

# Status Report

**Total Records: 926**

| Top 3 County Records |     | Top 3 Log Type Records |     | Top 3 Coal Records |     | Top 3 Member Records |     |
|----------------------|-----|------------------------|-----|--------------------|-----|----------------------|-----|
| Richland             | 926 | Electric Log           | 576 | SPRINGFIELD        | 894 | SPRINGFIELD COAL     | 894 |
|                      |     | Survey Sample Study    | 9   | HERRIN             | 885 | HERRIN COAL          | 885 |
|                      |     | Company map            | 9   | DANVILLE           | 850 | DANVILLE COAL        | 850 |

## 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 |
|---------------|-----------|------------|------------|-----------------|-------------|----------|----------|
| BONPAS        | LIMESTONE | 25.0       | 25.0       | 25.0            | 0.1         | 0.1      | 0.1      |
| CALHOUN       | COAL      | 25.1       | 25.1       | 25.1            | 0.8         | 0.8      | 0.8      |
| CARTHAGE      | LIMESTONE | 608.5      | 405.0      | 791.0           | 5.9         | 3.0      | 12.0     |
| WEST FRANKLIN | LIMESTONE | 800.0      | 606.0      | 1006.0          | 14.1        | 3.0      | 38.0     |
| DANVILLE      | COAL      | 967.7      | 784.0      | 1127.0          | 2.8         | 1.5      | 5.0      |
| JAMESTOWN     | COAL      | 1054.8     | 958.0      | 1150.0          | 2.9         | 2.5      | 3.0      |
| HERRIN        | COAL      | 1026.7     | 825.0      | 1174.0          | 4.5         | 2.0      | 6.0      |
| SPRINGFIELD   | COAL      | 1092.7     | 913.0      | 1247.0          | 4.0         | 1.5      | 7.0      |
| HOUCHIN CREEK | COAL      | 1182.7     | 992.0      | 1330.0          | -           | -        | -        |
| COLCHESTER    | COAL      | 1293.9     | 1162.0     | 1438.0          | -           | -        | -        |
| PALZO         | SANDSTONE | 1271.0     | 1206.0     | 1454.0          | -           | -        | -        |
| SEELYVILLE    | COAL      | 1339.7     | 1263.0     | 1420.0          | 4.6         | 2.0      | 8.0      |
| GLEN DEAN     | LIMESTONE | 1476.5     | 1301.0     | 1700.0          | -           | -        | -        |
|               |           |            |            | <b>Net Coal</b> | <b>19.5</b> |          |          |

## Coal Logs

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

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

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

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

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

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

MAPID: 15900089000C    VERSION: 1    PROJECT: RI 148  
COUNTY: RICHLAND    TWP/RNG: 2N 8E    SECTION: 1    QUARTERS/FOOTAGES: SW NE NW  
QUADRANGLE: CLAY CITY    LONGITUDE: -88.27036    GEOLOGIST: SIEVER  
CONFIDENTIAL: N    LATITUDE: 38.640335    DATE COLLECTED: 0 / 0 / 1944  
SURFACE ELEVATION (FT.): 446.0    LOGGED (FT.): 4460.0    LOG TYPE:  
SOURCE: PURE OC, FRYMAN CON00B1    WELL TYPE: Oil and Gas Test  
COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.)<br>UNIT OVERBURDEN | COMMENT |
|------------------------|-------------|---------------|-----------|------------------------------------|---------|
| -134.0                 | BOND        | CARTHAGE      | LIMESTONE | - 580.0                            |         |
| -304.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | - 750.0                            |         |
| -502.0                 | CARBONDALE  | DANVILLE      | COAL      | - 948.0                            |         |
| -548.0                 | CARBONDALE  | HERRIN        | COAL      | - 994.0                            |         |
| -824.0                 | SPOON       | PALZO         | SANDSTONE | - 1270.0                           |         |
| -975.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | - 1421.0                           |         |

**MAPID:** 15900182000C    **VERSION:** 1    **PROJECT:** RI 148  
**COUNTY:** RICHLAND    **TWP/RNG:** 2N 8E    **SECTION:** 1    **QUARTERS/FOOTAGES:** NE NW NW  
**QUADRANGLE:** CLAY CITY    **LONGITUDE:** -88.272682    **GEOLOGIST:** SIEVER  
**CONFIDENTIAL:** N    **LATITUDE:** 38.642245    **DATE COLLECTED:** 0 / 0 / 1944  
**SURFACE ELEVATION (FT.):** 445.0    **LOGGED (FT.):** 4450.0    **LOG TYPE:**  
**SOURCE:** PURE OC, GRUBB M M 0002    **WELL TYPE:** Oil and Gas Test  
**COMMENT:**

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER      | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|-------------|-----------|-----------------|--------------------|
|                        |             |             |           | UNIT            | OVERBURDEN COMMENT |
| -509.0                 | CARBONDALE  | DANVILLE    | COAL      | -               | 954.0              |
| -551.0                 | CARBONDALE  | HERRIN      | COAL      | -               | 996.0              |
| -619.0                 | CARBONDALE  | SPRINGFIELD | COAL      | -               | 1064.0             |
| -837.0                 | SPOON       | PALZO       | SANDSTONE | -               | 1282.0             |
| -958.0                 | WALTERSBURG | GLEN DEAN   | LIMESTONE | -               | 1403.0             |

**MAPID:** 15900350000C    **VERSION:** 1    **PROJECT:** RI 148  
**COUNTY:** RICHLAND    **TWP/RNG:** 2N 8E    **SECTION:** 1    **QUARTERS/FOOTAGES:** SW NW NW  
**QUADRANGLE:** CLAY CITY    **LONGITUDE:** -88.274969    **GEOLOGIST:** SIEVER  
**CONFIDENTIAL:** N    **LATITUDE:** 38.640494    **DATE COLLECTED:** 0 / 0 / 1944  
**SURFACE ELEVATION (FT.):** 447.0    **LOGGED (FT.):** 4470.0    **LOG TYPE:**  
**SOURCE:** PURE OC, GRUBB M M 0004    **WELL TYPE:** Oil and Gas Test  
**COMMENT:**

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER      | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|-------------|-----------|-----------------|--------------------|
|                        |            |             |           | UNIT            | OVERBURDEN COMMENT |
| -507.0                 | CARBONDALE | DANVILLE    | COAL      | -               | 954.0              |
| -556.0                 | CARBONDALE | HERRIN      | COAL      | -               | 1003.0             |
| -619.0                 | CARBONDALE | SPRINGFIELD | COAL      | -               | 1066.0             |
| -829.0                 | SPOON      | PALZO       | SANDSTONE | -               | 1276.0             |

**MAPID:** 15900944000C    **VERSION:** 1    **PROJECT:** CGT-ECILL  
**COUNTY:** RICHLAND    **TWP/RNG:** 2N 8E    **SECTION:** 1    **QUARTERS/FOOTAGES:** NE NE NW  
**QUADRANGLE:** CLAY CITY    **LONGITUDE:** -88.268069    **GEOLOGIST:** C TREWORYG  
**CONFIDENTIAL:** N    **LATITUDE:** 38.642083    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 446.0    **LOGGED (FT.):** 1253.0    **LOG TYPE:** Electric Log  
**SOURCE:**    **WELL TYPE:** Oil and Gas Test  
**COMMENT:** GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -226.0                 | BOND       | CARTHAGE      | LIMESTONE | 5.0             | 672.0              |
| -497.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 943.0              |
| -536.0                 | CARBONDALE | HERRIN        | COAL      | -               | 982.0              |
| -607.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.0             | 1053.0             |
| -697.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1143.0             |
| -807.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1253.0             |

MAPID: 15900179000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 2N 8E SECTION: 2 QUARTERS/FOOTAGES: SW NE NE

QUADRANGLE: CLAY CITY LONGITUDE: -88.279552 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.640683 DATE COLLECTED: 0 / 0 / 1944

SURFACE ELEVATION (FT.): 423.0 LOGGED (FT.): 4230.0 LOG TYPE:

SOURCE: PURE OC, GRUBB M M 0005 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -377.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 800.0              |
| -507.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 930.0              |
| -547.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 970.0              |
| -621.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1044.0             |
| -837.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1260.0             |
| -972.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1395.0             |

MAPID: 15900180000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 2N 8E SECTION: 2 QUARTERS/FOOTAGES: NE SE NE

QUADRANGLE: CLAY CITY LONGITUDE: -88.277252 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.638745 DATE COLLECTED: 0 / 0 / 1944

SURFACE ELEVATION (FT.): 434.0 LOGGED (FT.): 4340.0 LOG TYPE:

SOURCE: PURE OC, GRUBB M M 0003 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER      | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|-------------|-----------|-----------------|--------------------|
|                        |             |             |           | UNIT            | OVERBURDEN COMMENT |
| -141.0                 | BOND        | CARTHAGE    | LIMESTONE | -               | 575.0              |
| -503.0                 | CARBONDALE  | DANVILLE    | COAL      | -               | 937.0              |
| -551.0                 | CARBONDALE  | HERRIN      | COAL      | -               | 985.0              |
| -616.0                 | CARBONDALE  | SPRINGFIELD | COAL      | -               | 1050.0             |
| -830.0                 | SPOON       | PALZO       | SANDSTONE | -               | 1264.0             |
| -969.0                 | WALTERSBURG | GLEN DEAN   | LIMESTONE | -               | 1403.0             |

MAPID: 15900181000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 2N 8E SECTION: 2 QUARTERS/FOOTAGES: NE NE NE

QUADRANGLE: CLAY CITY LONGITUDE: -88.27728 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.642418 DATE COLLECTED: 0 / 0 / 1944

SURFACE ELEVATION (FT.): 433.0 LOGGED (FT.): 4330.0 LOG TYPE:

SOURCE: PURE OC, GRUBB M M 0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -347.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 780.0              |
| -497.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 930.0              |
| -552.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 985.0              |
| -612.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1045.0             |
| -837.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1270.0             |
| -956.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1389.0             |

MAPID: 15900183000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 2N 8E SECTION: 2 QUARTERS/FOOTAGES: NE NE SW

QUADRANGLE: CLAY CITY LONGITUDE: -88.286373 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.63544 DATE COLLECTED: 0 / 0 / 1944

SURFACE ELEVATION (FT.): 412.0 LOGGED (FT.): 4120.0 LOG TYPE:

SOURCE: PURE OC, SHARP G W 00B1 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -402.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 814.0              |
| -512.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 924.0              |
| -556.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 968.0              |
| -622.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1034.0             |
| -838.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1250.0             |
| -974.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1386.0             |

MAPID: 15900184000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 2N 8E SECTION: 2 QUARTERS/FOOTAGES: NE SW NW

QUADRANGLE: CLAY CITY LONGITUDE: -88.290964 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.639337 DATE COLLECTED: 0 / 0 / 1945

SURFACE ELEVATION (FT.): 432.0 LOGGED (FT.): 4320.0 LOG TYPE:

SOURCE: PURE OC, PIERCE H B00A1 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER      | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|-------------|-----------|-----------------|--------------------|
|                        |             |             |           | UNIT            | OVERBURDEN COMMENT |
| -522.0                 | CARBONDALE  | DANVILLE    | COAL      | -               | 954.0              |
| -566.0                 | CARBONDALE  | HERRIN      | COAL      | -               | 998.0              |
| -628.0                 | CARBONDALE  | SPRINGFIELD | COAL      | -               | 1060.0             |
| -838.0                 | SPOON       | PALZO       | SANDSTONE | -               | 1270.0             |
| -990.0                 | WALTERSBURG | GLEN DEAN   | LIMESTONE | -               | 1422.0             |

MAPID: 15900185000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 2N 8E SECTION: 2 QUARTERS/FOOTAGES: NE SE NW

QUADRANGLE: CLAY CITY LONGITUDE: -88.286394 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.63914 DATE COLLECTED: 0 / 0 / 1945

SURFACE ELEVATION (FT.): 437.0 LOGGED (FT.): 4370.0 LOG TYPE:

SOURCE: PURE OC, ORR E A 00A2 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -138.0                 | BOND        | CARTHAGE      | LIMESTONE | -               | 575.0              |
| -293.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 730.0              |
| -509.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 946.0              |
| -557.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 994.0              |
| -621.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1058.0             |
| -833.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1270.0             |
| -977.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1414.0             |

MAPID: 15900731000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 8E SECTION: 2 QUARTERS/FOOTAGES: SE SE SE

QUADRANGLE: CLAY CITY LONGITUDE: -88.277177 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.629564 DATE COLLECTED:

SURFACE ELEVATION (FT.): 412.0 LOGGED (FT.): 1216.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -141.0                 | BOND       | CARTHAGE      | LIMESTONE | 7.0             | 553.0      |         |
| -318.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 12.0            | 730.0      |         |
| -496.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 908.0      |         |
| -542.0                 | CARBONDALE | HERRIN        | COAL      | -               | 954.0      |         |
| -608.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1020.0     |         |
| -698.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1110.0     |         |
| -804.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1216.0     |         |

MAPID: 15900945000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 8E SECTION: 2 QUARTERS/FOOTAGES: NE NW NE

QUADRANGLE: CLAY CITY LONGITUDE: -88.281846 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.642629 DATE COLLECTED:

SURFACE ELEVATION (FT.): 419.0 LOGGED (FT.): 1234.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -400.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 6.0             | 819.0      |         |
| -501.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 920.0      |         |
| -551.0                 | CARBONDALE | HERRIN        | COAL      | -               | 970.0      |         |
| -619.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1038.0     |         |
| -706.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1125.0     |         |
| -815.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1234.0     |         |

MAPID: 15900947000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 8E SECTION: 2 QUARTERS/FOOTAGES: 2386' N line, 2319' E line

QUADRANGLE: CLAY CITY LONGITUDE: -88.284257 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.637071 DATE COLLECTED:

SURFACE ELEVATION (FT.): 419.0 LOGGED (FT.): 1237.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -144.0                 | BOND       | CARTHAGE      | LIMESTONE | 7.0             | 563.0              |
| -392.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 16.0            | 811.0              |
| -505.0                 | CARBONDALE | DANVILLE      | COAL      | 3.5             | 924.0              |
| -552.0                 | CARBONDALE | HERRIN        | COAL      | -               | 971.0              |
| -622.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1041.0             |
| -711.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1130.0             |
| -818.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1237.0             |

MAPID: 15900949000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 8E SECTION: 11 QUARTERS/FOOTAGES: SE NW SE

QUADRANGLE: ENTERPRISE LONGITUDE: -88.281711 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.618827 DATE COLLECTED:

SURFACE ELEVATION (FT.): 411.0 LOGGED (FT.): 1247.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -156.0                 | BOND       | CARTHAGE      | LIMESTONE | 7.0             | 567.0              |
| -341.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 12.0            | 752.0              |
| -521.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 932.0              |
| -564.0                 | CARBONDALE | HERRIN        | COAL      | -               | 975.0              |
| -637.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1048.0             |
| -729.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1140.0             |
| -836.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1247.0             |



MAPID: 15900951000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 8E SECTION: 11 QUARTERS/FOOTAGES: SE NW NE  
 QUADRANGLE: CLAY CITY LONGITUDE: -88.281742 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.626084 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 411.0 LOGGED (FT.): 1220.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -143.0                 | BOND       | CARTHAGE      | LIMESTONE | -               | 554.0              |
| -326.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 737.0              |
| -493.0                 | CARBONDALE | DANVILLE      | COAL      | 2.5             | 904.0              |
| -550.0                 | CARBONDALE | HERRIN        | COAL      | -               | 961.0              |
| -614.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1025.0             |
| -704.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1115.0             |
| -809.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1220.0             |

MAPID: 15900698000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 8E SECTION: 12 QUARTERS/FOOTAGES: NW SE SW  
 QUADRANGLE: ENTERPRISE LONGITUDE: -88.270229 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.616713 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 411.0 LOGGED (FT.): 1215.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -140.0                 | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 551.0              |
| -322.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 10.0            | 733.0              |
| -504.0                 | CARBONDALE | DANVILLE      | COAL      | 3.5             | 915.0              |
| -549.0                 | CARBONDALE | HERRIN        | COAL      | -               | 960.0              |
| -619.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.5             | 1030.0             |
| -708.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1119.0             |
| -804.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1215.0             |

MAPID: 15900702000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 8E SECTION: 12 QUARTERS/FOOTAGES: SW NW NW  
 QUADRANGLE: CLAY CITY LONGITUDE: -88.274868 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.62587 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 411.0 LOGGED (FT.): 1206.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -122.0                 | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 533.0      |         |
| -316.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 7.0             | 727.0      |         |
| -490.0                 | CARBONDALE | DANVILLE      | COAL      | 2.5             | 901.0      |         |
| -534.0                 | CARBONDALE | HERRIN        | COAL      | -               | 945.0      |         |
| -598.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1009.0     |         |
| -689.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1100.0     |         |
| -795.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1206.0     |         |

MAPID: 15900967000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 8E SECTION: 12 QUARTERS/FOOTAGES: NE NE SE  
 QUADRANGLE: ENTERPRISE LONGITUDE: -88.258727 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.620028 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 409.0 LOGGED (FT.): 1210.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -122.0                 | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 531.0      |         |
| -315.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 7.0             | 724.0      |         |
| -499.0                 | CARBONDALE | DANVILLE      | COAL      | 2.5             | 908.0      |         |
| -543.0                 | CARBONDALE | HERRIN        | COAL      | -               | 952.0      |         |
| -609.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1018.0     |         |
| -701.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1110.0     |         |
| -801.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1210.0     |         |

MAPID: 15900972000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 8E SECTION: 13 QUARTERS/FOOTAGES: NE NE NW  
 QUADRANGLE: ENTERPRISE LONGITUDE: -88.267906 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.61303 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 409.0 LOGGED (FT.): 1228.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -144.0                 | BOND       | CARTHAGE      | LIMESTONE | 8.0             | 553.0              |
| -328.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 737.0              |
| -515.0                 | CARBONDALE | DANVILLE      | COAL      | 4.0             | 924.0              |
| -564.0                 | CARBONDALE | HERRIN        | COAL      | -               | 973.0              |
| -630.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1039.0             |
| -721.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1130.0             |
| -819.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1228.0             |

MAPID: 15900186000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 2N 9E SECTION: 1 QUARTERS/FOOTAGES: 1648' S line, 360' W line  
 QUADRANGLE: NOBLE LONGITUDE: -88.165808 GEOLOGIST: SIEVER  
 CONFIDENTIAL: N LATITUDE: 38.631864 DATE COLLECTED: 0 / 0 / 1944  
 SURFACE ELEVATION (FT.): 437.0 LOGGED (FT.): 4370.0 LOG TYPE:  
 SOURCE: PURE OC, KLNGSMTH H00A1 WELL TYPE: Oil and Gas Test  
 COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -139.0                 | BOND        | CARTHAGE      | LIMESTONE | -               | 576.0              |
| -321.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 758.0              |
| -491.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 928.0              |
| -537.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 974.0              |
| -651.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1088.0             |
| -803.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1240.0             |
| -993.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1430.0             |

MAPID: 15900186000C VERSION: 2

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 9E SECTION: 1 QUARTERS/FOOTAGES: 1648' S line, 360' W line

QUADRANGLE: NOBLE LONGITUDE: -88.165808 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.631864 DATE COLLECTED:

SURFACE ELEVATION (FT.): 437.0 LOGGED (FT.): 1226.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -141.0                 | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 578.0              |
| -331.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 6.0             | 768.0              |
| -494.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 931.0              |
| -537.0                 | CARBONDALE | HERRIN        | COAL      | -               | 974.0              |
| -602.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.0             | 1039.0             |
| -687.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1124.0             |
| -789.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1226.0             |

MAPID: 15900360000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 9E SECTION: 1 QUARTERS/FOOTAGES: 330' S line, 660' W line of NE

QUADRANGLE: NOBLE LONGITUDE: -88.155469 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.635441 DATE COLLECTED:

SURFACE ELEVATION (FT.): 407.0 LOGGED (FT.): 1194.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -129.0                 | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 536.0              |
| -314.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 13.0            | 721.0              |
| -491.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 898.0              |
| -543.0                 | CARBONDALE | HERRIN        | COAL      | -               | 950.0              |
| -612.0                 | CARBONDALE | SPRINGFIELD   | COAL      | -               | 1019.0             |
| -703.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1110.0             |
| -787.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1194.0             |

MAPID: 15900975000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 9E SECTION: 1 QUARTERS/FOOTAGES: NE NE SE  
 QUADRANGLE: NOBLE LONGITUDE: -88.149605 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.633559 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 407.0 LOGGED (FT.): 1235.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -106.0                 | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 513.0      |         |
| -305.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 712.0      |         |
| -476.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 883.0      |         |
| -561.0                 | CARBONDALE | HERRIN        | COAL      | -               | 968.0      |         |
| -623.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1030.0     |         |
| -716.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1123.0     |         |
| -828.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1235.0     |         |

MAPID: 15900359000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 9E SECTION: 3 QUARTERS/FOOTAGES: SE SE NW  
 QUADRANGLE: NOBLE LONGITUDE: -88.195912 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.635813 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 490.0 LOGGED (FT.): 1287.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -130.0                 | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 620.0      |         |
| -310.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 22.0            | 800.0      |         |
| -489.0                 | CARBONDALE | DANVILLE      | COAL      | 3.5             | 979.0      |         |
| -530.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1020.0     |         |
| -594.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1084.0     |         |
| -688.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1178.0     |         |
| -797.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1287.0     |         |

MAPID: 15900700000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND

TWP/RNG: 2N 9E

SECTION: 4

QUARTERS/FOOTAGES: SE NE NE

QUADRANGLE: NOBLE

LONGITUDE: -88.205213

GEOLOGIST: C TREWORYG

CONFIDENTIAL: N

LATITUDE: 38.639481

DATE COLLECTED:

SURFACE ELEVATION (FT.): 488.0

LOGGED (FT.): 1290.0

LOG TYPE: Electric Log

SOURCE:

WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -128.0                 | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 616.0              |
| -319.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 10.0            | 807.0              |
| -493.0                 | CARBONDALE | DANVILLE      | COAL      | 2.5             | 981.0              |
| -534.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1022.0             |
| -602.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1090.0             |
| -697.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1185.0             |
| -802.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1290.0             |

MAPID: 15900010000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND

TWP/RNG: 2N 9E

SECTION: 5

QUARTERS/FOOTAGES: 660' N line, 330' W line of NE NW

QUADRANGLE: NOBLE

LONGITUDE: -88.235396

GEOLOGIST: SIEVER

CONFIDENTIAL: N

LATITUDE: 38.640516

DATE COLLECTED: 0 / 0 / 1941

SURFACE ELEVATION (FT.): 445.0

LOGGED (FT.): 4450.0

LOG TYPE:

SOURCE: WERNR&MLLR, SMITH CRRL0001

WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -144.0                 | BOND       | CARTHAGE      | LIMESTONE | -               | 589.0              |
| -331.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 776.0              |
| -497.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 942.0              |
| -538.0                 | CARBONDALE | HERRIN        | COAL      | -               | 983.0              |
| -609.0                 | CARBONDALE | SPRINGFIELD   | COAL      | -               | 1054.0             |
| -703.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1148.0             |

MAPID: 15900010000C VERSION: 2

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 9E SECTION: 5 QUARTERS/FOOTAGES: 660' N line, 330' W line of NE NW

QUADRANGLE: NOBLE LONGITUDE: -88.235396 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.640516 DATE COLLECTED:

SURFACE ELEVATION (FT.): 445.0 LOGGED (FT.): 1254.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -143.0                 | BOND       | CARTHAGE      | LIMESTONE | 5.0             | 588.0              |
| -331.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 23.0            | 776.0              |
| -496.0                 | CARBONDALE | DANVILLE      | COAL      | 2.5             | 941.0              |
| -538.0                 | CARBONDALE | HERRIN        | COAL      | -               | 983.0              |
| -608.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1053.0             |
| -693.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1138.0             |
| -809.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1254.0             |

MAPID: 15900358000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 9E SECTION: 5 QUARTERS/FOOTAGES: NW NW SW

QUADRANGLE: NOBLE LONGITUDE: -88.239865 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.635018 DATE COLLECTED:

SURFACE ELEVATION (FT.): 446.0 LOGGED (FT.): 1242.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -126.0                 | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 572.0              |
| -488.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 934.0              |
| -532.0                 | CARBONDALE | HERRIN        | COAL      | -               | 978.0              |
| -596.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1042.0             |
| -692.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1138.0             |
| -796.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1242.0             |

MAPID: 15900982000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 9E SECTION: 5 QUARTERS/FOOTAGES: SE NE NE

QUADRANGLE: NOBLE LONGITUDE: -88.223867 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.639517 DATE COLLECTED:

SURFACE ELEVATION (FT.): 459.0 LOGGED (FT.): 1264.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -135.0                 | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 594.0      |         |
| -317.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 16.0            | 776.0      |         |
| -500.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 959.0      |         |
| -539.0                 | CARBONDALE | HERRIN        | COAL      | -               | 998.0      |         |
| -605.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1064.0     |         |
| -691.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1150.0     |         |
| -805.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1264.0     |         |

MAPID: 15900187000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 2N 9E SECTION: 6 QUARTERS/FOOTAGES: 661' N line, 330' W line of SW

QUADRANGLE: CLAY CITY LONGITUDE: -88.256463 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.633778 DATE COLLECTED: 0 / 0 / 1944

SURFACE ELEVATION (FT.): 442.0 LOGGED (FT.): 4420.0 LOG TYPE:

SOURCE: PURE OC, WHRRLL CON0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|-------------|---------------|-----------|-----------------|------------|---------|
|                        |             |               |           | UNIT            | OVERBURDEN |         |
| -128.0                 | BOND        | CARTHAGE      | LIMESTONE | -               | 570.0      |         |
| -304.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 746.0      |         |
| -480.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 922.0      |         |
| -521.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 963.0      |         |
| -588.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1030.0     |         |
| -794.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1236.0     |         |
| -992.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1434.0     |         |



MAPID: 15900187000C VERSION: 2

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 9E SECTION: 6 QUARTERS/FOOTAGES: 661' N line, 330' W line of SW

QUADRANGLE: CLAY CITY LONGITUDE: -88.256463 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.633778 DATE COLLECTED:

SURFACE ELEVATION (FT.): 442.0 LOGGED (FT.): 1231.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -127.0                 | BOND       | CARTHAGE      | LIMESTONE | 7.0             | 569.0              |
| -301.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 6.0             | 743.0              |
| -480.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 922.0              |
| -522.0                 | CARBONDALE | HERRIN        | COAL      | -               | 964.0              |
| -589.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1031.0             |
| -679.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1121.0             |
| -789.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1231.0             |

MAPID: 15900983000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 9E SECTION: 6 QUARTERS/FOOTAGES: SE NE NE

QUADRANGLE: NOBLE LONGITUDE: -88.242327 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.640547 DATE COLLECTED:

SURFACE ELEVATION (FT.): 438.0 LOGGED (FT.): 1243.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -131.0                 | BOND       | CARTHAGE      | LIMESTONE | 7.0             | 569.0              |
| -357.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 5.0             | 795.0              |
| -488.0                 | CARBONDALE | DANVILLE      | COAL      | 3.5             | 926.0              |
| -529.0                 | CARBONDALE | HERRIN        | COAL      | -               | 967.0              |
| -599.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1037.0             |
| -695.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1133.0             |
| -805.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1243.0             |

MAPID: 15900984000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 9E SECTION: 6 QUARTERS/FOOTAGES: 362' S line, 338' W line of SE

QUADRANGLE: NOBLE LONGITUDE: -88.248971 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.629652 DATE COLLECTED:

SURFACE ELEVATION (FT.): 438.0 LOGGED (FT.): 1218.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -118.0                 | BOND       | CARTHAGE      | LIMESTONE | 8.0             | 556.0      |         |
| -297.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 10.0            | 735.0      |         |
| -475.0                 | CARBONDALE | DANVILLE      | COAL      | 3.5             | 913.0      |         |
| -519.0                 | CARBONDALE | HERRIN        | COAL      | -               | 957.0      |         |
| -585.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.5             | 1023.0     |         |
| -676.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1114.0     |         |
| -780.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1218.0     |         |

MAPID: 15900011000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 2N 9E SECTION: 7 QUARTERS/FOOTAGES: SE NW NW

QUADRANGLE: CLAY CITY LONGITUDE: -88.255902 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.625806 DATE COLLECTED: 0 / 0 / 1938

SURFACE ELEVATION (FT.): 414.0 LOGGED (FT.): 4140.0 LOG TYPE:

SOURCE: PURE OC, VAN MATRE 0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|-------------|---------------|-----------|-----------------|------------|---------|
|                        |             |               |           | UNIT            | OVERBURDEN |         |
| -311.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 725.0      |         |
| -486.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 900.0      |         |
| -526.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 940.0      |         |
| -601.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1015.0     |         |
| -1002.0                | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1416.0     |         |

MAPID: 15902586000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 9E SECTION: 8 QUARTERS/FOOTAGES: NE SW NE  
 QUADRANGLE: MOUNT ERIE LONGITUDE: -88.228158 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.623329 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 437.0 LOGGED (FT.): 1230.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -110.0                 | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 547.0              |
| -297.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 734.0              |
| -483.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 920.0              |
| -528.0                 | CARBONDALE | HERRIN        | COAL      | 3.5             | 965.0              |
| -593.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1030.0             |
| -686.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1123.0             |
| -793.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1230.0             |

MAPID: 15900701000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 9E SECTION: 9 QUARTERS/FOOTAGES: NE SW SE  
 QUADRANGLE: MOUNT ERIE LONGITUDE: -88.209582 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.615752 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 438.0 LOGGED (FT.): 1241.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -111.0                 | BOND       | CARTHAGE      | LIMESTONE | 7.0             | 549.0              |
| -292.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 730.0              |
| -467.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 905.0              |
| -532.0                 | CARBONDALE | HERRIN        | COAL      | 4.0             | 970.0              |
| -603.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1041.0             |
| -692.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1130.0             |
| -803.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1241.0             |

MAPID: 15900357000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 9E SECTION: 10 QUARTERS/FOOTAGES: SE SW SE  
 QUADRANGLE: MOUNT ERIE LONGITUDE: -88.19103 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.61394 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 445.0 LOGGED (FT.): 1271.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -121.0                 | BOND       | CARTHAGE      | LIMESTONE | 8.0             | 566.0      |         |
| -309.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 754.0      |         |
| -507.0                 | CARBONDALE | DANVILLE      | COAL      | 3.5             | 952.0      |         |
| -551.0                 | CARBONDALE | HERRIN        | COAL      | -               | 996.0      |         |
| -622.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 5.0             | 1067.0     |         |
| -709.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1154.0     |         |
| -826.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1271.0     |         |

MAPID: 15900226000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 2N 9E SECTION: 11 QUARTERS/FOOTAGES: NE NE SE  
 QUADRANGLE: MOUNT ERIE LONGITUDE: -88.168169 GEOLOGIST: SIEVER  
 CONFIDENTIAL: N LATITUDE: 38.619085 DATE COLLECTED: 0 / 0 / 1945  
 SURFACE ELEVATION (FT.): 430.0 LOGGED (FT.): 4300.0 LOG TYPE:  
 SOURCE: BREHM C E, BREHM M F 0001 WELL TYPE: Oil and Gas Test  
 COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|-------------|---------------|-----------|-----------------|------------|---------|
|                        |             |               |           | UNIT            | OVERBURDEN |         |
| -128.0                 | BOND        | CARTHAGE      | LIMESTONE | -               | 558.0      |         |
| -320.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 750.0      |         |
| -516.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 946.0      |         |
| -560.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 990.0      |         |
| -630.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1060.0     |         |
| -850.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1280.0     |         |
| -1144.0                | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1574.0     |         |

MAPID: 15900382000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 9E SECTION: 11 QUARTERS/FOOTAGES: SW NW SW  
 QUADRANGLE: MOUNT ERIE LONGITUDE: -88.184168 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.617573 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 448.0 LOGGED (FT.): 1265.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -118.0                 | BOND       | CARTHAGE      | LIMESTONE | 5.0             | 566.0      |         |
| -310.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 13.0            | 758.0      |         |
| -505.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 953.0      |         |
| -545.0                 | CARBONDALE | HERRIN        | COAL      | -               | 993.0      |         |
| -617.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1065.0     |         |
| -706.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1154.0     |         |
| -817.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1265.0     |         |

MAPID: 15900993000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 9E SECTION: 11 QUARTERS/FOOTAGES: NE SW NE  
 QUADRANGLE: MOUNT ERIE LONGITUDE: -88.172766 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.622841 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 415.0 LOGGED (FT.): 1242.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -127.0                 | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 542.0      |         |
| -319.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 734.0      |         |
| -514.0                 | CARBONDALE | DANVILLE      | COAL      | 4.0             | 929.0      |         |
| -555.0                 | CARBONDALE | HERRIN        | COAL      | 4.0             | 970.0      |         |
| -621.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1036.0     |         |
| -715.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1130.0     |         |
| -827.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1242.0     |         |

MAPID: 15900994000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 9E SECTION: 11 QUARTERS/FOOTAGES: NW NW NW  
 QUADRANGLE: NOBLE LONGITUDE: -88.184299 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.6267 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 459.0 LOGGED (FT.): 1305.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -121.0                 | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 580.0      |         |
| -326.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 785.0      |         |
| -525.0                 | CARBONDALE | DANVILLE      | COAL      | 4.0             | 984.0      |         |
| -569.0                 | CARBONDALE | HERRIN        | COAL      | 4.0             | 1028.0     |         |
| -642.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1101.0     |         |
| -736.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1195.0     |         |
| -846.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1305.0     |         |

MAPID: 15900012000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 2N 9E SECTION: 12 QUARTERS/FOOTAGES: 610' N line, 1015' W line  
 QUADRANGLE: NOBLE LONGITUDE: -88.163458 GEOLOGIST: SIEVER  
 CONFIDENTIAL: N LATITUDE: 38.6256 DATE COLLECTED: 0 / 0 / 1941  
 SURFACE ELEVATION (FT.): 413.0 LOGGED (FT.): 4130.0 LOG TYPE:  
 SOURCE: PURE OC, BORAH O C 001A WELL TYPE: Oil and Gas Test  
 COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|-------------|---------------|-----------|-----------------|------------|---------|
|                        |             |               |           | UNIT            | OVERBURDEN |         |
| -329.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 742.0      |         |
| -494.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 907.0      |         |
| -555.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 968.0      |         |
| -635.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1048.0     |         |
| -725.0                 | CARBONDALE  | HOUCHIN CREEK | COAL      | -               | 1138.0     |         |
| -1130.0                | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1543.0     |         |

MAPID: 15900012000C VERSION: 2

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 9E SECTION: 12 QUARTERS/FOOTAGES: 610' N line, 1015' W line  
 QUADRANGLE: NOBLE LONGITUDE: -88.163458 GEOLOGIST: C TREWORGY  
 CONFIDENTIAL: N LATITUDE: 38.6256 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 413.0 LOGGED (FT.): 1251.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -136.0                 | BOND       | CARTHAGE      | LIMESTONE | 5.0             | 549.0      |         |
| -322.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 735.0      |         |
| -512.0                 | CARBONDALE | DANVILLE      | COAL      | 3.5             | 925.0      |         |
| -556.0                 | CARBONDALE | HERRIN        | COAL      | -               | 969.0      |         |
| -631.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1044.0     |         |
| -725.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1138.0     |         |
| -838.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1251.0     |         |

MAPID: 15900356000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 9E SECTION: 12 QUARTERS/FOOTAGES: SE NW SW  
 QUADRANGLE: MOUNT ERIE LONGITUDE: -88.163523 GEOLOGIST: C TREWORGY  
 CONFIDENTIAL: N LATITUDE: 38.617215 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 423.0 LOGGED (FT.): 1240.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -134.0                 | BOND       | CARTHAGE      | LIMESTONE | 7.0             | 557.0      |         |
| -309.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 732.0      |         |
| -491.0                 | CARBONDALE | DANVILLE      | COAL      | 4.0             | 914.0      |         |
| -541.0                 | CARBONDALE | HERRIN        | COAL      | -               | 964.0      |         |
| -611.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1034.0     |         |
| -707.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1130.0     |         |
| -817.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1240.0     |         |

MAPID: 15900997000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 9E SECTION: 12 QUARTERS/FOOTAGES: SW NE NE  
 QUADRANGLE: MOUNT ERIE LONGITUDE: -88.15183 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.624418 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 406.0 LOGGED (FT.): 1233.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -113.0                 | BOND       | CARTHAGE      | LIMESTONE | 7.0             | 519.0      |         |
| -305.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 711.0      |         |
| -477.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 883.0      |         |
| -549.0                 | CARBONDALE | HERRIN        | COAL      | -               | 955.0      |         |
| -617.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1023.0     |         |
| -714.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1120.0     |         |
| -827.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1233.0     |         |

MAPID: 15900228000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 2N 9E SECTION: 13 QUARTERS/FOOTAGES: NW NW SW  
 QUADRANGLE: MOUNT ERIE LONGITUDE: -88.165658 GEOLOGIST: SIEVER  
 CONFIDENTIAL: N LATITUDE: 38.604511 DATE COLLECTED: 0 / 0 / 1945  
 SURFACE ELEVATION (FT.): 407.0 LOGGED (FT.): 4070.0 LOG TYPE:  
 SOURCE: PURE OC, HOWARD J C00A1 WELL TYPE: Oil and Gas Test  
 COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|-------------|---------------|-----------|-----------------|------------|---------|
|                        |             |               |           | UNIT            | OVERBURDEN |         |
| -133.0                 | BOND        | CARTHAGE      | LIMESTONE | -               | 540.0      |         |
| -319.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 726.0      |         |
| -523.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 930.0      |         |
| -561.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 968.0      |         |
| -618.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1025.0     |         |
| -799.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1206.0     |         |
| -1183.0                | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1590.0     |         |



MAPID: 15900228000C VERSION: 2

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 9E SECTION: 13 QUARTERS/FOOTAGES: NW NW SW  
 QUADRANGLE: MOUNT ERIE LONGITUDE: -88.165658 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.604511 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 407.0 LOGGED (FT.): 1250.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -133.0                 | BOND       | CARTHAGE      | LIMESTONE | 7.0             | 540.0      |         |
| -319.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 726.0      |         |
| -519.0                 | CARBONDALE | DANVILLE      | COAL      | 5.0             | 926.0      |         |
| -561.0                 | CARBONDALE | HERRIN        | COAL      | 5.0             | 968.0      |         |
| -631.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1038.0     |         |
| -723.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1130.0     |         |
| -843.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1250.0     |         |

MAPID: 15900703000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 9E SECTION: 13 QUARTERS/FOOTAGES: NE NE NE  
 QUADRANGLE: MOUNT ERIE LONGITUDE: -88.149533 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.61171 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 402.0 LOGGED (FT.): 1233.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -140.0                 | BOND       | CARTHAGE      | LIMESTONE | 7.0             | 542.0      |         |
| -316.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 718.0      |         |
| -503.0                 | CARBONDALE | DANVILLE      | COAL      | 2.5             | 905.0      |         |
| -554.0                 | CARBONDALE | HERRIN        | COAL      | -               | 956.0      |         |
| -627.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1029.0     |         |
| -718.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1120.0     |         |
| -831.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1233.0     |         |

MAPID: 15901021000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 9E SECTION: 13 QUARTERS/FOOTAGES: SW NW SE  
 QUADRANGLE: MOUNT ERIE LONGITUDE: -88.156363 GEOLOGIST: C TREWORGY  
 CONFIDENTIAL: N LATITUDE: 38.602567 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 402.0 LOGGED (FT.): 1224.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -116.0                 | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 518.0              |
| -303.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 705.0              |
| -500.0                 | CARBONDALE | DANVILLE      | COAL      | 4.0             | 902.0              |
| -541.0                 | CARBONDALE | HERRIN        | COAL      | -               | 943.0              |
| -611.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1013.0             |
| -710.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1112.0             |
| -822.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1224.0             |

MAPID: 15901022000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 9E SECTION: 13 QUARTERS/FOOTAGES: 330' S line, 2317' E line  
 QUADRANGLE: MOUNT ERIE LONGITUDE: -88.156376 GEOLOGIST: C TREWORGY  
 CONFIDENTIAL: N LATITUDE: 38.598904 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 401.0 LOGGED (FT.): 1112.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -121.0                 | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 522.0              |
| -306.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 707.0              |
| -499.0                 | CARBONDALE | DANVILLE      | COAL      | 3.5             | 900.0              |
| -543.0                 | CARBONDALE | HERRIN        | COAL      | -               | 944.0              |
| -612.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1013.0             |
| -711.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1112.0             |

MAPID: 15901025000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 9E SECTION: 13 QUARTERS/FOOTAGES: SW NE NW  
 QUADRANGLE: MOUNT ERIE LONGITUDE: -88.161137 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.609909 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 396.0 LOGGED (FT.): 1237.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -136.0                 | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 532.0      |         |
| -323.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 719.0      |         |
| -517.0                 | CARBONDALE | DANVILLE      | COAL      | 5.0             | 913.0      |         |
| -560.0                 | CARBONDALE | HERRIN        | COAL      | -               | 956.0      |         |
| -632.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1028.0     |         |
| -730.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1126.0     |         |
| -841.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1237.0     |         |

