

Status Report



Total Records: 417

Top 3 County Records		Top 3 Log Type Records		Top 3 Coal Records		Top 3 Member Records	
Brown	417	Drillers Log	374	COLCHESTER	335	COLCHESTER COAL	335
		Measured section	41	HOUCHIN CREEK	3	MECCA QUARRY BLACK SHALE	174
		Survey Core Study	1	SPRINGFIELD	1	OAK GROVE LIMESTONE	84

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
HERRIN	COAL	3.5	3.5	3.5	0.3	0.3	0.3
SPRINGFIELD	COAL	15.3	15.3	15.3	0.2	0.2	0.2
EXCELLO	SHALE	84.0	84.0	84.0	6.0	6.0	6.0
HOUCHIN CREEK	COAL	56.5	24.6	90.0	0.9	0.2	1.7
OAK GROVE	LIMESTONE	44.1	17.0	114.5	2.0	0.5	23.0
MECCA QUARRY	SHALE	45.4	13.5	196.7	2.0	0.5	15.0
FRANCIS CREEK	SANDSTONE	44.3	14.6	122.0	13.2	0.5	34.8
COLCHESTER	COAL	52.4	1.2	199.3	2.2	0.2	47.2
				Net Coal	3.5		

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: 00921995000C **VERSION:** 1 **PROJECT:** NCRDS95
COUNTY: BROWN **TWP/RNG:** 1N 2W **SECTION:** 7 **QUARTERS/FOOTAGES:** 2640' N line, 2640' W line
QUADRANGLE: RIPLEY **LONGITUDE:** -90.67215 **GEOLOGIST:** KOROSE
CONFIDENTIAL: N **LATITUDE:** 40.081821 **DATE COLLECTED:** 9 / 27 / 1967
SURFACE ELEVATION (FT.): **LOGGED (FT.):** 71.0 **LOG TYPE:** Drillers Log
SOURCE: PITTSBURG & MIDWAY 37-W **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	PLEISTOCENE		CLAY	19.0	0.0	
-			SHALE	11.0	19.0	
-			SANDY CLAYSTONE	14.0	30.0	
-			SANDSTONE	10.0	44.0	LOG NOTE "SAND"
-			ROCK	2.0	54.0	LOG NOTE "GRAVEL"
-			SHALE	6.5	56.0	
-			LIMESTONE	1.5	62.5	
-			SHALE & SANDSTONE	1.5	64.0	
-			DARK SHALE	2.7	65.5	
-			LIMESTONE	2.8	68.2	DRILLER'S NOTE: SEAHORNE ?

MAPID: 00990057000C **VERSION:** 1 **PROJECT:** NCRDS02
COUNTY: BROWN **TWP/RNG:** 1N 2W **SECTION:** 29 **QUARTERS/FOOTAGES:** 8' N line, 471' E line of SW SW
QUADRANGLE: RIPLEY **LONGITUDE:** -90.660289 **GEOLOGIST:** STRAAYER
CONFIDENTIAL: N **LATITUDE:** 40.034036 **DATE COLLECTED:** 8 / 20 / 1975
SURFACE ELEVATION (FT.): 558.0 **LOGGED (FT.):** 21.0 **LOG TYPE:** Drillers Log
SOURCE: AMAX EP210B **WELL TYPE:** Coal Test
COMMENT: RIPLEY BOX 27

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
558.0	PLEISTOCENE		UNCONSOLIDATED	12.0	0.0	
546.0	PLEISTOCENE		UNCONSOLIDATED	2.8	12.0	
543.2	CARBONDALE	MECCA QUARRY	BLACK SHALE	2.4	14.8	PAPER
540.8	CARBONDALE	COLCHESTER	COAL	1.9	17.2	
538.9	CARBONDALE		UNDERCLAY	1.9	19.1	

MAPID: 00990058000C **VERSION:** 1 **PROJECT:** NCRDS02
COUNTY: BROWN **TWP/RNG:** 1N 2W **SECTION:** 29 **QUARTERS/FOOTAGES:** 247' S line, 330' E line of SW SW
QUADRANGLE: RIPLEY **LONGITUDE:** -90.659788 **GEOLOGIST:** STRAAYER
CONFIDENTIAL: N **LATITUDE:** 40.031074 **DATE COLLECTED:** 8 / 20 / 1975
SURFACE ELEVATION (FT.): 567.0 **LOGGED (FT.):** 22.0 **LOG TYPE:** Drillers Log
SOURCE: AMAX EP210LC **WELL TYPE:** Coal Test
COMMENT: RIPLEY BOX 27

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
567.0	PLEISTOCENE		UNCONSOLIDATED	18.0	0.0	
549.0	CARBONDALE		GRAY SHALE	0.9	18.0	
548.1	CARBONDALE	COLCHESTER	COAL	1.8	18.9	
546.3	CARBONDALE		UNDERCLAY	1.3	20.7	

MAPID: 00990060000C **VERSION:** 1 **PROJECT:** NCRDS02
COUNTY: BROWN **TWP/RNG:** 1N 2W **SECTION:** 29 **QUARTERS/FOOTAGES:** 1' S line, 1' W line of SE SE
QUADRANGLE: RIPLEY **LONGITUDE:** -90.648939 **GEOLOGIST:** STRAAYER
CONFIDENTIAL: N **LATITUDE:** 40.030299 **DATE COLLECTED:** 8 / 13 / 1941
SURFACE ELEVATION (FT.): 460.0 **LOGGED (FT.):** 18.0 **LOG TYPE:** Drillers Log
SOURCE: AMAX EP215 **WELL TYPE:** Coal Test
COMMENT: RIPLEY BOX 27

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
460.0	PLEISTOCENE		UNCONSOLIDATED	15.0	0.0	
445.0	CARBONDALE		SHALE	3.0	15.0	BLUE

MAPID: 00990065000C VERSION: 1

PROJECT: NCRDS02

COUNTY: BROWN TWP/RNG: 1N 2W SECTION: 29 QUARTERS/FOOTAGES: 660' S line, 165' W line of SW SE

QUADRANGLE: RIPLEY LONGITUDE: -90.653181 GEOLOGIST: STRAAYER

CONFIDENTIAL: N LATITUDE: 40.032157 DATE COLLECTED: 6 / 2 / 1976

SURFACE ELEVATION (FT.): 572.7 LOGGED (FT.): 28.0 LOG TYPE: Drillers Log

SOURCE: AMAX EP238N WELL TYPE: Coal Test

COMMENT: RIPLEY BOX 27

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
572.7	PLEISTOCENE		CLAY	14.0	0.0	
558.7	PLEISTOCENE		SAND & GRAVEL	6.0	14.0	
552.7	CARBONDALE	COLCHESTER	COAL	1.5	20.0	SOFT; TOP ERODED
551.2	CARBONDALE		UNDERCLAY	1.5	21.5	
549.7	CARBONDALE		GRAY SHALE	5.0	23.0	

MAPID: 00990066000C VERSION: 1

PROJECT: NCRDS02

COUNTY: BROWN TWP/RNG: 1N 2W SECTION: 29 QUARTERS/FOOTAGES: 0' N line, 660' W line of SE SW

QUADRANGLE: RIPLEY LONGITUDE: -90.656228 GEOLOGIST: STRAAYER

CONFIDENTIAL: N LATITUDE: 40.034015 DATE COLLECTED: 8 / 28 / 1975

SURFACE ELEVATION (FT.): 545.3 LOGGED (FT.): 98.0 LOG TYPE: Drillers Log

SOURCE: AMAX EP262 WELL TYPE: Coal Test

COMMENT: RIPLEY BOX 27

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
545.3	PLEISTOCENE		UNCONSOLIDATED	18.5	0.0	
526.8	CARBONDALE		SHALE	2.5	18.5	
524.3	CARBONDALE		UNDERCLAY	6.0	21.0	
518.3	CARBONDALE		GRAY SHALE	4.0	27.0	
514.3	CARBONDALE		BLACK SHALE	0.7	31.0	
513.6	CARBONDALE		GRAY SHALE	1.7	31.7	
511.9	CARBONDALE		LIMESTONE	1.6	33.4	
510.3	CARBONDALE		GRAY SHALE	1.0	35.0	
509.3	CARBONDALE		LIMESTONE	10.3	36.0	
499.0	CARBONDALE		GRAY SHALE	1.3	46.3	
497.7	CARBONDALE		LIMESTONE & SHALE	40.4	47.6	
457.3	CARBONDALE		GRAY SHALE	10.0	88.0	

MAPID: 00921997000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 2W SECTION: 30 QUARTERS/FOOTAGES: 2600' S line, 660' E line

QUADRANGLE: RIPLEY LONGITUDE: -90.665785 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.037617 DATE COLLECTED: 9 / 27 / 1967

SURFACE ELEVATION (FT.): 570.0 LOGGED (FT.): 46.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 36-W WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
570.0	PLEISTOCENE		CLAY	21.0	0.0	
549.0	CARBONDALE		SHALE	2.0	21.0	
547.0	CARBONDALE		SANDSTONE	2.0	23.0	HARD
545.0	CARBONDALE		SHALE	9.2	25.0	
535.8	CARBONDALE		SANDSTONE	0.3	34.2	HARD
535.6	CARBONDALE	OAK GROVE	LIMESTONE	0.6	34.4	
535.0	CARBONDALE		SANDY SHALE	0.3	35.0	
534.7	CARBONDALE	MECCA QUARRY	BLACK SHALE	2.0	35.3	
532.7	CARBONDALE	FRANCIS CREEK	DARK SHALE	6.4	37.3	
526.3	CARBONDALE	COLCHESTER	COAL	1.8	43.7	
524.5	SPOON		SHALE	0.5	45.5	

MAPID: 00990061000C VERSION: 1

PROJECT: NCRDS02

COUNTY: BROWN TWP/RNG: 1N 2W SECTION: 30 QUARTERS/FOOTAGES: 165' N line, 340' W line of SW SE

QUADRANGLE: RIPLEY LONGITUDE: -90.671723 GEOLOGIST: STRAAYER

CONFIDENTIAL: N LATITUDE: 40.03371 DATE COLLECTED: 6 / 13 / 1976

SURFACE ELEVATION (FT.): 570.6 LOGGED (FT.): 48.0 LOG TYPE: Drillers Log

SOURCE: AMAX EP230E WELL TYPE: Coal Test

COMMENT: RIPLEY BOX 27

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
570.6	PLEISTOCENE		CLAY	18.0	0.0	
552.6	CARBONDALE		GRAY SHALE	6.0	18.0	
546.6	CARBONDALE		LIMESTONE	2.0	24.0	
544.6	CARBONDALE		DARK SHALE	10.0	26.0	
534.6	CARBONDALE		LIMESTONE	1.0	36.0	
533.6	CARBONDALE	MECCA QUARRY	BLACK SHALE	2.0	37.0	
531.6	CARBONDALE	COLCHESTER	COAL	1.8	39.0	
529.8	CARBONDALE		UNDERCLAY	1.2	40.8	
528.6	CARBONDALE		GRAY SHALE	6.0	42.0	

MAPID: 00990062000C VERSION: 1

PROJECT: NCRDS02

COUNTY: BROWN TWP/RNG: 1N 2W SECTION: 30 QUARTERS/FOOTAGES: 660' N line, 660' W line of SW SE

QUADRANGLE: RIPLEY LONGITUDE: -90.670583 GEOLOGIST: STRAAYER

CONFIDENTIAL: N LATITUDE: 40.032336 DATE COLLECTED: 6 / 3 / 1976

SURFACE ELEVATION (FT.): 587.1 LOGGED (FT.): 68.0 LOG TYPE: Drillers Log

SOURCE: AMAX EP231 WELL TYPE: Coal Test

COMMENT: RIPLEY BOX 27

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
587.1	PLEISTOCENE		CLAY	10.0	0.0
577.1	PLEISTOCENE		UNCONSOLIDATED	38.0	10.0
539.1	CARBONDALE		DARK SHALE	11.0	48.0
528.1	CARBONDALE		LIMESTONE	1.0	59.0
527.1	CARBONDALE	MECCA QUARRY	BLACK SHALE	1.5	60.0
525.6	CARBONDALE	COLCHESTER	COAL	2.0	61.5
523.6	CARBONDALE		UNDERCLAY	1.5	63.5
522.1	CARBONDALE		GRAY SHALE	3.0	65.0

MAPID: 00990063000C VERSION: 1

PROJECT: NCRDS02

COUNTY: BROWN TWP/RNG: 1N 2W SECTION: 30 QUARTERS/FOOTAGES: 660' N line, 0' W line of SE SE

QUADRANGLE: RIPLEY LONGITUDE: -90.668192 GEOLOGIST: STRAAYER

CONFIDENTIAL: N LATITUDE: 40.032313 DATE COLLECTED: 6 / 31 / 1976

SURFACE ELEVATION (FT.): 588.0 LOGGED (FT.): 68.0 LOG TYPE: Drillers Log

SOURCE: AMAX EP232 WELL TYPE: Coal Test

COMMENT: RIPLEY BOX 27

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
588.0	PLEISTOCENE		CLAY	10.0	0.0
578.0	PLEISTOCENE		UNCONSOLIDATED	28.0	10.0
550.0	CARBONDALE		GRAY SHALE	10.0	38.0
540.0	CARBONDALE		LIMESTONE	3.0	48.0
537.0	CARBONDALE		DARK SHALE	8.0	51.0
529.0	CARBONDALE		LIMESTONE	1.0	59.0
528.0	CARBONDALE		BLACK SHALE	2.0	60.0
526.0	CARBONDALE		GRAY SHALE	0.5	62.0
525.5	CARBONDALE	COLCHESTER	COAL	2.0	62.5
523.5	CARBONDALE		UNDERCLAY	3.5	64.5

MAPID: 00990064000C VERSION: 1

PROJECT: NCRDS02

COUNTY: BROWN TWP/RNG: 1N 2W SECTION: 30 QUARTERS/FOOTAGES: 660' S line, 660' W line of SE SE
 QUADRANGLE: RIPLEY LONGITUDE: -90.665821 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 40.032262 DATE COLLECTED: 6 / 7 / 1977
 SURFACE ELEVATION (FT.): 583.2 LOGGED (FT.): 53.0 LOG TYPE: Drillers Log
 SOURCE: AMAX EP233 WELL TYPE: Coal Test
 COMMENT: RIPLEY BOX 27

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
583.2	PLEISTOCENE		UNCONSOLIDATED	19.0	0.0
564.2	PLEISTOCENE		SAND & GRAVEL	2.0	19.0
562.2	PLEISTOCENE		UNCONSOLIDATED	19.4	21.0
542.8	CARBONDALE		SANDSTONE	0.6	40.4
542.2	CARBONDALE		DARK SHALE	9.3	41.0
532.9	CARBONDALE		LIMESTONE	2.7	50.3

MAPID: 00990067000C VERSION: 1

PROJECT: NCRDS02

COUNTY: BROWN TWP/RNG: 1N 2W SECTION: 30 QUARTERS/FOOTAGES: 1155' S line, 825' E line of NW SE
 QUADRANGLE: RIPLEY LONGITUDE: -90.671127 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 40.037349 DATE COLLECTED: 8 / 26 / 1975
 SURFACE ELEVATION (FT.): 563.0 LOGGED (FT.): 35.0 LOG TYPE: Drillers Log
 SOURCE: AMAX EP280G WELL TYPE: Coal Test
 COMMENT: RIPLEY BOX 27

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
563.0	PLEISTOCENE		UNCONSOLIDATED	13.0	0.0
550.0	CARBONDALE		SANDSTONE	2.0	13.0
548.0	CARBONDALE		DARK SHALE	10.5	15.0
537.5	CARBONDALE		LIMESTONE	0.8	25.5
536.7	CARBONDALE		BLACK SHALE	4.7	26.3
532.0	CARBONDALE		MICACEOUS SHALE	0.9	31.0
531.1	CARBONDALE	COLCHESTER	COAL	0.6	31.9
530.5	CARBONDALE		UNDERCLAY	2.5	32.5

MAPID: 00990068000C VERSION: 1

PROJECT: NCRDS02

COUNTY: BROWN TWP/RNG: 1N 2W SECTION: 30 QUARTERS/FOOTAGES: 660' S line, 330' E line of NW SE

QUADRANGLE: RIPLEY LONGITUDE: -90.669359 GEOLOGIST: STRAAYER

CONFIDENTIAL: N LATITUDE: 40.035967 DATE COLLECTED: 8 / 26 / 1975

SURFACE ELEVATION (FT.): 564.9 LOGGED (FT.): 40.0 LOG TYPE: Drillers Log

SOURCE: AMAX EP281B WELL TYPE: Coal Test

COMMENT: RIPLEY BOX 27

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
564.9	PLEISTOCENE		UNCONSOLIDATED	17.0	0.0	
547.9	CARBONDALE		SANDSTONE	0.5	17.0	
547.4	CARBONDALE		SHALE	4.5	17.5	PAPER
542.9	CARBONDALE		SHALE	11.4	22.0	
531.5	CARBONDALE		LIMESTONE	0.4	33.4	
531.1	CARBONDALE	MECCA QUARRY	BLACK SHALE	2.9	33.8	
528.2	CARBONDALE	COLCHESTER	COAL	1.4	36.7	
526.8	CARBONDALE		UNDERCLAY	1.9	38.1	

MAPID: 00990069000C VERSION: 1

PROJECT: NCRDS02

COUNTY: BROWN TWP/RNG: 1N 2W SECTION: 30 QUARTERS/FOOTAGES: 990' S line, 306' E line of NW SE

QUADRANGLE: RIPLEY LONGITUDE: -90.669266 GEOLOGIST: STRAAYER

CONFIDENTIAL: N LATITUDE: 40.036876 DATE COLLECTED: 8 / 26 / 1975

SURFACE ELEVATION (FT.): 557.9 LOGGED (FT.): 29.5 LOG TYPE: Drillers Log

SOURCE: AMAX EP2811 WELL TYPE: Coal Test

COMMENT: RIPLEY BOX 27

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
557.9	PLEISTOCENE		UNCONSOLIDATED	9.4	0.0	
548.5	CARBONDALE		SANDSTONE	2.2	9.4	
546.3	CARBONDALE		DARK SHALE	12.6	11.6	
533.7	CARBONDALE		LIMESTONE	0.6	24.2	
533.1	CARBONDALE	MECCA QUARRY	BLACK SHALE	2.9	24.8	
530.2	CARBONDALE	COLCHESTER	COAL	1.8	27.7	
528.4	CARBONDALE		UNDERCLAY	1.5	29.5	

MAPID: 00990070000C VERSION: 1

PROJECT: NCRDS02

COUNTY: BROWN TWP/RNG: 1N 2W SECTION: 30 QUARTERS/FOOTAGES: 720' S line, 770' E line of NE SE
 QUADRANGLE: RIPLEY LONGITUDE: -90.666183 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 40.036103 DATE COLLECTED: 6 / 1 / 1976
 SURFACE ELEVATION (FT.): 566.4 LOGGED (FT.): 38.0 LOG TYPE: Drillers Log
 SOURCE: AMAX EP282PC WELL TYPE: Coal Test
 COMMENT: RIPLEY BOX 27

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
566.4	PLEISTOCENE		CLAY	16.0	0.0
550.4	CARBONDALE		LIMESTONE	2.0	16.0
548.4	CARBONDALE		DARK SHALE	13.0	18.0
535.4	CARBONDALE		LIMESTONE	1.0	31.0
534.4	CARBONDALE		BLACK SHALE	1.5	32.0
532.9	CARBONDALE		GRAY SHALE	0.5	33.5
532.4	CARBONDALE	COLCHESTER	COAL	2.1	34.0
530.3	CARBONDALE		UNDERCLAY	1.9	36.1

MAPID: 00990071000C VERSION: 1

PROJECT: NCRS02

COUNTY: BROWN TWP/RNG: 1N 2W SECTION: 30 QUARTERS/FOOTAGES: 660' S line, 635' W line of NE SE
 QUADRANGLE: RIPLEY LONGITUDE: -90.665893 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 40.035935 DATE COLLECTED: 8 / 21 / 1975
 SURFACE ELEVATION (FT.): 565.4 LOGGED (FT.): 37.0 LOG TYPE: Drillers Log
 SOURCE: AMAX EP283 WELL TYPE: Coal Test
 COMMENT: RIPLEY BOX 27

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
565.4	PLEISTOCENE		UNCONSOLIDATED	16.0	0.0
549.4	CARBONDALE		SANDSTONE	2.2	16.0
547.2	CARBONDALE		DARK SHALE	11.4	18.2
535.8	CARBONDALE		LIMESTONE	0.4	29.6
535.4	CARBONDALE		BLACK SHALE	3.0	30.0
532.4	CARBONDALE		SHALE	0.6	33.0
531.8	CARBONDALE	COLCHESTER	COAL	2.3	33.6
529.5	CARBONDALE		UNDERCLAY	1.1	35.9

MAPID: 00990072000C VERSION: 1

PROJECT: NCRDS02

COUNTY: BROWN TWP/RNG: 1N 2W SECTION: 30 QUARTERS/FOOTAGES: 742' S line, 945' W line of NE SE
 QUADRANGLE: RIPLEY LONGITUDE: -90.66478 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 40.03615 DATE COLLECTED: 8 / 21 / 1975
 SURFACE ELEVATION (FT.): 554.2 LOGGED (FT.): 30.0 LOG TYPE: Drillers Log
 SOURCE: AMAX EP283BC WELL TYPE: Coal Test
 COMMENT: RIPLEY BOX 27

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
554.2	PLEISTOCENE		UNCONSOLIDATED	6.4	0.0	
547.8	CARBONDALE		SANDSTONE	1.6	6.4	
546.2	CARBONDALE		SHALE	10.0	8.0	
536.2	CARBONDALE		LIMESTONE	0.7	18.0	
535.5	CARBONDALE		BLACK SHALE	1.7	18.7	PAPER
533.8	CARBONDALE		DARK SHALE	1.6	20.4	
532.2	CARBONDALE		SHALE	4.0	22.0	
528.2	CARBONDALE	COLCHESTER	COAL	2.2	26.0	
526.0	CARBONDALE		UNDERCLAY	1.8	28.2	

MAPID: 00990073000C VERSION: 1

PROJECT: NCDRDS02

COUNTY: BROWN TWP/RNG: 1N 2W SECTION: 30 QUARTERS/FOOTAGES: 165' N line, 660' W line of NE SE
 QUADRANGLE: RIPLEY LONGITUDE: -90.665798 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 40.037329 DATE COLLECTED: 8 / 25 / 1975
 SURFACE ELEVATION (FT.): 570.7 LOGGED (FT.): 45.0 LOG TYPE: Drillers Log
 SOURCE: AMAX EP283D WELL TYPE: Coal Test
 COMMENT: RIPLEY BOX 27

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
570.7	PLEISTOCENE		UNCONSOLIDATED	23.0	0.0	
547.7	CARBONDALE		SANDSTONE	1.0	23.0	
546.7	CARBONDALE		BLACK SHALE	2.0	24.0	
544.7	CARBONDALE		GRAY SHALE	6.7	26.0	
538.0	CARBONDALE		LIMESTONE	0.6	32.7	
537.4	CARBONDALE		SHALE	7.0	33.3	PAPER
530.4	CARBONDALE	COLCHESTER	COAL	2.0	40.3	
528.4	CARBONDALE		UNDERCLAY	2.7	42.3	

MAPID: 00990074000C VERSION: 1

PROJECT: NCRDS02

COUNTY: BROWN TWP/RNG: 1N 2W SECTION: 30 QUARTERS/FOOTAGES: 165' N line, 990' W line of NE SE
 QUADRANGLE: RIPLEY LONGITUDE: -90.664613 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 40.037316 DATE COLLECTED: 8 / 26 / 1975
 SURFACE ELEVATION (FT.): 554.7 LOGGED (FT.): 20.0 LOG TYPE: Drillers Log
 SOURCE: AMAX EP283F WELL TYPE: Coal Test
 COMMENT: RIPLEY BOX 27

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
554.7	PLEISTOCENE		UNCONSOLIDATED	11.0	0.0	
543.7	CARBONDALE		SANDY SHALE	2.0	11.0	
541.7	CARBONDALE		BLACK SHALE	3.0	13.0	PAPER
538.7	CARBONDALE		LIMESTONE	0.6	16.0	SOFT
538.1	CARBONDALE	COLCHESTER	COAL	1.4	16.6	
536.7	CARBONDALE		UNDERCLAY	2.0	18.0	

MAPID: 00990075000C VERSION: 1

PROJECT: NCRDS02

COUNTY: BROWN TWP/RNG: 1N 2W SECTION: 30 QUARTERS/FOOTAGES: 840' S line, 990' W line of NE SE
 QUADRANGLE: RIPLEY LONGITUDE: -90.664616 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 40.036419 DATE COLLECTED: 8 / 21 / 1975
 SURFACE ELEVATION (FT.): 553.5 LOGGED (FT.): 30.0 LOG TYPE: Drillers Log
 SOURCE: AMAX EP283L WELL TYPE: Coal Test
 COMMENT: RIPLEY BOX 27

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
553.5	PLEISTOCENE		UNCONSOLIDATED	6.6	0.0	
546.9	CARBONDALE		SANDSTONE	2.3	6.6	
544.6	CARBONDALE		DARK SHALE	9.4	8.9	
535.2	CARBONDALE		LIMESTONE	0.5	18.3	
534.7	CARBONDALE		DARK SHALE	2.2	18.8	PAPER
532.5	CARBONDALE		DARK SHALE	2.0	21.0	
530.5	CARBONDALE		SHALE	3.7	23.0	
526.8	CARBONDALE	COLCHESTER	COAL	1.7	26.7	
525.1	CARBONDALE		UNDERCLAY	1.6	28.4	

MAPID: 00990076000C VERSION: 1

PROJECT: NCRDS02

COUNTY: BROWN TWP/RNG: 1N 2W SECTION: 30 QUARTERS/FOOTAGES: 165' N line, 35' E line of NE SE
 QUADRANGLE: RIPLEY LONGITUDE: -90.663543 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 40.037305 DATE COLLECTED: 8 / 28 / 1975
 SURFACE ELEVATION (FT.): 544.7 LOGGED (FT.): 50.0 LOG TYPE: Drillers Log
 SOURCE: AMAX EP284D WELL TYPE: Coal Test
 COMMENT: RIPLEY BOX 27

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
544.7	PLEISTOCENE		UNCONSOLIDATED	15.0	0.0	
529.7	CARBONDALE		SHALE	3.0	15.0	
526.7	CARBONDALE		LIMESTONE	3.0	18.0	SOFT
523.7	CARBONDALE		MICACEOUS SHALE	8.0	21.0	
515.7	CARBONDALE		DARK SHALE	1.0	29.0	
514.7	CARBONDALE		MICACEOUS SHALE	15.0	30.0	
499.7	CARBONDALE		LIMESTONE	1.5	45.0	
498.2	CARBONDALE		MICACEOUS SHALE	0.5	46.5	
497.7	CARBONDALE		LIMESTONE	2.7	47.0	
495.0	CARBONDALE		SANDSTONE	0.3	49.7	

MAPID: 00900209000C VERSION: 1

PROJECT: AVAIL

COUNTY: BROWN TWP/RNG: 1N 2W SECTION: 31 QUARTERS/FOOTAGES: NE NW NE
 QUADRANGLE: RIPLEY LONGITUDE: -90.669399 GEOLOGIST: UITEMP
 CONFIDENTIAL: N LATITUDE: 40.029552 DATE COLLECTED: 3 / 7 / 1957
 SURFACE ELEVATION (FT.): 586.0 LOGGED (FT.): 54.7 LOG TYPE: Drillers Log
 SOURCE: MORGAN COAL CO. 5 WELL TYPE:
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
586.0	PLEISTOCENE		UNCONSOLIDATED	21.0	0.0	
565.0	PLEISTOCENE		SAND	8.0	21.0	
557.0			SHALE	8.3	29.0	
548.7			SANDSTONE	3.3	37.3	
545.5			BLACK SHALE	9.0	40.5	
536.5	CARBONDALE	OAK GROVE	LIMESTONE	1.0	49.5	
535.5	CARBONDALE	MECCA QUARRY	BLACK SHALE	2.4	50.5	
533.1	CARBONDALE	COLCHESTER	COAL	1.8	52.9	

MAPID: 00921996000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 2W SECTION: 31 QUARTERS/FOOTAGES: 1450' N line, 700' W line
 QUADRANGLE: RIPLEY LONGITUDE: -90.680029 GEOLOGIST: KOROSE
 CONFIDENTIAL: N LATITUDE: 40.026548 DATE COLLECTED: 5 / 22 / 1968
 SURFACE ELEVATION (FT.): 580.0 LOGGED (FT.): 39.0 LOG TYPE: Drillers Log
 SOURCE: PITTSBURG & MIDWAY 98-M WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
580.0	PLEISTOCENE		CLAY	14.0	0.0	
566.0	CARBONDALE		CLAY	0.8	14.0	SMUT
565.2	CARBONDALE		UNCONSOLIDATED	13.3	14.8	FILL NOTED
552.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	1.5	28.0	
550.5	CARBONDALE	FRANCIS CREEK	GRAY SHALE	5.0	29.5	
545.5	CARBONDALE	COLCHESTER	COAL	0.3	34.5	DIRTY
545.2	CARBONDALE	COLCHESTER	COAL	1.3	34.8	
543.9	SPOON		UNDERCLAY	2.9	36.1	

MAPID: 00990012000C VERSION: 1

PROJECT: NCRDS02

COUNTY: BROWN TWP/RNG: 1N 2W SECTION: 31 QUARTERS/FOOTAGES: 15' S line, 648' W line of SW NE
 QUADRANGLE: RIPLEY LONGITUDE: -90.670703 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 40.023177 DATE COLLECTED: 6 / 6 / 1977
 SURFACE ELEVATION (FT.): 591.0 LOGGED (FT.): 102.0 LOG TYPE: Drillers Log
 SOURCE: AMAX EP106B WELL TYPE: Coal Test
 COMMENT: RIPLEY BOX 27

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
591.0	PLEISTOCENE		UNCONSOLIDATED	24.0	0.0	
567.0	PLEISTOCENE		SAND & GRAVEL	2.0	24.0	
565.0	PLEISTOCENE		CLAY	26.0	26.0	
539.0	PLEISTOCENE		SAND & GRAVEL	8.0	52.0	
531.0	PLEISTOCENE		CLAY	7.0	60.0	
524.0	PLEISTOCENE		SAND & GRAVEL	9.0	67.0	
515.0	PLEISTOCENE		CLAY	18.0	76.0	
497.0	PLEISTOCENE		SAND & GRAVEL	3.0	94.0	
494.0	CARBONDALE		SANDY SHALE	2.5	97.0	
491.5	CARBONDALE		LIMESTONE	2.5	99.5	

MAPID: 00990013000C VERSION: 1

PROJECT: NCRDS02

COUNTY: BROWN TWP/RNG: 1N 2W SECTION: 31 QUARTERS/FOOTAGES: 15' S line, 3' W line of SE NE
 QUADRANGLE: RIPLEY LONGITUDE: -90.668243 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 40.023163 DATE COLLECTED: 6 / 6 / 1977
 SURFACE ELEVATION (FT.): 593.6 LOGGED (FT.): 102.0 LOG TYPE: Drillers Log
 SOURCE: AMAX EP107 WELL TYPE: Coal Test
 COMMENT: RIPLEY BOX 27

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
593.6	PLEISTOCENE		UNCONSOLIDATED	20.0	0.0	
573.6	PLEISTOCENE		SAND & GRAVEL	3.0	20.0	
570.6	PLEISTOCENE		CLAY	69.0	23.0	
501.6	PLEISTOCENE		SAND & GRAVEL	3.0	92.0	
498.6	CARBONDALE		SANDY SHALE	4.5	95.0	
494.1	CARBONDALE		LIMESTONE	2.5	99.5	

MAPID: 00990014000C VERSION: 1

PROJECT: NCRDS02

COUNTY: BROWN TWP/RNG: 1N 2W SECTION: 31 QUARTERS/FOOTAGES: 10' S line, 692' W line of SE NE
 QUADRANGLE: RIPLEY LONGITUDE: -90.665773 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 40.023132 DATE COLLECTED: 6 / 7 / 1977
 SURFACE ELEVATION (FT.): 589.3 LOGGED (FT.): 67.0 LOG TYPE: Drillers Log
 SOURCE: AMAX EP108 WELL TYPE: Coal Test
 COMMENT: RIPLEY BOX 27

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
589.3	PLEISTOCENE		UNCONSOLIDATED	13.0	0.0	
576.3	PLEISTOCENE		CLAY	7.0	13.0	
569.3	PLEISTOCENE		UNCONSOLIDATED	10.0	20.0	SANDY BROWN
559.3	PLEISTOCENE		UNCONSOLIDATED	30.0	30.0	SANDY GRAY
529.3	CARBONDALE		GRAY SHALE	4.4	60.0	
524.9	CARBONDALE		LIMESTONE	2.6	64.4	WHITE

MAPID: 00990015000C VERSION: 1

PROJECT: NCRDS02

COUNTY: BROWN TWP/RNG: 1N 2W SECTION: 31 QUARTERS/FOOTAGES: 1' S line, 1' E line of SE NE
 QUADRANGLE: RIPLEY LONGITUDE: -90.663486 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 40.023094 DATE COLLECTED: 8 / 15 / 1941
 SURFACE ELEVATION (FT.): 575.0 LOGGED (FT.): 32.5 LOG TYPE: Drillers Log
 SOURCE: AMAX EP109 WELL TYPE: Coal Test
 COMMENT: RIPLEY BOX 27

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
575.0	PLEISTOCENE		UNCONSOLIDATED	13.0	0.0	
562.0	PLEISTOCENE		BOULDER	0.5	13.0	
561.5	PLEISTOCENE		CLAY	7.0	13.5	
554.5	CARBONDALE		SANDSTONE	0.5	20.5	
554.0	CARBONDALE		SHALE	5.0	21.0	
549.0	CARBONDALE		SANDSTONE	2.0	26.0	SOFT
547.0	CARBONDALE		UNDERCLAY	4.0	28.0	NO COAL
543.0	CARBONDALE		LIMESTONE	0.5	32.0	

MAPID: 00990029000C VERSION: 1

PROJECT: NCRDS02

COUNTY: BROWN TWP/RNG: 1N 2W SECTION: 31 QUARTERS/FOOTAGES: 660' S line, 660' E line of SW NE
 QUADRANGLE: RIPLEY LONGITUDE: -90.67061 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 40.024956 DATE COLLECTED: 6 / 6 / 1977
 SURFACE ELEVATION (FT.): 588.2 LOGGED (FT.): 97.0 LOG TYPE: Drillers Log
 SOURCE: AMAX EP131 WELL TYPE: Coal Test
 COMMENT: RILEY BOX 27

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
588.2	PLEISTOCENE		UNCONSOLIDATED	8.0	0.0	
580.2	PLEISTOCENE		CLAY	9.0	8.0	
571.2	PLEISTOCENE		CLAY	13.0	17.0	SANDY
558.2	PLEISTOCENE		UNCONSOLIDATED	53.0	30.0	
505.2	CARBONDALE		BROWN LIMESTONE	5.8	83.0	
499.4	CARBONDALE		GRAY SHALE	0.7	88.8	
498.7	CARBONDALE		BROWN LIMESTONE	7.5	89.5	

MAPID: 00990030000C VERSION: 1

PROJECT: NCRDS02

COUNTY: BROWN TWP/RNG: 1N 2W SECTION: 31 QUARTERS/FOOTAGES: 668' S line, 1' E line of SW NE

QUADRANGLE: RIPLEY LONGITUDE: -90.668245 GEOLOGIST: STRAAYER

CONFIDENTIAL: N LATITUDE: 40.024963 DATE COLLECTED: 6 / 6 / 1977

SURFACE ELEVATION (FT.): 591.3 LOGGED (FT.): 91.0 LOG TYPE: Drillers Log

SOURCE: AMAX EP132 WELL TYPE: Coal Test

COMMENT: RILEY BOX 27

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
591.3	PLEISTOCENE		UNCONSOLIDATED	22.6	0.0	
568.7	PLEISTOCENE		UNCONSOLIDATED	10.9	22.6	
557.8	PLEISTOCENE		CLAY	32.5	33.5	
525.3	PLEISTOCENE		UNCONSOLIDATED	3.7	66.0	
521.6	CARBONDALE		MICACEOUS SHALE	12.1	69.7	SOFT
509.5	CARBONDALE		LIMESTONE	6.2	81.8	SOFT
503.3	CARBONDALE		SHALE	1.7	88.0	
501.6	CARBONDALE		LIMESTONE	1.3	89.7	

MAPID: 00990031000C VERSION: 1

PROJECT: NCRDS02

COUNTY: BROWN TWP/RNG: 1N 2W SECTION: 31 QUARTERS/FOOTAGES: 668' S line, 671' E line of SE NE

QUADRANGLE: RIPLEY LONGITUDE: -90.665879 GEOLOGIST: STRAAYER

CONFIDENTIAL: N LATITUDE: 40.024947 DATE COLLECTED: 6 / 6 / 1977

SURFACE ELEVATION (FT.): 579.1 LOGGED (FT.): 65.0 LOG TYPE: Drillers Log

SOURCE: AMAX EP133 WELL TYPE: Coal Test

COMMENT: RILEY BOX 27

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
579.1	PLEISTOCENE		UNCONSOLIDATED	14.0	0.0	
565.1	PLEISTOCENE		UNCONSOLIDATED	6.0	14.0	
559.1	PLEISTOCENE		SAND & GRAVEL	25.0	20.0	
534.1	CARBONDALE		SANDSTONE	5.0	45.0	
529.1	CARBONDALE		LIMESTONE	15.0	50.0	

MAPID: 00990033000C VERSION: 1

PROJECT: NCRDS02

COUNTY: BROWN TWP/RNG: 1N 2W SECTION: 31 QUARTERS/FOOTAGES: 90' S line, 945' W line of NW NE
 QUADRANGLE: RIPLEY LONGITUDE: -90.669604 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 40.027049 DATE COLLECTED: 6 / 3 / 1976
 SURFACE ELEVATION (FT.): 590.8 LOGGED (FT.): 68.0 LOG TYPE: Drillers Log
 SOURCE: AMAX EP156BC WELL TYPE: Coal Test
 COMMENT: RIPLEY BOX 27

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
590.8	PLEISTOCENE		CLAY	10.0	0.0
580.8	PLEISTOCENE		UNCONSOLIDATED	54.0	10.0
526.8	CARBONDALE		GRAY SHALE	4.0	64.0

MAPID: 00990034000C VERSION: 1

PROJECT: NCRDS02

COUNTY: BROWN TWP/RNG: 1N 2W SECTION: 31 QUARTERS/FOOTAGES: 10' S line, 0' W line of NE NE
 QUADRANGLE: RIPLEY LONGITUDE: -90.668229 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 40.026817 DATE COLLECTED: 8 / 27 / 1975
 SURFACE ELEVATION (FT.): 588.5 LOGGED (FT.): 53.0 LOG TYPE: Drillers Log
 SOURCE: AMAX EP157 WELL TYPE: Coal Test
 COMMENT: RIPLEY BOX 27

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
588.5	PLEISTOCENE		UNCONSOLIDATED	17.0	0.0
571.5	PLEISTOCENE		SAND & GRAVEL	6.0	17.0
565.5	PLEISTOCENE		CLAY	7.0	23.0
558.5	PLEISTOCENE		CLAY	10.0	30.0
548.5	CARBONDALE		DARK SHALE	5.0	40.0
543.5	CARBONDALE		LIMESTONE	0.7	45.0
542.8	CARBONDALE		BLACK SHALE	1.8	45.7
541.0	CARBONDALE		SHALE	1.8	47.5
539.2	CARBONDALE	COLCHESTER	COAL	2.0	49.3
537.2	CARBONDALE		UNDERCLAY	1.7	51.3

MAPID: 00990035000C VERSION: 1

PROJECT: NCRDS02

COUNTY: BROWN TWP/RNG: 1N 2W SECTION: 31 QUARTERS/FOOTAGES: 20' S line, 685' E line of NE NE

QUADRANGLE: RIPLEY LONGITUDE: -90.665917 GEOLOGIST: STRAAYER

CONFIDENTIAL: N LATITUDE: 40.026829 DATE COLLECTED: 8 / 27 / 1975

SURFACE ELEVATION (FT.): 572.6 LOGGED (FT.): 36.0 LOG TYPE: Drillers Log

SOURCE: AMAX EP158 WELL TYPE: Coal Test

COMMENT: RIPLEY CORED BOX 27

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
572.6	PLEISTOCENE		UNCONSOLIDATED	12.0	0.0
560.6	PLEISTOCENE		CLAY	8.7	12.0
551.9	PLEISTOCENE		CLAY	3.3	20.7
548.6	CARBONDALE		BLACK SHALE	2.0	24.0
546.6	CARBONDALE		SHALE	6.7	26.0
539.9	CARBONDALE	COLCHESTER	COAL	1.5	32.7
538.4	CARBONDALE		UNDERCLAY	1.8	34.2

MAPID: 00990036000C VERSION: 1

PROJECT: NCRDS02

COUNTY: BROWN TWP/RNG: 1N 2W SECTION: 31 QUARTERS/FOOTAGES: 30' S line, 635' W line of NE NE

QUADRANGLE: RIPLEY LONGITUDE: -90.66595 GEOLOGIST: STRAAYER

CONFIDENTIAL: N LATITUDE: 40.026856 DATE COLLECTED: 8 / 27 / 1975

SURFACE ELEVATION (FT.): 572.6 LOGGED (FT.): 37.0 LOG TYPE: Drillers Log

SOURCE: AMAX EP158 WELL TYPE: Coal Test

COMMENT: RIPLEY BOX 27

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
572.6	PLEISTOCENE		UNCONSOLIDATED	12.0	0.0
560.6	PLEISTOCENE		CLAY	9.0	12.0
551.6	PLEISTOCENE		CLAY	1.3	21.0
550.3	CARBONDALE		BLACK SHALE	4.7	22.3
545.6	CARBONDALE		SHALE	5.8	27.0
539.8	CARBONDALE	COLCHESTER	COAL	1.9	32.8
537.9	CARBONDALE		UNDERCLAY	2.3	34.7

MAPID: 00990037000C VERSION: 1

PROJECT: NCRDS02

COUNTY: BROWN TWP/RNG: 1N 2W SECTION: 31 QUARTERS/FOOTAGES: 15' S line, 1' E line of NE NE
 QUADRANGLE: RIPLEY LONGITUDE: -90.663461 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 40.026798 DATE COLLECTED: 8 / 15 / 1975
 SURFACE ELEVATION (FT.): 583.1 LOGGED (FT.): 44.0 LOG TYPE: Drillers Log
 SOURCE: AMAX EP159 WELL TYPE: Coal Test
 COMMENT: RIPLEY BOX 27

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
583.1	PLEISTOCENE		UNCONSOLIDATED	16.0	0.0	
567.1	PLEISTOCENE		SAND/CLAY	7.0	16.0	
560.1	PLEISTOCENE		CLAY	13.0	23.0	
547.1	CARBONDALE		DARK SHALE	1.0	36.0	SOFT
546.1	CARBONDALE		LIMESTONE	0.5	37.0	
545.6	CARBONDALE	MECCA QUARRY	BLACK SHALE	2.8	37.5	
542.8	CARBONDALE	COLCHESTER	COAL	1.7	40.3	
541.1	CARBONDALE		UNDERCLAY	2.0	42.0	

MAPID: 00990040000C VERSION: 1

PROJECT: NCRDS02

COUNTY: BROWN TWP/RNG: 1N 2W SECTION: 31 QUARTERS/FOOTAGES: 1030' S line, 200' W line of NW NE
 QUADRANGLE: RIPLEY LONGITUDE: -90.672258 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 40.029659 DATE COLLECTED: 6 / 2 / 1976
 SURFACE ELEVATION (FT.): 576.8 LOGGED (FT.): 48.0 LOG TYPE: Drillers Log
 SOURCE: AMAX EP180H WELL TYPE: Coal Test
 COMMENT: RIPLEY BOX 27

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
576.8	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0	
566.8	PLEISTOCENE		UNCONSOLIDATED	20.0	10.0	
546.8	CARBONDALE		GRAY SHALE	7.0	30.0	
539.8	CARBONDALE		BLACK SHALE	1.0	37.0	
538.8	CARBONDALE		GRAY SHALE	6.0	38.0	
532.8	CARBONDALE	COLCHESTER	COAL	1.8	44.0	
531.0	CARBONDALE		UNDERCLAY	2.2	45.8	

MAPID: 00990041000C VERSION: 1

PROJECT: NCRDS02

COUNTY: BROWN TWP/RNG: 1N 2W SECTION: 31 QUARTERS/FOOTAGES: 660' N line, 660' W line of NW NE
 QUADRANGLE: RIPLEY LONGITUDE: -90.670615 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 40.028657 DATE COLLECTED: 6 / 3 / 1976
 SURFACE ELEVATION (FT.): 587.4 LOGGED (FT.): 58.0 LOG TYPE: Drillers Log
 SOURCE: AMAX EP181 WELL TYPE: Coal Test
 COMMENT: RIPLEY BOX 27

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
587.4	PLEISTOCENE		CLAY	10.0	0.0
577.4	PLEISTOCENE		UNCONSOLIDATED	8.0	10.0
569.4	PLEISTOCENE		SAND & GRAVEL	10.0	18.0
559.4	PLEISTOCENE		UNCONSOLIDATED	10.0	28.0
549.4	CARBONDALE		GRAY SHALE	5.0	38.0
544.4	CARBONDALE		LIMESTONE	1.0	43.0
543.4	CARBONDALE		BLACK SHALE	1.0	44.0
542.4	CARBONDALE		GRAY SHALE	1.0	45.0
541.4	CARBONDALE	COLCHESTER	COAL	1.8	46.0
539.6	CARBONDALE		UNDERCLAY	1.2	47.8
538.4	CARBONDALE		GRAY SHALE	9.0	49.0

MAPID: 00990042000C VERSION: 1

PROJECT: NCRDS02

COUNTY: BROWN TWP/RNG: 1N 2W SECTION: 31 QUARTERS/FOOTAGES: 990' S line, 1072' W line of NE NE
 QUADRANGLE: RIPLEY LONGITUDE: -90.66436 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 40.029494 DATE COLLECTED: 8 / 14 / 1975
 SURFACE ELEVATION (FT.): 562.1 LOGGED (FT.): 29.6 LOG TYPE: Drillers Log
 SOURCE: AMAX EP183AP WELL TYPE: Coal Test
 COMMENT: RIPLEY BOX 27

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
562.1	PLEISTOCENE		UNCONSOLIDATED	14.3	0.0
547.8	CARBONDALE		SANDSTONE	2.1	14.3
545.7	CARBONDALE		DARK SHALE	9.0	16.4
536.7	CARBONDALE		LIMESTONE	0.6	25.4
536.1	CARBONDALE	MECCA QUARRY	BLACK SHALE	2.0	26.0
534.1	CARBONDALE	COLCHESTER	COAL	1.6	28.0
532.5	CARBONDALE		UNDERCLAY	1.4	29.6

MAPID: 00990043000C VERSION: 1

PROJECT: NCRDS02

COUNTY: BROWN TWP/RNG: 1N 2W SECTION: 31 QUARTERS/FOOTAGES: 825' S line, 1072' W line of NE NE
 QUADRANGLE: RIPLEY LONGITUDE: -90.664364 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 40.029039 DATE COLLECTED: 8 / 14 / 1975
 SURFACE ELEVATION (FT.): 561.0 LOGGED (FT.): 34.0 LOG TYPE: Drillers Log
 SOURCE: AMAX EP183LB WELL TYPE: Coal Test
 COMMENT: RIPLEY BOX 27

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
561.0	PLEISTOCENE		UNCONSOLIDATED	15.1	0.0
545.9	CARBONDALE		SANDSTONE	2.2	15.1
543.7	CARBONDALE		DARK SHALE	10.2	17.3
533.5	CARBONDALE		LIMESTONE	0.8	27.5
532.7	CARBONDALE	MECCA QUARRY	BLACK SHALE	2.7	28.3
530.0	CARBONDALE	COLCHESTER	COAL	2.0	31.0
528.0	CARBONDALE		UNDERCLAY	1.0	33.0

MAPID: 00990055000C VERSION: 1

PROJECT: NCRDS02

COUNTY: BROWN TWP/RNG: 1N 2W SECTION: 31 QUARTERS/FOOTAGES: 10' N line, 0' W line of NE NE
 QUADRANGLE: RIPLEY LONGITUDE: -90.6682 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 40.030433 DATE COLLECTED: 6 / 3 / 1976
 SURFACE ELEVATION (FT.): 590.2 LOGGED (FT.): 68.0 LOG TYPE: Drillers Log
 SOURCE: AMAX EP207 WELL TYPE: Coal Test
 COMMENT: RIPLEY BOX 27

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
590.2	PLEISTOCENE		CLAY	10.0	0.0
580.2	PLEISTOCENE		UNCONSOLIDATED	14.0	10.0
566.2	CARBONDALE		GRAY SHALE	20.0	24.0
546.2	CARBONDALE		LIMESTONE	2.0	44.0
544.2	CARBONDALE		DARK SHALE	7.0	46.0
537.2	CARBONDALE		LIMESTONE	1.0	53.0
536.2	CARBONDALE		BLACK SHALE	1.0	54.0
535.2	CARBONDALE		GRAY SHALE	6.5	55.0
528.7	CARBONDALE	COLCHESTER	COAL	1.8	61.5
526.9	CARBONDALE		UNDERCLAY	1.7	63.3
525.2	CARBONDALE		GRAY SHALE	3.0	65.0

