COAL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
515.0			NO RECORD	20.0	0.0	
495.0			SHALE & SANDSTONE	55.0	20.0	INTERBEDDED
440.0			SHALE	71.0	75.0	
369.0			LIMESTONE	10.0	146.0	
359.0			SHALE	360.0	156.0	FOSSIL SHELLS
-1.0			LIMESTONE	4.0	516.0	
-5.0	CARBONDALE	HERRIN	COAL	5.0	520.0	
-10.0			SANDY SHALE	105.0	525.0	
-115.0			SHALE W/ COAL STREAKS	60.0	630.0	
-175.0			SHALE	60.0	690.0	
-235.0			SANDSTONE	150.0	750.0	
-385.0			SHALY SANDSTONE	15.0	900.0	
-400.0			SHALE & SANDSTONE	45.0	915.0	
-445.0			SHALE	80.0	960.0	
-525.0			UNCLASSIFIED	315.0	1040.0	

MAPID: 12100746000C **VERSION:** 1 **PROJECT:** CGT-ECILL
COUNTY: MARION **TWP/RNG:** 4N 1E **SECTION:** 27 **QUARTERS/FOOTAGES:** 220' S line, 220' E line
QUADRANGLE: PATOKA **LONGITUDE:** -89.068935 **GEOLOGIST:** C TREWORGY
CONFIDENTIAL: N **LATITUDE:** 38.751065 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 524.0 **LOGGED (FT.):** 546.0 **LOG TYPE:** Electric Log
SOURCE: **WELL TYPE:** Oil and Gas Test
COMMENT: POOR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
388.0	BOND	CARTHAGE	LIMESTONE	11.0	136.0	
124.0	MODESTO	PIASA	LIMESTONE	5.0	400.0	
23.0	CARBONDALE	HERRIN	COAL	5.0	501.0	
-18.0	CARBONDALE	SPRINGFIELD	COAL	4.0	542.0	

MAPID: 12100746000C VERSION: 2 PROJECT: ROOF STUDY

COUNTY: MARION TWP/RNG: 4N 1E SECTION: 27 QUARTERS/FOOTAGES: 220' S line, 220' E line

QUADRANGLE: PATOKA LONGITUDE: -89.068935 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.751065 DATE COLLECTED:

SURFACE ELEVATION (FT.): 519.0 LOGGED (FT.): 506.0 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
117.0	MODESTO	PIASA	LIMESTONE	4.0	402.0
113.0	MODESTO		SILTY SHALE	56.0	406.0
57.0	CARBONDALE	DANVILLE	COAL	2.8	462.0
54.2	CARBONDALE		SHALE	5.0	464.8
49.2	CARBONDALE		SHALE	1.0	469.8
48.2	CARBONDALE	ALLENBY	COAL	1.0	470.8
47.2	CARBONDALE		SHALE	5.0	471.8
42.2	CARBONDALE	BANKSTON FORK	LIMESTONE	7.0	476.8
35.2	CARBONDALE	BANKSTON FORK	SHALE	3.5	483.8
31.7	CARBONDALE	BANKSTON FORK	LIMESTONE	3.0	487.3
28.7	CARBONDALE	LAWSON	SHALE	3.0	490.3
25.7	CARBONDALE	BRERETON	LIMESTONE	6.0	493.3
19.7	CARBONDALE	ANNA	BLACK SHALE	2.5	499.3
17.0	CARBONDALE	HERRIN	COAL	4.0	502.0

MAPID: 12100747000C VERSION: 1 PROJECT: CIRC 164

COUNTY: MARION TWP/RNG: 4N 1E SECTION: 27 QUARTERS/FOOTAGES: NW SE NW

QUADRANGLE: PATOKA LONGITUDE: -89.080888 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.76044 DATE COLLECTED: 0 / 0 / 1937

SURFACE ELEVATION (FT.): 502.0 LOGGED (FT.): 1679.0 LOG TYPE:

SOURCE: WISER&OHIO, MARTIN S 1 WELL TYPE: Oil and Gas Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
356.0	BOND	CARTHAGE	LIMESTONE	-	146.0
-16.0	CARBONDALE	HERRIN	COAL	-	518.0

MAPID: 12101114000C **VERSION:** 1 **PROJECT:** CIRC 164
COUNTY: MARION **TWP/RNG:** 4N 1E **SECTION:** 27 **QUARTERS/FOOTAGES:** SE SE SW
QUADRANGLE: PATOKA **LONGITUDE:** -89.078558 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.751432 **DATE COLLECTED:** 0 / 0 / 1941
SURFACE ELEVATION (FT.): 508.0 **LOGGED (FT.):** 1414.0 **LOG TYPE:**
SOURCE: ESPRIZA OC, MARTIN C D 1 **WELL TYPE:** Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
382.0	BOND	CARTHAGE	LIMESTONE	-	126.0
21.0	CARBONDALE	HERRIN	COAL	-	487.0

MAPID: 12170012000C **VERSION:** 1 **PROJECT:** NCRDS
COUNTY: MARION **TWP/RNG:** 4N 1E **SECTION:** 27 **QUARTERS/FOOTAGES:** 1500' S line, 1400' W line
QUADRANGLE: PATOKA **LONGITUDE:** -89.081733 **GEOLOGIST:** LOUCHIOS
CONFIDENTIAL: N **LATITUDE:** 38.754696 **DATE COLLECTED:** 0 / 0 / 1948
SURFACE ELEVATION (FT.): 517.0 **LOGGED (FT.):** 1165.0 **LOG TYPE:** Drillers Log
SOURCE: UTAH INTERNATIONAL 15C4770 **WELL TYPE:** Coal Test
COMMENT: CODED COAL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
517.0			NO RECORD	50.0	0.0
467.0			SHALE	10.0	50.0
457.0			SANDY SHALE	10.0	60.0
447.0			DARK SHALE	48.0	70.0
399.0			UNCLASSIFIED	92.0	118.0
307.0			DARK SHALE	40.0	210.0
267.0			SANDY SHALE	65.0	250.0
202.0			SANDSTONE	15.0	315.0
187.0			UNCLASSIFIED	20.0	330.0
167.0			DARK SHALE	55.0	350.0
112.0			LIMESTONE	5.0	405.0
107.0			SHALE	20.0	410.0
87.0			SANDSTONE	10.0	430.0
77.0			DARK SHALE	10.0	440.0
67.0			SHALE	50.0	450.0
17.0			LIMESTONE	30.0	500.0
-13.0			SANDSTONE	125.0	530.0
-138.0			COAL	10.0	655.0
-148.0			SANDSTONE	35.0	665.0
-183.0			SHALE	85.0	700.0
-268.0			SANDSTONE	195.0	785.0
-463.0			SHALE	30.0	980.0
-493.0			UNCLASSIFIED	155.0	1010.0

MAPID: 12100757000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 4N 1E SECTION: 28 QUARTERS/FOOTAGES: NE SW SW
QUADRANGLE: PATOKA LONGITUDE: -89.101753 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.753325 DATE COLLECTED: 0 / 0 / 1937
SURFACE ELEVATION (FT.): 503.0 LOGGED (FT.): 1448.0 LOG TYPE:
SOURCE: ADAMS OG, BALLANCE L 2 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
373.0	BOND	CARTHAGE	LIMESTONE	-	130.0	
0.0	CARBONDALE	HERRIN	COAL	-	503.0	

MAPID: 12100764000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 4N 1E SECTION: 28 QUARTERS/FOOTAGES: SW SW SE
QUADRANGLE: PATOKA LONGITUDE: -89.094779 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.751506 DATE COLLECTED: 0 / 0 / 1937
SURFACE ELEVATION (FT.): 505.0 LOGGED (FT.): 1475.0 LOG TYPE:
SOURCE: VICKRS ETL, FARMER E 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
380.0	BOND	CARTHAGE	LIMESTONE	-	125.0	
10.0	CARBONDALE	HERRIN	COAL	-	495.0	

MAPID: 12100773000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 4N 1E SECTION: 28 QUARTERS/FOOTAGES: NE NW SE
QUADRANGLE: PATOKA LONGITUDE: -89.092485 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.756893 DATE COLLECTED: 0 / 0 / 1937
SURFACE ELEVATION (FT.): 499.0 LOGGED (FT.): 1444.0 LOG TYPE:
SOURCE: ADAMS OG, INGELS 2 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
379.0	BOND	CARTHAGE	LIMESTONE	-	120.0	
9.0	CARBONDALE	HERRIN	COAL	-	490.0	

MAPID: 12100792000C **VERSION:** 1 **PROJECT:** CIRC 164
COUNTY: MARION **TWP/RNG:** 4N 1E **SECTION:** 28 **QUARTERS/FOOTAGES:** SE NE SE
QUADRANGLE: PATOKA **LONGITUDE:** -89.087834 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.755079 **DATE COLLECTED:** 0 / 0 / 1937
SURFACE ELEVATION (FT.): 509.0 **LOGGED (FT.):** 1037.0 **LOG TYPE:**
SOURCE: HEMPN&BRGS, PERRINE 1 **WELL TYPE:** Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
374.0	BOND	CARTHAGE	LIMESTONE	-	135.0
8.0	CARBONDALE	HERRIN	COAL	-	501.0

MAPID: 12100807000C **VERSION:** 1 **PROJECT:** CIRC 164
COUNTY: MARION **TWP/RNG:** 4N 1E **SECTION:** 28 **QUARTERS/FOOTAGES:** NW SE NW
QUADRANGLE: PATOKA **LONGITUDE:** -89.09946 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.760534 **DATE COLLECTED:** 0 / 0 / 1937
SURFACE ELEVATION (FT.): 500.0 **LOGGED (FT.):** 1436.0 **LOG TYPE:**
SOURCE: ADAMS OG, WASEM GEO 11A **WELL TYPE:** Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
386.0	BOND	CARTHAGE	LIMESTONE	-	114.0
22.0	CARBONDALE	HERRIN	COAL	-	478.0

MAPID: 12102055000C **VERSION:** 1 **PROJECT:** CGT-ECILL
COUNTY: MARION **TWP/RNG:** 4N 1E **SECTION:** 28 **QUARTERS/FOOTAGES:** 990' N line, 990' W line of NE
QUADRANGLE: PATOKA **LONGITUDE:** -89.0925 **GEOLOGIST:** C TREWORYG
CONFIDENTIAL: N **LATITUDE:** 38.762249 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 494.0 **LOGGED (FT.):** 527.0 **LOG TYPE:** Electric Log
SOURCE: **WELL TYPE:** Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
372.0	BOND	CARTHAGE	LIMESTONE	6.0	122.0
-30.0	CARBONDALE	SPRINGFIELD	COAL	3.0	524.0

MAPID: 12104749000C

VERSION: 1

PROJECT: ROOF STUDY

COUNTY: MARION

TWP/RNG: 4N 1E

SECTION: 28

QUARTERS/FOOTAGES: 1654' N line, 2949' W line

QUADRANGLE: PATOKA

LONGITUDE: -89.094855

GEOLOGIST:

CONFIDENTIAL: N

LATITUDE: 38.760435

DATE COLLECTED:

SURFACE ELEVATION (FT.): 495.0

LOGGED (FT.): 485.0

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
115.0	MODESTO	PIASA	LIMESTONE	4.0	380.0
111.0	MODESTO		SILTY SHALE	56.3	384.0
54.7	CARBONDALE	DANVILLE	COAL	1.8	440.3
53.0	CARBONDALE		SHALE	8.5	442.0
44.5	CARBONDALE		SHALE	1.0	450.5
43.5	CARBONDALE	ALLENBY	COAL	1.8	451.5
41.7	CARBONDALE		SHALE	3.3	453.3
38.5	CARBONDALE	BANKSTON FORK	LIMESTONE	5.0	456.5
33.5	CARBONDALE	BANKSTON FORK	SHALE	4.0	461.5
29.5	CARBONDALE	BANKSTON FORK	LIMESTONE	3.0	465.5
26.5	CARBONDALE	CONANT	LIMESTONE	2.5	468.5
24.0	CARBONDALE		SHALE	2.0	471.0
22.0	CARBONDALE	BRERETON	LIMESTONE	3.5	473.0
18.5	CARBONDALE	ANNA	BLACK SHALE	2.5	476.5
15.0	CARBONDALE	HERRIN	COAL	5.0	480.0

MAPID: 12170011000C VERSION: 1

PROJECT: NCRDS

COUNTY: MARION TWP/RNG: 4N 1E SECTION: 28 QUARTERS/FOOTAGES: 1590' N line, 1580' E line

QUADRANGLE: PATOKA LONGITUDE: -89.092284 GEOLOGIST: LOUCHIOS

CONFIDENTIAL: N LATITUDE: 38.760591 DATE COLLECTED: 0 / 0 / 1940

SURFACE ELEVATION (FT.): 483.0 LOGGED (FT.): 740.0 LOG TYPE: Drillers Log

SOURCE: UTAH INTERNATIONAL 16C774 WELL TYPE: Coal Test

COMMENT: CODED COAL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
483.0			NO RECORD	55.0	0.0	
428.0			UNCLASSIFIED	2.0	55.0	
426.0			SHALE	11.0	57.0	
415.0			SANDSTONE	40.0	68.0	
375.0			LIMESTONE	10.0	108.0	
365.0			SHALE	102.0	118.0	FOSSIL SHELLS
263.0			LIMESTONE	5.0	220.0	
258.0			SHALE	69.0	225.0	
189.0			COAL	4.0	294.0	
185.0			SANDY SHALE	77.0	298.0	
108.0			SANDSTONE/SHALE	50.0	375.0	INTERBEDDED
58.0			LIMESTONE	17.0	425.0	
41.0			UNCLASSIFIED	8.0	442.0	
33.0	SHELBURN	DANVILLE	COAL	2.0	450.0	
31.0			LIMESTONE	20.0	452.0	
11.0			SHALE W/ COAL STREAKS	18.0	472.0	
-7.0			SANDSTONE	36.0	490.0	
-43.0			SANDY SHALE	58.0	526.0	
-101.0			COAL	4.0	584.0	
-105.0			SANDY SHALE	23.0	588.0	
-128.0			COAL	2.0	611.0	
-130.0			UNCLASSIFIED	12.0	613.0	
-142.0			SHALE	20.0	625.0	FOSSIL SHELLS
-162.0			SHALY SANDSTONE	13.0	645.0	
-175.0			BLACK SHALE	62.0	658.0	
-237.0			SANDY SHALE	20.0	720.0	

MAPID: 12100816000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 4N 1E SECTION: 29 QUARTERS/FOOTAGES: SW NE NE
QUADRANGLE: PATOKA LONGITUDE: -89.108712 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.762423 DATE COLLECTED: 0 / 0 / 1941
SURFACE ELEVATION (FT.): 486.0 LOGGED (FT.): 1431.0 LOG TYPE:
SOURCE: ADAMS OG, BOYD RALPH 5 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
361.0	BOND	CARTHAGE	LIMESTONE	-	125.0
-3.0	CARBONDALE	HERRIN	COAL	-	489.0

MAPID: 12100831000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 4N 1E SECTION: 29 QUARTERS/FOOTAGES: SE SW NE
QUADRANGLE: PATOKA LONGITUDE: -89.111013 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.758834 DATE COLLECTED: 0 / 0 / 1941
SURFACE ELEVATION (FT.): 488.0 LOGGED (FT.): 1583.0 LOG TYPE:
SOURCE: ADAMS OG, PUGH SAM 8 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
365.0	BOND	CARTHAGE	LIMESTONE	-	123.0
0.0	CARBONDALE	HERRIN	COAL	-	488.0

MAPID: 12101301000C VERSION: 2 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 4N 1E SECTION: 29 QUARTERS/FOOTAGES: 660' N line, 660' W line of SE
QUADRANGLE: PATOKA LONGITUDE: -89.112142 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.756118 DATE COLLECTED: 0 / 0 / 1943
SURFACE ELEVATION (FT.): 500.0 LOGGED (FT.): 2908.0 LOG TYPE:
SOURCE: ADAMS OG, PUGH SAM 10D WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
368.0	BOND	CARTHAGE	LIMESTONE	-	132.0
-4.0	CARBONDALE	HERRIN	COAL	7.5	504.0

MAPID: 12101301000C VERSION: 3 PROJECT: CONTROL
COUNTY: MARION TWP/RNG: 4N 1E SECTION: 29 QUARTERS/FOOTAGES: 660' N line, 660' W line of SE
QUADRANGLE: PATOKA LONGITUDE: -89.112142 GEOLOGIST: HINES
CONFIDENTIAL: N LATITUDE: 38.756118 DATE COLLECTED:
SURFACE ELEVATION (FT.): LOGGED (FT.): 2908.0 LOG TYPE: Survey Sample Study
SOURCE: ADAMS OIL & GAS WELL TYPE: Oil and Gas Test
COMMENT: OILWELLS LOGGED BY COAL SECT-LOGS IN GRU

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			NO RECORD	0.0	0.0	

MAPID: 12101312000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 4N 1E SECTION: 29 QUARTERS/FOOTAGES: SE SW SE
QUADRANGLE: PATOKA LONGITUDE: -89.111007 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.751584 DATE COLLECTED: 0 / 0 / 1943
SURFACE ELEVATION (FT.): 503.0 LOGGED (FT.): 2969.0 LOG TYPE:
SOURCE: MAGNOLIA, NATTIER G 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
351.0	BOND	CARTHAGE	LIMESTONE	-	152.0	
-31.0	CARBONDALE	HERRIN	COAL	-	534.0	

MAPID: 12101360000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 4N 1E SECTION: 29 QUARTERS/FOOTAGES: NE NE SW
QUADRANGLE: PATOKA LONGITUDE: -89.115624 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.757077 DATE COLLECTED: 0 / 0 / 1943
SURFACE ELEVATION (FT.): 496.0 LOGGED (FT.): 2961.0 LOG TYPE:
SOURCE: ADAMS OG, ADAMS CEPH 2 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
362.0	BOND	CARTHAGE	LIMESTONE	-	134.0	
-10.0	CARBONDALE	HERRIN	COAL	-	506.0	

MAPID: 12101361000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 4N 1E SECTION: 29 QUARTERS/FOOTAGES: NE NE SE
QUADRANGLE: PATOKA LONGITUDE: -89.106397 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.756966 DATE COLLECTED: 0 / 0 / 1943
SURFACE ELEVATION (FT.): 498.0 LOGGED (FT.): 2912.0 LOG TYPE:
SOURCE: ADAMS OG, COX 5 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
372.0	BOND	CARTHAGE	LIMESTONE	-	126.0
3.0	CARBONDALE	HERRIN	COAL	-	495.0

MAPID: 12101635000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 4N 1E SECTION: 29 QUARTERS/FOOTAGES: 330' S line, 660' E line of SW
QUADRANGLE: PATOKA LONGITUDE: -89.116796 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.751647 DATE COLLECTED:
SURFACE ELEVATION (FT.): 498.0 LOGGED (FT.): 695.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
347.0	BOND	CARTHAGE	LIMESTONE	4.0	151.0
-25.0	CARBONDALE	HERRIN	COAL	4.0	523.0
-63.0	CARBONDALE	SPRINGFIELD	COAL	4.0	561.0
-130.0	CARBONDALE	HOUCHIN CREEK	COAL	-	628.0
-197.0	CARBONDALE	COLCHESTER	COAL	-	695.0

MAPID: 12104845000C VERSION: 1 PROJECT: ROOF STUDY

COUNTY: MARION TWP/RNG: 4N 1E SECTION: 29 QUARTERS/FOOTAGES: 978' S line, 2310' W line

QUADRANGLE: PATOKA LONGITUDE: -89.115559 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.753424 DATE COLLECTED:

SURFACE ELEVATION (FT.): 497.0 LOGGED (FT.): 528.0 LOG TYPE: Electric Log

SOURCE: FELMONT CORP. WELL TYPE: Oil and Gas Test

COMMENT: FAIR DESCRIPTION

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
61.0	MODESTO	PIASA	LIMESTONE	6.0	436.0
55.0	MODESTO		SILTY SHALE	42.5	442.0
12.5	CARBONDALE	DANVILLE	COAL	1.5	484.5
11.0	CARBONDALE		SHALE	10.0	486.0
1.0	CARBONDALE		SHALE	1.5	496.0
-0.5	CARBONDALE	ALLENBY	COAL	2.5	497.5
-3.0	CARBONDALE		SHALE	1.0	500.0
-4.0	CARBONDALE	BANKSTON FORK	LIMESTONE	3.0	501.0
-7.0	CARBONDALE	BANKSTON FORK	SHALE	3.5	504.0
-10.5	CARBONDALE	BANKSTON FORK	LIMESTONE	2.5	507.5
-13.0	CARBONDALE	LAWSON	SHALE	2.0	510.0
-15.0	CARBONDALE	CONANT	LIMESTONE	2.0	512.0
-17.0	CARBONDALE		SHALE	2.5	514.0
-19.5	CARBONDALE	BRERETON	LIMESTONE	3.5	516.5
-23.0	CARBONDALE	ANNA	BLACK SHALE	3.0	520.0
-26.0	CARBONDALE	HERRIN	COAL	5.0	523.0