MAPID: 15901032000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 9E SECTION: 13 QUARTERS/FOOTAGES: 2315' N line, 1650' W line  
 QUADRANGLE: MOUNT ERIE LONGITUDE: -88.161058 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.606244 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 402.0 LOGGED (FT.): 1263.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -135.0                 | BOND       | CARTHAGE      | LIMESTONE | 7.0             | 537.0      |         |
| -321.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 723.0      |         |
| -521.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 923.0      |         |
| -563.0                 | CARBONDALE | HERRIN        | COAL      | -               | 965.0      |         |
| -633.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.0             | 1035.0     |         |
| -734.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1136.0     |         |
| -861.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1263.0     |         |

MAPID: 15900354000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 9E SECTION: 14 QUARTERS/FOOTAGES: NE NW SE  
 QUADRANGLE: MOUNT ERIE LONGITUDE: -88.172557 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.604588 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 426.0 LOGGED (FT.): 1256.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -124.0                 | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 550.0      |         |
| -311.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 737.0      |         |
| -509.0                 | CARBONDALE | DANVILLE      | COAL      | 4.0             | 935.0      |         |
| -553.0                 | CARBONDALE | HERRIN        | COAL      | -               | 979.0      |         |
| -624.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1050.0     |         |
| -716.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1142.0     |         |
| -830.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1256.0     |         |

MAPID: 15900704000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 9E SECTION: 14 QUARTERS/FOOTAGES: NE NE NW  
 QUADRANGLE: MOUNT ERIE LONGITUDE: -88.177255 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.611947 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 448.0 LOGGED (FT.): 1276.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -112.0                 | BOND       | CARTHAGE      | LIMESTONE | 8.0             | 560.0      |         |
| -316.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 16.0            | 764.0      |         |
| -512.0                 | CARBONDALE | DANVILLE      | COAL      | 4.0             | 960.0      |         |
| -554.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1002.0     |         |
| -627.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1075.0     |         |
| -718.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1166.0     |         |
| -828.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1276.0     |         |

MAPID: 15900353000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 9E SECTION: 16 QUARTERS/FOOTAGES: SW NE NE

QUADRANGLE: MOUNT ERIE LONGITUDE: -88.207207 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.610286 DATE COLLECTED:

SURFACE ELEVATION (FT.): 442.0 LOGGED (FT.): 1274.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -124.0                 | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 566.0              |
| -307.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 16.0            | 749.0              |
| -482.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 924.0              |
| -625.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1067.0             |
| -718.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1160.0             |
| -832.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1274.0             |

MAPID: 15900383000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 9E SECTION: 16 QUARTERS/FOOTAGES: NW SE NW

QUADRANGLE: MOUNT ERIE LONGITUDE: -88.21654 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.608513 DATE COLLECTED:

SURFACE ELEVATION (FT.): 430.0 LOGGED (FT.): 1254.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -130.0                 | BOND       | CARTHAGE      | LIMESTONE | 5.0             | 560.0              |
| -318.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 6.0             | 748.0              |
| -492.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 922.0              |
| -552.0                 | CARBONDALE | HERRIN        | COAL      | -               | 982.0              |
| -620.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1050.0             |
| -715.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1145.0             |
| -824.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1254.0             |

MAPID: 15900705000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 9E SECTION: 17 QUARTERS/FOOTAGES: 330' N line, 327' E line of NW SE

QUADRANGLE: MOUNT ERIE LONGITUDE: -88.22808 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.605208 DATE COLLECTED:

SURFACE ELEVATION (FT.): 410.0 LOGGED (FT.): 1246.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -134.0                 | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 544.0              |
| -320.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 730.0              |
| -501.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 911.0              |
| -560.0                 | CARBONDALE | HERRIN        | COAL      | -               | 970.0              |
| -629.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1039.0             |
| -725.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1135.0             |
| -836.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1246.0             |

MAPID: 15900352000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 9E SECTION: 18 QUARTERS/FOOTAGES: NE SE SE

QUADRANGLE: MOUNT ERIE LONGITUDE: -88.241811 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.602188 DATE COLLECTED:

SURFACE ELEVATION (FT.): 406.0 LOGGED (FT.): 1208.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -133.0                 | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 539.0              |
| -306.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 712.0              |
| -488.0                 | CARBONDALE | DANVILLE      | COAL      | 4.0             | 894.0              |
| -550.0                 | CARBONDALE | HERRIN        | COAL      | -               | 956.0              |
| -618.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1024.0             |
| -708.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1114.0             |
| -802.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1208.0             |

MAPID: 15900384000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 9E SECTION: 18 QUARTERS/FOOTAGES: 330' N line, 1040' E line of SE NE

QUADRANGLE: MOUNT ERIE LONGITUDE: -88.244304 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.609438 DATE COLLECTED:

SURFACE ELEVATION (FT.): 408.0 LOGGED (FT.): 1200.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -120.0                 | BOND       | CARTHAGE      | LIMESTONE | 5.0             | 528.0      |         |
| -297.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 705.0      |         |
| -471.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 879.0      |         |
| -544.0                 | CARBONDALE | HERRIN        | COAL      | 3.5             | 952.0      |         |
| -616.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1024.0     |         |
| -696.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1104.0     |         |
| -792.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1200.0     |         |

MAPID: 15900593000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 10E SECTION: 1 QUARTERS/FOOTAGES: NE NW SE

QUADRANGLE: OLNEY LONGITUDE: -88.044133 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.635355 DATE COLLECTED:

SURFACE ELEVATION (FT.): 520.0 LOGGED (FT.): 1361.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -318.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 16.0            | 838.0      |         |
| -492.0                 | CARBONDALE | DANVILLE      | COAL      | 2.5             | 1012.0     |         |
| -561.0                 | CARBONDALE | HERRIN        | COAL      | 4.0             | 1081.0     |         |
| -638.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1158.0     |         |
| -735.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1255.0     |         |
| -841.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1361.0     |         |

MAPID: 15900683000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 10E SECTION: 2 QUARTERS/FOOTAGES: NE SW NW  
 QUADRANGLE: OLNEY LONGITUDE: -88.072073 GEOLOGIST: C TREWORGY  
 CONFIDENTIAL: N LATITUDE: 38.63853 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 473.0 LOGGED (FT.): 1315.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -139.0                 | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 612.0      |         |
| -349.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 6.0             | 822.0      |         |
| -518.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 991.0      |         |
| -575.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1048.0     |         |
| -663.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 5.5             | 1136.0     |         |
| -737.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1210.0     |         |
| -842.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1315.0     |         |

MAPID: 15903243000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 10E SECTION: 2 QUARTERS/FOOTAGES: SE NE NE  
 QUADRANGLE: OLNEY LONGITUDE: -88.05793 GEOLOGIST: C TREWORGY  
 CONFIDENTIAL: N LATITUDE: 38.640713 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 513.0 LOGGED (FT.): 1354.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: FAIR LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -105.0                 | BOND       | CARTHAGE      | LIMESTONE | 5.0             | 618.0      |         |
| -328.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 16.0            | 841.0      |         |
| -501.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 1014.0     |         |
| -564.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1077.0     |         |
| -644.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1157.0     |         |
| -697.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1210.0     |         |
| -841.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1354.0     |         |



MAPID: 15900393000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 10E SECTION: 3 QUARTERS/FOOTAGES: NW SW SE

QUADRANGLE: OLNEY LONGITUDE: -88.083606 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.630736 DATE COLLECTED:

SURFACE ELEVATION (FT.): 483.0 LOGGED (FT.): 1346.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -135.0                 | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 618.0              |
| -330.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 813.0              |
| -519.0                 | CARBONDALE | DANVILLE      | COAL      | 2.5             | 1002.0             |
| -566.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1049.0             |
| -643.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.0             | 1126.0             |
| -747.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1230.0             |
| -863.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1346.0             |

MAPID: 15901040000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 10E SECTION: 3 QUARTERS/FOOTAGES: 324' S line, 660' W line of NE SE

QUADRANGLE: OLNEY LONGITUDE: -88.077864 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.632681 DATE COLLECTED:

SURFACE ELEVATION (FT.): 491.0 LOGGED (FT.): 1332.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -111.0                 | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 602.0              |
| -324.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 815.0              |
| -513.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 1004.0             |
| -561.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1052.0             |
| -635.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.5             | 1126.0             |
| -730.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1221.0             |
| -841.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1332.0             |

MAPID: 15901041000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 10E SECTION: 3 QUARTERS/FOOTAGES: NE SE SE

QUADRANGLE: OLNEY LONGITUDE: -88.076767 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.630862 DATE COLLECTED:

SURFACE ELEVATION (FT.): 477.0 LOGGED (FT.): 1335.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -121.0                 | BOND       | CARTHAGE      | LIMESTONE | 7.0             | 598.0              |
| -336.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 16.0            | 813.0              |
| -568.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1045.0             |
| -650.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1127.0             |
| -748.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1225.0             |
| -858.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1335.0             |

MAPID: 15900368000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 10E SECTION: 4 QUARTERS/FOOTAGES: 660' S line, 330' W line of NW SW

QUADRANGLE: OLNEY LONGITUDE: -88.111565 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.633267 DATE COLLECTED:

SURFACE ELEVATION (FT.): 443.0 LOGGED (FT.): 1264.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -111.0                 | BOND       | CARTHAGE      | LIMESTONE | 7.0             | 554.0              |
| -321.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 16.0            | 764.0              |
| -515.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 958.0              |
| -565.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1008.0             |
| -642.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1085.0             |
| -712.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1155.0             |
| -821.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1264.0             |

MAPID: 15900707000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 10E SECTION: 4 QUARTERS/FOOTAGES: NW SW NW  
 QUADRANGLE: OLNEY LONGITUDE: -88.111595 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.637848 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 438.0 LOGGED (FT.): 1252.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -102.0                 | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 540.0      |         |
| -312.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 750.0      |         |
| -493.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 931.0      |         |
| -548.0                 | CARBONDALE | HERRIN        | COAL      | -               | 986.0      |         |
| -620.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1058.0     |         |
| -712.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1150.0     |         |
| -814.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1252.0     |         |

MAPID: 15901043000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 10E SECTION: 4 QUARTERS/FOOTAGES: NW NE NW  
 QUADRANGLE: OLNEY LONGITUDE: -88.106925 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.641583 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 442.0 LOGGED (FT.): 1251.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -114.0                 | BOND       | CARTHAGE      | LIMESTONE | 5.0             | 556.0      |         |
| -320.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 762.0      |         |
| -504.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 946.0      |         |
| -631.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1073.0     |         |
| -712.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1154.0     |         |
| -809.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1251.0     |         |

MAPID: 15901044000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 10E SECTION: 4 QUARTERS/FOOTAGES: SW SW SW

QUADRANGLE: OLNEY LONGITUDE: -88.111503 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.628699 DATE COLLECTED:

SURFACE ELEVATION (FT.): 443.0 LOGGED (FT.): 1256.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -101.0                 | BOND       | CARTHAGE      | LIMESTONE | 5.0             | 544.0      |         |
| -312.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 755.0      |         |
| -504.0                 | CARBONDALE | DANVILLE      | COAL      | 2.5             | 947.0      |         |
| -547.0                 | CARBONDALE | HERRIN        | COAL      | -               | 990.0      |         |
| -617.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1060.0     |         |
| -715.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1158.0     |         |
| -813.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1256.0     |         |

MAPID: 15900197000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 2N 10E SECTION: 5 QUARTERS/FOOTAGES: SW NW NW

QUADRANGLE: NOBLE LONGITUDE: -88.130129 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.639355 DATE COLLECTED: 0 / 0 / 1945

SURFACE ELEVATION (FT.): 441.0 LOGGED (FT.): 4410.0 LOG TYPE:

SOURCE: PURE OC, SLCHNMYR P00A1 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|-------------|---------------|-----------|-----------------|------------|---------|
|                        |             |               |           | UNIT            | OVERBURDEN |         |
| -113.0                 | BOND        | CARTHAGE      | LIMESTONE | -               | 554.0      |         |
| -315.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 756.0      |         |
| -491.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 932.0      |         |
| -565.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1006.0     |         |
| -637.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1078.0     |         |
| -844.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1285.0     |         |
| -1089.0                | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1530.0     |         |

MAPID: 15900304000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 2N 10E SECTION: 5 QUARTERS/FOOTAGES: SW SW SW

QUADRANGLE: NOBLE LONGITUDE: -88.130082 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.628448 DATE COLLECTED: 0 / 0 / 1944

SURFACE ELEVATION (FT.): 438.0 LOGGED (FT.): 4380.0 LOG TYPE:

SOURCE: STANLND OG, JENNINGS G0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -116.0                 | BOND        | CARTHAGE      | LIMESTONE | -               | 554.0              |
| -320.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 758.0              |
| -498.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 936.0              |
| -568.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1006.0             |
| -642.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1080.0             |
| -872.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1310.0             |
| -1137.0                | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1575.0             |

MAPID: 15900708000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 10E SECTION: 5 QUARTERS/FOOTAGES: SE NW SE

QUADRANGLE: OLNEY LONGITUDE: -88.118508 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.632265 DATE COLLECTED:

SURFACE ELEVATION (FT.): 446.0 LOGGED (FT.): 1254.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -96.0                  | BOND       | CARTHAGE      | LIMESTONE | 4.0             | 542.0              |
| -302.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 748.0              |
| -480.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 926.0              |
| -542.0                 | CARBONDALE | HERRIN        | COAL      | -               | 988.0              |
| -613.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1059.0             |
| -706.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1152.0             |
| -808.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1254.0             |

MAPID: 15901048000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 10E SECTION: 5 QUARTERS/FOOTAGES: 330' N line, 347' E line  
 QUADRANGLE: OLNEY LONGITUDE: -88.114032 GEOLOGIST: C TREWORGY  
 CONFIDENTIAL: N LATITUDE: 38.641466 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 436.0 LOGGED (FT.): 1248.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -96.0                  | BOND       | CARTHAGE      | LIMESTONE | 5.0             | 532.0      |         |
| -310.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 746.0      |         |
| -484.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 920.0      |         |
| -546.0                 | CARBONDALE | HERRIN        | COAL      | -               | 982.0      |         |
| -626.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1062.0     |         |
| -712.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1148.0     |         |
| -812.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1248.0     |         |

MAPID: 15900191000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 2N 10E SECTION: 6 QUARTERS/FOOTAGES: NE NW SE  
 QUADRANGLE: NOBLE LONGITUDE: -88.137072 GEOLOGIST: SIEVER  
 CONFIDENTIAL: N LATITUDE: 38.633821 DATE COLLECTED: 0 / 0 / 1944  
 SURFACE ELEVATION (FT.): 407.0 LOGGED (FT.): 4070.0 LOG TYPE:  
 SOURCE: PHILLIPS, TRACY 0001 WELL TYPE: Oil and Gas Test  
 COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|-------------|---------------|-----------|-----------------|------------|---------|
|                        |             |               |           | UNIT            | OVERBURDEN |         |
| -109.0                 | BOND        | CARTHAGE      | LIMESTONE | -               | 516.0      |         |
| -305.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 712.0      |         |
| -479.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 886.0      |         |
| -545.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 952.0      |         |
| -617.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1024.0     |         |
| -833.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1240.0     |         |
| -1149.0                | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1556.0     |         |

MAPID: 15900192000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 2N 10E SECTION: 6 QUARTERS/FOOTAGES: SW SE SE

QUADRANGLE: NOBLE LONGITUDE: -88.134725 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.628398 DATE COLLECTED: 0 / 0 / 1945

SURFACE ELEVATION (FT.): 428.0 LOGGED (FT.): 4280.0 LOG TYPE:

SOURCE: PHILLIPS, RICHLAND 0002 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|-------------|---------------|-----------|-----------------|------------|---------|
|                        |             |               |           | UNIT            | OVERBURDEN |         |
| -112.0                 | BOND        | CARTHAGE      | LIMESTONE | -               | 540.0      |         |
| -310.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 738.0      |         |
| -490.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 918.0      |         |
| -548.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 976.0      |         |
| -626.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1054.0     |         |
| -830.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1258.0     |         |
| -1140.0                | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1568.0     |         |

MAPID: 15900193000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 2N 10E SECTION: 6 QUARTERS/FOOTAGES: NE SE SE

QUADRANGLE: NOBLE LONGITUDE: -88.132409 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.630237 DATE COLLECTED: 0 / 0 / 1944

SURFACE ELEVATION (FT.): 433.0 LOGGED (FT.): 4330.0 LOG TYPE:

SOURCE: PHILLIPS, RICHLAND 0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|-------------|---------------|-----------|-----------------|------------|---------|
|                        |             |               |           | UNIT            | OVERBURDEN |         |
| -121.0                 | BOND        | CARTHAGE      | LIMESTONE | -               | 554.0      |         |
| -313.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 746.0      |         |
| -493.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 926.0      |         |
| -557.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 990.0      |         |
| -632.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1065.0     |         |
| -807.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1240.0     |         |
| -1140.0                | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1573.0     |         |

MAPID: 15900194000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 2N 10E SECTION: 6 QUARTERS/FOOTAGES: NE NE SE

QUADRANGLE: NOBLE LONGITUDE: -88.132424 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.633871 DATE COLLECTED: 0 / 0 / 1944

SURFACE ELEVATION (FT.): 425.0 LOGGED (FT.): 4250.0 LOG TYPE:

SOURCE: PHILLIPS, KUHL 0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|-------------|---------------|-----------|-----------------|------------|---------|
|                        |             |               |           | UNIT            | OVERBURDEN |         |
| -95.0                  | BOND        | CARTHAGE      | LIMESTONE | -               | 520.0      |         |
| -303.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 728.0      |         |
| -479.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 904.0      |         |
| -545.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 970.0      |         |
| -621.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1046.0     |         |
| -825.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1250.0     |         |
| -1135.0                | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1560.0     |         |

MAPID: 15900195000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 2N 10E SECTION: 6 QUARTERS/FOOTAGES: NE SW NE

QUADRANGLE: NOBLE LONGITUDE: -88.137087 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.637452 DATE COLLECTED: 0 / 0 / 1944

SURFACE ELEVATION (FT.): 416.0 LOGGED (FT.): 4160.0 LOG TYPE:

SOURCE: PHILLIPS, BOHLANDER 0002 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|-------------|---------------|-----------|-----------------|------------|---------|
|                        |             |               |           | UNIT            | OVERBURDEN |         |
| -104.0                 | BOND        | CARTHAGE      | LIMESTONE | -               | 520.0      |         |
| -296.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 712.0      |         |
| -474.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 890.0      |         |
| -544.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 960.0      |         |
| -614.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1030.0     |         |
| -824.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1240.0     |         |
| -1140.0                | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1556.0     |         |



MAPID: 15900195000C VERSION: 2

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 10E SECTION: 6 QUARTERS/FOOTAGES: NE SW NE  
 QUADRANGLE: NOBLE LONGITUDE: -88.137087 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.637452 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 416.0 LOGGED (FT.): 1230.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -106.0                 | BOND       | CARTHAGE      | LIMESTONE | 7.0             | 522.0      |         |
| -297.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 713.0      |         |
| -472.0                 | CARBONDALE | DANVILLE      | COAL      | 2.5             | 888.0      |         |
| -544.0                 | CARBONDALE | HERRIN        | COAL      | -               | 960.0      |         |
| -614.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1030.0     |         |
| -705.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1121.0     |         |
| -814.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1230.0     |         |

MAPID: 15900229000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 2N 10E SECTION: 6 QUARTERS/FOOTAGES: NE SE SW  
 QUADRANGLE: NOBLE LONGITUDE: -88.1417 GEOLOGIST: SIEVER  
 CONFIDENTIAL: N LATITUDE: 38.630145 DATE COLLECTED: 0 / 0 / 1945  
 SURFACE ELEVATION (FT.): 407.0 LOGGED (FT.): 4070.0 LOG TYPE:  
 SOURCE: PURE OC, WILSON C L00B1 WELL TYPE: Oil and Gas Test  
 COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|-------------|---------------|-----------|-----------------|------------|---------|
|                        |             |               |           | UNIT            | OVERBURDEN |         |
| -93.0                  | BOND        | CARTHAGE      | LIMESTONE | -               | 500.0      |         |
| -293.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 700.0      |         |
| -473.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 880.0      |         |
| -535.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 942.0      |         |
| -607.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1014.0     |         |
| -823.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1230.0     |         |
| -1135.0                | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1542.0     |         |

MAPID: 15901052000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 10E SECTION: 6 QUARTERS/FOOTAGES: SW SW SE

QUADRANGLE: NOBLE LONGITUDE: -88.139369 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.628353 DATE COLLECTED:

SURFACE ELEVATION (FT.): 418.0 LOGGED (FT.): 1224.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -104.0                 | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 522.0      |         |
| -298.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 716.0      |         |
| -473.0                 | CARBONDALE | DANVILLE      | COAL      | 3.5             | 891.0      |         |
| -532.0                 | CARBONDALE | HERRIN        | COAL      | -               | 950.0      |         |
| -611.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.5             | 1029.0     |         |
| -701.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1119.0     |         |
| -806.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1224.0     |         |

MAPID: 15901053000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 10E SECTION: 6 QUARTERS/FOOTAGES: SW NW SW

QUADRANGLE: NOBLE LONGITUDE: -88.14733 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.631901 DATE COLLECTED:

SURFACE ELEVATION (FT.): 407.0 LOGGED (FT.): 1221.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -102.0                 | BOND       | CARTHAGE      | LIMESTONE | 7.0             | 509.0      |         |
| -295.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 702.0      |         |
| -465.0                 | CARBONDALE | DANVILLE      | COAL      | 3.5             | 872.0      |         |
| -540.0                 | CARBONDALE | HERRIN        | COAL      | -               | 947.0      |         |
| -611.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1018.0     |         |
| -703.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1110.0     |         |
| -814.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1221.0     |         |

MAPID: 15900196000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 2N 10E SECTION: 7 QUARTERS/FOOTAGES: NE NE NE

QUADRANGLE: NOBLE LONGITUDE: -88.132395 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.626598 DATE COLLECTED: 0 / 0 / 1944

SURFACE ELEVATION (FT.): 429.0 LOGGED (FT.): 4290.0 LOG TYPE:

SOURCE: PHILLIPS, DELILAH 0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -115.0                 | BOND        | CARTHAGE      | LIMESTONE | -               | 544.0              |
| -321.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 750.0              |
| -509.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 938.0              |
| -645.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1074.0             |
| -867.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1296.0             |
| -1133.0                | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1562.0             |

MAPID: 15900230000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 2N 10E SECTION: 7 QUARTERS/FOOTAGES: 330' S line, 990' E line of SE NW

QUADRANGLE: MOUNT ERIE LONGITUDE: -88.143982 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.621049 DATE COLLECTED: 0 / 0 / 1945

SURFACE ELEVATION (FT.): 404.0 LOGGED (FT.): 4040.0 LOG TYPE:

SOURCE: COOP REF, EDE ETAL 0002 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -110.0                 | BOND        | CARTHAGE      | LIMESTONE | -               | 514.0              |
| -316.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 720.0              |
| -490.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 894.0              |
| -556.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 960.0              |
| -630.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1034.0             |
| -842.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1246.0             |
| -1140.0                | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1544.0             |

MAPID: 15900230000C VERSION: 2

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 10E SECTION: 7 QUARTERS/FOOTAGES: 330' S line, 990' E line of SE NW

QUADRANGLE: MOUNT ERIE LONGITUDE: -88.143982 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.621049 DATE COLLECTED:

SURFACE ELEVATION (FT.): 404.0 LOGGED (FT.): 1236.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -111.0                 | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 515.0              |
| -314.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 13.0            | 718.0              |
| -488.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 892.0              |
| -554.0                 | CARBONDALE | HERRIN        | COAL      | -               | 958.0              |
| -628.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1032.0             |
| -725.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1129.0             |
| -832.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1236.0             |

MAPID: 15900231000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 2N 10E SECTION: 7 QUARTERS/FOOTAGES: NE NE SW

QUADRANGLE: MOUNT ERIE LONGITUDE: -88.141651 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.619247 DATE COLLECTED: 0 / 0 / 1945

SURFACE ELEVATION (FT.): 405.0 LOGGED (FT.): 4050.0 LOG TYPE:

SOURCE: COOP REF, ROTRAMEL C0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -119.0                 | BOND        | CARTHAGE      | LIMESTONE | -               | 524.0              |
| -309.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 714.0              |
| -489.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 894.0              |
| -551.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 956.0              |
| -629.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1034.0             |
| -840.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1245.0             |
| -1137.0                | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1542.0             |

MAPID: 15900321000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 2N 10E SECTION: 7 QUARTERS/FOOTAGES: SE NW SW

QUADRANGLE: MOUNT ERIE LONGITUDE: -88.146286

GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.617401

DATE COLLECTED: 0 / 0 / 1945

SURFACE ELEVATION (FT.): 406.0

LOGGED (FT.): 4060.0

LOG TYPE:

SOURCE: PURE OC, MULLINAX J00A1

WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|-------------|---------------|-----------|-----------------|------------|---------|
|                        |             |               |           | UNIT            | OVERBURDEN |         |
| -114.0                 | BOND        | CARTHAGE      | LIMESTONE | -               | 520.0      |         |
| -318.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 724.0      |         |
| -494.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 900.0      |         |
| -564.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 970.0      |         |
| -648.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1054.0     |         |
| -860.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1266.0     |         |
| -1138.0                | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1544.0     |         |

MAPID: 15900326000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 2N 10E SECTION: 7 QUARTERS/FOOTAGES: 330' N line, 380' E line of NW SE

QUADRANGLE: MOUNT ERIE LONGITUDE: -88.137181

GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.619274

DATE COLLECTED: 0 / 0 / 1945

SURFACE ELEVATION (FT.): 418.0

LOGGED (FT.): 4180.0

LOG TYPE:

SOURCE: ROSS C R, BOWEN ETAL0001

WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|-------------|---------------|-----------|-----------------|------------|---------|
|                        |             |               |           | UNIT            | OVERBURDEN |         |
| -119.0                 | BOND        | CARTHAGE      | LIMESTONE | -               | 537.0      |         |
| -315.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 733.0      |         |
| -495.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 913.0      |         |
| -557.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 975.0      |         |
| -631.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1049.0     |         |
| -845.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1263.0     |         |
| -1146.0                | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1564.0     |         |

MAPID: 15900326000C VERSION: 2

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 10E SECTION: 7 QUARTERS/FOOTAGES: 330' N line, 380' E line of NW SE

QUADRANGLE: MOUNT ERIE LONGITUDE: -88.137181 GEOLOGIST: C TREWORYG

CONFIDENTIAL: N LATITUDE: 38.619274 DATE COLLECTED:

SURFACE ELEVATION (FT.): 418.0 LOGGED (FT.): 1255.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -120.0                 | BOND       | CARTHAGE      | LIMESTONE | 7.0             | 538.0              |
| -315.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 733.0              |
| -496.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 914.0              |
| -557.0                 | CARBONDALE | HERRIN        | COAL      | -               | 975.0              |
| -631.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.5             | 1049.0             |
| -726.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1144.0             |
| -837.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1255.0             |

MAPID: 15900330000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 2N 10E SECTION: 7 QUARTERS/FOOTAGES: SW NE NE

QUADRANGLE: MOUNT ERIE LONGITUDE: -88.134707 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.624756 DATE COLLECTED: 0 / 0 / 1945

SURFACE ELEVATION (FT.): 416.0 LOGGED (FT.): 4160.0 LOG TYPE:

SOURCE: PHILLIPS, DELILAH 0006 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -107.0                 | BOND        | CARTHAGE      | LIMESTONE | -               | 523.0              |
| -322.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 738.0              |
| -502.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 918.0              |
| -562.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 978.0              |
| -638.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1054.0             |
| -852.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1268.0             |
| -1135.0                | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1551.0             |

MAPID: 15901070000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 10E SECTION: 7 QUARTERS/FOOTAGES: SW SW NE

QUADRANGLE: MOUNT ERIE LONGITUDE: -88.139335 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.62108 DATE COLLECTED:

SURFACE ELEVATION (FT.): 409.0 LOGGED (FT.): 1243.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -113.0                 | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 522.0      |         |
| -313.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 722.0      |         |
| -494.0                 | CARBONDALE | DANVILLE      | COAL      | 4.0             | 903.0      |         |
| -557.0                 | CARBONDALE | HERRIN        | COAL      | -               | 966.0      |         |
| -631.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1040.0     |         |
| -723.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1132.0     |         |
| -834.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1243.0     |         |

MAPID: 15900709000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 10E SECTION: 8 QUARTERS/FOOTAGES: SW NE NE

QUADRANGLE: WEST SALEM LONGITUDE: -88.116119 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.624991 DATE COLLECTED:

SURFACE ELEVATION (FT.): 437.0 LOGGED (FT.): 1254.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -115.0                 | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 552.0      |         |
| -317.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 754.0      |         |
| -504.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 941.0      |         |
| -553.0                 | CARBONDALE | HERRIN        | COAL      | -               | 990.0      |         |
| -623.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 5.0             | 1060.0     |         |
| -721.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1158.0     |         |
| -817.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1254.0     |         |

MAPID: 15901085000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 10E SECTION: 8 QUARTERS/FOOTAGES: SE NW SE  
 QUADRANGLE: WEST SALEM LONGITUDE: -88.118363 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.617632 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 453.0 LOGGED (FT.): 1279.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -132.0                 | BOND       | CARTHAGE      | LIMESTONE | 5.0             | 585.0      |         |
| -318.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 771.0      |         |
| -501.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 954.0      |         |
| -552.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1005.0     |         |
| -626.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.5             | 1079.0     |         |
| -722.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1175.0     |         |
| -826.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1279.0     |         |

MAPID: 15901086000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 10E SECTION: 8 QUARTERS/FOOTAGES: SE SW NE  
 QUADRANGLE: WEST SALEM LONGITUDE: -88.118404 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.621297 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 445.0 LOGGED (FT.): 1276.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -135.0                 | BOND       | CARTHAGE      | LIMESTONE | 5.0             | 580.0      |         |
| -322.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 767.0      |         |
| -506.0                 | CARBONDALE | DANVILLE      | COAL      | 2.5             | 951.0      |         |
| -557.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1002.0     |         |
| -631.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1076.0     |         |
| -728.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1173.0     |         |
| -831.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1276.0     |         |



MAPID: 15900710000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 10E SECTION: 9 QUARTERS/FOOTAGES: NE SE NW

QUADRANGLE: WEST SALEM LONGITUDE: -88.104381 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.623188 DATE COLLECTED:

SURFACE ELEVATION (FT.): 447.0 LOGGED (FT.): 1244.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -141.0                 | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 588.0      |         |
| -325.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 16.0            | 772.0      |         |
| -513.0                 | CARBONDALE | DANVILLE      | COAL      | 3.5             | 960.0      |         |
| -558.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1005.0     |         |
| -635.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1082.0     |         |
| -725.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1172.0     |         |
| -797.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1244.0     |         |

MAPID: 15900013000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 2N 10E SECTION: 10 QUARTERS/FOOTAGES: NE NE SE

QUADRANGLE: WEST SALEM LONGITUDE: -88.076731 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.619798 DATE COLLECTED: 0 / 0 / 1943

SURFACE ELEVATION (FT.): 455.0 LOGGED (FT.): 4550.0 LOG TYPE:

SOURCE: NAT PET, RICHEY 0001 1 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|-------------|---------------|-----------|-----------------|------------|---------|
|                        |             |               |           | UNIT            | OVERBURDEN |         |
| -147.0                 | BOND        | CARTHAGE      | LIMESTONE | -               | 602.0      |         |
| -370.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 825.0      |         |
| -548.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 1003.0     |         |
| -593.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1048.0     |         |
| -673.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1128.0     |         |
| -775.0                 | CARBONDALE  | HOUCHIN CREEK | COAL      | -               | 1230.0     |         |
| -1240.0                | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1695.0     |         |

MAPID: 15900013000C VERSION: 2

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 10E SECTION: 10 QUARTERS/FOOTAGES: NE NE SE  
 QUADRANGLE: WEST SALEM LONGITUDE: -88.076731 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.619798 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 482.0 LOGGED (FT.): 1342.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -120.0                 | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 602.0      |         |
| -335.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 17.0            | 817.0      |         |
| -519.0                 | CARBONDALE | DANVILLE      | COAL      | 4.0             | 1001.0     |         |
| -566.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1048.0     |         |
| -645.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.0             | 1127.0     |         |
| -747.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1229.0     |         |
| -860.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1342.0     |         |

MAPID: 15900711000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 10E SECTION: 10 QUARTERS/FOOTAGES: SE NW NW  
 QUADRANGLE: WEST SALEM LONGITUDE: -88.090406 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.625051 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 480.0 LOGGED (FT.): 1316.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -122.0                 | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 602.0      |         |
| -320.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 17.0            | 800.0      |         |
| -510.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 990.0      |         |
| -556.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1036.0     |         |
| -632.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.0             | 1112.0     |         |
| -730.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1210.0     |         |
| -836.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1316.0     |         |

MAPID: 15901088000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 10E SECTION: 10 QUARTERS/FOOTAGES: NW SE NW  
 QUADRANGLE: WEST SALEM LONGITUDE: -88.088118 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.623264 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 470.0 LOGGED (FT.): 1321.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -137.0                 | BOND       | CARTHAGE      | LIMESTONE | 5.0             | 607.0              |
| -330.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 17.0            | 800.0              |
| -519.0                 | CARBONDALE | DANVILLE      | COAL      | 2.5             | 989.0              |
| -565.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1035.0             |
| -642.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.0             | 1112.0             |
| -741.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1211.0             |
| -851.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1321.0             |

MAPID: 15900712000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 10E SECTION: 11 QUARTERS/FOOTAGES: SE NE NW  
 QUADRANGLE: OLNEY LONGITUDE: -88.067394 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.625429 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 517.0 LOGGED (FT.): 1352.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -103.0                 | BOND       | CARTHAGE      | LIMESTONE | 4.0             | 620.0              |
| -311.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 17.0            | 828.0              |
| -495.0                 | CARBONDALE | DANVILLE      | COAL      | 3.5             | 1012.0             |
| -540.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1057.0             |
| -624.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1141.0             |
| -723.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1240.0             |
| -835.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1352.0             |

MAPID: 15900713000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 10E SECTION: 12 QUARTERS/FOOTAGES: NE NE SE  
 QUADRANGLE: WEST SALEM LONGITUDE: -88.039574 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.620594 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 504.0 LOGGED (FT.): 1351.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -87.0                  | BOND       | CARTHAGE      | LIMESTONE | -               | 591.0      |         |
| -302.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 18.0            | 806.0      |         |
| -476.0                 | CARBONDALE | DANVILLE      | COAL      | 3.5             | 980.0      |         |
| -544.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1048.0     |         |
| -634.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.5             | 1138.0     |         |
| -730.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1234.0     |         |
| -847.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1351.0     |         |

MAPID: 15901089000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 10E SECTION: 12 QUARTERS/FOOTAGES: SW NE SE  
 QUADRANGLE: WEST SALEM LONGITUDE: -88.041887 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.618677 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 471.0 LOGGED (FT.): 1312.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -105.0                 | BOND       | CARTHAGE      | LIMESTONE | 7.0             | 576.0      |         |
| -302.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 773.0      |         |
| -478.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 949.0      |         |
| -545.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1016.0     |         |
| -629.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1100.0     |         |
| -731.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1202.0     |         |
| -841.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1312.0     |         |

MAPID: 15900457000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 10E SECTION: 13 QUARTERS/FOOTAGES: SW SE NE

QUADRANGLE: WEST SALEM LONGITUDE: -88.041907 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.607724 DATE COLLECTED:

SURFACE ELEVATION (FT.): 497.0 LOGGED (FT.): 1346.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -311.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 16.0            | 808.0      |         |
| -491.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 988.0      |         |
| -556.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1053.0     |         |
| -637.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1134.0     |         |
| -747.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1244.0     |         |
| -849.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1346.0     |         |

MAPID: 15900642000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 10E SECTION: 13 QUARTERS/FOOTAGES: NW SW NE

QUADRANGLE: WEST SALEM LONGITUDE: -88.04651 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.609422 DATE COLLECTED:

SURFACE ELEVATION (FT.): 455.0 LOGGED (FT.): 1315.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -320.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 16.0            | 775.0      |         |
| -501.0                 | CARBONDALE | DANVILLE      | COAL      | 2.5             | 956.0      |         |
| -560.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1015.0     |         |
| -644.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.0             | 1099.0     |         |
| -755.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1210.0     |         |
| -860.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1315.0     |         |

MAPID: 15900189000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 2N 10E SECTION: 14 QUARTERS/FOOTAGES: SW SW SW

QUADRANGLE: WEST SALEM LONGITUDE: -88.074311 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.599844 DATE COLLECTED: 0 / 0 / 1944

SURFACE ELEVATION (FT.): 477.0 LOGGED (FT.): 4770.0 LOG TYPE:

SOURCE: JACKSN L B, MCDONALD R0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -299.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 776.0              |
| -499.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 976.0              |
| -543.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1020.0             |
| -625.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1102.0             |
| -843.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1320.0             |
| -1223.0                | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1700.0             |

MAPID: 15900189000C VERSION: 2

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 10E SECTION: 14 QUARTERS/FOOTAGES: SW SW SW

QUADRANGLE: WEST SALEM LONGITUDE: -88.074311 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.599844 DATE COLLECTED:

SURFACE ELEVATION (FT.): 477.0 LOGGED (FT.): 1310.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -298.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 17.0            | 775.0              |
| -500.0                 | CARBONDALE | DANVILLE      | COAL      | 4.5             | 977.0              |
| -541.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1018.0             |
| -624.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1101.0             |
| -713.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1190.0             |
| -833.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1310.0             |

MAPID: 15900714000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 10E SECTION: 14 QUARTERS/FOOTAGES: NE NE SE

QUADRANGLE: WEST SALEM LONGITUDE: -88.058012 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.605496 DATE COLLECTED:

SURFACE ELEVATION (FT.): 456.0 LOGGED (FT.): 1314.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -323.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 20.0            | 779.0      |         |
| -519.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 975.0      |         |
| -563.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1019.0     |         |
| -644.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1100.0     |         |
| -748.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1204.0     |         |
| -858.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1314.0     |         |

MAPID: 15901094000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 10E SECTION: 14 QUARTERS/FOOTAGES: NW NW NE

QUADRANGLE: WEST SALEM LONGITUDE: -88.065049 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.612707 DATE COLLECTED:

SURFACE ELEVATION (FT.): 509.0 LOGGED (FT.): 1382.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -340.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 20.0            | 849.0      |         |
| -536.0                 | CARBONDALE | DANVILLE      | COAL      | 3.5             | 1045.0     |         |
| -581.0                 | CARBONDALE | HERRIN        | COAL      | 4.0             | 1090.0     |         |
| -669.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1178.0     |         |
| -768.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1277.0     |         |
| -873.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1382.0     |         |

MAPID: 15900385000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 10E SECTION: 15 QUARTERS/FOOTAGES: NE NW NW  
 QUADRANGLE: WEST SALEM LONGITUDE: -88.090328 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.612283 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 460.0 LOGGED (FT.): 1310.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -124.0                 | BOND       | CARTHAGE      | LIMESTONE | 7.0             | 584.0      |         |
| -318.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 18.0            | 778.0      |         |
| -515.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 975.0      |         |
| -561.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1021.0     |         |
| -635.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.5             | 1095.0     |         |
| -732.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1192.0     |         |
| -850.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1310.0     |         |

MAPID: 15900965000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 10E SECTION: 16 QUARTERS/FOOTAGES: SE SE SE  
 QUADRANGLE: WEST SALEM LONGITUDE: -88.094948 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.599439 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 446.0 LOGGED (FT.): 1303.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -141.0                 | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 587.0      |         |
| -333.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 8.0             | 779.0      |         |
| -529.0                 | CARBONDALE | DANVILLE      | COAL      | 3.5             | 975.0      |         |
| -575.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1021.0     |         |
| -651.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 5.0             | 1097.0     |         |
| -746.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1192.0     |         |
| -857.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1303.0     |         |



MAPID: 15901097000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 10E SECTION: 16 QUARTERS/FOOTAGES: NW NW NW  
 QUADRANGLE: WEST SALEM LONGITUDE: -88.111303 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.612199 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 441.0 LOGGED (FT.): 1256.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -113.0                 | BOND       | CARTHAGE      | LIMESTONE | 4.0             | 554.0      |         |
| -313.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 17.0            | 754.0      |         |
| -501.0                 | CARBONDALE | DANVILLE      | COAL      | 3.5             | 942.0      |         |
| -545.0                 | CARBONDALE | HERRIN        | COAL      | -               | 986.0      |         |
| -614.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.5             | 1055.0     |         |
| -709.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1150.0     |         |
| -815.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1256.0     |         |