MAPID: 00990056000C VERSION: 1

PROJECT: NCRDS02

COUNTY: BROWN TWP/RNG: 1N 2W SECTION: 31 QUARTERS/FOOTAGES: 15' N line, 590' W line of NE NE
 QUADRANGLE: RIPLEY LONGITUDE: -90.666085 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 40.030402 DATE COLLECTED: 6 / 1 / 1976
 SURFACE ELEVATION (FT.): 556.8 LOGGED (FT.): 58.0 LOG TYPE: Drillers Log
 SOURCE: AMAX EP208 WELL TYPE: Coal Test
 COMMENT: RIPLEY BOX 27

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
556.8	PLEISTOCENE		CLAY	10.0	0.0
546.8	PLEISTOCENE		UNCONSOLIDATED	18.0	10.0
528.8	CARBONDALE		GRAY SHALE	3.0	28.0
525.8	CARBONDALE		LIMESTONE	2.5	31.0
523.3	CARBONDALE		DARK SHALE	10.5	33.5
512.8	CARBONDALE		LIMESTONE	1.0	44.0
511.8	CARBONDALE	MECCA QUARRY	BLACK SHALE	1.0	45.0
510.8	CARBONDALE	COLCHESTER	COAL	2.0	46.0
508.8	CARBONDALE		UNDERCLAY	2.0	48.0
506.8	CARBONDALE		GRAY SHALE	8.0	50.0

MAPID: 00921998000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 2W SECTION: 32 QUARTERS/FOOTAGES: 1' S line, 1' W line
 QUADRANGLE: RIPLEY LONGITUDE: -90.663529 GEOLOGIST: KOROSE
 CONFIDENTIAL: N LATITUDE: 40.015757 DATE COLLECTED: 9 / 27 / 1967
 SURFACE ELEVATION (FT.): 592.0 LOGGED (FT.): 56.0 LOG TYPE: Drillers Log
 SOURCE: PITTSBURG & MIDWAY 35-W WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
592.0	PLEISTOCENE		CLAY	26.0	0.0
566.0	PLEISTOCENE		SAND & GRAVEL	11.0	26.0
555.0	PLEISTOCENE		SAND	19.0	37.0

MAPID: 0099000000C VERSION: 1

PROJECT: NCRDS02

COUNTY: BROWN TWP/RNG: 1N 2W SECTION: 32 QUARTERS/FOOTAGES: 39' S line, 24' W line of SW SW

QUADRANGLE: RIPLEY LONGITUDE: -90.663448 GEOLOGIST: STRAAYER

CONFIDENTIAL: N LATITUDE: 40.015863 DATE COLLECTED: 6 / 3 / 1977

SURFACE ELEVATION (FT.): 597.8 LOGGED (FT.): 137.0 LOG TYPE: Drillers Log

SOURCE: AMAX EP9XX WELL TYPE: Coal Test

COMMENT: RIPLEY BOX 27

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
597.8	PLEISTOCENE		UNCONSOLIDATED	8.0	0.0	
589.8	PLEISTOCENE		CLAY	18.0	8.0	BROWN
571.8	PLEISTOCENE		CLAY	8.0	26.0	GRAY
563.8	PLEISTOCENE		UNCONSOLIDATED	61.7	34.0	
502.1	CARBONDALE		LIMESTONE	10.3	95.7	WHITE
491.8	CARBONDALE		GRAY SHALE	2.3	106.0	
489.5	CARBONDALE		BROWN LIMESTONE	6.7	108.3	
482.8	CARBONDALE		GRAY SANDSTONE	3.0	115.0	
479.8	CARBONDALE		LIMESTONE	0.5	118.0	
479.3	CARBONDALE		GRAY SANDSTONE	7.0	118.5	
472.3	CARBONDALE		GRAY SHALE	11.5	125.5	

MAPID: 00990001000C VERSION: 1

PROJECT: NCRDS02

COUNTY: BROWN TWP/RNG: 1N 2W SECTION: 32 QUARTERS/FOOTAGES: 37' S line, 1' E line of SW SW

QUADRANGLE: RIPLEY LONGITUDE: -90.658705 GEOLOGIST: STRAAYER

CONFIDENTIAL: N LATITUDE: 40.015827 DATE COLLECTED: 6 / 3 / 1977

SURFACE ELEVATION (FT.): 585.1 LOGGED (FT.): 80.0 LOG TYPE: Drillers Log

SOURCE: AMAX EP11ZZ WELL TYPE: Coal Test

COMMENT: RIPLEY BOX 27

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
585.1	PLEISTOCENE		UNCONSOLIDATED	8.0	0.0	
577.1	PLEISTOCENE		CLAY	6.0	8.0	GRAY
571.1	PLEISTOCENE		CLAY	3.0	14.0	BROWN
568.1	PLEISTOCENE		SAND & GRAVEL	6.0	17.0	
562.1	PLEISTOCENE		UNCONSOLIDATED	32.0	23.0	
530.1	CARBONDALE		SANDY SHALE	4.5	55.0	
525.6	CARBONDALE		LIMESTONE	2.0	59.5	
523.6	CARBONDALE		SANDY SHALE	3.0	61.5	
520.6	CARBONDALE		GRAY SANDSTONE	2.5	64.5	
518.1	CARBONDALE		LIMESTONE & SHALE	6.0	67.0	
512.1	CARBONDALE		LIMESTONE	7.0	73.0	

MAPID: 00990002000C VERSION: 1

PROJECT: NCRDS02

COUNTY: BROWN TWP/RNG: 1N 2W SECTION: 32 QUARTERS/FOOTAGES: 42' S line, 648' E line of SE SW
 QUADRANGLE: RIPLEY LONGITUDE: -90.656196 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 40.015824 DATE COLLECTED: 6 / 3 / 1977
 SURFACE ELEVATION (FT.): 580.9 LOGGED (FT.): 58.0 LOG TYPE: Drillers Log
 SOURCE: AMAX EP12ZZ WELL TYPE: Coal Test
 COMMENT: RIPLEY BOX 27

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
580.9	PLEISTOCENE		UNCONSOLIDATED	21.0	0.0	
559.9	PLEISTOCENE		UNCONSOLIDATED	18.0	21.0	
541.9	CARBONDALE		LIMESTONE	4.5	39.0	
537.4	CARBONDALE		SANDY SHALE	14.5	43.5	

MAPID: 00990003000C VERSION: 1

PROJECT: NCRDS02

COUNTY: BROWN TWP/RNG: 1N 2W SECTION: 32 QUARTERS/FOOTAGES: 44' S line, 2' W line of SW SE
 QUADRANGLE: RIPLEY LONGITUDE: -90.653863 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 40.015814 DATE COLLECTED: 6 / 2 / 1977
 SURFACE ELEVATION (FT.): 577.5 LOGGED (FT.): 58.0 LOG TYPE: Drillers Log
 SOURCE: AMAX EP13ZZ WELL TYPE: Coal Test
 COMMENT: RIPLEY BOX 27

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
577.5	PLEISTOCENE		UNCONSOLIDATED	23.0	0.0	
554.5	PLEISTOCENE		UNCONSOLIDATED	9.3	23.0	
545.2	CARBONDALE		COAL	2.0	32.3	TOP ERODED
543.2	CARBONDALE		UNDERCLAY	2.7	34.3	
540.5	CARBONDALE		MICACEOUS SHALE	2.5	37.0	
538.0	CARBONDALE		LIMESTONE	5.0	39.5	
533.0	CARBONDALE		MICACEOUS SHALE	13.5	44.5	

MAPID: 00990004000C VERSION: 1

PROJECT: NCRDS02

COUNTY: BROWN TWP/RNG: 1N 2W SECTION: 32 QUARTERS/FOOTAGES: 39' S line, 0' W line of SE SE
 QUADRANGLE: RIPLEY LONGITUDE: -90.649041 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 40.015769 DATE COLLECTED: 6 / 2 / 1977
 SURFACE ELEVATION (FT.): 568.0 LOGGED (FT.): 68.0 LOG TYPE: Drillers Log
 SOURCE: AMAX EP15 WELL TYPE: Coal Test
 COMMENT: RIPLEY BOX 27

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
568.0	PLEISTOCENE		UNCONSOLIDATED	34.0	0.0
534.0	PLEISTOCENE		CLAY	9.0	34.0
525.0	PLEISTOCENE		SAND & GRAVEL	2.0	43.0
523.0	CARBONDALE		MICACEOUS SHALE	9.0	45.0
514.0	CARBONDALE		DARK SHALE	5.2	54.0
508.8	CARBONDALE	COLCHESTER	COAL	2.0	59.2
506.8	CARBONDALE		UNDERCLAY	0.3	61.2
506.5	CARBONDALE		LIMESTONE	1.5	61.5
505.0	CARBONDALE		SANDY SHALE	5.0	63.0

MAPID: 00990005000C VERSION: 1

PROJECT: NCRDS02

COUNTY: BROWN TWP/RNG: 1N 2W SECTION: 32 QUARTERS/FOOTAGES: 40' S line, 13' E line of SE SE
 QUADRANGLE: RIPLEY LONGITUDE: -90.644256 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 40.015739 DATE COLLECTED: 6 / 3 / 1977
 SURFACE ELEVATION (FT.): 569.3 LOGGED (FT.): 61.0 LOG TYPE: Drillers Log
 SOURCE: AMAX EP17ZZ WELL TYPE: Coal Test
 COMMENT: RIPLEY BOX 27

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
569.3	PLEISTOCENE		UNCONSOLIDATED	11.0	0.0
558.3	PLEISTOCENE		CLAY	24.5	11.0
533.8	CARBONDALE		GRAY SHALE	15.0	35.5
518.8	CARBONDALE	MECCA QUARRY	BLACK SHALE	1.6	50.5
517.2	CARBONDALE	COLCHESTER	COAL	1.5	52.1
515.7	CARBONDALE		GRAY SHALE	2.0	53.6
513.7	CARBONDALE		SANDSTONE	5.4	55.6

MAPID: 00990006000C VERSION: 1

PROJECT: NCRDS02

COUNTY: BROWN TWP/RNG: 1N 2W SECTION: 32 QUARTERS/FOOTAGES: 6' N line, 6' W line of SW SW
 QUADRANGLE: RIPLEY LONGITUDE: -90.663489 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 40.019407 DATE COLLECTED: 6 / 6 / 1977
 SURFACE ELEVATION (FT.): 588.8 LOGGED (FT.): 107.0 LOG TYPE: Drillers Log
 SOURCE: AMAX EP59 WELL TYPE: Coal Test
 COMMENT: RIPLEY BOX 27

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
588.8	PLEISTOCENE		UNCONSOLIDATED	8.0	0.0
580.8	PLEISTOCENE		CLAY	23.0	8.0
557.8	PLEISTOCENE		UNCONSOLIDATED	64.0	31.0
493.8	CARBONDALE		GRAY SANDSTONE	3.0	95.0
490.8	CARBONDALE		GRAY SHALE	9.0	98.0

MAPID: 00990007000C VERSION: 1

PROJECT: NCRDS02

COUNTY: BROWN TWP/RNG: 1N 2W SECTION: 32 QUARTERS/FOOTAGES: 17' S line, 1317' E line of NE SW
 QUADRANGLE: RIPLEY LONGITUDE: -90.658575 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 40.019436 DATE COLLECTED: 6 / 3 / 1977
 SURFACE ELEVATION (FT.): 583.2 LOGGED (FT.): 58.0 LOG TYPE: Drillers Log
 SOURCE: AMAX EP61 WELL TYPE: Coal Test
 COMMENT: BOX 27

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
583.2	PLEISTOCENE		UNCONSOLIDATED	19.0	0.0
564.2	PLEISTOCENE		UNCONSOLIDATED	23.8	19.0
540.4	CARBONDALE	COLCHESTER	COAL	1.4	42.8 TOP ERODED
539.0	CARBONDALE		UNDERCLAY	1.8	44.2
537.2	CARBONDALE		MICACEOUS SHALE	3.0	46.0
534.2	CARBONDALE		LIMESTONE	4.5	49.0
529.7	CARBONDALE		MICACEOUS SHALE	4.5	53.5

MAPID: 00990008000C VERSION: 1

PROJECT: NCRDS02

COUNTY: BROWN TWP/RNG: 1N 2W SECTION: 32 QUARTERS/FOOTAGES: 8' S line, 0' E line of NE SW
 QUADRANGLE: RIPLEY LONGITUDE: -90.653846 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 40.019377 DATE COLLECTED: 6 / 6 / 1977
 SURFACE ELEVATION (FT.): 582.0 LOGGED (FT.): 52.0 LOG TYPE: Drillers Log
 SOURCE: AMAX EP63 WELL TYPE: Coal Test
 COMMENT: RIPLEY BOX 27

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
582.0	PLEISTOCENE		UNCONSOLIDATED	24.0	0.0
558.0	PLEISTOCENE		SAND & GRAVEL	2.0	24.0
556.0	PLEISTOCENE		UNCONSOLIDATED	3.0	26.0
553.0	PLEISTOCENE		CLAY	7.0	29.0
546.0	CARBONDALE		DARK SHALE	1.0	36.0
545.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	2.6	37.0
542.4	CARBONDALE	COLCHESTER	COAL	1.6	39.6
540.8	CARBONDALE		UNDERCLAY	1.8	41.2
539.0	CARBONDALE		GRAY SHALE	3.5	43.0
535.5	CARBONDALE		LIMESTONE	5.5	46.5

MAPID: 00990009000C VERSION: 1

PROJECT: NCRDS02

COUNTY: BROWN TWP/RNG: 1N 2W SECTION: 32 QUARTERS/FOOTAGES: 1318' S line, 11' E line of NW SE
 QUADRANGLE: RIPLEY LONGITUDE: -90.64903 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 40.022957 DATE COLLECTED: 6 / 6 / 1977
 SURFACE ELEVATION (FT.): 557.1 LOGGED (FT.): 28.0 LOG TYPE: Drillers Log
 SOURCE: AMAX DP65 WELL TYPE: Coal Test
 COMMENT: RIPLEY BOX 27

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
557.1	PLEISTOCENE		UNCONSOLIDATED	17.0	0.0
540.1	PLEISTOCENE		CLAY	1.0	17.0
539.1	PLEISTOCENE		SAND & GRAVEL	3.0	18.0
536.1	CARBONDALE		LIMESTONE	3.5	21.0
532.6	CARBONDALE		MICACEOUS SHALE	3.5	24.5

MAPID: 00990010000C VERSION: 1

PROJECT: NCRDS02

COUNTY: BROWN TWP/RNG: 1N 2W SECTION: 32 QUARTERS/FOOTAGES: 1320' S line, 20' E line of SE SE

QUADRANGLE: RIPLEY LONGITUDE: -90.644256 GEOLOGIST: STRAAYER

CONFIDENTIAL: N LATITUDE: 40.019271 DATE COLLECTED: 6 / 2 / 1977

SURFACE ELEVATION (FT.): 587.5 LOGGED (FT.): 78.0 LOG TYPE: Drillers Log

SOURCE: AMAX EP67 WELL TYPE: Coal Test

COMMENT: RIPLEY BOX 27

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
587.5	PLEISTOCENE		UNCONSOLIDATED	30.0	0.0
557.5	PLEISTOCENE		UNCONSOLIDATED	5.0	30.0
552.5	PLEISTOCENE		CLAY	11.5	35.0
541.0	CARBONDALE		LIMESTONE	4.5	46.5
536.5	CARBONDALE		GRAY SHALE	16.0	51.0
520.5	CARBONDALE		DARK SHALE	0.7	67.0
519.8	CARBONDALE	COLCHESTER	COAL	2.2	67.7
517.6	CARBONDALE		UNDERCLAY	1.1	69.9
516.5	CARBONDALE		LIMESTONE	2.0	71.0
514.5	CARBONDALE		SANDY SHALE	4.0	73.0
510.5	CARBONDALE		LIMESTONE	1.0	77.0

MAPID: 00990011000C VERSION: 1

PROJECT: NCRDS02

COUNTY: BROWN TWP/RNG: 1N 2W SECTION: 32 QUARTERS/FOOTAGES: 179' N line, 41' E line of NE SE

QUADRANGLE: RIPLEY LONGITUDE: -90.644312 GEOLOGIST: STRAAYER

CONFIDENTIAL: N LATITUDE: 40.022448 DATE COLLECTED: 6 / 7 / 1977

SURFACE ELEVATION (FT.): 568.0 LOGGED (FT.): 58.0 LOG TYPE: Drillers Log

SOURCE: AMAX EP91GP WELL TYPE: Coal Test

COMMENT: RIPLEY BOX 27

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
568.0	PLEISTOCENE		UNCONSOLIDATED	26.0	0.0
542.0	PLEISTOCENE		CLAY	4.0	26.0
538.0	CARBONDALE		GRAY SHALE	10.0	30.0
528.0	CARBONDALE		DARK SHALE	2.0	40.0
526.0	CARBONDALE	COLCHESTER	COAL	1.7	42.0
524.3	CARBONDALE		UNDERCLAY	1.3	43.7
523.0	CARBONDALE		SANDY SHALE	11.0	45.0
512.0	CARBONDALE		LIMESTONE	2.0	56.0

MAPID: 00990016000C VERSION: 1

PROJECT: NCRDS02

COUNTY: BROWN TWP/RNG: 1N 2W SECTION: 32 QUARTERS/FOOTAGES: 0' S line, 990' E line of SW NW
 QUADRANGLE: RIPLEY LONGITUDE: -90.662207 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 40.023079 DATE COLLECTED: 8 / 12 / 1975
 SURFACE ELEVATION (FT.): 583.9 LOGGED (FT.): 57.0 LOG TYPE: Drillers Log
 SOURCE: AMAX EP109B WELL TYPE: Coal Test
 COMMENT: RIPLEY BOX 27

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
583.9	PLEISTOCENE		UNCONSOLIDATED	29.0	0.0
554.9	CARBONDALE		DARK SHALE	6.5	29.0
548.4	CARBONDALE		SANDSTONE	2.5	35.5
545.9	CARBONDALE		DARK SHALE	7.7	38.0
538.2	CARBONDALE		LIMESTONE	0.5	45.7
537.7	CARBONDALE		BLACK SHALE	2.8	46.2
534.9	CARBONDALE		GRAY SHALE	4.0	49.0
530.9	CARBONDALE	COLCHESTER	COAL	2.1	53.0
528.8	CARBONDALE		UNDERCLAY	1.9	55.1

MAPID: 00990017000C VERSION: 1

PROJECT: NCRDS02

COUNTY: BROWN TWP/RNG: 1N 2W SECTION: 32 QUARTERS/FOOTAGES: 0' S line, 512' E line of SW NW
 QUADRANGLE: RIPLEY LONGITUDE: -90.660491 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 40.023068 DATE COLLECTED: 8 / 12 / 1975
 SURFACE ELEVATION (FT.): 571.3 LOGGED (FT.): 14.0 LOG TYPE: Drillers Log
 SOURCE: AMAX EP110 WELL TYPE: Coal Test
 COMMENT: RIPLEY BOX 27

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
571.3	PLEISTOCENE		UNCONSOLIDATED	5.0	0.0
566.3	CARBONDALE		BLACK SHALE	1.2	5.0
565.1	CARBONDALE		GRAY SHALE	3.7	6.2
561.4	CARBONDALE	COLCHESTER	COAL	2.2	9.9
559.2	CARBONDALE		UNDERCLAY	1.9	12.1

MAPID: 00990018000C VERSION: 1

PROJECT: NCRDS02

COUNTY: BROWN TWP/RNG: 1N 2W SECTION: 32 QUARTERS/FOOTAGES: 337' S line, 335' E line of SW NW
 QUADRANGLE: RIPLEY LONGITUDE: -90.65985 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 40.023991 DATE COLLECTED: 8 / 18 / 1975
 SURFACE ELEVATION (FT.): 559.0 LOGGED (FT.): 26.0 LOG TYPE: Drillers Log
 SOURCE: AMAX EP110A WELL TYPE: Coal Test
 COMMENT: RIPLEY BOX 27

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
559.0	PLEISTOCENE		UNCONSOLIDATED	4.0	0.0	
555.0	PLEISTOCENE		UNCONSOLIDATED	3.0	4.0	
552.0	CARBONDALE		DARK SHALE	7.3	7.0	SOFT
544.7	CARBONDALE		SANDSTONE	0.6	14.3	
544.1	CARBONDALE		BLACK SHALE	1.6	14.9	
542.5	CARBONDALE		DARK SHALE	2.5	16.5	
540.0	CARBONDALE		GRAY SHALE	3.0	19.0	
537.0	CARBONDALE	COLCHESTER	COAL	2.2	22.0	
534.8	CARBONDALE		UNDERCLAY	1.8	24.2	

MAPID: 00990019000C VERSION: 1

PROJECT: NCRDS02

COUNTY: BROWN TWP/RNG: 1N 2W SECTION: 32 QUARTERS/FOOTAGES: 330' S line, 660' E line of SW NW
 QUADRANGLE: RIPLEY LONGITUDE: -90.661016 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 40.023982 DATE COLLECTED: 8 / 18 / 1975
 SURFACE ELEVATION (FT.): 540.2 LOGGED (FT.): 28.0 LOG TYPE: Drillers Log
 SOURCE: AMAX EP110C WELL TYPE: Coal Test
 COMMENT: RIPLEY BOX 27

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
540.2	PLEISTOCENE		UNCONSOLIDATED	6.3	0.0	
533.9	CARBONDALE		LIMESTONE	2.4	6.3	
531.5	CARBONDALE		UNDERCLAY	7.3	8.7	NO COAL
524.2	CARBONDALE		MICACEOUS SHALE	12.0	16.0	(MUD)

MAPID: 00990020000C VERSION: 1

PROJECT: NCRDS02

COUNTY: BROWN TWP/RNG: 1N 2W SECTION: 32 QUARTERS/FOOTAGES: 330' S line, 578' E line of SW NW
 QUADRANGLE: RIPLEY LONGITUDE: -90.660722 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 40.02398 DATE COLLECTED: 8 / 19 / 1975
 SURFACE ELEVATION (FT.): 541.9 LOGGED (FT.): 8.0 LOG TYPE: Drillers Log
 SOURCE: AMAX EP110CB WELL TYPE: Coal Test
 COMMENT: RIPLEY BOX 27

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
541.9	PLEISTOCENE		UNCONSOLIDATED	4.0	0.0	
537.9	PLEISTOCENE		UNCONSOLIDATED	2.4	4.0	
535.5	CARBONDALE	COLCHESTER	COAL	0.6	6.4	SHELLY; TOP ERODED
534.9	CARBONDALE		UNDERCLAY	1.0	7.0	

MAPID: 00990021000C VERSION: 1

PROJECT: NCRDS02

COUNTY: BROWN TWP/RNG: 1N 2W SECTION: 32 QUARTERS/FOOTAGES: 495' S line, 495' E line of SW NW
 QUADRANGLE: RIPLEY LONGITUDE: -90.66042 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 40.024432 DATE COLLECTED: 8 / 19 / 1975
 SURFACE ELEVATION (FT.): 565.0 LOGGED (FT.): 30.0 LOG TYPE: Drillers Log
 SOURCE: AMAX EP110E WELL TYPE: Coal Test
 COMMENT: RIPLEY BOX 27

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
565.0	PLEISTOCENE		UNCONSOLIDATED	11.0	0.0	
554.0	CARBONDALE		SANDSTONE	2.2	11.0	
551.8	CARBONDALE		DARK SHALE	10.5	13.2	
541.3	CARBONDALE		LIMESTONE	0.9	23.7	
540.4	CARBONDALE		SHALE	0.2	24.6	
540.2	CARBONDALE	MECCA QUARRY	BLACK SHALE	2.1	24.8	
538.1	CARBONDALE	COLCHESTER	COAL	1.5	26.9	
536.6	CARBONDALE		UNDERCLAY	1.6	28.4	

MAPID: 00990022000C VERSION: 1

PROJECT: NCRDS02

COUNTY: BROWN TWP/RNG: 1N 2W SECTION: 32 QUARTERS/FOOTAGES: 330' S line, 495' E line of SW NW
 QUADRANGLE: RIPLEY LONGITUDE: -90.660424 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 40.023977 DATE COLLECTED: 8 / 18 / 1975
 SURFACE ELEVATION (FT.): 555.8 LOGGED (FT.): 24.0 LOG TYPE: Drillers Log
 SOURCE: AMAX EP110H WELL TYPE: Coal Test
 COMMENT: RIPLEY BOX 27

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
555.8	PLEISTOCENE		UNCONSOLIDATED	4.3	0.0	
551.5	CARBONDALE		SANDSTONE	2.0	4.3	
549.5	CARBONDALE		BLACK SHALE	2.2	6.3	
547.3	CARBONDALE		DARK SHALE	6.5	8.5	
540.8	CARBONDALE		LIMESTONE	1.0	15.0	
539.8	CARBONDALE		BLACK SHALE	1.0	16.0	
538.8	CARBONDALE		GRAY SHALE	3.3	17.0	SOFT
535.5	CARBONDALE	COLCHESTER	COAL	2.1	20.3	
533.4	CARBONDALE		UNDERCLAY	1.6	22.4	

MAPID: 00990023000C VERSION: 1

PROJECT: NCRDS02

COUNTY: BROWN TWP/RNG: 1N 2W SECTION: 32 QUARTERS/FOOTAGES: 330' S line, 165' E line of SW NW
 QUADRANGLE: RIPLEY LONGITUDE: -90.659239 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 40.023969 DATE COLLECTED: 8 / 19 / 1975
 SURFACE ELEVATION (FT.): 567.5 LOGGED (FT.): 34.0 LOG TYPE: Drillers Log
 SOURCE: AMAX EP110I WELL TYPE: Coal Test
 COMMENT: RIPLEY BOX 27

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
567.5	PLEISTOCENE		UNCONSOLIDATED	11.7	0.0	
555.8	CARBONDALE		SANDSTONE	1.8	11.7	
554.0	CARBONDALE		DARK SHALE	2.0	13.5	
552.0	CARBONDALE		SANDSTONE	2.3	15.5	
549.7	CARBONDALE		DARK SHALE	11.2	17.8	
538.5	CARBONDALE	MECCA QUARRY	BLACK SHALE	0.9	29.0	
537.6	CARBONDALE	COLCHESTER	COAL	2.3	29.9	
535.3	CARBONDALE		UNDERCLAY	1.8	32.2	

MAPID: 00990024000C VERSION: 1

PROJECT: NCRDS02

COUNTY: BROWN TWP/RNG: 1N 2W SECTION: 32 QUARTERS/FOOTAGES: 247' S line, 495' E line of SW NW

QUADRANGLE: RIPLEY LONGITUDE: -90.660423 GEOLOGIST: STRAAYER

CONFIDENTIAL: N LATITUDE: 40.023748 DATE COLLECTED: 8 / 19 / 1975

SURFACE ELEVATION (FT.): 564.1 LOGGED (FT.): 33.0 LOG TYPE: Drillers Log

SOURCE: AMAX EP110KC WELL TYPE: Coal Test

COMMENT: RIPLEY BOX 27

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
564.1	PLEISTOCENE		UNCONSOLIDATED	11.5	0.0
552.6	CARBONDALE		SANDSTONE	1.7	11.5
550.9	CARBONDALE		DARK SHALE	8.0	13.2
542.9	CARBONDALE		LIMESTONE	0.8	21.2
542.1	CARBONDALE		BLACK SHALE	1.5	22.0
540.6	CARBONDALE		GRAY SHALE	6.0	23.5
534.6	CARBONDALE	COLCHESTER	COAL	2.0	29.5
532.6	CARBONDALE		UNDERCLAY	1.5	31.5

MAPID: 00990025000C VERSION: 1

PROJECT: NCRDS02

COUNTY: BROWN TWP/RNG: 1N 2W SECTION: 32 QUARTERS/FOOTAGES: 165' S line, 240' E line of SW NW

QUADRANGLE: RIPLEY LONGITUDE: -90.659511 GEOLOGIST: STRAAYER

CONFIDENTIAL: N LATITUDE: 40.023514 DATE COLLECTED: 8 / 19 / 1975

SURFACE ELEVATION (FT.): 565.2 LOGGED (FT.): 33.0 LOG TYPE: Drillers Log

SOURCE: AMAX EP110LC WELL TYPE: Coal Test

COMMENT: RIPLEY BOX 27

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
565.2	PLEISTOCENE		UNCONSOLIDATED	9.0	0.0
556.2	CARBONDALE		DARK SHALE	3.2	9.0 SOLFT
553.0	CARBONDALE		SANDSTONE	2.3	12.2
550.7	CARBONDALE		DARK SHALE	8.2	14.5
542.5	CARBONDALE		SANDSTONE	0.8	22.7
541.7	CARBONDALE		BLACK SHALE	1.5	23.5
540.2	CARBONDALE		GRAY SHALE	4.9	25.0
535.3	CARBONDALE	COLCHESTER	COAL	2.1	29.9
533.2	CARBONDALE		UNDERCLAY	1.0	32.0

MAPID: 00990026000C VERSION: 1

PROJECT: NCRDS02

COUNTY: BROWN TWP/RNG: 1N 2W SECTION: 32 QUARTERS/FOOTAGES: 10' S line, 10' E line of SW NW
 QUADRANGLE: RIPLEY LONGITUDE: -90.658689 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 40.02308 DATE COLLECTED: 8 / 12 / 1975
 SURFACE ELEVATION (FT.): 582.9 LOGGED (FT.): 40.0 LOG TYPE: Drillers Log
 SOURCE: AMAX EP111 WELL TYPE: Coal Test
 COMMENT: RIPLEY BOX 27

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
582.9	PLEISTOCENE		UNCONSOLIDATED	25.0	0.0
557.9	CARBONDALE		GRAY SHALE	9.3	25.0
548.6	CARBONDALE	MECCA QUARRY	BLACK SHALE	1.3	34.3
547.3	CARBONDALE	COLCHESTER	COAL	2.3	35.6
545.0	CARBONDALE		UNDERCLAY	2.1	37.9

MAPID: 00990027000C VERSION: 1

PROJECT: NCRDS02

COUNTY: BROWN TWP/RNG: 1N 2W SECTION: 32 QUARTERS/FOOTAGES: 50' N line, 1' W line of NW SE
 QUADRANGLE: RIPLEY LONGITUDE: -90.653822 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 40.022877 DATE COLLECTED: 8 / 12 / 1941
 SURFACE ELEVATION (FT.): 575.0 LOGGED (FT.): 29.0 LOG TYPE: Drillers Log
 SOURCE: AMAX EP113 WELL TYPE: Coal Test
 COMMENT: RIPLEY BOX 27

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
575.0	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0
565.0	PLEISTOCENE		CLAY	10.0	10.0
555.0	CARBONDALE		SHALE	7.0	20.0 BLUE
548.0	CARBONDALE		BLACK SHALE	2.0	27.0

MAPID: 00990028000C VERSION: 1

PROJECT: NCRDS02

COUNTY: BROWN TWP/RNG: 1N 2W SECTION: 32 QUARTERS/FOOTAGES: 1' S line, 50' E line of SW NE
 QUADRANGLE: RIPLEY LONGITUDE: -90.649171 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 40.022983 DATE COLLECTED: 8 / 11 / 1941
 SURFACE ELEVATION (FT.): 550.0 LOGGED (FT.): 41.0 LOG TYPE: Drillers Log
 SOURCE: AMAX EP115 WELL TYPE: Coal Test
 COMMENT: RIPLEY BOX 27

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
550.0	PLEISTOCENE		UNCONSOLIDATED	17.0	0.0
533.0	PLEISTOCENE		CLAY	18.0	17.0
515.0	CARBONDALE		SANDSTONE	1.0	35.0 HARD
514.0	CARBONDALE		UNDERCLAY	5.0	36.0

MAPID: 00990032000C VERSION: 1

PROJECT: NCRDS02

COUNTY: BROWN TWP/RNG: 1N 2W SECTION: 32 QUARTERS/FOOTAGES: 150' N line, 1' E line of SW NE
 QUADRANGLE: RIPLEY LONGITUDE: -90.648973 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 40.026222 DATE COLLECTED: 8 / 11 / 1941
 SURFACE ELEVATION (FT.): 535.0 LOGGED (FT.): 30.0 LOG TYPE: Drillers Log
 SOURCE: AMAX EP140D WELL TYPE: Coal Test
 COMMENT: RIPLEY BOX 27

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
535.0	PLEISTOCENE		UNCONSOLIDATED	8.0	0.0	
527.0	CARBONDALE		UNDERCLAY	10.0	8.0	
517.0	CARBONDALE		SHALE	2.0	18.0	BLUE
515.0	CARBONDALE		UNDERCLAY	10.0	20.0	

MAPID: 00990038000C VERSION: 1

PROJECT: NCRDS02

COUNTY: BROWN TWP/RNG: 1N 2W SECTION: 32 QUARTERS/FOOTAGES: 0' N line, 297' W line of SE NW
 QUADRANGLE: RIPLEY LONGITUDE: -90.657561 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 40.02671 DATE COLLECTED: 8 / 13 / 1975
 SURFACE ELEVATION (FT.): 583.4 LOGGED (FT.): 42.6 LOG TYPE: Drillers Log
 SOURCE: AMAX EP161B WELL TYPE: Coal Test
 COMMENT: RIPLEY BOX 27

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
583.4	PLEISTOCENE		UNCONSOLIDATED	23.0	0.0	
560.4	PLEISTOCENE		UNCONSOLIDATED	3.2	23.0	
557.2	CARBONDALE		SANDSTONE	1.4	26.2	
555.8	CARBONDALE		DARK SHALE	9.4	27.6	
546.4	CARBONDALE		LIMESTONE	0.7	37.0	
545.7	CARBONDALE		GRAY SHALE	1.3	37.7	
544.4	CARBONDALE	MECCA QUARRY	BLACK SHALE	1.6	39.0	
542.8	CARBONDALE	COLCHESTER	COAL	2.0	40.6	
540.8	CARBONDALE		UNDERCLAY	1.4	42.6	

MAPID: 00990039000C VERSION: 1

PROJECT: NCRDS02

COUNTY: BROWN TWP/RNG: 1N 2W SECTION: 32 QUARTERS/FOOTAGES: 1' S line, 1' W line of NW NE
 QUADRANGLE: RIPLEY LONGITUDE: -90.653795 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 40.02668 DATE COLLECTED: 8 / 12 / 1941
 SURFACE ELEVATION (FT.): 570.0 LOGGED (FT.): 25.0 LOG TYPE: Drillers Log
 SOURCE: AMAX EP163 WELL TYPE: Coal Test
 COMMENT: RIPLEY BOX 27

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
570.0	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0	
560.0	PLEISTOCENE		CLAY	12.0	10.0	
548.0	CARBONDALE		SANDSTONE	1.0	22.0	HARD
547.0	CARBONDALE		BLACK SHALE	2.0	23.0	

MAPID: 00990044000C VERSION: 1

PROJECT: NCRDS02

COUNTY: BROWN TWP/RNG: 1N 2W SECTION: 32 QUARTERS/FOOTAGES: 987' S line, 366' E line of NW NW
 QUADRANGLE: RIPLEY LONGITUDE: -90.659922 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 40.029452 DATE COLLECTED: 8 / 21 / 1975
 SURFACE ELEVATION (FT.): 569.0 LOGGED (FT.): 38.0 LOG TYPE: Drillers Log
 SOURCE: AMAX EP185A WELL TYPE: Coal Test
 COMMENT: RIPLEY BOX 27

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
569.0	PLEISTOCENE		UNCONSOLIDATED	16.0	0.0	
553.0	CARBONDALE		SANDSTONE	1.0	16.0	SOFT
552.0	CARBONDALE		DARK SHALE	10.5	17.0	
541.5	CARBONDALE		BLACK SHALE	1.5	27.5	
540.0	CARBONDALE		DARK SHALE	5.3	29.0	
534.7	CARBONDALE	COLCHESTER	COAL	2.1	34.3	
532.6	CARBONDALE		UNDERCLAY	1.6	36.4	

MAPID: 00990045000C VERSION: 1

PROJECT: NCRDS02

COUNTY: BROWN TWP/RNG: 1N 2W SECTION: 32 QUARTERS/FOOTAGES: 1237' S line, 330' E line of NW NW
 QUADRANGLE: RIPLEY LONGITUDE: -90.65979 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 40.030141 DATE COLLECTED: 8 / 20 / 1975
 SURFACE ELEVATION (FT.): 569.5 LOGGED (FT.): 34.0 LOG TYPE: Drillers Log
 SOURCE: AMAX EP185FC WELL TYPE: Coal Test
 COMMENT: RIPLEY BOX 27

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
569.5	PLEISTOCENE		UNCONSOLIDATED	15.0	0.0	
554.5	PLEISTOCENE		SAND	1.2	15.0	
553.3	PLEISTOCENE		CLAY	0.8	16.2	
552.5	CARBONDALE		DARK SHALE	10.4	17.0	
542.1	CARBONDALE		LIMESTONE	0.6	27.4	
541.5	CARBONDALE	MECCA QUARRY	BLACK SHALE	2.2	28.0	PAPER
539.3	CARBONDALE	COLCHESTER	COAL	2.3	30.2	
537.0	CARBONDALE		UNDERCLAY	1.5	32.5	

MAPID: 00990046000C VERSION: 1

PROJECT: NCRDS02

COUNTY: BROWN TWP/RNG: 1N 2W SECTION: 32 QUARTERS/FOOTAGES: 1259' S line, 165' E line of NW NW
 QUADRANGLE: RIPLEY LONGITUDE: -90.659195 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 40.030196 DATE COLLECTED: 8 / 20 / 1975
 SURFACE ELEVATION (FT.): 562.8 LOGGED (FT.): 25.0 LOG TYPE: Drillers Log
 SOURCE: AMAX EP185GC WELL TYPE: Coal Test
 COMMENT: RIPLEY BOX 27

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
562.8	PLEISTOCENE		UNCONSOLIDATED	12.0	0.0	
550.8	CARBONDALE		DARK SHALE	7.0	12.0	
543.8	CARBONDALE		LIMESTONE	0.6	19.0	
543.2	CARBONDALE	MECCA QUARRY	BLACK SHALE	2.4	19.6	PAPER
540.8	CARBONDALE	COLCHESTER	COAL	2.3	22.0	
538.5	CARBONDALE		UNDERCLAY	0.7	24.3	

MAPID: 00990047000C VERSION: 1

PROJECT: NCRDS02

COUNTY: BROWN TWP/RNG: 1N 2W SECTION: 32 QUARTERS/FOOTAGES: 1237' S line, 1303' E line of NE NW
 QUADRANGLE: RIPLEY LONGITUDE: -90.658451 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 40.030129 DATE COLLECTED: 8 / 20 / 1975
 SURFACE ELEVATION (FT.): 572.3 LOGGED (FT.): 34.0 LOG TYPE: Drillers Log
 SOURCE: AMAX EP186DC WELL TYPE: Coal Test
 COMMENT: RIPLEY BOX 27

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
572.3	PLEISTOCENE		UNCONSOLIDATED	19.0	0.0	
553.3	CARBONDALE		DARK SHALE	9.0	19.0	
544.3	CARBONDALE		LIMESTONE	0.6	28.0	
543.7	CARBONDALE	MECCA QUARRY	BLACK SHALE	2.7	28.6	PAPER
541.0	CARBONDALE	COLCHESTER	COAL	1.9	31.3	
539.1	CARBONDALE		UNDERCLAY	0.8	33.2	

MAPID: 00990048000C VERSION: 1

PROJECT: NCRDS02

COUNTY: BROWN TWP/RNG: 1N 2W SECTION: 32 QUARTERS/FOOTAGES: 980' S line, 813' E line of NE NW
 QUADRANGLE: RIPLEY LONGITUDE: -90.656697 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 40.029407 DATE COLLECTED: 8 / 18 / 1975
 SURFACE ELEVATION (FT.): 578.7 LOGGED (FT.): 48.0 LOG TYPE: Drillers Log
 SOURCE: AMAX EP186I WELL TYPE: Coal Test
 COMMENT: RIPLEY BOX 27

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
578.7	PLEISTOCENE		UNCONSOLIDATED	19.0	0.0	
559.7	PLEISTOCENE		CLAY	6.0	19.0	
553.7	PLEISTOCENE		UNCONSOLIDATED	18.0	25.0	
535.7			MICACEOUS SHALE	5.0	43.0	

MAPID: 00990049000C VERSION: 1

PROJECT: NCRDS02

COUNTY: BROWN TWP/RNG: 1N 2W SECTION: 32 QUARTERS/FOOTAGES: 972' S line, 501' W line of NE NW
 QUADRANGLE: RIPLEY LONGITUDE: -90.656812 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 40.029383 DATE COLLECTED: 8 / 26 / 1975
 SURFACE ELEVATION (FT.): 579.9 LOGGED (FT.): 45.0 LOG TYPE: Drillers Log
 SOURCE: AMAX EP186I WELL TYPE: Coal Test
 COMMENT: RIPLEY OFFSET BOX 27

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
579.9	PLEISTOCENE		UNCONSOLIDATED	20.0	0.0	
559.9	PLEISTOCENE		CLAY	11.5	20.0	
548.4	PLEISTOCENE		CLAY	10.2	31.5	
538.2	CARBONDALE	COLCHESTER	COAL	1.8	41.7	TOP ERODED
536.4	CARBONDALE		UNDERCLAY	1.5	43.5	

MAPID: 00990050000C VERSION: 1

PROJECT: NCRDS02

COUNTY: BROWN TWP/RNG: 1N 2W SECTION: 32 QUARTERS/FOOTAGES: 990' S line, 660' W line of NE NW
 QUADRANGLE: RIPLEY LONGITUDE: -90.656242 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 40.02943 DATE COLLECTED: 8 / 18 / 1975
 SURFACE ELEVATION (FT.): 557.6 LOGGED (FT.): 18.0 LOG TYPE: Drillers Log
 SOURCE: AMAX EP187C WELL TYPE: Coal Test
 COMMENT: RIPLEY OFFSET BOX 27

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
557.6	PLEISTOCENE		UNCONSOLIDATED	6.5	0.0	
551.1	CARBONDALE		BLACK SHALE	1.5	6.5	
549.6	CARBONDALE		GRAY SHALE	7.0	8.0	
542.6	CARBONDALE	COLCHESTER	COAL	2.1	15.0	
540.5	CARBONDALE		UNDERCLAY	0.9	17.1	

MAPID: 00990051000C VERSION: 1

PROJECT: NCRDS02

COUNTY: BROWN TWP/RNG: 1N 2W SECTION: 32 QUARTERS/FOOTAGES: 990' S line, 660' E line of NE NW
 QUADRANGLE: RIPLEY LONGITUDE: -90.656149 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 40.029428 DATE COLLECTED: 8 / 18 / 1975
 SURFACE ELEVATION (FT.): 557.6 LOGGED (FT.): 28.0 LOG TYPE: Drillers Log
 SOURCE: AMAX EP187C WELL TYPE: Coal Test
 COMMENT: RIPLEY BOX 27

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
557.6	PLEISTOCENE		UNCONSOLIDATED	6.0	0.0	
551.6	CARBONDALE		BLACK SHALE	2.0	6.0	
549.6	CARBONDALE		DARK SHALE	4.0	8.0	
545.6	CARBONDALE		DARK SHALE	4.0	12.0	SOFT
541.6	CARBONDALE		DARK SHALE	5.2	16.0	
536.4	CARBONDALE		LIMESTONE	5.1	21.2	
531.3	CARBONDALE		SHALE	1.7	26.3	

MAPID: 00990052000C VERSION: 1

PROJECT: NCRDS02

COUNTY: BROWN TWP/RNG: 1N 2W SECTION: 32 QUARTERS/FOOTAGES: 1072' S line, 578' E line of NW NE
 QUADRANGLE: RIPLEY LONGITUDE: -90.651021 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 40.029614 DATE COLLECTED: 8 / 27 / 1975
 SURFACE ELEVATION (FT.): 571.2 LOGGED (FT.): 57.0 LOG TYPE: Drillers Log
 SOURCE: AMAX EP187CA WELL TYPE: Coal Test
 COMMENT: RIPLEY BOX 27

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
571.2	PLEISTOCENE		UNCONSOLIDATED	17.0	0.0
554.2	PLEISTOCENE		CLAY	22.0	17.0
532.2	PLEISTOCENE		CLAY	10.0	39.0
522.2	CARBONDALE		DARK SHALE	4.0	49.0
518.2	CARBONDALE		MICACEOUS SHALE	4.0	53.0

MAPID: 00990053000C VERSION: 1

PROJECT: NCRDS02

COUNTY: BROWN TWP/RNG: 1N 2W SECTION: 32 QUARTERS/FOOTAGES: 1072' S line, 825' W line of NE NW
 QUADRANGLE: RIPLEY LONGITUDE: -90.655646 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 40.029651 DATE COLLECTED: 8 / 15 / 1975
 SURFACE ELEVATION (FT.): 567.8 LOGGED (FT.): 32.0 LOG TYPE: Drillers Log
 SOURCE: AMAX EP187HC WELL TYPE: Coal Test
 COMMENT: RIPLEY BOX 27

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
567.8	PLEISTOCENE		UNCONSOLIDATED	8.0	0.0
559.8	PLEISTOCENE		SAND	2.0	8.0
557.8	PLEISTOCENE		UNCONSOLIDATED	2.7	10.0
555.1	PLEISTOCENE		BOULDER	0.9	12.7
554.2	PLEISTOCENE		UNCONSOLIDATED	13.6	13.6
540.6	CARBONDALE	COLCHESTER	COAL	2.3	27.2 TOP ERODED
538.3	CARBONDALE		UNDERCLAY	2.5	29.5

MAPID: 00990054000C VERSION: 1

PROJECT: NCRDS02

COUNTY: BROWN TWP/RNG: 1N 2W SECTION: 32 QUARTERS/FOOTAGES: 990' S line, 1185' W line of NE NW
 QUADRANGLE: RIPLEY LONGITUDE: -90.654357 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 40.029413 DATE COLLECTED: 8 / 26 / 1975
 SURFACE ELEVATION (FT.): 568.6 LOGGED (FT.): 27.0 LOG TYPE: Drillers Log
 SOURCE: AMAX EP187IC WELL TYPE: Coal Test
 COMMENT: RIPLEY BOX 27

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
568.6	PLEISTOCENE		UNCONSOLIDATED	15.5	0.0	
553.1	PLEISTOCENE		CLAY	1.5	15.5	
551.6	PLEISTOCENE		CLAY	6.5	17.0	
545.1	CARBONDALE	COLCHESTER	COAL	1.7	23.5	TOP ERODED
543.4	CARBONDALE		UNDERCLAY	1.8	25.2	

MAPID: 00990059000C VERSION: 1

PROJECT: NCRDS02

COUNTY: BROWN TWP/RNG: 1N 2W SECTION: 32 QUARTERS/FOOTAGES: 1' S line, 1' W line of NW NE
 QUADRANGLE: RIPLEY LONGITUDE: -90.653795 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 40.02668 DATE COLLECTED: 8 / 12 / 1941
 SURFACE ELEVATION (FT.): 520.0 LOGGED (FT.): 43.0 LOG TYPE: Drillers Log
 SOURCE: AMAX EP213 WELL TYPE: Coal Test
 COMMENT: RIPLEY BOX 27

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
520.0	PLEISTOCENE		UNCONSOLIDATED	20.0	0.0	
500.0	PLEISTOCENE		CLAY	3.0	20.0	
497.0	CARBONDALE		SHALE	20.0	23.0	BLUE

MAPID: 00921999000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 3W SECTION: 3 QUARTERS/FOOTAGES: 2500' N line, 200' W line
 QUADRANGLE: RIPLEY LONGITUDE: -90.737842 GEOLOGIST: KOROSE
 CONFIDENTIAL: N LATITUDE: 40.097767 DATE COLLECTED: 5 / 20 / 1968
 SURFACE ELEVATION (FT.): 613.0 LOGGED (FT.): 40.0 LOG TYPE: Drillers Log
 SOURCE: PITTSBURG & MIDWAY 93M-68C WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
613.0	PLEISTOCENE		CLAY	18.0	0.0	
595.0	CARBONDALE		SHALE	15.0	18.0	
580.0	CARBONDALE	OAK GROVE	LIMESTONE	1.0	33.0	
579.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	3.5	34.0	
575.5	CARBONDALE	COLCHESTER	UNCLASSIFIED	2.2	37.5	
573.3	SPOON		UNDERCLAY	0.3	39.7	

MAPID: 00922000000C **VERSION:** 1 **PROJECT:** NCRDS95
COUNTY: BROWN **TWP/RNG:** 1N 3W **SECTION:** 3 **QUARTERS/FOOTAGES:** 2000' S line, 1' W line
QUADRANGLE: RIPLEY **LONGITUDE:** -90.738588 **GEOLOGIST:** KOROSE
CONFIDENTIAL: N **LATITUDE:** 40.095049 **DATE COLLECTED:** 5 / 11 / 1968
SURFACE ELEVATION (FT.): 623.0 **LOGGED (FT.):** 56.0 **LOG TYPE:** Drillers Log
SOURCE: PITTSBURG & MIDWAY 74-M **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
623.0	PLEISTOCENE		CLAY	20.0	0.0
603.0	CARBONDALE		SHALE	26.0	20.0
577.0	CARBONDALE	OAK GROVE	LIMESTONE	1.5	46.0
575.5	CARBONDALE	MECCA QUARRY	BLACK SHALE	2.5	47.5
573.0	CARBONDALE	FRANCIS CREEK	GRAY SHALE	2.0	50.0
571.0	CARBONDALE	COLCHESTER	COAL	1.7	52.0
569.3	SPOON		UNDERCLAY	2.3	53.7