MAPID: 12170008000C **VERSION:** 1 **PROJECT:** NCRDS
COUNTY: MARION **TWP/RNG:** 4N 1E **SECTION:** 29 **QUARTERS/FOOTAGES:** 2400' N line, 1630' E line
QUADRANGLE: PATOKA **LONGITUDE:** -89.110997 **GEOLOGIST:** LOUCHIOS
CONFIDENTIAL: N **LATITUDE:** 38.758546 **DATE COLLECTED:** 0 / 0 / 1941
SURFACE ELEVATION (FT.): 491.0 **LOGGED (FT.):** 1583.0 **LOG TYPE:** Drillers Log
SOURCE: UTAH INTERNATIONAL 17C831 **WELL TYPE:** Coal Test
COMMENT: CODED COAL LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
491.0			NO RECORD	75.0	0.0	
416.0			SANDY SHALE	18.0	75.0	
398.0			SHALE	13.0	93.0	
385.0			LIMESTONE	3.0	106.0	
382.0			SHALE	16.5	109.0	
365.5			LIMESTONE	8.5	125.5	
357.0			COAL	4.0	134.0	
353.0			SHALE	182.0	138.0	FOSSIL SHELLS
171.0			SANDY SHALE	81.0	320.0	
90.0			SHALE	54.0	401.0	
36.0	SHELBURN	DANVILLE	COAL	3.0	455.0	
33.0	SHELBURN		SHALE	12.0	458.0	
21.0	SHELBURN		LIMESTONE	18.0	470.0	
3.0	SHELBURN		SHALE W/ COAL STREAKS	3.0	488.0	
0.0	CARBONDALE	HERRIN	COAL	4.0	491.0	
-4.0	CARBONDALE		SHALE	9.0	495.0	
-13.0	CARBONDALE		COAL	3.0	504.0	
-16.0	CARBONDALE		SHALE	10.0	507.0	
-26.0	CARBONDALE	SPRINGFIELD	COAL	4.0	517.0	UNCERTAIN CORRELATION
-30.0			SHALE	79.0	521.0	
-109.0			LIMESTONE	11.0	600.0	
-120.0			SANDY SHALE	117.0	611.0	
-237.0			SANDSTONE	102.0	728.0	
-339.0			SHALE	90.0	830.0	
-429.0			UNCLASSIFIED	663.0	920.0	

MAPID: 12101736000C VERSION: 1 PROJECT: ROOF STUDY

COUNTY: MARION TWP/RNG: 4N 1E SECTION: 30 QUARTERS/FOOTAGES: 330' S line, 1650' E line

QUADRANGLE: WILDCAT LAKE LONGITUDE: -89.129526 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.751741 DATE COLLECTED:

SURFACE ELEVATION (FT.): 475.0 LOGGED (FT.): 507.0 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
41.0	MODESTO	PIASA	LIMESTONE	5.0	434.0
36.0	MODESTO		SHALE & SANDSTONE	26.0	439.0
10.0	CARBONDALE		COAL	2.0	465.0
8.0	CARBONDALE	DANVILLE	SHALE	10.0	467.0
-2.0	CARBONDALE		SHALE	2.0	477.0
-4.0	CARBONDALE		COAL	2.0	479.0
-6.0	CARBONDALE	ALLENBY	SHALE	3.0	481.0
-9.0	CARBONDALE		LIMESTONE	3.0	484.0
-12.0	CARBONDALE		SHALE	3.0	487.0
-15.0	CARBONDALE	BANKSTON FORK	LIMESTONE	1.5	490.0
-16.5	CARBONDALE		SHALE	2.0	491.5
-18.5	CARBONDALE		LIMESTONE	7.5	493.5
-26.0	CARBONDALE	ANNA	SHALE	1.5	501.0
-28.0	CARBONDALE		COAL	4.0	503.0

MAPID: 12102003000C VERSION: 1 PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 4N 1E SECTION: 30 QUARTERS/FOOTAGES: 330' N line, 330' W line of SE NE

QUADRANGLE: WILDCAT LAKE LONGITUDE: -89.127177 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.760844 DATE COLLECTED:

SURFACE ELEVATION (FT.): 467.0 LOGGED (FT.): 701.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
311.0	BOND	CARTHAGE	LIMESTONE	10.0	156.0
-56.0	CARBONDALE	HERRIN	COAL	4.5	523.0
-95.0	CARBONDALE	SPRINGFIELD	COAL	4.0	562.0
-155.0	CARBONDALE	HOUCHIN CREEK	COAL	-	622.0
-234.0	CARBONDALE	COLCHESTER	COAL	-	701.0

MAPID: 12104893000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 4N 1E SECTION: 31 QUARTERS/FOOTAGES: 330' S line, 330' W line of SW NE
QUADRANGLE: BOULDER LONGITUDE: -89.131895 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.744468 DATE COLLECTED:
SURFACE ELEVATION (FT.): 495.0 LOGGED (FT.): 652.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
365.0	BOND	CARTHAGE	LIMESTONE	10.0	130.0
-2.0	CARBONDALE	HERRIN	COAL	4.5	497.0
-40.0	CARBONDALE	SPRINGFIELD	COAL	3.0	535.0
-97.0	CARBONDALE	HOUCHIN CREEK	COAL	-	592.0
-157.0	CARBONDALE	COLCHESTER	COAL	-	652.0

MAPID: 12100175000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 4N 1E SECTION: 32 QUARTERS/FOOTAGES: SE NW NW
QUADRANGLE: FAIRMAN LONGITUDE: -89.12026 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.748039 DATE COLLECTED: 0 / 0 / 1937
SURFACE ELEVATION (FT.): 494.0 LOGGED (FT.): 1616.0 LOG TYPE:
SOURCE: ADAMS OG, BOYE J H 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
365.0	BOND	CARTHAGE	LIMESTONE	-	129.0
0.0	CARBONDALE	HERRIN	COAL	-	494.0

MAPID: 12101387000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 4N 1E SECTION: 32 QUARTERS/FOOTAGES: NE NW NE
QUADRANGLE: FAIRMAN LONGITUDE: -89.111006 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.749773 DATE COLLECTED: 0 / 0 / 1943
SURFACE ELEVATION (FT.): 503.0 LOGGED (FT.): 1472.0 LOG TYPE:
SOURCE: SLIVKA&SCH, CARTER E E 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
357.0	BOND	CARTHAGE	LIMESTONE	-	146.0
-21.0	CARBONDALE	HERRIN	COAL	-	524.0

MAPID: 12101630000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 4N 1E SECTION: 32 QUARTERS/FOOTAGES: 330' S line, 660' W line of NE NW
QUADRANGLE: FAIRMAN LONGITUDE: -89.116777 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.748011 DATE COLLECTED:
SURFACE ELEVATION (FT.): 499.0 LOGGED (FT.): 685.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
355.0	BOND	CARTHAGE	LIMESTONE	10.0	144.0
-16.0	CARBONDALE	HERRIN	COAL	5.0	515.0
-55.0	CARBONDALE	SPRINGFIELD	COAL	4.0	554.0
-118.0	CARBONDALE	HOUCHIN CREEK	COAL	-	617.0
-186.0	CARBONDALE	COLCHESTER	COAL	-	685.0

MAPID: 12104895000C VERSION: 1

PROJECT: ROOF STUDY

COUNTY: MARION TWP/RNG: 4N 1E SECTION: 32 QUARTERS/FOOTAGES: 1650' S line, 1650' E line
QUADRANGLE: FAIRMAN LONGITUDE: -89.111042 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.740737 DATE COLLECTED:
SURFACE ELEVATION (FT.): 500.0 LOGGED (FT.): 517.0 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
20.0	CARBONDALE	DANVILLE	COAL	2.0	480.0
18.0	CARBONDALE		SHALE	9.0	482.0
9.0	CARBONDALE	BANKSTON FORK	LIMESTONE	3.5	491.0
5.5	CARBONDALE	BANKSTON FORK	SHALE	1.5	494.5
4.0	CARBONDALE	BANKSTON FORK	LIMESTONE	3.0	496.0
1.0	CARBONDALE	LAWSON	SHALE	4.5	499.0
-3.5	CARBONDALE	CONANT	LIMESTONE	2.5	503.5
-6.0	CARBONDALE		SHALE	1.0	506.0
-7.0	CARBONDALE	BRERETON	LIMESTONE	2.5	507.0
-9.5	CARBONDALE	ANNA	SHALE	4.5	509.5
-14.0	CARBONDALE	HERRIN	COAL	3.0	514.0

MAPID: 12100191000C **VERSION:** 1 **PROJECT:** CIRC 164
COUNTY: MARION **TWP/RNG:** 4N 1E **SECTION:** 33 **QUARTERS/FOOTAGES:** SE NW NW
QUADRANGLE: FAIRMAN **LONGITUDE:** -89.101752 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.747905 **DATE COLLECTED:** 0 / 0 / 1937
SURFACE ELEVATION (FT.): 503.4 **LOGGED (FT.):** 1495.0 **LOG TYPE:**
SOURCE: HEMPN&BRGS, ADMS WALTR 1 **WELL TYPE:** Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
343.4	BOND	CARTHAGE	LIMESTONE	-	160.0
-30.6	CARBONDALE	HERRIN	COAL	-	534.0

MAPID: 12100832000C **VERSION:** 1 **PROJECT:** CIRC 164
COUNTY: MARION **TWP/RNG:** 4N 1E **SECTION:** 33 **QUARTERS/FOOTAGES:** NE NW SW
QUADRANGLE: FAIRMAN **LONGITUDE:** -89.101761 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.742481 **DATE COLLECTED:** 0 / 0 / 1937
SURFACE ELEVATION (FT.): 500.0 **LOGGED (FT.):** 1718.0 **LOG TYPE:**
SOURCE: ALXNDRJETL, ALLISON 1 **WELL TYPE:** Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
340.0	BOND	CARTHAGE	LIMESTONE	-	160.0
-1.0	CARBONDALE	HERRIN	COAL	-	501.0

MAPID: 12102017000C **VERSION:** 1 **PROJECT:** CGT-ECILL
COUNTY: MARION **TWP/RNG:** 4N 1E **SECTION:** 33 **QUARTERS/FOOTAGES:** 330' S line, 330' W line of NE SE
QUADRANGLE: FAIRMAN **LONGITUDE:** -89.09023 **GEOLOGIST:** C TREWORYG
CONFIDENTIAL: N **LATITUDE:** 38.740643 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 503.0 **LOGGED (FT.):** 709.0 **LOG TYPE:** Electric Log
SOURCE: **WELL TYPE:** Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
346.0	BOND	CARTHAGE	LIMESTONE	10.0	157.0
-28.0	CARBONDALE	HERRIN	COAL	5.0	531.0
-68.0	CARBONDALE	SPRINGFIELD	COAL	2.5	571.0
-141.0	CARBONDALE	HOUCHIN CREEK	COAL	2.0	644.0
-206.0	CARBONDALE	COLCHESTER	COAL	-	709.0

MAPID: 12102017000C

VERSION: 2

PROJECT: ROOF STUDY

COUNTY: MARION

TWP/RNG: 4N 1E

SECTION: 33

QUARTERS/FOOTAGES: 330' S line, 330' W line of NE SE

QUADRANGLE: FAIRMAN

LONGITUDE: -89.09023

GEOLOGIST:

CONFIDENTIAL: N

LATITUDE: 38.740643

DATE COLLECTED:

SURFACE ELEVATION (FT.): 503.0

LOGGED (FT.): 529.5

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
55.0	MODESTO	PIASA	LIMESTONE	3.0	448.0
52.0	MODESTO		SHALE & SANDSTONE	37.0	451.0
15.0	CARBONDALE	DANVILLE	COAL	1.5	488.0
13.5	CARBONDALE		SHALE	7.0	489.5
6.5	CARBONDALE	ALLENBY	SHALE	1.5	496.5
5.0	CARBONDALE		COAL	2.0	498.0
3.0	CARBONDALE	BANKSTON FORK	SHALE	9.0	500.0
-6.0	CARBONDALE		LIMESTONE	2.5	509.0
-8.5	CARBONDALE	LAWSON	SHALE	5.0	511.5
-13.5	CARBONDALE	CONANT	LIMESTONE	1.5	516.5
-15.0	CARBONDALE		SHALE	1.0	518.0
-16.0	CARBONDALE	BRERETON	LIMESTONE	2.5	519.0
-18.5	CARBONDALE	ANNA	SHALE	1.5	521.5
-21.0	CARBONDALE	HERRIN	COAL	5.5	524.0

MAPID: 12101186000C

VERSION: 1

PROJECT: CIRC 164

COUNTY: MARION

TWP/RNG: 4N 1E

SECTION: 34

QUARTERS/FOOTAGES: NE NE SE

QUADRANGLE: FAIRMAN

LONGITUDE: -89.069432

GEOLOGIST:

CONFIDENTIAL: N

LATITUDE: 38.742313

DATE COLLECTED: 0 / 0 / 1941

SURFACE ELEVATION (FT.): 507.0

LOGGED (FT.): 1363.0

LOG TYPE:

SOURCE: SHELL OC, CLARK S A 1A

WELL TYPE: Oil and Gas Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
367.0	BOND	CARTHAGE	LIMESTONE	-	140.0
-10.0	CARBONDALE	HERRIN	COAL	-	517.0

MAPID: 12101188000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 4N 1E SECTION: 34 QUARTERS/FOOTAGES: SE NW SE
QUADRANGLE: FAIRMAN LONGITUDE: -89.074079 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.740535 DATE COLLECTED: 0 / 0 / 1941
SURFACE ELEVATION (FT.): 510.0 LOGGED (FT.): 1366.0 LOG TYPE:
SOURCE: SHELL OC, HEADLY E G 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
397.0	BOND	CARTHAGE	LIMESTONE	-	113.0
38.0	CARBONDALE	HERRIN	COAL	-	472.0

MAPID: 12101299000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 4N 1E SECTION: 34 QUARTERS/FOOTAGES: SW NW SE
QUADRANGLE: FAIRMAN LONGITUDE: -89.076388 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.740552 DATE COLLECTED: 0 / 0 / 1942
SURFACE ELEVATION (FT.): 511.0 LOGGED (FT.): 1374.0 LOG TYPE:
SOURCE: MAGNOLIA, PEDDICORD 5 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
350.0	BOND	CARTHAGE	LIMESTONE	-	161.0
-25.0	CARBONDALE	HERRIN	COAL	-	536.0

MAPID: 12101971000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 4N 1E SECTION: 34 QUARTERS/FOOTAGES: 330' N line, 380' W line of NE SE
QUADRANGLE: FAIRMAN LONGITUDE: -89.071558 GEOLOGIST: C TREWORYG
CONFIDENTIAL: N LATITUDE: 38.742323 DATE COLLECTED:
SURFACE ELEVATION (FT.): 509.0 LOGGED (FT.): 695.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
363.0	BOND	CARTHAGE	LIMESTONE	10.0	146.0
-53.0	CARBONDALE	SPRINGFIELD	COAL	4.0	562.0
-126.0	CARBONDALE	HOUCHIN CREEK	COAL	-	635.0
-186.0	CARBONDALE	COLCHESTER	COAL	-	695.0

MAPID: 12104901000C VERSION: 1 PROJECT: ROOF STUDY

COUNTY: MARION TWP/RNG: 4N 1E SECTION: 34 QUARTERS/FOOTAGES: 1650' N line, 658' E line

QUADRANGLE: FAIRMAN LONGITUDE: -89.070549 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.745914 DATE COLLECTED:

SURFACE ELEVATION (FT.): 520.0 LOGGED (FT.): 506.5 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
60.5	CARBONDALE	DANVILLE	COAL	1.5	459.5
59.0	CARBONDALE		SHALE	8.0	461.0
51.0	CARBONDALE		SHALE	1.0	469.0
50.0	CARBONDALE		SHALE	5.0	470.0
45.0	CARBONDALE	BANKSTON FORK	LIMESTONE	7.0	475.0
38.0	CARBONDALE	BANKSTON FORK	SHALE	5.0	482.0
33.0	CARBONDALE	BANKSTON FORK	LIMESTONE	2.0	487.0
31.0	CARBONDALE	LAWSON	SHALE	3.5	489.0
27.5	CARBONDALE	CONANT	LIMESTONE	1.5	492.5
26.0	CARBONDALE		SHALE	2.0	494.0
24.0	CARBONDALE	BRERETON	LIMESTONE	7.0	496.0
17.0	CARBONDALE	HERRIN	COAL	3.5	503.0

MAPID: 12101117000C VERSION: 1 PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 4N 1E SECTION: 35 QUARTERS/FOOTAGES: 990' N line, 990' E line of NW

QUADRANGLE: FAIRMAN LONGITUDE: -89.062398 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.747703 DATE COLLECTED:

SURFACE ELEVATION (FT.): 519.0 LOGGED (FT.): 553.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: POOR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
368.0	BOND	CARTHAGE	LIMESTONE	10.0	151.0
-3.0	CARBONDALE	HERRIN	COAL	4.0	522.0
-30.0	CARBONDALE	SPRINGFIELD	COAL	4.0	549.0

MAPID: 12101117000C VERSION: 2 PROJECT: ROOF STUDY

COUNTY: MARION TWP/RNG: 4N 1E SECTION: 35 QUARTERS/FOOTAGES: 990' N line, 990' E line of NW

QUADRANGLE: FAIRMAN LONGITUDE: -89.062398 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.747703 DATE COLLECTED:

SURFACE ELEVATION (FT.): 519.0 LOGGED (FT.): 527.0 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
41.5	CARBONDALE	DANVILLE	COAL	2.0	477.5
39.5	CARBONDALE		SHALE	8.0	479.5
31.5	CARBONDALE		SHALE	1.0	487.5
30.5	CARBONDALE		SHALE	5.0	488.5
25.5	CARBONDALE	BANKSTON FORK	LIMESTONE	7.0	493.5
18.5	CARBONDALE	BANKSTON FORK	SHALE	4.0	500.5
14.5	CARBONDALE	BANKSTON FORK	LIMESTONE	3.0	504.5
11.5	CARBONDALE	LAWSON	SHALE	3.5	507.5
8.0	CARBONDALE	CONANT	LIMESTONE	1.5	511.0
6.5	CARBONDALE	BRERETON	SHALE	1.5	512.5
5.0	CARBONDALE		LIMESTONE	7.0	514.0
-2.0	CARBONDALE		SHALE	2.0	521.0
-4.0	CARBONDALE		COAL	4.0	523.0

MAPID: 12101117000C VERSION: 3 PROJECT: CIRC 164

COUNTY: MARION TWP/RNG: 4N 1E SECTION: 35 QUARTERS/FOOTAGES: 990' N line, 990' E line of NW

QUADRANGLE: FAIRMAN LONGITUDE: -89.062398 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.747703 DATE COLLECTED: 0 / 0 / 1941

SURFACE ELEVATION (FT.): 519.0 LOGGED (FT.): 1370.0 LOG TYPE:

SOURCE: GULF REF, STEPHENS R 1 WELL TYPE: Oil and Gas Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
369.0	BOND	CARTHAGE	LIMESTONE	-	150.0
-3.0	CARBONDALE	HERRIN	COAL	-	522.0

MAPID: 12102006000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: MARION

TWP/RNG: 4N 2E

SECTION: 3

QUARTERS/FOOTAGES: SW NW SE

QUADRANGLE: ST. PAUL

LONGITUDE: -88.966022

GEOLOGIST: C TREWORYG

CONFIDENTIAL: N

LATITUDE: 38.813354

DATE COLLECTED:

SURFACE ELEVATION (FT.): 567.0

LOGGED (FT.): 1029.0

LOG TYPE: Electric Log

SOURCE:

WELL TYPE: Oil and Gas Test

COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
141.0	BOND	CARTHAGE	LIMESTONE	10.0	426.0
-242.0	CARBONDALE	HERRIN	COAL	3.5	809.0
-276.0	CARBONDALE	BRIAR HILL	COAL	3.0	843.0
-291.0	CARBONDALE	SPRINGFIELD	COAL	3.0	858.0
-365.0	CARBONDALE	HOUCHIN CREEK	COAL	1.5	932.0
-462.0	CARBONDALE	COLCHESTER	COAL	-	1029.0

MAPID: 12102006000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: MARION

TWP/RNG: 4N 2E

SECTION: 3

QUARTERS/FOOTAGES: SW NW SE

QUADRANGLE: ST. PAUL

LONGITUDE: -88.966022

GEOLOGIST:

CONFIDENTIAL: N

LATITUDE: 38.813354

DATE COLLECTED:

SURFACE ELEVATION (FT.): 567.0

LOGGED (FT.): 812.0

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
-200.5	CARBONDALE	DANVILLE	COAL	2.0	767.5
-202.5	CARBONDALE		SHALE	11.0	769.5
-213.5	CARBONDALE		SHALE	2.0	780.5
-215.5	CARBONDALE	BANKSTON FORK	LIMESTONE	3.5	782.5
-219.0	CARBONDALE	BANKSTON FORK	SHALE	4.0	786.0
-223.0	CARBONDALE	BANKSTON FORK	LIMESTONE	5.0	790.0
-228.0	CARBONDALE	LAWSON	SHALE	4.0	795.0
-232.0	CARBONDALE	BRERETON	LIMESTONE	6.0	799.0
-238.0	CARBONDALE	ANNA	SHALE	4.0	805.0
-242.0	CARBONDALE	HERRIN	COAL	3.0	809.0