MAPID: 15900349000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 2N 10E SECTION: 17 QUARTERS/FOOTAGES: SE SW SW  
 QUADRANGLE: MOUNT ERIE LONGITUDE: -88.127601 GEOLOGIST: SIEVER  
 CONFIDENTIAL: N LATITUDE: 38.599328 DATE COLLECTED: 0 / 0 / 1945  
 SURFACE ELEVATION (FT.): 436.0 LOGGED (FT.): 4360.0 LOG TYPE:  
 SOURCE: PURE OC, RITTER CON00B1 WELL TYPE: Oil and Gas Test  
 COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|-------------|---------------|-----------|-----------------|------------|---------|
|                        |             |               |           | UNIT            | OVERBURDEN |         |
| -301.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 737.0      |         |
| -474.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 910.0      |         |
| -544.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 980.0      |         |
| -610.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1046.0     |         |
| -826.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1262.0     |         |
| -1179.0                | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1615.0     |         |

MAPID: 15900364000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 10E SECTION: 17 QUARTERS/FOOTAGES: SE NW SW  
 QUADRANGLE: MOUNT ERIE LONGITUDE: -88.127619 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.602965 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 412.0 LOGGED (FT.): 1212.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -115.0                 | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 527.0              |
| -300.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 17.0            | 712.0              |
| -472.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 884.0              |
| -540.0                 | CARBONDALE | HERRIN        | COAL      | -               | 952.0              |
| -607.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.5             | 1019.0             |
| -700.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1112.0             |
| -800.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1212.0             |

MAPID: 15901101000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 10E SECTION: 17 QUARTERS/FOOTAGES: SW NE SW  
 QUADRANGLE: MOUNT ERIE LONGITUDE: -88.125293 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.602979 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 427.0 LOGGED (FT.): 1254.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -118.0                 | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 545.0              |
| -309.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 19.0            | 736.0              |
| -485.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 912.0              |
| -548.0                 | CARBONDALE | HERRIN        | COAL      | -               | 975.0              |
| -622.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.0             | 1049.0             |
| -716.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1143.0             |
| -827.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1254.0             |

MAPID: 15900225000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 2N 10E SECTION: 18 QUARTERS/FOOTAGES: SE SE NE

QUADRANGLE: MOUNT ERIE LONGITUDE: -88.132293 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.606565 DATE COLLECTED: 0 / 0 / 1945

SURFACE ELEVATION (FT.): 425.0 LOGGED (FT.): 4250.0 LOG TYPE:

SOURCE: PURE & JWC, LAME A 00A1 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -125.0                 | BOND        | CARTHAGE      | LIMESTONE | -               | 550.0              |
| -309.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 734.0              |
| -485.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 910.0              |
| -549.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 974.0              |
| -623.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1048.0             |
| -850.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1275.0             |
| -1179.0                | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1604.0             |

MAPID: 15900225000C VERSION: 2

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 10E SECTION: 18 QUARTERS/FOOTAGES: SE SE NE

QUADRANGLE: MOUNT ERIE LONGITUDE: -88.132293 GEOLOGIST: C TREWORYG

CONFIDENTIAL: N LATITUDE: 38.606565 DATE COLLECTED:

SURFACE ELEVATION (FT.): 425.0 LOGGED (FT.): 1257.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -125.0                 | BOND       | CARTHAGE      | LIMESTONE | 7.0             | 550.0              |
| -309.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 734.0              |
| -486.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 911.0              |
| -623.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.0             | 1048.0             |
| -715.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1140.0             |
| -832.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1257.0             |

MAPID: 15900232000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 2N 10E SECTION: 19 QUARTERS/FOOTAGES: SE NE NE

QUADRANGLE: MOUNT ERIE LONGITUDE: -88.132231 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.595672 DATE COLLECTED: 0 / 0 / 1945

SURFACE ELEVATION (FT.): 432.0 LOGGED (FT.): 4320.0 LOG TYPE:

SOURCE: PURE OC, KIMMEL U 0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -108.0                 | BOND        | CARTHAGE      | LIMESTONE | -               | 540.0              |
| -290.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 722.0              |
| -474.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 906.0              |
| -542.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 974.0              |
| -608.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1040.0             |
| -826.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1258.0             |
| -1192.0                | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1624.0             |

MAPID: 15900232000C VERSION: 2

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 10E SECTION: 19 QUARTERS/FOOTAGES: SE NE NE

QUADRANGLE: MOUNT ERIE LONGITUDE: -88.132231 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.595672 DATE COLLECTED:

SURFACE ELEVATION (FT.): 432.0 LOGGED (FT.): 1234.0 LOG TYPE: Electric Log

SOURCE: FAIR LOG WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -108.0                 | BOND       | CARTHAGE      | LIMESTONE | 7.0             | 540.0              |
| -291.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 17.0            | 723.0              |
| -473.0                 | CARBONDALE | DANVILLE      | COAL      | 3.5             | 905.0              |
| -543.0                 | CARBONDALE | HERRIN        | COAL      | -               | 975.0              |
| -605.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1037.0             |
| -698.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1130.0             |
| -802.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1234.0             |

MAPID: 15903112000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 10E SECTION: 19 QUARTERS/FOOTAGES: NW SW SE

QUADRANGLE: MOUNT ERIE LONGITUDE: -88.13916 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.586562 DATE COLLECTED:

SURFACE ELEVATION (FT.): 441.0 LOGGED (FT.): 1278.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: FAIR LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -306.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 747.0      |         |
| -496.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 937.0      |         |
| -625.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.5             | 1066.0     |         |
| -722.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1163.0     |         |
| -837.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1278.0     |         |

MAPID: 15900223000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 2N 10E SECTION: 20 QUARTERS/FOOTAGES: SE NE NW

QUADRANGLE: WEST SALEM LONGITUDE: -88.122946 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.595717 DATE COLLECTED: 0 / 0 / 1945

SURFACE ELEVATION (FT.): 434.0 LOGGED (FT.): 4340.0 LOG TYPE:

SOURCE: PHILLIPS, NITRAM 0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|-------------|---------------|-----------|-----------------|------------|---------|
|                        |             |               |           | UNIT            | OVERBURDEN |         |
| -20.0                  | BOND        | CARTHAGE      | LIMESTONE | -               | 454.0      |         |
| -311.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 745.0      |         |
| -496.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 930.0      |         |
| -562.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 996.0      |         |
| -636.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1070.0     |         |
| -852.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1286.0     |         |
| -1172.0                | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1606.0     |         |

MAPID: 15900223000C VERSION: 2

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 10E SECTION: 20 QUARTERS/FOOTAGES: SE NE NW

QUADRANGLE: WEST SALEM LONGITUDE: -88.122946 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.595717 DATE COLLECTED:

SURFACE ELEVATION (FT.): 434.0 LOGGED (FT.): 1270.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -116.0                 | BOND       | CARTHAGE      | LIMESTONE | 7.0             | 550.0      |         |
| -311.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 16.0            | 745.0      |         |
| -496.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 930.0      |         |
| -633.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.5             | 1067.0     |         |
| -728.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1162.0     |         |
| -836.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1270.0     |         |

MAPID: 15900233000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 2N 10E SECTION: 20 QUARTERS/FOOTAGES: NW NE NW

QUADRANGLE: MOUNT ERIE LONGITUDE: -88.125272 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.597525 DATE COLLECTED: 0 / 0 / 1945

SURFACE ELEVATION (FT.): 433.0 LOGGED (FT.): 4330.0 LOG TYPE:

SOURCE: CARTER J W, BORAH O C 0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|-------------|---------------|-----------|-----------------|------------|---------|
|                        |             |               |           | UNIT            | OVERBURDEN |         |
| -111.0                 | BOND        | CARTHAGE      | LIMESTONE | -               | 544.0      |         |
| -309.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 742.0      |         |
| -487.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 920.0      |         |
| -557.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 990.0      |         |
| -630.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1063.0     |         |
| -789.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1222.0     |         |
| -1177.0                | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1610.0     |         |

MAPID: 15900233000C VERSION: 2

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 10E SECTION: 20 QUARTERS/FOOTAGES: NW NE NW  
 QUADRANGLE: MOUNT ERIE LONGITUDE: -88.125272 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.597525 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 433.0 LOGGED (FT.): 1260.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -109.0                 | BOND       | CARTHAGE      | LIMESTONE | 7.0             | 542.0      |         |
| -310.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 21.0            | 743.0      |         |
| -488.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 921.0      |         |
| -557.0                 | CARBONDALE | HERRIN        | COAL      | -               | 990.0      |         |
| -628.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1061.0     |         |
| -720.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1153.0     |         |
| -827.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1260.0     |         |

MAPID: 15900014000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 2N 10E SECTION: 22 QUARTERS/FOOTAGES: 660' N line, 330' E line of SW SE  
 QUADRANGLE: WEST SALEM LONGITUDE: -88.081239 GEOLOGIST: SIEVER  
 CONFIDENTIAL: N LATITUDE: 38.58606 DATE COLLECTED: 0 / 0 / 1942  
 SURFACE ELEVATION (FT.): 458.0 LOGGED (FT.): 4580.0 LOG TYPE:  
 SOURCE: MARTIN R B, SMITH R C 0001 WELL TYPE: Oil and Gas Test  
 COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|-------------|---------------|-----------|-----------------|------------|---------|
|                        |             |               |           | UNIT            | OVERBURDEN |         |
| -306.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 764.0      |         |
| -512.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 970.0      |         |
| -554.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1012.0     |         |
| -642.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1100.0     |         |
| -719.0                 | CARBONDALE  | HOUCHIN CREEK | COAL      | -               | 1177.0     |         |
| -1242.0                | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1700.0     |         |

MAPID: 15900014000C VERSION: 2

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 10E SECTION: 22 QUARTERS/FOOTAGES: 660' N line, 330' E line of SW SE

QUADRANGLE: WEST SALEM LONGITUDE: -88.081239 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.58606 DATE COLLECTED:

SURFACE ELEVATION (FT.): 458.0 LOGGED (FT.): 1298.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -299.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 17.0            | 757.0              |
| -510.0                 | CARBONDALE | DANVILLE      | COAL      | 4.0             | 968.0              |
| -554.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1012.0             |
| -641.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.5             | 1099.0             |
| -719.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1177.0             |
| -840.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1298.0             |

MAPID: 15900616000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 10E SECTION: 23 QUARTERS/FOOTAGES: SE SW SE

QUADRANGLE: WEST SALEM LONGITUDE: -88.062757 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.585346 DATE COLLECTED:

SURFACE ELEVATION (FT.): 473.0 LOGGED (FT.): 1295.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -291.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 764.0              |
| -484.0                 | CARBONDALE | DANVILLE      | COAL      | 2.5             | 957.0              |
| -524.0                 | CARBONDALE | HERRIN        | COAL      | -               | 997.0              |
| -609.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.5             | 1082.0             |
| -710.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1183.0             |
| -822.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1295.0             |



MAPID: 15900716000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 10E SECTION: 23 QUARTERS/FOOTAGES: SW SW SE

QUADRANGLE: WEST SALEM LONGITUDE: -88.065072 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.585336 DATE COLLECTED:

SURFACE ELEVATION (FT.): 473.0 LOGGED (FT.): 1294.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -290.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 763.0      |         |
| -485.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 958.0      |         |
| -611.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.0             | 1084.0     |         |
| -708.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1181.0     |         |
| -821.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1294.0     |         |

MAPID: 15901115000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 10E SECTION: 23 QUARTERS/FOOTAGES: 330' S line, 336' E line of NE SW

QUADRANGLE: WEST SALEM LONGITUDE: -88.067391 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.588971 DATE COLLECTED:

SURFACE ELEVATION (FT.): 463.0 LOGGED (FT.): 1290.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -288.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 751.0      |         |
| -488.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 951.0      |         |
| -529.0                 | CARBONDALE | HERRIN        | COAL      | -               | 992.0      |         |
| -610.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.5             | 1073.0     |         |
| -713.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1176.0     |         |
| -827.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1290.0     |         |

MAPID: 15900717000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 10E SECTION: 24 QUARTERS/FOOTAGES: NW SW NE

QUADRANGLE: WEST SALEM LONGITUDE: -88.046507 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.594865 DATE COLLECTED:

SURFACE ELEVATION (FT.): 488.0 LOGGED (FT.): 1324.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -294.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 782.0      |         |
| -488.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 976.0      |         |
| -537.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1025.0     |         |
| -620.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1108.0     |         |
| -720.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1208.0     |         |
| -836.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1324.0     |         |

MAPID: 15901117000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 10E SECTION: 24 QUARTERS/FOOTAGES: NW NW NW

QUADRANGLE: WEST SALEM LONGITUDE: -88.055682 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.598211 DATE COLLECTED:

SURFACE ELEVATION (FT.): 486.0 LOGGED (FT.): 1327.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -305.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 16.0            | 791.0      |         |
| -497.0                 | CARBONDALE | DANVILLE      | COAL      | 2.5             | 983.0      |         |
| -541.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1027.0     |         |
| -620.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.0             | 1106.0     |         |
| -729.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1215.0     |         |
| -841.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1327.0     |         |

MAPID: 15900733000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 10E SECTION: 25 QUARTERS/FOOTAGES: SW NE NE  
 QUADRANGLE: WEST SALEM LONGITUDE: -88.041919 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.582164 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 516.0 LOGGED (FT.): 1339.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -279.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 795.0      |         |
| -480.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 996.0      |         |
| -524.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1040.0     |         |
| -613.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.0             | 1129.0     |         |
| -713.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1229.0     |         |
| -823.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1339.0     |         |

MAPID: 15923582000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 10E SECTION: 25 QUARTERS/FOOTAGES: SE SW SE  
 QUADRANGLE: WEST SALEM LONGITUDE: -88.044222 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.571033 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 504.0 LOGGED (FT.): 1294.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -260.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 764.0      |         |
| -464.0                 | CARBONDALE | DANVILLE      | COAL      | 2.5             | 968.0      |         |
| -501.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1005.0     |         |
| -584.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.0             | 1088.0     |         |
| -683.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1187.0     |         |
| -790.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1294.0     |         |

MAPID: 15900015000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 2N 10E SECTION: 26 QUARTERS/FOOTAGES: SW NW SW

QUADRANGLE: WEST SALEM LONGITUDE: -88.074312 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.574298 DATE COLLECTED: 0 / 0 / 1941

SURFACE ELEVATION (FT.): 453.0 LOGGED (FT.): 4530.0 LOG TYPE:

SOURCE: MARTIN R B, DEISCHER 0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -297.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 750.0              |
| -502.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 955.0              |
| -543.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 996.0              |
| -625.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1078.0             |
| -715.0                 | CARBONDALE  | HOUCHIN CREEK | COAL      | -               | 1168.0             |
| -1202.0                | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1655.0             |

MAPID: 15900016000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 2N 10E SECTION: 26 QUARTERS/FOOTAGES: NE NE SE

QUADRANGLE: WEST SALEM LONGITUDE: -88.058107 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.576235 DATE COLLECTED: 0 / 0 / 1940

SURFACE ELEVATION (FT.): 471.0 LOGGED (FT.): 4710.0 LOG TYPE:

SOURCE: ROBNSN ETL, JENNER 0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -272.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 743.0              |
| -465.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 936.0              |
| -506.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 977.0              |
| -586.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1057.0             |
| -679.0                 | CARBONDALE  | HOUCHIN CREEK | COAL      | -               | 1150.0             |
| -1184.0                | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1655.0             |

**MAPID:** 15900234000C    **VERSION:** 1    **PROJECT:** RI 148  
**COUNTY:** RICHLAND    **TWP/RNG:** 2N 10E    **SECTION:** 26    **QUARTERS/FOOTAGES:** SE NE SW  
**QUADRANGLE:** WEST SALEM    **LONGITUDE:** -88.067364    **GEOLOGIST:** SIEVER  
**CONFIDENTIAL:** N    **LATITUDE:** 38.574345    **DATE COLLECTED:** 0 / 0 / 1944  
**SURFACE ELEVATION (FT.):** 457.0    **LOGGED (FT.):** 4570.0    **LOG TYPE:**  
**SOURCE:** ASHLND ORC, BOYD C 0002    **WELL TYPE:** Oil and Gas Test  
**COMMENT:**

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -287.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 744.0              |
| -497.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 954.0              |
| -537.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 994.0              |
| -619.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1076.0             |
| -837.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1294.0             |
| -1193.0                | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1650.0             |

**MAPID:** 15900234000C    **VERSION:** 2    **PROJECT:** CGT-ECILL  
**COUNTY:** RICHLAND    **TWP/RNG:** 2N 10E    **SECTION:** 26    **QUARTERS/FOOTAGES:** SE NE SW  
**QUADRANGLE:** WEST SALEM    **LONGITUDE:** -88.067364    **GEOLOGIST:** C TREWORYG  
**CONFIDENTIAL:** N    **LATITUDE:** 38.574345    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 457.0    **LOGGED (FT.):** 1285.0    **LOG TYPE:** Electric Log  
**SOURCE:**    **WELL TYPE:** Oil and Gas Test  
**COMMENT:** GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -287.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 744.0              |
| -496.0                 | CARBONDALE | DANVILLE      | COAL      | 4.0             | 953.0              |
| -539.0                 | CARBONDALE | HERRIN        | COAL      | -               | 996.0              |
| -618.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1075.0             |
| -715.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1172.0             |
| -828.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1285.0             |

**MAPID:** 15900235000C    **VERSION:** 1    **PROJECT:** RI 148  
**COUNTY:** RICHLAND    **TWP/RNG:** 2N 10E    **SECTION:** 26    **QUARTERS/FOOTAGES:** NW SW SE  
**QUADRANGLE:** WEST SALEM    **LONGITUDE:** -88.065044    **GEOLOGIST:** SIEVER  
**CONFIDENTIAL:** N    **LATITUDE:** 38.572533    **DATE COLLECTED:** 0 / 0 / 1944  
**SURFACE ELEVATION (FT.):** 458.0    **LOGGED (FT.):** 4580.0    **LOG TYPE:**  
**SOURCE:** ASHLND ORC, POWELL J A0001    **WELL TYPE:** Oil and Gas Test  
**COMMENT:**

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -284.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 742.0              |
| -492.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 950.0              |
| -532.0                 | CARBONDALE | HERRIN        | COAL      | -               | 990.0              |

MAPID: 15900305000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 2N 10E SECTION: 26 QUARTERS/FOOTAGES: 330' S line, 660' E line of SE SW

QUADRANGLE: WEST SALEM LONGITUDE: -88.068518 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.57067 DATE COLLECTED: 0 / 0 / 1943

SURFACE ELEVATION (FT.): 463.0 LOGGED (FT.): 4630.0 LOG TYPE:

SOURCE: MARTIN R B, BOYD C 0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -302.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 765.0              |
| -461.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 924.0              |
| -553.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1016.0             |
| -637.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1100.0             |
| -847.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1310.0             |
| -1181.0                | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1644.0             |

MAPID: 15900305000C VERSION: 2

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 10E SECTION: 26 QUARTERS/FOOTAGES: 330' S line, 660' E line of SE SW

QUADRANGLE: WEST SALEM LONGITUDE: -88.068518 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.57067 DATE COLLECTED:

SURFACE ELEVATION (FT.): 463.0 LOGGED (FT.): 1306.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -302.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 765.0              |
| -512.0                 | CARBONDALE | DANVILLE      | COAL      | 4.0             | 975.0              |
| -551.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1014.0             |
| -634.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1097.0             |
| -730.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1193.0             |
| -843.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1306.0             |

MAPID: 15900306000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 2N 10E SECTION: 26 QUARTERS/FOOTAGES: SE SW SW

QUADRANGLE: WEST SALEM LONGITUDE: -88.071986 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.570647 DATE COLLECTED: 0 / 0 / 1943

SURFACE ELEVATION (FT.): 458.0 LOGGED (FT.): 4580.0 LOG TYPE:

SOURCE: ASHLND ORC, DESCHR ETL0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -308.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 766.0              |
| -517.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 975.0              |
| -554.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1012.0             |
| -637.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1095.0             |
| -838.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1296.0             |
| -1182.0                | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1640.0             |

MAPID: 15901121000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 10E SECTION: 26 QUARTERS/FOOTAGES: 330' N line, 319' E line of NW

QUADRANGLE: WEST SALEM LONGITUDE: -88.067356 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.583506 DATE COLLECTED:

SURFACE ELEVATION (FT.): 464.0 LOGGED (FT.): 1288.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -295.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 759.0              |
| -499.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 963.0              |
| -538.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1002.0             |
| -625.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1089.0             |
| -716.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1180.0             |
| -824.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1288.0             |

MAPID: 15901122000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 10E SECTION: 26 QUARTERS/FOOTAGES: NW SW NE

QUADRANGLE: WEST SALEM LONGITUDE: -88.065066 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.57985 DATE COLLECTED:

SURFACE ELEVATION (FT.): 469.0 LOGGED (FT.): 1291.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -296.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 13.0            | 765.0      |         |
| -500.0                 | CARBONDALE | DANVILLE      | COAL      | 2.5             | 969.0      |         |
| -543.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1012.0     |         |
| -631.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1100.0     |         |
| -715.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1184.0     |         |
| -822.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1291.0     |         |

MAPID: 15900718000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 10E SECTION: 27 QUARTERS/FOOTAGES: 330' N line, 318' W line of SE SW

QUADRANGLE: WEST SALEM LONGITUDE: -88.088139 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.572303 DATE COLLECTED:

SURFACE ELEVATION (FT.): 422.0 LOGGED (FT.): 1286.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -312.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 734.0      |         |
| -522.0                 | CARBONDALE | DANVILLE      | COAL      | 4.0             | 944.0      |         |
| -564.0                 | CARBONDALE | HERRIN        | COAL      | -               | 986.0      |         |
| -644.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1066.0     |         |
| -746.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1168.0     |         |
| -864.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1286.0     |         |



MAPID: 15902637000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 10E SECTION: 29 QUARTERS/FOOTAGES: SW NW SW  
 QUADRANGLE: MOUNT ERIE LONGITUDE: -88.129855 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.573787 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 432.0 LOGGED (FT.): 1281.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -315.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 747.0              |
| -508.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 940.0              |
| -575.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1007.0             |
| -652.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1084.0             |
| -738.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1170.0             |
| -849.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1281.0             |

MAPID: 15902677000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 10E SECTION: 29 QUARTERS/FOOTAGES: SE SW NE  
 QUADRANGLE: WEST SALEM LONGITUDE: -88.11825 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.577484 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 437.0 LOGGED (FT.): 1305.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -326.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 763.0              |
| -517.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 954.0              |
| -590.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1027.0             |
| -674.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1111.0             |
| -761.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1198.0             |
| -868.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1305.0             |

MAPID: 15900512000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 10E SECTION: 30 QUARTERS/FOOTAGES: NE SW SW  
 QUADRANGLE: MOUNT ERIE LONGITUDE: -88.1461 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.571758 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 399.0 LOGGED (FT.): 1230.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -297.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 696.0              |
| -491.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 890.0              |
| -545.0                 | CARBONDALE | HERRIN        | COAL      | -               | 944.0              |
| -621.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1020.0             |
| -724.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1123.0             |
| -831.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1230.0             |

MAPID: 15902603000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 10E SECTION: 30 QUARTERS/FOOTAGES: NW NW SW  
 QUADRANGLE: MOUNT ERIE LONGITUDE: -88.146797 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.575458 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 413.0 LOGGED (FT.): 1256.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -313.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 726.0              |
| -506.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 919.0              |
| -567.0                 | CARBONDALE | HERRIN        | COAL      | -               | 980.0              |
| -636.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1049.0             |
| -736.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1149.0             |
| -843.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1256.0             |

MAPID: 15900386000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 11E SECTION: 6 QUARTERS/FOOTAGES: SW SW SE

QUADRANGLE: OLNEY LONGITUDE: -88.031864 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.630097 DATE COLLECTED:

SURFACE ELEVATION (FT.): 511.0 LOGGED (FT.): 1365.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -324.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 20.0            | 835.0      |         |
| -498.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 1009.0     |         |
| -559.0                 | CARBONDALE | HERRIN        | COAL      | 4.0             | 1070.0     |         |
| -641.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.0             | 1152.0     |         |
| -736.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1247.0     |         |
| -854.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1365.0     |         |

MAPID: 15901124000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 11E SECTION: 7 QUARTERS/FOOTAGES: SW NW NE

QUADRANGLE: OLNEY LONGITUDE: -88.031884 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.626401 DATE COLLECTED:

SURFACE ELEVATION (FT.): 495.0 LOGGED (FT.): 1344.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -312.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 17.0            | 807.0      |         |
| -489.0                 | CARBONDALE | DANVILLE      | COAL      | 4.0             | 984.0      |         |
| -552.0                 | CARBONDALE | HERRIN        | COAL      | 5.0             | 1047.0     |         |
| -637.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 2.0             | 1132.0     |         |
| -735.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1230.0     |         |
| -849.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1344.0     |         |

MAPID: 15901125000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 11E SECTION: 7 QUARTERS/FOOTAGES: 330' S line, 330' W line

QUADRANGLE: WEST SALEM LONGITUDE: -88.037291 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.615212 DATE COLLECTED:

SURFACE ELEVATION (FT.): 506.0 LOGGED (FT.): 1362.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -302.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 808.0      |         |
| -484.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 990.0      |         |
| -556.0                 | CARBONDALE | HERRIN        | COAL      | 3.5             | 1062.0     |         |
| -640.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1146.0     |         |
| -749.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1255.0     |         |
| -856.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1362.0     |         |

MAPID: 15900387000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 11E SECTION: 18 QUARTERS/FOOTAGES: NW NW NE

QUADRANGLE: WEST SALEM LONGITUDE: -88.031943 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.613452 DATE COLLECTED:

SURFACE ELEVATION (FT.): 498.0 LOGGED (FT.): 1347.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -298.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 796.0      |         |
| -482.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 980.0      |         |
| -549.0                 | CARBONDALE | HERRIN        | COAL      | 4.5             | 1047.0     |         |
| -634.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1132.0     |         |
| -740.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1238.0     |         |
| -849.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1347.0     |         |

MAPID: 15900017000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 2N 11E SECTION: 30 QUARTERS/FOOTAGES: 1980' S line, 330' W line

QUADRANGLE: WEST SALEM LONGITUDE: -88.037285 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.575888 DATE COLLECTED: 0 / 0 / 1942

SURFACE ELEVATION (FT.): 512.0 LOGGED (FT.): 5120.0 LOG TYPE:

SOURCE: ZEPHYR DRC, SIMPSON FH0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|-------------|---------------|-----------|-----------------|------------|---------|
|                        |             |               |           | UNIT            | OVERBURDEN |         |
| -264.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 776.0      |         |
| -465.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 977.0      |         |
| -508.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1020.0     |         |
| -588.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1100.0     |         |
| -1159.0                | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1671.0     |         |

MAPID: 15900017000C VERSION: 2

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 11E SECTION: 30 QUARTERS/FOOTAGES: 1980' S line, 330' W line

QUADRANGLE: WEST SALEM LONGITUDE: -88.037285 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.575888 DATE COLLECTED:

SURFACE ELEVATION (FT.): 512.0 LOGGED (FT.): 1314.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -263.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 775.0      |         |
| -462.0                 | CARBONDALE | DANVILLE      | COAL      | 4.5             | 974.0      |         |
| -506.0                 | CARBONDALE | HERRIN        | COAL      | 4.0             | 1018.0     |         |
| -586.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.5             | 1098.0     |         |
| -690.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1202.0     |         |
| -802.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1314.0     |         |

MAPID: 1590258000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 14W SECTION: 1 QUARTERS/FOOTAGES: NE SE SE

QUADRANGLE: CLAREMONT LONGITUDE: -87.910834 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.631554 DATE COLLECTED:

SURFACE ELEVATION (FT.): 549.0 LOGGED (FT.): 1246.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -218.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 9.0             | 767.0              |
| -395.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 944.0              |
| -436.0                 | CARBONDALE | HERRIN        | COAL      | 4.0             | 985.0              |
| -538.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 5.0             | 1087.0             |
| -609.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1158.0             |
| -697.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1246.0             |

MAPID: 1590038000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 14W SECTION: 3 QUARTERS/FOOTAGES: NE SE NW

QUADRANGLE: CLAREMONT LONGITUDE: -87.957692 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.638988 DATE COLLECTED:

SURFACE ELEVATION (FT.): 461.0 LOGGED (FT.): 1276.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -299.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 18.0            | 760.0              |
| -470.0                 | CARBONDALE | DANVILLE      | COAL      | 2.5             | 931.0              |
| -540.0                 | CARBONDALE | HERRIN        | COAL      | 4.5             | 1001.0             |
| -624.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1085.0             |
| -713.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1174.0             |
| -815.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1276.0             |

MAPID: 15900307000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 2N 14W SECTION: 4 QUARTERS/FOOTAGES: SE SE NE

QUADRANGLE: CLAREMONT LONGITUDE: -87.967091

GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.637197

DATE COLLECTED: 0 / 0 / 1943

SURFACE ELEVATION (FT.): 439.0 LOGGED (FT.): 4390.0

LOG TYPE:

SOURCE: ASHLND ORC, FRDLY COMM0001

WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -286.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 725.0              |
| -461.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 900.0              |
| -531.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 970.0              |
| -626.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1065.0             |
| -821.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1260.0             |
| -1077.0                | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1516.0             |

MAPID: 15900720000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 14W SECTION: 4 QUARTERS/FOOTAGES: 460' S line, 330' E line

QUADRANGLE: CLAREMONT LONGITUDE: -87.967103

GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.630239

DATE COLLECTED:

SURFACE ELEVATION (FT.): 458.0 LOGGED (FT.): 1280.0

LOG TYPE: Electric Log

SOURCE:

WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -315.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 18.0            | 773.0              |
| -500.0                 | CARBONDALE | DANVILLE      | COAL      | 3.5             | 958.0              |
| -550.0                 | CARBONDALE | HERRIN        | COAL      | 4.0             | 1008.0             |
| -654.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.0             | 1112.0             |
| -714.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1172.0             |
| -822.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1280.0             |

MAPID: 15901135000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 14W SECTION: 4 QUARTERS/FOOTAGES: 660' N line, 330' E line of NW NW

QUADRANGLE: CLAREMONT LONGITUDE: -87.98116 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.64191 DATE COLLECTED:

SURFACE ELEVATION (FT.): 462.0 LOGGED (FT.): 1261.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -288.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 13.0            | 750.0              |
| -450.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 912.0              |
| -522.0                 | CARBONDALE | HERRIN        | COAL      | 4.5             | 984.0              |
| -604.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1066.0             |
| -699.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1161.0             |
| -799.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1261.0             |

MAPID: 15901137000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 14W SECTION: 4 QUARTERS/FOOTAGES: SE NW SW

QUADRANGLE: CLAREMONT LONGITUDE: -87.981246 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.633559 DATE COLLECTED:

SURFACE ELEVATION (FT.): 477.0 LOGGED (FT.): 1268.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -283.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 13.0            | 760.0              |
| -462.0                 | CARBONDALE | DANVILLE      | COAL      | 2.5             | 939.0              |
| -527.0                 | CARBONDALE | HERRIN        | COAL      | 4.0             | 1004.0             |
| -625.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 6.5             | 1102.0             |
| -692.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1169.0             |
| -791.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1268.0             |



MAPID: 15900721000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 14W SECTION: 5 QUARTERS/FOOTAGES: 330' N line, 660' E line of SE NE

QUADRANGLE: CLAREMONT LONGITUDE: -87.987048 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.639163 DATE COLLECTED:

SURFACE ELEVATION (FT.): 450.0 LOGGED (FT.): 1245.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -298.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 19.0            | 748.0              |
| -470.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 920.0              |
| -531.0                 | CARBONDALE | HERRIN        | COAL      | 4.0             | 981.0              |
| -627.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 6.5             | 1077.0             |
| -690.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1140.0             |
| -795.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1245.0             |

MAPID: 15901150000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 14W SECTION: 5 QUARTERS/FOOTAGES: NE SW SW

QUADRANGLE: OLNEY LONGITUDE: -88.00005 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.631929 DATE COLLECTED:

SURFACE ELEVATION (FT.): 508.0 LOGGED (FT.): 1330.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -293.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 801.0              |
| -472.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 980.0              |
| -536.0                 | CARBONDALE | HERRIN        | COAL      | 4.0             | 1044.0             |
| -619.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.5             | 1127.0             |
| -712.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1220.0             |
| -822.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1330.0             |

MAPID: 15901156000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 14W SECTION: 5 QUARTERS/FOOTAGES: NW NW SE  
 QUADRANGLE: CLAREMONT LONGITUDE: -87.992973 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.63551 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 483.0 LOGGED (FT.): 1289.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -286.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 18.0            | 769.0      |         |
| -467.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 950.0      |         |
| -524.0                 | CARBONDALE | HERRIN        | COAL      | 4.5             | 1007.0     |         |
| -607.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1090.0     |         |
| -693.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1176.0     |         |
| -806.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1289.0     |         |

MAPID: 15900395000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 14W SECTION: 6 QUARTERS/FOOTAGES: NE NE NW  
 QUADRANGLE: OLNEY LONGITUDE: -88.014826 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.643004 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 492.0 LOGGED (FT.): 1326.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -301.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 793.0      |         |
| -488.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 980.0      |         |
| -551.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1043.0     |         |
| -645.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 5.5             | 1137.0     |         |
| -714.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1206.0     |         |
| -834.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1326.0     |         |

MAPID: 15900722000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 14W SECTION: 6 QUARTERS/FOOTAGES: SE SE NE

QUADRANGLE: OLNEY LONGITUDE: -88.004771 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.637457 DATE COLLECTED:

SURFACE ELEVATION (FT.): 504.0 LOGGED (FT.): 1308.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: FAIR LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -291.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 16.0            | 795.0      |         |
| -477.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 981.0      |         |
| -520.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1024.0     |         |
| -606.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.5             | 1110.0     |         |
| -696.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1200.0     |         |
| -804.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1308.0     |         |

MAPID: 15900378000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 14W SECTION: 7 QUARTERS/FOOTAGES: SE SE NE

QUADRANGLE: WEST SALEM LONGITUDE: -88.004874 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.622811 DATE COLLECTED:

SURFACE ELEVATION (FT.): 556.0 LOGGED (FT.): 1388.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -298.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 854.0      |         |
| -482.0                 | CARBONDALE | DANVILLE      | COAL      | 3.5             | 1038.0     |         |
| -547.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1103.0     |         |
| -632.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1188.0     |         |
| -732.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1288.0     |         |
| -832.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1388.0     |         |

MAPID: 15901159000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 14W SECTION: 7 QUARTERS/FOOTAGES: NE NE NE

QUADRANGLE: OLNEY LONGITUDE: -88.00486 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.628333 DATE COLLECTED:

SURFACE ELEVATION (FT.): 557.0 LOGGED (FT.): 1380.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -296.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 17.0            | 853.0              |
| -475.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 1032.0             |
| -543.0                 | CARBONDALE | HERRIN        | COAL      | 5.0             | 1100.0             |
| -627.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1184.0             |
| -723.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1280.0             |
| -823.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1380.0             |

MAPID: 15901160000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 14W SECTION: 7 QUARTERS/FOOTAGES: NE SE SE

QUADRANGLE: WEST SALEM LONGITUDE: -88.004891 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.617289 DATE COLLECTED:

SURFACE ELEVATION (FT.): 563.0 LOGGED (FT.): 1376.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -290.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 17.0            | 853.0              |
| -479.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 1042.0             |
| -543.0                 | CARBONDALE | HERRIN        | COAL      | 5.0             | 1106.0             |
| -630.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 5.0             | 1193.0             |
| -708.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1271.0             |
| -813.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1376.0             |

MAPID: 15900018000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 2N 14W SECTION: 8 QUARTERS/FOOTAGES: SE NW SE

QUADRANGLE: BERRYVILLE LONGITUDE: -87.990687 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.618971 DATE COLLECTED: 0 / 0 / 1941

SURFACE ELEVATION (FT.): 492.0 LOGGED (FT.): 4920.0 LOG TYPE:

SOURCE: SNCLR WYOM, BOLEY R 0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|-------------|---------------|-----------|-----------------|------------|---------|
|                        |             |               |           | UNIT            | OVERBURDEN |         |
| -103.0                 | BOND        | CARTHAGE      | LIMESTONE | -               | 595.0      |         |
| -279.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 771.0      |         |
| -451.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 943.0      |         |
| -511.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1003.0     |         |
| -595.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1087.0     |         |
| -691.0                 | CARBONDALE  | HOUCHIN CREEK | COAL      | -               | 1183.0     |         |
| -1083.0                | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1575.0     |         |

MAPID: 15900019000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 2N 14W SECTION: 8 QUARTERS/FOOTAGES: 660' S line, 330' W line of SE NE

QUADRANGLE: BERRYVILLE LONGITUDE: -87.988352 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.623502 DATE COLLECTED: 0 / 0 / 1941

SURFACE ELEVATION (FT.): 494.0 LOGGED (FT.): 4940.0 LOG TYPE:

SOURCE: ARROW&TERR, BUNCH A 0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|-------------|---------------|-----------|-----------------|------------|---------|
|                        |             |               |           | UNIT            | OVERBURDEN |         |
| -272.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 766.0      |         |
| -446.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 940.0      |         |
| -503.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 997.0      |         |
| -590.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1084.0     |         |
| -674.0                 | CARBONDALE  | HOUCHIN CREEK | COAL      | -               | 1168.0     |         |
| -1082.0                | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1576.0     |         |

MAPID: 15900019000C VERSION: 2

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 14W SECTION: 8 QUARTERS/FOOTAGES: 660' S line, 330' W line of SE NE

QUADRANGLE: BERRYVILLE LONGITUDE: -87.988352 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.623502 DATE COLLECTED:

SURFACE ELEVATION (FT.): 494.0 LOGGED (FT.): 1276.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -265.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 16.0            | 759.0              |
| -444.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 938.0              |
| -502.0                 | CARBONDALE | HERRIN        | COAL      | 5.0             | 996.0              |
| -589.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.5             | 1083.0             |
| -675.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1169.0             |
| -782.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1276.0             |

MAPID: 15900020000C VERSION: 2

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 2N 14W SECTION: 8 QUARTERS/FOOTAGES: 660' N line, 360' W line of NE SE

QUADRANGLE: BERRYVILLE LONGITUDE: -87.988247 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.619856 DATE COLLECTED: 0 / 0 / 1941

SURFACE ELEVATION (FT.): 494.0 LOGGED (FT.): 4940.0 LOG TYPE:

SOURCE: SUN OC, CLDFLTR JL0001 WELL TYPE: Oil and Gas Test

COMMENT: THICKNESSES NOT ESTIMATED

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -264.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 758.0              |
| -494.0                 | CARBONDALE | HERRIN        | COAL      | -               | 988.0              |
| -576.0                 | CARBONDALE | SPRINGFIELD   | COAL      | -               | 1070.0             |

MAPID: 15900020000C VERSION: 3

PROJECT: CONTROL

COUNTY: RICHLAND TWP/RNG: 2N 14W SECTION: 8 QUARTERS/FOOTAGES: 660' N line, 360' W line of NE SE

QUADRANGLE: BERRYVILLE LONGITUDE: -87.988247 GEOLOGIST: HINES

CONFIDENTIAL: N LATITUDE: 38.619856 DATE COLLECTED:

SURFACE ELEVATION (FT.): LOGGED (FT.): 3276.0 LOG TYPE: Survey Sample Study

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

COMMENT: OILWELLS LOGGED BY COAL SECT-LOGS IN GRU

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

MAPID: 15900021000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 2N 14W SECTION: 8 QUARTERS/FOOTAGES: SE SW NE

QUADRANGLE: BERRYVILLE LONGITUDE: -87.99069 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.622627 DATE COLLECTED: 0 / 0 / 1941

SURFACE ELEVATION (FT.): 507.0 LOGGED (FT.): 5070.0 LOG TYPE:

SOURCE: CRAFT ETL, DAUBS M 0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -262.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 769.0              |
| -442.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 949.0              |
| -503.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1010.0             |
| -584.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1091.0             |
| -681.0                 | CARBONDALE  | HOUCHIN CREEK | COAL      | -               | 1188.0             |
| -1077.0                | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1584.0             |

MAPID: 15900022000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 2N 14W SECTION: 8 QUARTERS/FOOTAGES: SE NW SE

QUADRANGLE: BERRYVILLE LONGITUDE: -87.990687 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.618971 DATE COLLECTED: 0 / 0 / 1941

SURFACE ELEVATION (FT.): 492.0 LOGGED (FT.): 4920.0 LOG TYPE:

SOURCE: OHIO OIL, WHITAKER P0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -100.0                 | BOND        | CARTHAGE      | LIMESTONE | -               | 592.0              |
| -263.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 755.0              |
| -438.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 930.0              |
| -498.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 990.0              |
| -581.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1073.0             |
| -678.0                 | CARBONDALE  | HOUCHIN CREEK | COAL      | -               | 1170.0             |
| -1086.0                | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1578.0             |

MAPID: 15901162000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 14W SECTION: 8 QUARTERS/FOOTAGES: 330' N line, 660' W line of NE

QUADRANGLE: CLAREMONT LONGITUDE: -87.99189 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.628134 DATE COLLECTED:

SURFACE ELEVATION (FT.): 498.0 LOGGED (FT.): 1299.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -273.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 16.0            | 771.0              |
| -461.0                 | CARBONDALE | DANVILLE      | COAL      | 4.0             | 959.0              |
| -515.0                 | CARBONDALE | HERRIN        | COAL      | 4.0             | 1013.0             |
| -598.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 5.0             | 1096.0             |
| -692.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1190.0             |
| -801.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1299.0             |