MAPID: 00922001000C **VERSION:** 1 **PROJECT:** NCRDS95
COUNTY: BROWN **TWP/RNG:** 1N 3W **SECTION:** 3 **QUARTERS/FOOTAGES:** 950' N line, 1' W line
QUADRANGLE: RIPLEY **LONGITUDE:** -90.738515 **GEOLOGIST:** KOROSE
CONFIDENTIAL: N **LATITUDE:** 40.10206 **DATE COLLECTED:** 5 / 11 / 1968
SURFACE ELEVATION (FT.): 581.0 **LOGGED (FT.):** 24.0 **LOG TYPE:** Drillers Log
SOURCE: PITTSBURG & MIDWAY 100-W **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
581.0	PLEISTOCENE		CLAY	17.2	0.0
563.8	CARBONDALE	MECCA QUARRY	BLACK SHALE	3.8	17.2
560.1	CARBONDALE	COLCHESTER	COAL	1.8	20.9
558.4	CARBONDALE		SHALE	1.4	22.6

MAPID: 00922002000C **VERSION:** 1 **PROJECT:** NCRDS95
COUNTY: BROWN **TWP/RNG:** 1N 3W **SECTION:** 3 **QUARTERS/FOOTAGES:** 950' N line, 30' W line
QUADRANGLE: RIPLEY **LONGITUDE:** -90.738411 **GEOLOGIST:** KOROSE
CONFIDENTIAL: N **LATITUDE:** 40.102058 **DATE COLLECTED:** 5 / 15 / 1968
SURFACE ELEVATION (FT.): 600.0 **LOGGED (FT.):** 28.7 **LOG TYPE:** Drillers Log
SOURCE: PITTSBURG & MIDWAY 101-W **WELL TYPE:** Coal Test
COMMENT: DRILL NOTE: BELOW #2 COAL STRUCTURE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
600.0	PLEISTOCENE		CLAY	15.0	0.0
585.0			SANDSTONE/SHALE	7.0	15.0
578.0			SANDSTONE	6.7	22.0 HARD

MAPID: 00922003000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 3W SECTION: 3 QUARTERS/FOOTAGES: 2600' S line, 2400' W line

QUADRANGLE: RIPLEY LONGITUDE: -90.729952 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.096618 DATE COLLECTED: 5 / 10 / 1968

SURFACE ELEVATION (FT.): 590.0 LOGGED (FT.): 34.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 132-C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
590.0	PLEISTOCENE		CLAY	16.0	0.0	
574.0			UNDERCLAY	2.0	16.0	
572.0			SHALE	15.0	18.0	
557.0			LIMESTONE	1.0	33.0	

MAPID: 00922004000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 3W SECTION: 3 QUARTERS/FOOTAGES: 2640' S line, 650' E line

QUADRANGLE: RIPLEY LONGITUDE: -90.721823 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.096647 DATE COLLECTED: 5 / 11 / 1968

SURFACE ELEVATION (FT.): 590.0 LOGGED (FT.): 60.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 133-C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
590.0	PLEISTOCENE		CLAY	28.0	0.0	
562.0			SHALE	7.0	28.0	
555.0			SANDY SHALE	1.5	35.0	
553.5			LIMESTONE	1.0	36.5	HARD
552.5			SHALE	18.5	37.5	
534.0			DARK SHALE	1.0	56.0	
533.0			UNDERCLAY	2.0	57.0	
531.0			SHALE	1.0	59.0	

MAPID: 00922005000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 3W SECTION: 3 QUARTERS/FOOTAGES: 2400' N line, 175' W line
 QUADRANGLE: RIPLEY LONGITUDE: -90.73793 GEOLOGIST: KOROSE
 CONFIDENTIAL: N LATITUDE: 40.098045 DATE COLLECTED: 5 / 11 / 1968
 SURFACE ELEVATION (FT.): 615.0 LOGGED (FT.): 50.0 LOG TYPE: Drillers Log
 SOURCE: PITTSBURG & MIDWAY 134-C WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
615.0	PLEISTOCENE		CLAY	18.0	0.0
597.0	CARBONDALE		SHALE	11.0	18.0
586.0	CARBONDALE		DARK SHALE	4.0	29.0
582.0	CARBONDALE	OAK GROVE	LIMESTONE	1.0	33.0
581.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	2.5	34.0
578.5	CARBONDALE	FRANCIS CREEK	GRAY SHALE	3.0	36.5
575.5	CARBONDALE	COLCHESTER	COAL	2.2	39.5
573.3	SPOON		UNDERCLAY	2.3	41.7
571.0	SPOON		SHALE	6.0	44.0

MAPID: 00922006000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 3W SECTION: 3 QUARTERS/FOOTAGES: 900' S line, 2640' E line
 QUADRANGLE: RIPLEY LONGITUDE: -90.729032 GEOLOGIST: KOROSE
 CONFIDENTIAL: N LATITUDE: 40.091919 DATE COLLECTED: 5 / 13 / 1968
 SURFACE ELEVATION (FT.): 620.0 LOGGED (FT.): 60.0 LOG TYPE: Drillers Log
 SOURCE: PITTSBURG & MIDWAY 135-C WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
620.0	PLEISTOCENE		CLAY	21.0	0.0
599.0	CARBONDALE		SANDSTONE	6.0	21.0
593.0	CARBONDALE		SHALE	13.0	27.0
580.0	CARBONDALE		DARK SHALE	3.5	40.0
576.5	CARBONDALE	MECCA QUARRY	BLACK SHALE	1.5	43.5
575.0	CARBONDALE	FRANCIS CREEK	GRAY SHALE	9.0	45.0
566.0	CARBONDALE	COLCHESTER	COAL	1.8	54.0
564.2	SPOON		UNDERCLAY	2.2	55.8
562.0	SPOON		SHALE	2.0	58.0

MAPID: 00922007000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 3W SECTION: 3 QUARTERS/FOOTAGES: 1' S line, 2640' W line
 QUADRANGLE: RIPLEY LONGITUDE: -90.729164 GEOLOGIST: KOROSE
 CONFIDENTIAL: N LATITUDE: 40.089439 DATE COLLECTED: 5 / 13 / 1968
 SURFACE ELEVATION (FT.): 640.0 LOGGED (FT.): 70.0 LOG TYPE: Drillers Log
 SOURCE: PITTSBURG & MIDWAY 136-C WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
640.0	PLEISTOCENE		CLAY	12.0	0.0
628.0	CARBONDALE		SANDSTONE	15.0	12.0
613.0	CARBONDALE		SHALE	4.0	27.0
609.0			BLACK SHALE	1.0	31.0
608.0	CARBONDALE		SANDSTONE	5.0	32.0
603.0	CARBONDALE		SHALE	20.0	37.0
583.0	CARBONDALE		DARK SHALE	3.0	57.0
580.0	CARBONDALE	OAK GROVE	LIMESTONE	1.0	60.0
579.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	3.5	61.0
575.5	CARBONDALE	COLCHESTER	COAL	1.8	64.5
573.7	SPOON		UNDERCLAY	2.7	66.3
571.0	SPOON		SHALE	1.0	69.0

MAPID: 00922008000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 3W SECTION: 4 QUARTERS/FOOTAGES: 2050' N line, 2275' E line
 QUADRANGLE: RIPLEY LONGITUDE: -90.746723 GEOLOGIST: KOROSE
 CONFIDENTIAL: N LATITUDE: 40.09918 DATE COLLECTED: 5 / 6 / 1968
 SURFACE ELEVATION (FT.): 620.0 LOGGED (FT.): 55.0 LOG TYPE: Drillers Log
 SOURCE: PITTSBURG & MIDWAY 57-M WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
620.0	PLEISTOCENE		CLAY	41.0	0.0
579.0	CARBONDALE		DARK SHALE	0.5	41.0
578.5	CARBONDALE	MECCA QUARRY	BLACK SHALE	1.4	41.5
577.1	CARBONDALE	FRANCIS CREEK	GRAY SHALE	0.5	42.9
576.6	CARBONDALE	COLCHESTER	COAL	1.3	43.4
575.3	SPOON		UNDERCLAY	9.3	44.7
566.0	SPOON		LIMESTONE	1.0	54.0

MAPID: 00922009000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 3W SECTION: 4 QUARTERS/FOOTAGES: 1' S line, 1320' E line
 QUADRANGLE: RIPLEY LONGITUDE: -90.743389 GEOLOGIST: KOROSE
 CONFIDENTIAL: N LATITUDE: 40.089572 DATE COLLECTED: 5 / 10 / 1968
 SURFACE ELEVATION (FT.): 625.0 LOGGED (FT.): 47.0 LOG TYPE: Drillers Log
 SOURCE: PITTSBURG & MIDWAY 73-M WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
625.0	PLEISTOCENE		CLAY	19.0	0.0
606.0	CARBONDALE		SHALE	19.5	19.0
586.5	CARBONDALE		ROCK	2.0	38.5
584.5	CARBONDALE	MECCA QUARRY	BLACK SHALE	2.5	40.5
582.0	CARBONDALE	COLCHESTER	COAL	1.8	43.0
580.2	SPOON		UNDERCLAY	2.3	44.8

MAPID: 00922010000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 3W SECTION: 4 QUARTERS/FOOTAGES: 1' S line, 1' E line
 QUADRANGLE: RIPLEY LONGITUDE: -90.738652 GEOLOGIST: KOROSE
 CONFIDENTIAL: N LATITUDE: 40.089536 DATE COLLECTED: 5 / 11 / 1968
 SURFACE ELEVATION (FT.): 630.0 LOGGED (FT.): 54.0 LOG TYPE: Drillers Log
 SOURCE: PITTSBURG & MIDWAY 75-M WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
630.0	PLEISTOCENE		CLAY	18.0	0.0
612.0	CARBONDALE		SHALE	25.0	18.0
587.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	2.5	43.0
584.5	CARBONDALE	FRANCIS CREEK	DARK SHALE	4.5	45.5
580.0	CARBONDALE	COLCHESTER	COAL	1.4	50.0
578.6	SPOON		UNCLASSIFIED	2.6	51.4

MAPID: 00922012000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 3W SECTION: 4 QUARTERS/FOOTAGES: 1000' N line, 3100' W line

QUADRANGLE: RIPLEY LONGITUDE: -90.746394 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.102071 DATE COLLECTED: 5 / 7 / 1968

SURFACE ELEVATION (FT.): 590.0 LOGGED (FT.): 39.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 87-W WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
590.0	PLEISTOCENE		CLAY	18.0	0.0	
572.0	CARBONDALE		SANDSTONE	4.0	18.0	
568.0	CARBONDALE		DARK SHALE	8.0	22.0	
560.0	CARBONDALE	OAK GROVE	LIMESTONE	2.5	30.0	HARD
557.5	CARBONDALE		SHALE	0.3	32.5	
557.2	CARBONDALE	MECCA QUARRY	BLACK SHALE	3.1	32.8	
554.1	CARBONDALE	COLCHESTER	COAL	1.8	35.9	
552.3	SPOON		SHALE	1.3	37.7	

MAPID: 00922013000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 3W SECTION: 4 QUARTERS/FOOTAGES: 2150' N line, 1950' E line

QUADRANGLE: RIPLEY LONGITUDE: -90.745557 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.098884 DATE COLLECTED: 9 / 25 / 1967

SURFACE ELEVATION (FT.): 625.0 LOGGED (FT.): 54.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 26-W WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
625.0	PLEISTOCENE		CLAY	31.0	0.0	
594.0	CARBONDALE		SHALE	16.0	31.0	
578.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	4.2	47.0	
573.8	CARBONDALE	COLCHESTER	COAL	1.8	51.2	
572.1	SPOON		SHALE	1.1	52.9	

MAPID: 00922014000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 3W SECTION: 4 QUARTERS/FOOTAGES: 3200' S line, 1400' W line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.752557 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.098473 DATE COLLECTED: 5 / 7 / 1968

SURFACE ELEVATION (FT.): 585.0 LOGGED (FT.): 56.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 89-W WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
585.0	PLEISTOCENE		CLAY	24.0	0.0
561.0	CARBONDALE		SANDSTONE	4.0	24.0
557.0	CARBONDALE		SHALE	20.8	28.0
536.2	CARBONDALE	COLCHESTER	COAL	0.3	48.8
535.8	SPOON		SHALE	6.8	49.2

MAPID: 00922015000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 3W SECTION: 4 QUARTERS/FOOTAGES: 100' S line, 150' E line

QUADRANGLE: RIPLEY LONGITUDE: -90.739185 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.089812 DATE COLLECTED: 5 / 21 / 1968

SURFACE ELEVATION (FT.): 620.0 LOGGED (FT.): 28.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 95-W WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
620.0	PLEISTOCENE		CLAY	21.0	0.0
599.0	CARBONDALE		SHALE	3.9	21.0
595.1	CARBONDALE	COLCHESTER	COAL	2.1	24.9
593.0	SPOON		SHALE	1.0	27.0

MAPID: 00922016000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 3W SECTION: 4 QUARTERS/FOOTAGES: 2700' S line, 1550' W line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.752044 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.09709 DATE COLLECTED: 5 / 10 / 1968

SURFACE ELEVATION (FT.): 600.0 LOGGED (FT.): 32.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 96-W WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
600.0	PLEISTOCENE		CLAY	14.0	0.0
586.0	CARBONDALE		DARK SHALE	9.2	14.0
576.8	CARBONDALE	OAK GROVE	LIMESTONE	2.2	23.2
574.7	CARBONDALE		SHALE	0.3	25.3
574.4	CARBONDALE	MECCA QUARRY	BLACK SHALE	3.3	25.6
571.1	CARBONDALE	COLCHESTER	COAL	2.0	28.9
569.1	SPOON		UNDERCLAY	1.1	30.9

MAPID: 00922017000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 3W SECTION: 4 QUARTERS/FOOTAGES: 1850' S line, 2500' W line

QUADRANGLE: RIPLEY LONGITUDE: -90.74867 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.094716 DATE COLLECTED: 5 / 10 / 1968

SURFACE ELEVATION (FT.): 620.0 LOGGED (FT.): 50.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 97-W WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
620.0	PLEISTOCENE		CLAY	29.0	0.0
591.0	CARBONDALE		DARK SHALE	4.1	29.0
586.9	CARBONDALE	OAK GROVE	LIMESTONE	1.6	33.1
585.3	CARBONDALE		SHALE	0.3	34.7
585.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	2.0	35.0
583.0	CARBONDALE	FRANCIS CREEK	DARK SHALE	9.6	37.0
573.4	CARBONDALE	COLCHESTER	COAL	1.8	46.6
571.7	SPOON		SHALE	1.7	48.3

MAPID: 00922018000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 3W SECTION: 4 QUARTERS/FOOTAGES: 2000' S line, 1550' W line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.752074 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.095158 DATE COLLECTED: 5 / 11 / 1968

SURFACE ELEVATION (FT.): 600.0 LOGGED (FT.): 50.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 98-W WELL TYPE: Coal Test

COMMENT: BELIEVED TO BE BELOW #2 C STRUCTURE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
600.0	PLEISTOCENE		CLAY	39.0	0.0	
561.0			SHALE	7.4	39.0	
553.6			LIMESTONE	3.6	46.4	HARD

MAPID: 00922019000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 3W SECTION: 4 QUARTERS/FOOTAGES: 2650' S line, 2550' W line

QUADRANGLE: RIPLEY LONGITUDE: -90.748454 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.096924 DATE COLLECTED: 5 / 6 / 1968

SURFACE ELEVATION (FT.): 620.0 LOGGED (FT.): 55.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 119-C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
620.0	PLEISTOCENE		CLAY	17.0	0.0	
603.0	CARBONDALE		SANDSTONE	7.0	17.0	
596.0	CARBONDALE		SANDY SHALE	14.0	24.0	
582.0	CARBONDALE		SHALE	2.0	38.0	
580.0	CARBONDALE	OAK GROVE	LIMESTONE	4.0	40.0	
576.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	3.0	44.0	
573.0	CARBONDALE		COAL	1.8	47.0	
571.2	SPOON		UNDERCLAY	2.3	48.8	
569.0	SPOON		SHALE	4.0	51.0	

MAPID: 00922020000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 3W SECTION: 4 QUARTERS/FOOTAGES: 2400' S line, 1775' E line

QUADRANGLE: RIPLEY LONGITUDE: -90.744955 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.096205 DATE COLLECTED: 5 / 6 / 1968

SURFACE ELEVATION (FT.): 645.0 LOGGED (FT.): 75.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 118-C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
645.0	PLEISTOCENE		CLAY	10.0	0.0
635.0	CARBONDALE		SANDY SHALE	20.0	10.0
615.0	CARBONDALE		SANDSTONE	18.0	30.0
597.0	CARBONDALE		SANDY SHALE	15.5	48.0
581.5	CARBONDALE		DARK SHALE	2.0	63.5
579.5	CARBONDALE	OAK GROVE	LIMESTONE	1.5	65.5
578.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	2.8	67.0
575.2	CARBONDALE	COLCHESTER	COAL	1.6	69.8
573.6	SPOON		UNDERCLAY	2.6	71.4
571.0	SPOON		SHALE	1.0	74.0

MAPID: 00922021000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 3W SECTION: 4 QUARTERS/FOOTAGES: 1300' N line, 1300' E line

QUADRANGLE: RIPLEY LONGITUDE: -90.743197 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.101183 DATE COLLECTED: 5 / 7 / 1968

SURFACE ELEVATION (FT.): 605.0 LOGGED (FT.): 50.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 120-C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
605.0	PLEISTOCENE		CLAY	15.0	0.0
590.0	CARBONDALE		SANDSTONE	20.0	15.0
570.0	CARBONDALE		SANDY SHALE	2.0	35.0
568.0	CARBONDALE	OAK GROVE	LIMESTONE	1.3	37.0
566.7	CARBONDALE	MECCA QUARRY	BLACK SHALE	3.7	38.3
563.0	CARBONDALE	FRANCIS CREEK	GRAY SHALE	3.5	42.0
559.5	CARBONDALE	COLCHESTER	COAL	2.1	45.5
557.4	SPOON		UNDERCLAY	2.4	47.6

MAPID: 00922022000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 3W SECTION: 4 QUARTERS/FOOTAGES: 300' N line, 3400' W line
 QUADRANGLE: RIPLEY LONGITUDE: -90.745285 GEOLOGIST: KOROSE
 CONFIDENTIAL: N LATITUDE: 40.103981 DATE COLLECTED: 5 / 7 / 1968
 SURFACE ELEVATION (FT.): 590.0 LOGGED (FT.): 40.0 LOG TYPE: Drillers Log
 SOURCE: PITTSBURG & MIDWAY 121-C WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
590.0	PLEISTOCENE		CLAY	12.0	0.0	
578.0	CARBONDALE		SANDSTONE	4.0	12.0	
574.0	CARBONDALE		SANDY SHALE	2.0	16.0	
572.0	CARBONDALE	OAK GROVE	LIMESTONE	1.1	18.0	
570.9	CARBONDALE	MECCA QUARRY	BLACK SHALE	5.4	19.1	
565.5	CARBONDALE	FRANCIS CREEK	GRAY SHALE	3.5	24.5	
562.0	CARBONDALE	COLCHESTER	COAL	2.3	28.0	
559.7	SPOON		UNDERCLAY	2.7	30.3	
557.0	SPOON		GRAY SHALE	7.0	33.0	

MAPID: 00922023000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 3W SECTION: 4 QUARTERS/FOOTAGES: 30' N line, 2300' W line
 QUADRANGLE: RIPLEY LONGITUDE: -90.749224 GEOLOGIST: KOROSE
 CONFIDENTIAL: N LATITUDE: 40.104801 DATE COLLECTED: 5 / 7 / 1968
 SURFACE ELEVATION (FT.): 595.0 LOGGED (FT.): 50.0 LOG TYPE: Drillers Log
 SOURCE: PITTSBURG & MIDWAY 122-C WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
595.0	PLEISTOCENE		CLAY	20.0	0.0	
575.0	PLEISTOCENE		MUD	4.0	20.0	
571.0	CARBONDALE	COLCHESTER	COAL	1.0	24.0	DRILLER'S NOTE: FREE SHELLY COAL
570.0	SPOON		MUDSTONE	22.0	25.0	
548.0	SPOON		SHALE	3.0	47.0	

MAPID: 00922024000C **VERSION:** 1 **PROJECT:** NCRDS95
COUNTY: BROWN **TWP/RNG:** 1N 3W **SECTION:** 4 **QUARTERS/FOOTAGES:** 3950' S line, 2000' W line
QUADRANGLE: LAKE MT. STERLING **LONGITUDE:** -90.75037 **GEOLOGIST:** KOROSE
CONFIDENTIAL: N **LATITUDE:** 40.100525 **DATE COLLECTED:** 5 / 0 / 1968
SURFACE ELEVATION (FT.): 603.0 **LOGGED (FT.):** 65.0 **LOG TYPE:** Drillers Log
SOURCE: PITTSBURG & MIDWAY 123-C **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
603.0	PLEISTOCENE		CLAY	23.0	0.0
580.0	PLEISTOCENE		CLAY & GRAVEL	39.0	23.0
541.0			SHALE	1.0	62.0
540.0			LIMESTONE	2.0	63.0

MAPID: 00922025000C **VERSION:** 1 **PROJECT:** NCRDS95
COUNTY: BROWN **TWP/RNG:** 1N 3W **SECTION:** 4 **QUARTERS/FOOTAGES:** 1400' S line, 2300' W line
QUADRANGLE: RIPLEY **LONGITUDE:** -90.749406 **GEOLOGIST:** KOROSE
CONFIDENTIAL: N **LATITUDE:** 40.09348 **DATE COLLECTED:** 5 / 0 / 1968
SURFACE ELEVATION (FT.): 600.0 **LOGGED (FT.):** 40.0 **LOG TYPE:** Drillers Log
SOURCE: PITTSBURG & MIDWAY 124-C **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
600.0	PLEISTOCENE		CLAY	17.5	0.0
582.5	CARBONDALE		SHALE	11.0	17.5
571.5	CARBONDALE	COLCHESTER	COAL	2.0	28.5 SHELLY
569.5	SPOON		UNDERCLAY	2.5	30.5
567.0	SPOON		SHALE	2.0	33.0
565.0	SPOON		SANDSTONE	5.0	35.0

MAPID: 00922026000C **VERSION:** 1 **PROJECT:** NCRDS95
COUNTY: BROWN **TWP/RNG:** 1N 3W **SECTION:** 5 **QUARTERS/FOOTAGES:** 900' N line, 1200' W line
QUADRANGLE: LAKE MT. STERLING **LONGITUDE:** -90.772463 **GEOLOGIST:** KOROSE
CONFIDENTIAL: N **LATITUDE:** 40.102936 **DATE COLLECTED:** 5 / 9 / 1968
SURFACE ELEVATION (FT.): 615.0 **LOGGED (FT.):** 34.0 **LOG TYPE:** Drillers Log
SOURCE: PITTSBURG & MIDWAY 70-M **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
615.0	PLEISTOCENE		CLAY	27.0	0.0
588.0	CARBONDALE		DARK SHALE	4.0	27.0
584.0	CARBONDALE	COLCHESTER	MINE OPENING	2.5	31.0 NOTE: LOST ALL WATER IN OLD WORKS
581.5			ROCK	0.5	33.5

MAPID: 00922027000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 3W SECTION: 5 QUARTERS/FOOTAGES: 1100' S line, 2850' E line
 QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.767918 GEOLOGIST: KOROSE
 CONFIDENTIAL: N LATITUDE: 40.09277 DATE COLLECTED: 5 / 14 / 1968
 SURFACE ELEVATION (FT.): 620.0 LOGGED (FT.): 39.0 LOG TYPE: Drillers Log
 SOURCE: PITTSBURG & MIDWAY 80-M WELL TYPE: Coal Test
 COMMENT: TOTAL LOG DEPTH 49.0 CHANGED

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
620.0	PLEISTOCENE		CLAY	11.0	0.0	
609.0	CARBONDALE		SHALE	6.0	11.0	
603.0	CARBONDALE	OAK GROVE	LIMESTONE	2.5	17.0	
600.5	CARBONDALE	MECCA QUARRY	BLACK SHALE	2.0	19.5	
598.5	CARBONDALE	FRANCIS CREEK	GRAY SHALE	13.0	21.5	
585.5	CARBONDALE	COLCHESTER	COAL	1.8	34.5	
583.7	SPOON		UNDERCLAY	2.7	36.3	

MAPID: 00922028000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 3W SECTION: 5 QUARTERS/FOOTAGES: 2700' N line, 1750' E line
 QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.763887 GEOLOGIST: KOROSE
 CONFIDENTIAL: N LATITUDE: 40.097756 DATE COLLECTED: 5 / 6 / 1968
 SURFACE ELEVATION (FT.): 605.0 LOGGED (FT.): 26.0 LOG TYPE: Drillers Log
 SOURCE: PITTSBURG & MIDWAY 81-W WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
605.0	PLEISTOCENE		CLAY	21.0	0.0	
584.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	2.0	21.0	
582.0	CARBONDALE	COLCHESTER	CAVITY	2.0	23.0	
580.0			ROCK	1.0	25.0	MEDIUM HARD

MAPID: 00922029000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 3W SECTION: 5 QUARTERS/FOOTAGES: 1850' N line, 1900' E line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.764389 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.100114 DATE COLLECTED: 5 / 6 / 1968

SURFACE ELEVATION (FT.): 610.0 LOGGED (FT.): 46.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 82-W WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
610.0	PLEISTOCENE		CLAY	13.5	0.0	
596.5	CARBONDALE		SANDSTONE	2.0	13.5	HARD
594.5	CARBONDALE		CLAYSTONE & SANDSTONE	3.0	15.5	
591.5	CARBONDALE		SANDY SHALE	17.5	18.5	
574.0	CARBONDALE	OAK GROVE	LIMESTONE	2.1	36.0	
571.9	CARBONDALE		DARK SHALE	1.0	38.1	
570.9	CARBONDALE	MECCA QUARRY	BLACK SHALE	1.9	39.1	
569.0	CARBONDALE		DARK SHALE	1.7	41.0	
567.3	CARBONDALE	COLCHESTER	COAL	1.7	42.7	
565.7	SPOON		SHALE	1.7	44.3	

MAPID: 00922030000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 3W SECTION: 5 QUARTERS/FOOTAGES: 2600' N line, 1750' E line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.763885 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.098032 DATE COLLECTED: 5 / 6 / 1968

SURFACE ELEVATION (FT.): 605.0 LOGGED (FT.): 56.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 83-W WELL TYPE: Coal Test

COMMENT: DRILL NOTE: LS APPEARS TO BE BELOW #2 C

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
605.0	PLEISTOCENE		CLAY	18.7	0.0	
586.3			LIMESTONE	3.8	18.7	
582.6			CLAYSTONE	15.3	22.4	FREE COAL SHOWING NEAR BASE
567.2			LIGHT SHALE	8.3	37.8	
559.0			SANDSTONE	10.0	46.0	LIGHT

MAPID: 00922031000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 3W SECTION: 5 QUARTERS/FOOTAGES: 2000' N line, 2500' E line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.76655 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.099754 DATE COLLECTED: 5 / 6 / 1968

SURFACE ELEVATION (FT.): LOGGED (FT.): 30.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 85-W WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	PLEISTOCENE		CLAY	27.5	0.0	
-	CARBONDALE	COLCHESTER	COAL	1.2	27.5	SOFT, TOP OF COAL ERODED
-	SPOON		SHALE	1.3	28.7	

MAPID: 00922032000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 3W SECTION: 6 QUARTERS/FOOTAGES: 1320' S line, 1000' E line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.780432 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.093394 DATE COLLECTED: 5 / 9 / 1968

SURFACE ELEVATION (FT.): 620.0 LOGGED (FT.): 47.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 68-M WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
620.0	PLEISTOCENE		CLAY	25.0	0.0	
595.0	PLEISTOCENE		MUD	5.0	25.0	
590.0	CARBONDALE		DARK SHALE	3.0	30.0	SOFT
587.0	CARBONDALE	OAK GROVE	LIMESTONE	2.0	33.0	
585.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	3.0	35.0	
582.0	CARBONDALE	FRANCIS CREEK	GRAY SHALE	4.0	38.0	
578.0	CARBONDALE	COLCHESTER	COAL	2.1	42.0	
575.9	SPOON		UNDERCLAY	2.9	44.1	

MAPID: 00922033000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 3W SECTION: 6 QUARTERS/FOOTAGES: 90' S line, 1600' E line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.782612 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.089982 DATE COLLECTED: 5 / 10 / 1968

SURFACE ELEVATION (FT.): 610.0 LOGGED (FT.): 38.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 71-M WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
610.0	PLEISTOCENE		CLAY	15.0	0.0	
595.0	CARBONDALE		SHALE	4.0	15.0	
591.0	CARBONDALE		DARK SHALE	3.0	19.0	
588.0	CARBONDALE		CLAYSTONE	2.0	22.0	GRAVELLY CLAYSTONE
586.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	2.0	24.0	
584.0	CARBONDALE	FRANCIS CREEK	GRAY SHALE	7.5	26.0	
576.5	CARBONDALE	COLCHESTER	COAL	2.0	33.5	
574.5	SPOON		UNCLASSIFIED	2.5	35.5	

MAPID: 00922034000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 3W SECTION: 6 QUARTERS/FOOTAGES: 1000' S line, 1' E line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.776848 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.092539 DATE COLLECTED: 5 / 10 / 1968

SURFACE ELEVATION (FT.): 638.0 LOGGED (FT.): 51.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 72-M WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
638.0	PLEISTOCENE		CLAY	25.0	0.0	
613.0	CARBONDALE		SHALE	9.0	25.0	
604.0	CARBONDALE		ROCK	1.5	34.0	
602.5	CARBONDALE	MECCA QUARRY	BLACK SHALE	2.5	35.5	
600.0	CARBONDALE	FRANCIS CREEK	GRAY SHALE	8.0	38.0	
592.0	CARBONDALE	COLCHESTER	COAL	2.2	46.0	
589.8	SPOON		UNDERCLAY	2.9	48.2	

MAPID: 00922035000C **VERSION:** 1 **PROJECT:** NCRDS95
COUNTY: BROWN **TWP/RNG:** 1N 3W **SECTION:** 6 **QUARTERS/FOOTAGES:** 100' S line, 150' E line
QUADRANGLE: LAKE MT. STERLING **LONGITUDE:** -90.777402 **GEOLOGIST:** KOROSE
CONFIDENTIAL: N **LATITUDE:** 40.090052 **DATE COLLECTED:** 5 / 10 / 1968
SURFACE ELEVATION (FT.): 620.0 **LOGGED (FT.):** 30.0 **LOG TYPE:** Drillers Log
SOURCE: PITTSBURG & MIDWAY 95-W **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
620.0	PLEISTOCENE		CLAY	21.0	0.0
599.0	CARBONDALE		SHALE	3.9	21.0
595.1	CARBONDALE	COLCHESTER	COAL	2.1	24.9
593.0	SPOON		SHALE	3.0	27.0

MAPID: 00922036000C **VERSION:** 1 **PROJECT:** NCRDS95
COUNTY: BROWN **TWP/RNG:** 1N 3W **SECTION:** 6 **QUARTERS/FOOTAGES:** 100' S line, 150' E line
QUADRANGLE: LAKE MT. STERLING **LONGITUDE:** -90.777402 **GEOLOGIST:** KOROSE
CONFIDENTIAL: N **LATITUDE:** 40.090052 **DATE COLLECTED:** 5 / 21 / 1968
SURFACE ELEVATION (FT.): 620.0 **LOGGED (FT.):** 28.0 **LOG TYPE:** Drillers Log
SOURCE: PITTSBURG & MIDWAY 113-W **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
620.0	PLEISTOCENE		CLAY	21.0	0.0
599.0	CARBONDALE		SHALE	3.9	21.0
595.1	CARBONDALE	COLCHESTER	COAL	2.1	24.9
593.0	SPOON		SHALE	1.0	27.0

MAPID: 00922037000C **VERSION:** 1 **PROJECT:** NCRDS95
COUNTY: BROWN **TWP/RNG:** 1N 3W **SECTION:** 7 **QUARTERS/FOOTAGES:** 1475' S line, 2775' E line
QUADRANGLE: LAKE MT. STERLING **LONGITUDE:** -90.786993 **GEOLOGIST:** KOROSE
CONFIDENTIAL: N **LATITUDE:** 40.079341 **DATE COLLECTED:** 5 / 4 / 1968
SURFACE ELEVATION (FT.): 605.0 **LOGGED (FT.):** 54.0 **LOG TYPE:** Drillers Log
SOURCE: PITTSBURG & MIDWAY 56-M **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
605.0	PLEISTOCENE		CLAY	29.0	0.0
576.0	CARBONDALE		DARK SHALE	3.0	29.0
573.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	2.5	32.0
570.5	CARBONDALE	FRANCIS CREEK	CLAYSTONE & SILTSTONE	1.5	34.5
569.0	CARBONDALE	FRANCIS CREEK	GRAY SHALE	14.0	36.0
555.0	CARBONDALE	COLCHESTER	COAL	2.0	50.0
553.0	SPOON		UNDERCLAY	2.0	52.0

MAPID: 00922038000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 3W SECTION: 7 QUARTERS/FOOTAGES: 1' S line, 600' W line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.79496 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.075324 DATE COLLECTED: 5 / 3 / 1968

SURFACE ELEVATION (FT.): 605.0 LOGGED (FT.): 42.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 77-W WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
605.0	PLEISTOCENE		CLAY	27.0	0.0	
578.0	CARBONDALE		SHALE	1.5	27.0	
576.5	CARBONDALE		ROCK	1.0	28.5	HARD, BROKEN
575.5	CARBONDALE		SHALE	8.4	29.5	
567.1	CARBONDALE	COLCHESTER	COAL	2.1	37.9	
565.0	SPOON		SHALE	2.0	40.0	

MAPID: 00922039000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 3W SECTION: 7 QUARTERS/FOOTAGES: 1550' N line, 900' W line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.793615 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.08536 DATE COLLECTED: 5 / 3 / 1968

SURFACE ELEVATION (FT.): 585.0 LOGGED (FT.): 51.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 78-W WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
585.0	PLEISTOCENE		CLAY	31.0	0.0	FREE COAL SHOWING AT 21.5
554.0			SANDSTONE	2.0	31.0	
552.0			SHALE	4.0	33.0	
548.0			SHALE	5.0	37.0	
543.0			BLACK SHALE	1.5	42.0	VERY HARD
541.5			DARK SHALE	7.5	43.5	
534.0			SANDSTONE	-	51.0	

MAPID: 00922040000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 3W SECTION: 7 QUARTERS/FOOTAGES: 1450' S line, 1200' E line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.78134 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.079234 DATE COLLECTED: 5 / 4 / 1968

SURFACE ELEVATION (FT.): 635.0 LOGGED (FT.): 70.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 80-W WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
635.0	PLEISTOCENE		CLAY	29.0	0.0	
606.0	CARBONDALE		DARK SHALE	8.0	29.0	
598.0	CARBONDALE		SANDSTONE	2.0	37.0	HARD
596.0	CARBONDALE		SANDSTONE	5.0	39.0	
591.0	CARBONDALE		DARK SHALE	18.5	44.0	
572.5	CARBONDALE	OAK GROVE	LIMESTONE	1.3	62.5	
571.2	CARBONDALE	MECCA QUARRY	BLACK SHALE	2.3	63.8	
568.8	CARBONDALE	COLCHESTER	COAL	2.4	66.2	
566.4	SPOON		SHALE	1.4	68.6	

MAPID: 00922041000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 3W SECTION: 7 QUARTERS/FOOTAGES: 800' N line, 1' E line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.776901 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.087573 DATE COLLECTED: 5 / 9 / 1968

SURFACE ELEVATION (FT.): 600.0 LOGGED (FT.): 52.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 92-W WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
600.0	PLEISTOCENE		CLAY	25.0	0.0	FREE COAL NEAR BASE
575.0			SHALE	1.0	25.0	
574.0			SANDSTONE	4.5	26.0	
569.5			LIMESTONE	1.2	30.5	
568.3			SHALE	14.3	31.7	
554.0			DARK SHALE	3.5	46.0	
550.5			LIMESTONE	2.5	49.5	NOTE: BELOW #2 COAL STRUCTURE

MAPID: 00922042000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 3W SECTION: 7 QUARTERS/FOOTAGES: 1275' S line, 2100' E line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.784579 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.078774 DATE COLLECTED: 5 / 4 / 1968

SURFACE ELEVATION (FT.): 620.0 LOGGED (FT.): 65.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 111-C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
620.0	PLEISTOCENE		CLAY	27.0	0.0
593.0	CARBONDALE		SHALE	1.0	27.0
592.0	CARBONDALE		BLACK SHALE	1.0	28.0
591.0	CARBONDALE		LIMESTONE	3.0	29.0
588.0	CARBONDALE		SANDY SHALE	21.0	32.0
567.0	CARBONDALE		DARK SHALE	1.0	53.0
566.0	CARBONDALE	OAK GROVE	LIMESTONE	1.0	54.0
565.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	3.0	55.0
562.0	CARBONDALE	COLCHESTER	COAL	1.6	58.0
560.4	SPOON		UNDERCLAY	2.4	59.6
558.0	SPOON		SHALE	3.0	62.0

MAPID: 00922043000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 3W SECTION: 7 QUARTERS/FOOTAGES: 1100' S line, 800' W line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.794161 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.078352 DATE COLLECTED: 5 / 3 / 1968

SURFACE ELEVATION (FT.): 600.0 LOGGED (FT.): 80.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 113-C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
600.0	PLEISTOCENE		CLAY	37.0	0.0
563.0	PLEISTOCENE		MUD	43.0	37.0 BLUE

MAPID: 00922044000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 3W SECTION: 7 QUARTERS/FOOTAGES: 2550' S line, 950' W line
 QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.793516 GEOLOGIST: KOROSE
 CONFIDENTIAL: N LATITUDE: 40.082347 DATE COLLECTED: 5 / 3 / 1968
 SURFACE ELEVATION (FT.): 585.0 LOGGED (FT.): 50.0 LOG TYPE: Drillers Log
 SOURCE: PITTSBURG & MIDWAY 114-C WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
585.0	PLEISTOCENE		CLAY	37.0	0.0
548.0			SHALE	3.0	37.0
545.0			CALCAREOUS SHALE	5.0	40.0
540.0			LIMESTONE	5.0	45.0

MAPID: 00922045000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 3W SECTION: 7 QUARTERS/FOOTAGES: 1275' S line, 2100' E line
 QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.784579 GEOLOGIST: KOROSE
 CONFIDENTIAL: N LATITUDE: 40.078774 DATE COLLECTED: 5 / 4 / 1968
 SURFACE ELEVATION (FT.): 620.0 LOGGED (FT.): 65.0 LOG TYPE: Drillers Log
 SOURCE: PITTSBURG & MIDWAY C-116 WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
620.0	PLEISTOCENE		CLAY	27.0	0.0
593.0	CARBONDALE		SHALE	1.0	27.0
592.0	CARBONDALE		BLACK SHALE	1.0	28.0
591.0	CARBONDALE		LIMESTONE	3.0	29.0
588.0	CARBONDALE	OAK GROVE	SANDY SHALE	21.0	32.0
567.0	CARBONDALE	OAK GROVE	DARK SHALE	1.0	53.0
566.0	CARBONDALE	OAK GROVE	LIMESTONE	1.0	54.0
565.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	3.0	55.0
562.0	CARBONDALE	COLCHESTER	COAL	1.6	58.0
560.4	SPOON		UNDERCLAY	2.4	59.6
558.0			SHALE	3.0	62.0

MAPID: 00922046000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 3W SECTION: 7 QUARTERS/FOOTAGES: 1800' N line, 1' E line
 QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.776947 GEOLOGIST: KOROSE
 CONFIDENTIAL: N LATITUDE: 40.084813 DATE COLLECTED: 5 / 4 / 1968
 SURFACE ELEVATION (FT.): 613.0 LOGGED (FT.): 50.0 LOG TYPE: Drillers Log
 SOURCE: PITTSBURG & MIDWAY 116-C WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
613.0	PLEISTOCENE		CLAY	30.0	0.0
583.0	CARBONDALE		SHALE	3.0	30.0
580.0	CARBONDALE		SHALE	1.0	33.0
579.0	CARBONDALE	OAK GROVE	LIMESTONE	1.5	34.0
577.5	CARBONDALE	MECCA QUARRY	BLACK SHALE	2.5	35.5
575.0	CARBONDALE	FRANCIS CREEK	GRAY SHALE	7.0	38.0
568.0	CARBONDALE	COLCHESTER	COAL	2.0	45.0
566.0	SPOON		UNDERCLAY	3.0	47.0

MAPID: 00922047000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 3W SECTION: 7 QUARTERS/FOOTAGES: 1850' N line, 1320' E line
 QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.781687 GEOLOGIST: KOROSE
 CONFIDENTIAL: N LATITUDE: 40.084634 DATE COLLECTED: 5 / 9 / 1968
 SURFACE ELEVATION (FT.): 585.0 LOGGED (FT.): 60.0 LOG TYPE: Drillers Log
 SOURCE: PITTSBURG & MIDWAY 128-C WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
585.0	PLEISTOCENE		CLAY	34.0	0.0
551.0	PLEISTOCENE		MUD	9.0	34.0
542.0			CLAYSTONE & SILTSTONE	2.0	43.0
540.0			GRAY SHALE	13.0	45.0
527.0			CALCAREOUS SHALE	2.0	58.0

MAPID: 00922048000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 3W SECTION: 7 QUARTERS/FOOTAGES: 2500' N line, 550' E line
 QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.778949 GEOLOGIST: KOROSE
 CONFIDENTIAL: N LATITUDE: 40.082862 DATE COLLECTED: 5 / 9 / 1968
 SURFACE ELEVATION (FT.): 605.0 LOGGED (FT.): 60.0 LOG TYPE: Drillers Log
 SOURCE: PITTSBURG & MIDWAY 129-C WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
605.0	PLEISTOCENE		CLAY	25.0	0.0
580.0	PLEISTOCENE		MUD	35.0	25.0

MAPID: 00922049000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 3W SECTION: 8 QUARTERS/FOOTAGES: 2000' N line, 2800' E line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.767892 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.084217 DATE COLLECTED: 5 / 13 / 1968

SURFACE ELEVATION (FT.): 644.0 LOGGED (FT.): 70.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 79-M WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
644.0	PLEISTOCENE		CLAY	32.0	0.0
612.0	CARBONDALE		SANDSTONE	13.0	32.0
599.0	CARBONDALE		SANDY SHALE	17.0	45.0
582.0	CARBONDALE	OAK GROVE	LIMESTONE	1.5	62.0
580.5	CARBONDALE	MECCA QUARRY	BLACK SHALE	2.5	63.5
578.0	CARBONDALE	COLCHESTER	COAL	2.0	66.0
576.0	SPOON		UNDERCLAY	2.0	68.0

MAPID: 00922050000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 3W SECTION: 8 QUARTERS/FOOTAGES: 800' N line, 600' W line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.774744 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.087563 DATE COLLECTED: 5 / 9 / 1968

SURFACE ELEVATION (FT.): 620.0 LOGGED (FT.): 40.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 93-W WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
620.0	PLEISTOCENE		CLAY	21.0	0.0
599.0	CARBONDALE		SHALE	3.0	21.0
596.0	CARBONDALE	OAK GROVE	LIMESTONE	1.0	24.0
595.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	1.8	25.0
593.2	CARBONDALE	FRANCIS CREEK	SHALE	8.3	26.8
584.8	CARBONDALE	COLCHESTER	COAL	2.0	35.2
582.8	SPOON		SHALE	2.8	37.2

MAPID: 00922051000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 3W SECTION: 8 QUARTERS/FOOTAGES: 200' N line, 1450' W line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.771662 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.089203 DATE COLLECTED: 5 / 9 / 1968

SURFACE ELEVATION (FT.): 630.0 LOGGED (FT.): 45.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 94-W WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
630.0	PLEISTOCENE		CLAY	36.0	0.0
594.0	CARBONDALE	OAK GROVE	LIMESTONE	1.0	36.0
593.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	3.5	37.0
589.5	CARBONDALE	COLCHESTER	COAL	1.6	40.5
587.9	SPOON		SHALE	2.9	42.1

MAPID: 00922052000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 3W SECTION: 8 QUARTERS/FOOTAGES: 1900' N line, 1175' W line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.772727 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.084516 DATE COLLECTED: 5 / 10 / 1968

SURFACE ELEVATION (FT.): 625.0 LOGGED (FT.): 50.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 130-C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
625.0	PLEISTOCENE		CLAY	22.0	0.0
603.0	CARBONDALE		SHALE	15.0	22.0
588.0	CARBONDALE		DARK SHALE	2.5	37.0
585.5	CARBONDALE	OAK GROVE	LIMESTONE	1.5	39.5
584.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	3.5	41.0
580.5	CARBONDALE	COLCHESTER	COAL	1.4	44.5
579.1	SPOON		UNDERCLAY	2.1	45.9
577.0	SPOON		SHALE	2.0	48.0

MAPID: 00922053000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 3W SECTION: 10 QUARTERS/FOOTAGES: 300' N line, 2020' E line
 QUADRANGLE: RIPLEY LONGITUDE: -90.726857 GEOLOGIST: KOROSE
 CONFIDENTIAL: N LATITUDE: 40.088586 DATE COLLECTED: 5 / 13 / 1968
 SURFACE ELEVATION (FT.): 630.0 LOGGED (FT.): 61.0 LOG TYPE: Drillers Log
 SOURCE: PITTSBURG & MIDWAY 77-M WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
630.0	PLEISTOCENE		CLAY	22.0	0.0	
608.0	CARBONDALE		SANDSTONE	4.0	22.0	
604.0	CARBONDALE		SANDY SHALE	23.0	26.0	
581.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	2.0	49.0	
579.0	CARBONDALE	FRANCIS CREEK	DARK SHALE	6.0	51.0	
573.0	CARBONDALE	COLCHESTER	COAL	1.8	57.0	
571.2	SPOON		UNDERCLAY	2.3	58.8	

MAPID: 00922054000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 3W SECTION: 10 QUARTERS/FOOTAGES: 1500' S line, 1320' E line
 QUADRANGLE: RIPLEY LONGITUDE: -90.724651 GEOLOGIST: KOROSE
 CONFIDENTIAL: N LATITUDE: 40.078778 DATE COLLECTED: 5 / 13 / 1968
 SURFACE ELEVATION (FT.): 610.0 LOGGED (FT.): 29.0 LOG TYPE: Drillers Log
 SOURCE: PITTSBURG & MIDWAY 78-M WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
610.0	PLEISTOCENE		CLAY	20.5	0.0	WITH GRAVEL
589.5	CARBONDALE	MECCA QUARRY	BLACK SHALE	0.5	20.5	
589.0	CARBONDALE	FRANCIS CREEK	GRAY SHALE	3.5	21.0	
585.5	CARBONDALE	COLCHESTER	COAL	1.8	24.5	
583.7	SPOON		UNDERCLAY	2.7	26.3	

MAPID: 00922055000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 3W SECTION: 10 QUARTERS/FOOTAGES: 2200' N line, 1' W line

QUADRANGLE: RIPLEY LONGITUDE: -90.738782 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.083463 DATE COLLECTED: 5 / 6 / 1968

SURFACE ELEVATION (FT.): 642.0 LOGGED (FT.): 80.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 117-C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
642.0	PLEISTOCENE		CLAY	20.0	0.0
622.0	CARBONDALE		UNCLASSIFIED	23.0	20.0
599.0	CARBONDALE		BLACK SHALE	1.0	43.0
598.0	CARBONDALE		SANDSTONE	4.0	44.0
594.0	CARBONDALE		SANDY SHALE	20.0	48.0
574.0	CARBONDALE		BLACK SHALE	6.0	68.0
568.0	CARBONDALE	COLCHESTER	COAL	1.8	74.0
566.2	SPOON		UNDERCLAY	2.2	75.8
564.0	SPOON		SHALE	2.0	78.0

MAPID: 00922011000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 3W SECTION: 11 QUARTERS/FOOTAGES: 100' N line, 1320' E line

QUADRANGLE: RIPLEY LONGITUDE: -90.705247 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.089029 DATE COLLECTED: 5 / 7 / 1968

SURFACE ELEVATION (FT.): 600.0 LOGGED (FT.): 42.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 86-W WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
600.0	PLEISTOCENE		CLAY	18.0	0.0
582.0	CARBONDALE		SANDSTONE	8.0	18.0
574.0	CARBONDALE		DARK SHALE	6.4	26.0
567.6	CARBONDALE	OAK GROVE	LIMESTONE	2.4	32.4
565.2	CARBONDALE	MECCA QUARRY	BLACK SHALE	1.7	34.8
563.5	CARBONDALE	MECCA QUARRY	BLACK SHALE	1.0	36.5
562.5	CARBONDALE	COLCHESTER	COAL	1.8	37.5
560.7	SPOON		SHALE	2.7	39.3

MAPID: 00922056000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 3W SECTION: 11 QUARTERS/FOOTAGES: 1' S line, 1000' W line
 QUADRANGLE: RIPLEY LONGITUDE: -90.716451 GEOLOGIST: KOROSE
 CONFIDENTIAL: N LATITUDE: 40.074581 DATE COLLECTED: 9 / 25 / 1967
 SURFACE ELEVATION (FT.): 618.0 LOGGED (FT.): 54.0 LOG TYPE: Drillers Log
 SOURCE: PITTSBURG & MIDWAY 28-W WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
618.0	PLEISTOCENE		CLAY	20.0	0.0
598.0	CARBONDALE		SANDY SHALE	18.6	20.0
579.4	CARBONDALE		SHALE	1.0	38.6
578.4	CARBONDALE	OAK GROVE	LIMESTONE	1.7	39.6
576.7	CARBONDALE	MECCA QUARRY	BLACK SHALE	1.4	41.3
575.3	CARBONDALE	FRANCIS CREEK	DARK SHALE	6.6	42.7
568.7	CARBONDALE	COLCHESTER	COAL	1.8	49.3
566.9	SPOON		SHALE	2.9	51.1