MAPID: 12105171000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 4N 2E SECTION: 3 QUARTERS/FOOTAGES: 330' S line, 330' W line of SE NE
QUADRANGLE: ST. PAUL LONGITUDE: -88.961322 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.817029 DATE COLLECTED:
SURFACE ELEVATION (FT.): 565.0 LOGGED (FT.): 1018.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
144.0	BOND	CARTHAGE	LIMESTONE	9.0	421.0
-236.0	CARBONDALE	HERRIN	COAL	3.0	801.0
-289.0	CARBONDALE	SPRINGFIELD	COAL	3.0	854.0
-365.0	CARBONDALE	HOUCHIN CREEK	COAL	-	930.0
-453.0	CARBONDALE	COLCHESTER	COAL	-	1018.0

MAPID: 12101738000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 4N 2E SECTION: 6 QUARTERS/FOOTAGES: 330' N line, 480' W line of SW SW
QUADRANGLE: PATOKA LONGITUDE: -89.029012 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.811263 DATE COLLECTED:
SURFACE ELEVATION (FT.): 533.0 LOGGED (FT.): 876.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
226.0	BOND	CARTHAGE	LIMESTONE	11.0	307.0
27.0	MODESTO	TRIVOLI	SANDSTONE	40.0	506.0
-153.0	CARBONDALE	HERRIN	COAL	4.5	686.0
-190.0	CARBONDALE	SPRINGFIELD	COAL	4.0	723.0
-261.0	CARBONDALE	HOUCHIN CREEK	COAL	-	794.0
-343.0	CARBONDALE	COLCHESTER	COAL	-	876.0

MAPID: 12101738000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: MARION TWP/RNG: 4N 2E SECTION: 6 QUARTERS/FOOTAGES: 330' N line, 480' W line of SW SW
QUADRANGLE: PATOKA LONGITUDE: -89.029012 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.811263 DATE COLLECTED:
SURFACE ELEVATION (FT.): 533.0 LOGGED (FT.): 690.5 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
-101.0	CARBONDALE	DANVILLE	COAL	3.0	634.0
-104.0	CARBONDALE		SHALE	11.0	637.0
-115.0	CARBONDALE		SHALE	2.0	648.0
-117.0	CARBONDALE	BANKSTON FORK	LIMESTONE	4.0	650.0
-121.0	CARBONDALE	BANKSTON FORK	SHALE	2.0	654.0
-123.0	CARBONDALE	BANKSTON FORK	LIMESTONE	5.0	656.0
-128.0	CARBONDALE	LAWSON	SHALE	16.0	661.0
-144.0	CARBONDALE	BRERETON	LIMESTONE	5.5	677.0
-149.5	CARBONDALE	ANNA	SHALE	3.5	682.5
-153.0	CARBONDALE	HERRIN	COAL	4.5	686.0

MAPID: 12101461000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 4N 2E SECTION: 11 QUARTERS/FOOTAGES: SW SW SE
QUADRANGLE: ST. PAUL LONGITUDE: -88.947232 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.795542 DATE COLLECTED:
SURFACE ELEVATION (FT.): 542.0 LOGGED (FT.): 991.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
124.0	BOND	CARTHAGE	LIMESTONE	11.0	418.0
-251.0	CARBONDALE	HERRIN	COAL	3.0	793.0
-283.0	CARBONDALE	BRIAR HILL	COAL	-	825.0
-288.0	CARBONDALE	SPRINGFIELD	COAL	4.5	830.0
-375.0	CARBONDALE	HOUCHIN CREEK	COAL	2.0	917.0
-449.0	CARBONDALE	COLCHESTER	COAL	-	991.0

MAPID: 12101461000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: MARION TWP/RNG: 4N 2E SECTION: 11 QUARTERS/FOOTAGES: SW SW SE

QUADRANGLE: ST. PAUL LONGITUDE: -88.947232 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.795542 DATE COLLECTED:

SURFACE ELEVATION (FT.): 542.0 LOGGED (FT.): 797.5 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
-218.5	CARBONDALE	DANVILLE	COAL	3.0	760.5
-221.5	CARBONDALE		SHALE	5.0	763.5
-226.5	CARBONDALE	BANKSTON FORK	LIMESTONE	3.5	768.5
-230.0	CARBONDALE	BANKSTON FORK	SHALE	5.5	772.0
-235.5	CARBONDALE	BANKSTON FORK	LIMESTONE	5.5	777.5
-241.0	CARBONDALE	LAWSON	SHALE	4.0	783.0
-245.0	CARBONDALE	BRERETON	LIMESTONE	4.0	787.0
-249.0	CARBONDALE	ANNA	SHALE	3.0	791.0
-252.0	CARBONDALE	HERRIN	COAL	3.5	794.0

MAPID: 12101461000C VERSION: 3

PROJECT: CIRC 164

COUNTY: MARION TWP/RNG: 4N 2E SECTION: 11 QUARTERS/FOOTAGES: SW SW SE

QUADRANGLE: ST. PAUL LONGITUDE: -88.947232 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.795542 DATE COLLECTED: 0 / 0 / 1946

SURFACE ELEVATION (FT.): 539.0 LOGGED (FT.): 2230.0 LOG TYPE:

SOURCE: DIRICKSN T, GARRETT 1 WELL TYPE: Oil and Gas Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
124.0	BOND	CARTHAGE	LIMESTONE	-	415.0
-252.0	CARBONDALE	HERRIN	COAL	-	791.0

MAPID: 12100848000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 4N 2E SECTION: 12 QUARTERS/FOOTAGES: SE NW NE

QUADRANGLE: ST. PAUL LONGITUDE: -88.92673 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.806805 DATE COLLECTED:

SURFACE ELEVATION (FT.): 554.0 LOGGED (FT.): 926.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-39.0	MODESTO	WEST FRANKLIN	LIMESTONE	7.0	593.0
-201.0	CARBONDALE	SPRINGFIELD	COAL	3.5	755.0
-277.0	CARBONDALE	HOUCHIN CREEK	COAL	-	831.0
-372.0	CARBONDALE	COLCHESTER	COAL	-	926.0

MAPID: 12100848000C VERSION: 2 PROJECT: ROOF STUDY
COUNTY: MARION TWP/RNG: 4N 2E SECTION: 12 QUARTERS/FOOTAGES: SE NW NE
QUADRANGLE: ST. PAUL LONGITUDE: -88.92673 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.806805 DATE COLLECTED:
SURFACE ELEVATION (FT.): 554.0 LOGGED (FT.): 561.5 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
8.5	CARBONDALE	BANKSTON FORK	LIMESTONE	6.0	545.5
2.5	CARBONDALE	LAWSON	SHALE	10.0	551.5

MAPID: 12100848000C VERSION: 3 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 4N 2E SECTION: 12 QUARTERS/FOOTAGES: SE NW NE
QUADRANGLE: ST. PAUL LONGITUDE: -88.92673 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.806805 DATE COLLECTED: 0 / 0 / 1941
SURFACE ELEVATION (FT.): 554.0 LOGGED (FT.): 2237.0 LOG TYPE:
SOURCE: BUTTRAM F, MORGAN W 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-154.0	CARBONDALE	HERRIN	COAL	-	708.0

MAPID: 12101972000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 4N 2E SECTION: 13 QUARTERS/FOOTAGES: NE SW SE
QUADRANGLE: ST. PAUL LONGITUDE: -88.926871 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.783177 DATE COLLECTED:
SURFACE ELEVATION (FT.): 584.0 LOGGED (FT.): 986.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
160.0	BOND	CARTHAGE	LIMESTONE	9.0	424.0
-70.0	MODESTO	WEST FRANKLIN	LIMESTONE	4.0	654.0
-192.0	CARBONDALE	HERRIN	COAL	1.5	776.0
-224.0	CARBONDALE	SPRINGFIELD	COAL	3.5	808.0
-301.0	CARBONDALE	HOUCHIN CREEK	COAL	-	885.0
-402.0	CARBONDALE	COLCHESTER	COAL	-	986.0

MAPID: 12101972000C VERSION: 2 PROJECT: ROOF STUDY
COUNTY: MARION TWP/RNG: 4N 2E SECTION: 13 QUARTERS/FOOTAGES: NE SW SE
QUADRANGLE: ST. PAUL LONGITUDE: -88.926871 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.783177 DATE COLLECTED:
SURFACE ELEVATION (FT.): 584.0 LOGGED (FT.): 741.0 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
-128.0	CARBONDALE		SHALE	11.0	712.0
-139.0	CARBONDALE		SHALE	3.0	723.0
-142.0	CARBONDALE	BANKSTON FORK	LIMESTONE	6.0	726.0
-148.0	CARBONDALE	LAWSON	SHALE	9.0	732.0

MAPID: 12102007000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 4N 2E SECTION: 13 QUARTERS/FOOTAGES: SE SE SE
QUADRANGLE: ST. PAUL LONGITUDE: -88.922292 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.78147 DATE COLLECTED:
SURFACE ELEVATION (FT.): 600.0 LOGGED (FT.): 957.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
178.0	BOND	CARTHAGE	LIMESTONE	8.0	422.0
-44.0	MODESTO	WEST FRANKLIN	LIMESTONE	6.0	644.0
-183.0	CARBONDALE	BRIAR HILL	COAL	2.0	783.0
-190.0	CARBONDALE	SPRINGFIELD	COAL	3.0	790.0
-251.0	CARBONDALE	HOUCHIN CREEK	COAL	1.0	851.0
-357.0	CARBONDALE	COLCHESTER	COAL	-	957.0

MAPID: 12105034000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 4N 2E SECTION: 13 QUARTERS/FOOTAGES: 330' S line, 330' E line of NE SE
QUADRANGLE: ST. PAUL LONGITUDE: -88.922333 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.7851 DATE COLLECTED:
SURFACE ELEVATION (FT.): 587.0 LOGGED (FT.): 958.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-50.0	MODESTO	WEST FRANKLIN	LIMESTONE	6.0	637.0
-201.0	CARBONDALE	SPRINGFIELD	COAL	2.0	788.0
-271.0	CARBONDALE	HOUCHIN CREEK	COAL	-	858.0
-371.0	CARBONDALE	COLCHESTER	COAL	-	958.0

MAPID: 12101973000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 4N 2E SECTION: 14 QUARTERS/FOOTAGES: SW NE SE
QUADRANGLE: ST. PAUL LONGITUDE: -88.942855 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.784674 DATE COLLECTED:
SURFACE ELEVATION (FT.): 561.0 LOGGED (FT.): 1019.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
135.0	BOND	CARTHAGE	LIMESTONE	9.0	426.0
-249.0	CARBONDALE	HERRIN	COAL	2.0	810.0
-278.0	CARBONDALE	BRIAR HILL	COAL	-	839.0
-284.0	CARBONDALE	SPRINGFIELD	COAL	3.5	845.0
-363.0	CARBONDALE	HOUCHIN CREEK	COAL	-	924.0
-458.0	CARBONDALE	COLCHESTER	COAL	-	1019.0

MAPID: 12101973000C VERSION: 2 PROJECT: ROOF STUDY
COUNTY: MARION TWP/RNG: 4N 2E SECTION: 14 QUARTERS/FOOTAGES: SW NE SE
QUADRANGLE: ST. PAUL LONGITUDE: -88.942855 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.784674 DATE COLLECTED:
SURFACE ELEVATION (FT.): 561.0 LOGGED (FT.): 712.0 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
-149.5	CARBONDALE	DANVILLE	COAL	1.5	710.5

MAPID: 12101974000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 4N 2E SECTION: 18 QUARTERS/FOOTAGES: NW NW NE
QUADRANGLE: PATOKA LONGITUDE: -89.022093 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.793199 DATE COLLECTED:
SURFACE ELEVATION (FT.): 536.0 LOGGED (FT.): 872.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
216.0	BOND	CARTHAGE	LIMESTONE	10.0	320.0
-157.0	CARBONDALE	HERRIN	COAL	3.0	693.0
-195.0	CARBONDALE	BRIAR HILL	COAL	3.0	731.0
-201.0	CARBONDALE	SPRINGFIELD	COAL	3.0	737.0
-275.0	CARBONDALE	HOUCHIN CREEK	COAL	-	811.0
-336.0	CARBONDALE	COLCHESTER	COAL	-	872.0

MAPID: 12101974000C VERSION: 2 PROJECT: ROOF STUDY

COUNTY: MARION TWP/RNG: 4N 2E SECTION: 18 QUARTERS/FOOTAGES: NW NW NE

QUADRANGLE: PATOKA LONGITUDE: -89.022093 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.793199 DATE COLLECTED:

SURFACE ELEVATION (FT.): 533.0 LOGGED (FT.): 698.5 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
-115.5	CARBONDALE	DANVILLE	COAL	2.0	648.5
-117.5	CARBONDALE		SHALE	6.0	650.5
-123.5	CARBONDALE	ALLENBY	COAL	1.0	656.5
-124.5	CARBONDALE		SHALE	6.0	657.5
-130.5	CARBONDALE	BANKSTON FORK	LIMESTONE	7.0	663.5
-137.5	CARBONDALE	LAWSON	SHALE	16.0	670.5
-153.5	CARBONDALE	BRERETON	LIMESTONE	4.0	686.5
-157.5	CARBONDALE	ANNA	SHALE	3.5	690.5
-161.0	CARBONDALE	HERRIN	COAL	4.5	694.0

MAPID: 12100003000C VERSION: 1 PROJECT: CIRC 164

COUNTY: MARION TWP/RNG: 4N 2E SECTION: 20 QUARTERS/FOOTAGES: SW NW SE

QUADRANGLE: PATOKA LONGITUDE: -89.003652 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.769683 DATE COLLECTED: 0 / 0 / 1900

SURFACE ELEVATION (FT.): 536.4 LOGGED (FT.): 1740.0 LOG TYPE:

SOURCE: RIGGS, OGLESBY 2 WELL TYPE: Oil and Gas Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-203.6	CARBONDALE	HERRIN	COAL	-	740.0

MAPID: 12100849000C VERSION: 1 PROJECT: CIRC 164

COUNTY: MARION TWP/RNG: 4N 2E SECTION: 20 QUARTERS/FOOTAGES: NE SW NW

QUADRANGLE: PATOKA LONGITUDE: -89.010626 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.775093 DATE COLLECTED: 0 / 0 / 1940

SURFACE ELEVATION (FT.): 530.0 LOGGED (FT.): 2130.0 LOG TYPE:

SOURCE: H & K DC, NIELSON 1A WELL TYPE: Oil and Gas Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
179.0	BOND	CARTHAGE	LIMESTONE	-	351.0
-200.0	CARBONDALE	HERRIN	COAL	-	730.0

MAPID: 12100850000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 4N 2E SECTION: 22 QUARTERS/FOOTAGES: NE SW SW
QUADRANGLE: ST. PAUL LONGITUDE: -88.973431 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.768075 DATE COLLECTED: 0 / 0 / 1900
SURFACE ELEVATION (FT.): 557.0 LOGGED (FT.): 2268.0 LOG TYPE:
SOURCE: PENNILL OG, NICHOLS 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
135.0	BOND	CARTHAGE	LIMESTONE	-	422.0
-200.0	CARBONDALE	HERRIN	COAL	-	757.0

MAPID: 12100851000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 4N 2E SECTION: 24 QUARTERS/FOOTAGES: SE NW SW
QUADRANGLE: ST. PAUL LONGITUDE: -88.936295 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.770233 DATE COLLECTED: 0 / 0 / 1900
SURFACE ELEVATION (FT.): 575.0 LOGGED (FT.): 2005.0 LOG TYPE:
SOURCE: TRNSWESTRN, LAND BANK 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-184.0	CARBONDALE	HERRIN	COAL	-	759.0

MAPID: 12101285000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 4N 2E SECTION: 24 QUARTERS/FOOTAGES: NE NE NE
QUADRANGLE: ST. PAUL LONGITUDE: -88.9223 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.779653 DATE COLLECTED: 0 / 0 / 1942
SURFACE ELEVATION (FT.): 607.0 LOGGED (FT.): 2262.0 LOG TYPE:
SOURCE: ILL EXPLOR, GARRETT O 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
172.0	BOND	CARTHAGE	LIMESTONE	-	435.0
-167.0	CARBONDALE	HERRIN	COAL	-	774.0

MAPID: 12101285000C VERSION: 2 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 4N 2E SECTION: 24 QUARTERS/FOOTAGES: NE NE NE
QUADRANGLE: ST. PAUL LONGITUDE: -88.9223 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.779653 DATE COLLECTED:
SURFACE ELEVATION (FT.): 607.0 LOGGED (FT.): 880.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
171.0	BOND	CARTHAGE	LIMESTONE	8.0	436.0
-64.0	MODESTO	WEST FRANKLIN	LIMESTONE	7.0	671.0
-151.0	CARBONDALE	HERRIN	COAL	2.0	758.0
-197.0	CARBONDALE	SPRINGFIELD	COAL	3.5	804.0
-273.0	CARBONDALE	HOUCHIN CREEK	COAL	-	880.0

MAPID: 12101462000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 4N 2E SECTION: 24 QUARTERS/FOOTAGES: SW SW SE
QUADRANGLE: ST. PAUL LONGITUDE: -88.929429 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.766754 DATE COLLECTED:
SURFACE ELEVATION (FT.): 520.0 LOGGED (FT.): 896.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
176.0	BOND	CARTHAGE	LIMESTONE	8.0	344.0
-58.0	MODESTO	WEST FRANKLIN	LIMESTONE	4.0	578.0
-203.0	CARBONDALE	BRIAR HILL	COAL	-	723.0
-211.0	CARBONDALE	SPRINGFIELD	COAL	3.0	731.0
-288.0	CARBONDALE	HOUCHIN CREEK	COAL	-	808.0
-376.0	CARBONDALE	COLCHESTER	COAL	-	896.0

MAPID: 12101462000C VERSION: 2 PROJECT: ROOF STUDY
COUNTY: MARION TWP/RNG: 4N 2E SECTION: 24 QUARTERS/FOOTAGES: SW SW SE
QUADRANGLE: ST. PAUL LONGITUDE: -88.929429 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.766754 DATE COLLECTED:
SURFACE ELEVATION (FT.): 520.0 LOGGED (FT.): 760.5 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
-207.5	CARBONDALE	DANVILLE	COAL	2.0	727.5
-209.5	CARBONDALE		SHALE	5.0	729.5
-214.5	CARBONDALE	ALLENBY	COAL	1.0	734.5
-215.5	CARBONDALE		SHALE	7.0	735.5
-222.5	CARBONDALE	BANKSTON FORK	LIMESTONE	3.0	742.5
-225.5	CARBONDALE	BANKSTON FORK	SHALE	3.0	745.5
-228.5	CARBONDALE	BANKSTON FORK	LIMESTONE	4.0	748.5
-232.5	CARBONDALE	LAWSON	SHALE	8.0	752.5

MAPID: 12101462000C VERSION: 3 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 4N 2E SECTION: 24 QUARTERS/FOOTAGES: SW SW SE
QUADRANGLE: ST. PAUL LONGITUDE: -88.929429 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.766754 DATE COLLECTED: 0 / 0 / 1947
SURFACE ELEVATION (FT.): 520.0 LOGGED (FT.): 1779.0 LOG TYPE:
SOURCE: REDWINE N, CONANT O M 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
176.0	BOND	CARTHAGE	LIMESTONE	-	344.0
-174.0	CARBONDALE	HERRIN	COAL	-	694.0

MAPID: 12104974000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 4N 2E SECTION: 24 QUARTERS/FOOTAGES: 660' N line, 660' E line of NW SE
QUADRANGLE: ST. PAUL LONGITUDE: -88.928207 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.771323 DATE COLLECTED:
SURFACE ELEVATION (FT.): 569.0 LOGGED (FT.): 972.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
152.0	BOND	CARTHAGE	LIMESTONE	7.0	417.0
-220.0	CARBONDALE	BRIAR HILL	COAL	1.5	789.0
-231.0	CARBONDALE	SPRINGFIELD	COAL	3.5	800.0
-304.0	CARBONDALE	HOUCHIN CREEK	COAL	1.0	873.0
-403.0	CARBONDALE	COLCHESTER	COAL	-	972.0

MAPID: 12101042000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 4N 2E SECTION: 25 QUARTERS/FOOTAGES: NW NW SE
QUADRANGLE: ST. PAUL LONGITUDE: -88.929438 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.757702 DATE COLLECTED: 0 / 0 / 1942
SURFACE ELEVATION (FT.): 569.0 LOGGED (FT.): 2296.0 LOG TYPE:
SOURCE: TEXAS CO, CONANT J 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
193.0	BOND	CARTHAGE	LIMESTONE	-	376.0
-153.0	CARBONDALE	HERRIN	COAL	-	722.0

MAPID: 12101042000C VERSION: 2 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 4N 2E SECTION: 25 QUARTERS/FOOTAGES: NW NW SE
QUADRANGLE: ST. PAUL LONGITUDE: -88.929438 GEOLOGIST: C TREWORYG
CONFIDENTIAL: N LATITUDE: 38.757702 DATE COLLECTED:
SURFACE ELEVATION (FT.): 569.0 LOGGED (FT.): 922.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: POOR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
193.0	BOND	CARTHAGE	LIMESTONE	8.0	376.0
-198.0	CARBONDALE	SPRINGFIELD	COAL	3.0	767.0
-269.0	CARBONDALE	HOUCHIN CREEK	COAL	-	838.0
-353.0	CARBONDALE	COLCHESTER	COAL	-	922.0