MAPID: 15901166000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 14W SECTION: 8 QUARTERS/FOOTAGES: SW SE SE

QUADRANGLE: BERRYVILLE LONGITUDE: -87.988333 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.61529 DATE COLLECTED:

SURFACE ELEVATION (FT.): 479.0 LOGGED (FT.): 1262.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -258.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 16.0            | 737.0              |
| -442.0                 | CARBONDALE | DANVILLE      | COAL      | 4.0             | 921.0              |
| -501.0                 | CARBONDALE | HERRIN        | COAL      | -               | 980.0              |
| -582.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.5             | 1061.0             |
| -676.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1155.0             |
| -783.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1262.0             |



MAPID: 15900682000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 14W SECTION: 9 QUARTERS/FOOTAGES: SW SW NE

QUADRANGLE: BERRYVILLE LONGITUDE: -87.974221 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.622521 DATE COLLECTED:

SURFACE ELEVATION (FT.): 435.0 LOGGED (FT.): 1238.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -283.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 718.0              |
| -466.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 901.0              |
| -521.0                 | CARBONDALE | HERRIN        | COAL      | 4.0             | 956.0              |
| -606.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1041.0             |
| -694.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1129.0             |
| -803.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1238.0             |

MAPID: 15901183000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 14W SECTION: 9 QUARTERS/FOOTAGES: SW NW SW

QUADRANGLE: BERRYVILLE LONGITUDE: -87.983632 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.618893 DATE COLLECTED:

SURFACE ELEVATION (FT.): 480.0 LOGGED (FT.): 1274.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -271.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 751.0              |
| -452.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 932.0              |
| -511.0                 | CARBONDALE | HERRIN        | COAL      | -               | 991.0              |
| -595.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1075.0             |
| -682.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1162.0             |
| -794.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1274.0             |

MAPID: 15901184000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 14W SECTION: 9 QUARTERS/FOOTAGES: NE NE SE

QUADRANGLE: BERRYVILLE LONGITUDE: -87.967169 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.620656 DATE COLLECTED:

SURFACE ELEVATION (FT.): 451.0 LOGGED (FT.): 1269.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -296.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 747.0              |
| -497.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 948.0              |
| -536.0                 | CARBONDALE | HERRIN        | COAL      | 5.0             | 987.0              |
| -630.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 5.5             | 1081.0             |
| -705.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1156.0             |
| -818.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1269.0             |

MAPID: 15900724000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 14W SECTION: 10 QUARTERS/FOOTAGES: SW SW SE

QUADRANGLE: BERRYVILLE LONGITUDE: -87.955516 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.615122 DATE COLLECTED:

SURFACE ELEVATION (FT.): 456.0 LOGGED (FT.): 1252.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -164.0                 | BOND       | CARTHAGE      | LIMESTONE | 7.0             | 620.0              |
| -287.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 16.0            | 743.0              |
| -487.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 943.0              |
| -526.0                 | CARBONDALE | HERRIN        | COAL      | -               | 982.0              |
| -626.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 6.5             | 1082.0             |
| -688.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1144.0             |
| -796.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1252.0             |

MAPID: 15901188000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 14W SECTION: 10 QUARTERS/FOOTAGES: NW NW SW  
 QUADRANGLE: BERRYVILLE LONGITUDE: -87.964825 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.620652 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 440.0 LOGGED (FT.): 1255.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -298.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 738.0              |
| -492.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 932.0              |
| -544.0                 | CARBONDALE | HERRIN        | COAL      | 4.5             | 984.0              |
| -642.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 6.5             | 1082.0             |
| -705.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1145.0             |
| -815.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1255.0             |

MAPID: 15900023000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 2N 14W SECTION: 13 QUARTERS/FOOTAGES: 660' S line, 330' W line of NE SE  
 QUADRANGLE: BERRYVILLE LONGITUDE: -87.91335 GEOLOGIST: SIEVER  
 CONFIDENTIAL: N LATITUDE: 38.604887 DATE COLLECTED: 0 / 0 / 1941  
 SURFACE ELEVATION (FT.): 520.0 LOGGED (FT.): 5200.0 LOG TYPE:  
 SOURCE: SEABOARD, WETZEL H 0001 WELL TYPE: Oil and Gas Test  
 COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| 24.0                   | BOND        | CARTHAGE      | LIMESTONE | -               | 496.0              |
| -174.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 694.0              |
| -348.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 868.0              |
| -383.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 903.0              |
| -500.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1020.0             |
| -560.0                 | CARBONDALE  | HOUCHIN CREEK | COAL      | -               | 1080.0             |
| -901.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1421.0             |

MAPID: 15900023000C    VERSION: 2

PROJECT: CGT-ECILL

COUNTY: RICHLAND    TWP/RNG: 2N 14W    SECTION: 13    QUARTERS/FOOTAGES: 660' S line, 330' W line of NE SE

QUADRANGLE: BERRYVILLE    LONGITUDE: -87.91335    GEOLOGIST: C TREWORY

CONFIDENTIAL: N    LATITUDE: 38.604887    DATE COLLECTED:

SURFACE ELEVATION (FT.): 520.0    LOGGED (FT.): 1080.0    LOG TYPE: Electric Log

SOURCE:    WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| 25.0                   | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 495.0              |
| -175.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 5.0             | 695.0              |
| -347.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 867.0              |
| -497.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 6.0             | 1017.0             |
| -560.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1080.0             |

MAPID: 15900690000C    VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND    TWP/RNG: 2N 14W    SECTION: 13    QUARTERS/FOOTAGES: 374' N line, 345' W line

QUADRANGLE: BERRYVILLE    LONGITUDE: -87.927328    GEOLOGIST: C TREWORY

CONFIDENTIAL: N    LATITUDE: 38.61313    DATE COLLECTED:

SURFACE ELEVATION (FT.): 511.0    LOGGED (FT.): 1269.0    LOG TYPE: Electric Log

SOURCE:    WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -244.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 755.0              |
| -429.0                 | CARBONDALE | DANVILLE      | COAL      | 2.5             | 940.0              |
| -471.0                 | CARBONDALE | HERRIN        | COAL      | 4.0             | 982.0              |
| -576.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 6.0             | 1087.0             |
| -637.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1148.0             |
| -758.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1269.0             |

MAPID: 15900390000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 14W SECTION: 14 QUARTERS/FOOTAGES: SE SW SE

QUADRANGLE: BERRYVILLE LONGITUDE: -87.934515 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.600399 DATE COLLECTED:

SURFACE ELEVATION (FT.): 492.0 LOGGED (FT.): 1217.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -200.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 12.0            | 692.0      |         |
| -366.0                 | CARBONDALE | DANVILLE      | COAL      | 2.5             | 858.0      |         |
| -438.0                 | CARBONDALE | HERRIN        | COAL      | -               | 930.0      |         |
| -534.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 5.0             | 1026.0     |         |
| -592.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1084.0     |         |
| -725.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1217.0     |         |

MAPID: 15900392000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 14W SECTION: 15 QUARTERS/FOOTAGES: SW SW SW

QUADRANGLE: BERRYVILLE LONGITUDE: -87.964876 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.600438 DATE COLLECTED:

SURFACE ELEVATION (FT.): 427.0 LOGGED (FT.): 1218.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -270.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 697.0      |         |
| -447.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 874.0      |         |
| -507.0                 | CARBONDALE | HERRIN        | COAL      | -               | 934.0      |         |
| -591.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1018.0     |         |
| -676.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1103.0     |         |
| -791.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1218.0     |         |

MAPID: 15900574000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 14W SECTION: 15 QUARTERS/FOOTAGES: NE NE NW  
 QUADRANGLE: BERRYVILLE LONGITUDE: -87.957861 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.613281 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 446.0 LOGGED (FT.): 1242.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -284.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 730.0      |         |
| -475.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 921.0      |         |
| -515.0                 | CARBONDALE | HERRIN        | COAL      | 4.0             | 961.0      |         |
| -598.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.5             | 1044.0     |         |
| -692.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1138.0     |         |
| -796.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1242.0     |         |

MAPID: 15901191000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 14W SECTION: 15 QUARTERS/FOOTAGES: NW NE SW  
 QUADRANGLE: BERRYVILLE LONGITUDE: -87.960215 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.605943 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 428.0 LOGGED (FT.): 1225.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -279.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 707.0      |         |
| -470.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 898.0      |         |
| -515.0                 | CARBONDALE | HERRIN        | COAL      | 5.0             | 943.0      |         |
| -599.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.5             | 1027.0     |         |
| -691.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1119.0     |         |
| -797.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1225.0     |         |

MAPID: 15900024000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 2N 14W SECTION: 16 QUARTERS/FOOTAGES: 660' S line, 330' E line of NW NW  
 QUADRANGLE: BERRYVILLE LONGITUDE: -87.98128 GEOLOGIST: SIEVER  
 CONFIDENTIAL: N LATITUDE: 38.61247 DATE COLLECTED: 0 / 0 / 1941  
 SURFACE ELEVATION (FT.): 473.0 LOGGED (FT.): 4730.0 LOG TYPE:  
 SOURCE: DUNCNW ETL, BIERHAUS W0001 WELL TYPE: Oil and Gas Test  
 COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -277.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 750.0              |
| -460.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 933.0              |
| -510.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 983.0              |
| -591.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1064.0             |
| -681.0                 | CARBONDALE  | HOUCHIN CREEK | COAL      | -               | 1154.0             |
| -1095.0                | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1568.0             |

MAPID: 15900024000C VERSION: 2

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 14W SECTION: 16 QUARTERS/FOOTAGES: 660' S line, 330' E line of NW NW  
 QUADRANGLE: BERRYVILLE LONGITUDE: -87.98128 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.61247 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 473.0 LOGGED (FT.): 1265.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -270.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 16.0            | 743.0              |
| -458.0                 | CARBONDALE | DANVILLE      | COAL      | 3.5             | 931.0              |
| -507.0                 | CARBONDALE | HERRIN        | COAL      | 4.5             | 980.0              |
| -590.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.5             | 1063.0             |
| -681.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1154.0             |
| -792.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1265.0             |

MAPID: 15900320000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 2N 14W SECTION: 16 QUARTERS/FOOTAGES: SW SW SW

QUADRANGLE: BERRYVILLE LONGITUDE: -87.983739 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.600593 DATE COLLECTED: 0 / 0 / 1945

SURFACE ELEVATION (FT.): 488.0 LOGGED (FT.): 4880.0 LOG TYPE:

SOURCE: JOHNSTON R, HUNDLEY J 0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -277.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 765.0              |
| -466.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 954.0              |
| -514.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1002.0             |
| -615.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1103.0             |
| -819.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1307.0             |
| -1082.0                | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1570.0             |

MAPID: 15901197000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 14W SECTION: 16 QUARTERS/FOOTAGES: SE SW NE

QUADRANGLE: BERRYVILLE LONGITUDE: -87.971917 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.607818 DATE COLLECTED:

SURFACE ELEVATION (FT.): 438.0 LOGGED (FT.): 1254.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -302.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 740.0              |
| -497.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 935.0              |
| -541.0                 | CARBONDALE | HERRIN        | COAL      | 4.5             | 979.0              |
| -633.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1071.0             |
| -706.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1144.0             |
| -816.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1254.0             |



MAPID: 15900008000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 2N 14W SECTION: 17 QUARTERS/FOOTAGES: SE NW SE

QUADRANGLE: BERRYVILLE LONGITUDE: -87.990768 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.604335 DATE COLLECTED: 0 / 0 / 1943

SURFACE ELEVATION (FT.): 490.0 LOGGED (FT.): 4900.0 LOG TYPE:

SOURCE: LVNGSTN A, HOLTZ B H 0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -264.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 754.0              |
| -448.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 938.0              |
| -598.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 1.5             | 1088.0             |
| -700.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1190.0             |

MAPID: 15900025000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 2N 14W SECTION: 17 QUARTERS/FOOTAGES: SW SE NW

QUADRANGLE: BERRYVILLE LONGITUDE: -87.997797 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.608071 DATE COLLECTED: 0 / 0 / 1941

SURFACE ELEVATION (FT.): 496.0 LOGGED (FT.): 4960.0 LOG TYPE:

SOURCE: OHIO OIL, LAMBERT M 0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -260.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 756.0              |
| -437.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 933.0              |
| -500.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 996.0              |
| -584.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1080.0             |
| -683.0                 | CARBONDALE  | HOUCHIN CREEK | COAL      | -               | 1179.0             |
| -1078.0                | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1574.0             |

MAPID: 15900026000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 2N 14W SECTION: 17 QUARTERS/FOOTAGES: SE SE SW

QUADRANGLE: BERRYVILLE LONGITUDE: -87.995496

GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.60073

DATE COLLECTED: 0 / 0 / 1942

SURFACE ELEVATION (FT.): 501.0 LOGGED (FT.): 5010.0

LOG TYPE:

SOURCE: SIEGEL I W, WEESNER E 0001

WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -252.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 753.0              |
| -429.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 930.0              |
| -494.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 995.0              |
| -586.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1087.0             |
| -676.0                 | CARBONDALE  | HOUCHIN CREEK | COAL      | -               | 1177.0             |
| -1071.0                | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1572.0             |

MAPID: 15900329000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 2N 14W SECTION: 17 QUARTERS/FOOTAGES: NE SE SE

QUADRANGLE: BERRYVILLE LONGITUDE: -87.986079

GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.602449

DATE COLLECTED: 0 / 0 / 1945

SURFACE ELEVATION (FT.): 496.0 LOGGED (FT.): 4960.0

LOG TYPE:

SOURCE: JOHNSTON R, RIDGLEY 0003

WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -84.0                  | BOND        | CARTHAGE      | LIMESTONE | -               | 580.0              |
| -275.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 771.0              |
| -469.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 965.0              |
| -520.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1016.0             |
| -608.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1104.0             |
| -804.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1300.0             |
| -1064.0                | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1560.0             |

MAPID: 15902630000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 14W SECTION: 17 QUARTERS/FOOTAGES: SE SE NW

QUADRANGLE: BERRYVILLE LONGITUDE: -87.995443 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.608046 DATE COLLECTED:

SURFACE ELEVATION (FT.): 502.0 LOGGED (FT.): 1285.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -252.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 754.0      |         |
| -434.0                 | CARBONDALE | DANVILLE      | COAL      | 2.5             | 936.0      |         |
| -579.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1081.0     |         |
| -678.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1180.0     |         |
| -783.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1285.0     |         |

MAPID: 15923733000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 14W SECTION: 17 QUARTERS/FOOTAGES: SE SW SE

QUADRANGLE: BERRYVILLE LONGITUDE: -87.990796 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.600674 DATE COLLECTED:

SURFACE ELEVATION (FT.): 496.0 LOGGED (FT.): 1300.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -266.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 762.0      |         |
| -454.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 950.0      |         |
| -514.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1010.0     |         |
| -604.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.5             | 1100.0     |         |
| -700.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1196.0     |         |
| -804.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1300.0     |         |

MAPID: 15900373000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 14W SECTION: 18 QUARTERS/FOOTAGES: SE SW NE  
 QUADRANGLE: WEST SALEM LONGITUDE: -88.009967 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.60814 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 540.0 LOGGED (FT.): 1356.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -276.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 816.0      |         |
| -464.0                 | CARBONDALE | DANVILLE      | COAL      | 2.5             | 1004.0     |         |
| -530.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1070.0     |         |
| -615.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 5.0             | 1155.0     |         |
| -712.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1252.0     |         |
| -816.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1356.0     |         |

MAPID: 15901239000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 14W SECTION: 18 QUARTERS/FOOTAGES: 360' N line, 330' E line of SE  
 QUADRANGLE: WEST SALEM LONGITUDE: -88.004852 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.60623 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 529.0 LOGGED (FT.): 1348.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -82.0                  | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 611.0      |         |
| -285.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 814.0      |         |
| -476.0                 | CARBONDALE | DANVILLE      | COAL      | 3.5             | 1005.0     |         |
| -545.0                 | CARBONDALE | HERRIN        | COAL      | 5.0             | 1074.0     |         |
| -645.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 5.0             | 1174.0     |         |
| -728.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1257.0     |         |
| -819.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1348.0     |         |

MAPID: 15901241000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 14W SECTION: 18 QUARTERS/FOOTAGES: SW SE SE  
 QUADRANGLE: WEST SALEM LONGITUDE: -88.007488 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.600841 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 512.0 LOGGED (FT.): 1342.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -279.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 13.0            | 791.0      |         |
| -467.0                 | CARBONDALE | DANVILLE      | COAL      | 2.5             | 979.0      |         |
| -534.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1046.0     |         |
| -619.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1131.0     |         |
| -723.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1235.0     |         |
| -830.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1342.0     |         |

MAPID: 15901244000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 14W SECTION: 19 QUARTERS/FOOTAGES: SW SE SE  
 QUADRANGLE: WEST SALEM LONGITUDE: -88.007554 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.586075 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 497.0 LOGGED (FT.): 1285.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -258.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 755.0      |         |
| -445.0                 | CARBONDALE | DANVILLE      | COAL      | 2.5             | 942.0      |         |
| -583.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.5             | 1080.0     |         |
| -688.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1185.0     |         |
| -788.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1285.0     |         |

MAPID: 15901247000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 14W SECTION: 19 QUARTERS/FOOTAGES: NE NW SE  
 QUADRANGLE: WEST SALEM LONGITUDE: -88.010059 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.591646 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 495.0 LOGGED (FT.): 1298.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -270.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 765.0      |         |
| -454.0                 | CARBONDALE | DANVILLE      | COAL      | 2.5             | 949.0      |         |
| -513.0                 | CARBONDALE | HERRIN        | COAL      | 5.0             | 1008.0     |         |
| -596.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.0             | 1091.0     |         |
| -694.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1189.0     |         |
| -803.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1298.0     |         |

MAPID: 15901248000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 14W SECTION: 19 QUARTERS/FOOTAGES: 330' S line, 660' E line of NE NE  
 QUADRANGLE: WEST SALEM LONGITUDE: -88.006059 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.597153 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 507.0 LOGGED (FT.): 1308.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -268.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 13.0            | 775.0      |         |
| -449.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 956.0      |         |
| -520.0                 | CARBONDALE | HERRIN        | COAL      | 5.0             | 1027.0     |         |
| -607.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.5             | 1114.0     |         |
| -716.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1223.0     |         |
| -801.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1308.0     |         |

MAPID: 15900027000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 2N 14W SECTION: 20 QUARTERS/FOOTAGES: SW NW SE

QUADRANGLE: BERRYVILLE LONGITUDE: -87.993229 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.589587 DATE COLLECTED: 0 / 0 / 1941

SURFACE ELEVATION (FT.): 494.0 LOGGED (FT.): 4940.0 LOG TYPE:

SOURCE: OHIO OIL, HULL G G 0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -264.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 758.0              |
| -441.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 935.0              |
| -504.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 998.0              |
| -599.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1093.0             |
| -689.0                 | CARBONDALE  | HOUCHIN CREEK | COAL      | -               | 1183.0             |
| -1081.0                | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1575.0             |

MAPID: 15900028000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 2N 14W SECTION: 20 QUARTERS/FOOTAGES: SE NW SW

QUADRANGLE: WEST SALEM LONGITUDE: -88.000245 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.5897 DATE COLLECTED: 0 / 0 / 1941

SURFACE ELEVATION (FT.): 494.0 LOGGED (FT.): 4940.0 LOG TYPE:

SOURCE: OHIO OIL, WALDEN M 0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -260.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 754.0              |
| -434.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 928.0              |
| -492.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 986.0              |
| -580.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1074.0             |
| -1098.0                | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1592.0             |

MAPID: 15900216000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 2N 14W SECTION: 20 QUARTERS/FOOTAGES: NW SE NE

QUADRANGLE: BERRYVILLE LONGITUDE: -87.988497 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.595086 DATE COLLECTED: 0 / 0 / 1943

SURFACE ELEVATION (FT.): 476.0 LOGGED (FT.): 4760.0 LOG TYPE:

SOURCE: OHIO OIL, CHILDS C 0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -274.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 750.0              |
| -450.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 926.0              |
| -520.0                 | CARBONDALE | HERRIN        | COAL      | -               | 996.0              |
| -608.0                 | CARBONDALE | SPRINGFIELD   | COAL      | -               | 1084.0             |
| -684.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1160.0             |

MAPID: 15900328000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 2N 14W SECTION: 20 QUARTERS/FOOTAGES: NE SE SW

QUADRANGLE: BERRYVILLE LONGITUDE: -87.995582 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.587773 DATE COLLECTED: 0 / 0 / 1945

SURFACE ELEVATION (FT.): 484.0 LOGGED (FT.): 4840.0 LOG TYPE:

SOURCE: BRDIGE F A, HILL W P 0003 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -253.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 737.0              |
| -439.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 923.0              |
| -504.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 988.0              |
| -587.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1071.0             |
| -800.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1284.0             |
| -1089.0                | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1573.0             |



MAPID: 1590125000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 14W SECTION: 20 QUARTERS/FOOTAGES: SW SW NW  
 QUADRANGLE: WEST SALEM LONGITUDE: -88.002573 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.593433 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 501.0 LOGGED (FT.): 1294.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -258.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 759.0      |         |
| -442.0                 | CARBONDALE | DANVILLE      | COAL      | 2.5             | 943.0      |         |
| -506.0                 | CARBONDALE | HERRIN        | COAL      | 4.5             | 1007.0     |         |
| -592.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.0             | 1093.0     |         |
| -680.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1181.0     |         |
| -793.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1294.0     |         |

MAPID: 15901252000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 14W SECTION: 20 QUARTERS/FOOTAGES: NW NW SE  
 QUADRANGLE: BERRYVILLE LONGITUDE: -87.993215 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.591442 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 471.0 LOGGED (FT.): 1264.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -260.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 731.0      |         |
| -446.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 917.0      |         |
| -507.0                 | CARBONDALE | HERRIN        | COAL      | -               | 978.0      |         |
| -594.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1065.0     |         |
| -679.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1150.0     |         |
| -793.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1264.0     |         |

**MAPID:** 15900029000C    **VERSION:** 1    **PROJECT:** RI 148  
**COUNTY:** RICHLAND    **TWP/RNG:** 2N 14W    **SECTION:** 21    **QUARTERS/FOOTAGES:** SW NW SE  
**QUADRANGLE:** BERRYVILLE    **LONGITUDE:** -87.974426    **GEOLOGIST:** SIEVER  
**CONFIDENTIAL:** N    **LATITUDE:** 38.589407    **DATE COLLECTED:** 0 / 0 / 1942  
**SURFACE ELEVATION (FT.):** 462.0    **LOGGED (FT.):** 4620.0    **LOG TYPE:**  
**SOURCE:** LONGHRN OC, AHLFIELD L0001    **WELL TYPE:** Oil and Gas Test  
**COMMENT:**

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|-------------|---------------|-----------|-----------------|------------|---------|
|                        |             |               |           | UNIT            | OVERBURDEN |         |
| -259.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 721.0      |         |
| -446.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 908.0      |         |
| -509.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 971.0      |         |
| -605.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1067.0     |         |
| -1061.0                | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1523.0     |         |

**MAPID:** 15900030000C    **VERSION:** 1    **PROJECT:** RI 148  
**COUNTY:** RICHLAND    **TWP/RNG:** 2N 14W    **SECTION:** 21    **QUARTERS/FOOTAGES:** NE SE SE  
**QUADRANGLE:** BERRYVILLE    **LONGITUDE:** -87.96737    **GEOLOGIST:** SIEVER  
**CONFIDENTIAL:** N    **LATITUDE:** 38.587524    **DATE COLLECTED:** 0 / 0 / 1941  
**SURFACE ELEVATION (FT.):** 436.0    **LOGGED (FT.):** 4360.0    **LOG TYPE:**  
**SOURCE:** BONPAS DEV, WOODS J 0001    **WELL TYPE:** Oil and Gas Test  
**COMMENT:**

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|-------------|---------------|-----------|-----------------|------------|---------|
|                        |             |               |           | UNIT            | OVERBURDEN |         |
| -254.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 690.0      |         |
| -438.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 874.0      |         |
| -501.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 937.0      |         |
| -1062.0                | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1498.0     |         |

**MAPID:** 15900031000C    **VERSION:** 1    **PROJECT:** RI 148  
**COUNTY:** RICHLAND    **TWP/RNG:** 2N 14W    **SECTION:** 21    **QUARTERS/FOOTAGES:** SW SW SE  
**QUADRANGLE:** BERRYVILLE    **LONGITUDE:** -87.97447    **GEOLOGIST:** SIEVER  
**CONFIDENTIAL:** N    **LATITUDE:** 38.585702    **DATE COLLECTED:** 0 / 0 / 1942  
**SURFACE ELEVATION (FT.):** 465.0    **LOGGED (FT.):** 4650.0    **LOG TYPE:**  
**SOURCE:** BONPAS DEV, WOODS J 0002    **WELL TYPE:** Oil and Gas Test  
**COMMENT:**

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -246.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 711.0      |         |
| -489.0                 | CARBONDALE | HERRIN        | COAL      | -               | 954.0      |         |
| -569.0                 | CARBONDALE | SPRINGFIELD   | COAL      | -               | 1034.0     |         |

**MAPID:** 15900032000C    **VERSION:** 1    **PROJECT:** RI 148  
**COUNTY:** RICHLAND    **TWP/RNG:** 2N 14W    **SECTION:** 21    **QUARTERS/FOOTAGES:** SW SE SE  
**QUADRANGLE:** BERRYVILLE    **LONGITUDE:** -87.969753    **GEOLOGIST:** SIEVER  
**CONFIDENTIAL:** N    **LATITUDE:** 38.585687    **DATE COLLECTED:** 0 / 0 / 1942  
**SURFACE ELEVATION (FT.):** 444.0    **LOGGED (FT.):** 4440.0    **LOG TYPE:**  
**SOURCE:** BONPAS DEV, WOODS J 0003    **WELL TYPE:** Oil and Gas Test  
**COMMENT:**

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -251.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 695.0              |
| -494.0                 | CARBONDALE | HERRIN        | COAL      | -               | 938.0              |
| -574.0                 | CARBONDALE | SPRINGFIELD   | COAL      | -               | 1018.0             |

**MAPID:** 15900033000C    **VERSION:** 1    **PROJECT:** RI 148  
**COUNTY:** RICHLAND    **TWP/RNG:** 2N 14W    **SECTION:** 21    **QUARTERS/FOOTAGES:** SE SE SW  
**QUADRANGLE:** BERRYVILLE    **LONGITUDE:** -87.97683    **GEOLOGIST:** SIEVER  
**CONFIDENTIAL:** N    **LATITUDE:** 38.585708    **DATE COLLECTED:** 0 / 0 / 1942  
**SURFACE ELEVATION (FT.):** 456.0    **LOGGED (FT.):** 4560.0    **LOG TYPE:**  
**SOURCE:** CENTRLPIPE, YONKA WLTR0001    **WELL TYPE:** Oil and Gas Test  
**COMMENT:**

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -256.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 712.0              |
| -442.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 898.0              |
| -510.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 966.0              |
| -582.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1038.0             |
| -667.0                 | CARBONDALE  | HOUCHIN CREEK | COAL      | -               | 1123.0             |
| -1054.0                | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1510.0             |

**MAPID:** 15900303000C    **VERSION:** 1    **PROJECT:** RI 148  
**COUNTY:** RICHLAND    **TWP/RNG:** 2N 14W    **SECTION:** 21    **QUARTERS/FOOTAGES:** SW NE SE  
**QUADRANGLE:** BERRYVILLE    **LONGITUDE:** -87.969705    **GEOLOGIST:** SIEVER  
**CONFIDENTIAL:** N    **LATITUDE:** 38.589383    **DATE COLLECTED:** 0 / 0 / 1942  
**SURFACE ELEVATION (FT.):** 439.0    **LOGGED (FT.):** 4390.0    **LOG TYPE:**  
**SOURCE:** BONPAS DEV, AHLFIELD 0001    **WELL TYPE:** Oil and Gas Test  
**COMMENT:**

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -251.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 690.0              |
| -446.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 885.0              |
| -531.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 970.0              |
| -601.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1040.0             |
| -801.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1240.0             |
| -1073.0                | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1512.0             |

**MAPID:** 15900912000C    **VERSION:** 1    **PROJECT:** CGT-ECILL  
**COUNTY:** RICHLAND    **TWP/RNG:** 2N 14W    **SECTION:** 21    **QUARTERS/FOOTAGES:** NW SW SW  
**QUADRANGLE:** BERRYVILLE    **LONGITUDE:** -87.983886    **GEOLOGIST:** C TREWORY  
**CONFIDENTIAL:** N    **LATITUDE:** 38.587593    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 464.0    **LOGGED (FT.):** 1260.0    **LOG TYPE:** Electric Log  
**SOURCE:**    **WELL TYPE:** Oil and Gas Test  
**COMMENT:** FAIR LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -264.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 728.0              |
| -456.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 920.0              |
| -516.0                 | CARBONDALE | HERRIN        | COAL      | -               | 980.0              |
| -606.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.5             | 1070.0             |
| -796.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1260.0             |

**MAPID:** 15901267000C    **VERSION:** 1    **PROJECT:** CGT-ECILL  
**COUNTY:** RICHLAND    **TWP/RNG:** 2N 14W    **SECTION:** 21    **QUARTERS/FOOTAGES:** NE NW SE  
**QUADRANGLE:** BERRYVILLE    **LONGITUDE:** -87.972043    **GEOLOGIST:** C TREWORY  
**CONFIDENTIAL:** N    **LATITUDE:** 38.591245    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 443.0    **LOGGED (FT.):** 1230.0    **LOG TYPE:** Electric Log  
**SOURCE:**    **WELL TYPE:** Oil and Gas Test  
**COMMENT:** GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -257.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 13.0            | 700.0              |
| -444.0                 | CARBONDALE | DANVILLE      | COAL      | 2.5             | 887.0              |
| -508.0                 | CARBONDALE | HERRIN        | COAL      | 3.5             | 951.0              |
| -600.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 5.5             | 1043.0             |
| -663.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1106.0             |
| -787.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1230.0             |

**MAPID:** 15900200000C    **VERSION:** 1    **PROJECT:** RI 148  
**COUNTY:** RICHLAND    **TWP/RNG:** 2N 14W    **SECTION:** 22    **QUARTERS/FOOTAGES:** NW SE SW  
**QUADRANGLE:** BERRYVILLE    **LONGITUDE:** -87.960359    **GEOLOGIST:** SIEVER  
**CONFIDENTIAL:** N    **LATITUDE:** 38.587525    **DATE COLLECTED:** 0 / 0 / 1939  
**SURFACE ELEVATION (FT.):** 410.0    **LOGGED (FT.):** 4100.0    **LOG TYPE:**  
**SOURCE:** LETHRS ETL, YONAKA A 0001    **WELL TYPE:** Oil and Gas Test  
**COMMENT:**

| ELEVATION<br>TOP (FT.) | FORMATION | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-----------|---------------|-----------|-----------------|--------------------|
|                        |           |               |           | UNIT            | OVERBURDEN COMMENT |
| -280.0                 | MODESTO   | WEST FRANKLIN | LIMESTONE | -               | 690.0              |

MAPID: 15900302000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 2N 14W SECTION: 22 QUARTERS/FOOTAGES: SE NE NW

QUADRANGLE: BERRYVILLE LONGITUDE: -87.957936 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.596757 DATE COLLECTED: 0 / 0 / 1943

SURFACE ELEVATION (FT.): 426.0 LOGGED (FT.): 4260.0 LOG TYPE:

SOURCE: FUNK L, TARPLEY 0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -259.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 685.0              |
| -436.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 862.0              |
| -501.0                 | CARBONDALE | HERRIN        | COAL      | -               | 927.0              |
| -586.0                 | CARBONDALE | SPRINGFIELD   | COAL      | -               | 1012.0             |
| -788.0                 | SPOON      | PALZO         | SANDSTONE | -               | 1214.0             |

MAPID: 15901279000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 14W SECTION: 22 QUARTERS/FOOTAGES: 660' N line, 330' W line

QUADRANGLE: BERRYVILLE LONGITUDE: -87.9649 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.5977 DATE COLLECTED:

SURFACE ELEVATION (FT.): 426.0 LOGGED (FT.): 1210.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -262.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 688.0              |
| -444.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 870.0              |
| -510.0                 | CARBONDALE | HERRIN        | COAL      | 2.5             | 936.0              |
| -596.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1022.0             |
| -664.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1090.0             |
| -784.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1210.0             |

MAPID: 1590128000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 14W SECTION: 22 QUARTERS/FOOTAGES: NW SE SE  
 QUADRANGLE: BERRYVILLE LONGITUDE: -87.951033 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.587533 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 425.0 LOGGED (FT.): 1194.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -251.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 12.0            | 676.0              |
| -443.0                 | CARBONDALE | DANVILLE      | COAL      | 2.5             | 868.0              |
| -504.0                 | CARBONDALE | HERRIN        | COAL      | 4.5             | 929.0              |
| -598.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 7.0             | 1023.0             |
| -657.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1082.0             |
| -769.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1194.0             |

MAPID: 15900371000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 14W SECTION: 24 QUARTERS/FOOTAGES: SW SW SE  
 QUADRANGLE: BERRYVILLE LONGITUDE: -87.918153 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.585531 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 452.0 LOGGED (FT.): 992.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| 47.0                   | BOND       | CARTHAGE      | LIMESTONE | 7.0             | 405.0              |
| -156.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 9.0             | 608.0              |
| -332.0                 | CARBONDALE | DANVILLE      | COAL      | 3.5             | 784.0              |
| -373.0                 | CARBONDALE | HERRIN        | COAL      | -               | 825.0              |
| -461.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.5             | 913.0              |
| -540.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 992.0              |

**MAPID:** 15900370000C    **VERSION:** 1    **PROJECT:** CGT-ECILL  
**COUNTY:** RICHLAND    **TWP/RNG:** 2N 14W    **SECTION:** 25    **QUARTERS/FOOTAGES:** NW NW SE  
**QUADRANGLE:** BERRYVILLE    **LONGITUDE:** -87.918339    **GEOLOGIST:** C TREWORY  
**CONFIDENTIAL:** N    **LATITUDE:** 38.576342    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 461.0    **LOGGED (FT.):** 1006.0    **LOG TYPE:** Electric Log  
**SOURCE:**    **WELL TYPE:** Oil and Gas Test  
**COMMENT:** FAIR LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -145.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 606.0      |         |
| -335.0                 | CARBONDALE | DANVILLE      | COAL      | 3.5             | 796.0      |         |
| -375.0                 | CARBONDALE | HERRIN        | COAL      | 4.0             | 836.0      |         |
| -460.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.5             | 921.0      |         |
| -545.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1006.0     |         |

**MAPID:** 15900389000C    **VERSION:** 1    **PROJECT:** CGT-ECILL  
**COUNTY:** RICHLAND    **TWP/RNG:** 2N 14W    **SECTION:** 25    **QUARTERS/FOOTAGES:** SE SW SW  
**QUADRANGLE:** BERRYVILLE    **LONGITUDE:** -87.925428    **GEOLOGIST:** C TREWORY  
**CONFIDENTIAL:** N    **LATITUDE:** 38.570874    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 450.0    **LOGGED (FT.):** 958.0    **LOG TYPE:** Electric Log  
**SOURCE:**    **WELL TYPE:** Oil and Gas Test  
**COMMENT:** GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -165.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 6.0             | 615.0      |         |
| -362.0                 | CARBONDALE | DANVILLE      | COAL      | 3.5             | 812.0      |         |
| -401.0                 | CARBONDALE | HERRIN        | COAL      | 4.0             | 851.0      |         |
| -502.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 6.0             | 952.0      |         |

**MAPID:** 15900388000C    **VERSION:** 1    **PROJECT:** CGT-ECILL  
**COUNTY:** RICHLAND    **TWP/RNG:** 2N 14W    **SECTION:** 26    **QUARTERS/FOOTAGES:** NW NW NE  
**QUADRANGLE:** BERRYVILLE    **LONGITUDE:** -87.93696    **GEOLOGIST:** C TREWORY  
**CONFIDENTIAL:** N    **LATITUDE:** 38.583765    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 459.0    **LOGGED (FT.):** 1062.0    **LOG TYPE:** Electric Log  
**SOURCE:**    **WELL TYPE:** Oil and Gas Test  
**COMMENT:** GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -197.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 13.0            | 656.0      |         |
| -375.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 834.0      |         |
| -440.0                 | CARBONDALE | HERRIN        | COAL      | 3.0             | 899.0      |         |
| -521.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.0             | 980.0      |         |
| -603.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1062.0     |         |

MAPID: 15900034000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 2N 14W SECTION: 28 QUARTERS/FOOTAGES: 660' N line, 330' W line of NE

QUADRANGLE: BERRYVILLE LONGITUDE: -87.974518 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.582952 DATE COLLECTED: 0 / 0 / 1942

SURFACE ELEVATION (FT.): 448.0 LOGGED (FT.): 4480.0 LOG TYPE:

SOURCE: CENTRLPIPE, MCVEIGH 0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -248.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 696.0              |
| -438.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 886.0              |
| -498.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 946.0              |
| -587.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1035.0             |
| -656.0                 | CARBONDALE  | HOUCHIN CREEK | COAL      | -               | 1104.0             |
| -1070.0                | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1518.0             |

MAPID: 15900034000C VERSION: 2

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 14W SECTION: 28 QUARTERS/FOOTAGES: 660' N line, 330' W line of NE

QUADRANGLE: BERRYVILLE LONGITUDE: -87.974518 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.582952 DATE COLLECTED:

SURFACE ELEVATION (FT.): 448.0 LOGGED (FT.): 1217.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -242.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 13.0            | 690.0              |
| -440.0                 | CARBONDALE | DANVILLE      | COAL      | 2.5             | 888.0              |
| -498.0                 | CARBONDALE | HERRIN        | COAL      | 4.0             | 946.0              |
| -584.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 5.0             | 1032.0             |
| -657.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1105.0             |
| -769.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1217.0             |



MAPID: 15900403000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 14W SECTION: 28 QUARTERS/FOOTAGES: NW NW SW  
 QUADRANGLE: BERRYVILLE LONGITUDE: -87.983992 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.576483 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 436.0 LOGGED (FT.): 1205.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -236.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 12.0            | 672.0              |
| -431.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 867.0              |
| -487.0                 | CARBONDALE | HERRIN        | COAL      | 5.0             | 923.0              |
| -570.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.0             | 1006.0             |
| -659.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1095.0             |
| -769.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1205.0             |

MAPID: 15901288000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 14W SECTION: 28 QUARTERS/FOOTAGES: SE SW SE  
 QUADRANGLE: BERRYVILLE LONGITUDE: -87.972259 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.571022 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 442.0 LOGGED (FT.): 1184.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -205.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 11.0            | 647.0              |
| -395.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 837.0              |
| -459.0                 | CARBONDALE | HERRIN        | COAL      | 4.0             | 901.0              |
| -540.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 982.0              |
| -629.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1071.0             |
| -742.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1184.0             |

MAPID: 15901289000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 14W SECTION: 28 QUARTERS/FOOTAGES: SW SE NW  
 QUADRANGLE: BERRYVILLE LONGITUDE: -87.97926 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.57834 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 432.0 LOGGED (FT.): 1190.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -234.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 8.0             | 666.0              |
| -420.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 852.0              |
| -488.0                 | CARBONDALE | HERRIN        | COAL      | -               | 920.0              |
| -564.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 996.0              |
| -643.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1075.0             |
| -758.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1190.0             |

MAPID: 15900035000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 2N 14W SECTION: 29 QUARTERS/FOOTAGES: 333' N line, 665' W line of SW SW  
 QUADRANGLE: WEST SALEM LONGITUDE: -88.001456 GEOLOGIST: SIEVER  
 CONFIDENTIAL: N LATITUDE: 38.573105 DATE COLLECTED: 0 / 0 / 1941  
 SURFACE ELEVATION (FT.): 492.0 LOGGED (FT.): 4920.0 LOG TYPE:  
 SOURCE: OHIO OIL, CLDFLTR CO0001 WELL TYPE: Oil and Gas Test  
 COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -232.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 724.0              |
| -475.0                 | CARBONDALE | HERRIN        | COAL      | -               | 967.0              |
| -558.0                 | CARBONDALE | SPRINGFIELD   | COAL      | -               | 1050.0             |

MAPID: 15900035000C VERSION: 2

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 14W SECTION: 29 QUARTERS/FOOTAGES: 333' N line, 665' W line of SW SW  
 QUADRANGLE: WEST SALEM LONGITUDE: -88.001456 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.573105 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 492.0 LOGGED (FT.): 1247.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: FAIR LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -42.0                  | BOND       | CARTHAGE      | LIMESTONE | 12.0            | 534.0              |
| -231.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 8.0             | 723.0              |
| -418.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 910.0              |
| -471.0                 | CARBONDALE | HERRIN        | COAL      | 5.0             | 963.0              |
| -555.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.5             | 1047.0             |
| -755.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1247.0             |