MAPID: 00922057000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 3W SECTION: 11 QUARTERS/FOOTAGES: 800' S line, 1850' W line
 QUADRANGLE: RIPLEY LONGITUDE: -90.713331 GEOLOGIST: KOROSE
 CONFIDENTIAL: N LATITUDE: 40.076777 DATE COLLECTED: 5 / 17 / 1968
 SURFACE ELEVATION (FT.): 600.0 LOGGED (FT.): 47.0 LOG TYPE: Drillers Log
 SOURCE: PITTSBURG & MIDWAY 88-M WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
600.0	PLEISTOCENE		CLAY	21.0	0.0
579.0	CARBONDALE		SHALE	12.5	21.0
566.5	CARBONDALE	OAK GROVE	LIMESTONE	0.5	33.5
566.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	2.0	34.0
564.0	CARBONDALE	FRANCIS CREEK	SHALE	6.5	36.0
557.5	CARBONDALE	COLCHESTER	COAL	2.0	42.5
555.5	SPOON		UNDERCLAY	2.5	44.5

MAPID: 00922058000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 3W SECTION: 11 QUARTERS/FOOTAGES: 1500' S line, 2800' W line
 QUADRANGLE: RIPLEY LONGITUDE: -90.709858 GEOLOGIST: KOROSE
 CONFIDENTIAL: N LATITUDE: 40.078698 DATE COLLECTED: 5 / 14 / 1968
 SURFACE ELEVATION (FT.): 610.0 LOGGED (FT.): 50.0 LOG TYPE: Drillers Log
 SOURCE: PITTSBURG & MIDWAY 138-C WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
610.0	PLEISTOCENE		CLAY	20.0	0.0
590.0	CARBONDALE		SANDY SHALE	14.0	20.0
576.0	CARBONDALE		DARK SHALE	1.0	34.0
575.0	CARBONDALE	OAK GROVE	LIMESTONE	0.8	35.0
574.2	CARBONDALE	MECCA QUARRY	BLACK SHALE	2.2	35.8
572.0	CARBONDALE	FRANCIS CREEK	SHALE	6.0	38.0
566.0	CARBONDALE	COLCHESTER	COAL	1.3	44.0
564.7	SPOON		UNDERCLAY	2.8	45.3
562.0	SPOON		SHALE	2.0	48.0

MAPID: 00922059000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 3W SECTION: 13 QUARTERS/FOOTAGES: 1' S line, 2640' W line
 QUADRANGLE: RIPLEY LONGITUDE: -90.691702 GEOLOGIST: KOROSE
 CONFIDENTIAL: N LATITUDE: 40.059703 DATE COLLECTED: 5 / 16 / 1968
 SURFACE ELEVATION (FT.): 570.0 LOGGED (FT.): 55.0 LOG TYPE: Drillers Log
 SOURCE: PITTSBURG & MIDWAY 87-M WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
570.0	PLEISTOCENE		CLAY	6.0	0.0
564.0	PLEISTOCENE		UNCONSOLIDATED	46.0	6.0
518.0			UNDERCLAY	3.0	52.0

MAPID: 0092206000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 3W SECTION: 13 QUARTERS/FOOTAGES: 1320' N line, 1320' W line
 QUADRANGLE: RIPLEY LONGITUDE: -90.696156 GEOLOGIST: KOROSE
 CONFIDENTIAL: N LATITUDE: 40.070792 DATE COLLECTED: 5 / 16 / 1968
 SURFACE ELEVATION (FT.): 570.0 LOGGED (FT.): 64.0 LOG TYPE: Drillers Log
 SOURCE: PITTSBURG & MIDWAY 106-W WELL TYPE: Coal Test
 COMMENT: DRILL NOTE: LS APPEARS TO BE BELOW #2 C

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
570.0	PLEISTOCENE		CLAY	17.0	0.0	
553.0			DARK SHALE	2.0	17.0	
551.0			SANDSTONE	13.0	19.0	
538.0			DARK SHALE	1.0	32.0	
537.0			SANDSTONE	6.0	33.0	HARD
531.0			DARK SHALE	2.0	39.0	
529.0			SANDSTONE/SHALE	5.0	41.0	
524.0			SANDSTONE	16.0	46.0	
508.0			LIMESTONE	2.0	62.0	

MAPID: 00922061000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 3W SECTION: 13 QUARTERS/FOOTAGES: 1' N line, 1' W line
 QUADRANGLE: RIPLEY LONGITUDE: -90.700797 GEOLOGIST: KOROSE
 CONFIDENTIAL: N LATITUDE: 40.074532 DATE COLLECTED: 5 / 17 / 1968
 SURFACE ELEVATION (FT.): 585.0 LOGGED (FT.): 40.0 LOG TYPE: Drillers Log
 SOURCE: PITTSBURG & MIDWAY 107-W WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
585.0	PLEISTOCENE		CLAY	14.0	0.0	
571.0	CARBONDALE		LIGHT SHALE	10.0	14.0	
561.0	CARBONDALE		DARK SHALE	7.0	24.0	
554.0	CARBONDALE	OAK GROVE	LIMESTONE	0.7	31.0	
553.3	CARBONDALE		SHALE	1.2	31.7	
552.2	CARBONDALE	COLCHESTER	COAL	0.2	32.8	
552.0	SPOON		SHALE	0.7	33.0	
551.3	SPOON		LIMESTONE	6.3	33.7	

MAPID: 00922062000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 3W SECTION: 14 QUARTERS/FOOTAGES: 0' N line, 1' E line

QUADRANGLE: RIPLEY LONGITUDE: -90.700804 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.074534 DATE COLLECTED: 9 / 25 / 1967

SURFACE ELEVATION (FT.): 607.0 LOGGED (FT.): 46.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 29-W WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
607.0	PLEISTOCENE		CLAY	17.0	0.0
590.0	CARBONDALE		BROWN SANDSTONE	5.0	17.0
585.0	CARBONDALE		SHALE	16.8	22.0
568.2	CARBONDALE		BLACK SHALE	1.0	38.8
567.2	CARBONDALE	OAK GROVE	LIMESTONE	1.2	39.8
566.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	2.3	41.0
563.7	CARBONDALE	COLCHESTER	COAL	1.8	43.3
561.9	SPOON		SHALE	0.9	45.1

MAPID: 00922063000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 3W SECTION: 14 QUARTERS/FOOTAGES: 1400' N line, 1320' W line

QUADRANGLE: RIPLEY LONGITUDE: -90.715366 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.070712 DATE COLLECTED: 5 / 16 / 1968

SURFACE ELEVATION (FT.): 600.0 LOGGED (FT.): 67.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 85-M WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
600.0	PLEISTOCENE		CLAY	15.0	0.0
585.0	CARBONDALE		SHALE	12.0	15.0
573.0	CARBONDALE		SANDSTONE	8.0	27.0
565.0	CARBONDALE		SANDY SHALE	7.0	35.0
558.0	CARBONDALE		SHALE	1.0	42.0
557.0	CARBONDALE	OAK GROVE	LIMESTONE	1.0	43.0
556.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	2.5	44.0
553.5	CARBONDALE	FRANCIS CREEK	SHALE	15.5	46.5
538.0	CARBONDALE	COLCHESTER	COAL	2.0	62.0
536.0	SPOON		UNDERCLAY	3.0	64.0

MAPID: 00922064000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 3W SECTION: 14 QUARTERS/FOOTAGES: 2640' S line, 1400' E line

QUADRANGLE: RIPLEY LONGITUDE: -90.706016 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.0672 DATE COLLECTED: 5 / 16 / 1968

SURFACE ELEVATION (FT.): 605.0 LOGGED (FT.): 56.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 86-M WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
605.0	PLEISTOCENE		CLAY	18.5	0.0
586.5	CARBONDALE		SANDSTONE	3.0	18.5
583.5	CARBONDALE		SANDY SHALE	23.5	21.5
560.0	CARBONDALE		SHALE	1.0	45.0
559.0	CARBONDALE	OAK GROVE	LIMESTONE	1.5	46.0
557.5	CARBONDALE	MECCA QUARRY	BLACK SHALE	3.5	47.5
554.0	CARBONDALE		SHALE/COAL	0.3	51.0
553.7	CARBONDALE	COLCHESTER	COAL	2.4	51.3
551.2	SPOON		UNDERCLAY	2.3	53.8

MAPID: 00922065000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 3W SECTION: 14 QUARTERS/FOOTAGES: 2640' S line, 2500' W line

QUADRANGLE: RIPLEY LONGITUDE: -90.711189 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.067208 DATE COLLECTED: 5 / 16 / 1968

SURFACE ELEVATION (FT.): 600.0 LOGGED (FT.): 52.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 104-W WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
600.0	PLEISTOCENE		CLAY	24.0	0.0
576.0	CARBONDALE		DARK SHALE	20.0	24.0
556.0	CARBONDALE	OAK GROVE	LIMESTONE	0.8	44.0
555.2	CARBONDALE		SHALE	0.3	44.8
554.9	CARBONDALE	MECCA QUARRY	BLACK SHALE	2.6	45.1
552.3	CARBONDALE	COLCHESTER	COAL	1.5	47.7
550.8	SPOON		SHALE	2.8	49.2

MAPID: 00922066000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 3W SECTION: 14 QUARTERS/FOOTAGES: 900' S line, 2700' W line

QUADRANGLE: RIPLEY LONGITUDE: -90.710552 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.062404 DATE COLLECTED: 0 / 0 / 1968

SURFACE ELEVATION (FT.): 608.0 LOGGED (FT.): 70.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 144-C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
608.0	PLEISTOCENE		CLAY	22.0	0.0	
586.0	PLEISTOCENE		MUD	33.0	22.0	LOG THICKNESS 7.0 CHANGED
553.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	4.0	55.0	LOG THICKNESS 33.0 CHANGED
549.0	CARBONDALE	FRANCIS CREEK	SHALE	6.0	59.0	
543.0	CARBONDALE	COLCHESTER	COAL	2.3	65.0	
540.7	SPOON		UNDERCLAY	2.8	67.3	

MAPID: 00922067000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 3W SECTION: 14 QUARTERS/FOOTAGES: 1320' N line, 1' E line

QUADRANGLE: RIPLEY LONGITUDE: -90.700899 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.07089 DATE COLLECTED: 5 / 16 / 1968

SURFACE ELEVATION (FT.): 570.0 LOGGED (FT.): 30.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 105-W WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
570.0	PLEISTOCENE		CLAY	6.0	0.0	
564.0	CARBONDALE		SAND & GRAVEL	10.0	6.0	WITH FREE COAL
554.0	CARBONDALE		SHALE	10.3	16.0	
543.7	CARBONDALE	COLCHESTER	COAL	0.8	26.3	
542.8	SPOON		ROCK	0.3	27.2	HARD
542.5	SPOON		SHALE	2.5	27.5	

MAPID: 00922068000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 3W SECTION: 14 QUARTERS/FOOTAGES: 700' S line, 150' E line
 QUADRANGLE: RIPLEY LONGITUDE: -90.701663 GEOLOGIST: KOROSE
 CONFIDENTIAL: N LATITUDE: 40.061843 DATE COLLECTED: 5 / 16 / 1968
 SURFACE ELEVATION (FT.): 600.0 LOGGED (FT.): 70.0 LOG TYPE: Drillers Log
 SOURCE: PITTSBURG & MIDWAY 145-C WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
600.0	PLEISTOCENE		CLAY	27.0	0.0
573.0	CARBONDALE		SANDSTONE	10.0	27.0
563.0	CARBONDALE		SANDY SHALE	14.0	37.0
549.0	CARBONDALE		DARK SHALE	1.0	51.0
548.0	CARBONDALE	OAK GROVE	LIMESTONE	0.7	52.0
547.3	CARBONDALE	MECCA QUARRY	BLACK SHALE	2.3	52.7
545.0	CARBONDALE	FRANCIS CREEK	SHALE	1.0	55.0
544.0	CARBONDALE	COLCHESTER	COAL	2.0	56.0
542.0	SPOON		UNDERCLAY	2.0	58.0
540.0			SHALE	10.0	60.0

MAPID: 00922069000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 3W SECTION: 15 QUARTERS/FOOTAGES: 1' N line, 700' W line
 QUADRANGLE: RIPLEY LONGITUDE: -90.736468 GEOLOGIST: KOROSE
 CONFIDENTIAL: N LATITUDE: 40.07476 DATE COLLECTED: 5 / 13 / 1967
 SURFACE ELEVATION (FT.): 640.0 LOGGED (FT.): 90.0 LOG TYPE: Drillers Log
 SOURCE: PITTSBURG & MIDWAY 137-C WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
640.0	PLEISTOCENE		CLAY	30.0	0.0
610.0	CARBONDALE		SHALE	23.0	30.0
587.0	CARBONDALE		DARK SHALE	1.0	53.0
586.0	CARBONDALE		SANDSTONE	9.0	54.0
577.0	CARBONDALE		SANDY SHALE	15.0	63.0
562.0	CARBONDALE		DARK SHALE	1.0	78.0
561.0	CARBONDALE	OAK GROVE	LIMESTONE	0.7	79.0
560.3	CARBONDALE	MECCA QUARRY	BLACK SHALE	4.3	79.7
556.0	CARBONDALE	COLCHESTER	COAL	1.5	84.0
554.5	SPOON		UNDERCLAY	2.0	85.5
552.5	SPOON		SHALE	2.5	87.5

MAPID: 00922070000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 3W SECTION: 17 QUARTERS/FOOTAGES: 2500' N line, 2510' W line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.768241 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.068225 DATE COLLECTED: 5 / 8 / 1968

SURFACE ELEVATION (FT.): 685.0 LOGGED (FT.): 136.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 67-M WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
685.0	PLEISTOCENE		CLAY	65.0	0.0	W/ MUD, SAND
620.0	CARBONDALE		SHALE	30.0	65.0	
590.0	CARBONDALE		SANDSTONE	6.0	95.0	
584.0	CARBONDALE		SANDY SHALE	18.0	101.0	
566.0	CARBONDALE		SHALE	1.0	119.0	
565.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	2.0	120.0	
563.0	CARBONDALE	FRANCIS CREEK	SHALE	9.0	122.0	
554.0	CARBONDALE	COLCHESTER	COAL	2.3	131.0	
551.7	SPOON		UNDERCLAY	2.8	133.3	

MAPID: 00922071000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 3W SECTION: 17 QUARTERS/FOOTAGES: 2640' S line, 200' W line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.77654 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.068047 DATE COLLECTED: 5 / 8 / 1968

SURFACE ELEVATION (FT.): 670.0 LOGGED (FT.): 114.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 90-,W WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
670.0	PLEISTOCENE		CLAY	15.0	0.0	
655.0	PLEISTOCENE		SAND & GRAVEL	27.0	15.0	
628.0	CARBONDALE		DARK SHALE	41.0	42.0	
587.0	CARBONDALE		SHALE	2.5	83.0	
584.5	CARBONDALE		SHALE	22.1	85.5	
562.4	CARBONDALE	OAK GROVE	LIMESTONE	0.5	107.6	
561.9	CARBONDALE	MECCA QUARRY	BLACK SHALE	2.3	108.1	
559.7	CARBONDALE	COLCHESTER	COAL	1.8	110.3	
557.9	SPOON		UNDERCLAY	1.9	112.1	

MAPID: 00922072000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 3W SECTION: 17 QUARTERS/FOOTAGES: 2600' S line, 1100' W line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.773315 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.067881 DATE COLLECTED: 5 / 8 / 1968

SURFACE ELEVATION (FT.): 685.0 LOGGED (FT.): 130.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 125-C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
685.0	PLEISTOCENE		CLAY	16.0	0.0
669.0	CARBONDALE		LIMESTONE	2.0	16.0
667.0	CARBONDALE		SANDY SHALE	70.0	18.0
597.0	CARBONDALE		SANDSTONE	2.0	88.0
595.0	CARBONDALE		SANDY SHALE	28.0	90.0
567.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	3.0	118.0
564.0	CARBONDALE	COLCHESTER	COAL	1.7	121.0
562.3	SPOON		UNDERCLAY	2.3	122.7
560.0	SPOON		SHALE	5.0	125.0

MAPID: 00900067000C VERSION: 1

PROJECT: NCRDS99

COUNTY: BROWN TWP/RNG: 1N 3W SECTION: 18 QUARTERS/FOOTAGES: 700' N line, 300' W line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.796059 GEOLOGIST: MCCRACKEN

CONFIDENTIAL: N LATITUDE: 40.073396 DATE COLLECTED: 6 / 12 / 1959

SURFACE ELEVATION (FT.): 636.0 LOGGED (FT.): 84.0 LOG TYPE: Drillers Log

SOURCE: DONAN AU-5 WELL TYPE: Coal Test

COMMENT: 3 DIFFERENT STUDIES-NONE EXACTLY SAME

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
636.0			NO RECORD	20.0	0.0	
616.0	CARBONDALE		SHALE	11.0	20.0	
605.0	CARBONDALE		LIMESTONE	3.3	31.0	
601.7	CARBONDALE		SHALE	15.7	34.3	
586.1	CARBONDALE		CLAYSTONE & SILTSTONE	0.1	49.9	
586.0	CARBONDALE	OAK GROVE	LIMESTONE	0.8	50.0	BLACK
585.2	CARBONDALE	MECCA QUARRY	BLACK SHALE	1.7	50.8	
583.5	CARBONDALE		SHALE	9.0	52.5	
574.5	CARBONDALE	COLCHESTER	COAL	2.2	61.5	
572.3			UNDERCLAY	0.5	63.7	
571.8			LIMESTONE	2.8	64.2	
569.0			SHALE	1.0	67.0	
568.0			LIMESTONE	0.9	68.0	
567.1			SHALE	1.0	68.9	
566.1			LIMESTONE	0.4	69.9	
565.7			SHALE	5.5	70.3	
560.2			SANDSTONE	1.5	75.8	
558.7			SHALE	6.7	77.3	

MAPID: 00900067000C VERSION: 2

PROJECT: AVAIL

COUNTY: BROWN TWP/RNG: 1N 3W SECTION: 18 QUARTERS/FOOTAGES: 700' N line, 300' W line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.796059 GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 40.073396 DATE COLLECTED: 6 / 12 / 1959

SURFACE ELEVATION (FT.): 636.0 LOGGED (FT.): 84.0 LOG TYPE: Drillers Log

SOURCE: DONAN AU-5 WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
636.0	PLEISTOCENE		UNCONSOLIDATED	14.0	0.0	
622.0			GRAY SHALE	18.3	14.0	
603.7			LIMESTONE	2.8	32.3	
601.0			LIMESTONE	14.5	35.0	GREEN
586.5	CARBONDALE	OAK GROVE	BLACK SHALE	0.5	49.5	
586.0	CARBONDALE	OAK GROVE	FOSSILIFEROUS LIMESTONE	1.0	50.0	GRAY
585.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	1.4	51.0	
583.6	CARBONDALE	FRANCIS CREEK	GRAY SHALE	9.9	52.4	
573.7	CARBONDALE	COLCHESTER	COAL	2.2	62.3	BLACK
571.5			GRAY SHALE	2.2	64.5	
569.3			CALCAREOUS SHALE	4.2	66.7	
565.1			GRAY SHALE	9.0	70.9	
556.1			SANDSTONE	1.5	79.9	WHITE
554.6			SANDY SHALE	3.5	81.4	

MAPID: 00922073000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 3W SECTION: 18 QUARTERS/FOOTAGES: 1320' N line, 660' W line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.794788 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.071677 DATE COLLECTED: 1 / 20 / 1967

SURFACE ELEVATION (FT.): 636.0 LOGGED (FT.): 66.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 45-C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
636.0	PLEISTOCENE		CLAY	25.0	0.0	
611.0	CARBONDALE		SHALE	9.0	25.0	
602.0	CARBONDALE		LIMESTONE	0.8	34.0	
601.2	CARBONDALE		SHALE	0.4	34.8	
600.7	CARBONDALE		LIMESTONE	1.0	35.3	
599.7	CARBONDALE		SANDY SHALE	17.8	36.3	
582.0	CARBONDALE	OAK GROVE	LIMESTONE	1.0	54.0	
581.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	1.9	55.0	
579.1	CARBONDALE	FRANCIS CREEK	SHALE	5.6	56.9	
573.5	CARBONDALE	COLCHESTER	COAL	1.8	62.5	
571.7	SPOON		UNDERCLAY	1.8	64.3	

MAPID: 00922074000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 3W SECTION: 18 QUARTERS/FOOTAGES: 2000' N line, 200' E line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.777939 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.069694 DATE COLLECTED: 5 / 8 / 1968

SURFACE ELEVATION (FT.): 645.0 LOGGED (FT.): 82.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 91-W WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
645.0	PLEISTOCENE		CLAY	22.0	0.0
623.0	CARBONDALE		DARK SHALE	30.0	22.0
593.0	CARBONDALE		LIMESTONE	2.7	52.0
590.3	CARBONDALE		SHALE	20.8	54.7
569.5	CARBONDALE	OAK GROVE	LIMESTONE	0.8	75.5
568.7	CARBONDALE	MECCA QUARRY	BLACK SHALE	2.6	76.3
566.2	CARBONDALE	COLCHESTER	COAL	1.8	78.8
564.4	SPOON		SHALE	1.4	80.6

MAPID: 00922075000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 3W SECTION: 19 QUARTERS/FOOTAGES: 2640' N line, 2640' E line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.787113 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.053509 DATE COLLECTED: 7 / 20 / 1967

SURFACE ELEVATION (FT.): 683.0 LOGGED (FT.): 121.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 48-P WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
683.0	PLEISTOCENE		CLAY	20.0	0.0
663.0	CARBONDALE		BROWN SANDSTONE	9.0	20.0
654.0	CARBONDALE		SANDY SHALE	65.0	29.0
589.0	CARBONDALE		LIMESTONE	1.8	94.0
587.2	CARBONDALE		SANDY SHALE	17.8	95.8
569.5	CARBONDALE		DARK SHALE	1.0	113.5
568.5	CARBONDALE	OAK GROVE	LIMESTONE	0.8	114.5
567.7	CARBONDALE	MECCA QUARRY	BLACK SHALE	2.0	115.3
565.7	CARBONDALE	COLCHESTER	COAL	2.3	117.3
563.4	SPOON		UNDERCLAY	1.4	119.6

MAPID: 00922076000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 3W SECTION: 23 QUARTERS/FOOTAGES:

QUADRANGLE: RIPLEY LONGITUDE: -90.710832 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.052645 DATE COLLECTED: 7 / 20 / 1967

SURFACE ELEVATION (FT.): 595.0 LOGGED (FT.): 54.8 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 32-W WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
595.0	PLEISTOCENE		SANDY CLAY	10.0	0.0	
585.0	PLEISTOCENE		GRAVEL	3.0	10.0	
582.0	PLEISTOCENE		CLAY	15.0	13.0	
567.0			SHALE	6.5	28.0	
560.5			SANDSTONE	0.3	34.5	HARD
560.2			SHALE	19.6	34.8	
540.6			LIMESTONE	0.4	54.4	

MAPID: 00922077000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 3W SECTION: 23 QUARTERS/FOOTAGES: 1550' S line, 1' W line

QUADRANGLE: RIPLEY LONGITUDE: -90.720387 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.049649 DATE COLLECTED: 5 / 18 / 1968

SURFACE ELEVATION (FT.): 595.0 LOGGED (FT.): 79.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 91-M WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
595.0	PLEISTOCENE		CLAY	23.0	0.0	
572.0	CARBONDALE		SHALE	26.0	23.0	LOG THICKNESS 16.0 CHANGED
546.0	CARBONDALE		SANDSTONE	1.5	49.0	
544.5	CARBONDALE		SANDY SHALE	21.5	50.5	LOG THICKNESS 11.5 CHANGED
523.0	CARBONDALE	OAK GROVE	LIMESTONE	1.0	72.0	
522.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	1.5	73.0	
520.5	CARBONDALE	COLCHESTER	COAL	1.8	74.5	
518.7	SPOON		UNDERCLAY	2.8	76.3	

MAPID: 00922078000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 3W SECTION: 23 QUARTERS/FOOTAGES: 1320' S line, 1320' W line
 QUADRANGLE: RIPLEY LONGITUDE: -90.715657 GEOLOGIST: KOROSE
 CONFIDENTIAL: N LATITUDE: 40.04901 DATE COLLECTED: 5 / 18 / 1968
 SURFACE ELEVATION (FT.): 610.0 LOGGED (FT.): 100.0 LOG TYPE: Drillers Log
 SOURCE: PITTSBURG & MIDWAY 147-C WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
610.0	PLEISTOCENE		CLAY	35.0	0.0
575.0	CARBONDALE		SHALE	28.0	35.0
547.0	CARBONDALE		DARK SHALE	1.0	63.0
546.0	CARBONDALE		LIMESTONE	1.2	64.0
544.8	CARBONDALE		BLACK SHALE	2.8	65.2
542.0	CARBONDALE		SANDY SHALE	12.0	68.0
530.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	3.0	80.0
527.0	CARBONDALE	FRANCIS CREEK	SHALE	7.0	83.0
520.0	CARBONDALE	COLCHESTER	COAL	1.8	90.0
518.2	SPOON		UNDERCLAY	2.2	91.8
516.0	SPOON		SHALE	6.0	94.0

MAPID: 00922079000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 3W SECTION: 24 QUARTERS/FOOTAGES: 1650' N line, 1' W line
 QUADRANGLE: RIPLEY LONGITUDE: -90.70125 GEOLOGIST: KOROSE
 CONFIDENTIAL: N LATITUDE: 40.055362 DATE COLLECTED: 9 / 25 / 1967
 SURFACE ELEVATION (FT.): 590.0 LOGGED (FT.): 61.0 LOG TYPE: Drillers Log
 SOURCE: PITTSBURG & MIDWAY 30-W WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
590.0	PLEISTOCENE		CLAY	25.0	0.0
565.0	CARBONDALE		SHALE	8.6	25.0
556.4	CARBONDALE		SANDSTONE	1.6	33.6 HARD
554.8	CARBONDALE		SANDY SHALE	2.8	35.2
552.0	CARBONDALE		SANDSTONE	2.0	38.0
550.0	CARBONDALE		SHALE	16.5	40.0
533.5	CARBONDALE	MECCA QUARRY	BLACK SHALE	1.8	56.5
531.7	CARBONDALE	COLCHESTER	COAL	2.3	58.3
529.3	SPOON		UNDERCLAY	0.3	60.7

MAPID: 00922080000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 3W SECTION: 24 QUARTERS/FOOTAGES: 1875' S line, 1' W line
 QUADRANGLE: RIPLEY LONGITUDE: -90.701336 GEOLOGIST: KOROSE
 CONFIDENTIAL: N LATITUDE: 40.050536 DATE COLLECTED: 5 / 17 / 1968
 SURFACE ELEVATION (FT.): 570.0 LOGGED (FT.): 37.0 LOG TYPE: Drillers Log
 SOURCE: PITTSBURG & MIDWAY 90-M WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
570.0	PLEISTOCENE		CLAY	10.0	0.0
560.0	CARBONDALE		SANDSTONE	2.0	10.0
558.0	CARBONDALE		DARK SHALE	2.0	12.0
556.0	CARBONDALE		SANDY SHALE	14.0	14.0
542.0	CARBONDALE		DARK SHALE	2.0	28.0
540.0	CARBONDALE	OAK GROVE	LIMESTONE	1.0	30.0
539.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	1.5	31.0
537.5	CARBONDALE	FRANCIS CREEK	SHALE	0.5	32.5
537.0	CARBONDALE	COLCHESTER	COAL	1.5	33.0
535.5	SPOON		UNDERCLAY	2.5	34.5

MAPID: 00922081000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 3W SECTION: 24 QUARTERS/FOOTAGES: 2600' N line, 1320' W line
 QUADRANGLE: RIPLEY LONGITUDE: -90.696563 GEOLOGIST: KOROSE
 CONFIDENTIAL: N LATITUDE: 40.052635 DATE COLLECTED: 5 / 17 / 1968
 SURFACE ELEVATION (FT.): 540.0 LOGGED (FT.): 56.0 LOG TYPE: Drillers Log
 SOURCE: PITTSBURG & MIDWAY 108-W WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
540.0	PLEISTOCENE		CLAY	25.0	0.0
515.0			LIMESTONE	4.5	25.0
510.5			SHALE	14.5	29.5
496.0			BLACK SHALE	4.0	44.0
492.0			SHALE	6.0	48.0
486.0			LIMESTONE	2.0	54.0

MAPID: 00922082000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 3W SECTION: 24 QUARTERS/FOOTAGES: 2640' N line, 1000' W line
 QUADRANGLE: RIPLEY LONGITUDE: -90.697714 GEOLOGIST: KOROSE
 CONFIDENTIAL: N LATITUDE: 40.052552 DATE COLLECTED: 5 / 20 / 1968
 SURFACE ELEVATION (FT.): 560.0 LOGGED (FT.): 44.0 LOG TYPE: Drillers Log
 SOURCE: PITTSBURG & MIDWAY 111-W WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
560.0	PLEISTOCENE		CLAY	19.0	0.0
541.0	CARBONDALE		DARK SHALE	20.6	19.0
520.4	CARBONDALE	COLCHESTER	COAL	2.1	39.6
518.3	SPOON		SHALE	2.3	41.7

MAPID: 00922083000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 3W SECTION: 24 QUARTERS/FOOTAGES: 2640' N line, 1000' W line
 QUADRANGLE: RIPLEY LONGITUDE: -90.697714 GEOLOGIST: KOROSE
 CONFIDENTIAL: N LATITUDE: 40.052552 DATE COLLECTED: 5 / 20 / 1968
 SURFACE ELEVATION (FT.): 560.0 LOGGED (FT.): 42.2 LOG TYPE: Drillers Log
 SOURCE: PITTSBURG & MIDWAY 112-W-C WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
560.0	PLEISTOCENE		CLAY	19.0	0.0
541.0	CARBONDALE		SHALE	20.6	19.0
520.4	CARBONDALE	COLCHESTER	COAL	2.0	39.6
518.4	SPOON		SHALE	0.6	41.6

MAPID: 00922084000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 3W SECTION: 25 QUARTERS/FOOTAGES: 2750' N line, 1400' E line

QUADRANGLE: RIPLEY LONGITUDE: -90.687432 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.037766 DATE COLLECTED: 9 / 26 / 1967

SURFACE ELEVATION (FT.): 595.0 LOGGED (FT.): 76.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 33-W WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
595.0	PLEISTOCENE		CLAY	18.0	0.0	COAL SHOWING AT BASE
577.0	CARBONDALE		BROWN LIMESTONE	1.0	18.0	
576.0	CARBONDALE		SHALE	34.5	19.0	
541.5	CARBONDALE		LIMESTONE	1.7	53.5	
539.8	CARBONDALE		DARK SHALE	0.8	55.2	
539.0	CARBONDALE		SANDSTONE	1.3	56.0	HARD
537.7	CARBONDALE		DARK SHALE	11.6	57.3	
526.2	CARBONDALE	OAK GROVE	LIMESTONE	1.0	68.8	
525.2	CARBONDALE	MECCA QUARRY	BLACK SHALE	1.7	69.8	
523.5	CARBONDALE	COLCHESTER	COAL	2.2	71.5	
521.3	SPOON		SHALE	2.3	73.7	

MAPID: 00922085000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 3W SECTION: 25 QUARTERS/FOOTAGES: 300' N line, 3925' W line

QUADRANGLE: RIPLEY LONGITUDE: -90.687357 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.044526 DATE COLLECTED: 5 / 18 / 1968

SURFACE ELEVATION (FT.): 580.0 LOGGED (FT.): 68.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 110-W WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
580.0	PLEISTOCENE		CLAY	27.0	0.0	
553.0	CARBONDALE		SHALE	16.0	27.0	
537.0	CARBONDALE		LIMESTONE	1.0	43.0	
536.0	CARBONDALE		DARK SHALE	10.5	44.0	
525.5	CARBONDALE	OAK GROVE	LIMESTONE	0.6	54.5	
524.9	CARBONDALE		DARK SHALE	0.4	55.1	
524.5	CARBONDALE	MECCA QUARRY	BLACK SHALE	2.1	55.5	
522.4	CARBONDALE	FRANCIS CREEK	SHALE	6.1	57.6	
516.3	CARBONDALE	COLCHESTER	COAL	2.2	63.7	
514.2	SPOON		SHALE	2.2	65.8	

MAPID: 00990077000C VERSION: 1

PROJECT: NCRDS02

COUNTY: BROWN TWP/RNG: 1N 3W SECTION: 25 QUARTERS/FOOTAGES: 1' S line, 330' W line of SW NE
 QUADRANGLE: RIPLEY LONGITUDE: -90.690811 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 40.037994 DATE COLLECTED: 8 / 18 / 1941
 SURFACE ELEVATION (FT.): 580.0 LOGGED (FT.): 56.0 LOG TYPE: Drillers Log
 SOURCE: AMAX EX321B WELL TYPE: Coal Test
 COMMENT: RIPLEY BOX 27

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
580.0	PLEISTOCENE		UNCONSOLIDATED	15.0	0.0	
565.0	PLEISTOCENE		CLAY	5.0	15.0	
560.0	CARBONDALE		SHALE	11.0	20.0	
549.0	CARBONDALE		SANDSTONE	3.0	31.0	HARD
546.0	CARBONDALE		SHALE	10.0	34.0	
536.0	CARBONDALE		SANDSTONE	1.0	44.0	HARD
535.0	CARBONDALE		BLACK SHALE	2.0	45.0	
533.0	CARBONDALE		UNDERCLAY	9.0	47.0	

MAPID: 00990078000C VERSION: 1

PROJECT: NCRDS02

COUNTY: BROWN TWP/RNG: 1N 3W SECTION: 25 QUARTERS/FOOTAGES: 330' S line, 200' W line of SE NE
 QUADRANGLE: RIPLEY LONGITUDE: -90.686467 GEOLOGIST: STRAAYER
 CONFIDENTIAL: N LATITUDE: 40.038885 DATE COLLECTED: 8 / 18 / 1941
 SURFACE ELEVATION (FT.): 575.0 LOGGED (FT.): 57.5 LOG TYPE: Drillers Log
 SOURCE: AMAX EX323B WELL TYPE: Coal Test
 COMMENT: BROWN BOX 27

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
575.0	PLEISTOCENE		UNCONSOLIDATED	10.0	0.0	
565.0	PLEISTOCENE		CLAY	5.0	10.0	
560.0	CARBONDALE		SHALE	25.0	15.0	
535.0	CARBONDALE		SANDSTONE	3.0	40.0	SOFT
532.0	CARBONDALE		SHALE	12.0	43.0	
520.0	CARBONDALE		SANDSTONE	1.0	55.0	HARD
519.0	CARBONDALE		BLACK SHALE	1.5	56.0	

MAPID: 00990079000C VERSION: 1

PROJECT: NCRDS02

COUNTY: BROWN TWP/RNG: 1N 3W SECTION: 25 QUARTERS/FOOTAGES: 1' N line, 200' W line of SE NE

QUADRANGLE: RIPLEY LONGITUDE: -90.686425 GEOLOGIST: STRAAYER

CONFIDENTIAL: N LATITUDE: 40.041662 DATE COLLECTED: 8 / 18 / 1941

SURFACE ELEVATION (FT.): 585.0 LOGGED (FT.): 60.0 LOG TYPE: Drillers Log

SOURCE: AMAX EX373B WELL TYPE: Coal Test

COMMENT: RIPLEY BOX 27

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
585.0	PLEISTOCENE		UNCONSOLIDATED	20.0	0.0	
565.0	PLEISTOCENE		CLAY	10.0	20.0	
555.0	CARBONDALE		SHALE	12.0	30.0	
543.0	CARBONDALE		SANDSTONE	3.0	42.0	HARD
540.0	CARBONDALE		SHALE	12.0	45.0	BLUE
528.0	CARBONDALE		SANDSTONE	1.0	57.0	HARD
527.0	CARBONDALE		BLACK SHALE	2.0	58.0	

MAPID: 00922086000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 3W SECTION: 26 QUARTERS/FOOTAGES: 1' N line, 1320' W line

QUADRANGLE: RIPLEY LONGITUDE: -90.715694 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.045366 DATE COLLECTED: 9 / 26 / 1967

SURFACE ELEVATION (FT.): 600.0 LOGGED (FT.): 64.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 31-W WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
600.0	PLEISTOCENE		CLAY	9.0	0.0	
591.0	CARBONDALE		SHALE	24.5	9.0	
566.5	CARBONDALE		SANDY LIMESTONE	2.3	33.5	
564.2	CARBONDALE		DARK SHALE	3.7	35.8	
560.5	CARBONDALE		SANDSTONE	4.3	39.5	
556.2	CARBONDALE		DARK SHALE	5.8	43.8	
550.5	CARBONDALE	MECCA QUARRY	BLACK SHALE	1.0	49.5	
549.5	CARBONDALE	FRANCIS CREEK	DARK SHALE	7.8	50.5	
541.7	CARBONDALE	COLCHESTER	COAL	1.3	58.3	
540.3	SPOON		SHALE	3.3	59.7	
537.0	SPOON		SHALE	1.0	63.0	

MAPID: 00922087000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 3W SECTION: 26 QUARTERS/FOOTAGES: 1250' S line, 1300' E line

QUADRANGLE: RIPLEY LONGITUDE: -90.706336 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.034157 DATE COLLECTED: 5 / 22 / 1968

SURFACE ELEVATION (FT.): 585.0 LOGGED (FT.): 64.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 97-M WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
585.0	PLEISTOCENE		CLAY	13.0	0.0	
572.0	CARBONDALE		BOULDER	1.0	13.0	SANDY
571.0	CARBONDALE		GRAVEL	7.0	14.0	
564.0	CARBONDALE		SHALE	20.0	21.0	
544.0	CARBONDALE		SANDSTONE	2.5	41.0	
541.5	CARBONDALE		SHALE	11.0	43.5	
530.5	CARBONDALE	OAK GROVE	LIMESTONE	0.5	54.5	
530.0	CARBONDALE	MECCA QUARRY	DARK SHALE	1.0	55.0	
529.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	1.0	56.0	
528.0	CARBONDALE	FRANCIS CREEK	GRAY SHALE	2.0	57.0	
526.0	CARBONDALE	COLCHESTER	COAL	2.1	59.0	
523.9	SPOON		UNDERCLAY	2.9	61.1	

MAPID: 00922088000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 3W SECTION: 26 QUARTERS/FOOTAGES: 1650' S line, 125' E line

QUADRANGLE: RIPLEY LONGITUDE: -90.702096 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.03526 DATE COLLECTED: 5 / 22 / 1968

SURFACE ELEVATION (FT.): 565.0 LOGGED (FT.): 42.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 116-W WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
565.0	PLEISTOCENE		CLAY	18.0	0.0	
547.0	CARBONDALE		DARK SHALE	1.5	18.0	
545.5	CARBONDALE		SANDSTONE	2.5	19.5	HARD
543.0	CARBONDALE		SANDY SHALE	3.0	22.0	
540.0	CARBONDALE		SHALE	8.0	25.0	
532.0	CARBONDALE	OAK GROVE	LIMESTONE	0.5	33.0	
531.5	CARBONDALE	MECCA QUARRY	BLACK SHALE	1.7	33.5	
529.8	CARBONDALE	FRANCIS CREEK	SHALE	2.2	35.2	
527.7	CARBONDALE	COLCHESTER	COAL	2.2	37.3	
525.5	SPOON		SHALE	2.5	39.5	

MAPID: 00922089000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 3W SECTION: 26 QUARTERS/FOOTAGES: 200' N line, 1320' E line

QUADRANGLE: RIPLEY LONGITUDE: -90.706179 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.044812 DATE COLLECTED: 5 / 17 / 1968

SURFACE ELEVATION (FT.): 610.0 LOGGED (FT.): 110.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 146-C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
610.0	PLEISTOCENE		CLAY	24.0	0.0
586.0	CARBONDALE		SHALE	52.0	24.0
534.0	CARBONDALE		DARK SHALE	1.0	76.0
533.0	CARBONDALE		LIMESTONE	4.0	77.0
529.0	CARBONDALE		BLACK SHALE	2.0	81.0
527.0	CARBONDALE		SHALE	10.0	83.0
517.0	CARBONDALE		DARK SHALE	1.5	93.0
515.5	CARBONDALE	OAK GROVE	LIMESTONE	0.5	94.5
515.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	2.0	95.0
513.0	CARBONDALE	FRANCIS CREEK	SHALE	6.0	97.0
507.0	CARBONDALE	COLCHESTER	COAL	1.2	103.0
505.8	SPOON		UNDERCLAY	2.8	104.2
503.0	SPOON		SHALE	3.0	107.0

MAPID: 00922090000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 3W SECTION: 34 QUARTERS/FOOTAGES: 2000' N line, 2000' E line

QUADRANGLE: RIPLEY LONGITUDE: -90.727826 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.025247 DATE COLLECTED: 5 / 20 / 1968

SURFACE ELEVATION (FT.): 580.0 LOGGED (FT.): 29.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 92-M WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
580.0	PLEISTOCENE		CLAY	12.0	0.0
568.0	CARBONDALE		DARK SHALE	11.5	12.0
556.5	CARBONDALE	OAK GROVE	LIMESTONE	0.8	23.5
555.7	CARBONDALE	MECCA QUARRY	BLACK SHALE	1.3	24.3
554.5	CARBONDALE	COLCHESTER	COAL	1.4	25.5 "DIRTY"
553.1	SPOON		UNDERCLAY	2.1	26.9

MAPID: 00922091000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 3W SECTION: 34 QUARTERS/FOOTAGES: 2100' S line, 375' E line
 QUADRANGLE: RIPLEY LONGITUDE: -90.721918 GEOLOGIST: KOROSE
 CONFIDENTIAL: N LATITUDE: 40.021986 DATE COLLECTED: 5 / 22 / 1968
 SURFACE ELEVATION (FT.): 595.0 LOGGED (FT.): 80.0 LOG TYPE: Drillers Log
 SOURCE: PITTSBURG & MIDWAY 152-C WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
595.0	PLEISTOCENE		CLAY	25.0	0.0
570.0	PLEISTOCENE		MUD	38.0	25.0
532.0	CARBONDALE		SHALE	2.0	63.0
530.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	4.0	65.0
526.0	CARBONDALE		SHALE	3.0	69.0
523.0	CARBONDALE	COLCHESTER	COAL	1.8	72.0
521.2	SPOON		UNDERCLAY	2.3	73.8
519.0	SPOON		SHALE	4.0	76.0

MAPID: 00922092000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 3W SECTION: 36 QUARTERS/FOOTAGES: 2250' N line, 2750' W line
 QUADRANGLE: RIPLEY LONGITUDE: -90.691851 GEOLOGIST: KOROSE
 CONFIDENTIAL: N LATITUDE: 40.024426 DATE COLLECTED: 9 / 26 / 1967
 SURFACE ELEVATION (FT.): 608.0 LOGGED (FT.): 84.0 LOG TYPE: Drillers Log
 SOURCE: PITTSBURG & MIDWAY 34-W WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
608.0	PLEISTOCENE		CLAY	25.0	0.0
583.0	CARBONDALE		SHALE	29.0	25.0
554.0	CARBONDALE		ROCK	0.3	54.0 GRAVEL
553.7	CARBONDALE		SHALE	2.2	54.3
551.5	CARBONDALE		LIMESTONE	2.0	56.5
549.5	CARBONDALE		SHALE	6.3	58.5
543.2	CARBONDALE		SANDSTONE	2.3	64.8 HARD
540.9	CARBONDALE		SANDSTONE	0.9	67.1
540.0	CARBONDALE		DARK SHALE	11.0	68.0
529.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	1.9	79.0
527.1	CARBONDALE	COLCHESTER	COAL	1.8	80.9
525.2	SPOON		SHALE	1.3	82.8

MAPID: 00900068000C VERSION: 1

PROJECT: NCRDS99

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 1 QUARTERS/FOOTAGES: NW NW NW

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.8142 GEOLOGIST: MCCracken

CONFIDENTIAL: N LATITUDE: 40.10437 DATE COLLECTED: 6 / 16 / 1959

SURFACE ELEVATION (FT.): 650.0 LOGGED (FT.): 86.8 LOG TYPE: Survey Core Study

SOURCE: DONAN AU-6 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
650.0			NO RECORD	20.0	0.0
630.0	CARBONDALE		SHALE	22.7	20.0
607.3	CARBONDALE		LIMESTONE	0.9	42.7
606.4	CARBONDALE		SILTSTONE	2.6	43.6
603.8	CARBONDALE		SHALE	32.0	46.2
571.8	CARBONDALE	COLCHESTER	COAL	2.1	78.2
569.7			SILTSTONE	5.1	80.3
564.7			LIMESTONE	1.5	85.3

MAPID: 00900068000C VERSION: 2

PROJECT: AVAIL

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 1 QUARTERS/FOOTAGES: NW NW NW

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.8142 GEOLOGIST: UITEMP

CONFIDENTIAL: N LATITUDE: 40.10437 DATE COLLECTED: 6 / 16 / 1959

SURFACE ELEVATION (FT.): 650.0 LOGGED (FT.): 97.0 LOG TYPE: Drillers Log

SOURCE: DONAN AU-6 WELL TYPE:

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
650.0	PLEISTOCENE		UNCONSOLIDATED	14.0	0.0
636.0			SOFT SHALE	21.0	14.0
615.0			SOFT SHALE	5.0	35.0
610.0			LIMESTONE	2.3	40.0 GRAY
607.7			SANDY SHALE	10.8	42.3
597.0			SANDY SHALE	7.0	53.0
590.0	CARBONDALE	FRANCIS CREEK	GRAY SHALE	27.2	60.0
562.8	CARBONDALE	COLCHESTER	COAL	2.1	87.2 BLACK
560.7			SANDY SHALE	3.0	89.3
557.7			LIMESTONE	4.8	92.3 WHITE

MAPID: 00922093000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 1 QUARTERS/FOOTAGES: 1320' N line, 1' W line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.815471

GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.101652

DATE COLLECTED: 2 / 5 / 1968

SURFACE ELEVATION (FT.): 662.0

LOGGED (FT.): 103.0

LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 4M-68

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
662.0	PLEISTOCENE		CLAY	28.0	0.0	
634.0	CARBONDALE		SHALE	26.0	28.0	
608.0	CARBONDALE		SANDSTONE	8.0	54.0	
600.0	CARBONDALE		SANDY SHALE	37.5	62.0	SOFT
562.5	CARBONDALE	COLCHESTER	COAL	2.0	99.5	
560.5	SPOON		UNDERCLAY	1.5	101.5	

MAPID: 00922094000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 1 QUARTERS/FOOTAGES: 550' N line, 600' W line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.813255

GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.103848

DATE COLLECTED: 2 / 16 / 1968

SURFACE ELEVATION (FT.): 645.0

LOGGED (FT.): 96.0

LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 11M-68

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
645.0	PLEISTOCENE		CLAY	26.0	0.0	
619.0	CARBONDALE		SHALE	8.0	26.0	
611.0	CARBONDALE		SANDSTONE	8.0	34.0	
603.0	CARBONDALE		SANDY SHALE	47.5	42.0	
555.5	CARBONDALE	COLCHESTER	COAL	2.3	89.5	
553.2	SPOON		UNDERCLAY	2.3	91.8	
551.0	SPOON		SANDSTONE	2.0	94.0	

MAPID: 00922095000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 1 QUARTERS/FOOTAGES: 1100' N line, 1200' W line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.811143 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.102398 DATE COLLECTED: 2 / 20 / 1968

SURFACE ELEVATION (FT.): 641.0 LOGGED (FT.): 80.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 15M-68 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
641.0	PLEISTOCENE		CLAY	22.0	0.0
619.0	CARBONDALE		SHALE	2.0	22.0
617.0	CARBONDALE		SANDSTONE	11.0	24.0
606.0	CARBONDALE		SANDY SHALE	42.0	35.0
564.0	CARBONDALE	COLCHESTER	COAL	1.8	77.0
562.2	SPOON		UNDERCLAY	1.3	78.8

MAPID: 00922096000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 1 QUARTERS/FOOTAGES: 350' N line, 1000' W line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.8118 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.104447 DATE COLLECTED: 2 / 23 / 1968

SURFACE ELEVATION (FT.): 625.0 LOGGED (FT.): 76.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 16M WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
625.0	PLEISTOCENE		UNCLASSIFIED	25.0	0.0
600.0	CARBONDALE		SANDSTONE	3.0	25.0
597.0	CARBONDALE		GRAY SHALE	44.0	28.0
553.0	CARBONDALE	COLCHESTER	COAL	2.0	72.0
551.0	SPOON		UNDERCLAY	2.0	74.0

MAPID: 00922097000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 1 QUARTERS/FOOTAGES: 1700' N line, 2950' W line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.804898 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.100941 DATE COLLECTED: 2 / 23 / 1968

SURFACE ELEVATION (FT.): 620.0 LOGGED (FT.): 56.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 17M WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
620.0	PLEISTOCENE		CLAY	26.0	0.0
594.0	CARBONDALE	FRANCIS CREEK	GRAY SHALE	23.0	26.0
571.0	CARBONDALE	COLCHESTER	COAL	2.3	49.0
568.7	SPOON		UNDERCLAY	2.8	51.3
566.0	SPOON		SANDY SHALE	2.0	54.0