MAPID: 12101643000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 4N 2E SECTION: 25 QUARTERS/FOOTAGES: SW SW NW
QUADRANGLE: ST. PAUL LONGITUDE: -88.938694 GEOLOGIST: C TREWORYG
CONFIDENTIAL: N LATITUDE: 38.759354 DATE COLLECTED:
SURFACE ELEVATION (FT.): 576.0 LOGGED (FT.): 933.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
194.0	BOND	CARTHAGE	LIMESTONE	9.0	382.0
-157.0	CARBONDALE	HERRIN	COAL	3.0	733.0
-186.0	CARBONDALE	BRIAR HILL	COAL	-	762.0
-191.0	CARBONDALE	SPRINGFIELD	COAL	3.5	767.0
-268.0	CARBONDALE	HOUCHIN CREEK	COAL	-	844.0
-357.0	CARBONDALE	COLCHESTER	COAL	-	933.0

MAPID: 12101976000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 4N 2E SECTION: 30 QUARTERS/FOOTAGES: 400' N line, 410' W line of SE
QUADRANGLE: PATOKA LONGITUDE: -89.022342 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.756647 DATE COLLECTED:
SURFACE ELEVATION (FT.): 537.0 LOGGED (FT.): 881.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
217.0	BOND	CARTHAGE	LIMESTONE	8.0	320.0
-160.0	CARBONDALE	HERRIN	COAL	3.5	697.0
-198.0	CARBONDALE	SPRINGFIELD	COAL	3.0	735.0
-269.0	CARBONDALE	HOUCHIN CREEK	COAL	-	806.0
-344.0	CARBONDALE	COLCHESTER	COAL	-	881.0

MAPID: 12101976000C VERSION: 2 PROJECT: ROOF STUDY
COUNTY: MARION TWP/RNG: 4N 2E SECTION: 30 QUARTERS/FOOTAGES: 400' N line, 410' W line of SE
QUADRANGLE: PATOKA LONGITUDE: -89.022342 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.756647 DATE COLLECTED:
SURFACE ELEVATION (FT.): 537.0 LOGGED (FT.): 701.0 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
-154.5	CARBONDALE	BRERETON	LIMESTONE	4.0	691.5
-158.5	CARBONDALE	ANNA	SHALE	1.5	695.5
-160.0	CARBONDALE	HERRIN	COAL	4.0	697.0

MAPID: 12101977000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 4N 2E SECTION: 33 QUARTERS/FOOTAGES: SE SE SW
QUADRANGLE: SALEM NORTH LONGITUDE: -88.988035 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.737126 DATE COLLECTED:
SURFACE ELEVATION (FT.): 536.0 LOGGED (FT.): 913.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
134.0	BOND	CARTHAGE	LIMESTONE	10.0	402.0
-251.0	CARBONDALE	HERRIN	COAL	4.0	787.0
-303.0	CARBONDALE	SPRINGFIELD	COAL	3.5	839.0
-377.0	CARBONDALE	HOUCHIN CREEK	COAL	-	913.0

MAPID: 12101977000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: MARION TWP/RNG: 4N 2E SECTION: 33 QUARTERS/FOOTAGES: SE SE SW

QUADRANGLE: SALEM NORTH LONGITUDE: -88.988035 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.737126 DATE COLLECTED:

SURFACE ELEVATION (FT.): 536.0 LOGGED (FT.): 792.0 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
-206.0	CARBONDALE	DANVILLE	COAL	2.0	742.0
-208.0	CARBONDALE		SHALE	4.0	744.0
-212.0	CARBONDALE	ALLENBY	COAL	2.5	748.0
-214.5	CARBONDALE		SHALE	7.0	750.5
-221.5	CARBONDALE	BANKSTON FORK	LIMESTONE	4.5	757.5
-226.0	CARBONDALE	LAWSON	SHALE	10.0	762.0
-236.0	CARBONDALE	CONANT	LIMESTONE	2.0	772.0
-238.0	CARBONDALE		SHALE	4.0	774.0
-242.0	CARBONDALE	BRERETON	LIMESTONE	7.0	778.0
-249.0	CARBONDALE	ANNA	SHALE	3.0	785.0
-252.0	CARBONDALE	HERRIN	COAL	4.0	788.0

MAPID: 12101978000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 4N 2E SECTION: 34 QUARTERS/FOOTAGES: NW SW NW

QUADRANGLE: SALEM NORTH LONGITUDE: -88.976088 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.746316 DATE COLLECTED:

SURFACE ELEVATION (FT.): 561.0 LOGGED (FT.): 1007.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
151.0	BOND	CARTHAGE	LIMESTONE	10.0	410.0
-236.0	CARBONDALE	HERRIN	COAL	4.5	797.0
-281.0	CARBONDALE	SPRINGFIELD	COAL	3.5	842.0
-360.0	CARBONDALE	HOUCHIN CREEK	COAL	1.0	921.0
-446.0	CARBONDALE	COLCHESTER	COAL	-	1007.0

MAPID: 12101978000C VERSION: 2 PROJECT: ROOF STUDY

COUNTY: MARION TWP/RNG: 4N 2E SECTION: 34 QUARTERS/FOOTAGES: NW SW NW

QUADRANGLE: SALEM NORTH LONGITUDE: -88.976088 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.746316 DATE COLLECTED:

SURFACE ELEVATION (FT.): 561.0 LOGGED (FT.): 801.5 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
-191.5	CARBONDALE	DANVILLE	COAL	2.5	752.5
-194.0	CARBONDALE		SHALE	5.5	755.0
-199.5	CARBONDALE	ALLENBY	COAL	1.5	760.5
-201.0	CARBONDALE		SHALE	6.0	762.0
-207.0	CARBONDALE	BANKSTON FORK	LIMESTONE	8.0	768.0
-215.0	CARBONDALE	LAWSON	SHALE	6.0	776.0
-221.0	CARBONDALE	CONANT	LIMESTONE	3.5	782.0
-224.5	CARBONDALE	JAMESTOWN	CARBONACEOUS SHALE	1.5	785.5
-226.0	CARBONDALE		SHALE	3.0	787.0
-229.0	CARBONDALE	BRERETON	LIMESTONE	4.5	790.0
-233.5	CARBONDALE	ANNA	SHALE	2.5	794.5
-236.0	CARBONDALE	HERRIN	COAL	4.5	797.0

MAPID: 12101294000C VERSION: 1 PROJECT: CIRC 164

COUNTY: MARION TWP/RNG: 4N 2E SECTION: 35 QUARTERS/FOOTAGES: 1650' N line, 330' E line

QUADRANGLE: SALEM NORTH LONGITUDE: -88.941167 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.746683 DATE COLLECTED: 0 / 0 / 1942

SURFACE ELEVATION (FT.): 571.0 LOGGED (FT.): 2171.0 LOG TYPE:

SOURCE: SWAN KING, CASSARETTO 1 WELL TYPE: Oil and Gas Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
219.0	BOND	CARTHAGE	LIMESTONE	-	352.0
-137.0	CARBONDALE	HERRIN	COAL	-	708.0

MAPID: 12101294000C VERSION: 2 PROJECT: ROOF STUDY

COUNTY: MARION TWP/RNG: 4N 2E SECTION: 35 QUARTERS/FOOTAGES: 1650' N line, 330' E line

QUADRANGLE: SALEM NORTH LONGITUDE: -88.941167 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.746683 DATE COLLECTED:

SURFACE ELEVATION (FT.): 571.0 LOGGED (FT.): 712.5 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
-105.0	CARBONDALE	DANVILLE	COAL	2.0	676.0
-107.0	CARBONDALE		SHALE	5.5	678.0
-112.5	CARBONDALE	ALLENBY	COAL	1.0	683.5
-113.5	CARBONDALE		SHALE	3.5	684.5
-117.0	CARBONDALE	BANKSTON FORK	LIMESTONE	6.5	688.0
-123.5	CARBONDALE	LAWSON	SHALE	5.0	694.5
-128.5	CARBONDALE	BRERETON	LIMESTONE	9.0	699.5
-137.5	CARBONDALE	ANNA	SHALE	1.5	708.5
-139.0	CARBONDALE	HERRIN	COAL	2.5	710.0

MAPID: 12101447000C VERSION: 1 PROJECT: CIRC 164

COUNTY: MARION TWP/RNG: 4N 2E SECTION: 35 QUARTERS/FOOTAGES: NE NE SE

QUADRANGLE: SALEM NORTH LONGITUDE: -88.941326 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.743009 DATE COLLECTED: 0 / 0 / 1944

SURFACE ELEVATION (FT.): 574.0 LOGGED (FT.): 1976.0 LOG TYPE:

SOURCE: BRADEN J, MAZANEK JO 1 WELL TYPE: Oil and Gas Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
221.0	BOND	CARTHAGE	LIMESTONE	-	353.0
-136.0	CARBONDALE	HERRIN	COAL	-	710.0

MAPID: 12101447000C VERSION: 2 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 4N 2E SECTION: 35 QUARTERS/FOOTAGES: NE NE SE
QUADRANGLE: SALEM NORTH LONGITUDE: -88.941326 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.743009 DATE COLLECTED:
SURFACE ELEVATION (FT.): 574.0 LOGGED (FT.): 901.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
221.0	BOND	CARTHAGE	LIMESTONE	9.0	353.0
-137.0	CARBONDALE	HERRIN	COAL	3.5	711.0
-170.0	CARBONDALE	SPRINGFIELD	COAL	3.5	744.0
-242.0	CARBONDALE	HOUCHIN CREEK	COAL	-	816.0
-327.0	CARBONDALE	COLCHESTER	COAL	-	901.0

MAPID: 12101657000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 4N 2E SECTION: 35 QUARTERS/FOOTAGES: 330' S line, 330' E line of NE SE
QUADRANGLE: SALEM NORTH LONGITUDE: -88.941408 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.741176 DATE COLLECTED:
SURFACE ELEVATION (FT.): 561.0 LOGGED (FT.): 889.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
218.0	BOND	CARTHAGE	LIMESTONE	7.0	343.0
-142.0	CARBONDALE	HERRIN	COAL	1.5	703.0
-173.0	CARBONDALE	SPRINGFIELD	COAL	3.0	734.0
-244.0	CARBONDALE	HOUCHIN CREEK	COAL	-	805.0
-328.0	CARBONDALE	COLCHESTER	COAL	-	889.0

MAPID: 12101929000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 4N 2E SECTION: 35 QUARTERS/FOOTAGES: NE SE NE
QUADRANGLE: SALEM NORTH LONGITUDE: -88.941167 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.746666 DATE COLLECTED:
SURFACE ELEVATION (FT.): 571.0 LOGGED (FT.): 896.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
219.0	BOND	CARTHAGE	LIMESTONE	9.0	352.0
-139.0	CARBONDALE	HERRIN	COAL	3.0	710.0
-169.0	CARBONDALE	SPRINGFIELD	COAL	4.0	740.0
-239.0	CARBONDALE	HOUCHIN CREEK	COAL	-	810.0
-325.0	CARBONDALE	COLCHESTER	COAL	-	896.0

MAPID: 12100643000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 4N 2E SECTION: 36 QUARTERS/FOOTAGES: NE NE SW
QUADRANGLE: SALEM NORTH LONGITUDE: -88.932022 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.743102 DATE COLLECTED: 0 / 0 / 1942
SURFACE ELEVATION (FT.): 591.0 LOGGED (FT.): 2335.0 LOG TYPE:
SOURCE: TEXAS CO, MAZANEK J 2 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
215.0	BOND	CARTHAGE	LIMESTONE	-	376.0
-140.0	CARBONDALE	HERRIN	COAL	-	731.0

MAPID: 12100982000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 4N 2E SECTION: 36 QUARTERS/FOOTAGES: SW NE NW
QUADRANGLE: SALEM NORTH LONGITUDE: -88.934147 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.748573 DATE COLLECTED: 0 / 0 / 1942
SURFACE ELEVATION (FT.): 553.0 LOGGED (FT.): 2141.0 LOG TYPE:
SOURCE: TENNESSEE VALLEY AUTHORITY WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
208.0	BOND	CARTHAGE	LIMESTONE	-	345.0
-145.0	CARBONDALE	HERRIN	COAL	-	698.0

MAPID: 12100982000C VERSION: 2 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 4N 2E SECTION: 36 QUARTERS/FOOTAGES: SW NE NW
QUADRANGLE: SALEM NORTH LONGITUDE: -88.934147 GEOLOGIST: C TREWORYG
CONFIDENTIAL: N LATITUDE: 38.748573 DATE COLLECTED:
SURFACE ELEVATION (FT.): 553.0 LOGGED (FT.): 893.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
206.0	BOND	CARTHAGE	LIMESTONE	8.0	347.0
-147.0	CARBONDALE	HERRIN	COAL	2.5	700.0
-180.0	CARBONDALE	SPRINGFIELD	COAL	4.0	733.0
-252.0	CARBONDALE	HOUCHIN CREEK	COAL	-	805.0
-340.0	CARBONDALE	COLCHESTER	COAL	-	893.0

MAPID: 12104935000C VERSION: 1 PROJECT: ROOF STUDY

COUNTY: MARION TWP/RNG: 4N 2E SECTION: 36 QUARTERS/FOOTAGES: 1650' N line, 2310' W line

QUADRANGLE: SALEM NORTH LONGITUDE: -88.931856 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.746789 DATE COLLECTED:

SURFACE ELEVATION (FT.): 534.0 LOGGED (FT.): 696.0 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
-122.0	CARBONDALE	DANVILLE	COAL	2.0	656.0
-124.0	CARBONDALE		SHALE	4.5	658.0
-128.5	CARBONDALE	ALLENBY	COAL	1.0	662.5
-129.5	CARBONDALE		SHALE	7.0	663.5
-136.5	CARBONDALE	BANKSTON FORK	LIMESTONE	5.0	670.5
-141.5	CARBONDALE	LAWSON	SHALE	4.5	675.5
-146.0	CARBONDALE	BRERETON	LIMESTONE	7.0	680.0
-153.0	CARBONDALE	ANNA	SHALE	5.0	687.0
-158.0	CARBONDALE	HERRIN	COAL	4.0	692.0

MAPID: 12104936000C VERSION: 1 PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 4N 2E SECTION: 36 QUARTERS/FOOTAGES: NW NW SW

QUADRANGLE: SALEM NORTH LONGITUDE: -88.938999 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.743033 DATE COLLECTED:

SURFACE ELEVATION (FT.): 548.0 LOGGED (FT.): 878.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
218.0	BOND	CARTHAGE	LIMESTONE	8.0	330.0
-140.0	CARBONDALE	HERRIN	COAL	2.5	688.0
-172.0	CARBONDALE	SPRINGFIELD	COAL	3.5	720.0
-242.0	CARBONDALE	HOUCHIN CREEK	COAL	-	790.0
-330.0	CARBONDALE	COLCHESTER	COAL	-	878.0

MAPID: 12104937000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 4N 2E SECTION: 36 QUARTERS/FOOTAGES: NW NE SW
QUADRANGLE: SALEM NORTH LONGITUDE: -88.934349 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.743077 DATE COLLECTED:
SURFACE ELEVATION (FT.): 577.0 LOGGED (FT.): 905.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
217.0	BOND	CARTHAGE	LIMESTONE	10.0	360.0
-142.0	CARBONDALE	HERRIN	COAL	2.5	719.0
-170.0	CARBONDALE	SPRINGFIELD	COAL	3.0	747.0
-244.0	CARBONDALE	HOUCHIN CREEK	COAL	2.0	821.0
-328.0	CARBONDALE	COLCHESTER	COAL	-	905.0

MAPID: 12101463000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 4N 3E SECTION: 1 QUARTERS/FOOTAGES: SW SW NE
QUADRANGLE: KINMUNDY LONGITUDE: -88.815775 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.817982 DATE COLLECTED:
SURFACE ELEVATION (FT.): 585.0 LOGGED (FT.): 918.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
102.0	BOND	CARTHAGE	LIMESTONE	11.0	483.0
-87.0	MODESTO	WEST FRANKLIN	LIMESTONE	25.0	672.0
-227.0	CARBONDALE	HERRIN	COAL	2.0	812.0
-252.0	CARBONDALE	BRIAR HILL	COAL	-	837.0
-256.0	CARBONDALE	SPRINGFIELD	COAL	4.0	841.0
-333.0	CARBONDALE	HOUCHIN CREEK	COAL	-	918.0

MAPID: 12101463000C VERSION: 2 PROJECT: ROOF STUDY
COUNTY: MARION TWP/RNG: 4N 3E SECTION: 1 QUARTERS/FOOTAGES: SW SW NE
QUADRANGLE: KINMUNDY LONGITUDE: -88.815775 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.817982 DATE COLLECTED:
SURFACE ELEVATION (FT.): 585.0 LOGGED (FT.): 0.0 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
-	CARBONDALE	DANVILLE	COAL	1.0	
-	CARBONDALE		SHALE	7.0	
-	CARBONDALE	LAWSON	SHALE	3.0	
-	CARBONDALE	BRERETON	LIMESTONE & SHALE	8.0	

MAPID: 12101463000C VERSION: 3 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 4N 3E SECTION: 1 QUARTERS/FOOTAGES: SW SW NE
QUADRANGLE: KINMUNDY LONGITUDE: -88.815775 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.817982 DATE COLLECTED: 0 / 0 / 1947
SURFACE ELEVATION (FT.): 582.0 LOGGED (FT.): 2405.0 LOG TYPE:
SOURCE: LUTTRELL H, KRUG LENA 3 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
101.0	BOND	CARTHAGE	LIMESTONE	-	481.0
-229.0	CARBONDALE	HERRIN	COAL	-	811.0

MAPID: 12100861000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 4N 3E SECTION: 5 QUARTERS/FOOTAGES: SW SW NW
QUADRANGLE: ST. PAUL LONGITUDE: -88.899775 GEOLOGIST: C TREWORYG
CONFIDENTIAL: N LATITUDE: 38.817892 DATE COLLECTED:
SURFACE ELEVATION (FT.): 578.0 LOGGED (FT.): 835.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: POOR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
167.0	BOND	CARTHAGE	LIMESTONE	9.0	411.0
-22.0	MODESTO	WEST FRANKLIN	LIMESTONE	24.0	600.0
-150.0	CARBONDALE	HERRIN	COAL	3.5	728.0
-179.0	CARBONDALE	SPRINGFIELD	COAL	4.0	757.0
-257.0	CARBONDALE	HOUCHIN CREEK	COAL	-	835.0

MAPID: 12100861000C VERSION: 2 PROJECT: ROOF STUDY
COUNTY: MARION TWP/RNG: 4N 3E SECTION: 5 QUARTERS/FOOTAGES: SW SW NW
QUADRANGLE: ST. PAUL LONGITUDE: -88.899775 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.817892 DATE COLLECTED:
SURFACE ELEVATION (FT.): 578.0 LOGGED (FT.): 0.0 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
-	CARBONDALE	DANVILLE	COAL	1.5	
-	CARBONDALE		SHALE	7.0	
-	CARBONDALE	BANKSTON FORK	LIMESTONE	5.0	
-	CARBONDALE	LAWSON	SHALE	3.0	
-	CARBONDALE	BRERETON	LIMESTONE	5.0	

MAPID: 12100861000C VERSION: 3 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 4N 3E SECTION: 5 QUARTERS/FOOTAGES: SW SW NW
QUADRANGLE: ST. PAUL LONGITUDE: -88.899775 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.817892 DATE COLLECTED: 0 / 0 / 1941
SURFACE ELEVATION (FT.): 578.0 LOGGED (FT.): 2240.0 LOG TYPE:
SOURCE: CARTER OC, MORGAN J 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
168.0	BOND	CARTHAGE	LIMESTONE	-	410.0
-148.0	CARBONDALE	HERRIN	COAL	-	726.0

MAPID: 12101637000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 4N 3E SECTION: 6 QUARTERS/FOOTAGES: NW SE SE
QUADRANGLE: ST. PAUL LONGITUDE: -88.904729 GEOLOGIST: C TREWORYG
CONFIDENTIAL: N LATITUDE: 38.812432 DATE COLLECTED:
SURFACE ELEVATION (FT.): 582.0 LOGGED (FT.): 918.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
189.0	BOND	CARTHAGE	LIMESTONE	8.0	393.0
-10.0	MODESTO	WEST FRANKLIN	LIMESTONE	24.0	592.0
-132.0	CARBONDALE	HERRIN	COAL	2.0	714.0
-158.0	CARBONDALE	BRIAR HILL	COAL	-	740.0
-163.0	CARBONDALE	SPRINGFIELD	COAL	3.5	745.0
-238.0	CARBONDALE	HOUCHIN CREEK	COAL	1.0	820.0
-336.0	CARBONDALE	COLCHESTER	COAL	-	918.0