MAPID: 15900036000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 2N 14W SECTION: 29  
QUADRANGLE: WEST SALEM LONGITUDE: -88.000313  
CONFIDENTIAL: N LATITUDE: 38.571232  
SURFACE ELEVATION (FT.): 484.6 LOGGED (FT.): 4846.0  
SOURCE: OHIO OIL, CLDFLTR CO0002  
COMMENT:

QUARTERS/FOOTAGES: SE SW SW  
GEOLOGIST: SIEVER  
DATE COLLECTED: 0 / 0 / 1941  
LOG TYPE:  
WELL TYPE: Oil and Gas Test

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -229.4                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 714.0              |
| -466.4                 | CARBONDALE | HERRIN        | COAL      | -               | 951.0              |
| -552.4                 | CARBONDALE | SPRINGFIELD   | COAL      | -               | 1037.0             |

MAPID: 15900037000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 2N 14W SECTION: 29  
QUADRANGLE: BERRYVILLE LONGITUDE: -87.992276  
CONFIDENTIAL: N LATITUDE: 38.578453  
SURFACE ELEVATION (FT.): 471.0 LOGGED (FT.): 4710.0  
SOURCE: NELSON DEV, CLDFLTR C 0001  
COMMENT:

QUARTERS/FOOTAGES: 330' S line, 39' E line of SW SW NE  
GEOLOGIST: SIEVER  
DATE COLLECTED: 0 / 0 / 1941  
LOG TYPE:  
WELL TYPE: Oil and Gas Test

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -264.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 735.0              |
| -447.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 918.0              |
| -498.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 969.0              |
| -582.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1053.0             |
| -1067.0                | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1538.0             |

MAPID: 15900037000C VERSION: 2

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 14W SECTION: 29  
QUADRANGLE: BERRYVILLE LONGITUDE: -87.992276  
CONFIDENTIAL: N LATITUDE: 38.578453  
SURFACE ELEVATION (FT.): 471.0 LOGGED (FT.): 1260.0  
SOURCE:  
COMMENT: GOOD LOG

QUARTERS/FOOTAGES: 330' S line, 39' E line of SW SW NE  
GEOLOGIST: C TREWORYG  
DATE COLLECTED:  
LOG TYPE: Electric Log  
WELL TYPE: Oil and Gas Test

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -250.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 12.0            | 721.0              |
| -447.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 918.0              |
| -499.0                 | CARBONDALE | HERRIN        | COAL      | 4.0             | 970.0              |
| -582.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.0             | 1053.0             |
| -669.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1140.0             |
| -789.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1260.0             |

**MAPID:** 15900038000C    **VERSION:** 1    **PROJECT:** RI 148  
**COUNTY:** RICHLAND    **TWP/RNG:** 2N 14W    **SECTION:** 29    **QUARTERS/FOOTAGES:** SE NE SW  
**QUADRANGLE:** BERRYVILLE    **LONGITUDE:** -87.995651    **GEOLOGIST:** SIEVER  
**CONFIDENTIAL:** N    **LATITUDE:** 38.574832    **DATE COLLECTED:** 0 / 0 / 1941  
**SURFACE ELEVATION (FT.):** 477.0    **LOGGED (FT.):** 4770.0    **LOG TYPE:**  
**SOURCE:** SNCLR WYOM, CLDFLTR C 0002    **WELL TYPE:** Oil and Gas Test  
**COMMENT:**

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -239.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 716.0              |
| -479.0                 | CARBONDALE | HERRIN        | COAL      | -               | 956.0              |
| -563.0                 | CARBONDALE | SPRINGFIELD   | COAL      | -               | 1040.0             |

**MAPID:** 15900039000C    **VERSION:** 2    **PROJECT:** RI 148  
**COUNTY:** RICHLAND    **TWP/RNG:** 2N 14W    **SECTION:** 29    **QUARTERS/FOOTAGES:** 330' N line, 660' W line of SW  
**QUADRANGLE:** WEST SALEM    **LONGITUDE:** -88.001466    **GEOLOGIST:** SIEVER  
**CONFIDENTIAL:** N    **LATITUDE:** 38.576805    **DATE COLLECTED:** 0 / 0 / 1941  
**SURFACE ELEVATION (FT.):** 497.0    **LOGGED (FT.):** 4970.0    **LOG TYPE:**  
**SOURCE:** SNCLR WYOM, CLDFLTR C 0003    **WELL TYPE:** Oil and Gas Test  
**COMMENT:**

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -247.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 744.0              |
| -483.0                 | CARBONDALE | HERRIN        | COAL      | -               | 980.0              |
| -571.0                 | CARBONDALE | SPRINGFIELD   | COAL      | -               | 1068.0             |

**MAPID:** 15900039000C    **VERSION:** 3    **PROJECT:** CONTROL  
**COUNTY:** RICHLAND    **TWP/RNG:** 2N 14W    **SECTION:** 29    **QUARTERS/FOOTAGES:** 330' N line, 660' W line of SW  
**QUADRANGLE:** WEST SALEM    **LONGITUDE:** -88.001466    **GEOLOGIST:** HINES  
**CONFIDENTIAL:** N    **LATITUDE:** 38.576805    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):**    **LOGGED (FT.):** 3132.0    **LOG TYPE:** Survey Sample Study  
**SOURCE:** SINCLAIR WYOMING OIL    **WELL TYPE:** Oil and Gas Test  
**COMMENT:** OILWELLS LOGGED BY COAL SECT-LOGS IN GRU

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

**MAPID:** 15900040000C    **VERSION:** 2    **PROJECT:** RI 148  
**COUNTY:** RICHLAND    **TWP/RNG:** 2N 14W    **SECTION:** 29    **QUARTERS/FOOTAGES:** 330' S line, 660' W line of NW SW  
**QUADRANGLE:** WEST SALEM    **LONGITUDE:** -88.00147    **GEOLOGIST:** SIEVER  
**CONFIDENTIAL:** N    **LATITUDE:** 38.574936    **DATE COLLECTED:** 0 / 0 / 1941  
**SURFACE ELEVATION (FT.):** 495.0    **LOGGED (FT.):** 4950.0    **LOG TYPE:**  
**SOURCE:** SNCLR WYOM, CLDFLTR C 0004    **WELL TYPE:** Oil and Gas Test  
**COMMENT:**

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -239.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 734.0      |         |
| -483.0                 | CARBONDALE | HERRIN        | COAL      | -               | 978.0      |         |
| -567.0                 | CARBONDALE | SPRINGFIELD   | COAL      | -               | 1062.0     |         |

**MAPID:** 15900040000C    **VERSION:** 3    **PROJECT:** CONTROL  
**COUNTY:** RICHLAND    **TWP/RNG:** 2N 14W    **SECTION:** 29    **QUARTERS/FOOTAGES:** 330' S line, 660' W line of NW SW  
**QUADRANGLE:** WEST SALEM    **LONGITUDE:** -88.00147    **GEOLOGIST:** HINES  
**CONFIDENTIAL:** N    **LATITUDE:** 38.574936    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):**    **LOGGED (FT.):** 3130.0    **LOG TYPE:** Survey Sample Study  
**SOURCE:** SINCLAIR WYOMING OIL    **WELL TYPE:** Oil and Gas Test  
**COMMENT:** OILWELLS LOGGED BY COAL SECT-LOGS IN GRU

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

**MAPID:** 15900041000C    **VERSION:** 1    **PROJECT:** RI 148  
**COUNTY:** RICHLAND    **TWP/RNG:** 2N 14W    **SECTION:** 29    **QUARTERS/FOOTAGES:** NE SE SW  
**QUADRANGLE:** BERRYVILLE    **LONGITUDE:** -87.995658    **GEOLOGIST:** SIEVER  
**CONFIDENTIAL:** N    **LATITUDE:** 38.572985    **DATE COLLECTED:** 0 / 0 / 1941  
**SURFACE ELEVATION (FT.):** 480.0    **LOGGED (FT.):** 4800.0    **LOG TYPE:**  
**SOURCE:** SNCLR WYOM, CLDFLTR C 0005    **WELL TYPE:** Oil and Gas Test  
**COMMENT:**

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -234.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 714.0      |         |
| -471.0                 | CARBONDALE | HERRIN        | COAL      | -               | 951.0      |         |
| -557.0                 | CARBONDALE | SPRINGFIELD   | COAL      | -               | 1037.0     |         |

**MAPID:** 15900042000C    **VERSION:** 1    **PROJECT:** RI 148  
**COUNTY:** RICHLAND    **TWP/RNG:** 2N 14W    **SECTION:** 29    **QUARTERS/FOOTAGES:** SW NW SE  
**QUADRANGLE:** BERRYVILLE    **LONGITUDE:** -87.993324    **GEOLOGIST:** SIEVER  
**CONFIDENTIAL:** N    **LATITUDE:** 38.574788    **DATE COLLECTED:** 0 / 0 / 1941  
**SURFACE ELEVATION (FT.):** 477.0    **LOGGED (FT.):** 4770.0    **LOG TYPE:**  
**SOURCE:** NELSON DEV, EVANS H&A 0001    **WELL TYPE:** Oil and Gas Test  
**COMMENT:**

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -246.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 723.0              |
| -491.0                 | CARBONDALE | HERRIN        | COAL      | -               | 968.0              |
| -575.0                 | CARBONDALE | SPRINGFIELD   | COAL      | -               | 1052.0             |

**MAPID:** 15900043000C    **VERSION:** 1    **PROJECT:** RI 148  
**COUNTY:** RICHLAND    **TWP/RNG:** 2N 14W    **SECTION:** 29    **QUARTERS/FOOTAGES:** SW SE SW  
**QUADRANGLE:** BERRYVILLE    **LONGITUDE:** -87.99799    **GEOLOGIST:** SIEVER  
**CONFIDENTIAL:** N    **LATITUDE:** 38.571185    **DATE COLLECTED:** 0 / 0 / 1941  
**SURFACE ELEVATION (FT.):** 482.0    **LOGGED (FT.):** 4820.0    **LOG TYPE:**  
**SOURCE:** BRWN W ETL, KOERTGE G 0001    **WELL TYPE:** Oil and Gas Test  
**COMMENT:**

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -224.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 706.0              |
| -412.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 894.0              |
| -465.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 947.0              |
| -555.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1037.0             |
| -641.0                 | CARBONDALE  | HOUCHIN CREEK | COAL      | -               | 1123.0             |
| -1032.0                | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1514.0             |

**MAPID:** 15900044000C    **VERSION:** 1    **PROJECT:** RI 148  
**COUNTY:** RICHLAND    **TWP/RNG:** 2N 14W    **SECTION:** 29    **QUARTERS/FOOTAGES:** SE SE NW  
**QUADRANGLE:** BERRYVILLE    **LONGITUDE:** -87.99563    **GEOLOGIST:** SIEVER  
**CONFIDENTIAL:** N    **LATITUDE:** 38.578527    **DATE COLLECTED:** 0 / 0 / 1941  
**SURFACE ELEVATION (FT.):** 488.0    **LOGGED (FT.):** 4880.0    **LOG TYPE:**  
**SOURCE:** OHIO OIL, KOERTGE H 0001    **WELL TYPE:** Oil and Gas Test  
**COMMENT:**

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -249.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 737.0              |
| -487.0                 | CARBONDALE | HERRIN        | COAL      | -               | 975.0              |
| -575.0                 | CARBONDALE | SPRINGFIELD   | COAL      | -               | 1063.0             |

MAPID: 15900048000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 2N 14W SECTION: 29 QUARTERS/FOOTAGES: 622' S line, 580' E line of NE NW

QUADRANGLE: BERRYVILLE LONGITUDE: -87.996481

GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.583033

DATE COLLECTED: 0 / 0 / 1942

SURFACE ELEVATION (FT.): 483.0

LOGGED (FT.): 4830.0

LOG TYPE:

SOURCE: OHIO OIL, KOERTG CLD0001

WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -251.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 734.0              |
| -442.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 925.0              |
| -485.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 968.0              |
| -573.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1056.0             |
| -662.0                 | CARBONDALE  | HOUCHIN CREEK | COAL      | -               | 1145.0             |
| -1069.0                | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1552.0             |

MAPID: 15900048000C VERSION: 2

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 14W SECTION: 29 QUARTERS/FOOTAGES: 622' S line, 580' E line of NE NW

QUADRANGLE: BERRYVILLE LONGITUDE: -87.996481

GEOLOGIST: C TREWORYG

CONFIDENTIAL: N LATITUDE: 38.583033

DATE COLLECTED:

SURFACE ELEVATION (FT.): 483.0

LOGGED (FT.): 1146.0

LOG TYPE: Electric Log

SOURCE:

WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -245.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 728.0              |
| -440.0                 | CARBONDALE | DANVILLE      | COAL      | 3.5             | 923.0              |
| -487.0                 | CARBONDALE | HERRIN        | COAL      | -               | 970.0              |
| -574.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.5             | 1057.0             |
| -663.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1146.0             |

MAPID: 15900049000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 2N 14W SECTION: 29 QUARTERS/FOOTAGES: SE SW NW

QUADRANGLE: WEST SALEM LONGITUDE: -88.000288

GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.578615

DATE COLLECTED: 0 / 0 / 1941

SURFACE ELEVATION (FT.): 494.0

LOGGED (FT.): 4940.0

LOG TYPE:

SOURCE: OHIO OIL, KOERTGE H 0003

WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -246.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 740.0              |
| -481.0                 | CARBONDALE | HERRIN        | COAL      | -               | 975.0              |
| -566.0                 | CARBONDALE | SPRINGFIELD   | COAL      | -               | 1060.0             |

MAPID: 15900050000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 2N 14W SECTION: 29 QUARTERS/FOOTAGES: NW SE NW

QUADRANGLE: BERRYVILLE LONGITUDE: -87.997953 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.580418 DATE COLLECTED: 0 / 0 / 1941

SURFACE ELEVATION (FT.): 487.0 LOGGED (FT.): 4870.0 LOG TYPE:

SOURCE: OHIO OIL, KOERTGE H 0002 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -248.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 735.0              |
| -437.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 924.0              |
| -485.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 972.0              |
| -571.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1058.0             |
| -658.0                 | CARBONDALE  | HOUCHIN CREEK | COAL      | -               | 1145.0             |
| -1055.0                | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1542.0             |

MAPID: 15900051000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 2N 14W SECTION: 29 QUARTERS/FOOTAGES: NE NE SW

QUADRANGLE: BERRYVILLE LONGITUDE: -87.99564 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.57668 DATE COLLECTED: 0 / 0 / 1941

SURFACE ELEVATION (FT.): 489.0 LOGGED (FT.): 4890.0 LOG TYPE:

SOURCE: SNCLR WYOM, CLDFLTR CO0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -245.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 734.0              |
| -431.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 920.0              |
| -481.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 970.0              |
| -569.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1058.0             |
| -1053.0                | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1542.0             |



**MAPID:** 15900331000C    **VERSION:** 1    **PROJECT:** RI 148  
**COUNTY:** RICHLAND    **TWP/RNG:** 2N 14W    **SECTION:** 29    **QUARTERS/FOOTAGES:** SW NW SE  
**QUADRANGLE:** BERRYVILLE    **LONGITUDE:** -87.993324    **GEOLOGIST:** SIEVER  
**CONFIDENTIAL:** N    **LATITUDE:** 38.574788    **DATE COLLECTED:** 0 / 0 / 1945  
**SURFACE ELEVATION (FT.):** 479.0    **LOGGED (FT.):** 4790.0    **LOG TYPE:**  
**SOURCE:** BRIDGE F A, MATHES C H0001    **WELL TYPE:** Oil and Gas Test  
**COMMENT:**

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -246.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 725.0              |
| -437.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 916.0              |
| -484.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 963.0              |
| -567.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1046.0             |
| -783.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1262.0             |
| -1069.0                | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1548.0             |

**MAPID:** 15900045000C    **VERSION:** 1    **PROJECT:** RI 148  
**COUNTY:** RICHLAND    **TWP/RNG:** 2N 14W    **SECTION:** 30    **QUARTERS/FOOTAGES:** SE NE SE  
**QUADRANGLE:** WEST SALEM    **LONGITUDE:** -88.005053    **GEOLOGIST:** SIEVER  
**CONFIDENTIAL:** N    **LATITUDE:** 38.575001    **DATE COLLECTED:** 0 / 0 / 1942  
**SURFACE ELEVATION (FT.):** 500.5    **LOGGED (FT.):** 5005.0    **LOG TYPE:**  
**SOURCE:** OHIO OIL, STEVENS E 0002    **WELL TYPE:** Oil and Gas Test  
**COMMENT:**

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -237.5                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 738.0              |
| -475.5                 | CARBONDALE | HERRIN        | COAL      | -               | 976.0              |
| -559.5                 | CARBONDALE | SPRINGFIELD   | COAL      | -               | 1060.0             |

**MAPID:** 15900046000C    **VERSION:** 1    **PROJECT:** RI 148  
**COUNTY:** RICHLAND    **TWP/RNG:** 2N 14W    **SECTION:** 30    **QUARTERS/FOOTAGES:** NE SE SE  
**QUADRANGLE:** WEST SALEM    **LONGITUDE:** -88.005056    **GEOLOGIST:** SIEVER  
**CONFIDENTIAL:** N    **LATITUDE:** 38.573157    **DATE COLLECTED:** 0 / 0 / 1941  
**SURFACE ELEVATION (FT.):** 480.0    **LOGGED (FT.):** 4800.0    **LOG TYPE:**  
**SOURCE:** OHIO OIL, STEVENS E 0001    **WELL TYPE:** Oil and Gas Test  
**COMMENT:**

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -237.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 717.0              |
| -422.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 902.0              |
| -472.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 952.0              |
| -559.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1039.0             |
| -655.0                 | CARBONDALE  | HOUCHIN CREEK | COAL      | -               | 1135.0             |
| -1089.0                | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1569.0             |

MAPID: 15900047000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 2N 14W SECTION: 30 QUARTERS/FOOTAGES: SW SE NE

QUADRANGLE: WEST SALEM LONGITUDE: -88.007568 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.578703 DATE COLLECTED: 0 / 0 / 1941

SURFACE ELEVATION (FT.): 504.0 LOGGED (FT.): 5040.0 LOG TYPE:

SOURCE: ARROW&TERR, KOERTGE H 0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -238.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 742.0              |
| -437.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 941.0              |
| -483.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 987.0              |
| -568.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1072.0             |
| -661.0                 | CARBONDALE  | HOUCHIN CREEK | COAL      | -               | 1165.0             |
| -1086.0                | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1590.0             |

MAPID: 15901292000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 14W SECTION: 30 QUARTERS/FOOTAGES: SW SE SW

QUADRANGLE: WEST SALEM LONGITUDE: -88.017667 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.571414 DATE COLLECTED:

SURFACE ELEVATION (FT.): 516.0 LOGGED (FT.): 1313.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -244.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 11.0            | 760.0              |
| -442.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 958.0              |
| -486.0                 | CARBONDALE | HERRIN        | COAL      | 5.0             | 1002.0             |
| -570.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1086.0             |
| -671.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1187.0             |
| -797.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1313.0             |

MAPID: 15901296000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 14W SECTION: 30 QUARTERS/FOOTAGES: SW SW NE

QUADRANGLE: WEST SALEM LONGITUDE: -88.012618 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.578732 DATE COLLECTED:

SURFACE ELEVATION (FT.): 508.0 LOGGED (FT.): 1293.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -245.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 12.0            | 753.0              |
| -439.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 947.0              |
| -486.0                 | CARBONDALE | HERRIN        | COAL      | 5.0             | 994.0              |
| -567.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1075.0             |
| -670.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1178.0             |
| -785.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1293.0             |

MAPID: 15901297000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 2N 14W SECTION: 30 QUARTERS/FOOTAGES: 330' S line, 660' E line of NE NE

QUADRANGLE: WEST SALEM LONGITUDE: -88.006094 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.58237 DATE COLLECTED:

SURFACE ELEVATION (FT.): 500.0 LOGGED (FT.): 1273.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -247.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 13.0            | 747.0              |
| -433.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 933.0              |
| -481.0                 | CARBONDALE | HERRIN        | COAL      | 5.0             | 981.0              |
| -566.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 5.0             | 1066.0             |
| -660.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1160.0             |
| -773.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1273.0             |

MAPID: 15900199000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 8E SECTION: 1 QUARTERS/FOOTAGES: NE SE NE

QUADRANGLE: CLAY CITY LONGITUDE: -88.258893 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.726078 DATE COLLECTED: 0 / 0 / 1945

SURFACE ELEVATION (FT.): 442.0 LOGGED (FT.): 4420.0 LOG TYPE:

SOURCE: PURE OC, HASLER I 00A1 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|-------------|---------------|-----------|-----------------|------------|---------|
|                        |             |               |           | UNIT            | OVERBURDEN |         |
| -263.0                 | BOND        | CARTHAGE      | LIMESTONE | -               | 705.0      |         |
| -443.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 885.0      |         |
| -608.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 1050.0     |         |
| -643.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1085.0     |         |
| -728.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1170.0     |         |
| -933.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1375.0     |         |
| -1058.0                | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1500.0     |         |

MAPID: 15900199000C VERSION: 2

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 8E SECTION: 1 QUARTERS/FOOTAGES: NE SE NE

QUADRANGLE: CLAY CITY LONGITUDE: -88.258893 GEOLOGIST: C TREWORYG

CONFIDENTIAL: N LATITUDE: 38.726078 DATE COLLECTED:

SURFACE ELEVATION (FT.): 442.0 LOGGED (FT.): 1363.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -262.0                 | BOND       | CARTHAGE      | LIMESTONE | 8.0             | 704.0      |         |
| -443.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 12.0            | 885.0      |         |
| -610.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 1052.0     |         |
| -663.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1105.0     |         |
| -728.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1170.0     |         |
| -921.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1363.0     |         |

MAPID: 15900735000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 8E SECTION: 2 QUARTERS/FOOTAGES: SE SE SE

QUADRANGLE: CLAY CITY LONGITUDE: -88.277483 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.716998 DATE COLLECTED:

SURFACE ELEVATION (FT.): 434.0 LOGGED (FT.): 1167.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -204.0                 | BOND       | CARTHAGE      | LIMESTONE | 8.0             | 638.0              |
| -377.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 811.0              |
| -546.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 980.0              |
| -591.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1025.0             |
| -647.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1081.0             |
| -733.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1167.0             |

MAPID: 15901304000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 8E SECTION: 2 QUARTERS/FOOTAGES: 1195' S line, 330' E line of NE

QUADRANGLE: CLAY CITY LONGITUDE: -88.277439 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.727108 DATE COLLECTED:

SURFACE ELEVATION (FT.): 438.0 LOGGED (FT.): 1175.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -386.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 824.0              |
| -551.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 989.0              |
| -596.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1034.0             |
| -656.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1094.0             |
| -737.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1175.0             |

MAPID: 15901305000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 8E SECTION: 11 QUARTERS/FOOTAGES: NW SE SE  
 QUADRANGLE: CLAY CITY LONGITUDE: -88.279865 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.704251 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 430.0 LOGGED (FT.): 1303.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -418.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 10.0            | 848.0              |
| -568.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 998.0              |
| -613.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1043.0             |
| -670.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1100.0             |
| -761.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1191.0             |
| -873.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1303.0             |

MAPID: 15901307000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 8E SECTION: 11 QUARTERS/FOOTAGES: 515' S line, 330' W line of NE  
 QUADRANGLE: CLAY CITY LONGITUDE: -88.284442 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.710439 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 422.0 LOGGED (FT.): 1298.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -214.0                 | BOND       | CARTHAGE      | LIMESTONE | 5.0             | 636.0              |
| -392.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 814.0              |
| -565.0                 | CARBONDALE | DANVILLE      | COAL      | 2.5             | 987.0              |
| -611.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1033.0             |
| -668.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1090.0             |
| -760.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1182.0             |
| -876.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1298.0             |

MAPID: 15900053000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 8E SECTION: 12 QUARTERS/FOOTAGES: SE SE NW

QUADRANGLE: CLAY CITY LONGITUDE: -88.268128

GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.709331

DATE COLLECTED: 0 / 0 / 1937

SURFACE ELEVATION (FT.): 441.0 LOGGED (FT.): 4410.0

LOG TYPE:

SOURCE: HELSEN V I, TAYLR RDNW0001

WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -239.0                 | BOND        | CARTHAGE      | LIMESTONE | -               | 680.0              |
| -369.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 810.0              |
| -581.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 1022.0             |
| -635.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1076.0             |
| -694.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1135.0             |
| -869.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1310.0             |
| -1034.0                | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1475.0             |

MAPID: 15900737000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 8E SECTION: 12 QUARTERS/FOOTAGES: SE NE NE

QUADRANGLE: CLAY CITY LONGITUDE: -88.258732

GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.712688

DATE COLLECTED:

SURFACE ELEVATION (FT.): 447.0 LOGGED (FT.): 1353.0

LOG TYPE: Electric Log

SOURCE:

WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -250.0                 | BOND       | CARTHAGE      | LIMESTONE | 7.0             | 697.0              |
| -423.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 870.0              |
| -588.0                 | CARBONDALE | DANVILLE      | COAL      | 2.5             | 1035.0             |
| -639.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1086.0             |
| -700.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.0             | 1147.0             |
| -788.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1235.0             |
| -906.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1353.0             |

MAPID: 15900055000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 8E SECTION: 13 QUARTERS/FOOTAGES: 330' S line, 660' E line of SW

QUADRANGLE: CLAY CITY LONGITUDE: -88.269276 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.687589 DATE COLLECTED: 0 / 0 / 1942

SURFACE ELEVATION (FT.): 442.0 LOGGED (FT.): 4420.0 LOG TYPE:

SOURCE: FRAZR&SPED, BRANT F M 0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -399.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 841.0              |
| -545.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 987.0              |
| -585.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1027.0             |
| -645.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1087.0             |
| -735.0                 | CARBONDALE  | HOUCHIN CREEK | COAL      | -               | 1177.0             |
| -985.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1427.0             |

MAPID: 15900055000C VERSION: 2

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 8E SECTION: 13 QUARTERS/FOOTAGES: 330' S line, 660' E line of SW

QUADRANGLE: CLAY CITY LONGITUDE: -88.269276 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.687589 DATE COLLECTED:

SURFACE ELEVATION (FT.): 445.0 LOGGED (FT.): 1294.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -398.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 11.0            | 843.0              |
| -544.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 989.0              |
| -585.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1030.0             |
| -645.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.0             | 1090.0             |
| -731.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1176.0             |
| -849.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1294.0             |



MAPID: 15900188000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 8E SECTION: 13 QUARTERS/FOOTAGES: SE SE NE

QUADRANGLE: CLAY CITY LONGITUDE: -88.258707 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.694506 DATE COLLECTED: 0 / 0 / 1944

SURFACE ELEVATION (FT.): 455.0 LOGGED (FT.): 4550.0 LOG TYPE:

SOURCE: PURE OC, PLEASANT W0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|-------------|---------------|-----------|-----------------|------------|---------|
|                        |             |               |           | UNIT            | OVERBURDEN |         |
| -180.0                 | BOND        | CARTHAGE      | LIMESTONE | -               | 635.0      |         |
| -363.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 818.0      |         |
| -517.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 972.0      |         |
| -571.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1026.0     |         |
| -631.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1086.0     |         |
| -835.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1290.0     |         |
| -965.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1420.0     |         |

MAPID: 15900236000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 8E SECTION: 13 QUARTERS/FOOTAGES: SW SE SE

QUADRANGLE: CLAY CITY LONGITUDE: -88.261073 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.68732 DATE COLLECTED: 0 / 0 / 1944

SURFACE ELEVATION (FT.): 447.0 LOGGED (FT.): 4470.0 LOG TYPE:

SOURCE: DUNCAN W, MORRIS C G0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|-------------|---------------|-----------|-----------------|------------|---------|
|                        |             |               |           | UNIT            | OVERBURDEN |         |
| -357.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 804.0      |         |
| -513.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 960.0      |         |
| -557.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1004.0     |         |
| -619.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1066.0     |         |
| -829.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1276.0     |         |
| -971.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1418.0     |         |

MAPID: 15900237000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 8E SECTION: 13 QUARTERS/FOOTAGES: SE SW NE

QUADRANGLE: CLAY CITY LONGITUDE: -88.263418

GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.694647

DATE COLLECTED: 0 / 0 / 1945

SURFACE ELEVATION (FT.): 451.0

LOGGED (FT.): 4510.0

LOG TYPE:

SOURCE: BLACK, PALMER P A0001

WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|-------------|---------------|-----------|-----------------|------------|---------|
|                        |             |               |           | UNIT            | OVERBURDEN |         |
| -199.0                 | BOND        | CARTHAGE      | LIMESTONE | -               | 650.0      |         |
| -374.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 825.0      |         |
| -535.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 986.0      |         |
| -579.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1030.0     |         |
| -643.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1094.0     |         |
| -849.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1300.0     |         |
| -979.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1430.0     |         |

MAPID: 15901309000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 8E SECTION: 13 QUARTERS/FOOTAGES: NW SE NE

QUADRANGLE: CLAY CITY LONGITUDE: -88.261059

GEOLOGIST: C TREWORYG

CONFIDENTIAL: N LATITUDE: 38.696389

DATE COLLECTED:

SURFACE ELEVATION (FT.): 452.0

LOGGED (FT.): 1300.0

LOG TYPE: Electric Log

SOURCE:

WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -378.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 7.0             | 830.0      |         |
| -537.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 989.0      |         |
| -586.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1038.0     |         |
| -643.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.0             | 1095.0     |         |
| -732.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1184.0     |         |
| -848.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1300.0     |         |

MAPID: 15901310000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 8E SECTION: 13 QUARTERS/FOOTAGES: NW NE SW  
 QUADRANGLE: CLAY CITY LONGITUDE: -88.270485 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.693049 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 430.0 LOGGED (FT.): 1333.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -216.0                 | BOND       | CARTHAGE      | LIMESTONE | 5.0             | 646.0              |
| -402.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 4.0             | 832.0              |
| -556.0                 | CARBONDALE | DANVILLE      | COAL      | 2.5             | 986.0              |
| -602.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1032.0             |
| -660.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.5             | 1090.0             |
| -750.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1180.0             |
| -865.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1295.0             |
| -903.0                 | SPOON      | SEELYVILLE    | COAL      | -               | 1333.0             |

MAPID: 15900527000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 8E SECTION: 14 QUARTERS/FOOTAGES: NE NW SE  
 QUADRANGLE: CLAY CITY LONGITUDE: -88.282167 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.693465 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 418.0 LOGGED (FT.): 1346.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -231.0                 | BOND       | CARTHAGE      | LIMESTONE | 5.0             | 649.0              |
| -439.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 13.0            | 857.0              |
| -580.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 998.0              |
| -625.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1043.0             |
| -682.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1100.0             |
| -774.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1192.0             |
| -888.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1306.0             |
| -928.0                 | SPOON      | SEELYVILLE    | COAL      | -               | 1346.0             |

MAPID: 15900582000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 8E SECTION: 23 QUARTERS/FOOTAGES: NW NE NE  
 QUADRANGLE: CLAY CITY LONGITUDE: -88.279813 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.686129 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 434.0 LOGGED (FT.): 1343.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -209.0                 | BOND       | CARTHAGE      | LIMESTONE | 5.0             | 643.0      |         |
| -403.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 11.0            | 837.0      |         |
| -605.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1039.0     |         |
| -668.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1102.0     |         |
| -761.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1195.0     |         |
| -871.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1305.0     |         |
| -909.0                 | SPOON      | SEELYVILLE    | COAL      | -               | 1343.0     |         |

MAPID: 15901319000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 8E SECTION: 23 QUARTERS/FOOTAGES: SE SE SE  
 QUADRANGLE: CLAY CITY LONGITUDE: -88.27736 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.673284 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 419.0 LOGGED (FT.): 1254.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -188.0                 | BOND       | CARTHAGE      | LIMESTONE | 5.0             | 607.0      |         |
| -397.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 6.0             | 816.0      |         |
| -537.0                 | CARBONDALE | DANVILLE      | COAL      | 2.5             | 956.0      |         |
| -578.0                 | CARBONDALE | HERRIN        | COAL      | -               | 997.0      |         |
| -635.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.5             | 1054.0     |         |
| -724.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1143.0     |         |
| -835.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1254.0     |         |

**MAPID:** 15900111000C    **VERSION:** 2    **PROJECT:** RI 148  
**COUNTY:** RICHLAND    **TWP/RNG:** 3N 8E    **SECTION:** 24    **QUARTERS/FOOTAGES:** 2322' S line, 2367' W line  
**QUADRANGLE:** CLAY CITY    **LONGITUDE:** -88.267929    **GEOLOGIST:** SIEVER  
**CONFIDENTIAL:** N    **LATITUDE:** 38.678488    **DATE COLLECTED:** 0 / 0 / 1944  
**SURFACE ELEVATION (FT.):** 438.0    **LOGGED (FT.):** 4380.0    **LOG TYPE:**  
**SOURCE:** PURE OC, MARTIN WM 0002    **WELL TYPE:** Oil and Gas Test  
**COMMENT:**

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER      | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|-------------|-----------|-----------------|--------------------|
|                        |             |             |           | UNIT            | OVERBURDEN COMMENT |
| -506.0                 | CARBONDALE  | DANVILLE    | COAL      | -               | 944.0              |
| -618.0                 | CARBONDALE  | SPRINGFIELD | COAL      | -               | 1056.0             |
| -826.0                 | SPOON       | PALZO       | SANDSTONE | -               | 1264.0             |
| -982.0                 | WALTERSBURG | GLEN DEAN   | LIMESTONE | -               | 1420.0             |

**MAPID:** 15900111000C    **VERSION:** 3    **PROJECT:** CONTROL  
**COUNTY:** RICHLAND    **TWP/RNG:** 3N 8E    **SECTION:** 24    **QUARTERS/FOOTAGES:** 2322' S line, 2367' W line  
**QUADRANGLE:** CLAY CITY    **LONGITUDE:** -88.267929    **GEOLOGIST:** HINES  
**CONFIDENTIAL:** N    **LATITUDE:** 38.678488    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):**    **LOGGED (FT.):** 2988.0    **LOG TYPE:** Survey Sample Study  
**SOURCE:**    **WELL TYPE:** Oil and Gas Test  
**COMMENT:** OILWELLS LOGGED BY COAL SECT-LOGS IN GRU

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

**MAPID:** 15900238000C    **VERSION:** 1    **PROJECT:** RI 148  
**COUNTY:** RICHLAND    **TWP/RNG:** 3N 8E    **SECTION:** 24    **QUARTERS/FOOTAGES:** NE NE NE  
**QUADRANGLE:** CLAY CITY    **LONGITUDE:** -88.258714    **GEOLOGIST:** SIEVER  
**CONFIDENTIAL:** N    **LATITUDE:** 38.685428    **DATE COLLECTED:** 0 / 0 / 1944  
**SURFACE ELEVATION (FT.):** 446.0    **LOGGED (FT.):** 4460.0    **LOG TYPE:**  
**SOURCE:** FULK&CRVNS, MRTN A ETL0002    **WELL TYPE:** Oil and Gas Test  
**COMMENT:**

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -370.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 816.0              |
| -514.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 960.0              |
| -572.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1018.0             |
| -630.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1076.0             |
| -840.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1286.0             |
| -1131.0                | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1577.0             |

MAPID: 15900291000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 8E SECTION: 24 QUARTERS/FOOTAGES: SW SW SE

QUADRANGLE: CLAY CITY LONGITUDE: -88.265631 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.672917 DATE COLLECTED: 0 / 0 / 1944

SURFACE ELEVATION (FT.): 449.0 LOGGED (FT.): 4490.0 LOG TYPE:

SOURCE: PURE OC, RUSK E 0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|-------------|---------------|-----------|-----------------|------------|---------|
|                        |             |               |           | UNIT            | OVERBURDEN |         |
| -151.0                 | BOND        | CARTHAGE      | LIMESTONE | -               | 600.0      |         |
| -377.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 826.0      |         |
| -511.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 960.0      |         |
| -557.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1006.0     |         |
| -616.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1065.0     |         |
| -826.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1275.0     |         |
| -973.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1422.0     |         |

MAPID: 15900301000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 8E SECTION: 24 QUARTERS/FOOTAGES: NW SE SE

QUADRANGLE: CLAY CITY LONGITUDE: -88.260949 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.674593 DATE COLLECTED: 0 / 0 / 1944

SURFACE ELEVATION (FT.): 452.0 LOGGED (FT.): 4520.0 LOG TYPE:

SOURCE: PURE OC, RUSK E 0002 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER      | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|-------------|-------------|-----------|-----------------|------------|---------|
|                        |             |             |           | UNIT            | OVERBURDEN |         |
| -138.0                 | BOND        | CARTHAGE    | LIMESTONE | -               | 590.0      |         |
| -488.0                 | CARBONDALE  | DANVILLE    | COAL      | -               | 940.0      |         |
| -538.0                 | CARBONDALE  | HERRIN      | COAL      | -               | 990.0      |         |
| -596.0                 | CARBONDALE  | SPRINGFIELD | COAL      | -               | 1048.0     |         |
| -802.0                 | SPOON       | PALZO       | SANDSTONE | -               | 1254.0     |         |
| -967.0                 | WALTERSBURG | GLEN DEAN   | LIMESTONE | -               | 1419.0     |         |

MAPID: 15900332000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 8E SECTION: 24 QUARTERS/FOOTAGES: NE SW NE

QUADRANGLE: CLAY CITY LONGITUDE: -88.263378 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.681941 DATE COLLECTED: 0 / 0 / 1944

SURFACE ELEVATION (FT.): 453.0 LOGGED (FT.): 4530.0 LOG TYPE:

SOURCE: PURE OC, MARTIN ART0004 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER      | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|-------------|-----------|-----------------|--------------------|
|                        |             |             |           | UNIT            | OVERBURDEN COMMENT |
| -509.0                 | CARBONDALE  | DANVILLE    | COAL      | -               | 962.0              |
| -563.0                 | CARBONDALE  | HERRIN      | COAL      | -               | 1016.0             |
| -623.0                 | CARBONDALE  | SPRINGFIELD | COAL      | -               | 1076.0             |
| -817.0                 | SPOON       | PALZO       | SANDSTONE | -               | 1270.0             |
| -973.0                 | WALTERSBURG | GLEN DEAN   | LIMESTONE | -               | 1426.0             |

MAPID: 15900217000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 8E SECTION: 25 QUARTERS/FOOTAGES: NE NE SE

QUADRANGLE: CLAY CITY LONGITUDE: -88.258528 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.663583 DATE COLLECTED: 0 / 0 / 1943

SURFACE ELEVATION (FT.): 449.0 LOGGED (FT.): 4490.0 LOG TYPE:

SOURCE: PURE OC, KLNGENSMTH0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -325.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 774.0              |
| -501.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 950.0              |
| -544.0                 | CARBONDALE | HERRIN        | COAL      | -               | 993.0              |
| -606.0                 | CARBONDALE | SPRINGFIELD   | COAL      | -               | 1055.0             |
| -696.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1145.0             |

MAPID: 15900218000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 8E SECTION: 25 QUARTERS/FOOTAGES: 1983' S line, 1851' W line

QUADRANGLE: CLAY CITY LONGITUDE: -88.269584 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.663028 DATE COLLECTED: 0 / 0 / 1944

SURFACE ELEVATION (FT.): 449.0 LOGGED (FT.): 4490.0 LOG TYPE:

SOURCE: PURE OC, KLGMT CON 00B1 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -161.0                 | BOND        | CARTHAGE      | LIMESTONE | -               | 610.0              |
| -351.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 800.0              |
| -517.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 966.0              |
| -561.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1010.0             |
| -621.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1070.0             |
| -845.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1294.0             |
| -981.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1430.0             |

MAPID: 15900218000C VERSION: 2

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 8E SECTION: 25 QUARTERS/FOOTAGES: 1983' S line, 1851' W line

QUADRANGLE: CLAY CITY LONGITUDE: -88.269584 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.663028 DATE COLLECTED:

SURFACE ELEVATION (FT.): 449.0 LOGGED (FT.): 1266.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -151.0                 | BOND       | CARTHAGE      | LIMESTONE | 5.0             | 600.0              |
| -353.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 7.0             | 802.0              |
| -518.0                 | CARBONDALE | DANVILLE      | COAL      | 3.5             | 967.0              |
| -560.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1009.0             |
| -619.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1068.0             |
| -817.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1266.0             |



MAPID: 15900219000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 8E SECTION: 25 QUARTERS/FOOTAGES: NE NE NW

QUADRANGLE: CLAY CITY LONGITUDE: -88.267964 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.671166 DATE COLLECTED: 0 / 0 / 1944

SURFACE ELEVATION (FT.): 421.0 LOGGED (FT.): 4210.0 LOG TYPE:

SOURCE: PURE OC, PIPHER H 0003 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER      | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|-------------|-----------|-----------------|--------------------|
|                        |             |             |           | UNIT            | OVERBURDEN COMMENT |
| -159.0                 | BOND        | CARTHAGE    | LIMESTONE | -               | 580.0              |
| -519.0                 | CARBONDALE  | DANVILLE    | COAL      | -               | 940.0              |
| -559.0                 | CARBONDALE  | HERRIN      | COAL      | -               | 980.0              |
| -619.0                 | CARBONDALE  | SPRINGFIELD | COAL      | -               | 1040.0             |
| -829.0                 | SPOON       | PALZO       | SANDSTONE | -               | 1250.0             |
| -974.0                 | WALTERSBURG | GLEN DEAN   | LIMESTONE | -               | 1395.0             |