MAPID: 00922098000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 1 QUARTERS/FOOTAGES: 2100' N line, 2100' E line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.803955 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.099866 DATE COLLECTED: 2 / 23 / 1968

SURFACE ELEVATION (FT.): 603.0 LOGGED (FT.): 46.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 18M WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
603.0	PLEISTOCENE		CLAY	28.0	0.0
575.0	CARBONDALE		GRAY SHALE	7.0	28.0
568.0	CARBONDALE	COLCHESTER	COAL	2.3	35.0
565.7	SPOON		UNDERCLAY	1.7	37.3
564.0	SPOON		SANDY SHALE	7.0	39.0

MAPID: 00922099000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 1 QUARTERS/FOOTAGES: 2500' N line, 2750' W line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.80568 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.098707 DATE COLLECTED: 2 / 24 / 1968

SURFACE ELEVATION (FT.): 620.0 LOGGED (FT.): 64.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 19M WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
620.0	PLEISTOCENE		UNCLASSIFIED	20.0	0.0	
600.0	CARBONDALE		SANDSTONE	7.0	20.0	WEATHERED
593.0	CARBONDALE		SANDSTONE	1.0	27.0	BLK
592.0	CARBONDALE	FRANCIS CREEK	GRAY SHALE	31.5	28.0	
560.5	CARBONDALE	COLCHESTER	COAL	2.3	59.5	
558.2	SPOON		UNDERCLAY	2.3	61.8	

MAPID: 00922100000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 1 QUARTERS/FOOTAGES: 2850' N line, 2025' W line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.808316 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.097657 DATE COLLECTED: 2 / 26 / 1968

SURFACE ELEVATION (FT.): 637.0 LOGGED (FT.): 90.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 20M WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
637.0	CARBONDALE		CLAY	28.0	0.0	
609.0	CARBONDALE		SHALE	16.5	28.0	
592.5	CARBONDALE		SANDSTONE	9.0	44.5	
583.5	CARBONDALE		SANDY SHALE	8.5	53.5	
575.0	CARBONDALE	FRANCIS CREEK	GRAY SHALE	24.0	62.0	SOFT
551.0	CARBONDALE	COLCHESTER	COAL	2.0	86.0	
549.0	SPOON		UNDERCLAY	2.0	88.0	

MAPID: 00922101000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 1 QUARTERS/FOOTAGES: 1100' N line, 2000' W line
 QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.808266 GEOLOGIST: KOROSE
 CONFIDENTIAL: N LATITUDE: 40.10249 DATE COLLECTED: 2 / 20 / 1968
 SURFACE ELEVATION (FT.): 636.0 LOGGED (FT.): 65.0 LOG TYPE: Drillers Log
 SOURCE: PITTSBURG & MIDWAY 20R WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
636.0	PLEISTOCENE		CLAY	19.0	0.0	
617.0	CARBONDALE		GRAY SHALE	42.3	19.0	
574.7	CARBONDALE	COLCHESTER	COAL	2.3	61.3	
572.3	SPOON		UNDERCLAY	1.3	63.7	

MAPID: 00922102000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 1 QUARTERS/FOOTAGES: 660' S line, 2300' E line
 QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.804935 GEOLOGIST: KOROSE
 CONFIDENTIAL: N LATITUDE: 40.091545 DATE COLLECTED: 3 / 4 / 1968
 SURFACE ELEVATION (FT.): 650.0 LOGGED (FT.): 101.0 LOG TYPE: Drillers Log
 SOURCE: PITTSBURG & MIDWAY 20-V WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
650.0	PLEISTOCENE		CLAY	20.0	0.0	
630.0	CARBONDALE		SANDSTONE	10.0	20.0	BROKEN
620.0	CARBONDALE		SHALE	30.0	30.0	
590.0	CARBONDALE		LIMESTONE	2.5	60.0	
587.5	CARBONDALE		SANDSTONE	11.0	62.5	
576.5	CARBONDALE		DARK SHALE	1.0	73.5	
575.5	CARBONDALE	OAK GROVE	LIMESTONE	1.0	74.5	
574.5	CARBONDALE	MECCA QUARRY	BLACK SHALE	1.5	75.5	
573.0	CARBONDALE	FRANCIS CREEK	GRAY SHALE	18.0	77.0	
555.0	CARBONDALE	COLCHESTER	COAL	2.3	95.0	
552.7	SPOON		UNDERCLAY	2.7	97.3	
550.0	SPOON		SANDSTONE	1.0	100.0	

MAPID: 00922103000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 1 QUARTERS/FOOTAGES: 500' N line, 1900' W line
 QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.808577 GEOLOGIST: KOROSE
 CONFIDENTIAL: N LATITUDE: 40.104137 DATE COLLECTED: 2 / 23 / 1968
 SURFACE ELEVATION (FT.): 615.0 LOGGED (FT.): 73.0 LOG TYPE: Drillers Log
 SOURCE: PITTSBURG & MIDWAY 021R WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
615.0	PLEISTOCENE		CLAY	24.0	0.0
591.0	CARBONDALE		SANDSTONE	1.0	24.0
590.0	CARBONDALE	COLCHESTER	GRAY SHALE	45.0	25.0
545.0	CARBONDALE	COLCHESTER	COAL	2.2	70.0
542.8	SPOON		UNDERCLAY	0.8	72.2

MAPID: 00922104000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 1 QUARTERS/FOOTAGES: 1320' N line, 2640' W line
 QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.805981 GEOLOGIST: KOROSE
 CONFIDENTIAL: N LATITUDE: 40.101955 DATE COLLECTED: 2 / 23 / 1968
 SURFACE ELEVATION (FT.): 620.0 LOGGED (FT.): 54.0 LOG TYPE: Drillers Log
 SOURCE: PITTSBURG & MIDWAY 22R WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
620.0	PLEISTOCENE		CLAY	20.0	0.0
600.0	CARBONDALE		GRAY SHALE	30.4	20.0
569.6	CARBONDALE	COLCHESTER	COAL	2.1	50.4
567.5	SPOON		UNDERCLAY	1.5	52.5

MAPID: 00922105000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 1 QUARTERS/FOOTAGES: 2000' N line, 2300' W line
 QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.807257 GEOLOGIST: KOROSE
 CONFIDENTIAL: N LATITUDE: 40.100037 DATE COLLECTED: 2 / 24 / 1968
 SURFACE ELEVATION (FT.): 623.0 LOGGED (FT.): 65.0 LOG TYPE: Drillers Log
 SOURCE: PITTSBURG & MIDWAY 23R WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
623.0	PLEISTOCENE		CLAY	20.0	0.0
603.0	CARBONDALE		SANDSTONE	3.0	20.0
600.0	CARBONDALE		GRAY SHALE	38.3	23.0
561.7	CARBONDALE	COLCHESTER	COAL	2.3	61.3
559.3	SPOON		UNDERCLAY	1.3	63.7

MAPID: 00922106000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 1 QUARTERS/FOOTAGES: 2850' S line, 1700' E line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.802592 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.097555 DATE COLLECTED: 2 / 26 / 1968

SURFACE ELEVATION (FT.): 600.0 LOGGED (FT.): 49.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 24-R WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
600.0	PLEISTOCENE		CLAY	18.3	0.0
581.7	CARBONDALE		BLACK SHALE	0.7	18.3
581.0	CARBONDALE		GRAY SHALE	26.5	19.0
554.5	CARBONDALE	COLCHESTER	COAL	2.0	45.5
552.5	SPOON		UNDERCLAY	1.5	47.5

MAPID: 00922107000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 1 QUARTERS/FOOTAGES: 3000' N line, 1' W line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.815603 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.097011 DATE COLLECTED: 7 / 14 / 1967

SURFACE ELEVATION (FT.): 655.0 LOGGED (FT.): 80.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 27-C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
655.0	PLEISTOCENE		CLAY	27.0	0.0 W/ BLUE MUD
628.0	CARBONDALE		SHALE	4.0	27.0
624.0	CARBONDALE		LIMESTONE	2.6	31.0
621.4	CARBONDALE		SANDY SHALE	1.4	33.6
620.0	CARBONDALE		SANDSTONE	2.0	35.0
618.0	CARBONDALE		GRAY SHALE	37.0	37.0
581.0	CARBONDALE	COLCHESTER	COAL	2.1	74.0
578.9	SPOON		UNDERCLAY	3.9	76.1

MAPID: 00922108000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 1 QUARTERS/FOOTAGES: 1' N line, 1' W line of NW

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.815367

GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.105299

DATE COLLECTED: 7 / 15 / 1967

SURFACE ELEVATION (FT.): 651.0

LOGGED (FT.): 100.0

LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 29-C

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
651.0	PLEISTOCENE		CLAY	25.0	0.0
626.0	CARBONDALE		SHALE	21.0	25.0
605.0	CARBONDALE		LIMESTONE	3.0	46.0
602.0	CARBONDALE		GRAY SHALE	44.5	49.0
557.5	CARBONDALE	COLCHESTER	COAL	2.0	93.5
555.5	SPOON		UNDERCLAY	4.5	95.5

MAPID: 00922109000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 1 QUARTERS/FOOTAGES: 1' N line, 1450' E line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.801437

GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.105742

DATE COLLECTED: 7 / 15 / 1967

SURFACE ELEVATION (FT.): 616.0

LOGGED (FT.): 70.0

LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 30-C

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
616.0	PLEISTOCENE		CLAY	21.0	0.0
595.0	CARBONDALE		GRAY SHALE	43.0	21.0
552.0	CARBONDALE	COLCHESTER	COAL	2.0	64.0
550.0	SPOON		UNDERCLAY	1.5	66.0
548.5	SPOON		CALCAREOUS SHALE	1.5	67.5
547.0	SPOON		SHALE	1.0	69.0

MAPID: 0092211000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 1 QUARTERS/FOOTAGES: 1425' S line, 2610' W line
 QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.806329 GEOLOGIST: KOROSE
 CONFIDENTIAL: N LATITUDE: 40.093674 DATE COLLECTED: 7 / 15 / 1967
 SURFACE ELEVATION (FT.): 614.0 LOGGED (FT.): 50.0 LOG TYPE: Drillers Log
 SOURCE: PITTSBURG & MIDWAY 31-C WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
614.0	PLEISTOCENE		CLAY	10.0	0.0
604.0	CARBONDALE		SANDY SHALE	2.0	10.0
602.0	CARBONDALE		CALCAREOUS SHALE	8.0	12.0
594.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	1.0	20.0
593.0	CARBONDALE	FRANCIS CREEK	GRAY SHALE	25.0	21.0
568.0	CARBONDALE	COLCHESTER	COAL	1.9	46.0
566.1	SPOON		UNDERCLAY	2.1	47.9

MAPID: 0092211000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 1 QUARTERS/FOOTAGES: 1320' S line, 1' W line
 QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.815702 GEOLOGIST: KOROSE
 CONFIDENTIAL: N LATITUDE: 40.093513 DATE COLLECTED: 3 / 4 / 1968
 SURFACE ELEVATION (FT.): 647.0 LOGGED (FT.): 76.0 LOG TYPE: Drillers Log
 SOURCE: PITTSBURG & MIDWAY 38M WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
647.0	PLEISTOCENE		CLAY	22.0	0.0
625.0	CARBONDALE		SHALE	10.0	22.0
615.0	CARBONDALE		SANDSTONE	2.0	32.0
613.0	CARBONDALE		SANDY SHALE	13.0	34.0
600.0	CARBONDALE	FRANCIS CREEK	GRAY SHALE	25.0	47.0
575.0	CARBONDALE	COLCHESTER	COAL	2.0	72.0
573.0	CARBONDALE		UNDERCLAY	2.0	74.0

MAPID: 00922112000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 1 QUARTERS/FOOTAGES:

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.806034

GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.097674

DATE COLLECTED: 3 / 4 / 1968

SURFACE ELEVATION (FT.): 630.0 LOGGED (FT.): 76.0

LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 39M

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
630.0	PLEISTOCENE		CLAY	21.0	0.0
609.0	CARBONDALE		SHALE	11.0	21.0
598.0	CARBONDALE		SANDSTONE	6.0	32.0
592.0	CARBONDALE		SHALE	6.5	38.0
585.5	CARBONDALE	MECCA QUARRY	BLACK SHALE	1.0	44.5
584.5	CARBONDALE	FRANCIS CREEK	GRAY SHALE	27.0	45.5
557.5	CARBONDALE	COLCHESTER	COAL	2.0	72.5
555.5	SPOON		UNDERCLAY	1.5	74.5

MAPID: 00922113000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 1 QUARTERS/FOOTAGES: 1000' S line, 1600' E line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.802393

GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.092448

DATE COLLECTED: 3 / 5 / 1968

SURFACE ELEVATION (FT.): 615.0 LOGGED (FT.): 46.0

LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 40M

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
615.0	PLEISTOCENE		CLAY	10.0	0.0
605.0	CARBONDALE		SANDSTONE	4.0	10.0
601.0	CARBONDALE		SANDSTONE	8.0	14.0
593.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	1.5	22.0
591.5	CARBONDALE	FRANCIS CREEK	GRAY SHALE	18.5	23.5
573.0	CARBONDALE	COLCHESTER	COAL	2.0	42.0
571.0	SPOON		UNDERCLAY	2.0	44.0

MAPID: 00922114000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 1 QUARTERS/FOOTAGES: 1800' N line, 1700' W line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.809401 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.100521 DATE COLLECTED: 2 / 23 / 1968

SURFACE ELEVATION (FT.): 659.0 LOGGED (FT.): 100.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 70-C68 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
659.0	PLEISTOCENE		CLAY	10.0	0.0
649.0	CARBONDALE		SANDY SHALE	17.0	10.0
632.0	CARBONDALE		SHALE	18.0	27.0
614.0	CARBONDALE		SANDSTONE	9.0	45.0
605.0	CARBONDALE		GRAY SHALE	36.0	54.0
569.0	CARBONDALE	COLCHESTER	COAL	2.3	90.0
566.7	SPOON		UNDERCLAY	2.8	92.3
564.0	SPOON		SHALE	5.0	95.0

MAPID: 00922115000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 1 QUARTERS/FOOTAGES: 1' N line, 2200' W line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.807457 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.105549 DATE COLLECTED: 2 / 23 / 1968

SURFACE ELEVATION (FT.): 605.0 LOGGED (FT.): 70.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 71-C68 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
605.0	PLEISTOCENE		CLAY	17.0	0.0
588.0	CARBONDALE		SANDY SHALE	4.0	17.0
584.0	CARBONDALE		GRAY SHALE	38.5	21.0
545.5	CARBONDALE	COLCHESTER	COAL	1.9	59.5
543.6	SPOON		UNDERCLAY	2.6	61.4
541.0	SPOON		SANDSTONE	6.0	64.0

MAPID: 00922116000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 1 QUARTERS/FOOTAGES: 1' N line, 1320' W line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.810622 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.105448 DATE COLLECTED: 2 / 23 / 1968

SURFACE ELEVATION (FT.): 643.0 LOGGED (FT.): 98.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 72-C68 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
643.0	PLEISTOCENE		CLAY	17.0	0.0
626.0	CARBONDALE		BROWN SHALE	13.0	17.0
613.0	CARBONDALE		SHALE	15.0	30.0
598.0	CARBONDALE		SANDSTONE	8.0	45.0
590.0	CARBONDALE		GRAY SHALE	36.0	53.0
554.0	CARBONDALE	COLCHESTER	COAL	2.0	89.0
552.0	SPOON		UNDERCLAY	2.0	91.0
550.0	SPOON		SHALE	5.0	93.0

MAPID: 00922117000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 1 QUARTERS/FOOTAGES: 700' S line, 1320' W line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.811019 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.09174 DATE COLLECTED: 3 / 2 / 1968

SURFACE ELEVATION (FT.): 616.0 LOGGED (FT.): 60.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 87-C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
616.0	PLEISTOCENE		CLAY	17.0	0.0
599.0	CARBONDALE		SHALE	3.0	17.0
596.0	CARBONDALE		SANDSTONE	2.0	20.0
594.0	CARBONDALE		SHALE	2.5	22.0
591.5	CARBONDALE	OAK GROVE	LIMESTONE	1.0	24.5
590.5	CARBONDALE	MECCA QUARRY	BLACK SHALE	1.0	25.5
589.5	CARBONDALE	FRANCIS CREEK	GRAY SHALE	26.5	26.5
563.0	CARBONDALE	COLCHESTER	COAL	2.3	53.0
560.7	SPOON		UNDERCLAY	3.3	55.3
557.5	SPOON		SHALE	1.5	58.5

MAPID: 00922118000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 1 QUARTERS/FOOTAGES: 1320' S line, 1320' W line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.810968 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.093449 DATE COLLECTED: 3 / 4 / 1968

SURFACE ELEVATION (FT.): 628.0 LOGGED (FT.): 70.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 88-C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
628.0	PLEISTOCENE		CLAY	21.0	0.0	
607.0	CARBONDALE		SHALE	5.0	21.0	
602.0	CARBONDALE		SANDSTONE	8.0	26.0	
594.0	CARBONDALE		SHALE	3.0	34.0	
591.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	2.0	37.0	
589.0	CARBONDALE	FRANCIS CREEK	GRAY SHALE	27.5	39.0	LOG THICKNESS 26.5 CHANGED
561.5	CARBONDALE	COLCHESTER	COAL	2.2	66.5	
559.3	SPOON		UNDERCLAY	1.3	68.7	

MAPID: 00922119000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 2 QUARTERS/FOOTAGES: 2640' N line, 1320' W line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.830069 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.097831 DATE COLLECTED: 2 / 2 / 1968

SURFACE ELEVATION (FT.): 638.0 LOGGED (FT.): 80.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 1M-68 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
638.0	PLEISTOCENE		CLAY	14.0	0.0	
624.0	CARBONDALE		SHALE	7.0	14.0	
617.0	CARBONDALE		LIMESTONE	0.5	21.0	
616.5	CARBONDALE		SANDY SHALE	50.5	21.5	LOG THICKNESS 40.5 CHANGED
566.0	CARBONDALE	COLCHESTER	COAL	2.2	72.0	
563.8	SPOON		UNDERCLAY	2.3	74.2	
561.5	SPOON		SANDY SHALE	3.5	76.5	

MAPID: 0092212000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 2 QUARTERS/FOOTAGES: 2640' S line, 2640' W line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.82535 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.097239 DATE COLLECTED: 2 / 5 / 1968

SURFACE ELEVATION (FT.): 656.0 LOGGED (FT.): 84.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 3M-68 WELL TYPE: Coal Test

COMMENT: *DIRTY HOLE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
656.0	PLEISTOCENE		CLAY	25.5	0.0	
630.5	CARBONDALE		SHALE	3.5	25.5	
627.0	CARBONDALE		LIMESTONE	2.0	29.0	
625.0	CARBONDALE		SANDSTONE	4.0	31.0	
621.0	CARBONDALE		SANDY SHALE	39.5	35.0	SOFT
581.5	CARBONDALE	COLCHESTER	COAL	2.0	74.5	
579.5	SPOON		UNDERCLAY	2.5	76.5	
577.0	SPOON		SANDY SHALE	5.0	79.0	

MAPID: 00922121000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 2 QUARTERS/FOOTAGES: 1100' S line, 1320' W line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.830247 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.09303 DATE COLLECTED: 2 / 5 / 1968

SURFACE ELEVATION (FT.): 671.0 LOGGED (FT.): 94.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 3-R WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
671.0	PLEISTOCENE		CLAY	16.0	0.0	
655.0	CARBONDALE		SHALE	30.0	16.0	
625.0	CARBONDALE		SANDSTONE	1.0	46.0	
624.0	CARBONDALE		SANDY SHALE	6.0	47.0	
618.0	CARBONDALE		GRAY SHALE	37.5	53.0	
580.5	CARBONDALE	COLCHESTER	COAL	1.9	90.5	
578.6	SPOON		UNDERCLAY	1.6	92.4	

MAPID: 00922122000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 2 QUARTERS/FOOTAGES: 1600' N line, 1700' W line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.8286 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.100718 DATE COLLECTED: 2 / 15 / 1968

SURFACE ELEVATION (FT.): 644.0 LOGGED (FT.): 71.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 5-V-68 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
644.0	PLEISTOCENE		CLAY	22.0	0.0
622.0	CARBONDALE		GRAY SHALE	40.0	22.0
582.0	CARBONDALE	COLCHESTER	COAL	2.0	62.0
580.0	SPOON		UNDERCLAY	3.0	64.0
577.0	SPOON		SANDY SHALE	3.0	67.0
574.0	SPOON		LIMESTONE	1.0	70.0

MAPID: 00922123000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 2 QUARTERS/FOOTAGES: 2300' N line, 3000' W line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.824 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.098843 DATE COLLECTED: 2 / 15 / 1968

SURFACE ELEVATION (FT.): 652.0 LOGGED (FT.): 81.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 6-V WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
652.0	PLEISTOCENE		CLAY	20.0	0.0
632.0	CARBONDALE		SHALE	9.0	20.0
623.0	CARBONDALE		SANDSTONE	5.0	29.0
618.0	CARBONDALE		GRAY SHALE	41.5	34.0
576.5	CARBONDALE	COLCHESTER	COAL	1.8	75.5
574.7	SPOON		UNDERCLAY	2.7	77.3
572.0	SPOON		SHALE	1.0	80.0

MAPID: 00922124000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 2 QUARTERS/FOOTAGES: 1320' N line, 2800' E line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.825536 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.101531 DATE COLLECTED: 2 / 9 / 1968

SURFACE ELEVATION (FT.): 623.0 LOGGED (FT.): 61.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 7-V WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
623.0	PLEISTOCENE		CLAY	22.0	0.0
601.0	CARBONDALE		GRAY SHALE	30.5	22.0
570.5	CARBONDALE	COLCHESTER	COAL	2.0	52.5
568.5	SPOON		UNDERCLAY	3.0	54.5
565.5	SPOON		SANDSTONE	2.5	57.5
563.0	SPOON		LIMESTONE	1.0	60.0

MAPID: 00922125000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 2 QUARTERS/FOOTAGES: 2260' N line, 2240' W line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.826726 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.09892 DATE COLLECTED: 2 / 15 / 1968

SURFACE ELEVATION (FT.): 651.0 LOGGED (FT.): 93.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 9M-68 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
651.0	PLEISTOCENE		CLAY	30.0	0.0
621.0	CARBONDALE		SANDY SHALE	7.0	30.0
614.0	CARBONDALE		GRAY SHALE	52.5	37.0 SOFT
561.5	CARBONDALE	COLCHESTER	COAL	2.1	89.5
559.4	SPOON		UNDERCLAY	1.4	91.6

MAPID: 00922126000C **VERSION:** 1 **PROJECT:** NCRDS95
COUNTY: BROWN **TWP/RNG:** 1N 4W **SECTION:** 2 **QUARTERS/FOOTAGES:** 1500' N line, 1000' E line
QUADRANGLE: LAKE MT. STERLING **LONGITUDE:** -90.81908 **GEOLOGIST:** KOROSE
CONFIDENTIAL: N **LATITUDE:** 40.101115 **DATE COLLECTED:** 2 / 16 / 1968
SURFACE ELEVATION (FT.): 647.0 **LOGGED (FT.):** 74.0 **LOG TYPE:** Drillers Log
SOURCE: PITTSBURG & MIDWAY 10M-68 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
647.0	PLEISTOCENE		CLAY	22.0	0.0	
625.0	CARBONDALE		SANDSTONE	4.0	22.0	
621.0	CARBONDALE		SHALE	45.0	26.0	SOFT
576.0	CARBONDALE	COLCHESTER	COAL	1.9	71.0	
574.1	SPOON		UNDERCLAY	1.1	72.9	

MAPID: 00922127000C **VERSION:** 1 **PROJECT:** NCRDS95
COUNTY: BROWN **TWP/RNG:** 1N 4W **SECTION:** 2 **QUARTERS/FOOTAGES:** 1400' N line, 950' W line
QUADRANGLE: LAKE MT. STERLING **LONGITUDE:** -90.831273 **GEOLOGIST:** KOROSE
CONFIDENTIAL: N **LATITUDE:** 40.101237 **DATE COLLECTED:** 2 / 15 / 1968
SURFACE ELEVATION (FT.): 640.0 **LOGGED (FT.):** 54.0 **LOG TYPE:** Drillers Log
SOURCE: PITTSBURG & MIDWAY 12-R **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		CLAY	14.0	0.0	
626.0	CARBONDALE		GRAY SHALE	36.5	14.0	
589.5	CARBONDALE	COLCHESTER	COAL	2.0	50.5	
587.5	SPOON		UNDERCLAY	1.5	52.5	

MAPID: 00922128000C **VERSION:** 1 **PROJECT:** NCRDS95
COUNTY: BROWN **TWP/RNG:** 1N 4W **SECTION:** 2 **QUARTERS/FOOTAGES:** 1' N line, 1000' W line
QUADRANGLE: LAKE MT. STERLING **LONGITUDE:** -90.830952 **GEOLOGIST:** KOROSE
CONFIDENTIAL: N **LATITUDE:** 40.105102 **DATE COLLECTED:** 2 / 15 / 1968
SURFACE ELEVATION (FT.): 627.0 **LOGGED (FT.):** 46.0 **LOG TYPE:** Drillers Log
SOURCE: PITTSBURG & MIDWAY 13-R **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
627.0	PLEISTOCENE		CLAY	34.0	0.0	
593.0	CARBONDALE		GRAY SHALE	9.4	34.0	
583.6	CARBONDALE	COLCHESTER	COAL	1.2	43.4	
582.4	SPOON		UNDERCLAY	1.4	44.6	

MAPID: 00922129000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 2 QUARTERS/FOOTAGES: 2000' N line, 500' E line
 QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.817326 GEOLOGIST: KOROSE
 CONFIDENTIAL: N LATITUDE: 40.099757 DATE COLLECTED: 0 / 0 / 1968
 SURFACE ELEVATION (FT.): 663.0 LOGGED (FT.): 87.0 LOG TYPE: Drillers Log
 SOURCE: PITTSBURG & MIDWAY 15-R WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
663.0	PLEISTOCENE		CLAY	23.0	0.0	
640.0	CARBONDALE		SHALE	16.5	23.0	
623.5	CARBONDALE		SANDSTONE	1.0	39.5	HARD
622.5	CARBONDALE		SANDY SHALE	6.5	40.5	
616.0	CARBONDALE		GRAY SHALE	36.0	47.0	
580.0	CARBONDALE	COLCHESTER	COAL	2.1	83.0	
577.9	SPOON		UNDERCLAY	1.9	85.1	

MAPID: 00922130000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 2 QUARTERS/FOOTAGES: 1' N line, 1320' E line
 QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.820114 GEOLOGIST: KOROSE
 CONFIDENTIAL: N LATITUDE: 40.105238 DATE COLLECTED: 2 / 17 / 1968
 SURFACE ELEVATION (FT.): 644.0 LOGGED (FT.): 68.0 LOG TYPE: Drillers Log
 SOURCE: PITTSBURG & MIDWAY 16-R WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
644.0	PLEISTOCENE		CLAY	22.0	0.0	
622.0	CARBONDALE		GRAY SHALE	42.0	22.0	
580.0	CARBONDALE	COLCHESTER	COAL	2.3	64.0	
577.7	SPOON		UNDERCLAY	1.7	66.3	

MAPID: 00922131000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 2 QUARTERS/FOOTAGES: 2250' N line, 925' W line
 QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.831451 GEOLOGIST: KOROSE
 CONFIDENTIAL: N LATITUDE: 40.098889 DATE COLLECTED: 2 / 15 / 1968
 SURFACE ELEVATION (FT.): 641.0 LOGGED (FT.): 66.0 LOG TYPE: Drillers Log
 SOURCE: PITTSBURG & MIDWAY 47-W WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
641.0	PLEISTOCENE		CLAY	17.0	0.0	
624.0	CARBONDALE		GRAY SHALE	42.5	17.0	
581.5	CARBONDALE	COLCHESTER	COAL	2.2	59.5	
579.3	SPOON		SHALE	4.3	61.7	

MAPID: 00922132000C **VERSION:** 1 **PROJECT:** NCRDS95
COUNTY: BROWN **TWP/RNG:** 1N 4W **SECTION:** 2 **QUARTERS/FOOTAGES:** 1' N line, 2150' W line
QUADRANGLE: LAKE MT. STERLING **LONGITUDE:** -90.826819 **GEOLOGIST:** KOROSE
CONFIDENTIAL: N **LATITUDE:** 40.105154 **DATE COLLECTED:** 2 / 15 / 1968
SURFACE ELEVATION (FT.): 635.0 **LOGGED (FT.):** 72.0 **LOG TYPE:** Drillers Log
SOURCE: PITTSBURG & MIDWAY 48-W **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
635.0	PLEISTOCENE		CLAY	37.0	0.0
598.0	CARBONDALE	COLCHESTER	GRAY SHALE	31.3	37.0
566.7	CARBONDALE	COLCHESTER	COAL	2.1	68.3
564.7	SPOON		SHALE	1.7	70.3

MAPID: 00922133000C **VERSION:** 1 **PROJECT:** NCRDS95
COUNTY: BROWN **TWP/RNG:** 1N 4W **SECTION:** 2 **QUARTERS/FOOTAGES:** 2640' S line, 1100' E line
QUADRANGLE: LAKE MT. STERLING **LONGITUDE:** -90.819552 **GEOLOGIST:** KOROSE
CONFIDENTIAL: N **LATITUDE:** 40.09719 **DATE COLLECTED:** 2 / 5 / 1968
SURFACE ELEVATION (FT.): 658.0 **LOGGED (FT.):** 95.0 **LOG TYPE:** Drillers Log
SOURCE: PITTSBURG & MIDWAY 49-C-68 **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
658.0	PLEISTOCENE		CLAY	20.0	0.0
638.0	CARBONDALE		SANDY SHALE	25.0	20.0
613.0	CARBONDALE		SANDSTONE	6.0	45.0 SOFT
607.0	CARBONDALE		SANDY SHALE	40.0	51.0
567.0	CARBONDALE	COLCHESTER	COAL	2.0	91.0
565.0	SPOON		UNDERCLAY	2.0	93.0

MAPID: 00922134000C **VERSION:** 1 **PROJECT:** NCRDS95
COUNTY: BROWN **TWP/RNG:** 1N 4W **SECTION:** 2 **QUARTERS/FOOTAGES:** 1850' N line, 2700' W line
QUADRANGLE: LAKE MT. STERLING **LONGITUDE:** -90.825034 **GEOLOGIST:** KOROSE
CONFIDENTIAL: N **LATITUDE:** 40.100074 **DATE COLLECTED:** 2 / 16 / 1968
SURFACE ELEVATION (FT.): 642.0 **LOGGED (FT.):** 68.0 **LOG TYPE:** Drillers Log
SOURCE: PITTSBURG & MIDWAY 49-W **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
642.0	PLEISTOCENE		CLAY	22.0	0.0
620.0	CARBONDALE		GRAY SHALE	42.8	22.0
577.2	CARBONDALE	COLCHESTER	COAL	1.8	64.8
575.5	SPOON		SHALE	1.5	66.5

MAPID: 00922135000C **VERSION:** 1 **PROJECT:** NCRDS95
COUNTY: BROWN **TWP/RNG:** 1N 4W **SECTION:** 2 **QUARTERS/FOOTAGES:** 1850' N line, 1400' E line
QUADRANGLE: LAKE MT. STERLING **LONGITUDE:** -90.820546 **GEOLOGIST:** KOROSE
CONFIDENTIAL: N **LATITUDE:** 40.100129 **DATE COLLECTED:** 2 / 16 / 1968
SURFACE ELEVATION (FT.): 625.0 **LOGGED (FT.):** 65.0 **LOG TYPE:** Drillers Log
SOURCE: PITTSBURG & MIDWAY 50-W **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
625.0	PLEISTOCENE		CLAY	14.0	0.0
611.0	CARBONDALE		SANDSTONE	6.0	14.0
605.0	CARBONDALE		SANDY SHALE	14.0	20.0
591.0	CARBONDALE		SHALE	27.6	34.0
563.4	CARBONDALE	COLCHESTER	COAL	2.2	61.6
561.2	SPOON		SHALE	1.3	63.8

MAPID: 00922136000C **VERSION:** 1 **PROJECT:** NCRDS95
COUNTY: BROWN **TWP/RNG:** 1N 4W **SECTION:** 2 **QUARTERS/FOOTAGES:** 700' N line, 1500' E line
QUADRANGLE: LAKE MT. STERLING **LONGITUDE:** -90.820814 **GEOLOGIST:** KOROSE
CONFIDENTIAL: N **LATITUDE:** 40.1033 **DATE COLLECTED:** 2 / 17 / 1968
SURFACE ELEVATION (FT.): 633.0 **LOGGED (FT.):** 65.0 **LOG TYPE:** Drillers Log
SOURCE: PITTSBURG & MIDWAY 51-W **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
633.0	PLEISTOCENE		CLAY	24.0	0.0
609.0	CARBONDALE		GRAY SHALE	37.7	24.0
571.3	CARBONDALE	COLCHESTER	COAL	2.1	61.7
569.2	SPOON		SHALE	1.3	63.8

MAPID: 00922137000C **VERSION:** 1 **PROJECT:** NCRDS95
COUNTY: BROWN **TWP/RNG:** 1N 4W **SECTION:** 2 **QUARTERS/FOOTAGES:** 2200' N line, 1320' W line
QUADRANGLE: LAKE MT. STERLING **LONGITUDE:** -90.830028 **GEOLOGIST:** KOROSE
CONFIDENTIAL: N **LATITUDE:** 40.099046 **DATE COLLECTED:** 2 / 15 / 1968
SURFACE ELEVATION (FT.): 650.0 **LOGGED (FT.):** 70.0 **LOG TYPE:** Drillers Log
SOURCE: PITTSBURG & MIDWAY 58-C **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
650.0	PLEISTOCENE		CLAY	20.0	0.0
630.0	CARBONDALE		SANDY SHALE	3.0	20.0
627.0	CARBONDALE		GRAY SHALE	42.0	23.0
585.0	CARBONDALE	COLCHESTER	COAL	1.8	65.0
583.2	SPOON		UNDERCLAY	3.2	66.8

MAPID: 00922138000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 2 QUARTERS/FOOTAGES: 800' N line, 1500' W line
 QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.829239 GEOLOGIST: KOROSE
 CONFIDENTIAL: N LATITUDE: 40.102919 DATE COLLECTED: 2 / 15 / 1968
 SURFACE ELEVATION (FT.): 645.0 LOGGED (FT.): 70.0 LOG TYPE: Drillers Log
 SOURCE: PITTSBURG & MIDWAY 59-C-68 WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
645.0	PLEISTOCENE		CLAY	15.0	0.0	
630.0	CARBONDALE		MUD	33.0	15.0	BLUE
597.0	CARBONDALE		GRAVEL	1.5	48.0	
595.5	CARBONDALE	FRANCIS CREEK	GRAY SHALE	14.5	49.5	LOG THICKNESS 15.0 CHANGED
581.0	CARBONDALE	COLCHESTER	COAL	2.3	64.0	
578.7	SPOON		UNDERCLAY	2.8	66.3	
576.0	SPOON		SHALE	1.0	69.0	

MAPID: 00922139000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 2 QUARTERS/FOOTAGES: 500' N line, 2350' W line
 QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.826154 GEOLOGIST: KOROSE
 CONFIDENTIAL: N LATITUDE: 40.103784 DATE COLLECTED: 2 / 16 / 1968
 SURFACE ELEVATION (FT.): 630.0 LOGGED (FT.): 66.0 LOG TYPE: Drillers Log
 SOURCE: PITTSBURG & MIDWAY 60-C-68 WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
630.0	PLEISTOCENE		CLAY	19.5	0.0	
610.5	CARBONDALE		SANDY SHALE	42.0	19.5	
568.5	CARBONDALE	COLCHESTER	COAL	2.3	61.5	
566.2	SPOON		UNDERCLAY	2.3	63.8	
564.0			SHALE	0.0	66.0	

MAPID: 0092214000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 2 QUARTERS/FOOTAGES: 900' N line, 2300' E line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.823704 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.102713 DATE COLLECTED: 2 / 16 / 1968

SURFACE ELEVATION (FT.): 623.0 LOGGED (FT.): 60.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 61-C-68 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
623.0	PLEISTOCENE		CLAY	23.0	0.0
600.0	CARBONDALE		GRAY SHALE	26.0	23.0
574.0	CARBONDALE	COLCHESTER	COAL	1.9	49.0
572.1	SPOON		UNDERCLAY	2.1	50.9
570.0	SPOON		SHALE	7.0	53.0

MAPID: 00922141000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 2 QUARTERS/FOOTAGES: 800' N line, 800' E line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.818308 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.103055 DATE COLLECTED: 2 / 17 / 1968

SURFACE ELEVATION (FT.): 658.0 LOGGED (FT.): 95.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 62-C-68 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
658.0	PLEISTOCENE		CLAY	19.0	0.0
639.0	CARBONDALE		BROWN SHALE	10.0	19.0
629.0	CARBONDALE		SHALE	12.0	29.0
617.0	CARBONDALE		SANDSTONE	9.0	41.0
608.0	CARBONDALE		SANDY SHALE	36.0	50.0
572.0	CARBONDALE	COLCHESTER	COAL	2.3	86.0
569.7	SPOON		UNDERCLAY	2.8	88.3
567.0	SPOON		SHALE	4.0	91.0

MAPID: 00922142000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 3 QUARTERS/FOOTAGES: 2640' S line, 1400' E line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.839855 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.09742 DATE COLLECTED: 7 / 15 / 1967

SURFACE ELEVATION (FT.): 630.0 LOGGED (FT.): 60.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 30-P WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
630.0	PLEISTOCENE		CLAY	7.0	0.0
623.0	CARBONDALE		SANDSTONE	2.0	7.0
621.0	CARBONDALE		GRAY SHALE	46.0	9.0
575.0	CARBONDALE	COLCHESTER	COAL	2.1	55.0
572.9	SPOON		UNDERCLAY	2.9	57.1

MAPID: 00922143000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 3 QUARTERS/FOOTAGES: 2640' N line, 2640' E line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.844301 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.097651 DATE COLLECTED: 5 / 1 / 1968

SURFACE ELEVATION (FT.): 650.0 LOGGED (FT.): 95.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 38-V WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
650.0	PLEISTOCENE		CLAY	14.0	0.0
636.0	CARBONDALE		BROWN SHALE	13.0	14.0
623.0	CARBONDALE		GRAY SHALE	8.0	27.0
615.0	CARBONDALE		SANDSTONE	4.0	35.0
611.0	CARBONDALE		SANDY SHALE	11.0	39.0
600.0	CARBONDALE		GRAY SHALE	36.5	50.0
563.5	CARBONDALE	COLCHESTER	COAL	2.2	86.5
561.3	SPOON		UNDERCLAY	2.3	88.7
559.0	SPOON		SHALE	4.0	91.0

MAPID: 00922144000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 3 QUARTERS/FOOTAGES: 2500' N line, 1150' W line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.849766 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.09797 DATE COLLECTED: 5 / 1 / 1968

SURFACE ELEVATION (FT.): 663.0 LOGGED (FT.): 91.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 39-V WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
663.0	PLEISTOCENE		CLAY	38.0	0.0
625.0	CARBONDALE		BROWN SHALE	4.0	38.0
621.0	CARBONDALE		GRAY SHALE	41.0	42.0
580.0	CARBONDALE	COLCHESTER	COAL	2.1	83.0
577.9	SPOON		UNDERCLAY	2.9	85.1
575.0	SPOON		SHALE	3.0	88.0

MAPID: 00922145000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 3 QUARTERS/FOOTAGES: 1400' N line, 1600' W line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.848068 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.101028 DATE COLLECTED: 0 / 0 / 1968

SURFACE ELEVATION (FT.): 623.0 LOGGED (FT.): 65.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 48-M WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
623.0	PLEISTOCENE		CLAY	27.0	0.0
596.0	CARBONDALE		GRAY SHALE	29.0	27.0
567.0	CARBONDALE	COLCHESTER	COAL	2.1	56.0
564.9	SPOON		UNDERCLAY	2.9	58.1
562.0	SPOON		SHALE	4.0	61.0

MAPID: 00922146000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 3 QUARTERS/FOOTAGES: 300' N line, 1550' W line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.848166 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.104063 DATE COLLECTED: 5 / 1 / 1968

SURFACE ELEVATION (FT.): 620.0 LOGGED (FT.): 56.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 69-W WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
620.0	PLEISTOCENE		CLAY	25.0	0.0
595.0	CARBONDALE		DARK SHALE	8.8	25.0
586.2	CARBONDALE	COLCHESTER	COAL	2.3	33.8
583.8	SPOON		SHALE	9.8	36.2
574.0	SPOON		SANDY SHALE	9.0	46.0
565.0	SPOON		SANDSTONE	1.0	55.0

MAPID: 00922147000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 3 QUARTERS/FOOTAGES: 1400' N line, 50' W line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.853637 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.100959 DATE COLLECTED: 5 / 1 / 1968

SURFACE ELEVATION (FT.): 618.0 LOGGED (FT.): 51.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 71-W WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
618.0	PLEISTOCENE		CLAY	22.0	0.0
596.0	CARBONDALE		DARK SHALE	25.9	22.0
570.1	CARBONDALE	COLCHESTER	COAL	2.0	47.9
568.1	SPOON		SHALE	1.1	49.9

MAPID: 00922148000C **VERSION:** 1 **PROJECT:** NCRDS95
COUNTY: BROWN **TWP/RNG:** 1N 4W **SECTION:** 3 **QUARTERS/FOOTAGES:** 1500' N line, 2400' E line
QUADRANGLE: LAKE MT. STERLING **LONGITUDE:** -90.843323 **GEOLOGIST:** KOROSE
CONFIDENTIAL: N **LATITUDE:** 40.100812 **DATE COLLECTED:** 5 / 21 / 1968
SURFACE ELEVATION (FT.): 645.0 **LOGGED (FT.):** 72.0 **LOG TYPE:** Drillers Log
SOURCE: PITTSBURG & MIDWAY 95-M **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
645.0	PLEISTOCENE		CLAY	22.0	0.0
623.0	CARBONDALE		SHALE	4.0	22.0
619.0	CARBONDALE		GRAY SHALE	1.0	26.0
618.0	CARBONDALE		GRAY SHALE	40.5	27.0
577.5	CARBONDALE	COLCHESTER	COAL	2.0	67.5
575.5	SPOON		UNDERCLAY	2.5	69.5

MAPID: 00922149000C **VERSION:** 1 **PROJECT:** NCRDS95
COUNTY: BROWN **TWP/RNG:** 1N 4W **SECTION:** 3 **QUARTERS/FOOTAGES:** 100' N line, 1100' E line
QUADRANGLE: LAKE MT. STERLING **LONGITUDE:** -90.838511 **GEOLOGIST:** KOROSE
CONFIDENTIAL: N **LATITUDE:** 40.104736 **DATE COLLECTED:** 5 / 21 / 1968
SURFACE ELEVATION (FT.): 650.0 **LOGGED (FT.):** 78.0 **LOG TYPE:** Drillers Log
SOURCE: PITTSBURG & MIDWAY 96M **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
650.0	PLEISTOCENE		CLAY	24.0	0.0
626.0	CARBONDALE		SHALE	50.5	24.0
575.5	CARBONDALE	COLCHESTER	COAL	2.3	74.5
573.2	SPOON		UNDERCLAY	1.2	76.8

MAPID: 00922150000C **VERSION:** 1 **PROJECT:** NCRDS95
COUNTY: BROWN **TWP/RNG:** 1N 4W **SECTION:** 3 **QUARTERS/FOOTAGES:** 1800' S line, 500' W line
QUADRANGLE: LAKE MT. STERLING **LONGITUDE:** -90.852171 **GEOLOGIST:** KOROSE
CONFIDENTIAL: N **LATITUDE:** 40.095367 **DATE COLLECTED:** 5 / 1 / 1968
SURFACE ELEVATION (FT.): 624.0 **LOGGED (FT.):** 70.0 **LOG TYPE:** Drillers Log
SOURCE: PITTSBURG & MIDWAY 104-C **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
624.0	PLEISTOCENE		CLAY	17.0	0.0
607.0	CARBONDALE		GRAY SHALE	48.0	17.0
559.0	CARBONDALE	COLCHESTER	COAL	2.3	65.0
556.7	SPOON		UNDERCLAY	2.7	67.3

MAPID: 00922151000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 3 QUARTERS/FOOTAGES: 1525' S line, 1700' W line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.847881

GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.094517

DATE COLLECTED: 5 / 1 / 1968

SURFACE ELEVATION (FT.): 642.0 LOGGED (FT.): 70.0

LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 105-C

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
642.0	PLEISTOCENE		CLAY	14.0	0.0
628.0	CARBONDALE		SANDSTONE	2.5	14.0
625.5	CARBONDALE		GRAY SHALE	47.5	16.5
578.0	CARBONDALE	COLCHESTER	COAL	2.3	64.0
575.7	SPOON		UNDERCLAY	2.7	66.3
573.0	SPOON		SHALE	1.0	69.0

MAPID: 00922152000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 3 QUARTERS/FOOTAGES: 1200' N line, 500' E line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.836465

GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.101725

DATE COLLECTED: 5 / 21 / 1968

SURFACE ELEVATION (FT.): 630.0 LOGGED (FT.): 48.0

LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 115-W

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
630.0	PLEISTOCENE		CLAY	22.0	0.0
608.0	CARBONDALE		DARK SHALE	21.2	22.0
586.8	CARBONDALE	COLCHESTER	COAL	2.1	43.2
584.7	SPOON		SHALE	2.8	45.3

MAPID: 00922153000C **VERSION:** 1 **PROJECT:** NCRDS95
COUNTY: BROWN **TWP/RNG:** 1N 4W **SECTION:** 4 **QUARTERS/FOOTAGES:** 2425' N line, 1' E line
QUADRANGLE: LAKE MT. STERLING **LONGITUDE:** -90.853895 **GEOLOGIST:** KOROSE
CONFIDENTIAL: N **LATITUDE:** 40.098127 **DATE COLLECTED:** 7 / 14 / 1967
SURFACE ELEVATION (FT.): 616.0 **LOGGED (FT.):** 57.0 **LOG TYPE:** Drillers Log
SOURCE: PITTSBURG & MIDWAY 27-P **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
616.0	PLEISTOCENE		CLAY	20.0	0.0
596.0	CARBONDALE		SHALE	2.8	20.0
593.2	CARBONDALE		LIMESTONE	0.3	22.8
593.0	CARBONDALE		GRAY SHALE	30.0	23.0
563.0	CARBONDALE	COLCHESTER	COAL	2.2	53.0
560.8	SPOON		UNDERCLAY	1.8	55.2

MAPID: 00922154000C **VERSION:** 1 **PROJECT:** NCRDS95
COUNTY: BROWN **TWP/RNG:** 1N 4W **SECTION:** 4 **QUARTERS/FOOTAGES:** 2500' N line, 10' E line
QUADRANGLE: LAKE MT. STERLING **LONGITUDE:** -90.853934 **GEOLOGIST:** KOROSE
CONFIDENTIAL: N **LATITUDE:** 40.09792 **DATE COLLECTED:** 7 / 15 / 1967
SURFACE ELEVATION (FT.): 643.0 **LOGGED (FT.):** 75.0 **LOG TYPE:** Drillers Log
SOURCE: PITTSBURG & MIDWAY 29-P **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
643.0	PLEISTOCENE		CLAY	23.0	0.0
620.0	CARBONDALE		GRAY SHALE	48.0	23.0
572.0	CARBONDALE	COLCHESTER	COAL	1.9	71.0
570.1	SPOON		UNDERCLAY	2.1	72.9

MAPID: 00922155000C **VERSION:** 1 **PROJECT:** NCRDS95
COUNTY: BROWN **TWP/RNG:** 1N 4W **SECTION:** 4 **QUARTERS/FOOTAGES:** 2350' N line, 2300' W line
QUADRANGLE: LAKE MT. STERLING **LONGITUDE:** -90.865054 **GEOLOGIST:** KOROSE
CONFIDENTIAL: N **LATITUDE:** 40.098291 **DATE COLLECTED:** 5 / 1 / 1968
SURFACE ELEVATION (FT.): 600.0 **LOGGED (FT.):** 41.0 **LOG TYPE:** Drillers Log
SOURCE: PITTSBURG & MIDWAY 40-V **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
600.0	PLEISTOCENE		CLAY	22.0	0.0
578.0	CARBONDALE		GRAY SHALE	8.0	22.0
570.0	CARBONDALE	COLCHESTER	COAL	2.1	30.0
567.9	SPOON		UNDERCLAY	2.9	32.1
565.0	SPOON		SHALE	6.0	35.0

MAPID: 00922156000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 4 QUARTERS/FOOTAGES: 2400' N line, 1980' E line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.861001 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.09817 DATE COLLECTED: 0 / 0 / 1968

SURFACE ELEVATION (FT.): 624.0 LOGGED (FT.): 65.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 49-M WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
624.0	PLEISTOCENE		CLAY	17.0	0.0	
607.0	CARBONDALE		GRAY SHALE	39.0	17.0	
568.0	CARBONDALE	COLCHESTER	COAL	2.3	56.0	
565.7	SPOON		UNDERCLAY	2.7	58.3	
563.0	SPOON		SHALE	4.0	61.0	

MAPID: 00922157000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 4 QUARTERS/FOOTAGES: 2450' N line, 1320' W line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.868581 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.098002 DATE COLLECTED: 5 / 2 / 1968