MAPID: 12101848000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 4N 3E SECTION: 6 QUARTERS/FOOTAGES: SW NE NE
QUADRANGLE: ST. PAUL LONGITUDE: -88.904714 GEOLOGIST: C TREWORYG
CONFIDENTIAL: N LATITUDE: 38.821495 DATE COLLECTED:
SURFACE ELEVATION (FT.): 568.0 LOGGED (FT.): 906.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
171.0	BOND	CARTHAGE	LIMESTONE	9.0	397.0
-20.0	MODESTO	WEST FRANKLIN	LIMESTONE	24.0	588.0
-142.0	CARBONDALE	HERRIN	COAL	3.0	710.0
-173.0	CARBONDALE	SPRINGFIELD	COAL	3.5	741.0
-248.0	CARBONDALE	HOUCHIN CREEK	COAL	-	816.0
-338.0	CARBONDALE	COLCHESTER	COAL	-	906.0

MAPID: 12101848000C VERSION: 2 PROJECT: ROOF STUDY
COUNTY: MARION TWP/RNG: 4N 3E SECTION: 6 QUARTERS/FOOTAGES: SW NE NE
QUADRANGLE: ST. PAUL LONGITUDE: -88.904714 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.821495 DATE COLLECTED:
SURFACE ELEVATION (FT.): 568.0 LOGGED (FT.): 0.0 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
-	CARBONDALE	DANVILLE	COAL	1.0	
-	CARBONDALE		SHALE	6.5	
-	CARBONDALE	BANKSTON FORK	LIMESTONE	4.0	
-	CARBONDALE	LAWSON	SHALE	1.0	
-	CARBONDALE	BRERETON	LIMESTONE	4.0	

MAPID: 12101464000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 4N 3E SECTION: 7 QUARTERS/FOOTAGES: SW NE SW
QUADRANGLE: ST. PAUL LONGITUDE: -88.914919 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.799679 DATE COLLECTED:
SURFACE ELEVATION (FT.): 586.0 LOGGED (FT.): 928.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
181.0	BOND	CARTHAGE	LIMESTONE	9.0	405.0
-23.0	MODESTO	WEST FRANKLIN	LIMESTONE	18.0	609.0
-138.0	CARBONDALE	HERRIN	COAL	2.0	724.0
-169.0	CARBONDALE	BRIAR HILL	COAL	1.0	755.0
-174.0	CARBONDALE	SPRINGFIELD	COAL	3.5	760.0
-248.0	CARBONDALE	HOUCHIN CREEK	COAL	-	834.0
-342.0	CARBONDALE	COLCHESTER	COAL	-	928.0

MAPID: 12101464000C VERSION: 2 PROJECT: ROOF STUDY
COUNTY: MARION TWP/RNG: 4N 3E SECTION: 7 QUARTERS/FOOTAGES: SW NE SW
QUADRANGLE: ST. PAUL LONGITUDE: -88.914919 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.799679 DATE COLLECTED:
SURFACE ELEVATION (FT.): 586.0 LOGGED (FT.): 0.0 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
-	CARBONDALE	DANVILLE	COAL	2.0	
-	CARBONDALE		SHALE	9.0	
-	CARBONDALE	LAWSON	SHALE	3.0	
-	CARBONDALE	BRERETON	LIMESTONE & SHALE	10.0	

MAPID: 12101464000C VERSION: 3 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 4N 3E SECTION: 7 QUARTERS/FOOTAGES: SW NE SW
QUADRANGLE: ST. PAUL LONGITUDE: -88.914919 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.799679 DATE COLLECTED: 0 / 0 / 1946
SURFACE ELEVATION (FT.): 586.0 LOGGED (FT.): 1915.0 LOG TYPE:
SOURCE: REWARD OC, KRUG 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
181.0	BOND	CARTHAGE	LIMESTONE	-	405.0
-139.0	CARBONDALE	HERRIN	COAL	-	725.0

MAPID: 12105043000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 4N 3E SECTION: 7 QUARTERS/FOOTAGES: NW SE NE
QUADRANGLE: ST. PAUL LONGITUDE: -88.90479 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.805179 DATE COLLECTED:
SURFACE ELEVATION (FT.): 590.0 LOGGED (FT.): 920.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
187.0	BOND	CARTHAGE	LIMESTONE	8.0	403.0
-9.0	MODESTO	WEST FRANKLIN	LIMESTONE	22.0	599.0
-153.0	CARBONDALE	BRIAR HILL	COAL	2.0	743.0
-163.0	CARBONDALE	SPRINGFIELD	COAL	3.0	753.0
-233.0	CARBONDALE	HOUCHIN CREEK	COAL	2.0	823.0
-330.0	CARBONDALE	COLCHESTER	COAL	-	920.0

MAPID: 12101465000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 4N 3E SECTION: 8 QUARTERS/FOOTAGES: NW SW NW
QUADRANGLE: ST. PAUL LONGITUDE: -88.899854 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.805195 DATE COLLECTED:
SURFACE ELEVATION (FT.): 590.0 LOGGED (FT.): 941.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
176.0	BOND	CARTHAGE	LIMESTONE	9.0	414.0
-22.0	MODESTO	WEST FRANKLIN	LIMESTONE	22.0	612.0
-171.0	CARBONDALE	BRIAR HILL	COAL	-	761.0
-176.0	CARBONDALE	SPRINGFIELD	COAL	4.0	766.0
-252.0	CARBONDALE	HOUCHIN CREEK	COAL	-	842.0
-351.0	CARBONDALE	COLCHESTER	COAL	-	941.0

MAPID: 12101465000C VERSION: 2 PROJECT: ROOF STUDY
COUNTY: MARION TWP/RNG: 4N 3E SECTION: 8 QUARTERS/FOOTAGES: NW SW NW
QUADRANGLE: ST. PAUL LONGITUDE: -88.899854 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.805195 DATE COLLECTED:
SURFACE ELEVATION (FT.): 590.0 LOGGED (FT.): 0.0 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
-	CARBONDALE	DANVILLE	COAL	2.0	
-	CARBONDALE		SHALE	7.0	
-	CARBONDALE	BANKSTON FORK	LIMESTONE & SHALE	5.0	
-	CARBONDALE	LAWSON	SHALE	1.0	
-	CARBONDALE	BRERETON	LIMESTONE & SHALE	5.0	

MAPID: 12101465000C VERSION: 3 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 4N 3E SECTION: 8 QUARTERS/FOOTAGES: NW SW NW
QUADRANGLE: ST. PAUL LONGITUDE: -88.899854 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.805195 DATE COLLECTED: 0 / 0 / 1946
SURFACE ELEVATION (FT.): 590.0 LOGGED (FT.): 2031.0 LOG TYPE:
SOURCE: HALBERT R, JONES 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
177.0	BOND	CARTHAGE	LIMESTONE	-	413.0
-154.0	CARBONDALE	HERRIN	COAL	-	744.0

MAPID: 12105507000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 4N 3E SECTION: 9 QUARTERS/FOOTAGES: 330' N line, 330' E line of NW SE
QUADRANGLE: KINMUNDY LONGITUDE: -88.869821 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.801577 DATE COLLECTED:
SURFACE ELEVATION (FT.): 555.0 LOGGED (FT.): 961.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
123.0	BOND	CARTHAGE	LIMESTONE	9.0	432.0
-51.0	MODESTO	TRIVOLI	SANDSTONE	28.0	606.0
-220.0	CARBONDALE	BRIAR HILL	COAL	3.0	775.0
-224.0	CARBONDALE	SPRINGFIELD	COAL	2.5	779.0
-300.0	CARBONDALE	HOUCHIN CREEK	COAL	1.0	855.0
-406.0	CARBONDALE	COLCHESTER	COAL	-	961.0

MAPID: 12101979000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 4N 3E SECTION: 10 QUARTERS/FOOTAGES: NE NE NE
QUADRANGLE: KINMUNDY LONGITUDE: -88.846229 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.808903 DATE COLLECTED:
SURFACE ELEVATION (FT.): 565.0 LOGGED (FT.): 981.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
118.0	BOND	CARTHAGE	LIMESTONE	9.0	447.0
-71.0	MODESTO	WEST FRANKLIN	LIMESTONE	24.0	636.0
-203.0	CARBONDALE	HERRIN	COAL	2.0	768.0
-233.0	CARBONDALE	SPRINGFIELD	COAL	3.5	798.0
-311.0	CARBONDALE	HOUCHIN CREEK	COAL	-	876.0
-416.0	CARBONDALE	COLCHESTER	COAL	-	981.0

MAPID: 12101979000C VERSION: 2 PROJECT: ROOF STUDY
COUNTY: MARION TWP/RNG: 4N 3E SECTION: 10 QUARTERS/FOOTAGES: NE NE NE
QUADRANGLE: KINMUNDY LONGITUDE: -88.846229 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.808903 DATE COLLECTED:
SURFACE ELEVATION (FT.): 565.0 LOGGED (FT.): 0.0 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	
-	CARBONDALE	DANVILLE	COAL	2.5		
-	CARBONDALE		SHALE	7.0		
-	CARBONDALE	BANKSTON FORK	LIMESTONE & SHALE	5.0		
-	CARBONDALE	LAWSON	SHALE	2.0		
-	CARBONDALE	BRERETON	LIMESTONE & SHALE	5.0		

MAPID: 12104940000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 4N 3E SECTION: 10 QUARTERS/FOOTAGES: NE SW NE
QUADRANGLE: KINMUNDY LONGITUDE: -88.851008 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.805264 DATE COLLECTED:
SURFACE ELEVATION (FT.): 544.0 LOGGED (FT.): 953.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
119.0	BOND	CARTHAGE	LIMESTONE	8.0	425.0	
-66.0	MODESTO	WEST FRANKLIN	LIMESTONE	25.0	610.0	
-224.0	CARBONDALE	BRIAR HILL	COAL	-	768.0	
-229.0	CARBONDALE	SPRINGFIELD	COAL	4.0	773.0	
-305.0	CARBONDALE	HOUCHIN CREEK	COAL	1.0	849.0	
-409.0	CARBONDALE	COLCHESTER	COAL	-	953.0	

MAPID: 12104941000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 4N 3E SECTION: 10 QUARTERS/FOOTAGES: SW NW NE
QUADRANGLE: KINMUNDY LONGITUDE: -88.853334 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.807063 DATE COLLECTED:
SURFACE ELEVATION (FT.): 546.0 LOGGED (FT.): 951.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
125.0	BOND	CARTHAGE	LIMESTONE	8.0	421.0
-60.0	MODESTO	WEST FRANKLIN	LIMESTONE	25.0	606.0
-220.0	CARBONDALE	BRIAR HILL	COAL	-	766.0
-225.0	CARBONDALE	SPRINGFIELD	COAL	3.5	771.0
-300.0	CARBONDALE	HOUCHIN CREEK	COAL	1.0	846.0
-405.0	CARBONDALE	COLCHESTER	COAL	-	951.0

MAPID: 12101980000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 4N 3E SECTION: 11 QUARTERS/FOOTAGES: SW SE NW
QUADRANGLE: KINMUNDY LONGITUDE: -88.839339 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.803464 DATE COLLECTED:
SURFACE ELEVATION (FT.): 559.0 LOGGED (FT.): 951.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
131.0	BOND	CARTHAGE	LIMESTONE	8.0	428.0
-57.0	MODESTO	WEST FRANKLIN	LIMESTONE	23.0	616.0
-212.0	CARBONDALE	BRIAR HILL	COAL	1.0	771.0
-217.0	CARBONDALE	SPRINGFIELD	COAL	3.5	776.0
-291.0	CARBONDALE	HOUCHIN CREEK	COAL	-	850.0
-392.0	CARBONDALE	COLCHESTER	COAL	-	951.0

MAPID: 12101980000C VERSION: 2 PROJECT: ROOF STUDY
COUNTY: MARION TWP/RNG: 4N 3E SECTION: 11 QUARTERS/FOOTAGES: SW SE NW
QUADRANGLE: KINMUNDY LONGITUDE: -88.839339 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.803464 DATE COLLECTED:
SURFACE ELEVATION (FT.): 559.0 LOGGED (FT.): 0.0 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
-	CARBONDALE	DANVILLE	COAL	2.0	
-	CARBONDALE		SHALE	7.0	

MAPID: 12101981000C VERSION: 1 PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 4N 3E SECTION: 12 QUARTERS/FOOTAGES: NW SW NW

QUADRANGLE: KINMUNDY LONGITUDE: -88.825382 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.805272 DATE COLLECTED:

SURFACE ELEVATION (FT.): 559.0 LOGGED (FT.): 1020.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
83.0	BOND	CARTHAGE	LIMESTONE	6.0	476.0
-106.0	MODESTO	WEST FRANKLIN	LIMESTONE	23.0	665.0
-274.0	CARBONDALE	SPRINGFIELD	COAL	3.5	833.0
-348.0	CARBONDALE	HOUCHIN CREEK	COAL	-	907.0
-461.0	CARBONDALE	COLCHESTER	COAL	-	1020.0

MAPID: 12101424000C VERSION: 1 PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 4N 3E SECTION: 13 QUARTERS/FOOTAGES: SE SE SE

QUADRANGLE: KINMUNDY LONGITUDE: -88.80908 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.781784 DATE COLLECTED:

SURFACE ELEVATION (FT.): 584.0 LOGGED (FT.): 0.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: FAIR LOG

MAPID: 12101424000C VERSION: 2 PROJECT: ROOF STUDY

COUNTY: MARION TWP/RNG: 4N 3E SECTION: 13 QUARTERS/FOOTAGES: SE SE SE

QUADRANGLE: KINMUNDY LONGITUDE: -88.80908 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.781784 DATE COLLECTED:

SURFACE ELEVATION (FT.): 584.0 LOGGED (FT.): 0.0 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
-	CARBONDALE	DANVILLE	COAL	2.0	
-	CARBONDALE		SHALE	10.0	

MAPID: 12101424000C VERSION: 3 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 4N 3E SECTION: 13 QUARTERS/FOOTAGES: SE SE SE
QUADRANGLE: KINMUNDY LONGITUDE: -88.80908 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.781784 DATE COLLECTED: 0 / 0 / 1900
SURFACE ELEVATION (FT.): 584.0 LOGGED (FT.): 2411.0 LOG TYPE:
SOURCE: SCHLMN&CUM, COPPLE O C 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
42.0	BOND	CARTHAGE	LIMESTONE	-	542.0
-271.0	CARBONDALE	HERRIN	COAL	-	855.0

MAPID: 12101468000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 4N 3E SECTION: 14 QUARTERS/FOOTAGES: SE SE NW
QUADRANGLE: KINMUNDY LONGITUDE: -88.837126 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.78878 DATE COLLECTED:
SURFACE ELEVATION (FT.): 592.0 LOGGED (FT.): 1015.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
110.0	BOND	CARTHAGE	LIMESTONE	9.0	482.0
-72.0	MODESTO	WEST FRANKLIN	LIMESTONE	26.0	664.0
-235.0	CARBONDALE	BRIAR HILL	COAL	3.0	827.0
-242.0	CARBONDALE	SPRINGFIELD	COAL	3.0	834.0
-316.0	CARBONDALE	HOUCHIN CREEK	COAL	-	908.0
-423.0	CARBONDALE	COLCHESTER	COAL	-	1015.0

MAPID: 12101468000C VERSION: 2 PROJECT: ROOF STUDY
COUNTY: MARION TWP/RNG: 4N 3E SECTION: 14 QUARTERS/FOOTAGES: SE SE NW
QUADRANGLE: KINMUNDY LONGITUDE: -88.837126 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.78878 DATE COLLECTED:
SURFACE ELEVATION (FT.): 592.0 LOGGED (FT.): 0.0 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
-	CARBONDALE	DANVILLE	COAL	1.8	
-	CARBONDALE		SHALE	8.0	

MAPID: 12101468000C **VERSION:** 3 **PROJECT:** CIRC 164
COUNTY: MARION **TWP/RNG:** 4N 3E **SECTION:** 14 **QUARTERS/FOOTAGES:** SE SE NW
QUADRANGLE: KINMUNDY **LONGITUDE:** -88.837126 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.78878 **DATE COLLECTED:** 0 / 0 / 1944
SURFACE ELEVATION (FT.): 592.0 **LOGGED (FT.):** 2428.0 **LOG TYPE:**
SOURCE: GULF REF, MAULDING R 1 **WELL TYPE:** Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
110.0	BOND	CARTHAGE	LIMESTONE	-	482.0
-208.0	CARBONDALE	HERRIN	COAL	-	800.0

MAPID: 12101469000C **VERSION:** 1 **PROJECT:** CGT-ECILL
COUNTY: MARION **TWP/RNG:** 4N 3E **SECTION:** 15 **QUARTERS/FOOTAGES:** NW NE NE
QUADRANGLE: KINMUNDY **LONGITUDE:** -88.848828 **GEOLOGIST:** C TREWORYG
CONFIDENTIAL: N **LATITUDE:** 38.794374 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 563.0 **LOGGED (FT.):** 1005.0 **LOG TYPE:** Electric Log
SOURCE: **WELL TYPE:** Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
107.0	BOND	CARTHAGE	LIMESTONE	9.0	456.0
-75.0	MODESTO	WEST FRANKLIN	LIMESTONE	24.0	638.0
-247.0	CARBONDALE	SPRINGFIELD	COAL	4.0	810.0
-327.0	CARBONDALE	HOUCHIN CREEK	COAL	-	890.0
-441.0	CARBONDALE	COLCHESTER	COAL	1.0	1004.0

MAPID: 12101469000C **VERSION:** 2 **PROJECT:** ROOF STUDY
COUNTY: MARION **TWP/RNG:** 4N 3E **SECTION:** 15 **QUARTERS/FOOTAGES:** NW NE NE
QUADRANGLE: KINMUNDY **LONGITUDE:** -88.848828 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.794374 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 563.0 **LOGGED (FT.):** 0.0 **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
-	CARBONDALE	DANVILLE	COAL	2.0	
-	CARBONDALE		SHALE	7.0	
-	CARBONDALE	LAWSON	SHALE	3.0	
-	CARBONDALE	BRERETON	LIMESTONE & SHALE	5.0	

MAPID: 12101469000C VERSION: 3 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 4N 3E SECTION: 15 QUARTERS/FOOTAGES: NW NE NE
QUADRANGLE: KINMUNDY LONGITUDE: -88.848828 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.794374 DATE COLLECTED: 0 / 0 / 1945
SURFACE ELEVATION (FT.): 563.0 LOGGED (FT.): 2375.0 LOG TYPE:
SOURCE: TEXAS CO, CROWLEY J 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
109.0	BOND	CARTHAGE	LIMESTONE	-	454.0
-213.0	CARBONDALE	HERRIN	COAL	-	776.0

MAPID: 12101808000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 4N 3E SECTION: 15 QUARTERS/FOOTAGES: NW NE NW
QUADRANGLE: KINMUNDY LONGITUDE: -88.85823 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.794374 DATE COLLECTED:
SURFACE ELEVATION (FT.): 574.0 LOGGED (FT.): 894.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
108.0	BOND	CARTHAGE	LIMESTONE	9.0	466.0
-72.0	MODESTO	WEST FRANKLIN	LIMESTONE	24.0	646.0
-241.0	CARBONDALE	SPRINGFIELD	COAL	4.0	815.0
-320.0	CARBONDALE	HOUCHIN CREEK	COAL	-	894.0

MAPID: 12101982000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 4N 3E SECTION: 17 QUARTERS/FOOTAGES: SW NW SE
QUADRANGLE: ST. PAUL LONGITUDE: -88.89074 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.785055 DATE COLLECTED:
SURFACE ELEVATION (FT.): 580.0 LOGGED (FT.): 944.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
150.0	BOND	CARTHAGE	LIMESTONE	8.0	430.0
-38.0	MODESTO	WEST FRANKLIN	LIMESTONE	18.0	618.0
-194.0	CARBONDALE	SPRINGFIELD	COAL	2.0	774.0
-268.0	CARBONDALE	HOUCHIN CREEK	COAL	1.0	848.0
-364.0	CARBONDALE	COLCHESTER	COAL	-	944.0

MAPID: 12101982000C VERSION: 2 PROJECT: ROOF STUDY
COUNTY: MARION TWP/RNG: 4N 3E SECTION: 17 QUARTERS/FOOTAGES: SW NW SE
QUADRANGLE: ST. PAUL LONGITUDE: -88.89074 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.785055 DATE COLLECTED:
SURFACE ELEVATION (FT.): 508.0 LOGGED (FT.): 0.0 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
-	CARBONDALE	DANVILLE	COAL	1.5	
-	CARBONDALE		SHALE	8.0	
-	CARBONDALE	LAWSON	SHALE	3.0	
-	CARBONDALE	BRERETON	LIMESTONE & SHALE	6.0	

MAPID: 12100862000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 4N 3E SECTION: 18 QUARTERS/FOOTAGES: 660' S line, 330' W line of SE NW
QUADRANGLE: ST. PAUL LONGITUDE: -88.915019 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.789652 DATE COLLECTED: 0 / 0 / 1940
SURFACE ELEVATION (FT.): 584.0 LOGGED (FT.): 2127.0 LOG TYPE:
SOURCE: KINGWOODOC, LOWE S 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
175.0	BOND	CARTHAGE	LIMESTONE	-	409.0
-149.0	CARBONDALE	HERRIN	COAL	-	733.0