MAPID: 15900293000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 8E SECTION: 25 QUARTERS/FOOTAGES: NE SW NW

QUADRANGLE: CLAY CITY LONGITUDE: -88.272628 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.667662 DATE COLLECTED: 0 / 0 / 1944

SURFACE ELEVATION (FT.): 417.0 LOGGED (FT.): 4170.0 LOG TYPE:

SOURCE: PURE OC, PIPHER H 0002 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -181.0                 | BOND        | CARTHAGE      | LIMESTONE | -               | 598.0              |
| -373.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 790.0              |
| -518.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 935.0              |
| -548.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 965.0              |
| -608.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1025.0             |
| -808.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1225.0             |
| -983.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1400.0             |

MAPID: 15900294000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 8E SECTION: 25 QUARTERS/FOOTAGES: SE SE NE

QUADRANGLE: CLAY CITY LONGITUDE: -88.258538

GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.665409

DATE COLLECTED: 0 / 0 / 1943

SURFACE ELEVATION (FT.): 444.0 LOGGED (FT.): 4440.0

LOG TYPE:

SOURCE: PURE OC, ODELL L H 0001

WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|-------------|---------------|-----------|-----------------|------------|---------|
|                        |             |               |           | UNIT            | OVERBURDEN |         |
| -142.0                 | BOND        | CARTHAGE      | LIMESTONE | -               | 586.0      |         |
| -351.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 795.0      |         |
| -504.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 948.0      |         |
| -551.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 995.0      |         |
| -610.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1054.0     |         |
| -808.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1252.0     |         |
| -973.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1417.0     |         |

MAPID: 15900295000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 8E SECTION: 25 QUARTERS/FOOTAGES: NW SW SE

QUADRANGLE: CLAY CITY LONGITUDE: -88.265535

GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.660157

DATE COLLECTED: 0 / 0 / 1943

SURFACE ELEVATION (FT.): 447.0 LOGGED (FT.): 4470.0

LOG TYPE:

SOURCE: PURE OC, PARSNS CON0002

WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|-------------|---------------|-----------|-----------------|------------|---------|
|                        |             |               |           | UNIT            | OVERBURDEN |         |
| -143.0                 | BOND        | CARTHAGE      | LIMESTONE | -               | 590.0      |         |
| -326.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 773.0      |         |
| -509.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 956.0      |         |
| -613.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1060.0     |         |
| -813.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1260.0     |         |
| -976.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1423.0     |         |

MAPID: 15900296000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 8E SECTION: 25 QUARTERS/FOOTAGES: NE SE NW

QUADRANGLE: CLAY CITY LONGITUDE: -88.267936

GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.667519

DATE COLLECTED: 0 / 0 / 1944

SURFACE ELEVATION (FT.): 420.0

LOGGED (FT.): 4200.0

LOG TYPE:

SOURCE: PURE OC, PIPHER CON0001

WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|-------------|---------------|-----------|-----------------|------------|---------|
|                        |             |               |           | UNIT            | OVERBURDEN |         |
| -170.0                 | BOND        | CARTHAGE      | LIMESTONE | -               | 590.0      |         |
| -362.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 782.0      |         |
| -520.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 940.0      |         |
| -560.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 980.0      |         |
| -620.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1040.0     |         |
| -830.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1250.0     |         |
| -980.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1400.0     |         |

MAPID: 15900297000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 8E SECTION: 25 QUARTERS/FOOTAGES: SW NE NW

QUADRANGLE: CLAY CITY LONGITUDE: -88.270298

GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.669413

DATE COLLECTED: 0 / 0 / 1944

SURFACE ELEVATION (FT.): 442.0

LOGGED (FT.): 4420.0

LOG TYPE:

SOURCE: PURE OC, PIPHER H 0001

WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|-------------|---------------|-----------|-----------------|------------|---------|
|                        |             |               |           | UNIT            | OVERBURDEN |         |
| -178.0                 | BOND        | CARTHAGE      | LIMESTONE | -               | 620.0      |         |
| -378.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 820.0      |         |
| -472.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 914.0      |         |
| -562.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1004.0     |         |
| -618.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1060.0     |         |
| -828.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1270.0     |         |
| -978.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1420.0     |         |

MAPID: 15900412000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 8E SECTION: 25 QUARTERS/FOOTAGES: NW NE NE  
 QUADRANGLE: CLAY CITY LONGITUDE: -88.260917 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.670951 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 452.0 LOGGED (FT.): 1283.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -142.0                 | BOND       | CARTHAGE      | LIMESTONE | 5.0             | 594.0      |         |
| -494.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 946.0      |         |
| -541.0                 | CARBONDALE | HERRIN        | COAL      | -               | 993.0      |         |
| -599.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1051.0     |         |
| -688.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1140.0     |         |
| -798.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1250.0     |         |
| -831.0                 | SPOON      | SEELYVILLE    | COAL      | -               | 1283.0     |         |

MAPID: 15900222000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 8E SECTION: 35 QUARTERS/FOOTAGES: NE SE SE  
 QUADRANGLE: CLAY CITY LONGITUDE: -88.277281 GEOLOGIST: SIEVER  
 CONFIDENTIAL: N LATITUDE: 38.646051 DATE COLLECTED: 0 / 0 / 1944  
 SURFACE ELEVATION (FT.): 444.0 LOGGED (FT.): 4440.0 LOG TYPE:  
 SOURCE: PURE OC, SMITH CT 00A3 WELL TYPE: Oil and Gas Test  
 COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|-------------|---------------|-----------|-----------------|------------|---------|
|                        |             |               |           | UNIT            | OVERBURDEN |         |
| -214.0                 | BOND        | CARTHAGE      | LIMESTONE | -               | 658.0      |         |
| -364.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 808.0      |         |
| -496.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 940.0      |         |
| -552.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 996.0      |         |
| -617.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1061.0     |         |
| -844.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1288.0     |         |
| -974.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1418.0     |         |

MAPID: 15900292000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 8E SECTION: 35 QUARTERS/FOOTAGES: 2344' S line, 1655' E line

QUADRANGLE: CLAY CITY LONGITUDE: -88.281927 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.650029 DATE COLLECTED: 0 / 0 / 1944

SURFACE ELEVATION (FT.): 444.0 LOGGED (FT.): 4440.0 LOG TYPE:

SOURCE: PURE OC, KSKDDN CON0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER      | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|-------------|-----------|-----------------|--------------------|
|                        |             |             |           | UNIT            | OVERBURDEN COMMENT |
| -150.0                 | BOND        | CARTHAGE    | LIMESTONE | -               | 594.0              |
| -506.0                 | CARBONDALE  | DANVILLE    | COAL      | -               | 950.0              |
| -558.0                 | CARBONDALE  | HERRIN      | COAL      | -               | 1002.0             |
| -611.0                 | CARBONDALE  | SPRINGFIELD | COAL      | -               | 1055.0             |
| -836.0                 | SPOON       | PALZO       | SANDSTONE | -               | 1280.0             |
| -976.0                 | WALTERSBURG | GLEN DEAN   | LIMESTONE | -               | 1420.0             |

MAPID: 15900292000C VERSION: 2

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 8E SECTION: 35 QUARTERS/FOOTAGES: 2344' S line, 1655' E line

QUADRANGLE: CLAY CITY LONGITUDE: -88.281927 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.650029 DATE COLLECTED:

SURFACE ELEVATION (FT.): 444.0 LOGGED (FT.): 1258.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -150.0                 | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 594.0              |
| -507.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 951.0              |
| -559.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1003.0             |
| -612.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.0             | 1056.0             |
| -702.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1146.0             |
| -814.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1258.0             |

MAPID: 15900341000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 8E SECTION: 35 QUARTERS/FOOTAGES: NE SW SE

QUADRANGLE: CLAY CITY LONGITUDE: -88.281907 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.646266 DATE COLLECTED: 0 / 0 / 1944

SURFACE ELEVATION (FT.): 431.0 LOGGED (FT.): 4310.0 LOG TYPE:

SOURCE: PURE OC, SMITH CT 00A4 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER      | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|-------------|-----------|-----------------|--------------------|
|                        |             |             |           | UNIT            | OVERBURDEN COMMENT |
| -507.0                 | CARBONDALE  | DANVILLE    | COAL      | -               | 938.0              |
| -552.0                 | CARBONDALE  | HERRIN      | COAL      | -               | 983.0              |
| -615.0                 | CARBONDALE  | SPRINGFIELD | COAL      | -               | 1046.0             |
| -839.0                 | SPOON       | PALZO       | SANDSTONE | -               | 1270.0             |
| -969.0                 | WALTERSBURG | GLEN DEAN   | LIMESTONE | -               | 1400.0             |

MAPID: 15900215000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 8E SECTION: 36 QUARTERS/FOOTAGES: 660' N line, 682' E line

QUADRANGLE: CLAY CITY LONGITUDE: -88.259768 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.655418 DATE COLLECTED: 0 / 0 / 1943

SURFACE ELEVATION (FT.): 449.0 LOGGED (FT.): 4490.0 LOG TYPE:

SOURCE: PURE OC, GRUBB ART 00B1 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -311.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 760.0              |
| -483.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 932.0              |
| -528.0                 | CARBONDALE | HERRIN        | COAL      | -               | 977.0              |
| -591.0                 | CARBONDALE | SPRINGFIELD   | COAL      | -               | 1040.0             |
| -680.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1129.0             |

MAPID: 15900215000C VERSION: 2

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 8E SECTION: 36 QUARTERS/FOOTAGES: 660' N line, 682' E line  
 QUADRANGLE: CLAY CITY LONGITUDE: -88.259768 GEOLOGIST: C TREWORGY  
 CONFIDENTIAL: N LATITUDE: 38.655418 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 449.0 LOGGED (FT.): 1236.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -304.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 9.0             | 753.0              |
| -482.0                 | CARBONDALE | DANVILLE      | COAL      | 2.5             | 931.0              |
| -528.0                 | CARBONDALE | HERRIN        | COAL      | -               | 977.0              |
| -591.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1040.0             |
| -681.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1130.0             |
| -787.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1236.0             |

MAPID: 15900220000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 8E SECTION: 36 QUARTERS/FOOTAGES: SW SE SW  
 QUADRANGLE: CLAY CITY LONGITUDE: -88.270371 GEOLOGIST: SIEVER  
 CONFIDENTIAL: N LATITUDE: 38.643985 DATE COLLECTED: 0 / 0 / 1944  
 SURFACE ELEVATION (FT.): 448.0 LOGGED (FT.): 4480.0 LOG TYPE:  
 SOURCE: PURE OC, GRUBB AL 00A2 WELL TYPE: Oil and Gas Test  
 COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -132.0                 | BOND        | CARTHAGE      | LIMESTONE | -               | 580.0              |
| -274.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 722.0              |
| -502.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 950.0              |
| -544.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 992.0              |
| -608.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1056.0             |
| -836.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1284.0             |
| -962.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1410.0             |

MAPID: 15900221000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 8E SECTION: 36 QUARTERS/FOOTAGES: NE NE SE

QUADRANGLE: CLAY CITY LONGITUDE: -88.258697 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.649026 DATE COLLECTED: 0 / 0 / 1944

SURFACE ELEVATION (FT.): 454.0 LOGGED (FT.): 4540.0 LOG TYPE:

SOURCE: PURE OC, PHILPOTT G0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER      | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|-------------|-----------|-----------------|--------------------|
|                        |             |             |           | UNIT            | OVERBURDEN COMMENT |
| -464.0                 | CARBONDALE  | DANVILLE    | COAL      | -               | 918.0              |
| -516.0                 | CARBONDALE  | HERRIN      | COAL      | -               | 970.0              |
| -582.0                 | CARBONDALE  | SPRINGFIELD | COAL      | -               | 1036.0             |
| -786.0                 | SPOON       | PALZO       | SANDSTONE | -               | 1240.0             |
| -970.0                 | WALTERSBURG | GLEN DEAN   | LIMESTONE | -               | 1424.0             |

MAPID: 15900224000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 8E SECTION: 36 QUARTERS/FOOTAGES: SW NW NW

QUADRANGLE: CLAY CITY LONGITUDE: -88.274899 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.655002 DATE COLLECTED: 0 / 0 / 1945

SURFACE ELEVATION (FT.): 439.0 LOGGED (FT.): 4390.0 LOG TYPE:

SOURCE: PURE OC, GRUBB CON 00B1 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -151.0                 | BOND        | CARTHAGE      | LIMESTONE | -               | 590.0              |
| -346.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 785.0              |
| -505.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 944.0              |
| -545.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 984.0              |
| -655.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1094.0             |
| -805.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1244.0             |
| -976.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1415.0             |



MAPID: 15900239000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 8E SECTION: 36 QUARTERS/FOOTAGES: NE NE SW

QUADRANGLE: CLAY CITY LONGITUDE: -88.267979 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.649341 DATE COLLECTED: 0 / 0 / 1945

SURFACE ELEVATION (FT.): 453.0 LOGGED (FT.): 4530.0 LOG TYPE:

SOURCE: PURE OC, BOONE H G 0002 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -131.0                 | BOND        | CARTHAGE      | LIMESTONE | -               | 584.0              |
| -347.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 800.0              |
| -475.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 928.0              |
| -531.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 984.0              |
| -597.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1050.0             |
| -797.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1250.0             |
| -972.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1425.0             |

MAPID: 15900339000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 8E SECTION: 36 QUARTERS/FOOTAGES: SW SW NW

QUADRANGLE: CLAY CITY LONGITUDE: -88.274926 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.651383 DATE COLLECTED: 0 / 0 / 1945

SURFACE ELEVATION (FT.): 435.0 LOGGED (FT.): 4350.0 LOG TYPE:

SOURCE: PURE OC, GRUBB ART 00D2 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -167.0                 | BOND        | CARTHAGE      | LIMESTONE | -               | 602.0              |
| -340.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 775.0              |
| -497.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 932.0              |
| -540.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 975.0              |
| -605.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1040.0             |
| -805.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1240.0             |
| -974.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1409.0             |

MAPID: 1590034000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 8E SECTION: 36 QUARTERS/FOOTAGES: SW NW SW

QUADRANGLE: CLAY CITY LONGITUDE: -88.274956 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.647766 DATE COLLECTED: 0 / 0 / 1944

SURFACE ELEVATION (FT.): 441.0 LOGGED (FT.): 4410.0 LOG TYPE:

SOURCE: PURE OC, GUYOT C 00A2 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -181.0                 | BOND        | CARTHAGE      | LIMESTONE | -               | 622.0              |
| -323.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 764.0              |
| -495.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 936.0              |
| -549.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 990.0              |
| -613.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1054.0             |
| -839.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1280.0             |
| -963.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1404.0             |

MAPID: 15901343000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 8E SECTION: 36 QUARTERS/FOOTAGES: SW NE SW

QUADRANGLE: CLAY CITY LONGITUDE: -88.270322 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.647607 DATE COLLECTED:

SURFACE ELEVATION (FT.): 452.0 LOGGED (FT.): 1252.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -128.0                 | BOND       | CARTHAGE      | LIMESTONE | 5.0             | 580.0              |
| -342.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 9.0             | 794.0              |
| -486.0                 | CARBONDALE | DANVILLE      | COAL      | 2.5             | 938.0              |
| -539.0                 | CARBONDALE | HERRIN        | COAL      | -               | 991.0              |
| -605.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.0             | 1057.0             |
| -697.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1149.0             |
| -800.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1252.0             |

MAPID: 15901353000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 1 QUARTERS/FOOTAGES: NW NE NW  
 QUADRANGLE: NOBLE LONGITUDE: -88.161811 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.728853 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 471.0 LOGGED (FT.): 1257.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -156.0                 | BOND       | CARTHAGE      | LIMESTONE | 4.0             | 627.0              |
| -333.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 19.0            | 804.0              |
| -502.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 973.0              |
| -552.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1023.0             |
| -626.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 6.5             | 1097.0             |
| -679.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1150.0             |
| -786.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1257.0             |

MAPID: 15901354000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 1 QUARTERS/FOOTAGES: NE NE NW  
 QUADRANGLE: NOBLE LONGITUDE: -88.159545 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.728857 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 469.0 LOGGED (FT.): 1270.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -168.0                 | BOND       | CARTHAGE      | LIMESTONE | 5.0             | 637.0              |
| -337.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 806.0              |
| -513.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 982.0              |
| -563.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1032.0             |
| -639.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 6.0             | 1108.0             |
| -696.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1165.0             |
| -801.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1270.0             |

MAPID: 15901355000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 1 QUARTERS/FOOTAGES: NE NE SW

QUADRANGLE: NOBLE LONGITUDE: -88.159543 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.721468 DATE COLLECTED:

SURFACE ELEVATION (FT.): 461.0 LOGGED (FT.): 1255.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -168.0                 | BOND       | CARTHAGE      | LIMESTONE | 5.0             | 629.0              |
| -359.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 11.0            | 820.0              |
| -503.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 964.0              |
| -555.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1016.0             |
| -630.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 6.0             | 1091.0             |
| -794.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1255.0             |

MAPID: 15900056000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 2 QUARTERS/FOOTAGES: SW SE NE

QUADRANGLE: NOBLE LONGITUDE: -88.171036 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.723354 DATE COLLECTED: 0 / 0 / 1941

SURFACE ELEVATION (FT.): 473.0 LOGGED (FT.): 4730.0 LOG TYPE:

SOURCE: PURE OC, MILLER D M0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -152.0                 | BOND        | CARTHAGE      | LIMESTONE | -               | 625.0              |
| -347.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 820.0              |
| -485.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 958.0              |
| -595.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1068.0             |
| -945.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1418.0             |

MAPID: 15900300000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 2 QUARTERS/FOOTAGES: NW SE SW

QUADRANGLE: NOBLE LONGITUDE: -88.180358 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.717872 DATE COLLECTED: 0 / 0 / 1944

SURFACE ELEVATION (FT.): 463.0 LOGGED (FT.): 4630.0 LOG TYPE:

SOURCE: CARDNAL OC, MILLER 0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -127.0                 | BOND        | CARTHAGE      | LIMESTONE | -               | 590.0              |
| -317.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 780.0              |
| -482.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 945.0              |
| -601.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1064.0             |
| -777.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1240.0             |
| -927.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1390.0             |

MAPID: 15900475000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 2 QUARTERS/FOOTAGES: SE NE NW

QUADRANGLE: NOBLE LONGITUDE: -88.178114 GEOLOGIST: C TREWORYG

CONFIDENTIAL: N LATITUDE: 38.727129 DATE COLLECTED:

SURFACE ELEVATION (FT.): 479.0 LOGGED (FT.): 1292.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -371.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 850.0              |
| -514.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 993.0              |
| -566.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1045.0             |
| -631.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1110.0             |
| -707.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1186.0             |
| -813.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1292.0             |

MAPID: 15901356000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 2 QUARTERS/FOOTAGES: 1278' N line, 990' W line of SE SW

QUADRANGLE: NOBLE LONGITUDE: -88.177999 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.715258 DATE COLLECTED:

SURFACE ELEVATION (FT.): 472.0 LOGGED (FT.): 1233.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -120.0                 | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 592.0              |
| -302.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 774.0              |
| -467.0                 | CARBONDALE | DANVILLE      | COAL      | 2.5             | 939.0              |
| -526.0                 | CARBONDALE | HERRIN        | COAL      | -               | 998.0              |
| -586.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1058.0             |
| -662.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1134.0             |
| -761.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1233.0             |

MAPID: 15901357000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 2 QUARTERS/FOOTAGES: SW SW SW

QUADRANGLE: NOBLE LONGITUDE: -88.18498 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.716036 DATE COLLECTED:

SURFACE ELEVATION (FT.): 476.0 LOGGED (FT.): 1266.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -136.0                 | BOND       | CARTHAGE      | LIMESTONE | 7.0             | 612.0              |
| -320.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 796.0              |
| -494.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 970.0              |
| -546.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1022.0             |
| -614.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1090.0             |
| -686.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1162.0             |
| -790.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1266.0             |

**MAPID:** 15900057000C    **VERSION:** 1    **PROJECT:** RI 148  
**COUNTY:** RICHLAND    **TWP/RNG:** 3N 9E    **SECTION:** 3    **QUARTERS/FOOTAGES:** NE SE NE  
**QUADRANGLE:** NOBLE    **LONGITUDE:** -88.187518    **GEOLOGIST:** SIEVER  
**CONFIDENTIAL:** N    **LATITUDE:** 38.72538    **DATE COLLECTED:** 0 / 0 / 1940  
**SURFACE ELEVATION (FT.):** 479.0    **LOGGED (FT.):** 4790.0    **LOG TYPE:**  
**SOURCE:** STENGLE AL, DAVNPRT A 0001    **WELL TYPE:** Oil and Gas Test  
**COMMENT:**

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -164.0                 | BOND        | CARTHAGE      | LIMESTONE | -               | 643.0              |
| -354.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 833.0              |
| -499.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 978.0              |
| -554.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1033.0             |
| -930.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1409.0             |

**MAPID:** 15900058000C    **VERSION:** 1    **PROJECT:** RI 148  
**COUNTY:** RICHLAND    **TWP/RNG:** 3N 9E    **SECTION:** 3    **QUARTERS/FOOTAGES:** SE NW SW  
**QUADRANGLE:** NOBLE    **LONGITUDE:** -88.201612    **GEOLOGIST:** SIEVER  
**CONFIDENTIAL:** N    **LATITUDE:** 38.720044    **DATE COLLECTED:** 0 / 0 / 1942  
**SURFACE ELEVATION (FT.):** 488.0    **LOGGED (FT.):** 4880.0    **LOG TYPE:**  
**SOURCE:** PURE OC, SNYDER A M0005    **WELL TYPE:** Oil and Gas Test  
**COMMENT:**

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -145.0                 | BOND        | CARTHAGE      | LIMESTONE | -               | 633.0              |
| -325.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 813.0              |
| -547.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1035.0             |
| -612.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1100.0             |
| -902.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1390.0             |

MAPID: 15900201000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 3 QUARTERS/FOOTAGES: NW NW SW

QUADRANGLE: NOBLE LONGITUDE: -88.204013 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.721932 DATE COLLECTED: 0 / 0 / 1943

SURFACE ELEVATION (FT.): 494.0 LOGGED (FT.): 4940.0 LOG TYPE:

SOURCE: PURE OC, SNYDER A M0007 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -134.0                 | BOND       | CARTHAGE      | LIMESTONE | -               | 628.0              |
| -318.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 812.0              |
| -479.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 973.0              |
| -530.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1024.0             |
| -592.0                 | CARBONDALE | SPRINGFIELD   | COAL      | -               | 1086.0             |
| -660.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1154.0             |

MAPID: 15900310000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 3 QUARTERS/FOOTAGES: 1033' N line, 2363' W line

QUADRANGLE: NOBLE LONGITUDE: -88.196968 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.727292 DATE COLLECTED: 0 / 0 / 1944

SURFACE ELEVATION (FT.): 489.0 LOGGED (FT.): 4890.0 LOG TYPE:

SOURCE: PURE OC, SNYDER A 0008 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -146.0                 | BOND       | CARTHAGE      | LIMESTONE | -               | 635.0              |
| -325.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 814.0              |
| -485.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 974.0              |
| -536.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1025.0             |
| -603.0                 | CARBONDALE | SPRINGFIELD   | COAL      | -               | 1092.0             |
| -836.0                 | SPOON      | PALZO         | SANDSTONE | -               | 1325.0             |



MAPID: 1590031000C VERSION: 2

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 3 QUARTERS/FOOTAGES: 1033' N line, 2363' W line

QUADRANGLE: NOBLE LONGITUDE: -88.196968 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.727292 DATE COLLECTED:

SURFACE ELEVATION (FT.): 489.0 LOGGED (FT.): 1255.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -147.0                 | BOND       | CARTHAGE      | LIMESTONE | 7.0             | 636.0              |
| -327.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 9.0             | 816.0              |
| -485.0                 | CARBONDALE | DANVILLE      | COAL      | 3.5             | 974.0              |
| -539.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1028.0             |
| -601.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1090.0             |
| -671.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1160.0             |
| -766.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1255.0             |

MAPID: 15900413000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 3 QUARTERS/FOOTAGES: SE NE SW

QUADRANGLE: NOBLE LONGITUDE: -88.196877 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.719961 DATE COLLECTED:

SURFACE ELEVATION (FT.): 479.0 LOGGED (FT.): 1260.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -134.0                 | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 613.0              |
| -315.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 17.0            | 794.0              |
| -483.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 962.0              |
| -547.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1026.0             |
| -612.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1091.0             |
| -683.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1162.0             |
| -781.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1260.0             |

MAPID: 15900114000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 4 QUARTERS/FOOTAGES: NE NE SE

QUADRANGLE: NOBLE LONGITUDE: -88.206356 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.721967 DATE COLLECTED: 0 / 0 / 1942

SURFACE ELEVATION (FT.): 494.0 LOGGED (FT.): 4940.0 LOG TYPE:

SOURCE: PURE OC, COEN J O 0031 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -308.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 802.0              |
| -473.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 967.0              |
| -525.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1019.0             |
| -586.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1080.0             |
| -890.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1384.0             |

MAPID: 15900115000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 4 QUARTERS/FOOTAGES: 1324' S line, 1342' E line

QUADRANGLE: NOBLE LONGITUDE: -88.209873 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.719231 DATE COLLECTED: 0 / 0 / 1942

SURFACE ELEVATION (FT.): 496.0 LOGGED (FT.): 4960.0 LOG TYPE:

SOURCE: PURE OC, COEN J O 0033 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -311.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 807.0              |
| -477.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 973.0              |
| -529.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1025.0             |
| -590.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1086.0             |
| -892.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1388.0             |

MAPID: 15900115000C VERSION: 2

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 4 QUARTERS/FOOTAGES: 1324' S line, 1342' E line

QUADRANGLE: NOBLE LONGITUDE: -88.209873 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.719231 DATE COLLECTED:

SURFACE ELEVATION (FT.): 496.0 LOGGED (FT.): 1276.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -136.0                 | BOND       | CARTHAGE      | LIMESTONE | 5.0             | 632.0      |         |
| -302.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 12.0            | 798.0      |         |
| -477.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 973.0      |         |
| -530.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1026.0     |         |
| -600.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1096.0     |         |
| -669.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1165.0     |         |
| -780.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1276.0     |         |

MAPID: 15900116000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 4 QUARTERS/FOOTAGES: SW NW SE

QUADRANGLE: NOBLE LONGITUDE: -88.213285 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.72023 DATE COLLECTED: 0 / 0 / 1943

SURFACE ELEVATION (FT.): 496.0 LOGGED (FT.): 4960.0 LOG TYPE:

SOURCE: PURE OC, COEN J O 0034 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -139.0                 | BOND       | CARTHAGE      | LIMESTONE | -               | 635.0      |         |
| -317.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 813.0      |         |
| -487.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 983.0      |         |
| -534.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1030.0     |         |

MAPID: 15900117000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 4 QUARTERS/FOOTAGES: SE SW SE

QUADRANGLE: NOBLE LONGITUDE: -88.210899 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.716512 DATE COLLECTED: 0 / 0 / 1943

SURFACE ELEVATION (FT.): 491.0 LOGGED (FT.): 4910.0 LOG TYPE:

SOURCE: PURE OC, COEN J O 0036 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -139.0                 | BOND        | CARTHAGE      | LIMESTONE | -               | 630.0              |
| -315.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 806.0              |
| -485.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 976.0              |
| -533.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1024.0             |
| -596.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1087.0             |
| -893.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1384.0             |

MAPID: 15900311000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 4 QUARTERS/FOOTAGES: SE SW SW

QUADRANGLE: NOBLE LONGITUDE: -88.22019 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.716653 DATE COLLECTED: 0 / 0 / 1944

SURFACE ELEVATION (FT.): 491.0 LOGGED (FT.): 4910.0 LOG TYPE:

SOURCE: PURE OC, COEN J O 0042 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -144.0                 | BOND        | CARTHAGE      | LIMESTONE | -               | 635.0              |
| -313.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 804.0              |
| -489.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 980.0              |
| -539.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1030.0             |
| -599.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1090.0             |
| -789.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1280.0             |
| -893.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1384.0             |

MAPID: 15900312000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 4 QUARTERS/FOOTAGES: SW NE SW

QUADRANGLE: NOBLE LONGITUDE: -88.217925 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.720298 DATE COLLECTED: 0 / 0 / 1944

SURFACE ELEVATION (FT.): 493.0 LOGGED (FT.): 4930.0 LOG TYPE:

SOURCE: PURE OC, COEN J O 0040 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|-------------|---------------|-----------|-----------------|------------|---------|
|                        |             |               |           | UNIT            | OVERBURDEN |         |
| -147.0                 | BOND        | CARTHAGE      | LIMESTONE | -               | 640.0      |         |
| -303.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 796.0      |         |
| -482.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 975.0      |         |
| -527.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1020.0     |         |
| -592.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1085.0     |         |
| -772.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1265.0     |         |
| -885.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1378.0     |         |

MAPID: 15900313000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 4 QUARTERS/FOOTAGES: SE NW SW

QUADRANGLE: NOBLE LONGITUDE: -88.220247 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.720332 DATE COLLECTED: 0 / 0 / 1944

SURFACE ELEVATION (FT.): 491.0 LOGGED (FT.): 4910.0 LOG TYPE:

SOURCE: PURE OC, COEN J O 0041 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|-------------|---------------|-----------|-----------------|------------|---------|
|                        |             |               |           | UNIT            | OVERBURDEN |         |
| -151.0                 | BOND        | CARTHAGE      | LIMESTONE | -               | 642.0      |         |
| -329.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 820.0      |         |
| -487.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 978.0      |         |
| -533.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1024.0     |         |
| -605.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1096.0     |         |
| -774.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1265.0     |         |
| -891.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1382.0     |         |

MAPID: 15901385000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 4 QUARTERS/FOOTAGES: 1720' N line, 1323' E line

QUADRANGLE: NOBLE LONGITUDE: -88.209921 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.725557 DATE COLLECTED:

SURFACE ELEVATION (FT.): 496.0 LOGGED (FT.): 1258.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -137.0                 | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 633.0              |
| -296.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 11.0            | 792.0              |
| -461.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 957.0              |
| -590.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.5             | 1086.0             |
| -666.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1162.0             |
| -762.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1258.0             |

MAPID: 15901656000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 4 QUARTERS/FOOTAGES: SE NW NE

QUADRANGLE: NOBLE LONGITUDE: -88.21109 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.727561 DATE COLLECTED:

SURFACE ELEVATION (FT.): 499.0 LOGGED (FT.): 1261.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -146.0                 | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 645.0              |
| -311.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 7.0             | 810.0              |
| -470.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 969.0              |
| -526.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1025.0             |
| -586.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.5             | 1085.0             |
| -661.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1160.0             |
| -762.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1261.0             |

MAPID: 15900118000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 5 QUARTERS/FOOTAGES: 1040' N line, 180' W line of NE NE

QUADRANGLE: NOBLE LONGITUDE: -88.22783 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.727674 DATE COLLECTED: 0 / 0 / 1940

SURFACE ELEVATION (FT.): 508.0 LOGGED (FT.): 5080.0 LOG TYPE:

SOURCE: GULF REF, EBERHRDT MSWD1 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -149.0                 | BOND       | CARTHAGE      | LIMESTONE | -               | 657.0              |
| -335.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 843.0              |
| -497.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 1005.0             |
| -545.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1053.0             |
| -606.0                 | CARBONDALE | SPRINGFIELD   | COAL      | -               | 1114.0             |
| -687.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1195.0             |

MAPID: 15900118000C VERSION: 2

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 5 QUARTERS/FOOTAGES: 1040' N line, 180' W line of NE NE

QUADRANGLE: NOBLE LONGITUDE: -88.22783 GEOLOGIST: C TREWORYG

CONFIDENTIAL: N LATITUDE: 38.727674 DATE COLLECTED:

SURFACE ELEVATION (FT.): 508.0 LOGGED (FT.): 1292.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -148.0                 | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 656.0              |
| -335.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 7.0             | 843.0              |
| -496.0                 | CARBONDALE | DANVILLE      | COAL      | 2.5             | 1004.0             |
| -545.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1053.0             |
| -606.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1114.0             |
| -687.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1195.0             |
| -784.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1292.0             |

MAPID: 15900314000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 5 QUARTERS/FOOTAGES: SE NE SE

QUADRANGLE: NOBLE LONGITUDE: -88.224884 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.720396 DATE COLLECTED: 0 / 0 / 1944

SURFACE ELEVATION (FT.): 491.0 LOGGED (FT.): 4910.0 LOG TYPE:

SOURCE: PURE OC, PALMER TAY0012 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -144.0                 | BOND        | CARTHAGE      | LIMESTONE | -               | 635.0              |
| -319.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 810.0              |
| -491.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 982.0              |
| -539.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1030.0             |
| -599.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1090.0             |
| -774.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1265.0             |
| -893.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1384.0             |

MAPID: 15900522000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 5 QUARTERS/FOOTAGES: SW NW NW

QUADRANGLE: NOBLE LONGITUDE: -88.241195 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.727947 DATE COLLECTED:

SURFACE ELEVATION (FT.): 484.0 LOGGED (FT.): 1305.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -213.0                 | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 697.0              |
| -373.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 857.0              |
| -536.0                 | CARBONDALE | DANVILLE      | COAL      | 2.5             | 1020.0             |
| -581.0                 | CARBONDALE | HERRIN        | COAL      | 3.5             | 1065.0             |
| -642.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.5             | 1126.0             |
| -723.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1207.0             |
| -821.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1305.0             |



MAPID: 1590012000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 6 QUARTERS/FOOTAGES: NE NW SE

QUADRANGLE: NOBLE LONGITUDE: -88.248052 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.722463 DATE COLLECTED: 0 / 0 / 1941

SURFACE ELEVATION (FT.): 463.0 LOGGED (FT.): 4630.0 LOG TYPE:

SOURCE: PURE OC, NOE A 00B1 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -233.0                 | BOND       | CARTHAGE      | LIMESTONE | -               | 696.0              |
| -405.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 868.0              |
| -566.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 1029.0             |
| -615.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1078.0             |
| -677.0                 | CARBONDALE | SPRINGFIELD   | COAL      | -               | 1140.0             |
| -755.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1218.0             |

MAPID: 15900242000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 7 QUARTERS/FOOTAGES: SE SW SE

QUADRANGLE: NOBLE LONGITUDE: -88.247684 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.702265 DATE COLLECTED: 0 / 0 / 1945

SURFACE ELEVATION (FT.): 467.0 LOGGED (FT.): 4670.0 LOG TYPE:

SOURCE: PURE OC, CROUSE CON0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -195.0                 | BOND        | CARTHAGE      | LIMESTONE | -               | 662.0              |
| -373.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 840.0              |
| -535.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 1002.0             |
| -575.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1042.0             |
| -635.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1102.0             |
| -843.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1310.0             |
| -945.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1412.0             |

MAPID: 15900243000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 7 QUARTERS/FOOTAGES: 330' S line, 660' E line of SW

QUADRANGLE: CLAY CITY LONGITUDE: -88.253497 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.702341 DATE COLLECTED: 0 / 0 / 1945

SURFACE ELEVATION (FT.): 458.0 LOGGED (FT.): 4580.0 LOG TYPE:

SOURCE: PURE OC, SUMMERS C 0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -386.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 844.0              |
| -552.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 1010.0             |
| -588.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1046.0             |
| -652.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1110.0             |
| -862.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1320.0             |
| -968.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1426.0             |

MAPID: 15900243000C VERSION: 2

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 7 QUARTERS/FOOTAGES: 330' S line, 660' E line of SW

QUADRANGLE: CLAY CITY LONGITUDE: -88.253497 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.702341 DATE COLLECTED:

SURFACE ELEVATION (FT.): 458.0 LOGGED (FT.): 1314.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -387.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 7.0             | 845.0              |
| -552.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 1010.0             |
| -592.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1050.0             |
| -650.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1108.0             |
| -740.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1198.0             |
| -856.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1314.0             |

MAPID: 15901454000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 7 QUARTERS/FOOTAGES: SW SE NE  
 QUADRANGLE: NOBLE LONGITUDE: -88.245484 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.709577 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 470.0 LOGGED (FT.): 1284.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -175.0                 | BOND       | CARTHAGE      | LIMESTONE | 7.0             | 645.0              |
| -351.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 13.0            | 821.0              |
| -525.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 995.0              |
| -565.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1035.0             |
| -626.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1096.0             |
| -710.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1180.0             |
| -814.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1284.0             |

MAPID: 15901457000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 7 QUARTERS/FOOTAGES: 330' N line, 330' W line  
 QUADRANGLE: CLAY CITY LONGITUDE: -88.256407 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.715051 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 447.0 LOGGED (FT.): 1343.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -249.0                 | BOND       | CARTHAGE      | LIMESTONE | 5.0             | 696.0              |
| -423.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 870.0              |
| -587.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 1034.0             |
| -637.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1084.0             |
| -695.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.0             | 1142.0             |
| -777.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1224.0             |
| -896.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1343.0             |

MAPID: 15900121000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 8 QUARTERS/FOOTAGES: NW NW NW

QUADRANGLE: NOBLE LONGITUDE: -88.240936 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.715077 DATE COLLECTED: 0 / 0 / 1937

SURFACE ELEVATION (FT.): 469.1 LOGGED (FT.): 4691.0 LOG TYPE:

SOURCE: OHIO OIL, ARBUTHNOT 0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -182.9                 | BOND        | CARTHAGE      | LIMESTONE | -               | 652.0              |
| -355.9                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 825.0              |
| -521.9                 | CARBONDALE  | DANVILLE      | COAL      | -               | 991.0              |
| -566.9                 | CARBONDALE  | HERRIN        | COAL      | -               | 1036.0             |
| -632.9                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1102.0             |
| -932.9                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1402.0             |

MAPID: 15900244000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 8 QUARTERS/FOOTAGES: NW SW SW

QUADRANGLE: NOBLE LONGITUDE: -88.240751 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.70402 DATE COLLECTED: 0 / 0 / 1945

SURFACE ELEVATION (FT.): 467.0 LOGGED (FT.): 4670.0 LOG TYPE:

SOURCE: PURE OC, HART W H 0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -173.0                 | BOND        | CARTHAGE      | LIMESTONE | -               | 640.0              |
| -329.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 796.0              |
| -508.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 975.0              |
| -548.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1015.0             |
| -611.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1078.0             |
| -813.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1280.0             |
| -913.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1380.0             |

MAPID: 15900487000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 8 QUARTERS/FOOTAGES: 140' S line, 660' E line of NE NW

QUADRANGLE: NOBLE LONGITUDE: -88.235154 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.712632 DATE COLLECTED:

SURFACE ELEVATION (FT.): 481.0 LOGGED (FT.): 1266.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -154.0                 | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 635.0              |
| -339.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 820.0              |
| -516.0                 | CARBONDALE | DANVILLE      | COAL      | 3.5             | 997.0              |
| -560.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1041.0             |
| -625.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1106.0             |
| -697.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1178.0             |
| -785.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1266.0             |

MAPID: 15901490000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 8 QUARTERS/FOOTAGES: 5' N line, 5' E line of NW SE

QUADRANGLE: NOBLE LONGITUDE: -88.228174 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.708472 DATE COLLECTED:

SURFACE ELEVATION (FT.): 481.0 LOGGED (FT.): 1270.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -145.0                 | BOND       | CARTHAGE      | LIMESTONE | 7.0             | 626.0              |
| -319.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 9.0             | 800.0              |
| -501.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 982.0              |
| -545.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1026.0             |
| -609.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1090.0             |
| -689.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1170.0             |
| -789.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1270.0             |

MAPID: 15900073000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 9 QUARTERS/FOOTAGES: SW SW NE

QUADRANGLE: NOBLE LONGITUDE: -88.2131 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.709214 DATE COLLECTED: 0 / 0 / 1942

SURFACE ELEVATION (FT.): 488.0 LOGGED (FT.): 4880.0 LOG TYPE:

SOURCE: PURE OC, COEN J O 0028 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -476.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 964.0              |
| -532.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1020.0             |
| -594.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1082.0             |
| -671.0                 | CARBONDALE  | HOUCHIN CREEK | COAL      | -               | 1159.0             |
| -908.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1396.0             |

MAPID: 15900074000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 9 QUARTERS/FOOTAGES: SE SE NW

QUADRANGLE: NOBLE LONGITUDE: -88.215425 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.709245 DATE COLLECTED: 0 / 0 / 1942

SURFACE ELEVATION (FT.): 487.0 LOGGED (FT.): 4870.0 LOG TYPE:

SOURCE: PURE OC, COEN J O 0029 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -135.0                 | BOND        | CARTHAGE      | LIMESTONE | -               | 622.0              |
| -487.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 974.0              |
| -529.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1016.0             |
| -595.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1082.0             |
| -673.0                 | CARBONDALE  | HOUCHIN CREEK | COAL      | -               | 1160.0             |
| -900.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1387.0             |