SURFACE ELEVATION (FT.): 595.0 LOGGED (FT.): 29.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 53-M WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
595.0	PLEISTOCENE		CLAY	13.0	0.0	
582.0	PLEISTOCENE		GRAVEL	2.0	13.0	
580.0	PLEISTOCENE		CLAY	6.0	15.0	
574.0	PLEISTOCENE		GRAVEL	1.0	21.0	W/ COAL SHOWING
573.0	CARBONDALE		GRAY SHALE	2.5	22.0	
570.5	CARBONDALE	COLCHESTER	COAL	2.4	24.5	
568.1	SPOON		UNDERCLAY	2.1	26.9	

MAPID: 00922158000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 4 QUARTERS/FOOTAGES: 1800' N line, 700' W line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.870758 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.099788 DATE COLLECTED: 5 / 2 / 1968

SURFACE ELEVATION (FT.): 600.0 LOGGED (FT.): 29.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY54-M WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
600.0	PLEISTOCENE		CLAY	21.0	0.0	
579.0	PLEISTOCENE		CLAY	0.2	21.0	COAL STREAKS PRESENT
578.8	PLEISTOCENE		SAND & GRAVEL	3.8	21.2	COLCHESTER COAL ERODED
575.0			UNDERCLAY	3.0	25.0	
572.0			LIMESTONE	1.0	28.0	

MAPID: 00922159000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 4 QUARTERS/FOOTAGES: 2450' N line, 900' E line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.857125 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.098046 DATE COLLECTED: 5 / 1 / 1968

SURFACE ELEVATION (FT.): 620.0 LOGGED (FT.): 58.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 70-W WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
620.0	PLEISTOCENE		CLAY	12.0	0.0	
608.0	CARBONDALE		DARK SHALE	42.4	12.0	
565.6	CARBONDALE	COLCHESTER	COAL	2.1	54.4	
563.5	SPOON		SHALE	1.5	56.5	

MAPID: 00922160000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 4 QUARTERS/FOOTAGES: 1800' N line, 1320' W line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.86853 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.099797 DATE COLLECTED: 5 / 2 / 1968

SURFACE ELEVATION (FT.): 580.0 LOGGED (FT.): 34.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 75-W WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
580.0	PLEISTOCENE		CLAY	16.0	0.0	
564.0	PLEISTOCENE		SAND & GRAVEL	3.0	16.0	W/ FREE COAL
561.0			LIGHT SHALE	13.5	19.0	
547.5			LIMESTONE	1.5	32.5	

MAPID: 00922161000C **VERSION:** 1 **PROJECT:** NCRDS95
COUNTY: BROWN **TWP/RNG:** 1N 4W **SECTION:** 4 **QUARTERS/FOOTAGES:** 1150' N line, 750' W line
QUADRANGLE: LAKE MT. STERLING **LONGITUDE:** -90.870531 **GEOLOGIST:** KOROSE
CONFIDENTIAL: N **LATITUDE:** 40.101581 **DATE COLLECTED:** 5 / 2 / 1968
SURFACE ELEVATION (FT.): 585.0 **LOGGED (FT.):** 20.0 **LOG TYPE:** Drillers Log
SOURCE: PITTSBURG & MIDWAY 110-C **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
585.0	PLEISTOCENE		CLAY	13.5	0.0	
571.5	PLEISTOCENE		GRAVEL	1.5	13.5	
570.0	CARBONDALE	COLCHESTER	COAL	1.0	15.0	SOFT
569.0	SPOON		UNDERCLAY	2.0	16.0	
567.0	SPOON		SHALE	2.0	18.0	

MAPID: 00922162000C **VERSION:** 1 **PROJECT:** NCRDS95
COUNTY: BROWN **TWP/RNG:** 1N 4W **SECTION:** 4 **QUARTERS/FOOTAGES:** 1300' N line, 1300' W line
QUADRANGLE: LAKE MT. STERLING **LONGITUDE:** -90.868564 **GEOLOGIST:** KOROSE
CONFIDENTIAL: N **LATITUDE:** 40.101176 **DATE COLLECTED:** 5 / 0 / 1968
SURFACE ELEVATION (FT.): 580.0 **LOGGED (FT.):** 19.0 **LOG TYPE:** Drillers Log
SOURCE: PITTSBURG & MIDWAY 111-C **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
580.0	PLEISTOCENE		CLAY	14.0	0.0	
566.0	PLEISTOCENE		GRAVEL	2.0	14.0	
564.0			UNDERCLAY	2.0	16.0	COAL SHOWING AT TOP
562.0			LIMESTONE	1.0	18.0	

MAPID: 00922163000C **VERSION:** 1 **PROJECT:** NCRDS95
COUNTY: BROWN **TWP/RNG:** 1N 4W **SECTION:** 5 **QUARTERS/FOOTAGES:** 1300' S line, 1850' E line
QUADRANGLE: CLAYTON **LONGITUDE:** -90.880071 **GEOLOGIST:** KOROSE
CONFIDENTIAL: N **LATITUDE:** 40.094198 **DATE COLLECTED:** 5 / 2 / 1968
SURFACE ELEVATION (FT.): 625.0 **LOGGED (FT.):** 39.0 **LOG TYPE:** Drillers Log
SOURCE: PITTSBURG & MIDWAY 50-M **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
625.0	PLEISTOCENE		CLAY	18.0	0.0	
607.0	CARBONDALE		SHALE	16.5	18.0	
590.5	CARBONDALE	COLCHESTER	CAVITY	4.0	34.5	COLCHESTER MINED OUT
586.5			UNCLASSIFIED	0.5	38.5	

MAPID: 00922164000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 5 QUARTERS/FOOTAGES: 2250' S line, 1900' E line
 QUADRANGLE: CLAYTON LONGITUDE: -90.88018 GEOLOGIST: KOROSE
 CONFIDENTIAL: N LATITUDE: 40.096819 DATE COLLECTED: 5 / 2 / 1968
 SURFACE ELEVATION (FT.): 605.0 LOGGED (FT.): 25.0 LOG TYPE: Drillers Log
 SOURCE: PITTSBURG & MIDWAY 51-M WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
605.0	PLEISTOCENE		CLAY	21.0	0.0	
584.0	PLEISTOCENE		SANDY CLAY	1.5	21.0	FREE COAL AT TOP
582.5	CARBONDALE	COLCHESTER	COAL	0.3	22.5	TOP OF COAL ERODED
582.2			ROCK	2.3	22.8	GRAVEL

MAPID: 00922165000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 5 QUARTERS/FOOTAGES: 1900' S line, 1400' E line
 QUADRANGLE: CLAYTON LONGITUDE: -90.878411 GEOLOGIST: KOROSE
 CONFIDENTIAL: N LATITUDE: 40.095843 DATE COLLECTED: 5 / 2 / 1968
 SURFACE ELEVATION (FT.): 590.0 LOGGED (FT.): 28.0 LOG TYPE: Drillers Log
 SOURCE: PITTSBURG & MIDWAY 52-M WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
590.0	PLEISTOCENE		CLAY	8.0	0.0	
582.0	PLEISTOCENE		SAND & GRAVEL	1.5	8.0	FREE COAL AT TOP
580.5			UNDERCLAY	18.0	9.5	COLCHESTER COAL ERODED
562.5			LIMESTONE	0.5	27.5	

MAPID: 00922166000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 5 QUARTERS/FOOTAGES: 700' S line, 1900' E line
 QUADRANGLE: CLAYTON LONGITUDE: -90.880297 GEOLOGIST: KOROSE
 CONFIDENTIAL: N LATITUDE: 40.092542 DATE COLLECTED: 5 / 2 / 1968
 SURFACE ELEVATION (FT.): 620.0 LOGGED (FT.): 45.0 LOG TYPE: Drillers Log
 SOURCE: PITTSBURG & MIDWAY 72-W WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
620.0	PLEISTOCENE		CLAY	11.0	0.0	
609.0	CARBONDALE		DARK SHALE	5.0	11.0	
604.0	CARBONDALE		CLAYSTONE & SILTSTONE	2.0	16.0	
602.0	CARBONDALE		SHALE	22.5	18.0	
579.5	CARBONDALE	COLCHESTER	COAL	1.6	40.5	
577.9	SPOON		SHALE	2.9	42.1	

MAPID: 00922167000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 5 QUARTERS/FOOTAGES: 50' S line, 1375' E line

QUADRANGLE: CLAYTON LONGITUDE: -90.878461 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.090739 DATE COLLECTED: 5 / 2 / 1968

SURFACE ELEVATION (FT.): 600.0 LOGGED (FT.): 27.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 73-W WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
600.0	PLEISTOCENE		CLAY	9.0	0.0	
591.0	CARBONDALE		DARK SHALE	2.0	9.0	
589.0	CARBONDALE		CLAYSTONE & SILTSTONE	2.0	11.0	BROWN
587.0	CARBONDALE		DARK SHALE	10.8	13.0	
576.2	CARBONDALE	COLCHESTER	COAL	1.9	23.8	
574.3	SPOON		SHALE	1.3	25.7	

MAPID: 00922168000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 5 QUARTERS/FOOTAGES: 1700' N line, 75' E line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.873534 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.100051 DATE COLLECTED: 5 / 2 / 1968

SURFACE ELEVATION (FT.): 600.0 LOGGED (FT.): 26.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 74-W WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
600.0	PLEISTOCENE		CLAY	7.0	0.0	
593.0			SANDSTONE	5.0	7.0	
588.0			DARK SHALE	5.0	12.0	
583.0			SANDSTONE	5.0	17.0	
578.0			SANDY SHALE	3.0	22.0	
575.0			LIMESTONE	1.0	25.0	

MAPID: 00922169000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 5 QUARTERS/FOOTAGES: 800' S line, 2600' E line
 QUADRANGLE: CLAYTON LONGITUDE: -90.882804 GEOLOGIST: KOROSE
 CONFIDENTIAL: N LATITUDE: 40.092833 DATE COLLECTED: 5 / 0 / 1968
 SURFACE ELEVATION (FT.): 610.0 LOGGED (FT.): 45.0 LOG TYPE: Drillers Log
 SOURCE: PITTSBURG & MIDWAY 107-C WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
610.0	PLEISTOCENE		CLAY	15.0	0.0
595.0	CARBONDALE	FRANCIS CREEK	GRAY SHALE	22.0	15.0
573.0	CARBONDALE	COLCHESTER	COAL	2.1	37.0
570.9	SPOON		UNDERCLAY	1.9	39.1
569.0	SPOON		SHALE	4.0	41.0

MAPID: 00922170000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 5 QUARTERS/FOOTAGES: 1300' S line, 2600' E line
 QUADRANGLE: CLAYTON LONGITUDE: -90.882767 GEOLOGIST: KOROSE
 CONFIDENTIAL: N LATITUDE: 40.094213 DATE COLLECTED: 5 / 0 / 1968
 SURFACE ELEVATION (FT.): 585.0 LOGGED (FT.): 17.0 LOG TYPE: Drillers Log
 SOURCE: PITTSBURG & MIDWAY 108-C WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
585.0	PLEISTOCENE		CLAY	11.0	0.0
574.0			UNDERCLAY	2.0	11.0
572.0			SHALE	3.0	13.0
569.0			LIMESTONE	1.0	16.0

MAPID: 00922171000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 5 QUARTERS/FOOTAGES: 2400' N line, 1150' E line
 QUADRANGLE: CLAYTON LONGITUDE: -90.877449 GEOLOGIST: KOROSE
 CONFIDENTIAL: N LATITUDE: 40.098093 DATE COLLECTED: 5 / 2 / 1968
 SURFACE ELEVATION (FT.): 595.0 LOGGED (FT.): 15.0 LOG TYPE: Drillers Log
 SOURCE: PITTSBURG & MIDWAY 109-C WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
595.0	PLEISTOCENE		CLAY	14.0	0.0
581.0			LIMESTONE	1.0	14.0

MAPID: 00922172000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 8 QUARTERS/FOOTAGES: 1450' N line, 2640' W line
 QUADRANGLE: CLAYTON LONGITUDE: -90.883274 GEOLOGIST: KOROSE
 CONFIDENTIAL: N LATITUDE: 40.086628 DATE COLLECTED: 2 / 8 / 1968
 SURFACE ELEVATION (FT.): 645.0 LOGGED (FT.): 80.0 LOG TYPE: Drillers Log
 SOURCE: PITTSBURG & MIDWAY 2-V WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
645.0	PLEISTOCENE		CLAY	27.0	0.0	
618.0	CARBONDALE		SHALE	13.0	27.0	
605.0	CARBONDALE	OAK GROVE	LIMESTONE	5.5	40.0	VERY HARD
599.5	CARBONDALE	MECCA QUARRY	BLACK SHALE	1.5	45.5	
598.0	CARBONDALE	FRANCIS CREEK	SHALE	28.5	47.0	
569.5	CARBONDALE	COLCHESTER	COAL	2.2	75.5	
567.3	SPOON		UNDERCLAY	2.3	77.7	

MAPID: 00922173000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 8 QUARTERS/FOOTAGES: 1900' N line, 1900' E line
 QUADRANGLE: CLAYTON LONGITUDE: -90.880565 GEOLOGIST: KOROSE
 CONFIDENTIAL: N LATITUDE: 40.085371 DATE COLLECTED: 5 / 3 / 1968
 SURFACE ELEVATION (FT.): 625.0 LOGGED (FT.): 72.0 LOG TYPE: Drillers Log
 SOURCE: PITTSBURG & MIDWAY 112-C WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
625.0	PLEISTOCENE		CLAY	27.0	0.0	
598.0	CARBONDALE		SHALE	1.5	27.0	
596.5	CARBONDALE		BLACK SHALE	0.5	28.5	LOG THICKNESS 1.0 CHANGED
596.0	CARBONDALE		SANDSTONE	2.0	29.0	
594.0	CARBONDALE		SHALE	2.0	31.0	
592.0	CARBONDALE	OAK GROVE	LIMESTONE	4.0	33.0	
588.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	1.0	37.0	
587.0	CARBONDALE	FRANCIS CREEK	SHALE	29.5	38.0	
557.5	CARBONDALE	COLCHESTER	COAL	2.0	67.5	
555.5	SPOON		UNDERCLAY	2.5	69.5	

MAPID: 00922174000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 8 QUARTERS/FOOTAGES: 10' N line, 2640' E line
 QUADRANGLE: CLAYTON LONGITUDE: -90.883008 GEOLOGIST: KOROSE
 CONFIDENTIAL: N LATITUDE: 40.0906 DATE COLLECTED: 7 / 14 / 1967
 SURFACE ELEVATION (FT.): 645.0 LOGGED (FT.): 70.0 LOG TYPE: Drillers Log
 SOURCE: PITTSBURG & MIDWAY 26-C WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
645.0	PLEISTOCENE		CLAY	21.5	0.0
623.5	CARBONDALE	OAK GROVE	LIMESTONE	3.5	21.5
620.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	1.2	25.0
618.8	CARBONDALE	FRANCIS CREEK	SHALE	34.8	26.2
584.0	CARBONDALE	COLCHESTER	COAL	2.2	61.0
581.8	SPOON		UNDERCLAY	2.8	63.2
579.0	SPOON		SHALE	4.0	66.0

MAPID: 00922175000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 8 QUARTERS/FOOTAGES: 1' N line, 1600' W line
 QUADRANGLE: CLAYTON LONGITUDE: -90.886832 GEOLOGIST: KOROSE
 CONFIDENTIAL: N LATITUDE: 40.090647 DATE COLLECTED: 2 / 8 / 1968
 SURFACE ELEVATION (FT.): 590.0 LOGGED (FT.): 60.0 LOG TYPE: Drillers Log
 SOURCE: PITTSBURG & MIDWAY 55-C WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
590.0	PLEISTOCENE		CLAY	15.5	0.0
574.5			LIMESTONE	1.0	15.5
573.5			SHALE	8.5	16.5
565.0			SANDSTONE	5.0	25.0
560.0			SANDY SHALE	8.0	30.0
552.0			SANDSTONE	2.0	38.0
550.0			SANDY SHALE	20.0	40.0

MAPID: 00922176000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 8 QUARTERS/FOOTAGES: 2300' N line, 1500' E line

QUADRANGLE: CLAYTON LONGITUDE: -90.879174 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.084258 DATE COLLECTED: 5 / 3 / 1968

SURFACE ELEVATION (FT.): 620.0 LOGGED (FT.): 72.0 LOG TYPE: Drillers Log

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

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
620.0	PLEISTOCENE		CLAY	21.0	0.0	
599.0	CARBONDALE		DARK SHALE	13.0	21.0	
586.0	CARBONDALE		SANDSTONE	3.0	34.0	HARD
583.0	CARBONDALE	OAK GROVE	LIMESTONE	3.0	37.0	
580.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	1.0	40.0	
579.0	CARBONDALE	FRANCIS CREEK	BLACK SHALE	27.0	41.0	
552.0	CARBONDALE	COLCHESTER	COAL	2.2	68.0	
549.8	SPOON		SHALE	1.8	70.2	

MAPID: 00922177000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 11 QUARTERS/FOOTAGES: 1320' S line, 1320' W line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.830667 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.07904 DATE COLLECTED: 2 / 2 / 1968

SURFACE ELEVATION (FT.): 671.0 LOGGED (FT.): 100.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 1-V WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
671.0	PLEISTOCENE		CLAY	18.0	0.0	
653.0	CARBONDALE		SHALE	39.0	18.0	
614.0	CARBONDALE		LIMESTONE	1.3	57.0	
612.7	CARBONDALE		SANDY SHALE	15.7	58.3	
597.0	CARBONDALE		DARK SHALE	2.5	74.0	
594.5	CARBONDALE	MECCA QUARRY	BLACK SHALE	1.0	76.5	
593.5	CARBONDALE	FRANCIS CREEK	GRAY SHALE	17.5	77.5	
576.0	CARBONDALE	COLCHESTER	COAL	2.0	95.0	
574.0	SPOON		UNDERCLAY	2.0	97.0	
572.0	SPOON		SHALE	1.0	99.0	

MAPID: 00922178000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 11 QUARTERS/FOOTAGES: 1150' N line, 1320' W line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.830449 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.086823 DATE COLLECTED: 2 / 3 / 1968

SURFACE ELEVATION (FT.): 668.0 LOGGED (FT.): 85.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 2-R WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
668.0	PLEISTOCENE		CLAY	18.0	0.0
650.0	CARBONDALE		SHALE	20.0	18.0
630.0	CARBONDALE		SANDY SHALE	10.0	38.0
620.0	CARBONDALE		SHALE	33.0	48.0
587.0	CARBONDALE	COLCHESTER	COAL	1.6	81.0
585.4	SPOON		UNDERCLAY	2.4	82.6

MAPID: 00922179000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 11 QUARTERS/FOOTAGES: 2640' S line, 2490' W line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.826365 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.082585 DATE COLLECTED: 0 / 0 / 1968

SURFACE ELEVATION (FT.): LOGGED (FT.): 68.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 7M-68 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
-	PLEISTOCENE		CLAY	10.0	0.0
-	CARBONDALE		SHALE	5.0	10.0
-	CARBONDALE		SANDY LIMESTONE	1.0	15.0
-	CARBONDALE		SANDSTONE	23.0	16.0
-	CARBONDALE	MECCA QUARRY	BLACK SHALE	1.5	39.0
-	CARBONDALE	FRANCIS CREEK	SHALE	23.5	40.5
-	CARBONDALE	COLCHESTER	COAL	2.3	64.0
-	SPOON		UNDERCLAY	1.8	66.3

MAPID: 0092218000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 11 QUARTERS/FOOTAGES: 1300' S line, 2475' E line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.825105 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.078862 DATE COLLECTED: 2 / 27 / 1968

SURFACE ELEVATION (FT.): 628.0 LOGGED (FT.): 70.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 10-V WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
628.0	PLEISTOCENE		CLAY	17.0	0.0
611.0	CARBONDALE		SHALE	4.0	17.0
607.0	CARBONDALE		LIMESTONE	2.5	21.0
604.5	CARBONDALE		SANDSTONE	9.5	23.5
595.0	CARBONDALE		SHALE	5.0	33.0
590.0	CARBONDALE		DARK SHALE	1.0	38.0
589.0	CARBONDALE	OAK GROVE	LIMESTONE	2.5	39.0
586.5	CARBONDALE	MECCA QUARRY	BLACK SHALE	1.0	41.5
585.5	CARBONDALE	FRANCIS CREEK	SHALE	16.5	42.5
569.0	CARBONDALE	COLCHESTER	COAL	2.1	59.0
566.9	SPOON		UNDERCLAY	2.9	61.1
564.0	SPOON		SANDSTONE	4.0	64.0
560.0	SPOON		LIMESTONE	2.0	68.0

MAPID: 00922181000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 11 QUARTERS/FOOTAGES: 2125' S line, 2175' E line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.823944 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.081111 DATE COLLECTED: 2 / 27 / 1968

SURFACE ELEVATION (FT.): 648.0 LOGGED (FT.): 81.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 11-V WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
648.0	PLEISTOCENE		CLAY	25.0	0.0
623.0	CARBONDALE		SHALE	16.0	25.0
607.0	CARBONDALE		SANDSTONE	12.0	41.0
595.0	CARBONDALE		SHALE	6.0	53.0
589.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	2.0	59.0
587.0	CARBONDALE	FRANCIS CREEK	SHALE	17.5	61.0
569.5	CARBONDALE	COLCHESTER	COAL	2.0	78.5
567.5	SPOON		UNDERCLAY	0.5	80.5

MAPID: 00922182000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 11 QUARTERS/FOOTAGES: 1320' S line, 1320' E line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.820958 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.078823 DATE COLLECTED: 2 / 27 / 1968

SURFACE ELEVATION (FT.): 625.0 LOGGED (FT.): 61.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 12-V WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
625.0	PLEISTOCENE		CLAY	22.0	0.0
603.0	CARBONDALE		SANDSTONE	3.0	22.0
600.0	CARBONDALE		SHALE	10.5	25.0
589.5	CARBONDALE		BLACK SHALE	1.0	35.5
588.5	CARBONDALE	OAK GROVE	LIMESTONE	1.5	36.5
587.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	1.0	38.0
586.0	CARBONDALE	FRANCIS CREEK	GRAY SHALE	13.0	39.0
573.0	CARBONDALE	COLCHESTER	COAL	2.2	52.0
570.8	SPOON		UNDERCLAY	2.8	54.2
568.0	SPOON		SANDSTONE	4.0	57.0

MAPID: 00922183000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 11 QUARTERS/FOOTAGES: 1950' S line, 1100' E line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.820107 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.080541 DATE COLLECTED: 2 / 27 / 1968

SURFACE ELEVATION (FT.): 625.0 LOGGED (FT.): 61.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 13-V WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
625.0	PLEISTOCENE		CLAY	14.0	0.0
611.0	CARBONDALE		SHALE	4.0	14.0 CARB
607.0	CARBONDALE		SANDSTONE	10.0	18.0
597.0	CARBONDALE		SHALE	7.0	28.0
590.0	CARBONDALE		DARK SHALE	1.0	35.0
589.0	CARBONDALE	OAK GROVE	LIMESTONE	1.0	36.0
588.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	1.0	37.0
587.0	CARBONDALE	FRANCIS CREEK	GRAY SHALE	16.0	38.0
571.0	CARBONDALE	COLCHESTER	COAL	2.0	54.0
569.0	SPOON		UNDERCLAY	3.0	56.0
566.0	SPOON		SANDSTONE	2.0	59.0

MAPID: 00922184000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 11 QUARTERS/FOOTAGES: 1250' N line, 1500' E line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.821322

GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.08647

DATE COLLECTED: 2 / 26 / 1968

SURFACE ELEVATION (FT.): 627.0 LOGGED (FT.): 62.0

LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 21-M

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
627.0	PLEISTOCENE		CLAY	16.0	0.0	
611.0	CARBONDALE		SANDSTONE	5.0	16.0	WEATHERED
606.0	CARBONDALE		SANDY SHALE	6.5	21.0	
599.5	CARBONDALE	MECCA QUARRY	BLACK SHALE	1.0	27.5	
598.5	CARBONDALE	FRANCIS CREEK	GRAY SHALE	29.0	28.5	SOFT
569.5	CARBONDALE	COLCHESTER	COAL	2.1	57.5	
567.4	SPOON		SHALE	2.4	59.6	

MAPID: 00922185000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 11 QUARTERS/FOOTAGES: 1000' N line, 1000' E line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.819502

GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.087144

DATE COLLECTED: 2 / 27 / 1968

SURFACE ELEVATION (FT.): 620.0 LOGGED (FT.): 56.0

LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 22-M

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
620.0	PLEISTOCENE		CLAY	12.0	0.0	
608.0	PLEISTOCENE		GRAVEL	2.0	12.0	
606.0	CARBONDALE		SANDSTONE	2.0	14.0	WEATHERED
604.0	CARBONDALE		SANDY SHALE	8.5	16.0	
595.5	CARBONDALE	MECCA QUARRY	BLACK SHALE	1.0	24.5	
594.5	CARBONDALE	FRANCIS CREEK	GRAY SHALE	26.0	25.5	SOFT
568.5	CARBONDALE	COLCHESTER	COAL	2.4	51.5	
566.1	SPOON		UNDERCLAY	2.1	53.9	

MAPID: 00922186000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 11 QUARTERS/FOOTAGES: 600' N line, 1850' E line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.822513 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.088273 DATE COLLECTED: 2 / 27 / 1968

SURFACE ELEVATION (FT.): 625.0 LOGGED (FT.): 57.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 23-M WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
625.0	PLEISTOCENE		CLAY	14.0	0.0	
611.0	CARBONDALE		SANDSTONE	3.0	14.0	WEATHERED
608.0	CARBONDALE		GRAY SANDSTONE	6.0	17.0	
602.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	1.0	23.0	
601.0	CARBONDALE	FRANCIS CREEK	GRAY SHALE	29.0	24.0	
572.0	CARBONDALE	COLCHESTER	COAL	2.3	53.0	
569.7	SPOON		UNDERCLAY	1.8	55.3	

MAPID: 00922187000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 11 QUARTERS/FOOTAGES: 1750' N line, 2250' W line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.827154 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.085141 DATE COLLECTED: 2 / 28 / 1968

SURFACE ELEVATION (FT.): 658.0 LOGGED (FT.): 82.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 24-M WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
658.0	PLEISTOCENE		CLAY	22.0	0.0	
636.0	CARBONDALE		SHALE	15.0	22.0	
621.0	CARBONDALE		SANDSTONE	6.0	37.0	
615.0	CARBONDALE		SANDY SHALE	7.0	43.0	
608.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	1.5	50.0	
606.5	CARBONDALE	FRANCIS CREEK	GRAY SHALE	26.5	51.5	
580.0	CARBONDALE	COLCHESTER	COAL	2.3	78.0	
577.7	SPOON		UNDERCLAY	1.8	80.3	

MAPID: 00922188000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 11 QUARTERS/FOOTAGES: 2100' S line, 2000' W line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.828166 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.081135 DATE COLLECTED: 2 / 28 / 1968

SURFACE ELEVATION (FT.): 663.0 LOGGED (FT.): 100.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 25M WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
663.0	PLEISTOCENE		CLAY	26.0	0.0
637.0	CARBONDALE		SHALE	31.0	26.0
606.0	CARBONDALE		SANDSTONE	9.0	57.0
597.0	CARBONDALE		SANDY SHALE	7.0	66.0
590.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	1.5	73.0
588.5	CARBONDALE	FRANCIS CREEK	GRAY SHALE	21.5	74.5
567.0	CARBONDALE	COLCHESTER	COAL	1.3	96.0
565.7	SPOON		UNDERCLAY	2.7	97.3

MAPID: 00922189000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 11 QUARTERS/FOOTAGES: 3700' S line, 800' E line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.81885 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.085341 DATE COLLECTED: 2 / 26 / 1968

SURFACE ELEVATION (FT.): 627.0 LOGGED (FT.): 53.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 25-R WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
627.0	PLEISTOCENE		CLAY	17.0	0.0
610.0	CARBONDALE		SHALE	7.0	17.0
603.0	CARBONDALE	OAK GROVE	LIMESTONE	1.5	24.0
601.5	CARBONDALE	MECCA QUARRY	BLACK SHALE	1.0	25.5
600.5	CARBONDALE	FRANCIS CREEK	GRAY SHALE	23.5	26.5
577.0	CARBONDALE	COLCHESTER	COAL	1.9	50.0
575.1	SPOON		UNDERCLAY	1.1	51.9

MAPID: 00922190000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 11 QUARTERS/FOOTAGES: 3600' S line, 1925' E line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.8229 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.085155 DATE COLLECTED: 2 / 27 / 1968

SURFACE ELEVATION (FT.): 639.0 LOGGED (FT.): 72.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 26-R WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
639.0	PLEISTOCENE		CLAY	22.0	0.0
617.0	CARBONDALE		SHALE	7.0	22.0
610.0	CARBONDALE		SANDSTONE	2.0	29.0
608.0	CARBONDALE		SANDY SHALE	9.0	31.0
599.0	CARBONDALE		DARK SHALE	2.0	40.0
597.0	CARBONDALE	OAK GROVE	LIMESTONE	0.5	42.0
596.5	CARBONDALE	MECCA QUARRY	BLACK SHALE	0.8	42.5
595.7	CARBONDALE		GRAY SHALE	25.3	43.3
570.3	CARBONDALE	COLCHESTER	COAL	2.4	68.7
567.9	SPOON		UNDERCLAY	0.9	71.1

MAPID: 00922191000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 11 QUARTERS/FOOTAGES: 1050' N line, 2640' E line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.825397 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.087056 DATE COLLECTED: 2 / 27 / 1968

SURFACE ELEVATION (FT.): 643.0 LOGGED (FT.): 77.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 27-R WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
643.0	PLEISTOCENE		CLAY	19.0	0.0
624.0	CARBONDALE		SHALE	11.0	19.0
613.0	CARBONDALE		SANDSTONE	3.0	30.0 HARD
610.0	CARBONDALE		SANDY SHALE	8.0	33.0
602.0	CARBONDALE	FRANCIS CREEK	GRAY SHALE	32.8	41.0
569.2	CARBONDALE	COLCHESTER	COAL	2.2	73.8
567.0	SPOON		UNDERCLAY	1.0	76.0

MAPID: 00922192000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 11 QUARTERS/FOOTAGES: 1' N line, 1320' W line
 QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.830358 GEOLOGIST: KOROSE
 CONFIDENTIAL: N LATITUDE: 40.089993 DATE COLLECTED: 2 / 28 / 1968
 SURFACE ELEVATION (FT.): 655.0 LOGGED (FT.): 24.0 LOG TYPE: Drillers Log
 SOURCE: PITTSBURG & MIDWAY 28-R WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
655.0	PLEISTOCENE		CLAY	4.0	0.0	
651.0	PLEISTOCENE		SAND	20.0	4.0	LOST HOLE IN SAND OUT OF WATER

MAPID: 00922193000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 11 QUARTERS/FOOTAGES: 200' N line, 1320' W line
 QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.830373 GEOLOGIST: KOROSE
 CONFIDENTIAL: N LATITUDE: 40.089443 DATE COLLECTED: 2 / 28 / 1968
 SURFACE ELEVATION (FT.): 660.0 LOGGED (FT.): 91.0 LOG TYPE: Drillers Log
 SOURCE: PITTSBURG & MIDWAY 24-R WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
660.0	PLEISTOCENE		CLAY	29.0	0.0	
631.0	CARBONDALE		SHALE	14.5	29.0	
616.5	CARBONDALE		LIMESTONE	1.5	43.5	
615.0	CARBONDALE		BLACK SHALE	0.5	45.0	
614.5	CARBONDALE		GRAY SHALE	41.5	45.5	
573.0	CARBONDALE	COLCHESTER	COAL	2.3	87.0	
570.7	SPOON		UNDERCLAY	1.7	89.3	

MAPID: 00922194000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 11 QUARTERS/FOOTAGES: 1500' N line, 15' E line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.816019 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.085737 DATE COLLECTED: 7 / 15 / 1967

SURFACE ELEVATION (FT.): 628.0 LOGGED (FT.): 57.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 31-P WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
628.0	PLEISTOCENE		CLAY	16.5	0.0	
611.5	CARBONDALE		LIMESTONE	2.0	16.5	
609.5	CARBONDALE		SANDY SHALE	2.5	18.5	
607.0	CARBONDALE		SANDY SHALE	11.0	21.0	LOG THICKNESS 9.0 CHANGED
596.0	CARBONDALE		DARK SHALE	2.0	32.0	
594.0	CARBONDALE	OAK GROVE	LIMESTONE	1.0	34.0	
593.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	1.5	35.0	
591.5	CARBONDALE	FRANCIS CREEK	GRAY SHALE	15.0	36.5	
576.5	CARBONDALE	COLCHESTER	COAL	2.5	51.5	
574.0	SPOON		UNDERCLAY	3.0	54.0	

MAPID: 00922195000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 11 QUARTERS/FOOTAGES: 2550' N line, 1320' W line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.830555 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.082961 DATE COLLECTED: 2 / 3 / 1968

SURFACE ELEVATION (FT.): 690.0 LOGGED (FT.): 122.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 39-W WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
690.0	PLEISTOCENE		CLAY	24.0	0.0	
666.0	CARBONDALE		SHALE	54.0	24.0	
612.0	CARBONDALE		SANDSTONE	2.0	78.0	HARD
610.0	CARBONDALE		SANDY SHALE	10.2	80.0	
599.8	CARBONDALE	OAK GROVE	LIMESTONE	1.1	90.2	
598.7	CARBONDALE	MECCA QUARRY	BLACK SHALE	0.8	91.3	
597.9	CARBONDALE	FRANCIS CREEK	GRAY SHALE	27.1	92.1	
570.8	CARBONDALE	COLCHESTER	COAL	1.8	119.2	
569.1	SPOON		SHALE	1.1	120.9	

MAPID: 00922196000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 11 QUARTERS/FOOTAGES: 1200' S line, 1' W line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.835409

GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.078816

DATE COLLECTED: 2 / 3 / 1968

SURFACE ELEVATION (FT.): 608.0 LOGGED (FT.): 40.0

LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 47-C-68

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
608.0	PLEISTOCENE		CLAY	23.0	0.0	
585.0	PLEISTOCENE		GRAVEL	5.0	23.0	
580.0	CARBONDALE		GRAY SHALE	2.0	28.0	
578.0	CARBONDALE	COLCHESTER	COAL	1.5	30.0	SHELLY
576.5	SPOON		UNDERCLAY	2.5	31.5	
574.0	SPOON		SANDY SHALE	6.0	34.0	

MAPID: 00922197000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 11 QUARTERS/FOOTAGES: 1900' S line, 1' E line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.816168

GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.080315

DATE COLLECTED: 2 / 3 / 1968

SURFACE ELEVATION (FT.): 626.0 LOGGED (FT.): 60.0

LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 48-C-68

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
626.0	PLEISTOCENE		CLAY	20.5	0.0	
605.5	CARBONDALE		LIMESTONE	2.0	20.5	
603.5	CARBONDALE		SANDY SHALE	3.5	22.5	
600.0	CARBONDALE		SHALE	12.5	26.0	
587.5	CARBONDALE		DARK SHALE	2.0	38.5	
585.5	CARBONDALE	MECCA QUARRY	BLACK SHALE	1.0	40.5	
584.5	CARBONDALE	FRANCIS CREEK	GRAY SHALE	13.0	41.5	
571.5	CARBONDALE	COLCHESTER	COAL	2.1	54.5	
569.4	SPOON		UNDERCLAY	2.0	56.6	
567.4	SPOON		SHALE	1.4	58.6	

MAPID: 00922198000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 11 QUARTERS/FOOTAGES: 2375' N line, 1' W line
 QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.835279 GEOLOGIST: KOROSE
 CONFIDENTIAL: N LATITUDE: 40.083484 DATE COLLECTED: 2 / 27 / 1968
 SURFACE ELEVATION (FT.): 668.0 LOGGED (FT.): 99.0 LOG TYPE: Drillers Log
 SOURCE: PITTSBURG & MIDWAY 73-C-68 WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
668.0	PLEISTOCENE		UNCONSOLIDATED	24.0	0.0
644.0	CARBONDALE		SHALE	26.0	24.0
618.0	CARBONDALE		SANDSTONE	10.0	50.0
608.0	CARBONDALE	FRANCIS CREEK	GRAY SHALE	30.0	60.0
578.0	CARBONDALE	COLCHESTER	COAL	2.2	90.0
575.8	SPOON		UNDERCLAY	2.8	92.2
573.0	SPOON		SHALE	4.0	95.0

MAPID: 00922199000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 11 QUARTERS/FOOTAGES: 850' S line, 2600' W line
 QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.82611 GEOLOGIST: KOROSE
 CONFIDENTIAL: N LATITUDE: 40.077642 DATE COLLECTED: 2 / 27 / 1968
 SURFACE ELEVATION (FT.): 626.0 LOGGED (FT.): 55.0 LOG TYPE: Drillers Log
 SOURCE: PITTSBURG & MIDWAY 74-C-68 WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
626.0	PLEISTOCENE		UNCONSOLIDATED	11.0	0.0
615.0	CARBONDALE		SANDSTONE	2.0	11.0 HARD
613.0	CARBONDALE		SANDY SHALE	5.0	13.0
608.0	CARBONDALE		SHALE	14.0	18.0
594.0	CARBONDALE		SANDSTONE	1.0	32.0
593.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	1.5	33.0
591.5	CARBONDALE	FRANCIS CREEK	SHALE	12.5	34.5
579.0	CARBONDALE	COLCHESTER	COAL	2.3	47.0
576.7	SPOON		UNDERCLAY	2.8	49.3
574.0	SPOON		SHALE	3.0	52.0

MAPID: 00922200000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 12 QUARTERS/FOOTAGES: 2000' S line, 660' W line
 QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.813784 GEOLOGIST: KOROSE
 CONFIDENTIAL: N LATITUDE: 40.080603 DATE COLLECTED: 2 / 28 / 1968
 SURFACE ELEVATION (FT.): 622.0 LOGGED (FT.): 61.0 LOG TYPE: Drillers Log
 SOURCE: PITTSBURG & MIDWAY 15-V WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
622.0	PLEISTOCENE		CLAY	25.0	0.0
597.0	CARBONDALE		SHALE	11.5	25.0
585.5	CARBONDALE	MECCA QUARRY	BLACK SHALE	2.0	36.5
583.5	CARBONDALE	FRANCIS CREEK	GRAY SHALE	12.5	38.5
571.0	CARBONDALE	COLCHESTER	COAL	2.0	51.0
569.0	SPOON		UNDERCLAY	3.0	53.0
566.0	SPOON		SANDSTONE	4.0	56.0
562.0	SPOON		LIMESTONE	1.0	60.0

MAPID: 00922201000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 12 QUARTERS/FOOTAGES: 2350' S line, 1320' W line
 QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.811377 GEOLOGIST: KOROSE
 CONFIDENTIAL: N LATITUDE: 40.081574 DATE COLLECTED: 2 / 28 / 1968
 SURFACE ELEVATION (FT.): 614.0 LOGGED (FT.): 41.0 LOG TYPE: Drillers Log
 SOURCE: PITTSBURG & MIDWAY 16-V WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
614.0	PLEISTOCENE		CLAY	24.0	0.0
590.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	1.5	24.0
588.5	CARBONDALE	FRANCIS CREEK	SHALE	12.5	25.5
576.0	CARBONDALE	COLCHESTER	COAL	2.2	38.0
573.8	SPOON		UNDERCLAY	0.8	40.2

MAPID: 00922202000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 12 QUARTERS/FOOTAGES: 1320' S line, 660' W line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.813853 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.078726 DATE COLLECTED: 2 / 28 / 1968

SURFACE ELEVATION (FT.): 605.0 LOGGED (FT.): 41.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 17-V WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
605.0	PLEISTOCENE		CLAY	22.5	0.0	
582.5	CARBONDALE	MECCA QUARRY	BLACK SHALE	1.5	22.5	
581.0	CARBONDALE	FRANCIS CREEK	SHALE	13.0	24.0	
568.0	CARBONDALE	COLCHESTER	COAL	1.3	37.0	MEDIUM
566.7	SPOON		UNDERCLAY	2.7	38.3	

MAPID: 00922203000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 12 QUARTERS/FOOTAGES: 1320' S line, 1320' W line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.811486 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.078733 DATE COLLECTED: 0 / 0 / 1968

SURFACE ELEVATION (FT.): 605.0 LOGGED (FT.): 51.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 18-V WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
605.0	PLEISTOCENE		CLAY	38.0	0.0	
567.0	PLEISTOCENE		MUD	8.0	38.0	
559.0	PLEISTOCENE		GRAVEL	1.0	46.0	
558.0	PLEISTOCENE		UNDERCLAY	3.0	47.0	
555.0			LIMESTONE	1.0	50.0	

MAPID: 00922204000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 12 QUARTERS/FOOTAGES: 650' N line, 2400' E line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.805399 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.087938 DATE COLLECTED: 3 / 4 / 1968

SURFACE ELEVATION (FT.): 625.0 LOGGED (FT.): 71.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 19-V WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
625.0	PLEISTOCENE		CLAY	25.0	0.0
600.0	CARBONDALE		SANDSTONE	11.0	25.0
589.0	CARBONDALE		SANDY SHALE	5.0	36.0
584.0	CARBONDALE		SHALE	2.5	41.0
581.5	CARBONDALE	OAK GROVE	LIMESTONE	1.5	43.5
580.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	1.0	45.0
579.0	CARBONDALE	FRANCIS CREEK	GRAY SHALE	16.0	46.0
563.0	CARBONDALE	COLCHESTER	COAL	2.4	62.0
560.6	SPOON		UNDERCLAY	2.6	64.4
558.0	SPOON		SANDSTONE	4.0	67.0

MAPID: 00922205000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 12 QUARTERS/FOOTAGES: 1' N line, 1320' E line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.801475 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.089673 DATE COLLECTED: 3 / 4 / 1968

SURFACE ELEVATION (FT.): 610.0 LOGGED (FT.): 51.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 21-V WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
610.0	PLEISTOCENE		CLAY	12.0	0.0
598.0	CARBONDALE		SANDSTONE	10.0	12.0
588.0	CARBONDALE		SHALE	6.0	22.0
582.0	CARBONDALE		DARK SHALE	1.0	28.0
581.0	CARBONDALE	OAK GROVE	LIMESTONE	1.0	29.0
580.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	2.0	30.0
578.0	CARBONDALE	FRANCIS CREEK	GRAY SHALE	15.0	32.0
563.0	CARBONDALE	COLCHESTER	COAL	2.3	47.0
560.7	SPOON		UNDERCLAY	1.7	49.3

MAPID: 00922206000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 12 QUARTERS/FOOTAGES: 1320' N line, 1' E line
 QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.796835 GEOLOGIST: KOROSE
 CONFIDENTIAL: N LATITUDE: 40.085971 DATE COLLECTED: 3 / 5 / 1968
 SURFACE ELEVATION (FT.): 678.0 LOGGED (FT.): 101.0 LOG TYPE: Drillers Log
 SOURCE: PITTSBURG & MIDWAY 22-V WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
678.0	PLEISTOCENE		CLAY	18.0	0.0
660.0	CARBONDALE		SANDSTONE	12.0	18.0
648.0	CARBONDALE		SANDY SHALE	47.0	30.0
601.0	CARBONDALE		DARK SHALE	1.0	77.0
600.0	CARBONDALE	OAK GROVE	LIMESTONE	1.5	78.0
598.5	CARBONDALE	MECCA QUARRY	BLACK SHALE	1.5	79.5
597.0	CARBONDALE	FRANCIS CREEK	SHALE	17.0	81.0
580.0	CARBONDALE	COLCHESTER	COAL	2.1	98.0
577.9	SPOON		UNDERCLAY	0.9	100.1

MAPID: 00922207000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 12 QUARTERS/FOOTAGES: 2200' N line, 500' W line
 QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.814239 GEOLOGIST: KOROSE
 CONFIDENTIAL: N LATITUDE: 40.083783 DATE COLLECTED: 0 / 0 / 1968
 SURFACE ELEVATION (FT.): 624.0 LOGGED (FT.): 48.0 LOG TYPE: Drillers Log
 SOURCE: PITTSBURG & MIDWAY 33M WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
624.0	PLEISTOCENE		CLAY	17.0	0.0
607.0	CARBONDALE		SHALE	7.0	17.0
600.0	CARBONDALE		DARK SHALE	2.0	24.0
598.0	CARBONDALE	OAK GROVE	LIMESTONE	1.0	26.0
597.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	1.5	27.0
595.5	CARBONDALE	FRANCIS CREEK	SHALE	15.5	28.5
580.0	CARBONDALE	COLCHESTER	COAL	2.4	44.0
577.6	SPOON		UNDERCLAY	1.6	46.4

MAPID: 00922208000C **VERSION:** 1 **PROJECT:** NCRDS95
COUNTY: BROWN **TWP/RNG:** 1N 4W **SECTION:** 12 **QUARTERS/FOOTAGES:** 1450' N line, 660' W line
QUADRANGLE: LAKE MT. STERLING **LONGITUDE:** -90.813592 **GEOLOGIST:** KOROSE
CONFIDENTIAL: N **LATITUDE:** 40.085844 **DATE COLLECTED:** 0 / 0 / 1968
SURFACE ELEVATION (FT.): 612.0 **LOGGED (FT.):** 46.0 **LOG TYPE:** Drillers Log
SOURCE: PITTSBURG & MIDWAY 34M **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
612.0	PLEISTOCENE		CLAY	24.0	0.0
588.0	CARBONDALE		SHALE	18.5	24.0
569.5	CARBONDALE	COLCHESTER	COAL	2.1	42.5
567.4	SPOON		UNDERCLAY	1.4	44.6

MAPID: 00922209000C **VERSION:** 1 **PROJECT:** NCRDS95
COUNTY: BROWN **TWP/RNG:** 1N 4W **SECTION:** 12 **QUARTERS/FOOTAGES:** 1650' N line, 1200' W line
QUADRANGLE: LAKE MT. STERLING **LONGITUDE:** -90.811673 **GEOLOGIST:** KOROSE
CONFIDENTIAL: N **LATITUDE:** 40.085266 **DATE COLLECTED:** 0 / 0 / 1968
SURFACE ELEVATION (FT.): 613.0 **LOGGED (FT.):** 37.0 **LOG TYPE:** Drillers Log
SOURCE: PITTSBURG & MIDWAY 35M **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
613.0	PLEISTOCENE		CLAY	22.0	0.0
591.0	PLEISTOCENE		MUD	10.0	22.0
581.0			GRAY SHALE	4.0	32.0 SOFT
577.0			LIMESTONE	1.0	36.0

MAPID: 00922210000C **VERSION:** 1 **PROJECT:** NCRDS95
COUNTY: BROWN **TWP/RNG:** 1N 4W **SECTION:** 12 **QUARTERS/FOOTAGES:** 1320' N line, 0' E line
QUADRANGLE: LAKE MT. STERLING **LONGITUDE:** -90.796832 **GEOLOGIST:** KOROSE
CONFIDENTIAL: N **LATITUDE:** 40.085971 **DATE COLLECTED:** 3 / 5 / 1968
SURFACE ELEVATION (FT.): 610.0 **LOGGED (FT.):** 42.0 **LOG TYPE:** Drillers Log
SOURCE: PITTSBURG & MIDWAY 41-M **WELL TYPE:** Coal Test
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
610.0	PLEISTOCENE		CLAY	24.0	0.0
586.0	CARBONDALE		GRAY SHALE	13.5	24.0
572.5	CARBONDALE	COLCHESTER	COAL	2.2	37.5
570.3	SPOON		UNDERCLAY	2.3	39.7

MAPID: 00922211000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 12 QUARTERS/FOOTAGES: 2000' N line, 1950' E line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.803881 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.084193 DATE COLLECTED: 3 / 6 / 1968

SURFACE ELEVATION (FT.): 590.0 LOGGED (FT.): 46.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 43-M WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
590.0	PLEISTOCENE		CLAY	20.0	0.0	
570.0	PLEISTOCENE		GRAVEL	7.0	20.0	
563.0	CARBONDALE	COLCHESTER	COAL	0.3	27.0	TOP OF COAL ERODED
562.7	SPOON		SANDSTONE	8.8	27.3	WEATHERED
554.0	SPOON		MUDSTONE	10.0	36.0	

MAPID: 00922212000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 12 QUARTERS/FOOTAGES: 1600' N line, 1750' E line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.803136 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.085286 DATE COLLECTED: 3 / 6 / 1968

SURFACE ELEVATION (FT.): 593.0 LOGGED (FT.): 40.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 44-M WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
593.0	PLEISTOCENE		CLAY	21.0	0.0	
572.0			LIMESTONE	1.0	21.0	
571.0			CLAYSTONE & SILTSTONE	4.0	22.0	
567.0			SHALE	4.0	26.0	SOFT
563.0			DARK SHALE	5.0	30.0	
558.0			SANDY SHALE	2.0	35.0	
556.0			WHITE SANDSTONE	3.0	37.0	HARD

MAPID: 00922213000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 12 QUARTERS/FOOTAGES: 1000' N line, 1600' E line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.802552 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.086932 DATE COLLECTED: 3 / 4 / 1968

SURFACE ELEVATION (FT.): 595.0 LOGGED (FT.): 29.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 56-W WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
595.0	PLEISTOCENE		CLAY	19.0	0.0
576.0	CARBONDALE		SHALE	6.3	19.0
569.7	CARBONDALE	COLCHESTER	COAL	2.0	25.3
567.7	SPOON		SHALE	1.7	27.3