MAPID: 12100862000C VERSION: 2 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 4N 3E SECTION: 18 QUARTERS/FOOTAGES: 660' S line, 330' W line of SE NW
QUADRANGLE: ST. PAUL LONGITUDE: -88.915019 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.789652 DATE COLLECTED:
SURFACE ELEVATION (FT.): 584.0 LOGGED (FT.): 934.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: POOR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
176.0	BOND	CARTHAGE	LIMESTONE	9.0	408.0
-42.0	MODESTO	WEST FRANKLIN	LIMESTONE	8.0	626.0
-186.0	CARBONDALE	SPRINGFIELD	COAL	1.5	770.0
-257.0	CARBONDALE	HOUCHIN CREEK	COAL	-	841.0
-350.0	CARBONDALE	COLCHESTER	COAL	-	934.0

MAPID: 12104943000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 4N 3E SECTION: 18 QUARTERS/FOOTAGES: SW NW SE
QUADRANGLE: ST. PAUL LONGITUDE: -88.909889 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.785068 DATE COLLECTED:
SURFACE ELEVATION (FT.): 578.0 LOGGED (FT.): 922.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
179.0	BOND	CARTHAGE	LIMESTONE	8.0	399.0
-35.0	MODESTO	WEST FRANKLIN	LIMESTONE	8.0	613.0
-153.0	CARBONDALE	HERRIN	COAL	-	731.0
-174.0	CARBONDALE	SPRINGFIELD	COAL	3.0	752.0
-248.0	CARBONDALE	HOUCHIN CREEK	COAL	1.0	826.0
-344.0	CARBONDALE	COLCHESTER	COAL	-	922.0

MAPID: 12104943000C VERSION: 2 PROJECT: ROOF STUDY
COUNTY: MARION TWP/RNG: 4N 3E SECTION: 18 QUARTERS/FOOTAGES: SW NW SE
QUADRANGLE: ST. PAUL LONGITUDE: -88.909889 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.785068 DATE COLLECTED:
SURFACE ELEVATION (FT.): 578.0 LOGGED (FT.): 0.0 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
-	CARBONDALE	DANVILLE	COAL	2.0	
-	CARBONDALE		SHALE	13.0	
-	CARBONDALE	LAWSON	SHALE	5.0	
-	CARBONDALE	BRERETON	LIMESTONE	3.0	

MAPID: 12105069000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 4N 3E SECTION: 18 QUARTERS/FOOTAGES: 330' S line, 330' W line of NE SE
QUADRANGLE: ST. PAUL LONGITUDE: -88.904965 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.785032 DATE COLLECTED:
SURFACE ELEVATION (FT.): 587.0 LOGGED (FT.): 761.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
179.0	BOND	CARTHAGE	LIMESTONE	7.0	408.0
-33.0	MODESTO	WEST FRANKLIN	LIMESTONE	7.0	620.0
-172.0	CARBONDALE	SPRINGFIELD	COAL	2.0	759.0

MAPID: 12100863000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 4N 3E SECTION: 19 QUARTERS/FOOTAGES: SW SW SE
QUADRANGLE: ST. PAUL LONGITUDE: -88.909916 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.766941 DATE COLLECTED: 0 / 0 / 1941
SURFACE ELEVATION (FT.): 569.0 LOGGED (FT.): 2262.0 LOG TYPE:
SOURCE: ALLEN W O, FRENCH 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
212.0	BOND	CARTHAGE	LIMESTONE	-	357.0
-98.0	CARBONDALE	HERRIN	COAL	-	667.0

MAPID: 12100863000C VERSION: 2 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 4N 3E SECTION: 19 QUARTERS/FOOTAGES: SW SW SE
QUADRANGLE: ST. PAUL LONGITUDE: -88.909916 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.766941 DATE COLLECTED:
SURFACE ELEVATION (FT.): 572.0 LOGGED (FT.): 876.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
212.0	BOND	CARTHAGE	LIMESTONE	9.0	360.0
-10.0	MODESTO	WEST FRANKLIN	LIMESTONE	6.0	582.0
-95.0	CARBONDALE	HERRIN	COAL	3.0	667.0
-132.0	CARBONDALE	BRIAR HILL	COAL	2.0	704.0
-141.0	CARBONDALE	SPRINGFIELD	COAL	3.5	713.0
-211.0	CARBONDALE	HOUCHIN CREEK	COAL	-	783.0
-304.0	CARBONDALE	COLCHESTER	COAL	-	876.0

MAPID: 12100896000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 4N 3E SECTION: 19 QUARTERS/FOOTAGES: SW SE NW
QUADRANGLE: ST. PAUL LONGITUDE: -88.914927 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.774186 DATE COLLECTED: 0 / 0 / 1942
SURFACE ELEVATION (FT.): 521.0 LOGGED (FT.): 2169.0 LOG TYPE:
SOURCE: BUELL T R, RABB T E 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
186.0	BOND	CARTHAGE	LIMESTONE	-	335.0
-134.0	CARBONDALE	HERRIN	COAL	-	655.0

MAPID: 12101466000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 4N 3E SECTION: 19 QUARTERS/FOOTAGES: SW SW SW
QUADRANGLE: ST. PAUL LONGITUDE: -88.920047 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.766931 DATE COLLECTED:
SURFACE ELEVATION (FT.): 585.0 LOGGED (FT.): 926.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
196.0	BOND	CARTHAGE	LIMESTONE	8.0	389.0
-35.0	MODESTO	WEST FRANKLIN	LIMESTONE	5.0	620.0
-177.0	CARBONDALE	SPRINGFIELD	COAL	3.0	762.0
-253.0	CARBONDALE	HOUCHIN CREEK	COAL	-	838.0
-341.0	CARBONDALE	COLCHESTER	COAL	-	926.0

MAPID: 12101466000C VERSION: 2 PROJECT: ROOF STUDY
COUNTY: MARION TWP/RNG: 4N 3E SECTION: 19 QUARTERS/FOOTAGES: SW SW SW
QUADRANGLE: ST. PAUL LONGITUDE: -88.920047 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.766931 DATE COLLECTED:
SURFACE ELEVATION (FT.): 585.0 LOGGED (FT.): 0.0 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
-	CARBONDALE	DANVILLE	COAL	2.0	
-	CARBONDALE		SHALE	7.0	
-	CARBONDALE	LAWSON	SHALE	1.0	
-	CARBONDALE	BRERETON	LIMESTONE	3.5	

MAPID: 12101466000C VERSION: 3 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 4N 3E SECTION: 19 QUARTERS/FOOTAGES: SW SW SW
QUADRANGLE: ST. PAUL LONGITUDE: -88.920047 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.766931 DATE COLLECTED: 0 / 0 / 1947
SURFACE ELEVATION (FT.): 585.0 LOGGED (FT.): 2183.0 LOG TYPE:
SOURCE: BUELL T R, DOOLEN E W 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
207.0	BOND	CARTHAGE	LIMESTONE	-	378.0
-134.0	CARBONDALE	HERRIN	COAL	-	719.0

MAPID: 12104944000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 4N 3E SECTION: 19 QUARTERS/FOOTAGES: NE SW SE
QUADRANGLE: ST. PAUL LONGITUDE: -88.90738 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.768745 DATE COLLECTED:
SURFACE ELEVATION (FT.): 524.0 LOGGED (FT.): 840.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
203.0	BOND	CARTHAGE	LIMESTONE	9.0	321.0
-20.0	MODESTO	WEST FRANKLIN	LIMESTONE	4.0	544.0
-104.0	CARBONDALE	HERRIN	COAL	3.0	628.0
-141.0	CARBONDALE	BRIAR HILL	COAL	1.0	665.0
-151.0	CARBONDALE	SPRINGFIELD	COAL	3.0	675.0
-221.0	CARBONDALE	HOUCHIN CREEK	COAL	-	745.0
-316.0	CARBONDALE	COLCHESTER	COAL	-	840.0

MAPID: 12101985000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 4N 3E SECTION: 20 QUARTERS/FOOTAGES: SE NW SW
QUADRANGLE: ST. PAUL LONGITUDE: -88.897624 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.77055 DATE COLLECTED:
SURFACE ELEVATION (FT.): 529.0 LOGGED (FT.): 853.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
199.0	BOND	CARTHAGE	LIMESTONE	8.0	330.0
-17.0	MODESTO	WEST FRANKLIN	LIMESTONE	9.0	546.0
-159.0	CARBONDALE	SPRINGFIELD	COAL	4.0	688.0
-238.0	CARBONDALE	HOUCHIN CREEK	COAL	-	767.0
-324.0	CARBONDALE	COLCHESTER	COAL	-	853.0

MAPID: 12101985000C VERSION: 2 PROJECT: ROOF STUDY
COUNTY: MARION TWP/RNG: 4N 3E SECTION: 20 QUARTERS/FOOTAGES: SE NW SW
QUADRANGLE: ST. PAUL LONGITUDE: -88.897624 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.77055 DATE COLLECTED:
SURFACE ELEVATION (FT.): 636.0 LOGGED (FT.): 0.0 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
-	CARBONDALE	DANVILLE	COAL	2.0	
-	CARBONDALE		SHALE	8.5	

MAPID: 12104953000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 4N 3E SECTION: 20 QUARTERS/FOOTAGES: 765' N line, 330' W line of NW SW
QUADRANGLE: ST. PAUL LONGITUDE: -88.899901 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.771114 DATE COLLECTED:
SURFACE ELEVATION (FT.): 539.0 LOGGED (FT.): 866.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
201.0	BOND	CARTHAGE	LIMESTONE	8.0	338.0
-21.0	MODESTO	WEST FRANKLIN	LIMESTONE	8.0	560.0
-123.0	CARBONDALE	HERRIN	COAL	3.5	662.0
-144.0	CARBONDALE	BRIAR HILL	COAL	1.5	683.0
-155.0	CARBONDALE	SPRINGFIELD	COAL	3.5	694.0
-232.0	CARBONDALE	HOUCHIN CREEK	COAL	1.5	771.0
-327.0	CARBONDALE	COLCHESTER	COAL	-	866.0

MAPID: 12104954000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 4N 3E SECTION: 20 QUARTERS/FOOTAGES: NW SW SW
QUADRANGLE: ST. PAUL LONGITUDE: -88.899911 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.768745 DATE COLLECTED:
SURFACE ELEVATION (FT.): 527.0 LOGGED (FT.): 844.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
203.0	BOND	CARTHAGE	LIMESTONE	7.0	324.0
-19.0	MODESTO	WEST FRANKLIN	LIMESTONE	7.0	546.0
-145.0	CARBONDALE	BRIAR HILL	COAL	2.0	672.0
-153.0	CARBONDALE	SPRINGFIELD	COAL	3.0	680.0
-225.0	CARBONDALE	HOUCHIN CREEK	COAL	-	752.0
-317.0	CARBONDALE	COLCHESTER	COAL	-	844.0

MAPID: 12104954000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: MARION TWP/RNG: 4N 3E SECTION: 20 QUARTERS/FOOTAGES: NW SW SW
QUADRANGLE: ST. PAUL LONGITUDE: -88.899911 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.768745 DATE COLLECTED:
SURFACE ELEVATION (FT.): 527.0 LOGGED (FT.): 0.0 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
-	CARBONDALE	DANVILLE	COAL	1.0	
-	CARBONDALE		SHALE	10.0	

MAPID: 12101467000C VERSION: 1 PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 4N 3E SECTION: 21 QUARTERS/FOOTAGES: NE NE SW

QUADRANGLE: KINMUNDY LONGITUDE: -88.874583 GEOLOGIST: C TREWORYG

CONFIDENTIAL: N LATITUDE: 38.772432 DATE COLLECTED:

SURFACE ELEVATION (FT.): 569.0 LOGGED (FT.): 932.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
161.0	BOND	CARTHAGE	LIMESTONE	10.0	408.0
-43.0	MODESTO	WEST FRANKLIN	LIMESTONE	12.0	612.0
-185.0	CARBONDALE	SPRINGFIELD	COAL	5.0	754.0
-258.0	CARBONDALE	HOUCHIN CREEK	COAL	-	827.0
-363.0	CARBONDALE	COLCHESTER	COAL	-	932.0

MAPID: 12101467000C VERSION: 2 PROJECT: ROOF STUDY

COUNTY: MARION TWP/RNG: 4N 3E SECTION: 21 QUARTERS/FOOTAGES: NE NE SW

QUADRANGLE: KINMUNDY LONGITUDE: -88.874583 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.772432 DATE COLLECTED:

SURFACE ELEVATION (FT.): 569.0 LOGGED (FT.): 0.0 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
-	CARBONDALE	DANVILLE	COAL	2.5	
-	CARBONDALE		SHALE	8.5	

MAPID: 12101467000C VERSION: 3 PROJECT: CIRC 164

COUNTY: MARION TWP/RNG: 4N 3E SECTION: 21 QUARTERS/FOOTAGES: NE NE SW

QUADRANGLE: KINMUNDY LONGITUDE: -88.874583 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.772432 DATE COLLECTED: 0 / 0 / 1947

SURFACE ELEVATION (FT.): 566.0 LOGGED (FT.): 2267.0 LOG TYPE:

SOURCE: IND FRM BR, SLOVACK M 1 WELL TYPE: Oil and Gas Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
160.0	BOND	CARTHAGE	LIMESTONE	-	406.0
-146.0	CARBONDALE	HERRIN	COAL	-	712.0

MAPID: 12125800000C

VERSION: 1

PROJECT: CGT-ECILL

COUNTY: MARION

TWP/RNG: 4N 3E

SECTION: 21

QUARTERS/FOOTAGES: NE SW SW

QUADRANGLE: ST. PAUL

LONGITUDE: -88.879262

GEOLOGIST: C TREWORGY

CONFIDENTIAL: N

LATITUDE: 38.768843

DATE COLLECTED:

SURFACE ELEVATION (FT.): 576.0

LOGGED (FT.): 805.0

LOG TYPE: Electric Log

SOURCE:

WELL TYPE: Oil and Gas Test

COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
185.0	BOND	CARTHAGE	LIMESTONE	8.0	391.0	
-25.0	MODESTO	WEST FRANKLIN	LIMESTONE	6.0	601.0	
-160.0	CARBONDALE	SPRINGFIELD	COAL	3.0	736.0	
-229.0	CARBONDALE	HOUCHIN CREEK	COAL	-	805.0	

MAPID: 12100001000C VERSION: 1

PROJECT: NCRDS87

COUNTY: MARION

TWP/RNG: 4N 3E

SECTION: 23

QUARTERS/FOOTAGES: SW NE NW

QUADRANGLE: KINMUNDY

LONGITUDE: -88.839511

GEOLOGIST: WEIBEL

CONFIDENTIAL: N

LATITUDE: 38.777718

DATE COLLECTED:

SURFACE ELEVATION (FT.): 602.0

LOGGED (FT.): 995.4

LOG TYPE: Drillers Log

SOURCE: KINMUNDY SHAFT

WELL TYPE: Mine Shaft

COMMENT: DIAMOND DRILL 733 TO TD

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
602.0			UNCONSOLIDATED	12.0	0.0
590.0			SANDSTONE	46.0	12.0
544.0			GRAY SHALE	18.0	58.0
526.0			BLACK SHALE	10.0	76.0
516.0			UNCLASSIFIED	32.0	86.0
484.0			GRAY SHALE	2.0	118.0
482.0			SANDSTONE	1.0	120.0
481.0			GRAY SHALE	7.0	121.0
474.0			SANDSTONE	4.0	128.0
470.0			SHALE	5.0	132.0
465.0			SANDSTONE	2.0	137.0
463.0			GRAY SHALE	3.0	139.0
460.0			LIMESTONE	1.0	142.0
459.0			BLACK SHALE	9.0	143.0
450.0			COAL	1.0	152.0
449.0			UNDERCLAY	7.0	153.0
442.0			GRAY SHALE	19.0	160.0
423.0			BLACK SHALE	11.0	179.0
412.0			COAL	1.0	190.0
411.0			UNDERCLAY	2.0	191.0
409.0			GRAY SHALE	10.0	193.0
399.0			LIMESTONE	0.8	203.0
398.2			GRAY SHALE	27.0	203.8
371.2			BLACK SHALE	5.0	230.8
366.2			LIMESTONE	2.0	235.8
364.2			COAL	0.5	237.8
363.7			LIMESTONE	1.0	238.3
362.7			BLACK SHALE	5.0	239.3
357.7			COAL	0.2	244.3
357.5			UNCLASSIFIED	5.5	244.5
352.0			BLACK SHALE	11.0	250.0
341.0			LIMESTONE	3.0	261.0
338.0			GRAY SHALE	9.0	264.0
329.0			BLACK SHALE	12.0	273.0
317.0			UNCLASSIFIED	3.5	285.0
313.5			GRAY SHALE	6.0	288.5
307.5			BLACK SHALE	5.0	294.5
302.5			LIMESTONE	1.5	299.5
301.0			BLACK SHALE	1.5	301.0

299.5			COAL	1.0	302.5	
298.5			UNDERCLAY	1.5	303.5	
297.0	BOND		LIMESTONE	3.0	305.0	
294.0	BOND		GRAY SHALE	15.8	308.0	
278.2	BOND		BLACK SHALE	3.0	323.8	
275.2	BOND		COAL	0.2	326.8	
275.1	BOND		UNDERCLAY	2.8	326.9	
272.2	BOND		SHALE	42.0	329.8	
230.2	BOND		SANDSTONE	28.0	371.8	
202.2	BOND		GRAY SHALE	1.0	399.8	
201.2	BOND		BLACK SHALE	4.0	400.8	
197.2	BOND		LIMESTONE	1.5	404.8	
195.7	BOND		COAL	1.3	406.3	
194.4	BOND		UNDERCLAY	3.0	407.6	
191.4	BOND		LIMESTONE	3.0	410.6	
188.4	BOND		SHALE	56.0	413.6	
132.4	BOND		LIMESTONE	0.5	469.6	
131.9	BOND		SHALE	24.6	470.1	
107.3	BOND	CARTHAGE	LIMESTONE	9.8	494.7	
97.6	MODESTO		BLACK SHALE	2.0	504.4	
95.6	MODESTO		SHALE	29.0	506.4	
66.6	MODESTO		SHALE & SANDSTONE	12.0	535.4	
54.6	MODESTO		GRAY SHALE	40.0	547.4	
14.6	MODESTO		LIMESTONE	1.5	587.4	
13.1	MODESTO		BLACK SHALE	2.5	588.9	
10.6	MODESTO		UNDERCLAY	5.0	591.4	
5.6	MODESTO		SHALE	8.0	596.4	
-2.4	MODESTO		SANDSTONE	31.5	604.4	
-33.9	MODESTO		SHALE	21.5	635.9	
-55.4	MODESTO		LIMESTONE	1.3	657.4	
-56.8	MODESTO		SHALE	6.6	658.8	
-63.3	MODESTO		BLACK SHALE	0.8	665.3	
-64.2	MODESTO	CHAPEL	COAL	0.6	666.2	UNCERTAIN CORRELATION
-64.8	MODESTO		UNDERCLAY	2.0	666.8	
-66.8	MODESTO		UNCLASSIFIED	8.5	668.8	
-75.3	MODESTO		SHALE	14.0	677.3	
-89.3	MODESTO	WEST FRANKLIN	LIMESTONE	21.5	691.3	
-110.8	MODESTO	WEST FRANKLIN	UNDERCLAY	2.0	712.8	
-112.8	MODESTO	WEST FRANKLIN	SHALE	1.5	714.8	
-114.3	MODESTO	WEST FRANKLIN	LIMESTONE	6.0	716.3	
-120.3	MODESTO		SANDSTONE	36.2	722.3	
-156.4	MODESTO		SHALE	48.0	758.4	
-204.4	CARBONDALE	DANVILLE	COAL	1.2	806.4	
-205.6	CARBONDALE		UNDERCLAY	4.9	807.6	
-210.4	CARBONDALE	BANKSTON FORK	LIMESTONE	3.0	812.4	
-213.4	CARBONDALE		SANDSTONE	3.0	815.4	
-216.4	CARBONDALE		SHALE & SANDSTONE	31.0	818.4	
-247.4	CARBONDALE	BRIAR HILL	COAL	1.0	849.4	

-248.4	CARBONDALE		BLACK SHALE	3.5	850.4
-251.9	CARBONDALE	ST. DAVID	LIMESTONE	4.5	853.9
-256.4	CARBONDALE	SPRINGFIELD	COAL	2.7	858.4
-259.1	CARBONDALE		SHALE	67.3	861.1
-326.4	CARBONDALE	EXCELLO	BLACK SHALE	4.0	928.4
-330.4	CARBONDALE	HOUCHIN CREEK	COAL	1.7	932.4
-332.1	CARBONDALE		UNDERCLAY	2.3	934.1
-334.4	CARBONDALE		SHALE	31.0	936.4
-365.4	CARBONDALE		GRAY SHALE	15.0	967.4
-380.4	CARBONDALE		BLACK SHALE	1.0	982.4
-381.4	CARBONDALE		SHALE	12.0	983.4

MAPID: 12100001000C **VERSION:** 2 **PROJECT:** CIRC 164
COUNTY: MARION **TWP/RNG:** 4N 3E **SECTION:** 23 **QUARTERS/FOOTAGES:** SW NE NW
QUADRANGLE: KINMUNDY **LONGITUDE:** -88.839511 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.777718 **DATE COLLECTED:** 0 / 0 / 1900
SURFACE ELEVATION (FT.): 601.2 **LOGGED (FT.):** 968.0 **LOG TYPE:** Measured section
SOURCE: KINMUNDY, KINMUNDY **WELL TYPE:** Underground mine
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.) UNIT OVERBURDEN	COMMENT
108.2	BOND	CARTHAGE	LIMESTONE	-	493.0
-212.8	CARBONDALE	HERRIN	COAL	-	814.0