MAPID: 15900075000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 9 QUARTERS/FOOTAGES: SW SE NE

QUADRANGLE: NOBLE LONGITUDE: -88.208449 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.709151 DATE COLLECTED: 0 / 0 / 1942

SURFACE ELEVATION (FT.): 488.0 LOGGED (FT.): 4880.0 LOG TYPE:

SOURCE: PURE OC, COEN J O 0030 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|-------------|---------------|-----------|-----------------|------------|---------|
|                        |             |               |           | UNIT            | OVERBURDEN |         |
| -140.0                 | BOND        | CARTHAGE      | LIMESTONE | -               | 628.0      |         |
| -309.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 797.0      |         |
| -486.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 974.0      |         |
| -531.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1019.0     |         |
| -596.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1084.0     |         |
| -667.0                 | CARBONDALE  | HOUCHIN CREEK | COAL      | -               | 1155.0     |         |
| -910.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1398.0     |         |

MAPID: 15900076000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 9 QUARTERS/FOOTAGES: NE SE NW

QUADRANGLE: NOBLE LONGITUDE: -88.215455 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.711079 DATE COLLECTED: 0 / 0 / 1943

SURFACE ELEVATION (FT.): 489.0 LOGGED (FT.): 4890.0 LOG TYPE:

SOURCE: PURE OC, COEN J O 0038 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|-------------|---------------|-----------|-----------------|------------|---------|
|                        |             |               |           | UNIT            | OVERBURDEN |         |
| -481.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 970.0      |         |
| -526.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1015.0     |         |
| -589.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1078.0     |         |
| -669.0                 | CARBONDALE  | HOUCHIN CREEK | COAL      | -               | 1158.0     |         |
| -901.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1390.0     |         |

MAPID: 15900077000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 9 QUARTERS/FOOTAGES: NE NE SE

QUADRANGLE: NOBLE LONGITUDE: -88.20609 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.707294 DATE COLLECTED: 0 / 0 / 1942

SURFACE ELEVATION (FT.): 484.0 LOGGED (FT.): 4840.0 LOG TYPE:

SOURCE: PURE OC, HILL L R 0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -134.0                 | BOND        | CARTHAGE      | LIMESTONE | -               | 618.0              |
| -318.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 802.0              |
| -492.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 976.0              |
| -537.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1021.0             |
| -604.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1088.0             |
| -913.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1397.0             |

MAPID: 15900202000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 9 QUARTERS/FOOTAGES: NE SW NE

QUADRANGLE: NOBLE LONGITUDE: -88.210805 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.711013 DATE COLLECTED: 0 / 0 / 1942

SURFACE ELEVATION (FT.): 489.0 LOGGED (FT.): 4890.0 LOG TYPE:

SOURCE: PURE OC, COEN J O 0032 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -133.0                 | BOND       | CARTHAGE      | LIMESTONE | -               | 622.0              |
| -308.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 797.0              |
| -481.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 970.0              |
| -530.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1019.0             |
| -594.0                 | CARBONDALE | SPRINGFIELD   | COAL      | -               | 1083.0             |
| -669.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1158.0             |



MAPID: 15900203000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 9 QUARTERS/FOOTAGES: NW NW NE

QUADRANGLE: NOBLE LONGITUDE: -88.213194 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.714709 DATE COLLECTED: 0 / 0 / 1943

SURFACE ELEVATION (FT.): 492.0 LOGGED (FT.): 4920.0 LOG TYPE:

SOURCE: PURE OC, COEN J O 0037 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -131.0                 | BOND       | CARTHAGE      | LIMESTONE | -               | 623.0              |
| -311.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 803.0              |
| -483.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 975.0              |
| -532.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1024.0             |
| -594.0                 | CARBONDALE | SPRINGFIELD   | COAL      | -               | 1086.0             |
| -674.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1166.0             |

MAPID: 15900315000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 9 QUARTERS/FOOTAGES: NW NW NW

QUADRANGLE: NOBLE LONGITUDE: -88.222485 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.714848 DATE COLLECTED: 0 / 0 / 1944

SURFACE ELEVATION (FT.): 486.0 LOGGED (FT.): 4860.0 LOG TYPE:

SOURCE: PURE OC, COEN J O 0039 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -142.0                 | BOND        | CARTHAGE      | LIMESTONE | -               | 628.0              |
| -326.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 812.0              |
| -490.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 976.0              |
| -539.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1025.0             |
| -599.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1085.0             |
| -784.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1270.0             |
| -896.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1382.0             |

MAPID: 15900338000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 9 QUARTERS/FOOTAGES: SE NE SW

QUADRANGLE: NOBLE LONGITUDE: -88.215364 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.705578 DATE COLLECTED: 0 / 0 / 1944

SURFACE ELEVATION (FT.): 487.0 LOGGED (FT.): 4870.0 LOG TYPE:

SOURCE: BLACK J L, ROBRDS ETL0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -133.0                 | BOND        | CARTHAGE      | LIMESTONE | -               | 620.0              |
| -327.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 814.0              |
| -481.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 968.0              |
| -523.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1010.0             |
| -589.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1076.0             |
| -767.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1254.0             |
| -902.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1389.0             |

MAPID: 15900458000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 9 QUARTERS/FOOTAGES: NW NW SE

QUADRANGLE: NOBLE LONGITUDE: -88.213069 GEOLOGIST: C TREWORYG

CONFIDENTIAL: N LATITUDE: 38.70738 DATE COLLECTED:

SURFACE ELEVATION (FT.): 484.0 LOGGED (FT.): 1261.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -139.0                 | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 623.0              |
| -488.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 972.0              |
| -535.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1019.0             |
| -599.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.5             | 1083.0             |
| -676.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1160.0             |
| -777.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1261.0             |

MAPID: 15900588000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 9 QUARTERS/FOOTAGES: 120' S line, 380' E line of NW NE

QUADRANGLE: NOBLE LONGITUDE: -88.211004 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.712264 DATE COLLECTED:

SURFACE ELEVATION (FT.): 493.0 LOGGED (FT.): 1261.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -124.0                 | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 617.0              |
| -477.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 970.0              |
| -527.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1020.0             |
| -587.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.5             | 1080.0             |
| -667.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1160.0             |
| -768.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1261.0             |

MAPID: 15900006000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 10 QUARTERS/FOOTAGES: NE SW NW

QUADRANGLE: NOBLE LONGITUDE: -88.201455 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.710868 DATE COLLECTED: 0 / 0 / 1942

SURFACE ELEVATION (FT.): 483.0 LOGGED (FT.): 4830.0 LOG TYPE:

SOURCE: CARTER OC, WINTERS C 0002 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -137.0                 | BOND        | CARTHAGE      | LIMESTONE | -               | 620.0              |
| -319.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 802.0              |
| -484.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 967.0              |
| -532.0                 | CARBONDALE  | HERRIN        | COAL      | 5.0             | 1015.0             |
| -601.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | 3.0             | 1084.0             |
| -667.0                 | CARBONDALE  | HOUCHIN CREEK | COAL      | -               | 1150.0             |
| -897.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1380.0             |

MAPID: 15900078000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 10 QUARTERS/FOOTAGES: SW NW NW

QUADRANGLE: NOBLE LONGITUDE: -88.203845 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.712736 DATE COLLECTED: 0 / 0 / 1942

SURFACE ELEVATION (FT.): 482.0 LOGGED (FT.): 4820.0 LOG TYPE:

SOURCE: CARTER OC, WINTERS C 0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|-------------|---------------|-----------|-----------------|------------|---------|
|                        |             |               |           | UNIT            | OVERBURDEN |         |
| -131.0                 | BOND        | CARTHAGE      | LIMESTONE | -               | 613.0      |         |
| -324.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 806.0      |         |
| -490.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 972.0      |         |
| -538.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1020.0     |         |
| -604.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1086.0     |         |
| -624.0                 | CARBONDALE  | HOUCHIN CREEK | COAL      | -               | 1106.0     |         |
| -892.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1374.0     |         |

MAPID: 15900204000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 10 QUARTERS/FOOTAGES: NE NW SW

QUADRANGLE: NOBLE LONGITUDE: -88.201398 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.707217 DATE COLLECTED: 0 / 0 / 1942

SURFACE ELEVATION (FT.): 483.0 LOGGED (FT.): 4830.0 LOG TYPE:

SOURCE: PURE OC, HEGG H 0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -121.0                 | BOND       | CARTHAGE      | LIMESTONE | -               | 604.0      |         |
| -305.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 788.0      |         |
| -475.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 958.0      |         |
| -522.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1005.0     |         |
| -585.0                 | CARBONDALE | SPRINGFIELD   | COAL      | -               | 1068.0     |         |
| -656.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1139.0     |         |

MAPID: 15900336000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 10 QUARTERS/FOOTAGES: NW SW NE

QUADRANGLE: NOBLE LONGITUDE: -88.194374 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.710733 DATE COLLECTED: 0 / 0 / 1944

SURFACE ELEVATION (FT.): 468.0 LOGGED (FT.): 4680.0 LOG TYPE:

SOURCE: BLACK J L, HUNT A N 0002 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -122.0                 | BOND        | CARTHAGE      | LIMESTONE | -               | 590.0              |
| -312.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 780.0              |
| -472.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 940.0              |
| -520.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 988.0              |
| -588.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1056.0             |
| -762.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1230.0             |
| -922.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1390.0             |

MAPID: 15900337000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 10 QUARTERS/FOOTAGES: SW SE NW

QUADRANGLE: NOBLE LONGITUDE: -88.199068 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.708999 DATE COLLECTED: 0 / 0 / 1943

SURFACE ELEVATION (FT.): 482.0 LOGGED (FT.): 4820.0 LOG TYPE:

SOURCE: BLACK J L, HUNT A N 0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -110.0                 | BOND        | CARTHAGE      | LIMESTONE | -               | 592.0              |
| -294.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 776.0              |
| -466.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 948.0              |
| -512.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 994.0              |
| -582.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1064.0             |
| -754.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1236.0             |
| -908.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1390.0             |

MAPID: 15901516000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 10 QUARTERS/FOOTAGES: SE SE NE

QUADRANGLE: NOBLE LONGITUDE: -88.187285 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.708784 DATE COLLECTED:

SURFACE ELEVATION (FT.): 482.0 LOGGED (FT.): 1250.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -128.0                 | BOND       | CARTHAGE      | LIMESTONE | 7.0             | 610.0      |         |
| -304.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 786.0      |         |
| -476.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 958.0      |         |
| -527.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1009.0     |         |
| -592.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.5             | 1074.0     |         |
| -668.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1150.0     |         |
| -768.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1250.0     |         |

MAPID: 15901517000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 10 QUARTERS/FOOTAGES: NW NW SE

QUADRANGLE: NOBLE LONGITUDE: -88.194339 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.707093 DATE COLLECTED:

SURFACE ELEVATION (FT.): 475.0 LOGGED (FT.): 1239.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -119.0                 | BOND       | CARTHAGE      | LIMESTONE | 5.0             | 594.0      |         |
| -298.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 773.0      |         |
| -471.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 946.0      |         |
| -522.0                 | CARBONDALE | HERRIN        | COAL      | -               | 997.0      |         |
| -590.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.0             | 1065.0     |         |
| -764.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1239.0     |         |

MAPID: 15900744000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 11 QUARTERS/FOOTAGES: 1722' S line, 330' E line of SW SW

QUADRANGLE: NOBLE LONGITUDE: -88.182631 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.705326 DATE COLLECTED:

SURFACE ELEVATION (FT.): 448.0 LOGGED (FT.): 1203.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -124.0                 | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 572.0              |
| -304.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 12.0            | 752.0              |
| -478.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 926.0              |
| -532.0                 | CARBONDALE | HERRIN        | COAL      | -               | 980.0              |
| -606.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 5.0             | 1054.0             |
| -656.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1104.0             |
| -755.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1203.0             |

MAPID: 15901527000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 11 QUARTERS/FOOTAGES: NE SE NW

QUADRANGLE: NOBLE LONGITUDE: -88.177999 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.710531 DATE COLLECTED:

SURFACE ELEVATION (FT.): 467.0 LOGGED (FT.): 1230.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -125.0                 | BOND       | CARTHAGE      | LIMESTONE | 5.0             | 592.0              |
| -298.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 13.0            | 765.0              |
| -466.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 933.0              |
| -527.0                 | CARBONDALE | HERRIN        | COAL      | -               | 994.0              |
| -603.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1070.0             |
| -663.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1130.0             |
| -763.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1230.0             |

MAPID: 15901536000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND

TWP/RNG: 3N 9E

SECTION: 11

QUARTERS/FOOTAGES: NW NE SW

QUADRANGLE: NOBLE

LONGITUDE: -88.180311

GEOLOGIST: C TREWORYG

CONFIDENTIAL: N

LATITUDE: 38.70691

DATE COLLECTED:

SURFACE ELEVATION (FT.): 460.0

LOGGED (FT.): 1224.0

LOG TYPE: Electric Log

SOURCE:

WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -118.0                 | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 578.0              |
| -304.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 13.0            | 764.0              |
| -473.0                 | CARBONDALE | DANVILLE      | COAL      | 2.5             | 933.0              |
| -531.0                 | CARBONDALE | HERRIN        | COAL      | -               | 991.0              |
| -608.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 5.0             | 1068.0             |
| -663.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1123.0             |
| -764.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1224.0             |

MAPID: 15900079000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND

TWP/RNG: 3N 9E

SECTION: 13

QUARTERS/FOOTAGES: NE NW NE

QUADRANGLE: NOBLE

LONGITUDE: -88.154791

GEOLOGIST: SIEVER

CONFIDENTIAL: N

LATITUDE: 38.699336

DATE COLLECTED: 0 / 0 / 1930

SURFACE ELEVATION (FT.): 452.0

LOGGED (FT.): 4520.0

LOG TYPE:

SOURCE: HUNT ET AL, STALEY 0001

WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -313.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 765.0              |
| -553.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1005.0             |
| -620.0                 | CARBONDALE | SPRINGFIELD   | COAL      | -               | 1072.0             |



MAPID: 15900080000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 13 QUARTERS/FOOTAGES: SE SE SE

QUADRANGLE: NOBLE LONGITUDE: -88.15016 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.686564 DATE COLLECTED: 0 / 0 / 1939

SURFACE ELEVATION (FT.): 415.0 LOGGED (FT.): 4150.0 LOG TYPE:

SOURCE: WILSON DRC, WILSON R 0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -145.0                 | BOND        | CARTHAGE      | LIMESTONE | -               | 560.0              |
| -330.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 745.0              |
| -514.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 929.0              |
| -564.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 979.0              |
| -626.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1041.0             |
| -709.0                 | CARBONDALE  | HOUCHIN CREEK | COAL      | -               | 1124.0             |
| -1042.0                | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1457.0             |

MAPID: 15900080000C VERSION: 2

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 13 QUARTERS/FOOTAGES: SE SE SE

QUADRANGLE: NOBLE LONGITUDE: -88.15016 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.686564 DATE COLLECTED:

SURFACE ELEVATION (FT.): 418.0 LOGGED (FT.): 1238.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: FAIR LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -145.0                 | BOND       | CARTHAGE      | LIMESTONE | 5.0             | 563.0              |
| -322.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 740.0              |
| -514.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 932.0              |
| -564.0                 | CARBONDALE | HERRIN        | COAL      | -               | 982.0              |
| -625.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.5             | 1043.0             |
| -709.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1127.0             |
| -820.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1238.0             |

MAPID: 15900745000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 13 QUARTERS/FOOTAGES: SW NW SW

QUADRANGLE: NOBLE LONGITUDE: -88.166357 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.690377 DATE COLLECTED:

SURFACE ELEVATION (FT.): 437.0 LOGGED (FT.): 1236.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -135.0                 | BOND       | CARTHAGE      | LIMESTONE | 5.0             | 572.0              |
| -506.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 943.0              |
| -548.0                 | CARBONDALE | HERRIN        | COAL      | -               | 985.0              |
| -607.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.5             | 1044.0             |
| -691.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1128.0             |
| -799.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1236.0             |

MAPID: 15900245000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 14 QUARTERS/FOOTAGES: NE SE NE

QUADRANGLE: NOBLE LONGITUDE: -88.168709 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.69589 DATE COLLECTED: 0 / 0 / 1945

SURFACE ELEVATION (FT.): 444.0 LOGGED (FT.): 4440.0 LOG TYPE:

SOURCE: PURE OC, HILL E M 0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -131.0                 | BOND        | CARTHAGE      | LIMESTONE | -               | 575.0              |
| -316.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 760.0              |
| -500.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 944.0              |
| -546.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 990.0              |
| -606.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1050.0             |
| -771.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1215.0             |
| -989.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1433.0             |

MAPID: 15900746000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 14 QUARTERS/FOOTAGES: 330' N line, 210' E line of NW SW

QUADRANGLE: NOBLE LONGITUDE: -88.182205 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.69237 DATE COLLECTED:

SURFACE ELEVATION (FT.): 445.0 LOGGED (FT.): 1233.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -125.0                 | BOND       | CARTHAGE      | LIMESTONE | 5.0             | 570.0              |
| -315.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 12.0            | 760.0              |
| -495.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 940.0              |
| -542.0                 | CARBONDALE | HERRIN        | COAL      | -               | 987.0              |
| -600.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.5             | 1045.0             |
| -683.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1128.0             |
| -788.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1233.0             |

MAPID: 15901547000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 14 QUARTERS/FOOTAGES: SW NE SE

QUADRANGLE: NOBLE LONGITUDE: -88.171002 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.690453 DATE COLLECTED:

SURFACE ELEVATION (FT.): 440.0 LOGGED (FT.): 1224.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -130.0                 | BOND       | CARTHAGE      | LIMESTONE | 5.0             | 570.0              |
| -300.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 13.0            | 740.0              |
| -496.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 936.0              |
| -538.0                 | CARBONDALE | HERRIN        | COAL      | -               | 978.0              |
| -594.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 5.0             | 1034.0             |
| -688.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1128.0             |
| -784.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1224.0             |

MAPID: 15901549000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 14 QUARTERS/FOOTAGES: SW SW SE

QUADRANGLE: NOBLE LONGITUDE: -88.175645 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.686853 DATE COLLECTED:

SURFACE ELEVATION (FT.): 447.0 LOGGED (FT.): 1244.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -131.0                 | BOND       | CARTHAGE      | LIMESTONE | 5.0             | 578.0      |         |
| -313.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 12.0            | 760.0      |         |
| -503.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 950.0      |         |
| -547.0                 | CARBONDALE | HERRIN        | COAL      | -               | 994.0      |         |
| -604.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.5             | 1051.0     |         |
| -688.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1135.0     |         |
| -797.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1244.0     |         |

MAPID: 15901551000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 14 QUARTERS/FOOTAGES: NE NW NW

QUADRANGLE: NOBLE LONGITUDE: -88.182619 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.699661 DATE COLLECTED:

SURFACE ELEVATION (FT.): 457.0 LOGGED (FT.): 1225.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -129.0                 | BOND       | CARTHAGE      | LIMESTONE | 5.0             | 586.0      |         |
| -305.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 12.0            | 762.0      |         |
| -479.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 936.0      |         |
| -535.0                 | CARBONDALE | HERRIN        | COAL      | -               | 992.0      |         |
| -605.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.5             | 1062.0     |         |
| -668.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1125.0     |         |
| -768.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1225.0     |         |

MAPID: 15900054000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 15 QUARTERS/FOOTAGES: 660' S line, 660' E line of SW NE

QUADRANGLE: NOBLE LONGITUDE: -88.193102 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.695224 DATE COLLECTED: 0 / 0 / 1943

SURFACE ELEVATION (FT.): 462.0 LOGGED (FT.): 4620.0 LOG TYPE:

SOURCE: BLACK J L, MOSELY JNO0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -140.0                 | BOND        | CARTHAGE      | LIMESTONE | -               | 602.0              |
| -325.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 787.0              |
| -498.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 960.0              |
| -542.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1004.0             |
| -616.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1078.0             |
| -950.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1412.0             |

MAPID: 15900054000C VERSION: 2

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 15 QUARTERS/FOOTAGES: 660' S line, 660' E line of SW NE

QUADRANGLE: NOBLE LONGITUDE: -88.193102 GEOLOGIST: C TREWORYG

CONFIDENTIAL: N LATITUDE: 38.695224 DATE COLLECTED:

SURFACE ELEVATION (FT.): 462.0 LOGGED (FT.): 1256.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -141.0                 | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 603.0              |
| -318.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 13.0            | 780.0              |
| -496.0                 | CARBONDALE | DANVILLE      | COAL      | 4.0             | 958.0              |
| -542.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1004.0             |
| -613.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.5             | 1075.0             |
| -686.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1148.0             |
| -794.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1256.0             |

MAPID: 15900747000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 15 QUARTERS/FOOTAGES: SE SE NE

QUADRANGLE: NOBLE LONGITUDE: -88.187271 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.694241 DATE COLLECTED:

SURFACE ELEVATION (FT.): 449.0 LOGGED (FT.): 1236.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -149.0                 | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 598.0              |
| -319.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 13.0            | 768.0              |
| -494.0                 | CARBONDALE | DANVILLE      | COAL      | 3.5             | 943.0              |
| -539.0                 | CARBONDALE | HERRIN        | COAL      | -               | 988.0              |
| -599.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1048.0             |
| -681.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1130.0             |
| -787.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1236.0             |

MAPID: 15901552000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 15 QUARTERS/FOOTAGES: 811' S line, 380' W line of NW NW

QUADRANGLE: NOBLE LONGITUDE: -88.203467 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.699435 DATE COLLECTED:

SURFACE ELEVATION (FT.): 474.0 LOGGED (FT.): 1256.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -139.0                 | BOND       | CARTHAGE      | LIMESTONE | 4.0             | 613.0              |
| -309.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 783.0              |
| -498.0                 | CARBONDALE | DANVILLE      | COAL      | 2.5             | 972.0              |
| -544.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1018.0             |
| -610.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1084.0             |
| -682.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1156.0             |
| -782.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1256.0             |

**MAPID:** 15901555000C    **VERSION:** 1    **PROJECT:** CGT-ECILL  
**COUNTY:** RICHLAND    **TWP/RNG:** 3N 9E    **SECTION:** 15    **QUARTERS/FOOTAGES:** SE SW SE  
**QUADRANGLE:** NOBLE    **LONGITUDE:** -88.191956    **GEOLOGIST:** C TREWORY  
**CONFIDENTIAL:** N    **LATITUDE:** 38.686997    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 458.0    **LOGGED (FT.):** 1142.0    **LOG TYPE:** Electric Log  
**SOURCE:**    **WELL TYPE:** Oil and Gas Test  
**COMMENT:** GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -142.0                 | BOND       | CARTHAGE      | LIMESTONE | 5.0             | 600.0      |         |
| -315.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 773.0      |         |
| -495.0                 | CARBONDALE | DANVILLE      | COAL      | 4.0             | 953.0      |         |
| -537.0                 | CARBONDALE | HERRIN        | COAL      | -               | 995.0      |         |
| -596.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.5             | 1054.0     |         |
| -684.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1142.0     |         |

**MAPID:** 15900081000C    **VERSION:** 1    **PROJECT:** RI 148  
**COUNTY:** RICHLAND    **TWP/RNG:** 3N 9E    **SECTION:** 16    **QUARTERS/FOOTAGES:** SE SW NW  
**QUADRANGLE:** NOBLE    **LONGITUDE:** -88.219948    **GEOLOGIST:** SIEVER  
**CONFIDENTIAL:** N    **LATITUDE:** 38.694617    **DATE COLLECTED:** 0 / 0 / 1938  
**SURFACE ELEVATION (FT.):** 490.0    **LOGGED (FT.):** 4900.0    **LOG TYPE:**  
**SOURCE:** DEKALB OC, MICHAEL J 0001    **WELL TYPE:** Oil and Gas Test  
**COMMENT:**

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER    | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|-------------|-----------|-----------|-----------------|------------|---------|
|                        |             |           |           | UNIT            | OVERBURDEN |         |
| -90.0                  | BOND        | CARTHAGE  | LIMESTONE | -               | 580.0      |         |
| -495.0                 | CARBONDALE  | HERRIN    | COAL      | -               | 985.0      |         |
| -900.0                 | WALTERSBURG | GLEN DEAN | LIMESTONE | -               | 1390.0     |         |

**MAPID:** 15900299000C    **VERSION:** 1    **PROJECT:** RI 148  
**COUNTY:** RICHLAND    **TWP/RNG:** 3N 9E    **SECTION:** 16    **QUARTERS/FOOTAGES:** 330' S line, 996' E line  
**QUADRANGLE:** NOBLE    **LONGITUDE:** -88.208295    **GEOLOGIST:** SIEVER  
**CONFIDENTIAL:** N    **LATITUDE:** 38.687155    **DATE COLLECTED:** 0 / 0 / 1944  
**SURFACE ELEVATION (FT.):** 475.0    **LOGGED (FT.):** 4750.0    **LOG TYPE:**  
**SOURCE:** PURE OC, MCBRIDE WL0001    **WELL TYPE:** Oil and Gas Test  
**COMMENT:**

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER      | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|-------------|-------------|-----------|-----------------|------------|---------|
|                        |             |             |           | UNIT            | OVERBURDEN |         |
| -120.0                 | BOND        | CARTHAGE    | LIMESTONE | -               | 595.0      |         |
| -481.0                 | CARBONDALE  | DANVILLE    | COAL      | -               | 956.0      |         |
| -521.0                 | CARBONDALE  | HERRIN      | COAL      | -               | 996.0      |         |
| -585.0                 | CARBONDALE  | SPRINGFIELD | COAL      | -               | 1060.0     |         |
| -779.0                 | SPOON       | PALZO       | SANDSTONE | -               | 1254.0     |         |
| -946.0                 | WALTERSBURG | GLEN DEAN   | LIMESTONE | -               | 1421.0     |         |

MAPID: 15900299000C VERSION: 2

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 16 QUARTERS/FOOTAGES: 330' S line, 996' E line  
 QUADRANGLE: NOBLE LONGITUDE: -88.208295 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.687155 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 475.0 LOGGED (FT.): 1250.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -120.0                 | BOND       | CARTHAGE      | LIMESTONE | 7.0             | 595.0              |
| -481.0                 | CARBONDALE | DANVILLE      | COAL      | 2.5             | 956.0              |
| -523.0                 | CARBONDALE | HERRIN        | COAL      | -               | 998.0              |
| -583.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1058.0             |
| -667.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1142.0             |
| -775.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1250.0             |

MAPID: 15900748000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 16 QUARTERS/FOOTAGES: 666' N line, 330' E line of SW  
 QUADRANGLE: NOBLE LONGITUDE: -88.215281 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.691813 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 480.0 LOGGED (FT.): 1260.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: FAIR LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -132.0                 | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 612.0              |
| -484.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 964.0              |
| -525.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1005.0             |
| -584.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1064.0             |
| -672.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1152.0             |
| -780.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1260.0             |



MAPID: 15900429000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 17 QUARTERS/FOOTAGES: SW NW SW  
 QUADRANGLE: NOBLE LONGITUDE: -88.240796 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.691105 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 465.0 LOGGED (FT.): 1236.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -305.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 770.0              |
| -480.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 945.0              |
| -531.0                 | CARBONDALE | HERRIN        | COAL      | -               | 996.0              |
| -581.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1046.0             |
| -670.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1135.0             |
| -771.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1236.0             |

MAPID: 15900472000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 17 QUARTERS/FOOTAGES: SW NW NW  
 QUADRANGLE: NOBLE LONGITUDE: -88.240733 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.698487 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 467.0 LOGGED (FT.): 1255.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -151.0                 | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 618.0              |
| -308.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 18.0            | 775.0              |
| -491.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 958.0              |
| -535.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1002.0             |
| -592.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.0             | 1059.0             |
| -678.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1145.0             |
| -788.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1255.0             |

MAPID: 15902802000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 17 QUARTERS/FOOTAGES: 686' N line, 746' E line of NE

QUADRANGLE: NOBLE LONGITUDE: -88.226066 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.69921 DATE COLLECTED:

SURFACE ELEVATION (FT.): 480.0 LOGGED (FT.): 1240.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -292.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 12.0            | 772.0              |
| -474.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 954.0              |
| -516.0                 | CARBONDALE | HERRIN        | COAL      | -               | 996.0              |
| -577.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1057.0             |
| -653.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1133.0             |
| -760.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1240.0             |

MAPID: 15900246000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 18 QUARTERS/FOOTAGES: NW SE NW

QUADRANGLE: CLAY CITY LONGITUDE: -88.254687 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.696724 DATE COLLECTED: 0 / 0 / 1945

SURFACE ELEVATION (FT.): 456.0 LOGGED (FT.): 4560.0 LOG TYPE:

SOURCE: PURE OC, PLEASANT W0002 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -370.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 826.0              |
| -526.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 982.0              |
| -574.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1030.0             |
| -636.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1092.0             |
| -844.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1300.0             |
| -957.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1413.0             |

MAPID: 15900246000C VERSION: 2

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 18 QUARTERS/FOOTAGES: NW SE NW  
 QUADRANGLE: CLAY CITY LONGITUDE: -88.254687 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.696724 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 456.0 LOGGED (FT.): 1292.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -369.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 7.0             | 825.0      |         |
| -527.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 983.0      |         |
| -574.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1030.0     |         |
| -636.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1092.0     |         |
| -726.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1182.0     |         |
| -836.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1292.0     |         |

MAPID: 15900247000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 18 QUARTERS/FOOTAGES: NW NW NE  
 QUADRANGLE: NOBLE LONGITUDE: -88.250003 GEOLOGIST: SIEVER  
 CONFIDENTIAL: N LATITUDE: 38.700445 DATE COLLECTED: 0 / 0 / 1945  
 SURFACE ELEVATION (FT.): 466.0 LOGGED (FT.): 4660.0 LOG TYPE:  
 SOURCE: PURE OC, SCHWARTZ W0002 WELL TYPE: Oil and Gas Test  
 COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|-------------|---------------|-----------|-----------------|------------|---------|
|                        |             |               |           | UNIT            | OVERBURDEN |         |
| -187.0                 | BOND        | CARTHAGE      | LIMESTONE | -               | 653.0      |         |
| -365.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 831.0      |         |
| -574.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1040.0     |         |
| -634.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1100.0     |         |
| -840.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1306.0     |         |
| -946.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1412.0     |         |

MAPID: 15900248000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 18 QUARTERS/FOOTAGES: NW SW NE

QUADRANGLE: NOBLE LONGITUDE: -88.250037 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.696699 DATE COLLECTED: 0 / 0 / 1945

SURFACE ELEVATION (FT.): 461.0 LOGGED (FT.): 4610.0 LOG TYPE:

SOURCE: PURE OC, TOLIVER E 0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|-------------|---------------|-----------|-----------------|------------|---------|
|                        |             |               |           | UNIT            | OVERBURDEN |         |
| -173.0                 | BOND        | CARTHAGE      | LIMESTONE | -               | 634.0      |         |
| -360.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 821.0      |         |
| -521.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 982.0      |         |
| -564.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1025.0     |         |
| -625.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1086.0     |         |
| -825.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1286.0     |         |
| -947.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1408.0     |         |

MAPID: 15900298000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 18 QUARTERS/FOOTAGES: NW SW SW

QUADRANGLE: CLAY CITY LONGITUDE: -88.25657 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.689154 DATE COLLECTED: 0 / 0 / 1945

SURFACE ELEVATION (FT.): 456.0 LOGGED (FT.): 4560.0 LOG TYPE:

SOURCE: PURE OC, MADDOX J A0002 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER      | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|-------------|-------------|-----------|-----------------|------------|---------|
|                        |             |             |           | UNIT            | OVERBURDEN |         |
| -499.0                 | CARBONDALE  | DANVILLE    | COAL      | -               | 955.0      |         |
| -610.0                 | CARBONDALE  | SPRINGFIELD | COAL      | -               | 1066.0     |         |
| -814.0                 | SPOON       | PALZO       | SANDSTONE | -               | 1270.0     |         |
| -959.0                 | WALTERSBURG | GLEN DEAN   | LIMESTONE | -               | 1415.0     |         |

MAPID: 15900316000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 18 QUARTERS/FOOTAGES: SW SW SW

QUADRANGLE: CLAY CITY LONGITUDE: -88.256575

GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.68726

DATE COLLECTED: 0 / 0 / 1944

SURFACE ELEVATION (FT.): 456.0

LOGGED (FT.): 4560.0

LOG TYPE:

SOURCE: PURE OC, MADDOX J A0001

WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -158.0                 | BOND        | CARTHAGE      | LIMESTONE | -               | 614.0              |
| -339.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 795.0              |
| -490.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 946.0              |
| -610.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1066.0             |
| -810.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1266.0             |
| -961.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1417.0             |

MAPID: 15901602000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 18 QUARTERS/FOOTAGES: NW SE SE

QUADRANGLE: NOBLE LONGITUDE: -88.245458

GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.689239

DATE COLLECTED:

SURFACE ELEVATION (FT.): 464.0

LOGGED (FT.): 1249.0

LOG TYPE: Electric Log

SOURCE:

WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -130.0                 | BOND       | CARTHAGE      | LIMESTONE | 8.0             | 594.0              |
| -487.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 951.0              |
| -532.0                 | CARBONDALE | HERRIN        | COAL      | -               | 996.0              |
| -589.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1053.0             |
| -676.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1140.0             |
| -785.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1249.0             |

MAPID: 15901603000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 18 QUARTERS/FOOTAGES: NE SE SW

QUADRANGLE: CLAY CITY LONGITUDE: -88.252431 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.689187 DATE COLLECTED:

SURFACE ELEVATION (FT.): 449.0 LOGGED (FT.): 1244.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -485.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 934.0      |         |
| -534.0                 | CARBONDALE | HERRIN        | COAL      | -               | 983.0      |         |
| -595.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.5             | 1044.0     |         |
| -681.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1130.0     |         |
| -795.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1244.0     |         |

MAPID: 15900190000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 19 QUARTERS/FOOTAGES: 666' S line, 1999' E line of SE

QUADRANGLE: NOBLE LONGITUDE: -88.249154 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.673574 DATE COLLECTED: 0 / 0 / 1943

SURFACE ELEVATION (FT.): 461.0 LOGGED (FT.): 4610.0 LOG TYPE:

SOURCE: PURE OC, RUSK R M 00A1 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER      | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|-------------|-------------|-----------|-----------------|------------|---------|
|                        |             |             |           | UNIT            | OVERBURDEN |         |
| -133.0                 | BOND        | CARTHAGE    | LIMESTONE | -               | 594.0      |         |
| -479.0                 | CARBONDALE  | DANVILLE    | COAL      | -               | 940.0      |         |
| -526.0                 | CARBONDALE  | HERRIN      | COAL      | -               | 987.0      |         |
| -570.0                 | CARBONDALE  | SPRINGFIELD | COAL      | -               | 1031.0     |         |
| -941.0                 | WALTERSBURG | GLEN DEAN   | LIMESTONE | -               | 1402.0     |         |

MAPID: 15900190000C VERSION: 2

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 19 QUARTERS/FOOTAGES: 666' S line, 1999' E line of SE

QUADRANGLE: NOBLE LONGITUDE: -88.249154 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.673574 DATE COLLECTED:

SURFACE ELEVATION (FT.): 461.0 LOGGED (FT.): 1249.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: FAIR LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -133.0                 | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 594.0              |
| -479.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 940.0              |
| -525.0                 | CARBONDALE | HERRIN        | COAL      | -               | 986.0              |
| -584.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.0             | 1045.0             |
| -674.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1135.0             |
| -788.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1249.0             |

MAPID: 15900249000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 19 QUARTERS/FOOTAGES: NE SE SE

QUADRANGLE: NOBLE LONGITUDE: -88.24327 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.674488 DATE COLLECTED: 0 / 0 / 1945

SURFACE ELEVATION (FT.): 467.0 LOGGED (FT.): 4670.0 LOG TYPE:

SOURCE: PURE OC, RUSK R M 00A3 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER      | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|-------------|-----------|-----------------|--------------------|
|                        |             |             |           | UNIT            | OVERBURDEN COMMENT |
| -471.0                 | CARBONDALE  | DANVILLE    | COAL      | -               | 938.0              |
| -516.0                 | CARBONDALE  | HERRIN      | COAL      | -               | 983.0              |
| -577.0                 | CARBONDALE  | SPRINGFIELD | COAL      | -               | 1044.0             |
| -773.0                 | SPOON       | PALZO       | SANDSTONE | -               | 1240.0             |
| -949.0                 | WALTERSBURG | GLEN DEAN   | LIMESTONE | -               | 1416.0             |

MAPID: 1590025000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 19 QUARTERS/FOOTAGES: SW SE SE

QUADRANGLE: NOBLE LONGITUDE: -88.24561 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.672647 DATE COLLECTED: 0 / 0 / 1945

SURFACE ELEVATION (FT.): 468.0 LOGGED (FT.): 4680.0 LOG TYPE:

SOURCE: PURE OC, RUSK R M 00A5 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER      | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|-------------|-----------|-----------------|--------------------|
|                        |             |             |           | UNIT            | OVERBURDEN COMMENT |
| -478.0                 | CARBONDALE  | DANVILLE    | COAL      | -               | 946.0              |
| -522.0                 | CARBONDALE  | HERRIN      | COAL      | -               | 990.0              |
| -582.0                 | CARBONDALE  | SPRINGFIELD | COAL      | -               | 1050.0             |
| -788.0                 | SPOON       | PALZO       | SANDSTONE | -               | 1256.0             |
| -964.0                 | WALTERSBURG | GLEN DEAN   | LIMESTONE | -               | 1432.0             |

MAPID: 15900251000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 19 QUARTERS/FOOTAGES: NE NW SE

QUADRANGLE: NOBLE LONGITUDE: -88.247883 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.67816 DATE COLLECTED: 0 / 0 / 1944

SURFACE ELEVATION (FT.): 460.0 LOGGED (FT.): 4600.0 LOG TYPE:

SOURCE: BRIDGE F A, SAGER R 0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER      | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|-------------|-----------|-----------------|--------------------|
|                        |             |             |           | UNIT            | OVERBURDEN COMMENT |
| -484.0                 | CARBONDALE  | DANVILLE    | COAL      | -               | 944.0              |
| -526.0                 | CARBONDALE  | HERRIN      | COAL      | -               | 986.0              |
| -584.0                 | CARBONDALE  | SPRINGFIELD | COAL      | -               | 1044.0             |
| -790.0                 | SPOON       | PALZO       | SANDSTONE | -               | 1250.0             |
| -955.0                 | WALTERSBURG | GLEN DEAN   | LIMESTONE | -               | 1415.0             |



MAPID: 15900309000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 19 QUARTERS/FOOTAGES: SW SW NE

QUADRANGLE: CLAY CITY LONGITUDE: -88.250193 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.679983 DATE COLLECTED: 0 / 0 / 1944

SURFACE ELEVATION (FT.): 462.0 LOGGED (FT.): 4620.0 LOG TYPE:

SOURCE: PURE OC, EVANS W 00C1 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|-------------|---------------|-----------|-----------------|------------|---------|
|                        |             |               |           | UNIT            | OVERBURDEN |         |
| -138.0                 | BOND        | CARTHAGE      | LIMESTONE | -               | 600.0      |         |
| -334.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 796.0      |         |
| -483.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 945.0      |         |
| -528.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 990.0      |         |
| -588.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1050.0     |         |
| -788.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1250.0     |         |
| -949.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1411.0     |         |

MAPID: 15900333000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 19 QUARTERS/FOOTAGES: SW NW SW

QUADRANGLE: CLAY CITY LONGITUDE: -88.256485 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.676304 DATE COLLECTED: 0 / 0 / 1944

SURFACE ELEVATION (FT.): 456.0 LOGGED (FT.): 4560.0 LOG TYPE:

SOURCE: PURE OC, GRUBB AL 00B1 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER      | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|-------------|-------------|-----------|-----------------|------------|---------|
|                        |             |             |           | UNIT            | OVERBURDEN |         |
| -134.0                 | BOND        | CARTHAGE    | LIMESTONE | -               | 590.0      |         |
| -488.0                 | CARBONDALE  | DANVILLE    | COAL      | -               | 944.0      |         |
| -540.0                 | CARBONDALE  | HERRIN      | COAL      | -               | 996.0      |         |
| -600.0                 | CARBONDALE  | SPRINGFIELD | COAL      | -               | 1056.0     |         |
| -800.0                 | SPOON       | PALZO       | SANDSTONE | -               | 1256.0     |         |
| -959.0                 | WALTERSBURG | GLEN DEAN   | LIMESTONE | -               | 1415.0     |         |

**MAPID:** 15900334000C    **VERSION:** 1    **PROJECT:** RI 148  
**COUNTY:** RICHLAND    **TWP/RNG:** 3N 9E    **SECTION:** 19    **QUARTERS/FOOTAGES:** NE SE NE  
**QUADRANGLE:** NOBLE    **LONGITUDE:** -88.243203    **GEOLOGIST:** SIEVER  
**CONFIDENTIAL:** N    **LATITUDE:** 38.68187    **DATE COLLECTED:** 0 / 0 / 1944  
**SURFACE ELEVATION (FT.):** 464.0    **LOGGED (FT.):** 4640.0    **LOG TYPE:**  
**SOURCE:** PURE OC, KURTZ J 0001    **WELL TYPE:** Oil and Gas Test  
**COMMENT:**