MAPID: 00922214000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 12 QUARTERS/FOOTAGES: 900' N line, 1' W line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.815899 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.087391 DATE COLLECTED: 3 / 0 / 1968

SURFACE ELEVATION (FT.): 624.0 LOGGED (FT.): 80.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 83-C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
624.0	PLEISTOCENE		CLAY	24.0	0.0
600.0	CARBONDALE		SHALE	5.0	24.0
595.0	CARBONDALE		SANDSTONE	5.0	29.0
590.0	CARBONDALE		SHALE	8.0	34.0
582.0	CARBONDALE	OAK GROVE	LIMESTONE	2.5	42.0
579.5	CARBONDALE	MECCA QUARRY	BLACK SHALE	1.0	44.5
578.5	CARBONDALE	FRANCIS CREEK	GRAY SHALE	24.5	45.5
554.0	CARBONDALE	COLCHESTER	COAL	2.3	70.0
551.7	SPOON		UNDERCLAY	2.8	72.3
549.0	SPOON		LIGHT SHALE	5.0	75.0

MAPID: 00922215000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 12 QUARTERS/FOOTAGES: 330' N line, 1150' W line
 QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.811716 GEOLOGIST: KOROSE
 CONFIDENTIAL: N LATITUDE: 40.088906 DATE COLLECTED: 3 / 1 / 1968
 SURFACE ELEVATION (FT.): 604.0 LOGGED (FT.): 50.0 LOG TYPE: Drillers Log
 SOURCE: PITTSBURG & MIDWAY 84-C WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
604.0	PLEISTOCENE		CLAY	24.0	0.0
580.0	CARBONDALE		SHALE	16.0	24.0
564.0	CARBONDALE	COLCHESTER	COAL	2.3	40.0
561.7	SPOON		UNDERCLAY	2.8	42.3
559.0	SPOON		LIGHT SHALE	5.0	45.0

MAPID: 00922216000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 12 QUARTERS/FOOTAGES: 500' N line, 600' W line
 QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.81371 GEOLOGIST: KOROSE
 CONFIDENTIAL: N LATITUDE: 40.088465 DATE COLLECTED: 3 / 1 / 1968
 SURFACE ELEVATION (FT.): 612.0 LOGGED (FT.): 60.0 LOG TYPE: Drillers Log
 SOURCE: PITTSBURG & MIDWAY 85-C WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
612.0	PLEISTOCENE		CLAY	16.0	0.0
596.0	CARBONDALE		LIMESTONE	1.0	16.0
595.0	CARBONDALE		CLAYSTONE & SILTSTONE	2.0	17.0
593.0	CARBONDALE		SANDSTONE	5.0	19.0
588.0	CARBONDALE		SHALE	6.0	24.0
582.0	CARBONDALE	OAK GROVE	LIMESTONE	1.2	30.0
580.8	CARBONDALE	MECCA QUARRY	BLACK SHALE	2.3	31.2
578.5	CARBONDALE	FRANCIS CREEK	SHALE	22.5	33.5
556.0	CARBONDALE	COLCHESTER	COAL	2.2	56.0
553.8	SPOON		UNDERCLAY	1.9	58.2

MAPID: 00922217000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 12 QUARTERS/FOOTAGES: 1' N line, 1' W line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.815809 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.089871 DATE COLLECTED: 3 / 1 / 1968

SURFACE ELEVATION (FT.): 619.0 LOGGED (FT.): 60.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 96-C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
619.0	PLEISTOCENE		CLAY	15.0	0.0
604.0	CARBONDALE		LIMESTONE	1.2	15.0
602.8	CARBONDALE		CLAYSTONE & SILTSTONE	1.3	16.2
601.5	CARBONDALE		SANDSTONE	5.5	17.5
596.0	CARBONDALE		SHALE	5.0	23.0
591.0	CARBONDALE	OAK GROVE	LIMESTONE	0.8	28.0
590.2	CARBONDALE	MECCA QUARRY	BLACK SHALE	1.2	28.8
589.0	CARBONDALE	FRANCIS CREEK	SHALE	26.0	30.0
563.0	CARBONDALE	COLCHESTER	COAL	2.1	56.0
560.9	SPOON		UNDERCLAY	1.9	58.1

MAPID: 00922218000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 12 QUARTERS/FOOTAGES: 1' N line, 2640' W line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.806335 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.089741 DATE COLLECTED: 3 / 4 / 1968

SURFACE ELEVATION (FT.): 623.0 LOGGED (FT.): 75.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 89-C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
623.0	PLEISTOCENE		CLAY	22.0	0.0
601.0	CARBONDALE		SHALE	9.0	22.0
592.0	CARBONDALE		SANDSTONE	8.0	31.0
584.0	CARBONDALE		SHALE	7.5	39.0
576.5	CARBONDALE	OAK GROVE	LIMESTONE	1.5	46.5
575.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	1.5	48.0
573.5	CARBONDALE	FRANCIS CREEK	GRAY SHALE	19.5	49.5
554.0	CARBONDALE	COLCHESTER	COAL	2.2	69.0
551.8	SPOON		UNDERCLAY	2.3	71.2
549.5	SPOON		SHALE	1.5	73.5

MAPID: 00922219000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 12 QUARTERS/FOOTAGES: 300' N line, 2000' W line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.808663 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.088948 DATE COLLECTED: 0 / 0 / 1968

SURFACE ELEVATION (FT.): 615.0 LOGGED (FT.): 56.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 90-C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
615.0	PLEISTOCENE		CLAY	13.5	0.0
601.5	CARBONDALE		LIMESTONE	1.5	13.5
600.0	CARBONDALE		SANDY SHALE	6.0	15.0
594.0	CARBONDALE		SHALE	4.0	21.0
590.0	CARBONDALE		SANDSTONE	4.0	25.0
586.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	1.0	29.0
585.0	CARBONDALE	FRANCIS CREEK	SHALE	19.0	30.0
566.0	CARBONDALE	COLCHESTER	COAL	2.2	49.0
563.8	SPOON		UNDERCLAY	2.8	51.2
561.0	SPOON		LIGHT SHALE	2.0	54.0

MAPID: 00922220000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 12 QUARTERS/FOOTAGES: 700' N line, 2100' W line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.808344 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.08784 DATE COLLECTED: 0 / 0 / 1968

SURFACE ELEVATION (FT.): 618.0 LOGGED (FT.): 28.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 91-C WELL TYPE: Coal Test

COMMENT: LOST HOLE IN LIMESTONE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
618.0	PLEISTOCENE		CLAY	13.0	0.0
605.0			SANDY SHALE	7.0	13.0
598.0			SHALE	3.0	20.0
595.0			SANDSTONE	2.0	23.0
593.0			SHALE	1.5	25.0
591.5			LIMESTONE	1.5	26.5

MAPID: 00922221000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 13 QUARTERS/FOOTAGES: 1' S line, 1' W line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.816584 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.060623 DATE COLLECTED: 7 / 14 / 1967

SURFACE ELEVATION (FT.): 669.0 LOGGED (FT.): 87.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 28-P WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
669.0	PLEISTOCENE		CLAY	7.0	0.0
662.0	CARBONDALE		SANDY SHALE	50.5	7.0
611.5	CARBONDALE	OAK GROVE	LIMESTONE	1.0	57.5
610.5	CARBONDALE	OAK GROVE	DARK SHALE	1.5	58.5
609.0	CARBONDALE	OAK GROVE	LIMESTONE	1.5	60.0
607.5	CARBONDALE	OAK GROVE	CALCAREOUS SHALE	3.5	61.5
604.0	CARBONDALE	OAK GROVE	SHALE	9.0	65.0
595.0	CARBONDALE	OAK GROVE	LIMESTONE	0.5	74.0
594.5	CARBONDALE	MECCA QUARRY	BLACK SHALE	1.0	74.5
593.5	CARBONDALE	FRANCIS CREEK	GRAY SHALE	6.5	75.5
587.0	CARBONDALE	COLCHESTER	COAL	2.0	82.0
585.0	SPOON		UNDERCLAY	3.0	84.0

MAPID: 00922222000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 13 QUARTERS/FOOTAGES: 1' S line, 1320' W line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.811849 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.060576 DATE COLLECTED: 2 / 6 / 1968

SURFACE ELEVATION (FT.): 640.0 LOGGED (FT.): 46.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 40-W WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
640.0	PLEISTOCENE		CLAY	17.0	0.0
623.0	CARBONDALE		BROWN SANDSTONE	2.0	17.0
621.0	CARBONDALE		GRAY SANDSTONE	2.0	19.0
619.0	CARBONDALE		SHALE	9.3	21.0
609.7	CARBONDALE		SANDSTONE	0.5	30.3 HARD
609.2	CARBONDALE	MECCA QUARRY	BLACK SHALE	1.2	30.8
608.0	CARBONDALE	FRANCIS CREEK	SHALE	7.3	32.0
600.7	CARBONDALE	COLCHESTER	COAL	1.9	39.3
598.8	SPOON		SHALE	4.8	41.2

MAPID: 00922223000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 13 QUARTERS/FOOTAGES: 1' S line, 2500' W line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.807613 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.060532 DATE COLLECTED: 2 / 6 / 1968

SURFACE ELEVATION (FT.): 625.0 LOGGED (FT.): 36.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 41-W WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
625.0	PLEISTOCENE		CLAY	14.0	0.0
611.0	CARBONDALE		SHALE	10.6	14.0
600.4	CARBONDALE	OAK GROVE	LIMESTONE	1.7	24.6
598.7	CARBONDALE	MECCA QUARRY	BLACK SHALE	1.3	26.3
597.5	CARBONDALE	COLCHESTER	COAL	1.8	27.5
595.7	SPOON		SHALE	6.7	29.3

MAPID: 00922224000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 13 QUARTERS/FOOTAGES: 1400' N line, 1400' E line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.802195 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.071242 DATE COLLECTED: 5 / 4 / 1968

SURFACE ELEVATION (FT.): 622.0 LOGGED (FT.): 61.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 55-M WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
622.0	PLEISTOCENE		CLAY	23.0	0.0
599.0	CARBONDALE		SHALE	7.0	23.0
592.0	CARBONDALE		DARK SHALE	2.0	30.0
590.0	CARBONDALE	OAK GROVE	LIMESTONE	1.5	32.0
588.5	CARBONDALE	MECCA QUARRY	BLACK SHALE	2.5	33.5
586.0	CARBONDALE	COLCHESTER	COAL	0.7	36.0
585.3	SPOON		UNDERCLAY	5.3	36.7
580.0	SPOON		LIMESTONE	0.5	42.0
579.5	SPOON		SHALE	11.5	42.5
568.0			SANDSTONE	2.0	54.0
566.0			SANDY SHALE	4.0	56.0
562.0			LIMESTONE	1.0	60.0

MAPID: 00922225000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 13 QUARTERS/FOOTAGES: 275' N line, 1400' E line
 QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.802159 GEOLOGIST: KOROSE
 CONFIDENTIAL: N LATITUDE: 40.074345 DATE COLLECTED: 5 / 4 / 1968
 SURFACE ELEVATION (FT.): 620.0 LOGGED (FT.): 46.0 LOG TYPE: Drillers Log
 SOURCE: PITTSBURG & MIDWAY 79-W WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
620.0	PLEISTOCENE		CLAY	12.0	0.0
608.0	CARBONDALE		DARK SHALE	20.0	12.0
588.0	CARBONDALE	OAK GROVE	LIMESTONE	1.2	32.0
586.8	CARBONDALE	MECCA QUARRY	BLACK SHALE	1.3	33.2
585.6	CARBONDALE	FRANCIS CREEK	SHALE	6.3	34.4
579.3	CARBONDALE	COLCHESTER	COAL	2.3	40.7
577.0	SPOON		SHALE	3.0	43.0

MAPID: 00922226000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 13 QUARTERS/FOOTAGES: 1980' N line, 1450' E line
 QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.802395 GEOLOGIST: KOROSE
 CONFIDENTIAL: N LATITUDE: 40.069642 DATE COLLECTED: 5 / 4 / 1968
 SURFACE ELEVATION (FT.): 625.0 LOGGED (FT.): 45.0 LOG TYPE: Drillers Log
 SOURCE: PITTSBURG & MIDWAY 115-C WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
625.0	PLEISTOCENE		CLAY	20.0	0.0
605.0	CARBONDALE		SHALE	13.0	20.0
592.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	5.0	33.0
587.0	CARBONDALE	COLCHESTER	COAL	1.8	38.0
585.2	SPOON		UNDERCLAY	2.3	39.8
583.0	SPOON		SHALE	3.0	42.0

MAPID: 00922227000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 14 QUARTERS/FOOTAGES: 2640' S line, 1320' W line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.831065 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.068106 DATE COLLECTED: 2 / 2 / 1968

SURFACE ELEVATION (FT.): 640.0 LOGGED (FT.): 63.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 1-R• WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
640.0	PLEISTOCENE		CLAY	26.0	0.0
614.0	CARBONDALE		SHALE	8.0	26.0
606.0	CARBONDALE		SANDY SHALE	11.0	34.0
595.0	CARBONDALE		DARK SHALE	1.5	45.0
593.5	CARBONDALE	MECCA QUARRY	BLACK SHALE	1.0	46.5
592.5	CARBONDALE	FRANCIS CREEK	GRAY SHALE	12.0	47.5
580.5	CARBONDALE	COLCHESTER	COAL	2.2	59.5
578.3	SPOON		UNDERCLAY	1.3	61.7

MAPID: 00922228000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 14 QUARTERS/FOOTAGES: 1980' S line, 1320' W line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.831139 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.066286 DATE COLLECTED: 2 / 3 / 1968

SURFACE ELEVATION (FT.): 623.0 LOGGED (FT.): 42.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 2M-68 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
623.0	PLEISTOCENE		CLAY	21.5	0.0
601.5	CARBONDALE		SHALE	1.0	21.5
600.5	CARBONDALE		SHALE	1.0	22.5
599.5	CARBONDALE	MECCA QUARRY	BLACK SHALE	2.0	23.5
597.5	CARBONDALE	FRANCIS CREEK	GRAY SHALE	9.5	25.5
588.0	CARBONDALE	COLCHESTER	COAL	2.2	35.0
585.8	SPOON		UNDERCLAY	2.8	37.2
583.0	SPOON		SHALE	1.5	40.0
581.5	SPOON		LIMESTONE	0.5	41.5

MAPID: 00922229000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 14 QUARTERS/FOOTAGES: 300' S line, 1000' E line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.820163 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.061496 DATE COLLECTED: 2 / 6 / 1968

SURFACE ELEVATION (FT.): 670.0 LOGGED (FT.): 85.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 5-R WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
670.0	PLEISTOCENE		CLAY	22.0	0.0	
648.0	PLEISTOCENE		SHALE	32.0	22.0	
616.0	CARBONDALE		DARK SHALE	1.0	54.0	
615.0	CARBONDALE		LIMESTONE	1.8	55.0	
613.2	CARBONDALE		DARK SHALE	1.3	56.8	
612.0	CARBONDALE	OAK GROVE	LIMESTONE	1.5	58.0	HARD
610.5	CARBONDALE	OAK GROVE	CALCAREOUS SHALE	12.5	59.5	
598.0	CARBONDALE	OAK GROVE	LIMESTONE	1.0	72.0	LOG THICKNESS 2.0 CHANGED
597.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	1.5	73.0	
595.5	CARBONDALE	FRANCIS CREEK	GRAY SHALE	6.3	74.5	
589.2	CARBONDALE	COLCHESTER	COAL	2.3	80.8	
587.0	SPOON		UNDERCLAY	2.0	83.0	

MAPID: 00922230000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 14 QUARTERS/FOOTAGES: 1100' N line, 1000' E line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.819998 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.072122 DATE COLLECTED:

SURFACE ELEVATION (FT.): 626.0 LOGGED (FT.): 45.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 26-M WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
626.0	PLEISTOCENE		CLAY	19.0	0.0	
607.0	CARBONDALE		SANDY SHALE	10.0	19.0	
597.0	CARBONDALE		BLACK SHALE	1.0	29.0	
596.0	CARBONDALE		ROCK	0.3	30.0	
595.7	CARBONDALE	MECCA QUARRY	BLACK SHALE	1.0	30.3	
594.7	CARBONDALE	FRANCIS CREEK	GRAY SHALE	9.2	31.3	
585.5	CARBONDALE	COLCHESTER	COAL	2.3	40.5	
583.2	SPOON		UNDERCLAY	2.2	42.8	

MAPID: 00922231000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 14 QUARTERS/FOOTAGES: 1' N line, 1100' E line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.820307 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.075157 DATE COLLECTED: 2 / 28 / 1968

SURFACE ELEVATION (FT.): 623.0 LOGGED (FT.): 49.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 27-M WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
623.0	PLEISTOCENE		CLAY	12.0	0.0	
611.0	CARBONDALE		SANDSTONE	8.5	12.0	LOG THICKNESS 7.5 CHANGED
602.5	CARBONDALE		SANDY SHALE	9.5	20.5	
593.0	CARBONDALE		DARK SHALE	2.0	30.0	
591.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	1.8	32.0	
589.2	CARBONDALE	FRANCIS CREEK	SHALE	10.3	33.8	
579.0	CARBONDALE	COLCHESTER	COAL	2.3	44.0	
576.7	SPOON		UNDERCLAY	2.8	46.3	

MAPID: 00922232000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 14 QUARTERS/FOOTAGES: 250' S line, 900' E line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.819809 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.061354 DATE COLLECTED: 2 / 29 / 1968

SURFACE ELEVATION (FT.): 619.0 LOGGED (FT.): 47.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 28-M WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
619.0	PLEISTOCENE		CLAY	13.0	0.0	
606.0	CARBONDALE		SANDSTONE	5.0	13.0	
601.0	CARBONDALE		SANDY SHALE	10.0	18.0	
591.0	CARBONDALE		SHALE	3.0	28.0	
588.0	CARBONDALE		ROCK	2.0	31.0	
586.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	1.0	33.0	
585.0	CARBONDALE	FRANCIS CREEK	GRAY SHALE	9.0	34.0	
576.0	CARBONDALE	COLCHESTER	COAL	2.0	43.0	
574.0	SPOON		UNDERCLAY	2.0	45.0	

MAPID: 00922233000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 14 QUARTERS/FOOTAGES: 1320' N line, 2100' E line
 QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.823954 GEOLOGIST: KOROSE
 CONFIDENTIAL: N LATITUDE: 40.071597 DATE COLLECTED: 2 / 29 / 1968
 SURFACE ELEVATION (FT.): 640.0 LOGGED (FT.): 48.0 LOG TYPE: Drillers Log
 SOURCE: PITTSBURG & MIDWAY 29-M WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	PLEISTOCENE		CLAY	10.0	0.0	
630.0	CARBONDALE		SANDSTONE	10.0	10.0	WEATHERED
620.0	CARBONDALE		SANDY SHALE	8.0	20.0	
612.0	CARBONDALE		DARK SHALE	6.0	28.0	
606.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	2.0	34.0	
604.0	CARBONDALE	FRANCIS CREEK	GRAY SHALE	8.0	36.0	
596.0	CARBONDALE	COLCHESTER	COAL	2.5	44.0	
593.5	SPOON		UNDERCLAY	1.5	46.5	

MAPID: 00922234000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 14 QUARTERS/FOOTAGES: 1320' N line, 1450' E line
 QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.821622 GEOLOGIST: KOROSE
 CONFIDENTIAL: N LATITUDE: 40.071549 DATE COLLECTED: 0 / 0 / 1968
 SURFACE ELEVATION (FT.): 620.0 LOGGED (FT.): 29.0 LOG TYPE: Drillers Log
 SOURCE: PITTSBURG & MIDWAY 30M WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
620.0	PLEISTOCENE		CLAY	13.5	0.0	
606.5	CARBONDALE	MECCA QUARRY	BLACK SHALE	1.1	13.5	
605.4	CARBONDALE	FRANCIS CREEK	GRAY SHALE	10.4	14.6	
595.0	CARBONDALE	COLCHESTER	COAL	2.2	25.0	
592.8	SPOON		UNDERCLAY	1.8	27.2	

MAPID: 00922235000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 14 QUARTERS/FOOTAGES: 1750' S line, 660' E line
 QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.818881 GEOLOGIST: KOROSE
 CONFIDENTIAL: N LATITUDE: 40.06548 DATE COLLECTED: 0 / 0 / 1968
 SURFACE ELEVATION (FT.): 628.0 LOGGED (FT.): 38.0 LOG TYPE: Drillers Log
 SOURCE: PITTSBURG & MIDWAY 31-M WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
628.0	PLEISTOCENE		CLAY	36.0	0.0	
592.0	CARBONDALE		SANDY SHALE	2.0	36.0	
590.0	CARBONDALE	COLCHESTER	CAVITY	-	38.0	COLCHESTER COAL MINED OUT?

MAPID: 00922236000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 14 QUARTERS/FOOTAGES: 2640' S line, 2400' W line
 QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.827192 GEOLOGIST: KOROSE
 CONFIDENTIAL: N LATITUDE: 40.06805 DATE COLLECTED: 3 / 29 / 1968
 SURFACE ELEVATION (FT.): 655.0 LOGGED (FT.): 72.0 LOG TYPE: Drillers Log
 SOURCE: PITTSBURG & MIDWAY 31-R WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
655.0	PLEISTOCENE		SANDY CLAY	38.0	0.0	
617.0	CARBONDALE		SANDSTONE	1.5	38.0	
615.5	CARBONDALE		SHALE	17.5	39.5	
598.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	0.5	57.0	
597.5	CARBONDALE	FRANCIS CREEK	GRAY SHALE	10.9	57.5	
586.6	CARBONDALE	COLCHESTER	COAL	1.8	68.4	
584.8	SPOON		UNDERCLAY	1.8	70.2	

MAPID: 00922237000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 14 QUARTERS/FOOTAGES: 1500' S line, 660' E line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.818893 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.064789 DATE COLLECTED: 0 / 0 / 1968

SURFACE ELEVATION (FT.): 628.0 LOGGED (FT.): 54.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 32-M WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
628.0	PLEISTOCENE		CLAY	25.0	0.0	
603.0	PLEISTOCENE		MUD	19.0	25.0	
584.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	1.5	44.0	
582.5	CARBONDALE	FRANCIS CREEK	GRAY SHALE	4.5	45.5	
578.0	CARBONDALE	COLCHESTER	COAL	2.2	50.0	
575.8	SPOON		UNDERCLAY	1.8	52.2	

MAPID: 00922238000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 14 QUARTERS/FOOTAGES: 1' N line, 1360' W line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.830629 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.075375 DATE COLLECTED: 7 / 15 / 1967

SURFACE ELEVATION (FT.): 634.0 LOGGED (FT.): 50.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 32-P-C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
634.0	PLEISTOCENE		CLAY	11.5	0.0	
622.5	CARBONDALE		LIMESTONE	0.5	11.5	
622.0	CARBONDALE		SANDY SHALE	3.5	12.0	
618.5	CARBONDALE		SANDY SHALE	13.0	15.5	LOG THICKNESS 32.0 CHANGED
605.5	CARBONDALE		DARK SHALE	4.0	28.5	
601.5	CARBONDALE	OAK GROVE	LIMESTONE	0.7	32.5	
600.8	CARBONDALE	MECCA QUARRY	BLACK SHALE	1.8	33.2	
599.0	CARBONDALE	FRANCIS CREEK	GRAY SHALE	11.5	35.0	
587.5	CARBONDALE	COLCHESTER	COAL	2.4	46.5	
585.1	SPOON		UNDERCLAY	1.1	48.9	

MAPID: 00922239000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 14 QUARTERS/FOOTAGES: 2150' S line, 2100' W line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.828323 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.066715 DATE COLLECTED: 3 / 0 / 1968

SURFACE ELEVATION (FT.): 635.0 LOGGED (FT.): 55.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 32-R WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
635.0	PLEISTOCENE		CLAY	53.0	0.0
582.0			LIMESTONE	2.0	53.0

MAPID: 00922240000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 14 QUARTERS/FOOTAGES: 1320' N line, 1320' W line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.830919 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.071742 DATE COLLECTED: 1 / 2 / 1968

SURFACE ELEVATION (FT.): 638.0 LOGGED (FT.): 62.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 38-W WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
638.0	PLEISTOCENE		CLAY	23.3	0.0
614.7	CARBONDALE		SANDSTONE	3.8	23.3
611.0	CARBONDALE		SANDY SHALE	17.0	27.0
594.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	0.6	44.0
593.4	CARBONDALE	FRANCIS CREEK	GRAY SHALE	11.8	44.6
581.7	CARBONDALE	COLCHESTER	COAL	2.2	56.3
579.5	SPOON		SHALE	2.5	58.5
577.0	SPOON		SANDY SHALE	0.7	61.0
576.3	SPOON		LIMESTONE	0.3	61.7 HARD

MAPID: 00922241000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 14 QUARTERS/FOOTAGES: 1320' S line, 1320' W line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.831212 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.064467 DATE COLLECTED: 2 / 2 / 1968

SURFACE ELEVATION (FT.): 615.0 LOGGED (FT.): 81.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 46-C-68 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
615.0	PLEISTOCENE		CLAY	36.5	0.0	LOG NOTE: COAL HERE IF FILL NOT SO THICK
578.5			LIMESTONE	2.0	36.5	
576.5			CALCAREOUS SHALE	18.0	38.5	
558.5			SANDY SHALE	23.5	56.5	
535.0			LIMESTONE	1.0	80.0	HARD

MAPID: 00922242000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 14 QUARTERS/FOOTAGES: 2150' N line, 2600' E line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.825787 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.069346 DATE COLLECTED: 2 / 28 / 1968

SURFACE ELEVATION (FT.): 650.0 LOGGED (FT.): 76.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 52-W WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
650.0	PLEISTOCENE		CLAY	64.0	0.0	
586.0			LIMESTONE	1.0	64.0	
585.0			LIGHT SHALE	11.0	65.0	

MAPID: 00922243000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 14 QUARTERS/FOOTAGES: 900' S line, 750' E line
 QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.819239 GEOLOGIST: KOROSE
 CONFIDENTIAL: N LATITUDE: 40.063141 DATE COLLECTED: 2 / 29 / 1968
 SURFACE ELEVATION (FT.): 620.0 LOGGED (FT.): 60.0 LOG TYPE: Drillers Log
 SOURCE: PITTSBURG & MIDWAY 53-9W WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
620.0	PLEISTOCENE		CLAY	28.0	0.0
592.0	CARBONDALE		SHALE	1.0	28.0
591.0	CARBONDALE		LIMESTONE	1.3	29.0
589.7	CARBONDALE		SHALE	1.8	30.3
588.0	CARBONDALE		SANDSTONE	15.3	32.0
572.7	CARBONDALE	MECCA QUARRY	BLACK SHALE	1.2	47.3
571.5	CARBONDALE	FRANCIS CREEK	SHALE	8.3	48.5
563.2	CARBONDALE	COLCHESTER	COAL	2.2	56.8
561.1	SPOON		SHALE	1.1	58.9

MAPID: 00922244000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 14 QUARTERS/FOOTAGES: 1000' S line, 1320' E line
 QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.821281 GEOLOGIST: KOROSE
 CONFIDENTIAL: N LATITUDE: 40.063443 DATE COLLECTED: 2 / 29 / 1968
 SURFACE ELEVATION (FT.): 620.0 LOGGED (FT.): 51.0 LOG TYPE: Drillers Log
 SOURCE: PITTSBURG & MIDWAY 54-W WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
620.0	PLEISTOCENE		CLAY	18.0	0.0
602.0	CARBONDALE		SHALE	1.0	18.0
601.0	CARBONDALE		LIMESTONE	1.3	19.0
599.7	CARBONDALE		SHALE	1.0	20.3
598.7	CARBONDALE		SANDSTONE	4.7	21.3
594.0	CARBONDALE		SHALE	12.0	26.0
582.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	1.0	38.0
581.0	CARBONDALE	FRANCIS CREEK	SHALE	8.5	39.0
572.5	CARBONDALE	COLCHESTER	COAL	2.0	47.5
570.5	SPOON		SHALE	1.5	49.5

MAPID: 00922245000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 14 QUARTERS/FOOTAGES: 1' N line, 20' E line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.816429 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.075076 DATE COLLECTED: 2 / 28 / 1968

SURFACE ELEVATION (FT.): 626.0 LOGGED (FT.): 50.0 LOG TYPE: Drillers Log

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

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
626.0	PLEISTOCENE		CLAY	19.0	0.0	
607.0	CARBONDALE		SHALE	11.0	19.0	
596.0	CARBONDALE		BLACK SHALE	2.5	30.0	
593.5	CARBONDALE		SANDSTONE	1.0	32.5	HARD
592.5	CARBONDALE	MECCA QUARRY	BLACK SHALE	1.0	33.5	
591.5	CARBONDALE	FRANCIS CREEK	GRAY SHALE	9.0	34.5	
582.5	CARBONDALE	COLCHESTER	COAL	2.2	43.5	
580.3	SPOON		UNDERCLAY	2.3	45.7	
578.0	SPOON		SHALE	2.0	48.0	

MAPID: 00922246000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 14 QUARTERS/FOOTAGES: 600' N line, 600' E line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.81854 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.073468 DATE COLLECTED: 2 / 28 / 1968

SURFACE ELEVATION (FT.): 625.0 LOGGED (FT.): 50.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 77-C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
625.0	PLEISTOCENE		CLAY	22.0	0.0	
603.0	CARBONDALE		SHALE	8.0	22.0	
595.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	5.0	30.0	
590.0	CARBONDALE	FRANCIS CREEK	GRAY SHALE	9.5	35.0	
580.5	CARBONDALE	COLCHESTER	COAL	2.3	44.5	
578.2	SPOON		UNDERCLAY	3.2	46.8	

MAPID: 00922247000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 14 QUARTERS/FOOTAGES: 400' N line, 15' E line
 QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.81643 GEOLOGIST: KOROSE
 CONFIDENTIAL: N LATITUDE: 40.073977 DATE COLLECTED: 2 / 28 / 1968
 SURFACE ELEVATION (FT.): 605.0 LOGGED (FT.): 30.0 LOG TYPE: Drillers Log
 SOURCE: PITTSBURG & MIDWAY 78-C WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
605.0	PLEISTOCENE		CLAY	20.0	0.0	
585.0	CARBONDALE		GRAY SHALE	2.5	20.0	
582.5	CARBONDALE	COLCHESTER	COAL	1.8	22.5	HARD, SHELLY
580.7	SPOON		UNDERCLAY	2.7	24.3	
578.0	SPOON		SHALE	3.0	27.0	

MAPID: 00922248000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 14 QUARTERS/FOOTAGES: 1025' N line, 2000' E line
 QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.823585 GEOLOGIST: KOROSE
 CONFIDENTIAL: N LATITUDE: 40.072402 DATE COLLECTED: 0 / 0 / 1968
 SURFACE ELEVATION (FT.): 644.0 LOGGED (FT.): 60.0 LOG TYPE: Drillers Log
 SOURCE: PITTSBURG & MIDWAY 79-C WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
644.0	PLEISTOCENE		CLAY	25.0	0.0	
619.0	CARBONDALE		SHALE	10.0	25.0	
609.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	4.0	35.0	
605.0	CARBONDALE	FRANCIS CREEK	GRAY SHALE	10.0	39.0	
595.0	CARBONDALE	COLCHESTER	COAL	1.9	49.0	
593.1	SPOON		UNDERCLAY	3.1	50.9	
590.0	SPOON		LIGHT SHALE	6.0	54.0	

MAPID: 00922249000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 14 QUARTERS/FOOTAGES: 2175' N line, 1650' E line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.822378 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.069205 DATE COLLECTED: 2 / 28 / 1968

SURFACE ELEVATION (FT.): 616.0 LOGGED (FT.): 35.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 80-C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
616.0	PLEISTOCENE		CLAY	24.0	0.0
592.0	CARBONDALE		GRAY SHALE	2.0	24.0
590.0	CARBONDALE	COLCHESTER	COAL	2.0	26.0
588.0	SPOON		UNDERCLAY	2.5	28.0
585.5	SPOON		LIGHT SHALE	4.0	30.5

MAPID: 00922250000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 14 QUARTERS/FOOTAGES: 2100' S line, 20' E line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.816567 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.066413 DATE COLLECTED: 2 / 0 / 1968

SURFACE ELEVATION (FT.): 620.0 LOGGED (FT.): 50.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 81-C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
620.0	PLEISTOCENE		CLAY	24.0	0.0
596.0	CARBONDALE		SHALE	8.0	24.0
588.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	2.0	32.0
586.0	CARBONDALE	FRANCIS CREEK	GRAY SHALE	7.0	34.0
579.0	CARBONDALE	COLCHESTER	COAL	2.0	41.0
577.0	SPOON		UNDERCLAY	3.0	43.0
574.0	SPOON		LIGHT SHALE	4.0	46.0

MAPID: 00922251000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 14 QUARTERS/FOOTAGES: 950' S line, 30' E line
 QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.816655 GEOLOGIST: KOROSE
 CONFIDENTIAL: N LATITUDE: 40.063241 DATE COLLECTED: 2 / 0 / 1968
 SURFACE ELEVATION (FT.): 635.0 LOGGED (FT.): 70.0 LOG TYPE: Drillers Log
 SOURCE: PITTSBURG & MIDWAY 82-C WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
635.0	PLEISTOCENE		CLAY	34.0	0.0
601.0	CARBONDALE		BLACK SHALE	1.0	34.0
600.0	CARBONDALE		SANDSTONE	5.0	35.0
595.0	CARBONDALE		SHALE	11.5	40.0
583.5	CARBONDALE	MECCA QUARRY	BLACK SHALE	2.5	51.5
581.0	CARBONDALE	FRANCIS CREEK	GRAY SHALE	8.0	54.0
573.0	CARBONDALE	COLCHESTER	COAL	2.0	62.0
571.0	SPOON		UNDERCLAY	2.0	64.0
569.0	SPOON		LIGHT SHALE	4.0	66.0

MAPID: 00922252000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 14 QUARTERS/FOOTAGES: 400' N line, 200' E line
 QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.817094 GEOLOGIST: KOROSE
 CONFIDENTIAL: N LATITUDE: 40.073989 DATE COLLECTED: 5 / 20 / 1968
 SURFACE ELEVATION (FT.): 610.0 LOGGED (FT.): 30.0 LOG TYPE: Drillers Log
 SOURCE: PITTSBURG & MIDWAY 148-C-C WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
610.0	PLEISTOCENE		CLAY	22.0	0.0
588.0	CARBONDALE	FRANCIS CREEK	GRAY SHALE	4.5	22.0
583.5	CARBONDALE	COLCHESTER	COAL	2.0	26.5
581.5	SPOON		UNDERCLAY	1.5	28.5

MAPID: 00922253000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 15 QUARTERS/FOOTAGES: 2775' S line, 3000' E line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.846552 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.06867 DATE COLLECTED: 2 / 6 / 1968

SURFACE ELEVATION (FT.): 683.0 LOGGED (FT.): 104.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 5M-68 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
683.0	PLEISTOCENE		CLAY	30.0	0.0	
653.0	CARBONDALE		SHALE	24.0	30.0	
629.0	CARBONDALE		SANDSTONE	14.0	54.0	
615.0	CARBONDALE		SANDY SHALE	16.0	68.0	
599.0	CARBONDALE		DARK SHALE	3.5	84.0	
595.5	CARBONDALE	MECCA QUARRY	BLACK SHALE	1.5	87.5	
594.0	CARBONDALE	FRANCIS CREEK	GRAY SHALE	12.5	89.0	SOFT
581.5	CARBONDALE	COLCHESTER	COAL	1.1	101.5	
580.4	SPOON		UNDERCLAY	1.4	102.6	

MAPID: 00922254000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 15 QUARTERS/FOOTAGES: 2640' N line, 1320' E line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.840538 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.068283 DATE COLLECTED: 3 / 5 / 1968

SURFACE ELEVATION (FT.): 660.0 LOGGED (FT.): 81.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 23-V WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
660.0	PLEISTOCENE		CLAY	29.0	0.0	
631.0	PLEISTOCENE		MUD	22.0	29.0	GRAY
609.0	CARBONDALE		SANDY SHALE	6.0	51.0	
603.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	2.0	57.0	
601.0	CARBONDALE	FRANCIS CREEK	GRAY SHALE	11.5	59.0	
589.5	CARBONDALE	COLCHESTER	COAL	2.3	70.5	
587.2	SPOON		UNDERCLAY	3.3	72.8	
584.0	SPOON		SANDSTONE	4.0	76.0	
580.0	SPOON		LIMESTONE	1.0	80.0	

MAPID: 00922255000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 15 QUARTERS/FOOTAGES: 1320' S line, 2300' E line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.8442 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.064629 DATE COLLECTED: 3 / 5 / 1968

SURFACE ELEVATION (FT.): 665.0 LOGGED (FT.): 71.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 24-V WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
665.0	PLEISTOCENE		CLAY	33.0	0.0
632.0	CARBONDALE		SANDSTONE	9.0	33.0
623.0	CARBONDALE		SANDY SHALE	7.5	42.0
615.5	CARBONDALE	MECCA QUARRY	BLACK SHALE	1.0	49.5
614.5	CARBONDALE	FRANCIS CREEK	SHALE	13.0	50.5
601.5	CARBONDALE	COLCHESTER	COAL	1.8	63.5
599.7	SPOON		UNDERCLAY	2.7	65.3
597.0	SPOON		SANDSTONE	3.0	68.0

MAPID: 00922256000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 15 QUARTERS/FOOTAGES: 1320' S line, 1650' E line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.841869 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.064603 DATE COLLECTED: 3 / 6 / 1968

SURFACE ELEVATION (FT.): 663.0 LOGGED (FT.): 71.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 25-V WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
663.0	PLEISTOCENE		CLAY	28.0	0.0
635.0	CARBONDALE		SHALE	3.0	28.0
632.0	CARBONDALE		SANDSTONE	8.0	31.0
624.0	CARBONDALE		SANDY SHALE	10.5	39.0
613.5	CARBONDALE	MECCA QUARRY	BLACK SHALE	1.5	49.5
612.0	CARBONDALE	FRANCIS CREEK	SHALE	10.5	51.0
601.5	CARBONDALE	COLCHESTER	COAL	1.9	61.5
599.6	SPOON		UNDERCLAY	2.6	63.4
597.0	SPOON		SANDSTONE	5.0	66.0

MAPID: 00922257000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 15 QUARTERS/FOOTAGES: 660' S line, 1320' E line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.840759 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.062769 DATE COLLECTED: 3 / 6 / 1968

SURFACE ELEVATION (FT.): 640.0 LOGGED (FT.): 61.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 26-V WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
640.0	PLEISTOCENE		CLAY	30.0	0.0
610.0	CARBONDALE		SHALE	7.5	30.0
602.5	CARBONDALE	MECCA QUARRY	BLACK SHALE	1.5	37.5
601.0	CARBONDALE	FRANCIS CREEK	GRAY SHALE	10.5	39.0
590.5	CARBONDALE	COLCHESTER	COAL	1.8	49.5
588.7	SPOON		UNDERCLAY	3.2	51.3
585.5	SPOON		SANDSTONE	5.5	54.5
580.0	SPOON		LIMESTONE	1.0	60.0

MAPID: 00922258000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 15 QUARTERS/FOOTAGES: 450' S line, 2300' E line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.844298 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.062229 DATE COLLECTED: 3 / 7 / 1968

SURFACE ELEVATION (FT.): 643.0 LOGGED (FT.): 60.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 46-M WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
643.0	PLEISTOCENE		CLAY	26.0	0.0
617.0	CARBONDALE		DARK SHALE	8.0	26.0
609.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	2.0	34.0
607.0	CARBONDALE	FRANCIS CREEK	GRAY SHALE	20.0	36.0
587.0	CARBONDALE	COLCHESTER	COAL	2.3	56.0
584.7	SPOON		UNDERCLAY	1.8	58.3

MAPID: 00922259000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 15 QUARTERS/FOOTAGES: 2140' S line, 2140' E line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.843536 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.066883 DATE COLLECTED: 7 / 20 / 1967

SURFACE ELEVATION (FT.): 660.0 LOGGED (FT.): 70.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 47-P WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
660.0	PLEISTOCENE		CLAY	10.0	0.0	
650.0	CARBONDALE		SANDY SHALE	14.0	10.0	
636.0	CARBONDALE		SANDY SHALE	9.5	24.0	
626.5	CARBONDALE	OAK GROVE	LIMESTONE	0.5	33.5	
626.0	CARBONDALE		SANDY SHALE	18.0	34.0	DARK AT BASE
608.0	CARBONDALE	OAK GROVE	LIMESTONE	1.3	52.0	
606.7	CARBONDALE	MECCA QUARRY	BLACK SHALE	1.8	53.3	
605.0	CARBONDALE	FRANCIS CREEK	SHALE	11.0	55.0	
594.0	CARBONDALE	COLCHESTER	COAL	2.3	66.0	
591.7	SPOON		UNDERCLAY	1.8	68.3	

MAPID: 00922260000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 15 QUARTERS/FOOTAGES: 1375' S line, 975' E line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.839443 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.064724 DATE COLLECTED: 2 / 6 / 1968

SURFACE ELEVATION (FT.): 645.0 LOGGED (FT.): 60.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 51-C-68 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
645.0	PLEISTOCENE		CLAY	20.0	0.0	
625.0	CARBONDALE	OAK GROVE	LIMESTONE	4.7	20.0	W/ LIMEY SH
620.3	CARBONDALE		SHALE	9.3	24.7	
611.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	1.5	34.0	
609.5	CARBONDALE	FRANCIS CREEK	GRAY SHALE	17.0	35.5	
592.5	CARBONDALE	COLCHESTER	COAL	1.8	52.5	
590.7	SPOON		UNDERCLAY	2.3	54.3	
588.5	SPOON		LIGHT SHALE	3.5	56.5	

MAPID: 00922261000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 15 QUARTERS/FOOTAGES: 800' S line, 1' E line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.83601 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.063099 DATE COLLECTED: 2 / 6 / 1968

SURFACE ELEVATION (FT.): 610.0 LOGGED (FT.): 40.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 52-C-68 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
610.0	PLEISTOCENE		CLAY	32.0	0.0	
578.0	CARBONDALE		SHALE	3.0	32.0	
575.0	CARBONDALE	COLCHESTER	COAL	1.8	35.0	SHELLY
573.2	SPOON		UNDERCLAY	2.2	36.8	
571.0	SPOON		LIGHT SHALE	1.0	39.0	

MAPID: 00922262000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 15 QUARTERS/FOOTAGES: 300' N line, 1' E line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.835545 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.074652 DATE COLLECTED: 3 / 5 / 1968

SURFACE ELEVATION (FT.): 660.0 LOGGED (FT.): 96.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 57-W WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
660.0	PLEISTOCENE		SANDY CLAY	38.0	0.0	WITH GRAVEL
622.0	CARBONDALE		SHALE	17.2	38.0	
604.8	CARBONDALE		SANDSTONE	1.7	55.2	HARD
603.2	CARBONDALE		SANDSTONE	7.2	56.8	
596.0	CARBONDALE		SHALE	12.7	64.0	
583.3	CARBONDALE	MECCA QUARRY	BLACK SHALE	1.4	76.7	
581.9	CARBONDALE	FRANCIS CREEK	SHALE	15.6	78.1	
566.3	CARBONDALE	COLCHESTER	COAL	1.6	93.7	
564.7	SPOON		SHALE	0.8	95.3	

MAPID: 00922263000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 15 QUARTERS/FOOTAGES: 100' S line, 2750' E line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.84595 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.061283 DATE COLLECTED: 3 / 5 / 1968

SURFACE ELEVATION (FT.): 628.0 LOGGED (FT.): 43.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 58-W WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
628.0	PLEISTOCENE		CLAY	13.0	0.0
615.0	CARBONDALE		SANDSTONE	8.0	13.0
607.0	CARBONDALE		SHALE	7.7	21.0
599.3	CARBONDALE	MECCA QUARRY	BLACK SHALE	0.8	28.7
598.5	CARBONDALE	FRANCIS CREEK	SHALE	9.7	29.5
588.8	CARBONDALE	COLCHESTER	COAL	1.9	39.2
586.9	SPOON		SHALE	1.9	41.1

MAPID: 00922264000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 15 QUARTERS/FOOTAGES: 2500' N line, 1' E line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.835788 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.068588 DATE COLLECTED: 0 / 0 / 1968

SURFACE ELEVATION (FT.): 648.0 LOGGED (FT.): 90.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 92-C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
648.0	PLEISTOCENE		CLAY	13.0	0.0
635.0	CARBONDALE		BROWN SHALE	8.0	13.0
627.0	CARBONDALE		GRAY SHALE	25.5	21.0
601.5	CARBONDALE		LIMESTONE	1.8	46.5
599.7	CARBONDALE		BLACK SHALE	1.3	48.3
598.5	CARBONDALE		SANDSTONE	7.5	49.5
591.0	CARBONDALE		SANDY SHALE	10.0	57.0
581.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	2.0	67.0
579.0	CARBONDALE	FRANCIS CREEK	GRAY SHALE	11.0	69.0
568.0	CARBONDALE	COLCHESTER	COAL	2.2	80.0
565.8	SPOON		UNDERCLAY	2.8	82.2
563.0	SPOON		LIGHT SHALE	5.0	85.0

LOG THICKNESS OF 35.5
CHANGED

MAPID: 00922265000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 15 QUARTERS/FOOTAGES: 600' S line, 750' E line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.838719 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.062579 DATE COLLECTED: 5 / 5 / 1968

SURFACE ELEVATION (FT.): 630.0 LOGGED (FT.): 49.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 93-C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
630.0	PLEISTOCENE		CLAY & GRAVEL	30.0	0.0
600.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	1.5	30.0
598.5	CARBONDALE	FRANCIS CREEK	SHALE	10.5	31.5
588.0	CARBONDALE	COLCHESTER	COAL	1.9	42.0
586.1	SPOON		UNDERCLAY	2.1	43.9
584.0	SPOON		LIGHT SHALE	2.0	46.0
582.0	SPOON		LIMESTONE	1.0	48.0

MAPID: 00922266000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 15 QUARTERS/FOOTAGES: 350' S line, 600' E line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.83821 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.061884 DATE COLLECTED: 5 / 5 / 1968

SURFACE ELEVATION (FT.): 620.0 LOGGED (FT.): 40.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 94-C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
620.0	PLEISTOCENE		CLAY	30.0	0.0
590.0	CARBONDALE	FRANCIS CREEK	GRAY SHALE	4.0	30.0
586.0	CARBONDALE	COLCHESTER	COAL	2.0	34.0
584.0	SPOON		UNDERCLAY	2.5	36.0
581.5	SPOON		LIGHT SHALE	1.5	38.5

MAPID: 00900002000C VERSION: 1

PROJECT: NCRDS87

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 21 QUARTERS/FOOTAGES: NE SW SW

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.871545 GEOLOGIST: WEIBEL

CONFIDENTIAL: N LATITUDE: 40.049501 DATE COLLECTED: 0 / 0 / 1915

SURFACE ELEVATION (FT.): 620.0 LOGGED (FT.): 44.0 LOG TYPE: Drillers Log

SOURCE: MAY WELL (FARM) WELL TYPE: Dry Hole

COMMENT: LOCATION IMPRECISE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
606.0	CARBONDALE	COLCHESTER	COAL	2.0	14.0	
604.0	SPOON		UNCLASSIFIED	9.0	16.0	
595.0	SPOON		SHALE	14.0	25.0	
581.0	SPOON		UNCLASSIFIED	5.0	39.0	TOP OF MISS.
576.0			UNCLASSIFIED	0.0	44.0	

MAPID: 00922267000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 21 QUARTERS/FOOTAGES: 2400' S line, 1320' E line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.860182 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.053353 DATE COLLECTED: 1 / 20 / 1967

SURFACE ELEVATION (FT.): LOGGED (FT.): 50.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 44-C WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	PLEISTOCENE		CLAY	19.5	0.0	
-	CARBONDALE		LIMESTONE	1.3	19.5	
-	CARBONDALE		CALCAREOUS SHALE	1.0	20.8	
-	CARBONDALE		DARK SHALE	1.5	21.8	LOG THICKNESS 1.0 CHANGED
-	CARBONDALE		SANDY SHALE	1.3	23.3	
-	CARBONDALE		LIMESTONE	0.9	24.5	
-	CARBONDALE		SHALE	9.1	25.4	
-	CARBONDALE		DARK SHALE	1.0	34.5	
-	CARBONDALE	OAK GROVE	LIMESTONE	0.8	35.5	
-	CARBONDALE	MECCA QUARRY	BLACK SHALE	2.0	36.3	
-	CARBONDALE	FRANCIS CREEK	GRAY SHALE	5.8	38.3	
-	CARBONDALE	FRANCIS CREEK	SHALE	2.0	44.0	DRILL NOTE: W/ TRACES OF COAL
-	CARBONDALE	COLCHESTER	COAL	2.0	46.0	
-	SPOON		UNDERCLAY	2.0	48.0	

MAPID: 00922268000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 22 QUARTERS/FOOTAGES: 1320' S line, 400' W line
 QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.854154 GEOLOGIST: KOROSE
 CONFIDENTIAL: N LATITUDE: 40.050323 DATE COLLECTED: 5 / 15 / 1968
 SURFACE ELEVATION (FT.): 600.0 LOGGED (FT.): 20.0 LOG TYPE: Drillers Log
 SOURCE: PITTSBURG & MIDWAY 141-C WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
600.0	PLEISTOCENE		CLAY	13.0	0.0
587.0			UNDERCLAY	2.0	13.0
585.0			SHALE	5.0	15.0