MAPID: 12101984000C **VERSION:** 1 **PROJECT:** CGT-ECILL
COUNTY: MARION **TWP/RNG:** 4N 3E **SECTION:** 24 **QUARTERS/FOOTAGES:** NW NW SE
QUADRANGLE: KINMUNDY **LONGITUDE:** -88.816207 **GEOLOGIST:** C TREWORGY
CONFIDENTIAL: N **LATITUDE:** 38.772359 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 578.0 **LOGGED (FT.):** 1020.0 **LOG TYPE:** Electric Log
SOURCE: **WELL TYPE:** Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.) UNIT OVERBURDEN	COMMENT
88.0	BOND	CARTHAGE	LIMESTONE	8.0	490.0
-103.0	MODESTO	WEST FRANKLIN	LIMESTONE	19.0	681.0
-234.0	CARBONDALE	HERRIN	COAL	3.0	812.0
-260.0	CARBONDALE	BRIAR HILL	COAL	2.0	838.0
-265.0	CARBONDALE	SPRINGFIELD	COAL	3.5	843.0
-340.0	CARBONDALE	HOUCHIN CREEK	COAL	1.0	918.0
-442.0	CARBONDALE	COLCHESTER	COAL	-	1020.0

MAPID: 12125714000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 4N 3E SECTION: 26 QUARTERS/FOOTAGES: 1650' S line, 330' E line of SW
QUADRANGLE: KINMUNDY LONGITUDE: -88.837061 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.756023 DATE COLLECTED:
SURFACE ELEVATION (FT.): 642.0 LOGGED (FT.): 968.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
118.0	BOND	CARTHAGE	LIMESTONE	8.0	524.0
-106.0	MODESTO	WEST FRANKLIN	LIMESTONE	12.0	748.0
-254.0	CARBONDALE	SPRINGFIELD	COAL	2.5	896.0
-324.0	CARBONDALE	HOUCHIN CREEK	COAL	2.0	966.0

MAPID: 12101983000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 4N 3E SECTION: 27 QUARTERS/FOOTAGES: SE SW SW
QUADRANGLE: KINMUNDY LONGITUDE: -88.860402 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.752455 DATE COLLECTED:
SURFACE ELEVATION (FT.): 642.0 LOGGED (FT.): 1043.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
135.0	BOND	CARTHAGE	LIMESTONE	9.0	507.0
-91.0	MODESTO	WEST FRANKLIN	LIMESTONE	5.0	733.0
-200.0	CARBONDALE	HERRIN	COAL	-	842.0
-220.0	CARBONDALE	BRIAR HILL	COAL	2.5	862.0
-228.0	CARBONDALE	SPRINGFIELD	COAL	4.0	870.0
-299.0	CARBONDALE	HOUCHIN CREEK	COAL	2.0	941.0
-401.0	CARBONDALE	COLCHESTER	COAL	-	1043.0

MAPID: 12101986000C VERSION: 1 PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 4N 3E SECTION: 30 QUARTERS/FOOTAGES: NE NE NE

QUADRANGLE: ST. PAUL LONGITUDE: -88.902314 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.765141 DATE COLLECTED:

SURFACE ELEVATION (FT.): 571.0 LOGGED (FT.): 883.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
209.0	BOND	CARTHAGE	LIMESTONE	8.0	362.0
-15.0	MODESTO	WEST FRANKLIN	LIMESTONE	6.0	586.0
-141.0	CARBONDALE	BRIAR HILL	COAL	1.0	712.0
-147.0	CARBONDALE	SPRINGFIELD	COAL	4.0	718.0
-221.0	CARBONDALE	HOUCHIN CREEK	COAL	2.0	792.0
-312.0	CARBONDALE	COLCHESTER	COAL	-	883.0

MAPID: 12101986000C VERSION: 2 PROJECT: ROOF STUDY

COUNTY: MARION TWP/RNG: 4N 3E SECTION: 30 QUARTERS/FOOTAGES: NE NE NE

QUADRANGLE: ST. PAUL LONGITUDE: -88.902314 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.765141 DATE COLLECTED:

SURFACE ELEVATION (FT.): 571.0 LOGGED (FT.): 0.0 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
-	CARBONDALE	DANVILLE	COAL	2.1	
-	CARBONDALE		SHALE	12.0	

MAPID: 12100865000C VERSION: 1 PROJECT: CIRC 164

COUNTY: MARION TWP/RNG: 4N 3E SECTION: 31 QUARTERS/FOOTAGES: NW NW NW

QUADRANGLE: ST. PAUL LONGITUDE: -88.920114 GEOLOGIST:

CONFIDENTIAL: N LATITUDE: 38.750544 DATE COLLECTED: 0 / 0 / 1941

SURFACE ELEVATION (FT.): 581.0 LOGGED (FT.): 2250.0 LOG TYPE:

SOURCE: ABSHER&BTH, HOFFMAN M 1 WELL TYPE: Oil and Gas Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
224.0	BOND	CARTHAGE	LIMESTONE	-	357.0
-112.0	CARBONDALE	HERRIN	COAL	-	693.0

MAPID: 12100865000C VERSION: 2 PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 4N 3E SECTION: 31 QUARTERS/FOOTAGES: NW NW NW

QUADRANGLE: ST. PAUL LONGITUDE: -88.920114 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.750544 DATE COLLECTED:

SURFACE ELEVATION (FT.): 581.0 LOGGED (FT.): 883.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
223.0	BOND	CARTHAGE	LIMESTONE	8.0	358.0
-142.0	CARBONDALE	BRIAR HILL	COAL	1.0	723.0
-149.0	CARBONDALE	SPRINGFIELD	COAL	4.0	730.0
-219.0	CARBONDALE	HOUCHIN CREEK	COAL	1.0	800.0
-302.0	CARBONDALE	COLCHESTER	COAL	-	883.0

MAPID: 12101043000C VERSION: 1 PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 4N 3E SECTION: 35 QUARTERS/FOOTAGES: 330' N line, 330' E line of SE SW

QUADRANGLE: OMEGA LONGITUDE: -88.837267 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.739575 DATE COLLECTED:

SURFACE ELEVATION (FT.): 630.0 LOGGED (FT.): 1087.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
94.0	BOND	CARTHAGE	LIMESTONE	8.0	536.0
-276.0	CARBONDALE	BRIAR HILL	COAL	2.5	906.0
-283.0	CARBONDALE	SPRINGFIELD	COAL	4.5	913.0
-355.0	CARBONDALE	HOUCHIN CREEK	COAL	-	985.0
-457.0	CARBONDALE	COLCHESTER	COAL	-	1087.0

MAPID: 12101043000C **VERSION:** 2 **PROJECT:** BLM
COUNTY: MARION **TWP/RNG:** 4N 3E **SECTION:** 35 **QUARTERS/FOOTAGES:** 330' N line, 330' E line of SE SW
QUADRANGLE: OMEGA **LONGITUDE:** -88.837267 **GEOLOGIST:** TREWORGY,J
CONFIDENTIAL: N **LATITUDE:** 38.739575 **DATE COLLECTED:** 9 / 0 / 1942
SURFACE ELEVATION (FT.): 630.0 **LOGGED (FT.):** 1087.0 **LOG TYPE:** Electric Log
SOURCE: PAPOOSE OIL CO **WELL TYPE:** Oil and Gas Test
COMMENT: INTERPRETED BY C. TREWORGY

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
630.0			ROCK	906.0	0.0
-276.0			COAL	2.5	906.0
-278.5			ROCK	4.5	908.5
-283.0	CARBONDALE	SPRINGFIELD	COAL	4.5	913.0
-287.5	CARBONDALE		ROCK	67.5	917.5
-355.0	CARBONDALE	HOUCHIN CREEK	COAL	-	985.0
-355.0	CARBONDALE		ROCK	102.0	985.0
-457.0	CARBONDALE	COLCHESTER	COAL	-	1087.0

MAPID: 12101043000C **VERSION:** 3 **PROJECT:** CIRC 164
COUNTY: MARION **TWP/RNG:** 4N 3E **SECTION:** 35 **QUARTERS/FOOTAGES:** 330' N line, 330' E line of SE SW
QUADRANGLE: OMEGA **LONGITUDE:** -88.837267 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.739575 **DATE COLLECTED:** 0 / 0 / 1942
SURFACE ELEVATION (FT.): 630.0 **LOGGED (FT.):** 2479.0 **LOG TYPE:**
SOURCE: PAPOOSE OC, SNELLING E 1 **WELL TYPE:** Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
96.0	BOND	CARTHAGE	LIMESTONE	-	534.0
-250.0	CARBONDALE	HERRIN	COAL	-	880.0

MAPID: 12101043000C **VERSION:** 5 **PROJECT:** CONTROL
COUNTY: MARION **TWP/RNG:** 4N 3E **SECTION:** 35 **QUARTERS/FOOTAGES:** 330' N line, 330' E line of SE SW
QUADRANGLE: OMEGA **LONGITUDE:** -88.837267 **GEOLOGIST:** HINES
CONFIDENTIAL: N **LATITUDE:** 38.739575 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): **LOGGED (FT.):** 2472.0 **LOG TYPE:** Survey Sample Study
SOURCE: PAPOOSE OIL CO **WELL TYPE:** Oil and Gas Test
COMMENT: OILWELLS LOGGED BY COAL SECT-LOGS IN GRU

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-			NO RECORD	0.0	0.0

MAPID: 12101873000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 4N 3E SECTION: 36 QUARTERS/FOOTAGES: SE NW NW
QUADRANGLE: OMEGA LONGITUDE: -88.823098 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.74867 DATE COLLECTED:
SURFACE ELEVATION (FT.): 584.0 LOGGED (FT.): 1075.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
74.0	BOND	CARTHAGE	LIMESTONE	8.0	510.0
-161.0	MODESTO	WEST FRANKLIN	LIMESTONE	5.0	745.0
-273.0	CARBONDALE	HERRIN	COAL	1.0	857.0
-274.0	CARBONDALE	BRIAR HILL	COAL	1.0	858.0
-306.0	CARBONDALE	SPRINGFIELD	COAL	3.5	890.0
-380.0	CARBONDALE	HOUCHIN CREEK	COAL	1.5	964.0
-491.0	CARBONDALE	COLCHESTER	COAL	-	1075.0

MAPID: 12101873000C VERSION: 2 PROJECT: BLM
COUNTY: MARION TWP/RNG: 4N 3E SECTION: 36 QUARTERS/FOOTAGES: SE NW NW
QUADRANGLE: OMEGA LONGITUDE: -88.823098 GEOLOGIST: TREWORGY,J
CONFIDENTIAL: N LATITUDE: 38.74867 DATE COLLECTED: 6 / 0 / 1959
SURFACE ELEVATION (FT.): 584.0 LOGGED (FT.): 1075.0 LOG TYPE: Electric Log
SOURCE: RAY HENDRICKS-GENTLES DRLG. CO. WELL TYPE: Oil and Gas Test
COMMENT: INTERPRETED BY C. TREWORGY

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
584.0			ROCK	857.0	0.0
-273.0	CARBONDALE	HERRIN	COAL	1.0	857.0
-274.0	CARBONDALE		COAL	1.0	858.0
-275.0	CARBONDALE		ROCK	31.0	859.0
-306.0	CARBONDALE	SPRINGFIELD	COAL	3.5	890.0
-309.5	CARBONDALE		ROCK	70.5	893.5
-380.0	CARBONDALE	HOUCHIN CREEK	COAL	1.5	964.0
-381.5	CARBONDALE		ROCK	109.5	965.5
-491.0	CARBONDALE	COLCHESTER	COAL	-	1075.0

MAPID: 12101987000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 4N 4E SECTION: 1 QUARTERS/FOOTAGES: 330' S line, 330' E line of NW SE
QUADRANGLE: OSKALOOSA LONGITUDE: -88.70107 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.81586 DATE COLLECTED:
SURFACE ELEVATION (FT.): 564.0 LOGGED (FT.): 1052.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-32.0	BOND	CARTHAGE	LIMESTONE	8.0	596.0
-227.0	MODESTO	WEST FRANKLIN	LIMESTONE	10.0	791.0
-412.0	CARBONDALE	SPRINGFIELD	COAL	3.5	976.0
-488.0	CARBONDALE	HOUCHIN CREEK	COAL	-	1052.0

MAPID: 12104980000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 4N 4E SECTION: 5 QUARTERS/FOOTAGES: 330' N line, 330' E line of SW
QUADRANGLE: KINMUNDY LONGITUDE: -88.780473 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.81649 DATE COLLECTED:
SURFACE ELEVATION (FT.): 593.0 LOGGED (FT.): 1081.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-137.0	MODESTO	TRIVOLI	SANDSTONE	13.0	730.0
-155.0	MODESTO	WEST FRANKLIN	LIMESTONE	9.0	748.0
-291.0	CARBONDALE	BRIAR HILL	COAL	-	884.0
-300.0	CARBONDALE	SPRINGFIELD	COAL	2.0	893.0
-375.0	CARBONDALE	HOUCHIN CREEK	COAL	-	968.0
-488.0	CARBONDALE	COLCHESTER	COAL	-	1081.0

MAPID: 12101988000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 4N 4E SECTION: 7 QUARTERS/FOOTAGES: 330' S line, 330' W line of NE SE
QUADRANGLE: KINMUNDY LONGITUDE: -88.792529 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.800043 DATE COLLECTED:
SURFACE ELEVATION (FT.): 582.0 LOGGED (FT.): 1078.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: GOOD LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
45.0	BOND	CARTHAGE	LIMESTONE	9.0	537.0
-133.0	MODESTO	TRIVOLI	SANDSTONE	17.0	715.0
-150.0	MODESTO	WEST FRANKLIN	LIMESTONE	5.0	732.0
-296.0	CARBONDALE	BRIAR HILL	COAL	2.0	878.0
-303.0	CARBONDALE	SPRINGFIELD	COAL	4.0	885.0
-380.0	CARBONDALE	HOUCHIN CREEK	COAL	-	962.0
-496.0	CARBONDALE	COLCHESTER	COAL	-	1078.0

MAPID: 12127690000C VERSION: 1

PROJECT: CIRC 164

COUNTY: MARION TWP/RNG: 4N 4E SECTION: 9 QUARTERS/FOOTAGES: 330' N line, 330' E line of NW NW
QUADRANGLE: KINMUNDY LONGITUDE: -88.766667 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.809043 DATE COLLECTED: 0 / 0 / 1944
SURFACE ELEVATION (FT.): 581.0 LOGGED (FT.): 2482.0 LOG TYPE:
SOURCE: FRONTR FOC, LACEY M S 1 WELL TYPE: Oil and Gas Test
COMMENT: CTY# CHANGED FROM 1425 TO 27690

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
27.0	BOND	CARTHAGE	LIMESTONE	-	554.0
-291.0	CARBONDALE	HERRIN	COAL	-	872.0

MAPID: 12127690000C VERSION: 2

PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 4N 4E SECTION: 9 QUARTERS/FOOTAGES: 330' N line, 330' E line of NW NW
QUADRANGLE: KINMUNDY LONGITUDE: -88.766667 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.809043 DATE COLLECTED:
SURFACE ELEVATION (FT.): 581.0 LOGGED (FT.): 982.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: CTY# CHANGED FROM 1425 TO 27690

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
27.0	BOND	CARTHAGE	LIMESTONE	9.0	554.0
-151.0	MODESTO	WEST FRANKLIN	LIMESTONE	21.0	732.0
-291.0	CARBONDALE	HERRIN	COAL	1.5	872.0
-327.0	CARBONDALE	SPRINGFIELD	COAL	3.0	908.0
-401.0	CARBONDALE	HOUCHIN CREEK	COAL	-	982.0

MAPID: 12101582000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 4N 4E SECTION: 10 QUARTERS/FOOTAGES: 330' S line, 330' W line of NW
QUADRANGLE: KINMUNDY LONGITUDE: -88.750386 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.80374 DATE COLLECTED:
SURFACE ELEVATION (FT.): 571.0 LOGGED (FT.): 977.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: POOR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
16.0	BOND	CARTHAGE	LIMESTONE	8.0	555.0
-162.0	MODESTO	WEST FRANKLIN	LIMESTONE	18.0	733.0
-332.0	CARBONDALE	SPRINGFIELD	COAL	3.5	903.0
-406.0	CARBONDALE	HOUCHIN CREEK	COAL	-	977.0

MAPID: 12101471000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 4N 4E SECTION: 16 QUARTERS/FOOTAGES: 330' S line, 330' E line of SW NE
QUADRANGLE: KINMUNDY LONGITUDE: -88.757716 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.789075 DATE COLLECTED: 0 / 0 / 1947
SURFACE ELEVATION (FT.): 593.0 LOGGED (FT.): 2460.0 LOG TYPE:
SOURCE: SUPRIOR OC, HAWKEY ED 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
64.0	BOND	CARTHAGE	LIMESTONE	-	529.0
-274.0	CARBONDALE	HERRIN	COAL	-	867.0

MAPID: 12101471000C VERSION: 2 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 4N 4E SECTION: 16 QUARTERS/FOOTAGES: 330' S line, 330' E line of SW NE
QUADRANGLE: KINMUNDY LONGITUDE: -88.757716 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.789075 DATE COLLECTED:
SURFACE ELEVATION (FT.): 595.0 LOGGED (FT.): 980.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
62.0	BOND	CARTHAGE	LIMESTONE	7.0	533.0
-132.0	MODESTO	TRIVOLI	SANDSTONE	28.0	727.0
-172.0	MODESTO	WEST FRANKLIN	LIMESTONE	4.0	767.0
-310.0	CARBONDALE	SPRINGFIELD	COAL	3.5	905.0
-385.0	CARBONDALE	HOUCHIN CREEK	COAL	-	980.0

MAPID: 12101472000C **VERSION:** 1 **PROJECT:** CIRC 164
COUNTY: MARION **TWP/RNG:** 4N 4E **SECTION:** 16 **QUARTERS/FOOTAGES:** SE SE SW
QUADRANGLE: KINMUNDY **LONGITUDE:** -88.76248 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.78172 **DATE COLLECTED:** 0 / 0 / 1947
SURFACE ELEVATION (FT.): 580.0 **LOGGED (FT.):** 2150.0 **LOG TYPE:**
SOURCE: NAT ASSOC, HOHLT FRED 2 **WELL TYPE:** Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
57.0	BOND	CARTHAGE	LIMESTONE	-	523.0
-265.0	CARBONDALE	HERRIN	COAL	-	845.0

MAPID: 12101473000C **VERSION:** 1 **PROJECT:** CIRC 164
COUNTY: MARION **TWP/RNG:** 4N 4E **SECTION:** 16 **QUARTERS/FOOTAGES:** SE SW SE
QUADRANGLE: KINMUNDY **LONGITUDE:** -88.757856 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.781738 **DATE COLLECTED:** 0 / 0 / 1948
SURFACE ELEVATION (FT.): 583.0 **LOGGED (FT.):** 2393.0 **LOG TYPE:**
SOURCE: GULF REF, JONES L W 2 **WELL TYPE:** Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
53.0	BOND	CARTHAGE	LIMESTONE	-	530.0
-259.0	CARBONDALE	HERRIN	COAL	-	842.0

MAPID: 12101989000C **VERSION:** 1 **PROJECT:** CGT-ECILL
COUNTY: MARION **TWP/RNG:** 4N 4E **SECTION:** 16 **QUARTERS/FOOTAGES:** 330' S line, 330' W line of SE
QUADRANGLE: KINMUNDY **LONGITUDE:** -88.760159 **GEOLOGIST:** C TREWORYG
CONFIDENTIAL: N **LATITUDE:** 38.781722 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 581.0 **LOGGED (FT.):** 951.0 **LOG TYPE:** Electric Log
SOURCE: **WELL TYPE:** Oil and Gas Test
COMMENT: POOR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
50.0	BOND	CARTHAGE	LIMESTONE	8.0	531.0
-132.0	MODESTO	WEST FRANKLIN	LIMESTONE	19.0	713.0
-295.0	CARBONDALE	SPRINGFIELD	COAL	3.5	876.0
-370.0	CARBONDALE	HOUCHIN CREEK	COAL	-	951.0

MAPID: 12101293000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 4N 4E SECTION: 17 QUARTERS/FOOTAGES: 660' S line, 660' W line of NE
QUADRANGLE: KINMUNDY LONGITUDE: -88.777524 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.789943 DATE COLLECTED: 0 / 0 / 1943
SURFACE ELEVATION (FT.): 579.0 LOGGED (FT.): 2394.0 LOG TYPE:
SOURCE: LARIO OG, HOLSON J B 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
49.0	BOND	CARTHAGE	LIMESTONE	-	530.0
-303.0	CARBONDALE	HERRIN	COAL	-	882.0