MAPID: 00922269000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 23 QUARTERS/FOOTAGES: 1320' N line, 2600' W line
 QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.826826 GEOLOGIST: KOROSE
 CONFIDENTIAL: N LATITUDE: 40.057122 DATE COLLECTED: 5 / 14 / 1968
 SURFACE ELEVATION (FT.): 670.0 LOGGED (FT.): 92.0 LOG TYPE: Drillers Log
 SOURCE: PITTSBURG & MIDWAY 81-M WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
670.0	PLEISTOCENE		CLAY	24.0	0.0
646.0	CARBONDALE		SHALE	37.0	24.0
609.0	CARBONDALE		SANDY LIMESTONE	2.0	61.0
607.0	CARBONDALE		SHALE	18.0	63.0
589.0	CARBONDALE	OAK GROVE	LIMESTONE	1.0	81.0
588.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	1.5	82.0
586.5	CARBONDALE	FRANCIS CREEK	SHALE	5.0	83.5
581.5	CARBONDALE	COLCHESTER	COAL	1.5	88.5
580.0	SPOON		UNDERCLAY	2.0	90.0

MAPID: 00922270000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 23 QUARTERS/FOOTAGES: 1500' S line, 1' E line
 QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.81688 GEOLOGIST: KOROSE
 CONFIDENTIAL: N LATITUDE: 40.050264 DATE COLLECTED: 5 / 14 / 1968
 SURFACE ELEVATION (FT.): 620.0 LOGGED (FT.): 28.0 LOG TYPE: Drillers Log
 SOURCE: PITTSBURG & MIDWAY 82-M WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
620.0	PLEISTOCENE		CLAY	7.5	0.0
612.5	CARBONDALE		SHALE	1.0	7.5
611.5	CARBONDALE		SANDY LIMESTONE	1.5	8.5
610.0	CARBONDALE		DARK SHALE	12.0	10.0
598.0	CARBONDALE	OAK GROVE	LIMESTONE	1.0	22.0
597.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	2.0	23.0
595.0	CARBONDALE	COLCHESTER	COAL	1.5	25.0
593.5	SPOON		UNDERCLAY	1.5	26.5

MAPID: 00922271000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 23 QUARTERS/FOOTAGES: 2400' N line, 1320' W line
 QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.831476 GEOLOGIST: KOROSE
 CONFIDENTIAL: N LATITUDE: 40.054207 DATE COLLECTED: 5 / 14 / 1968
 SURFACE ELEVATION (FT.): 680.0 LOGGED (FT.): 120.0 LOG TYPE: Drillers Log
 SOURCE: PITTSBURG & MIDWAY 139-C WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
680.0	PLEISTOCENE		CLAY	10.0	0.0
670.0	CARBONDALE		LIMESTONE	1.3	10.0
668.7	CARBONDALE		CLAYSTONE & SILTSTONE	8.7	11.3
660.0	CARBONDALE		SANDSTONE	4.0	20.0
656.0	CARBONDALE		SHALE	79.0	24.0
577.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	2.0	103.0
575.0	CARBONDALE	FRANCIS CREEK	GRAY SHALE	7.0	105.0
568.0	CARBONDALE	COLCHESTER	COAL	2.1	112.0
565.9	SPOON		UNDERCLAY	2.9	114.1
563.0	SPOON		SHALE	3.0	117.0

MAPID: 00922272000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 23 QUARTERS/FOOTAGES: 350' N line, 1800' W line
 QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.829651 GEOLOGIST: KOROSE
 CONFIDENTIAL: N LATITUDE: 40.059836 DATE COLLECTED: 5 / 15 / 1968
 SURFACE ELEVATION (FT.): 620.0 LOGGED (FT.): 60.0 LOG TYPE: Drillers Log
 SOURCE: PITTSBURG & MIDWAY 140-C WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
620.0	PLEISTOCENE		CLAY	20.0	0.0
600.0	CARBONDALE		SHALE	5.0	20.0
595.0	CARBONDALE		LIMESTONE	1.3	25.0
593.7	CARBONDALE		DARK SHALE	2.7	26.3
591.0	CARBONDALE		SHALE	13.0	29.0
578.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	2.0	42.0
576.0	CARBONDALE	FRANCIS CREEK	GRAY SHALE	8.0	44.0
568.0	CARBONDALE	COLCHESTER	COAL	2.0	52.0
566.0	SPOON		UNDERCLAY	2.0	54.0
564.0	SPOON		SHALE	4.0	56.0

MAPID: 00922273000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 24 QUARTERS/FOOTAGES: 100' N line, 1400' E line
 QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.802337 GEOLOGIST: KOROSE
 CONFIDENTIAL: N LATITUDE: 40.060201 DATE COLLECTED: 2 / 6 / 1968
 SURFACE ELEVATION (FT.): 625.0 LOGGED (FT.): 58.0 LOG TYPE: Drillers Log
 SOURCE: PITTSBURG & MIDWAY 6M-65 WELL TYPE: Coal Test
 COMMENT: LOST WATER UNDER COAL

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
625.0	PLEISTOCENE		CLAY	37.0	0.0
588.0	PLEISTOCENE		MUD	19.0	37.0 BLUE
569.0	CARBONDALE	COLCHESTER	COAL	0.3	56.0
568.7	SPOON		UNDERCLAY	1.7	56.3

MAPID: 00922274000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 24 QUARTERS/FOOTAGES: 800' N line, 1' E line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.797362 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.058219 DATE COLLECTED: 2 / 6 / 1968

SURFACE ELEVATION (FT.): 615.0 LOGGED (FT.): 58.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 53-C-68 WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
615.0	PLEISTOCENE		CLAY	14.0	0.0	
601.0	CARBONDALE		LIMESTONE	0.8	14.0	
600.2	CARBONDALE		CLAYSTONE & SILTSTONE	14.2	14.8	
586.0	CARBONDALE		MUDSTONE	17.0	29.0	BLUE
569.0	CARBONDALE		MUDSTONE	1.5	46.0	DARK
567.5	CARBONDALE	MECCA QUARRY	BLACK SHALE	2.5	47.5	
565.0	CARBONDALE	COLCHESTER	COAL	1.3	50.0	
563.7	SPOON		UNDERCLAY	2.2	51.3	
561.5	SPOON		LIGHT SHALE	3.5	53.5	
558.0	SPOON		LIMESTONE	1.0	57.0	

MAPID: 00922275000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 24 QUARTERS/FOOTAGES: 2640' N line, 2640' W line

QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.807318 GEOLOGIST: KOROSE

CONFIDENTIAL: N LATITUDE: 40.053243 DATE COLLECTED: 5 / 15 / 1968

SURFACE ELEVATION (FT.): 630.0 LOGGED (FT.): 43.0 LOG TYPE: Drillers Log

SOURCE: PITTSBURG & MIDWAY 83-M WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
630.0	PLEISTOCENE		CLAY	22.0	0.0	
608.0	CARBONDALE		SHALE	7.0	22.0	
601.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	1.5	29.0	
599.5	CARBONDALE	FRANCIS CREEK	SHALE	8.0	30.5	
591.5	CARBONDALE	COLCHESTER	COAL	1.8	38.5	
589.7	SPOON		UNDERCLAY	2.8	40.3	

MAPID: 00922276000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 24 QUARTERS/FOOTAGES: 1100' S line, 2400' E line
 QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.806198 GEOLOGIST: KOROSE
 CONFIDENTIAL: N LATITUDE: 40.049046 DATE COLLECTED: 5 / 15 / 1968
 SURFACE ELEVATION (FT.): 600.0 LOGGED (FT.): 28.7 LOG TYPE: Drillers Log
 SOURCE: PITTSBURG & MIDWAY 101-W WELL TYPE: Coal Test
 COMMENT: DRILLER NOTES: BELOW #2 COAL STRUCTURE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
600.0	PLEISTOCENE		CLAY	15.0	0.0	
585.0			SANDSTONE/SHALE	7.0	15.0	
578.0			SANDSTONE	6.7	22.0	HARD

MAPID: 00922277000C VERSION: 1

PROJECT: NCRDS95

COUNTY: BROWN TWP/RNG: 1N 4W SECTION: 24 QUARTERS/FOOTAGES: 800' S line, 2200' E line
 QUADRANGLE: LAKE MT. STERLING LONGITUDE: -90.8055 GEOLOGIST: KOROSE
 CONFIDENTIAL: N LATITUDE: 40.048209 DATE COLLECTED: 5 / 15 / 1968
 SURFACE ELEVATION (FT.): 635.0 LOGGED (FT.): 46.0 LOG TYPE: Drillers Log
 SOURCE: PITTSBURG & MIDWAY 102-W WELL TYPE: Coal Test
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
635.0	PLEISTOCENE		CLAY	10.0	0.0	
625.0	CARBONDALE		SHALE	10.5	10.0	
614.5	CARBONDALE		SANDSTONE	1.0	20.5	
613.5	CARBONDALE		DARK SHALE	12.5	21.5	
601.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	1.8	34.0	
599.2	CARBONDALE	FRANCIS CREEK	DARK SHALE	6.7	35.8	
592.5	CARBONDALE	COLCHESTER	COAL	1.8	42.5	
590.7	SPOON		SHALE	1.7	44.3	

MAPID: 009163A0001F **VERSION:** 1 **PROJECT:** BLM
COUNTY: BROWN **TWP/RNG:** 1S 3W **SECTION:** 7 **QUARTERS/FOOTAGES:** SE NE SW NE
QUADRANGLE: MOUNT STERLING **LONGITUDE:** -90.783401 **GEOLOGIST:** TREWORYG,J
CONFIDENTIAL: N **LATITUDE:** 39.997111 **DATE COLLECTED:** 8 / 20 / 1935
SURFACE ELEVATION (FT.): 700.0 **LOGGED (FT.):** 32.7 **LOG TYPE:** Measured section
SOURCE: FLD NOTES-MCCABE **WELL TYPE:** Outcrop
COMMENT: TRAVERSE; OTHER NOTES OF THIS IN TRAV.BK

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
700.0			ROCK	3.5	0.0	
696.5	CARBONDALE	HERRIN	COAL	0.3	3.5	CLAY PARTING .08'
696.3	CARBONDALE		ROCK	11.5	3.7	
684.7	CARBONDALE	SPRINGFIELD	COAL	0.2	15.3	
684.6	CARBONDALE		ROCK	9.2	15.4	
675.4	CARBONDALE	HOUCHIN CREEK	COAL	0.2	24.6	"COALY STREAK"
675.3			ROCK	32.7	24.7	

MAPID: 009163A0006F **VERSION:** 1 **PROJECT:** BLM
COUNTY: BROWN **TWP/RNG:** 1S 3W **SECTION:** 8 **QUARTERS/FOOTAGES:** NW NE NE SE
QUADRANGLE: MOUNT STERLING **LONGITUDE:** -90.761179 **GEOLOGIST:** TREWORYG,J
CONFIDENTIAL: N **LATITUDE:** 39.994265 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 690.0 **LOGGED (FT.):** 18.0 **LOG TYPE:** Measured section
SOURCE: FLD NOTES-REINERTSEN **WELL TYPE:** Underground mine
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
690.0			UNKNOWN	18.0	0.0	
672.0	CARBONDALE		COAL	-	18.0	ELEV. 672'

MAPID: 009163A0004F **VERSION:** 1 **PROJECT:** BLM
COUNTY: BROWN **TWP/RNG:** 1S 3W **SECTION:** 8 **QUARTERS/FOOTAGES:** 3800' S line, 1320' E line
QUADRANGLE: MOUNT STERLING **LONGITUDE:** -90.764179 **GEOLOGIST:** TREWORYG,J
CONFIDENTIAL: N **LATITUDE:** 39.998025 **DATE COLLECTED:** 0 / 0 / 1930
SURFACE ELEVATION (FT.): 690.0 **LOGGED (FT.):** 27.0 **LOG TYPE:** Measured section
SOURCE: FLD NOTES-BENSON **WELL TYPE:** Outcrop
COMMENT: NOT SEEN-DESCRIBED BY "NATIVE"

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
690.0			UNKNOWN	25.0	0.0	
665.0	CARBONDALE		COAL	2.0	25.0	RANGE 1.33'-2.00'; ELEV. 680'

MAPID: 009163A0003F **VERSION:** 1 **PROJECT:** BLM
COUNTY: BROWN **TWP/RNG:** 1S 3W **SECTION:** 8 **QUARTERS/FOOTAGES:** SE SE NE
QUADRANGLE: MOUNT STERLING **LONGITUDE:** -90.760597 **GEOLOGIST:** TREWORGY,J
CONFIDENTIAL: N **LATITUDE:** 39.995607 **DATE COLLECTED:** 10 / 0 / 1922
SURFACE ELEVATION (FT.): 630.0 **LOGGED (FT.):** 44.9 **LOG TYPE:** Measured section
SOURCE: FLD NOTES-CULVER **WELL TYPE:** Outcrop
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
630.0			UNKNOWN	15.0	0.0	
615.0			ROCK	6.0	15.0	
609.0			COAL	1.7	21.0	"SOFT,DULL, BADLY WEATHERED"
607.3			ROCK	22.3	22.7	

MAPID: 009163A0002F **VERSION:** 1 **PROJECT:** BLM
COUNTY: BROWN **TWP/RNG:** 1S 3W **SECTION:** 8 **QUARTERS/FOOTAGES:** 2000' N line, 990' E line
QUADRANGLE: MOUNT STERLING **LONGITUDE:** -90.762991 **GEOLOGIST:** TREWORGY,J
CONFIDENTIAL: N **LATITUDE:** 39.996418 **DATE COLLECTED:** 0 / 0 / 1924
SURFACE ELEVATION (FT.): 640.0 **LOGGED (FT.):** 25.0 **LOG TYPE:** Measured section
SOURCE: FLD NOTES-CULVER **WELL TYPE:** Outcrop
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0			BLACK SHALE	3.0	0.0	
637.0			COAL	1.5	3.0	"DULL, SOFT, BADLY WEATHERED"
635.5			ROCK	20.5	4.5	

MAPID: 009163A0005F **VERSION:** 1 **PROJECT:** BLM
COUNTY: BROWN **TWP/RNG:** 1S 3W **SECTION:** 8 **QUARTERS/FOOTAGES:** NE SE NE
QUADRANGLE: MOUNT STERLING **LONGITUDE:** -90.760597 **GEOLOGIST:** TREWORGY,J
CONFIDENTIAL: N **LATITUDE:** 39.997401 **DATE COLLECTED:** 8 / 15 / 1930
SURFACE ELEVATION (FT.): 650.0 **LOGGED (FT.):** 12.0 **LOG TYPE:** Measured section
SOURCE: FLD NOTES-EKBLAW, WANLESS **WELL TYPE:** Outcrop
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
650.0			BLACK SHALE	2.4	0.0	
647.6	CARBONDALE		COAL	1.7	2.4	
646.0			ROCK	8.0	4.0	

MAPID: 009163A0007F VERSION: 1

PROJECT: BLM

COUNTY: BROWN

TWP/RNG: 1S 3W

SECTION: 9

QUARTERS/FOOTAGES: NW SW NW

QUADRANGLE: MOUNT STERLING

LONGITUDE: -90.758267

GEOLOGIST: TREWORY,J

CONFIDENTIAL: N

LATITUDE: 39.997362

DATE COLLECTED: 10 / 0 / 1960

SURFACE ELEVATION (FT.): 670.0

LOGGED (FT.): 0.0

LOG TYPE: Measured section

SOURCE: FLD NOTES-REINERTSEN

WELL TYPE: Underground mine

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	CARBONDALE		COAL	-		ELEV. 670'; NOT EXPOSED

MAPID: 00900045000C VERSION: 1

PROJECT: NCRDS87

COUNTY: BROWN

TWP/RNG: 1S 3W

SECTION: 17

QUARTERS/FOOTAGES:

QUADRANGLE: MOUNT STERLING

LONGITUDE: -90.768961

GEOLOGIST: WEIBEL

CONFIDENTIAL: N

LATITUDE: 39.98013

DATE COLLECTED: 12 / 0 / 1921

SURFACE ELEVATION (FT.): 722.0

LOGGED (FT.): 224.0

LOG TYPE: Drillers Log

SOURCE: JOS. SIMMONS

WELL TYPE: Dry Hole

COMMENT: LOCATION IMPRECISE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
722.0			UNCONSOLIDATED	20.0	0.0	
702.0	CARBONDALE		UNCLASSIFIED	64.0	20.0	
638.0	CARBONDALE	EXCELLO	BLACK SHALE	6.0	84.0	
632.0	CARBONDALE	HOUCHIN CREEK	COAL	1.7	90.0	
630.3	CARBONDALE		GRAY SHALE	96.0	91.7	
534.3	CARBONDALE		SHALE	9.0	187.7	
525.3	CARBONDALE	MECCA QUARRY	BLACK SHALE	2.7	196.7	
522.7	CARBONDALE	COLCHESTER	COAL	2.7	199.3	
520.0	SPOON		UNDERCLAY	6.0	202.0	
514.0	SPOON		LIMESTONE	6.0	208.0	
508.0	SPOON		SHALE	10.0	214.0	
498.0			UNCLASSIFIED	0.0	224.0	TOP OF MISS?

MAPID: 00900045000C VERSION: 2

PROJECT: BLM

COUNTY: BROWN TWP/RNG: 1S 3W SECTION: 17 QUARTERS/FOOTAGES:

QUADRANGLE: MOUNT STERLING LONGITUDE: -90.768961

GEOLOGIST: TREWORGY,J

CONFIDENTIAL: N LATITUDE: 39.98013

DATE COLLECTED: 12 / 0 / 1921

SURFACE ELEVATION (FT.): LOGGED (FT.): 1200.0

LOG TYPE: Drillers Log

SOURCE: JOSEPH SIMMONS-CITY WELL

WELL TYPE: Water Well

COMMENT: LOG FROM MEMORY BUT PROBABLY ACCURATE

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			UNCONSOLIDATED	32.0	0.0	
-			ROCK	58.0	32.0	
-			COAL	1.7	90.0	
-			ROCK	108.0	91.7	
-			COAL	2.3	199.7	
-			ROCK	998.0	202.0	

MAPID: 00900003000C VERSION: 1

PROJECT: NCRDS87

COUNTY: BROWN TWP/RNG: 1S 4W SECTION: 16 QUARTERS/FOOTAGES: NE NE NE

QUADRANGLE: MOUNT STERLING LONGITUDE: -90.856136

GEOLOGIST: WEIBEL

CONFIDENTIAL: N LATITUDE: 39.987077

DATE COLLECTED: 0 / 0 / 1908

SURFACE ELEVATION (FT.): 742.0 LOGGED (FT.): 136.0

LOG TYPE: Drillers Log

SOURCE: JO SIMMONS

WELL TYPE: Coal Test

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
742.0			UNCONSOLIDATED	30.0	0.0	
712.0	CARBONDALE		UNCLASSIFIED	25.0	30.0	
687.0	CARBONDALE	HOUCHIN CREEK	COAL	0.0	55.0	THICKNESS UNKNOWN
687.0	CARBONDALE		UNCLASSIFIED	55.0	55.0	
632.0	CARBONDALE	MECCA QUARRY	BLACK SHALE	15.0	110.0	"SHALE & SLATE"
617.0	CARBONDALE	COLCHESTER	COAL	1.0	125.0	
616.0	SPOON		UNDERCLAY	10.0	126.0	WITH SS
606.0			UNCLASSIFIED	0.0	136.0	TOP OF EITHER DEV. OR MISS.

MAPID: 00900003000C **VERSION:** 2 **PROJECT:** BLM
COUNTY: BROWN **TWP/RNG:** 1S 4W **SECTION:** 16 **QUARTERS/FOOTAGES:** NE NE NE
QUADRANGLE: MOUNT STERLING **LONGITUDE:** -90.856136 **GEOLOGIST:** TREWORYG,J
CONFIDENTIAL: N **LATITUDE:** 39.987077 **DATE COLLECTED:** 0 / 0 / 1908
SURFACE ELEVATION (FT.): 727.0 **LOGGED (FT.):** 340.0 **LOG TYPE:** Drillers Log
SOURCE: JO. SIMMONS **WELL TYPE:** Water Well
COMMENT: "RECORD FAIRLY RELIABLE"

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
727.0			UNCONSOLIDATED	30.0	0.0	
697.0			ROCK	25.0	30.0	
672.0			COAL	-	55.0	
672.0			ROCK	0.0	55.0	
617.0	CARBONDALE	COLCHESTER	COAL	1.0	110.0	
616.0			ROCK	229.0	111.0	

MAPID: 00900048000C **VERSION:** 1 **PROJECT:** BLM
COUNTY: BROWN **TWP/RNG:** 1S 4W **SECTION:** 16 **QUARTERS/FOOTAGES:**
QUADRANGLE: MOUNT STERLING **LONGITUDE:** -90.864505 **GEOLOGIST:** TREWORYG,J
CONFIDENTIAL: N **LATITUDE:** 39.980889 **DATE COLLECTED:** 0 / 0 / 1910
SURFACE ELEVATION (FT.): **LOGGED (FT.):** 242.5 **LOG TYPE:** Drillers Log
SOURCE: JOS. SIMMONS **WELL TYPE:** Water Well
COMMENT: "RECORD APPROXIMATE"

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-			UNCONSOLIDATED	40.0	0.0	
-			ROCK	94.0	40.0	
-			COAL	1.5	134.0	
-			ROCK	107.0	135.5	

MAPID: 009163A0031F **VERSION:** 1 **PROJECT:** BLM
COUNTY: BROWN **TWP/RNG:** 1S 4W **SECTION:** 36 **QUARTERS/FOOTAGES:** 800' S line, 1320' E line
QUADRANGLE: MOUNT STERLING **LONGITUDE:** -90.80307 **GEOLOGIST:** TREWORYG,J
CONFIDENTIAL: N **LATITUDE:** 39.931082 **DATE COLLECTED:** 0 / 0 / 1964
SURFACE ELEVATION (FT.): 630.0 **LOGGED (FT.):** 0.0 **LOG TYPE:** Measured section
SOURCE: CIRC. 374, PLATE 1 **WELL TYPE:** Outcrop
COMMENT:

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

MAPID: 00920389000C VERSION: 1

PROJECT: BLM

COUNTY: BROWN TWP/RNG: 2S 3W SECTION: 5 QUARTERS/FOOTAGES: 1800' N line, 1700' W line
 QUADRANGLE: MOUNT STERLING LONGITUDE: -90.773353 GEOLOGIST: TREWORGY,J
 CONFIDENTIAL: N LATITUDE: 39.923639 DATE COLLECTED: 3 / 30 / 1976
 SURFACE ELEVATION (FT.): 680.0 LOGGED (FT.): 170.0 LOG TYPE: Drillers Log
 SOURCE: J. E. SHOEMAKER WELL TYPE: Water Well
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
680.0			UNCONSOLIDATED	91.0	0.0	
589.0			COAL	1.0	91.0	
588.0			ROCK	78.0	92.0	

MAPID: 00900201901M VERSION: 1

PROJECT: BLM

COUNTY: BROWN TWP/RNG: 2S 3W SECTION: 6 QUARTERS/FOOTAGES: NW SW NW
 QUADRANGLE: MOUNT STERLING LONGITUDE: -90.797272 GEOLOGIST: TREWORGY,J
 CONFIDENTIAL: N LATITUDE: 39.924284 DATE COLLECTED:
 SURFACE ELEVATION (FT.): 650.0 LOGGED (FT.): 2.5 LOG TYPE: Measured section
 SOURCE: MINE NOTES-ROBERT BROWN WELL TYPE: Underground mine
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	CARBONDALE	COLCHESTER	COAL	2.5		

MAPID: 009163A0018F VERSION: 1

PROJECT: BLM

COUNTY: BROWN TWP/RNG: 2S 3W SECTION: 6 QUARTERS/FOOTAGES: SW SW NE NE
 QUADRANGLE: MOUNT STERLING LONGITUDE: -90.783608 GEOLOGIST: TREWORGY,J
 CONFIDENTIAL: N LATITUDE: 39.925515 DATE COLLECTED: 0 / 0 / 1964
 SURFACE ELEVATION (FT.): 640.0 LOGGED (FT.): 0.0 LOG TYPE: Measured section
 SOURCE: CIRC. 374, PLATE 1 WELL TYPE: Outcrop
 COMMENT:

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

MAPID: 009163A0008F **VERSION:** 1 **PROJECT:** BLM
COUNTY: BROWN **TWP/RNG:** 2S 3W **SECTION:** 6 **QUARTERS/FOOTAGES:** NW NW NE SW
QUADRANGLE: MOUNT STERLING **LONGITUDE:** -90.793147 **GEOLOGIST:** TREWORGY,J
CONFIDENTIAL: N **LATITUDE:** 39.921039 **DATE COLLECTED:**
SURFACE ELEVATION (FT.): 640.0 **LOGGED (FT.):** 21.3 **LOG TYPE:** Measured section
SOURCE: FLD NOTES-WANLESS **WELL TYPE:** Underground mine
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	CARBONDALE	FRANCIS CREEK	SHALE	3.0	0.0	
637.0	CARBONDALE	COLCHESTER	COAL	1.5	3.0	
635.5			ROCK	16.8	4.5	

MAPID: 009163A0009F **VERSION:** 1 **PROJECT:** BLM
COUNTY: BROWN **TWP/RNG:** 2S 3W **SECTION:** 6 **QUARTERS/FOOTAGES:** SW SE NW
QUADRANGLE: MOUNT STERLING **LONGITUDE:** -90.792538 **GEOLOGIST:** TREWORGY,J
CONFIDENTIAL: N **LATITUDE:** 39.922403 **DATE COLLECTED:** 0 / 0 / 1935
SURFACE ELEVATION (FT.): 610.0 **LOGGED (FT.):** 6.0 **LOG TYPE:** Measured section
SOURCE: FLD NOTES-BENSON **WELL TYPE:** Outcrop
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
610.0			COAL	1.0	0.0	
609.0			ROCK	5.0	1.0	

MAPID: 009163A0030F **VERSION:** 1 **PROJECT:** BLM
COUNTY: BROWN **TWP/RNG:** 2S 3W **SECTION:** 7 **QUARTERS/FOOTAGES:** NE SW NE NW
QUADRANGLE: MOUNT STERLING **LONGITUDE:** -90.792049 **GEOLOGIST:** TREWORGY,J
CONFIDENTIAL: N **LATITUDE:** 39.911876 **DATE COLLECTED:** 0 / 0 / 1964
SURFACE ELEVATION (FT.): 600.0 **LOGGED (FT.):** 0.0 **LOG TYPE:** Measured section
SOURCE: CIRC. 374, PLATE 1 **WELL TYPE:** Outcrop
COMMENT:

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

MAPID: 009163A0010F **VERSION:** 1 **PROJECT:** BLM
COUNTY: BROWN **TWP/RNG:** 2S 3W **SECTION:** 18 **QUARTERS/FOOTAGES:** SW NE NW SW
QUADRANGLE: MOUNT STERLING **LONGITUDE:** -90.796041 **GEOLOGIST:** TREWORGY,J
CONFIDENTIAL: N **LATITUDE:** 39.890898 **DATE COLLECTED:** 6 / 14 / 1960
SURFACE ELEVATION (FT.): 590.0 **LOGGED (FT.):** 5.4 **LOG TYPE:** Measured section
SOURCE: FLD NOTES-REINERTSEN **WELL TYPE:** Outcrop
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
590.0			BLACK SHALE	1.3	0.0	
588.8	CARBONDALE	COLCHESTER	COAL	1.7	1.2	BLOCKY, WEATHERED; RANGE 1.5'-1.83'
587.1			ROCK	2.5	2.9	

MAPID: 009163A0027F **VERSION:** 1 **PROJECT:** BLM
COUNTY: BROWN **TWP/RNG:** 2S 3W **SECTION:** 18 **QUARTERS/FOOTAGES:** NW NE NW SW
QUADRANGLE: MOUNT STERLING **LONGITUDE:** -90.796018 **GEOLOGIST:** TREWORGY,J
CONFIDENTIAL: N **LATITUDE:** 39.891812 **DATE COLLECTED:** 0 / 0 / 1964
SURFACE ELEVATION (FT.): 600.0 **LOGGED (FT.):** 0.0 **LOG TYPE:** Measured section
SOURCE: CIRC. 374, PLATE 1 **WELL TYPE:** Underground mine
COMMENT:

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

MAPID: 009163A0028F **VERSION:** 1 **PROJECT:** BLM
COUNTY: BROWN **TWP/RNG:** 2S 3W **SECTION:** 18 **QUARTERS/FOOTAGES:** 100' S line, 1600' E line
QUADRANGLE: MOUNT STERLING **LONGITUDE:** -90.785213 **GEOLOGIST:** TREWORGY,J
CONFIDENTIAL: N **LATITUDE:** 39.885104 **DATE COLLECTED:** 0 / 0 / 1964
SURFACE ELEVATION (FT.): 620.0 **LOGGED (FT.):** 0.0 **LOG TYPE:** Measured section
SOURCE: CIRC. 374, PLATE 1 **WELL TYPE:** Underground mine
COMMENT:

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

MAPID: 009163A0017F **VERSION:** 1 **PROJECT:** BLM
COUNTY: BROWN **TWP/RNG:** 2S 4W **SECTION:** 1 **QUARTERS/FOOTAGES:** NE NE NE
QUADRANGLE: MOUNT STERLING **LONGITUDE:** -90.799613 **GEOLOGIST:** TREWORGY,J
CONFIDENTIAL: N **LATITUDE:** 39.927957 **DATE COLLECTED:** 0 / 0 / 1964
SURFACE ELEVATION (FT.): 630.0 **LOGGED (FT.):** 0.0 **LOG TYPE:** Measured section
SOURCE: CIRC. 374, PLATE 1 **WELL TYPE:** Outcrop
COMMENT:

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

MAPID: 009163B0011F **VERSION:** 1 **PROJECT:** BLM
COUNTY: BROWN **TWP/RNG:** 2S 4W **SECTION:** 6 **QUARTERS/FOOTAGES:** 850' S line, 2600' W line
QUADRANGLE: KELLERVILLE **LONGITUDE:** -90.906895 **GEOLOGIST:** TREWORGY,J
CONFIDENTIAL: N **LATITUDE:** 39.918109 **DATE COLLECTED:** 0 / 0 / 1964
SURFACE ELEVATION (FT.): 630.0 **LOGGED (FT.):** 0.0 **LOG TYPE:** Measured section
SOURCE: CIRC. 374, PLATE 1 **WELL TYPE:** Underground mine
COMMENT:

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

MAPID: 009163B0012F **VERSION:** 1 **PROJECT:** BLM
COUNTY: BROWN **TWP/RNG:** 2S 4W **SECTION:** 6 **QUARTERS/FOOTAGES:** 800' S line, 3450' W line
QUADRANGLE: KELLERVILLE **LONGITUDE:** -90.903877 **GEOLOGIST:** TREWORGY,J
CONFIDENTIAL: N **LATITUDE:** 39.917899 **DATE COLLECTED:** 0 / 0 / 1964
SURFACE ELEVATION (FT.): 630.0 **LOGGED (FT.):** 0.0 **LOG TYPE:** Measured section
SOURCE: CIRC. 374, PLATE 1 **WELL TYPE:** Underground mine
COMMENT:

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

MAPID: 009163B0013F **VERSION:** 1 **PROJECT:** BLM
COUNTY: BROWN **TWP/RNG:** 2S 4W **SECTION:** 6 **QUARTERS/FOOTAGES:** 550' S line, 2050' E line
QUADRANGLE: KELLERVILLE **LONGITUDE:** -90.900617 **GEOLOGIST:** TREWORGY,J
CONFIDENTIAL: N **LATITUDE:** 39.917129 **DATE COLLECTED:** 0 / 0 / 1964
SURFACE ELEVATION (FT.): 625.0 **LOGGED (FT.):** 0.0 **LOG TYPE:** Measured section
SOURCE: CIRC. 374, PLATE 1 **WELL TYPE:** Underground mine
COMMENT:

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

MAPID: 009163B0005F VERSION: 1

PROJECT: BLM

COUNTY: BROWN TWP/RNG: 2S 4W SECTION: 6 QUARTERS/FOOTAGES: 500' S line, 1500' E line
 QUADRANGLE: KELLERVILLE LONGITUDE: -90.898649 GEOLOGIST: TREWORGY,J
 CONFIDENTIAL: N LATITUDE: 39.916945 DATE COLLECTED: 12 / 0 / 1960
 SURFACE ELEVATION (FT.): 630.0 LOGGED (FT.): 14.3 LOG TYPE: Measured section
 SOURCE: FLD NOTES-REINERTSEN, SIMON WELL TYPE: Outcrop
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
630.0			ROCK	6.5	0.0	
623.5	CARBONDALE	COLCHESTER	COAL	1.3	6.5	RANGE 1.16'-1.50'; ELEV. 614'
622.2			ROCK	6.5	7.8	

MAPID: 009163B0007F VERSION: 1

PROJECT: BLM

COUNTY: BROWN TWP/RNG: 2S 4W SECTION: 8 QUARTERS/FOOTAGES: 100' S line, 1000' W line
 QUADRANGLE: KELLERVILLE LONGITUDE: -90.8898 GEOLOGIST: TREWORGY,J
 CONFIDENTIAL: N LATITUDE: 39.900968 DATE COLLECTED: 12 / 0 / 1960
 SURFACE ELEVATION (FT.): 635.0 LOGGED (FT.): 52.3 LOG TYPE: Measured section
 SOURCE: FLD NOTES-REINERTSEN WELL TYPE: Outcrop
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
635.0			ROCK	39.8	0.0	
595.2	CARBONDALE	COLCHESTER	COAL	2.0	39.8	
593.2			ROCK	10.5	41.8	

MAPID: 009163B0006F VERSION: 1

PROJECT: BLM

COUNTY: BROWN TWP/RNG: 2S 4W SECTION: 8 QUARTERS/FOOTAGES: 300' S line, 5000' W line
 QUADRANGLE: KELLERVILLE LONGITUDE: -90.875471 GEOLOGIST: TREWORGY,J
 CONFIDENTIAL: N LATITUDE: 39.900565 DATE COLLECTED: 0 / 0 / 1934
 SURFACE ELEVATION (FT.): 640.0 LOGGED (FT.): 9.8 LOG TYPE: Measured section
 SOURCE: FLD NOTES-HUNER WELL TYPE: Underground mine
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
640.0	CARBONDALE	COLCHESTER	COAL	1.5	0.0	
638.5			ROCK	8.3	1.5	

MAPID: 00900202001M VERSION: 1

PROJECT: BLM

COUNTY: BROWN

TWP/RNG: 2S 4W

SECTION: 9

QUARTERS/FOOTAGES: SE NW NE

QUADRANGLE: MOUNT STERLING

LONGITUDE: -90.861892

GEOLOGIST: TREWORGY,J

CONFIDENTIAL: N

LATITUDE: 39.911606

DATE COLLECTED: 0 / 0 / 1936

SURFACE ELEVATION (FT.): 620.0

LOGGED (FT.): 11.0

LOG TYPE:

SOURCE: MINE NOTES-HARVEY PHILLIPS

WELL TYPE: Strip Mine

COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
620.0			UNKNOWN	9.0	0.0	
611.0	CARBONDALE	COLCHESTER	COAL	2.0	9.0	

MAPID: 009163A0019F VERSION: 1

PROJECT: BLM

COUNTY: BROWN

TWP/RNG: 2S 4W

SECTION: 10

QUARTERS/FOOTAGES: 2300' S line, 1900' W line

QUADRANGLE: MOUNT STERLING

LONGITUDE: -90.849157

GEOLOGIST: TREWORGY,J

CONFIDENTIAL: N

LATITUDE: 39.906036

DATE COLLECTED: 0 / 0 / 1964

SURFACE ELEVATION (FT.): 640.0

LOGGED (FT.): 0.0

LOG TYPE: Measured section

SOURCE: CIRC. 374, PLATE 1

WELL TYPE: Underground mine

COMMENT:

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

MAPID: 009163A0020F VERSION: 1

PROJECT: BLM

COUNTY: BROWN

TWP/RNG: 2S 4W

SECTION: 11

QUARTERS/FOOTAGES: SE NE SE

QUADRANGLE: MOUNT STERLING

LONGITUDE: -90.819318

GEOLOGIST: TREWORGY,J

CONFIDENTIAL: N

LATITUDE: 39.904204

DATE COLLECTED: 0 / 0 / 1964

SURFACE ELEVATION (FT.): 650.0

LOGGED (FT.): 0.0

LOG TYPE: Measured section

SOURCE: CIRC. 374, PLATE 1

WELL TYPE: Underground mine

COMMENT:

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

MAPID: 009163A0011F **VERSION:** 1 **PROJECT:** BLM
COUNTY: BROWN **TWP/RNG:** 2S 4W **SECTION:** 12 **QUARTERS/FOOTAGES:** SW NW SW
QUADRANGLE: MOUNT STERLING **LONGITUDE:** -90.816924 **GEOLOGIST:** TREWORYG,J
CONFIDENTIAL: N **LATITUDE:** 39.9042 **DATE COLLECTED:** 12 / 0 / 1960
SURFACE ELEVATION (FT.): 600.0 **LOGGED (FT.):** 0.0 **LOG TYPE:** Measured section
SOURCE: FLD NOTES-REINERTSEN **WELL TYPE:** Underground mine
COMMENT:

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

MAPID: 009163A0021F **VERSION:** 1 **PROJECT:** BLM
COUNTY: BROWN **TWP/RNG:** 2S 4W **SECTION:** 12 **QUARTERS/FOOTAGES:** NW NW SW
QUADRANGLE: MOUNT STERLING **LONGITUDE:** -90.816886 **GEOLOGIST:** TREWORYG,J
CONFIDENTIAL: N **LATITUDE:** 39.906025 **DATE COLLECTED:** 0 / 0 / 1964
SURFACE ELEVATION (FT.): 640.0 **LOGGED (FT.):** 0.0 **LOG TYPE:** Measured section
SOURCE: CIRC. 374, PLATE 1 **WELL TYPE:** Underground mine
COMMENT:

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

MAPID: 009163A0026F **VERSION:** 1 **PROJECT:** BLM
COUNTY: BROWN **TWP/RNG:** 2S 4W **SECTION:** 13 **QUARTERS/FOOTAGES:** NE SW SE NE
QUADRANGLE: MOUNT STERLING **LONGITUDE:** -90.80203 **GEOLOGIST:** TREWORYG,J
CONFIDENTIAL: N **LATITUDE:** 39.893678 **DATE COLLECTED:** 0 / 0 / 1964
SURFACE ELEVATION (FT.): 580.0 **LOGGED (FT.):** 0.0 **LOG TYPE:** Measured section
SOURCE: CIRC. 374, PLATE 1 **WELL TYPE:** Outcrop
COMMENT:

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

MAPID: 009163A0025F **VERSION:** 1 **PROJECT:** BLM
COUNTY: BROWN **TWP/RNG:** 2S 4W **SECTION:** 13 **QUARTERS/FOOTAGES:** 150' N line, 2550' W line
QUADRANGLE: MOUNT STERLING **LONGITUDE:** -90.809085 **GEOLOGIST:** TREWORYG,J
CONFIDENTIAL: N **LATITUDE:** 39.89922 **DATE COLLECTED:** 0 / 0 / 1964
SURFACE ELEVATION (FT.): 600.0 **LOGGED (FT.):** 0.0 **LOG TYPE:** Measured section
SOURCE: CIRC. 374, PLATE 1 **WELL TYPE:** Underground mine
COMMENT:

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

MAPID: 009163A0024F **VERSION:** 1 **PROJECT:** BLM
COUNTY: BROWN **TWP/RNG:** 2S 4W **SECTION:** 13 **QUARTERS/FOOTAGES:** NE NE NW
QUADRANGLE: MOUNT STERLING **LONGITUDE:** -90.809771 **GEOLOGIST:** TREWORGY,J
CONFIDENTIAL: N **LATITUDE:** 39.898715 **DATE COLLECTED:** 0 / 0 / 1964
SURFACE ELEVATION (FT.): 600.0 **LOGGED (FT.):** 0.0 **LOG TYPE:** Measured section
SOURCE: CIRC. 374, PLATE 1 **WELL TYPE:** Outcrop
COMMENT:

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

MAPID: 009163A0012F **VERSION:** 1 **PROJECT:** BLM
COUNTY: BROWN **TWP/RNG:** 2S 4W **SECTION:** 15 **QUARTERS/FOOTAGES:** 1200' N line, 200' W line
QUADRANGLE: MOUNT STERLING **LONGITUDE:** -90.855146 **GEOLOGIST:** TREWORGY,J
CONFIDENTIAL: N **LATITUDE:** 39.896389 **DATE COLLECTED:** 9 / 27 / 1922
SURFACE ELEVATION (FT.): 633.0 **LOGGED (FT.):** 34.0 **LOG TYPE:** Measured section
SOURCE: FLD NOTES-CULVER **WELL TYPE:** Outcrop
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
633.0			UNCONSOLIDATED	1.0	0.0	
632.0			ROCK	14.0	1.0	
618.0	CARBONDALE	COLCHESTER	COAL	1.5	15.0	SOFT,DULL,ELEV. 618'
616.5			ROCK	17.5	16.5	

MAPID: 009163A0023F **VERSION:** 1 **PROJECT:** BLM
COUNTY: BROWN **TWP/RNG:** 2S 4W **SECTION:** 15 **QUARTERS/FOOTAGES:** SW SE SW NW
QUADRANGLE: MOUNT STERLING **LONGITUDE:** -90.852873 **GEOLOGIST:** TREWORGY,J
CONFIDENTIAL: N **LATITUDE:** 39.892838 **DATE COLLECTED:** 0 / 0 / 1964
SURFACE ELEVATION (FT.): 600.0 **LOGGED (FT.):** 0.0 **LOG TYPE:** Measured section
SOURCE: CIRC. 374, PLATE 1 **WELL TYPE:** Outcrop
COMMENT:

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

MAPID: 009163A0013F **VERSION:** 1 **PROJECT:** BLM
COUNTY: BROWN **TWP/RNG:** 2S 4W **SECTION:** 15 **QUARTERS/FOOTAGES:** NE NW NW
QUADRANGLE: MOUNT STERLING **LONGITUDE:** -90.852375 **GEOLOGIST:** TREWORY,J
CONFIDENTIAL: N **LATITUDE:** 39.898781 **DATE COLLECTED:** 9 / 27 / 1922
SURFACE ELEVATION (FT.): 650.0 **LOGGED (FT.):** 43.5 **LOG TYPE:** Measured section
SOURCE: FLD NOTES-CULVER **WELL TYPE:** Outcrop
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
650.0			UNCONSOLIDATED	40.0	0.0	
610.0			BLACK SHALE	1.5	40.0	
608.5	CARBONDALE	COLCHESTER	COAL	1.7	41.5	
606.8			ROCK	0.3	43.2	

MAPID: 009163A0022F **VERSION:** 1 **PROJECT:** BLM
COUNTY: BROWN **TWP/RNG:** 2S 4W **SECTION:** 16 **QUARTERS/FOOTAGES:** NW SW SE NE
QUADRANGLE: MOUNT STERLING **LONGITUDE:** -90.859928 **GEOLOGIST:** TREWORY,J
CONFIDENTIAL: N **LATITUDE:** 39.893748 **DATE COLLECTED:** 0 / 0 / 1964
SURFACE ELEVATION (FT.): 600.0 **LOGGED (FT.):** 0.0 **LOG TYPE:** Measured section
SOURCE: CIRC. 374, PLATE 1 **WELL TYPE:** Outcrop
COMMENT:

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

MAPID: 009163B0010F **VERSION:** 1 **PROJECT:** BLM
COUNTY: BROWN **TWP/RNG:** 2S 4W **SECTION:** 17 **QUARTERS/FOOTAGES:** 400' N line, 4300' W line
QUADRANGLE: KELLERVILLE **LONGITUDE:** -90.877945 **GEOLOGIST:** TREWORY,J
CONFIDENTIAL: N **LATITUDE:** 39.8988 **DATE COLLECTED:** 0 / 0 / 1935
SURFACE ELEVATION (FT.): 620.0 **LOGGED (FT.):** 0.0 **LOG TYPE:** Measured section
SOURCE: FLD NOTES-BENSON **WELL TYPE:** Outcrop
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
620.0			UNKNOWN	50.0	0.0	
570.0	CARBONDALE	COLCHESTER	COAL	1.2	50.0	

MAPID: 009163B0009F VERSION: 1

PROJECT: BLM

COUNTY: BROWN TWP/RNG: 2S 4W SECTION: 17 QUARTERS/FOOTAGES: 1300' N line, 1800' W line
 QUADRANGLE: KELLERVILLE LONGITUDE: -90.886878 GEOLOGIST: TREWORGY,J
 CONFIDENTIAL: N LATITUDE: 39.896915 DATE COLLECTED: 8 / 25 / 1934
 SURFACE ELEVATION (FT.): 620.0 LOGGED (FT.): 29.4 LOG TYPE: Measured section
 SOURCE: FLD NOTES-HUNER, WANLESS WELL TYPE: Outcrop
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
620.0			ROCK	14.2	0.0	
605.8	CARBONDALE	COLCHESTER	COAL	1.4	14.2	
604.4			ROCK	13.8	15.6	

MAPID: 009163B0008F VERSION: 1

PROJECT: BLM

COUNTY: BROWN TWP/RNG: 2S 4W SECTION: 17 QUARTERS/FOOTAGES: 800' N line, 1750' W line
 QUADRANGLE: KELLERVILLE LONGITUDE: -90.887074 GEOLOGIST: TREWORGY,J
 CONFIDENTIAL: N LATITUDE: 39.898306 DATE COLLECTED: 9 / 0 / 1922
 SURFACE ELEVATION (FT.): 665.0 LOGGED (FT.): 94.0 LOG TYPE: Measured section
 SOURCE: FLD NOTES-CULVER WELL TYPE: Outcrop
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
665.0			UNCONSOLIDATED	33.0	0.0	
632.0			ROCK	53.5	33.0	
578.5	CARBONDALE	COLCHESTER	COAL	1.5	86.5	ELEV. 594'
577.0			ROCK	6.0	88.0	

MAPID: 009163B0014F VERSION: 1

PROJECT: BLM

COUNTY: BROWN TWP/RNG: 2S 4W SECTION: 18 QUARTERS/FOOTAGES: 850' S line, 350' E line
 QUADRANGLE: KELLERVILLE LONGITUDE: -90.894468 GEOLOGIST: TREWORGY,J
 CONFIDENTIAL: N LATITUDE: 39.888826 DATE COLLECTED: 0 / 0 / 1964
 SURFACE ELEVATION (FT.): 630.0 LOGGED (FT.): 0.0 LOG TYPE: Measured section
 SOURCE: CIRC. 374, PLATE 1 WELL TYPE: Underground mine
 COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)		COMMENT
				UNIT	OVERBURDEN	
-	CARBONDALE	COLCHESTER	COAL	0.0		

MAPID: 009163A0029F **VERSION:** 1 **PROJECT:** BLM
COUNTY: BROWN **TWP/RNG:** 2S 4W **SECTION:** 23 **QUARTERS/FOOTAGES:** NE NW NW
QUADRANGLE: MOUNT STERLING **LONGITUDE:** -90.833509 **GEOLOGIST:** TREWORGY,J
CONFIDENTIAL: N **LATITUDE:** 39.884002 **DATE COLLECTED:** 0 / 0 / 1964
SURFACE ELEVATION (FT.): 600.0 **LOGGED (FT.):** 0.0 **LOG TYPE:** Measured section
SOURCE: CIRC. 374, PLATE 1 **WELL TYPE:** Outcrop
COMMENT:

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

MAPID: 009163A0014F **VERSION:** 1 **PROJECT:** BLM
COUNTY: BROWN **TWP/RNG:** 2S 4W **SECTION:** 24 **QUARTERS/FOOTAGES:** NW SE NE
QUADRANGLE: MOUNT STERLING **LONGITUDE:** -90.802801 **GEOLOGIST:** TREWORGY,J
CONFIDENTIAL: N **LATITUDE:** 39.880442 **DATE COLLECTED:** 10 / 0 / 1922
SURFACE ELEVATION (FT.): 515.0 **LOGGED (FT.):** 73.0 **LOG TYPE:** Measured section
SOURCE: FLD NOTES-CULVER **WELL TYPE:** Outcrop
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
515.0			UNCONSOLIDATED	15.0	0.0
500.0			ROCK	6.0	15.0
494.0	CARBONDALE	COLCHESTER	COAL	2.0	21.0
492.0			ROCK	50.0	23.0

MAPID: 009163A0015F **VERSION:** 1 **PROJECT:** BLM
COUNTY: BROWN **TWP/RNG:** 2S 4W **SECTION:** 24 **QUARTERS/FOOTAGES:** 1000' N line, 1300' E line
QUADRANGLE: MOUNT STERLING **LONGITUDE:** -90.803924 **GEOLOGIST:** TREWORGY,J
CONFIDENTIAL: N **LATITUDE:** 39.882218 **DATE COLLECTED:** 8 / 24 / 1934
SURFACE ELEVATION (FT.): 570.0 **LOGGED (FT.):** 105.9 **LOG TYPE:** Measured section
SOURCE: FLD NOTES-HERNER **WELL TYPE:** Outcrop
COMMENT:

ELEVATION TOP (FT.)	FORMATION	MEMBER	LITHOLOGY	THICKNESS (FT.)	
				UNIT	OVERBURDEN COMMENT
570.0			UNCONSOLIDATED	15.0	0.0
555.0			ROCK	19.8	15.0
535.2	CARBONDALE	COLCHESTER	COAL	1.6	34.8
533.6			ROCK	69.5	36.4