MAPID: 12101293000C VERSION: 2 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 4N 4E SECTION: 17 QUARTERS/FOOTAGES: 660' S line, 660' W line of NE
QUADRANGLE: KINMUNDY LONGITUDE: -88.777524 GEOLOGIST: C TREWORYG
CONFIDENTIAL: N LATITUDE: 38.789943 DATE COLLECTED:
SURFACE ELEVATION (FT.): 579.0 LOGGED (FT.): 916.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: POOR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
48.0	BOND	CARTHAGE	LIMESTONE	7.0	531.0
-153.0	MODESTO	TRIVOLI	SANDSTONE	17.0	732.0
-184.0	MODESTO	WEST FRANKLIN	LIMESTONE	9.0	763.0
-337.0	CARBONDALE	SPRINGFIELD	COAL	-	916.0

MAPID: 12101826000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 4N 4E SECTION: 18 QUARTERS/FOOTAGES: 330' S line, 330' E line of NE
QUADRANGLE: KINMUNDY LONGITUDE: -88.790317 GEOLOGIST: C TREWORYG
CONFIDENTIAL: N LATITUDE: 38.789045 DATE COLLECTED:
SURFACE ELEVATION (FT.): 578.0 LOGGED (FT.): 990.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
35.0	BOND	CARTHAGE	LIMESTONE	9.0	543.0
-156.0	MODESTO	TRIVOLI	SANDSTONE	20.0	734.0
-190.0	MODESTO	WEST FRANKLIN	LIMESTONE	4.0	768.0
-327.0	CARBONDALE	SPRINGFIELD	COAL	4.0	905.0
-412.0	CARBONDALE	HOUCHIN CREEK	COAL	-	990.0

MAPID: 12104959000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 4N 4E SECTION: 18 QUARTERS/FOOTAGES: 330' S line, 330' W line of SE
QUADRANGLE: KINMUNDY LONGITUDE: -88.797384 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.781727 DATE COLLECTED:
SURFACE ELEVATION (FT.): 579.0 LOGGED (FT.): 973.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: POOR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
24.0	BOND	CARTHAGE	LIMESTONE	9.0	555.0
-151.0	MODESTO	WEST FRANKLIN	LIMESTONE	19.0	730.0
-318.0	CARBONDALE	SPRINGFIELD	COAL	3.0	897.0
-394.0	CARBONDALE	HOUCHIN CREEK	COAL	-	973.0

MAPID: 12100986000C VERSION: 2 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 4N 4E SECTION: 21 QUARTERS/FOOTAGES: 331' N line, 332' E line of SE
QUADRANGLE: KINMUNDY LONGITUDE: -88.753366 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.772656 DATE COLLECTED: 0 / 0 / 1942
SURFACE ELEVATION (FT.): 586.0 LOGGED (FT.): 2460.0 LOG TYPE:
SOURCE: OHIO OIL, JONES SUSN 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
44.0	BOND	CARTHAGE	LIMESTONE	-	542.0
-256.0	CARBONDALE	HERRIN	COAL	-	842.0

MAPID: 12100986000C VERSION: 3 PROJECT: CONTROL
COUNTY: MARION TWP/RNG: 4N 4E SECTION: 21 QUARTERS/FOOTAGES: 331' N line, 332' E line of SE
QUADRANGLE: KINMUNDY LONGITUDE: -88.753366 GEOLOGIST: HINES
CONFIDENTIAL: N LATITUDE: 38.772656 DATE COLLECTED:
SURFACE ELEVATION (FT.): LOGGED (FT.): 2460.0 LOG TYPE: Survey Sample Study
SOURCE: OHIO OIL CO. WELL TYPE: Oil and Gas Test
COMMENT: OILWELLS LOGGED BY COAL SECT-LOGS IN GRU

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-			NO RECORD	0.0	0.0

MAPID: 12101474000C VERSION: 1

PROJECT: CIRC 164

COUNTY: MARION TWP/RNG: 4N 4E SECTION: 21 QUARTERS/FOOTAGES: 330' N line, 330' W line of SE NE
QUADRANGLE: KINMUNDY LONGITUDE: -88.755602 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.776287 DATE COLLECTED: 0 / 0 / 1947
SURFACE ELEVATION (FT.): 580.0 LOGGED (FT.): 2395.0 LOG TYPE:
SOURCE: NAT ASSOC, ADAMS W 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
52.0	BOND	CARTHAGE	LIMESTONE	-	528.0
-254.0	CARBONDALE	HERRIN	COAL	-	834.0

MAPID: 12101474000C VERSION: 2

PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 4N 4E SECTION: 21 QUARTERS/FOOTAGES: 330' N line, 330' W line of SE NE
QUADRANGLE: KINMUNDY LONGITUDE: -88.755602 GEOLOGIST: C TREWORYG
CONFIDENTIAL: N LATITUDE: 38.776287 DATE COLLECTED:
SURFACE ELEVATION (FT.): 580.0 LOGGED (FT.): 946.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: POOR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
52.0	BOND	CARTHAGE	LIMESTONE	10.0	528.0
-131.0	MODESTO	WEST FRANKLIN	LIMESTONE	16.0	711.0
-292.0	CARBONDALE	SPRINGFIELD	COAL	2.5	872.0
-366.0	CARBONDALE	HOUCHIN CREEK	COAL	-	946.0

MAPID: 12101475000C VERSION: 1

PROJECT: CIRC 164

COUNTY: MARION TWP/RNG: 4N 4E SECTION: 21 QUARTERS/FOOTAGES: SE NE NW
QUADRANGLE: KINMUNDY LONGITUDE: -88.762518 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.778093 DATE COLLECTED: 0 / 0 / 1947
SURFACE ELEVATION (FT.): 569.0 LOGGED (FT.): 2213.0 LOG TYPE:
SOURCE: NAT ASSOC, BOYE ETAL 3 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
39.0	BOND	CARTHAGE	LIMESTONE	-	530.0
-265.0	CARBONDALE	HERRIN	COAL	-	834.0

MAPID: 12101476000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 4N 4E SECTION: 21 QUARTERS/FOOTAGES: NE NW NW
QUADRANGLE: KINMUNDY LONGITUDE: -88.767116 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.779883 DATE COLLECTED: 0 / 0 / 1947
SURFACE ELEVATION (FT.): 564.0 LOGGED (FT.): 2415.0 LOG TYPE:
SOURCE: SUN OC, KAISER H 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
36.0	BOND	CARTHAGE	LIMESTONE	-	528.0
-276.0	CARBONDALE	HERRIN	COAL	-	840.0

MAPID: 12101477000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 4N 4E SECTION: 21 QUARTERS/FOOTAGES: SE NW SE
QUADRANGLE: KINMUNDY LONGITUDE: -88.757976 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.770855 DATE COLLECTED: 0 / 0 / 1947
SURFACE ELEVATION (FT.): 563.0 LOGGED (FT.): 2200.0 LOG TYPE:
SOURCE: NAT ASSOC, LACEY ETAL 4 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
41.0	BOND	CARTHAGE	LIMESTONE	-	522.0
-259.0	CARBONDALE	HERRIN	COAL	-	822.0

MAPID: 12101478000C VERSION: 1 PROJECT: CIRC 164
COUNTY: MARION TWP/RNG: 4N 4E SECTION: 21 QUARTERS/FOOTAGES: SE NE NE
QUADRANGLE: KINMUNDY LONGITUDE: -88.753284 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.778111 DATE COLLECTED: 0 / 0 / 1947
SURFACE ELEVATION (FT.): 580.0 LOGGED (FT.): 2366.0 LOG TYPE:
SOURCE: NAT ASSOC, STUART D W 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
62.0	BOND	CARTHAGE	LIMESTONE	-	518.0
-259.0	CARBONDALE	HERRIN	COAL	-	839.0

MAPID: 12104960000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 4N 4E SECTION: 21 QUARTERS/FOOTAGES: 330' N line, 330' W line of NE NW
QUADRANGLE: KINMUNDY LONGITUDE: -88.764799 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.779883 DATE COLLECTED:
SURFACE ELEVATION (FT.): 568.0 LOGGED (FT.): 950.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: POOR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
37.0	BOND	CARTHAGE	LIMESTONE	8.0	531.0
-132.0	MODESTO	TRIVOLI	SANDSTONE	26.0	700.0
-306.0	CARBONDALE	SPRINGFIELD	COAL	4.0	874.0
-382.0	CARBONDALE	HOUCHIN CREEK	COAL	-	950.0

MAPID: 12101990000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 4N 4E SECTION: 22 QUARTERS/FOOTAGES: 330' S line, 330' W line of NE SE
QUADRANGLE: OSKALOOSA LONGITUDE: -88.736776 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.771052 DATE COLLECTED:
SURFACE ELEVATION (FT.): 575.0 LOGGED (FT.): 1043.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: POOR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-25.0	BOND	CARTHAGE	LIMESTONE	9.0	600.0
-219.0	MODESTO	TRIVOLI	SANDSTONE	11.0	794.0
-332.0	CARBONDALE	DANVILLE	COAL	-	907.0
-395.0	CARBONDALE	SPRINGFIELD	COAL	4.5	970.0
-468.0	CARBONDALE	HOUCHIN CREEK	COAL	-	1043.0

MAPID: 12105237000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 4N 4E SECTION: 22 QUARTERS/FOOTAGES: 330' N line, 330' W line of SW NW
QUADRANGLE: KINMUNDY LONGITUDE: -88.750989 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.776305 DATE COLLECTED:
SURFACE ELEVATION (FT.): 584.0 LOGGED (FT.): 903.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: POOR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
43.0	BOND	CARTHAGE	LIMESTONE	8.0	541.0
-132.0	MODESTO	WEST FRANKLIN	LIMESTONE	14.0	716.0
-244.0	CARBONDALE	DANVILLE	COAL	-	828.0
-294.0	CARBONDALE	SPRINGFIELD	COAL	4.0	878.0
-319.0	CARBONDALE	HOUCHIN CREEK	COAL	-	903.0

MAPID: 12101276000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: MARION TWP/RNG: 4N 4E SECTION: 24 QUARTERS/FOOTAGES: 330' N line, 330' E line of NW NW
QUADRANGLE: OSKALOOSA LONGITUDE: -88.711107 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.780507 DATE COLLECTED:
SURFACE ELEVATION (FT.): 584.0 LOGGED (FT.): 1121.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-62.0	BOND	CARTHAGE	LIMESTONE	7.0	646.0
-146.0	MODESTO	TRIVOLI	SANDSTONE	46.0	730.0
-391.0	CARBONDALE	DANVILLE	COAL	-	975.0
-460.0	CARBONDALE	SPRINGFIELD	COAL	3.0	1044.0
-537.0	CARBONDALE	HOUCHIN CREEK	COAL	-	1121.0

MAPID: 12101276000C VERSION: 2

PROJECT: ROOF STUDY

COUNTY: MARION TWP/RNG: 4N 4E SECTION: 24 QUARTERS/FOOTAGES: 330' N line, 330' E line of NW NW
QUADRANGLE: OSKALOOSA LONGITUDE: -88.711107 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.780507 DATE COLLECTED:
SURFACE ELEVATION (FT.): 584.0 LOGGED (FT.): 990.5 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
-390.5	CARBONDALE	DANVILLE	COAL	1.5	974.5
-392.0	CARBONDALE		SHALE	5.5	976.0
-397.5	CARBONDALE	LAWSON	SHALE	5.5	981.5
-403.0	CARBONDALE	BRERETON	LIMESTONE	3.0	987.0
-406.0	CARBONDALE	HERRIN	COAL	0.5	990.0

MAPID: 12101276000C VERSION: 3

PROJECT: CIRC 164

COUNTY: MARION TWP/RNG: 4N 4E SECTION: 24 QUARTERS/FOOTAGES: 330' N line, 330' E line of NW NW
QUADRANGLE: OSKALOOSA LONGITUDE: -88.711107 GEOLOGIST:
CONFIDENTIAL: N LATITUDE: 38.780507 DATE COLLECTED: 0 / 0 / 1942
SURFACE ELEVATION (FT.): 584.0 LOGGED (FT.): 2715.0 LOG TYPE:
SOURCE: WILLIAMS A, FELLER 1 WELL TYPE: Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-61.0	BOND	CARTHAGE	LIMESTONE	-	645.0
-409.0	CARBONDALE	HERRIN	COAL	-	993.0

MAPID: 12101991000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 4N 4E SECTION: 25 QUARTERS/FOOTAGES: 330' S line, 660' W line
QUADRANGLE: OSKALOOSA LONGITUDE: -88.712725 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.753167 DATE COLLECTED:
SURFACE ELEVATION (FT.): 532.0 LOGGED (FT.): 1112.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: POOR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-98.0	BOND	CARTHAGE	LIMESTONE	8.0	630.0
-500.0	CARBONDALE	SPRINGFIELD	COAL	3.5	1032.0
-577.0	CARBONDALE	HOUCHIN CREEK	COAL	3.0	1109.0

MAPID: 12101992000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 4N 4E SECTION: 30 QUARTERS/FOOTAGES: 330' N line, 330' E line of NW SW
QUADRANGLE: KINMUNDY LONGITUDE: -88.804568 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.758077 DATE COLLECTED:
SURFACE ELEVATION (FT.): 582.0 LOGGED (FT.): 967.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: POOR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
72.0	BOND	CARTHAGE	LIMESTONE	8.0	510.0
-42.0	MODESTO	TRIVOLI	SANDSTONE	50.0	624.0
-158.0	MODESTO	WEST FRANKLIN	LIMESTONE	10.0	740.0
-385.0	CARBONDALE	HOUCHIN CREEK	COAL	-	967.0

MAPID: 12100868000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 4N 4E SECTION: 31 QUARTERS/FOOTAGES: 665' N line, 335' E line of SW
QUADRANGLE: OMEGA LONGITUDE: -88.800091 GEOLOGIST: C TREWORY
CONFIDENTIAL: N LATITUDE: 38.742521 DATE COLLECTED:
SURFACE ELEVATION (FT.): 577.0 LOGGED (FT.): 958.0 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: POOR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
71.0	BOND	CARTHAGE	LIMESTONE	10.0	506.0
-40.0	MODESTO	TRIVOLI	SANDSTONE	61.0	617.0
-302.0	CARBONDALE	SPRINGFIELD	COAL	4.0	879.0
-381.0	CARBONDALE	HOUCHIN CREEK	COAL	-	958.0

MAPID: 12100868000C **VERSION:** 2 **PROJECT:** BLM
COUNTY: MARION **TWP/RNG:** 4N 4E **SECTION:** 31 **QUARTERS/FOOTAGES:** 665' N line, 335' E line of SW
QUADRANGLE: OMEGA **LONGITUDE:** -88.800091 **GEOLOGIST:** TREWORGY,J
CONFIDENTIAL: N **LATITUDE:** 38.742521 **DATE COLLECTED:** 7 / 0 / 1940
SURFACE ELEVATION (FT.): 577.0 **LOGGED (FT.):** 958.0 **LOG TYPE:** Electric Log
SOURCE: STEWART OIL CO. **WELL TYPE:** Oil and Gas Test
COMMENT: INTERPRETED BY C. TREWORGY

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
577.0			ROCK	879.0	0.0	
-302.0	CARBONDALE	SPRINGFIELD	COAL	4.0	879.0	
-306.0	CARBONDALE		ROCK	75.0	883.0	
-381.0	CARBONDALE	HOUCHIN CREEK	COAL	-	958.0	

MAPID: 12100868000C **VERSION:** 3 **PROJECT:** CIRC 164
COUNTY: MARION **TWP/RNG:** 4N 4E **SECTION:** 31 **QUARTERS/FOOTAGES:** 665' N line, 335' E line of SW
QUADRANGLE: OMEGA **LONGITUDE:** -88.800091 **GEOLOGIST:**
CONFIDENTIAL: N **LATITUDE:** 38.742521 **DATE COLLECTED:** 0 / 0 / 1940
SURFACE ELEVATION (FT.): 574.0 **LOGGED (FT.):** 2481.0 **LOG TYPE:**
SOURCE: STEWART OC, WHITENBERG 1 **WELL TYPE:** Oil and Gas Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
71.0	BOND	CARTHAGE	LIMESTONE	-	503.0	
-271.0	CARBONDALE	HERRIN	COAL	-	845.0	

MAPID: 12101993000C **VERSION:** 1 **PROJECT:** CGT-ECILL
COUNTY: MARION **TWP/RNG:** 4N 4E **SECTION:** 32 **QUARTERS/FOOTAGES:** 330' N line, 330' W line of SE
QUADRANGLE: OMEGA **LONGITUDE:** -88.779123 **GEOLOGIST:** C TREWORGY
CONFIDENTIAL: N **LATITUDE:** 38.74359 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 565.0 **LOGGED (FT.):** 1020.0 **LOG TYPE:** Electric Log
SOURCE: **WELL TYPE:** Oil and Gas Test
COMMENT: POOR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
8.0	BOND	CARTHAGE	LIMESTONE	11.0	557.0	
-75.0	MODESTO	TRIVOLI	SANDSTONE	72.0	640.0	
-367.0	CARBONDALE	SPRINGFIELD	COAL	3.5	932.0	
-455.0	CARBONDALE	HOUCHIN CREEK	COAL	-	1020.0	

MAPID: 12101993000C VERSION: 2 PROJECT: BLM
COUNTY: MARION TWP/RNG: 4N 4E SECTION: 32 QUARTERS/FOOTAGES: 330' N line, 330' W line of SE
QUADRANGLE: OMEGA LONGITUDE: -88.779123 GEOLOGIST: TREWORGY,J
CONFIDENTIAL: N LATITUDE: 38.74359 DATE COLLECTED: 7 / 0 / 1948
SURFACE ELEVATION (FT.): 565.0 LOGGED (FT.): 1020.0 LOG TYPE: Electric Log
SOURCE: MAGNOLIA PETROLEUM CO. WELL TYPE: Oil and Gas Test
COMMENT: INTERPRETED BY C. TREWORGY

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
565.0			ROCK	932.0	0.0
-367.0	CARBONDALE	SPRINGFIELD	COAL	3.5	932.0
-370.5	CARBONDALE		ROCK	84.5	935.5
-455.0	CARBONDALE	HOUCHIN CREEK	COAL	-	1020.0

MAPID: 121230A0008F VERSION: 1 PROJECT: BLM
COUNTY: MARION TWP/RNG: 4N 4E SECTION: 32 QUARTERS/FOOTAGES: NE SE NW NW
QUADRANGLE: OMEGA LONGITUDE: -88.785422 GEOLOGIST: TREWORGY,J
CONFIDENTIAL: N LATITUDE: 38.749568 DATE COLLECTED: 9 / 18 / 1934
SURFACE ELEVATION (FT.): 530.0 LOGGED (FT.): 42.3 LOG TYPE: Measured section
SOURCE: FLD NOTES-WELLER WELL TYPE: Outcrop
COMMENT: 2 OTHER MEASURED SECTIONS IN THIS SPOT

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
530.0			ROCK	32.0	0.0
498.0			COAL	1.3	32.0
496.7			ROCK	9.1	33.3

MAPID: 12101470000C VERSION: 1 PROJECT: CGT-ECILL
COUNTY: MARION TWP/RNG: 4N 4E SECTION: 33 QUARTERS/FOOTAGES: 330' S line, 330' E line of SE
QUADRANGLE: OMEGA LONGITUDE: -88.753985 GEOLOGIST: C TREWORGY
CONFIDENTIAL: N LATITUDE: 38.7382 DATE COLLECTED:
SURFACE ELEVATION (FT.): 569.0 LOGGED (FT.): 952.5 LOG TYPE: Electric Log
SOURCE: WELL TYPE: Oil and Gas Test
COMMENT: FAIR LOG

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-25.0	BOND	CARTHAGE	LIMESTONE	8.0	594.0
-105.0	MODESTO	TRIVOLI	SANDSTONE	56.0	674.0
-380.0	CARBONDALE	SPRINGFIELD	COAL	3.5	949.0

MAPID: 12101470000C

VERSION: 2

PROJECT: BLM

COUNTY: MARION

TWP/RNG: 4N 4E

SECTION: 33

QUARTERS/FOOTAGES: 330' S line, 330' E line of SE

QUADRANGLE: OMEGA

LONGITUDE: -88.753985

GEOLOGIST: TREWORGY,J

CONFIDENTIAL: N

LATITUDE: 38.7382

DATE COLLECTED: 3 / 0 / 1945

SURFACE ELEVATION (FT.): 569.0

LOGGED (FT.): 952.5

LOG TYPE: Electric Log

SOURCE: MAGNOLIA PETROLEUM CO.

WELL TYPE: Oil and Gas Test

COMMENT: INTERPRETED BY C. TREWORGY

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
569.0			ROCK	949.0	0.0
-380.0	CARBONDALE	SPRINGFIELD	COAL	3.5	949.0

MAPID: 12101470000C

VERSION: 3

PROJECT: CIRC 164

COUNTY: MARION

TWP/RNG: 4N 4E

SECTION: 33

QUARTERS/FOOTAGES: 330' S line, 330' E line of SE

QUADRANGLE: OMEGA

LONGITUDE: -88.753985

GEOLOGIST:

CONFIDENTIAL: N

LATITUDE: 38.7382

DATE COLLECTED: 0 / 0 / 1945

SURFACE ELEVATION (FT.): 569.0

LOGGED (FT.): 2536.0

LOG TYPE:

SOURCE: MAGNOLIA, NEAL T A 1

WELL TYPE: Oil and Gas Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-24.0	BOND	CARTHAGE	LIMESTONE	-	593.0
-336.0	CARBONDALE	HERRIN	COAL	-	905.0