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -306.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 770.0              |
| -471.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 935.0              |
| -516.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 980.0              |
| -576.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1040.0             |
| -781.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1245.0             |
| -953.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1417.0             |

**MAPID:** 15900335000C    **VERSION:** 1    **PROJECT:** RI 148  
**COUNTY:** RICHLAND    **TWP/RNG:** 3N 9E    **SECTION:** 19    **QUARTERS/FOOTAGES:** SW SW NW  
**QUADRANGLE:** CLAY CITY    **LONGITUDE:** -88.256516    **GEOLOGIST:** SIEVER  
**CONFIDENTIAL:** N    **LATITUDE:** 38.679943    **DATE COLLECTED:** 0 / 0 / 1944  
**SURFACE ELEVATION (FT.):** 456.0    **LOGGED (FT.):** 4560.0    **LOG TYPE:**  
**SOURCE:** PURE OC, ALLARD R M00A1    **WELL TYPE:** Oil and Gas Test  
**COMMENT:**

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -146.0                 | BOND        | CARTHAGE      | LIMESTONE | -               | 602.0              |
| -354.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 810.0              |
| -488.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 944.0              |
| -548.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1004.0             |
| -608.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1064.0             |
| -770.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1226.0             |
| -960.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1416.0             |

**MAPID:** 15900252000C    **VERSION:** 1    **PROJECT:** RI 148  
**COUNTY:** RICHLAND    **TWP/RNG:** 3N 9E    **SECTION:** 20    **QUARTERS/FOOTAGES:** SW SW NW  
**QUADRANGLE:** NOBLE    **LONGITUDE:** -88.240897    **GEOLOGIST:** SIEVER  
**CONFIDENTIAL:** N    **LATITUDE:** 38.680026    **DATE COLLECTED:** 0 / 0 / 1945  
**SURFACE ELEVATION (FT.):** 464.0    **LOGGED (FT.):** 4640.0    **LOG TYPE:**  
**SOURCE:** PURE OC, FLANDERS M0001    **WELL TYPE:** Oil and Gas Test  
**COMMENT:**

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER      | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|-------------|-------------|-----------|-----------------|------------|---------|
|                        |             |             |           | UNIT            | OVERBURDEN |         |
| -460.0                 | CARBONDALE  | DANVILLE    | COAL      | -               | 924.0      |         |
| -502.0                 | CARBONDALE  | HERRIN      | COAL      | -               | 966.0      |         |
| -612.0                 | CARBONDALE  | SPRINGFIELD | COAL      | -               | 1076.0     |         |
| -762.0                 | SPOON       | PALZO       | SANDSTONE | -               | 1226.0     |         |
| -948.0                 | WALTERSBURG | GLEN DEAN   | LIMESTONE | -               | 1412.0     |         |

**MAPID:** 15900252000C    **VERSION:** 2    **PROJECT:** CGT-ECILL  
**COUNTY:** RICHLAND    **TWP/RNG:** 3N 9E    **SECTION:** 20    **QUARTERS/FOOTAGES:** SW SW NW  
**QUADRANGLE:** NOBLE    **LONGITUDE:** -88.240897    **GEOLOGIST:** C TREWORGY  
**CONFIDENTIAL:** N    **LATITUDE:** 38.680026    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 464.0    **LOGGED (FT.):** 1220.0    **LOG TYPE:** Electric Log  
**SOURCE:**    **WELL TYPE:** Oil and Gas Test  
**COMMENT:** GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -460.0                 | CARBONDALE | DANVILLE      | COAL      | 2.5             | 924.0      |         |
| -504.0                 | CARBONDALE | HERRIN        | COAL      | -               | 968.0      |         |
| -562.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1026.0     |         |
| -651.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1115.0     |         |
| -756.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1220.0     |         |

MAPID: 15900253000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 20 QUARTERS/FOOTAGES: SW SE NW

QUADRANGLE: NOBLE LONGITUDE: -88.236265 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.680006 DATE COLLECTED: 0 / 0 / 1945

SURFACE ELEVATION (FT.): 469.0 LOGGED (FT.): 4690.0 LOG TYPE:

SOURCE: PURE OC, FLANDERS M0002 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -293.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 762.0              |
| -457.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 926.0              |
| -497.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 966.0              |
| -557.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1026.0             |
| -751.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1220.0             |
| -953.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1422.0             |

MAPID: 15900253000C VERSION: 2

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 20 QUARTERS/FOOTAGES: SW SE NW

QUADRANGLE: NOBLE LONGITUDE: -88.236265 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.680006 DATE COLLECTED:

SURFACE ELEVATION (FT.): 469.0 LOGGED (FT.): 1214.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -287.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 12.0            | 756.0              |
| -458.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 927.0              |
| -498.0                 | CARBONDALE | HERRIN        | COAL      | -               | 967.0              |
| -558.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.0             | 1027.0             |
| -645.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1114.0             |
| -745.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1214.0             |

MAPID: 15900254000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 20 QUARTERS/FOOTAGES: SW SW SW

QUADRANGLE: NOBLE LONGITUDE: -88.240968 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.672638 DATE COLLECTED: 0 / 0 / 1945

SURFACE ELEVATION (FT.): 464.0 LOGGED (FT.): 4640.0 LOG TYPE:

SOURCE: PURE OC, RUSK R M 00A4 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -303.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 767.0              |
| -476.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 940.0              |
| -517.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 981.0              |
| -576.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1040.0             |
| -782.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1246.0             |
| -960.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1424.0             |

MAPID: 15900325000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 20 QUARTERS/FOOTAGES: SW NE SW

QUADRANGLE: NOBLE LONGITUDE: -88.236303 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.676315 DATE COLLECTED: 0 / 0 / 1945

SURFACE ELEVATION (FT.): 467.0 LOGGED (FT.): 4670.0 LOG TYPE:

SOURCE: CARTER OC, SHATTO R 0004 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -288.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 755.0              |
| -465.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 932.0              |
| -507.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 974.0              |
| -573.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1040.0             |
| -773.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1240.0             |
| -951.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1418.0             |

MAPID: 15900476000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 21 QUARTERS/FOOTAGES: SW SW NW  
 QUADRANGLE: NOBLE LONGITUDE: -88.222357 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.679939 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 471.0 LOGGED (FT.): 1246.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -129.0                 | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 600.0      |         |
| -481.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 952.0      |         |
| -481.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 952.0      |         |
| -523.0                 | CARBONDALE | HERRIN        | COAL      | -               | 994.0      |         |
| -581.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1052.0     |         |
| -672.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1143.0     |         |
| -775.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1246.0     |         |

MAPID: 15901625000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 21 QUARTERS/FOOTAGES: NW SE SW  
 QUADRANGLE: NOBLE LONGITUDE: -88.217723 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.674382 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 464.0 LOGGED (FT.): 1246.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -131.0                 | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 595.0      |         |
| -317.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 3.0             | 781.0      |         |
| -488.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 952.0      |         |
| -530.0                 | CARBONDALE | HERRIN        | COAL      | -               | 994.0      |         |
| -590.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1054.0     |         |
| -686.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1150.0     |         |
| -782.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1246.0     |         |

MAPID: 15900749000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 22 QUARTERS/FOOTAGES: 330' S line, 360' W line of NE NE

QUADRANGLE: NOBLE LONGITUDE: -88.189523 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.683316 DATE COLLECTED:

SURFACE ELEVATION (FT.): 440.0 LOGGED (FT.): 1251.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -154.0                 | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 594.0              |
| -328.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 11.0            | 768.0              |
| -510.0                 | CARBONDALE | DANVILLE      | COAL      | 4.0             | 950.0              |
| -554.0                 | CARBONDALE | HERRIN        | COAL      | -               | 994.0              |
| -616.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1056.0             |
| -704.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1144.0             |
| -811.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1251.0             |

MAPID: 15901628000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 22 QUARTERS/FOOTAGES: SW SW NW

QUADRANGLE: NOBLE LONGITUDE: -88.203632 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.679778 DATE COLLECTED:

SURFACE ELEVATION (FT.): 482.0 LOGGED (FT.): 1284.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -126.0                 | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 608.0              |
| -318.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 800.0              |
| -500.0                 | CARBONDALE | DANVILLE      | COAL      | 4.0             | 982.0              |
| -542.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1024.0             |
| -606.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1088.0             |
| -693.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1175.0             |
| -802.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1284.0             |

MAPID: 15901632000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 22 QUARTERS/FOOTAGES: NW SW SW  
 QUADRANGLE: NOBLE LONGITUDE: -88.203644 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.674275 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 476.0 LOGGED (FT.): 1277.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -140.0                 | BOND       | CARTHAGE      | LIMESTONE | 4.0             | 616.0      |         |
| -328.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 5.0             | 804.0      |         |
| -506.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 982.0      |         |
| -546.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1022.0     |         |
| -611.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.0             | 1087.0     |         |
| -696.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1172.0     |         |
| -801.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1277.0     |         |

MAPID: 15900083000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 23 QUARTERS/FOOTAGES: NE NE SE  
 QUADRANGLE: NOBLE LONGITUDE: -88.168656 GEOLOGIST: SIEVER  
 CONFIDENTIAL: N LATITUDE: 38.677598 DATE COLLECTED: 0 / 0 / 1938  
 SURFACE ELEVATION (FT.): 453.0 LOGGED (FT.): 4530.0 LOG TYPE:  
 SOURCE: AM NAT DRC, EVERSON 0001 WELL TYPE: Oil and Gas Test  
 COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -140.0                 | BOND       | CARTHAGE      | LIMESTONE | -               | 593.0      |         |
| -314.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 767.0      |         |
| -554.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1007.0     |         |
| -609.0                 | CARBONDALE | SPRINGFIELD   | COAL      | -               | 1062.0     |         |



MAPID: 15900519000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 23 QUARTERS/FOOTAGES: SW SW NW  
 QUADRANGLE: NOBLE LONGITUDE: -88.184952 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.679623 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 455.0 LOGGED (FT.): 1276.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -145.0                 | BOND       | CARTHAGE      | LIMESTONE | 5.0             | 600.0      |         |
| -325.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 13.0            | 780.0      |         |
| -517.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 972.0      |         |
| -560.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1015.0     |         |
| -624.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.5             | 1079.0     |         |
| -710.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1165.0     |         |
| -821.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1276.0     |         |

MAPID: 15900751000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 24 QUARTERS/FOOTAGES: SE SE NW  
 QUADRANGLE: NOBLE LONGITUDE: -88.159416 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.679383 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 425.0 LOGGED (FT.): 1250.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -145.0                 | BOND       | CARTHAGE      | LIMESTONE | 5.0             | 570.0      |         |
| -315.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 740.0      |         |
| -511.0                 | CARBONDALE | DANVILLE      | COAL      | 3.5             | 936.0      |         |
| -555.0                 | CARBONDALE | HERRIN        | COAL      | -               | 980.0      |         |
| -617.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1042.0     |         |
| -708.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1133.0     |         |
| -825.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1250.0     |         |

MAPID: 15900647000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 25 QUARTERS/FOOTAGES: SE NW NW  
 QUADRANGLE: NOBLE LONGITUDE: -88.164028 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.668405 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 424.0 LOGGED (FT.): 1241.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -136.0                 | BOND       | CARTHAGE      | LIMESTONE | 5.0             | 560.0              |
| -312.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 736.0              |
| -507.0                 | CARBONDALE | DANVILLE      | COAL      | 3.5             | 931.0              |
| -546.0                 | CARBONDALE | HERRIN        | COAL      | -               | 970.0              |
| -614.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1038.0             |
| -713.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1137.0             |
| -817.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1241.0             |

MAPID: 15900649000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 25 QUARTERS/FOOTAGES: SW NW NE  
 QUADRANGLE: NOBLE LONGITUDE: -88.15709 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.668419 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 431.0 LOGGED (FT.): 1241.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -196.0                 | BOND       | CARTHAGE      | LIMESTONE | 8.0             | 627.0              |
| -314.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 13.0            | 745.0              |
| -509.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 940.0              |
| -550.0                 | CARBONDALE | HERRIN        | COAL      | -               | 981.0              |
| -614.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.5             | 1045.0             |
| -699.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1130.0             |
| -810.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1241.0             |

MAPID: 15900673000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 25 QUARTERS/FOOTAGES: NW SE SW  
 QUADRANGLE: NOBLE LONGITUDE: -88.161629 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.659258 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 440.0 LOGGED (FT.): 1255.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -135.0                 | BOND       | CARTHAGE      | LIMESTONE | 5.0             | 575.0      |         |
| -317.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 757.0      |         |
| -510.0                 | CARBONDALE | DANVILLE      | COAL      | 2.5             | 950.0      |         |
| -552.0                 | CARBONDALE | HERRIN        | COAL      | -               | 992.0      |         |
| -617.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.5             | 1057.0     |         |
| -709.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1149.0     |         |
| -815.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1255.0     |         |

MAPID: 15900655000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 26 QUARTERS/FOOTAGES: NW NW SW  
 QUADRANGLE: NOBLE LONGITUDE: -88.184925 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.663117 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 479.0 LOGGED (FT.): 1296.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -133.0                 | BOND       | CARTHAGE      | LIMESTONE | 5.0             | 612.0      |         |
| -317.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 796.0      |         |
| -512.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 991.0      |         |
| -552.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1031.0     |         |
| -616.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.0             | 1095.0     |         |
| -707.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1186.0     |         |
| -817.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1296.0     |         |

MAPID: 15900084000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 27 QUARTERS/FOOTAGES: SE SE NW

QUADRANGLE: NOBLE LONGITUDE: -88.196631 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.665033 DATE COLLECTED: 0 / 0 / 1941

SURFACE ELEVATION (FT.): 477.0 LOGGED (FT.): 4770.0 LOG TYPE:

SOURCE: TEXAS CO, SHAN H 0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -123.0                 | BOND        | CARTHAGE      | LIMESTONE | -               | 600.0              |
| -306.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 783.0              |
| -486.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 963.0              |
| -530.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1007.0             |
| -594.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1071.0             |
| -1005.0                | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1482.0             |

MAPID: 15900503000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 27 QUARTERS/FOOTAGES: NW NW SW

QUADRANGLE: NOBLE LONGITUDE: -88.203665 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.663234 DATE COLLECTED:

SURFACE ELEVATION (FT.): 451.0 LOGGED (FT.): 1242.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -118.0                 | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 569.0              |
| -492.0                 | CARBONDALE | DANVILLE      | COAL      | 3.5             | 943.0              |
| -533.0                 | CARBONDALE | HERRIN        | COAL      | -               | 984.0              |
| -597.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.5             | 1048.0             |
| -687.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1138.0             |
| -791.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1242.0             |

MAPID: 15900658000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 27 QUARTERS/FOOTAGES: NE NE SE  
 QUADRANGLE: NOBLE LONGITUDE: -88.187256 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.663135 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 486.0 LOGGED (FT.): 1310.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -147.0                 | BOND       | CARTHAGE      | LIMESTONE | 5.0             | 633.0      |         |
| -324.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 13.0            | 810.0      |         |
| -517.0                 | CARBONDALE | DANVILLE      | COAL      | 3.5             | 1003.0     |         |
| -560.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1046.0     |         |
| -623.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1109.0     |         |
| -714.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1200.0     |         |
| -824.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1310.0     |         |

MAPID: 15900752000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 28 QUARTERS/FOOTAGES: NE SE SW  
 QUADRANGLE: NOBLE LONGITUDE: -88.215326 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.659647 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 466.0 LOGGED (FT.): 1264.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -129.0                 | BOND       | CARTHAGE      | LIMESTONE | 5.0             | 595.0      |         |
| -500.0                 | CARBONDALE | DANVILLE      | COAL      | 3.5             | 966.0      |         |
| -539.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1005.0     |         |
| -604.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1070.0     |         |
| -693.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1159.0     |         |
| -798.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1264.0     |         |

MAPID: 15900255000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 29 QUARTERS/FOOTAGES: NE NW NW

QUADRANGLE: NOBLE LONGITUDE: -88.238669 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.670793 DATE COLLECTED: 0 / 0 / 1945

SURFACE ELEVATION (FT.): 463.0 LOGGED (FT.): 4630.0 LOG TYPE:

SOURCE: PURE OC, RUSK R M 00A6 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -304.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 767.0              |
| -477.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 940.0              |
| -520.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 983.0              |
| -581.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1044.0             |
| -787.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1250.0             |
| -953.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1416.0             |

MAPID: 15900255000C VERSION: 2

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 29 QUARTERS/FOOTAGES: NE NW NW

QUADRANGLE: NOBLE LONGITUDE: -88.238669 GEOLOGIST: C TREWORYG

CONFIDENTIAL: N LATITUDE: 38.670793 DATE COLLECTED:

SURFACE ELEVATION (FT.): 463.0 LOGGED (FT.): 1246.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -303.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 8.0             | 766.0              |
| -479.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 942.0              |
| -519.0                 | CARBONDALE | HERRIN        | COAL      | -               | 982.0              |
| -581.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1044.0             |
| -673.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1136.0             |
| -783.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1246.0             |

MAPID: 15900256000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 29 QUARTERS/FOOTAGES: SW NE NW

QUADRANGLE: NOBLE LONGITUDE: -88.236363 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.668954 DATE COLLECTED: 0 / 0 / 1945

SURFACE ELEVATION (FT.): 445.0 LOGGED (FT.): 4450.0 LOG TYPE:

SOURCE: PURE OC, WRIGHT H S0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -318.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 763.0              |
| -473.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 918.0              |
| -517.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 962.0              |
| -581.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1026.0             |
| -785.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1230.0             |
| -967.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1412.0             |

MAPID: 15900322000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 29 QUARTERS/FOOTAGES: NE NE NW

QUADRANGLE: NOBLE LONGITUDE: -88.234034 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.670779 DATE COLLECTED: 0 / 0 / 1945

SURFACE ELEVATION (FT.): 454.0 LOGGED (FT.): 4540.0 LOG TYPE:

SOURCE: PURE OC, WRIGHT H S0002 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -104.0                 | BOND        | CARTHAGE      | LIMESTONE | -               | 558.0              |
| -326.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 780.0              |
| -472.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 926.0              |
| -516.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 970.0              |
| -578.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1032.0             |
| -770.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1224.0             |
| -961.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1415.0             |

MAPID: 15900505000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 29 QUARTERS/FOOTAGES: NE SE SW  
 QUADRANGLE: NOBLE LONGITUDE: -88.234057 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.659779 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 437.0 LOGGED (FT.): 1215.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -133.0                 | BOND       | CARTHAGE      | LIMESTONE | 5.0             | 570.0      |         |
| -318.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 11.0            | 755.0      |         |
| -470.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 907.0      |         |
| -516.0                 | CARBONDALE | HERRIN        | COAL      | -               | 953.0      |         |
| -583.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1020.0     |         |
| -673.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1110.0     |         |
| -778.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1215.0     |         |

MAPID: 15901642000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 29 QUARTERS/FOOTAGES: NW NW NE  
 QUADRANGLE: NOBLE LONGITUDE: -88.231721 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.670773 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 465.0 LOGGED (FT.): 1249.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -114.0                 | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 579.0      |         |
| -494.0                 | CARBONDALE | DANVILLE      | COAL      | 3.5             | 959.0      |         |
| -527.0                 | CARBONDALE | HERRIN        | COAL      | -               | 992.0      |         |
| -589.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.5             | 1054.0     |         |
| -678.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1143.0     |         |
| -784.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1249.0     |         |



MAPID: 15900214000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 30 QUARTERS/FOOTAGES: 623' S line, 810' W line of SW

QUADRANGLE: CLAY CITY LONGITUDE: -88.254479 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.658868 DATE COLLECTED: 0 / 0 / 1943

SURFACE ELEVATION (FT.): 452.0 LOGGED (FT.): 4520.0 LOG TYPE:

SOURCE: PURE OC, HOUT C M 0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -294.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 746.0              |
| -468.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 920.0              |
| -509.0                 | CARBONDALE | HERRIN        | COAL      | -               | 961.0              |
| -574.0                 | CARBONDALE | SPRINGFIELD   | COAL      | -               | 1026.0             |
| -663.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1115.0             |

MAPID: 15900214000C VERSION: 2

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 30 QUARTERS/FOOTAGES: 623' S line, 810' W line of SW

QUADRANGLE: CLAY CITY LONGITUDE: -88.254479 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.658868 DATE COLLECTED:

SURFACE ELEVATION (FT.): 452.0 LOGGED (FT.): 1214.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -289.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 10.0            | 741.0              |
| -467.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 919.0              |
| -510.0                 | CARBONDALE | HERRIN        | COAL      | -               | 962.0              |
| -574.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.0             | 1026.0             |
| -662.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1114.0             |
| -762.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1214.0             |

**MAPID:** 15900257000C    **VERSION:** 1    **PROJECT:** RI 148  
**COUNTY:** RICHLAND    **TWP/RNG:** 3N 9E    **SECTION:** 30    **QUARTERS/FOOTAGES:** NE NE NE  
**QUADRANGLE:** NOBLE    **LONGITUDE:** -88.243307    **GEOLOGIST:** SIEVER  
**CONFIDENTIAL:** N    **LATITUDE:** 38.670808    **DATE COLLECTED:** 0 / 0 / 1945  
**SURFACE ELEVATION (FT.):** 463.0    **LOGGED (FT.):** 4630.0    **LOG TYPE:**  
**SOURCE:** PURE OC, RUSK R M 00A7    **WELL TYPE:** Oil and Gas Test  
**COMMENT:**

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER      | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|-------------|-----------|-----------------|--------------------|
|                        |             |             |           | UNIT            | OVERBURDEN COMMENT |
| -481.0                 | CARBONDALE  | DANVILLE    | COAL      | -               | 944.0              |
| -523.0                 | CARBONDALE  | HERRIN      | COAL      | -               | 986.0              |
| -583.0                 | CARBONDALE  | SPRINGFIELD | COAL      | -               | 1046.0             |
| -787.0                 | SPOON       | PALZO       | SANDSTONE | -               | 1250.0             |
| -957.0                 | WALTERSBURG | GLEN DEAN   | LIMESTONE | -               | 1420.0             |

**MAPID:** 15900317000C    **VERSION:** 1    **PROJECT:** RI 148  
**COUNTY:** RICHLAND    **TWP/RNG:** 3N 9E    **SECTION:** 30    **QUARTERS/FOOTAGES:** NE NE SE  
**QUADRANGLE:** NOBLE    **LONGITUDE:** -88.243401    **GEOLOGIST:** SIEVER  
**CONFIDENTIAL:** N    **LATITUDE:** 38.663489    **DATE COLLECTED:** 0 / 0 / 1944  
**SURFACE ELEVATION (FT.):** 456.0    **LOGGED (FT.):** 4560.0    **LOG TYPE:**  
**SOURCE:** PURE OC, LONG W W 00A2    **WELL TYPE:** Oil and Gas Test  
**COMMENT:**

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -118.0                 | BOND        | CARTHAGE      | LIMESTONE | -               | 574.0              |
| -309.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 765.0              |
| -472.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 928.0              |
| -518.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 974.0              |
| -584.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1040.0             |
| -784.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1240.0             |
| -965.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1421.0             |

MAPID: 15900318000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 30 QUARTERS/FOOTAGES: NE SE NE

QUADRANGLE: NOBLE LONGITUDE: -88.243354 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.66715 DATE COLLECTED: 0 / 0 / 1944

SURFACE ELEVATION (FT.): 461.0 LOGGED (FT.): 4610.0 LOG TYPE:

SOURCE: PURE OC, LONG W W 00A3 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -299.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 760.0              |
| -465.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 926.0              |
| -513.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 974.0              |
| -573.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1034.0             |
| -785.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1246.0             |
| -956.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1417.0             |

MAPID: 15900319000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 30 QUARTERS/FOOTAGES: SE SW NW

QUADRANGLE: CLAY CITY LONGITUDE: -88.254524 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.665363 DATE COLLECTED: 0 / 0 / 1944

SURFACE ELEVATION (FT.): 455.0 LOGGED (FT.): 4550.0 LOG TYPE:

SOURCE: PURE OC, SHATTO CON0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -332.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 787.0              |
| -475.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 930.0              |
| -523.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 978.0              |
| -585.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1040.0             |
| -785.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1240.0             |
| -969.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1424.0             |

MAPID: 15900324000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 30 QUARTERS/FOOTAGES: 990' S line, 1320' E line of NE

QUADRANGLE: NOBLE LONGITUDE: -88.24684 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.667152 DATE COLLECTED: 0 / 0 / 1945

SURFACE ELEVATION (FT.): 462.0 LOGGED (FT.): 4620.0 LOG TYPE:

SOURCE: PURE OC, LONG W W 00A4 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER      | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|-------------|-----------|-----------------|--------------------|
|                        |             |             |           | UNIT            | OVERBURDEN COMMENT |
| -458.0                 | CARBONDALE  | DANVILLE    | COAL      | -               | 920.0              |
| -512.0                 | CARBONDALE  | HERRIN      | COAL      | -               | 974.0              |
| -574.0                 | CARBONDALE  | SPRINGFIELD | COAL      | -               | 1036.0             |
| -784.0                 | SPOON       | PALZO       | SANDSTONE | -               | 1246.0             |
| -949.0                 | WALTERSBURG | GLEN DEAN   | LIMESTONE | -               | 1411.0             |

MAPID: 15900324000C VERSION: 2

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 30 QUARTERS/FOOTAGES: 990' S line, 1320' E line of NE

QUADRANGLE: NOBLE LONGITUDE: -88.24684 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.667152 DATE COLLECTED:

SURFACE ELEVATION (FT.): 462.0 LOGGED (FT.): 1240.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -458.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 920.0              |
| -575.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.5             | 1037.0             |
| -664.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1126.0             |
| -778.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1240.0             |

MAPID: 15900344000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 30 QUARTERS/FOOTAGES: SW SW NE

QUADRANGLE: CLAY CITY LONGITUDE: -88.250348 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.665345 DATE COLLECTED: 0 / 0 / 1944

SURFACE ELEVATION (FT.): 457.0 LOGGED (FT.): 4570.0 LOG TYPE:

SOURCE: PURE OC, LONG W W 00A1 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -118.0                 | BOND        | CARTHAGE      | LIMESTONE | -               | 575.0              |
| -301.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 758.0              |
| -463.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 920.0              |
| -523.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 980.0              |
| -583.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1040.0             |
| -783.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1240.0             |
| -955.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1412.0             |

MAPID: 15900345000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 30 QUARTERS/FOOTAGES: SW NE NW

QUADRANGLE: CLAY CITY LONGITUDE: -88.25495 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.669015 DATE COLLECTED: 0 / 0 / 1944

SURFACE ELEVATION (FT.): 459.0 LOGGED (FT.): 4590.0 LOG TYPE:

SOURCE: PURE OC, VANBLRCM C0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER      | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|-------------|-----------|-----------------|--------------------|
|                        |             |             |           | UNIT            | OVERBURDEN COMMENT |
| -125.0                 | BOND        | CARTHAGE    | LIMESTONE | -               | 584.0              |
| -481.0                 | CARBONDALE  | DANVILLE    | COAL      | -               | 940.0              |
| -533.0                 | CARBONDALE  | HERRIN      | COAL      | -               | 992.0              |
| -591.0                 | CARBONDALE  | SPRINGFIELD | COAL      | -               | 1050.0             |
| -801.0                 | SPOON       | PALZO       | SANDSTONE | -               | 1260.0             |
| -954.0                 | WALTERSBURG | GLEN DEAN   | LIMESTONE | -               | 1413.0             |

MAPID: 15901647000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 30 QUARTERS/FOOTAGES: 680' S line, 330' W line of NW SE

QUADRANGLE: NOBLE LONGITUDE: -88.250385 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.662657 DATE COLLECTED:

SURFACE ELEVATION (FT.): 455.0 LOGGED (FT.): 1218.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: FAIR LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -297.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 22.0            | 752.0      |         |
| -513.0                 | CARBONDALE | HERRIN        | COAL      | -               | 968.0      |         |
| -575.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1030.0     |         |
| -665.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1120.0     |         |
| -763.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1218.0     |         |

MAPID: 15900005000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 31 QUARTERS/FOOTAGES: 660' S line, 660' E line of NW

QUADRANGLE: CLAY CITY LONGITUDE: -88.253925 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.651681 DATE COLLECTED: 0 / 0 / 1943

SURFACE ELEVATION (FT.): 451.0 LOGGED (FT.): 4510.0 LOG TYPE:

SOURCE: PURE OC, MYERS E A 0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|-------------|---------------|-----------|-----------------|------------|---------|
|                        |             |               |           | UNIT            | OVERBURDEN |         |
| -295.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 746.0      |         |
| -468.0                 | CARBONDALE  | DANVILLE      | COAL      | 2.0             | 919.0      |         |
| -516.0                 | CARBONDALE  | HERRIN        | COAL      | 3.0             | 967.0      |         |
| -580.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | 4.0             | 1031.0     |         |
| -669.0                 | CARBONDALE  | HOUCHIN CREEK | COAL      | -               | 1120.0     |         |
| -974.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1425.0     |         |

MAPID: 15900005000C VERSION: 2

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 31 QUARTERS/FOOTAGES: 660' S line, 660' E line of NW

QUADRANGLE: CLAY CITY LONGITUDE: -88.253925 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.651681 DATE COLLECTED:

SURFACE ELEVATION (FT.): 451.0 LOGGED (FT.): 1220.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -299.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 6.0             | 750.0              |
| -467.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 918.0              |
| -509.0                 | CARBONDALE | HERRIN        | COAL      | -               | 960.0              |
| -577.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1028.0             |
| -669.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1120.0             |
| -769.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1220.0             |

MAPID: 15900258000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 32 QUARTERS/FOOTAGES: NW SW NW

QUADRANGLE: NOBLE LONGITUDE: -88.241134 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.652487 DATE COLLECTED: 0 / 0 / 1945

SURFACE ELEVATION (FT.): 450.0 LOGGED (FT.): 4500.0 LOG TYPE:

SOURCE: FULK P, MURVIN J G0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -146.0                 | BOND        | CARTHAGE      | LIMESTONE | -               | 596.0              |
| -316.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 766.0              |
| -484.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 934.0              |
| -530.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 980.0              |
| -606.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1056.0             |
| -810.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1260.0             |
| -980.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1430.0             |

**MAPID:** 15900753000C    **VERSION:** 1    **PROJECT:** CGT-ECILL  
**COUNTY:** RICHLAND    **TWP/RNG:** 3N 9E    **SECTION:** 32    **QUARTERS/FOOTAGES:** NE NE NW  
**QUADRANGLE:** NOBLE    **LONGITUDE:** -88.234063    **GEOLOGIST:** C TREWORYG  
**CONFIDENTIAL:** N    **LATITUDE:** 38.65611    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 454.0    **LOGGED (FT.):** 1232.0    **LOG TYPE:** Electric Log  
**SOURCE:**    **WELL TYPE:** Oil and Gas Test  
**COMMENT:** GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -129.0                 | BOND       | CARTHAGE      | LIMESTONE | 4.0             | 583.0              |
| -293.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 10.0            | 747.0              |
| -467.0                 | CARBONDALE | DANVILLE      | COAL      | 2.5             | 921.0              |
| -515.0                 | CARBONDALE | HERRIN        | COAL      | 4.5             | 969.0              |
| -586.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.0             | 1040.0             |
| -676.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1130.0             |
| -778.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1232.0             |

**MAPID:** 15900088000C    **VERSION:** 2    **PROJECT:** RI 148  
**COUNTY:** RICHLAND    **TWP/RNG:** 3N 9E    **SECTION:** 33    **QUARTERS/FOOTAGES:** 330' N line, 650' W line  
**QUADRANGLE:** NOBLE    **LONGITUDE:** -88.221155    **GEOLOGIST:** SIEVER  
**CONFIDENTIAL:** N    **LATITUDE:** 38.656029    **DATE COLLECTED:** 0 / 0 / 1942  
**SURFACE ELEVATION (FT.):** 469.0    **LOGGED (FT.):** 4690.0    **LOG TYPE:**  
**SOURCE:** MARTN&GDSN, TAYLOR W O0001    **WELL TYPE:** Oil and Gas Test  
**COMMENT:**

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -124.0                 | BOND        | CARTHAGE      | LIMESTONE | -               | 593.0              |
| -301.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 770.0              |
| -486.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 955.0              |
| -526.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 995.0              |
| -590.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1059.0             |
| -676.0                 | CARBONDALE  | HOUCHIN CREEK | COAL      | -               | 1145.0             |
| -1012.0                | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1481.0             |

**MAPID:** 15900088000C    **VERSION:** 3    **PROJECT:** CONTROL  
**COUNTY:** RICHLAND    **TWP/RNG:** 3N 9E    **SECTION:** 33    **QUARTERS/FOOTAGES:** 330' N line, 650' W line  
**QUADRANGLE:** NOBLE    **LONGITUDE:** -88.221155    **GEOLOGIST:** HINES  
**CONFIDENTIAL:** N    **LATITUDE:** 38.656029    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):**    **LOGGED (FT.):** 3145.0    **LOG TYPE:** Survey Sample Study  
**SOURCE:** GOODSON, D. & MARTIN, H.    **WELL TYPE:** Oil and Gas Test  
**COMMENT:** OILWELLS LOGGED BY COAL SECT-LOGS IN GRU

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



MAPID: 15900639000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 33 QUARTERS/FOOTAGES: NE SE SW  
 QUADRANGLE: NOBLE LONGITUDE: -88.215281 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.644972 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 452.0 LOGGED (FT.): 1260.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -127.0                 | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 579.0      |         |
| -317.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 6.0             | 769.0      |         |
| -498.0                 | CARBONDALE | DANVILLE      | COAL      | 2.5             | 950.0      |         |
| -538.0                 | CARBONDALE | HERRIN        | COAL      | 4.5             | 990.0      |         |
| -606.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1058.0     |         |
| -698.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1150.0     |         |
| -808.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1260.0     |         |

MAPID: 15900671000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 33 QUARTERS/FOOTAGES: SW SE NE  
 QUADRANGLE: NOBLE LONGITUDE: -88.208313 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.650436 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 448.0 LOGGED (FT.): 1242.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -123.0                 | BOND       | CARTHAGE      | LIMESTONE | 5.0             | 571.0      |         |
| -313.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 5.0             | 761.0      |         |
| -491.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 939.0      |         |
| -532.0                 | CARBONDALE | HERRIN        | COAL      | -               | 980.0      |         |
| -596.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.5             | 1044.0     |         |
| -685.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1133.0     |         |
| -794.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1242.0     |         |

MAPID: 15900431000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 34 QUARTERS/FOOTAGES: NE NE NW

QUADRANGLE: NOBLE LONGITUDE: -88.196631 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.655833 DATE COLLECTED:

SURFACE ELEVATION (FT.): 474.0 LOGGED (FT.): 1265.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -117.0                 | BOND       | CARTHAGE      | LIMESTONE | 5.0             | 591.0              |
| -296.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 770.0              |
| -483.0                 | CARBONDALE | DANVILLE      | COAL      | 3.5             | 957.0              |
| -593.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.0             | 1067.0             |
| -686.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1160.0             |
| -791.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1265.0             |

MAPID: 15900754000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 9E SECTION: 35 QUARTERS/FOOTAGES: NW SW SW

QUADRANGLE: NOBLE LONGITUDE: -88.184815 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.644862 DATE COLLECTED:

SURFACE ELEVATION (FT.): 478.0 LOGGED (FT.): 1300.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -128.0                 | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 606.0              |
| -310.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 13.0            | 788.0              |
| -502.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 980.0              |
| -546.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1024.0             |
| -611.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1089.0             |
| -705.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1183.0             |
| -822.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1300.0             |

MAPID: 15900679000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND

TWP/RNG: 3N 9E

SECTION: 36

QUARTERS/FOOTAGES: NE NE NW

QUADRANGLE: NOBLE

LONGITUDE: -88.159237

GEOLOGIST: C TREWORYG

CONFIDENTIAL: N

LATITUDE: 38.655586

DATE COLLECTED:

SURFACE ELEVATION (FT.): 428.0

LOGGED (FT.): 1255.0

LOG TYPE: Electric Log

SOURCE:

WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -131.0                 | BOND       | CARTHAGE      | LIMESTONE | 4.0             | 559.0              |
| -323.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 13.0            | 751.0              |
| -517.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 945.0              |
| -557.0                 | CARBONDALE | HERRIN        | COAL      | -               | 985.0              |
| -627.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.0             | 1055.0             |
| -720.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1148.0             |
| -827.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1255.0             |

MAPID: 15900059000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND

TWP/RNG: 3N 10E

SECTION: 1

QUARTERS/FOOTAGES: 671' S line, 339' W line of SW

QUADRANGLE: OLNEY

LONGITUDE: -88.05619

GEOLOGIST: SIEVER

CONFIDENTIAL: N

LATITUDE: 38.718239

DATE COLLECTED: 0 / 0 / 1942

SURFACE ELEVATION (FT.): 503.0

LOGGED (FT.): 5030.0

LOG TYPE:

SOURCE: OLSON OC, BOYD W 0001

WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -171.0                 | BOND        | CARTHAGE      | LIMESTONE | -               | 674.0              |
| -347.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 850.0              |
| -509.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 1012.0             |
| -568.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1071.0             |
| -638.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1141.0             |
| -723.0                 | CARBONDALE  | HOUCHIN CREEK | COAL      | -               | 1226.0             |
| -1081.0                | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1584.0             |

MAPID: 15900059000C VERSION: 2

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 10E SECTION: 1 QUARTERS/FOOTAGES: 671' S line, 339' W line of SW

QUADRANGLE: OLNEY LONGITUDE: -88.05619 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.718239 DATE COLLECTED:

SURFACE ELEVATION (FT.): 503.0 LOGGED (FT.): 1343.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -175.0                 | BOND       | CARTHAGE      | LIMESTONE | 4.0             | 678.0              |
| -343.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 846.0              |
| -512.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 1015.0             |
| -572.0                 | CARBONDALE | HERRIN        | COAL      | 3.0             | 1075.0             |
| -642.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1145.0             |
| -729.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1232.0             |
| -840.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1343.0             |

MAPID: 15900406000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 10E SECTION: 1 QUARTERS/FOOTAGES: NE NW NE

QUADRANGLE: OLNEY LONGITUDE: -88.044505 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.731283 DATE COLLECTED:

SURFACE ELEVATION (FT.): 531.0 LOGGED (FT.): 1410.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -384.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 13.0            | 915.0              |
| -550.0                 | CARBONDALE | DANVILLE      | COAL      | 2.5             | 1081.0             |
| -615.0                 | CARBONDALE | HERRIN        | COAL      | 4.0             | 1146.0             |
| -687.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.5             | 1218.0             |
| -776.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1307.0             |
| -879.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1410.0             |

MAPID: 15900755000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 10E SECTION: 2 QUARTERS/FOOTAGES: 460' N line, 330' E line of NW NE

QUADRANGLE: OLNEY LONGITUDE: -88.063224 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.730489 DATE COLLECTED:

SURFACE ELEVATION (FT.): 492.0 LOGGED (FT.): 1365.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -374.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 12.0            | 866.0              |
| -546.0                 | CARBONDALE | DANVILLE      | COAL      | 2.5             | 1038.0             |
| -608.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1100.0             |
| -674.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1166.0             |
| -762.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1254.0             |
| -873.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1365.0             |

MAPID: 15900060000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 10E SECTION: 3 QUARTERS/FOOTAGES: SE NE NW

QUADRANGLE: OLNEY LONGITUDE: -88.086047 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.72823 DATE COLLECTED: 0 / 0 / 1937

SURFACE ELEVATION (FT.): 484.0 LOGGED (FT.): 4840.0 LOG TYPE:

SOURCE: OLNEY WELL, PHILLIPS V WELL TYPE: Water Well

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -366.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 850.0              |
| -596.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1080.0             |
| -671.0                 | CARBONDALE | SPRINGFIELD   | COAL      | -               | 1155.0             |

MAPID: 15900756000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 10E SECTION: 4 QUARTERS/FOOTAGES: 270' N line, 330' W line of NE SE

QUADRANGLE: OLNEY LONGITUDE: -88.097533 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.722427 DATE COLLECTED:

SURFACE ELEVATION (FT.): 450.0 LOGGED (FT.): 1284.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -172.0                 | BOND       | CARTHAGE      | LIMESTONE | 5.0             | 622.0              |
| -341.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 12.0            | 791.0              |
| -511.0                 | CARBONDALE | DANVILLE      | COAL      | 3.5             | 961.0              |
| -569.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1019.0             |
| -633.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1083.0             |
| -712.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1162.0             |
| -834.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1284.0             |

MAPID: 15901662000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 10E SECTION: 4 QUARTERS/FOOTAGES: SE SE SW

QUADRANGLE: OLNEY LONGITUDE: -88.104429 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.716342 DATE COLLECTED:

SURFACE ELEVATION (FT.): 427.0 LOGGED (FT.): 1266.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -180.0                 | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 607.0              |
| -348.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 11.0            | 775.0              |
| -523.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 950.0              |
| -636.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.5             | 1063.0             |
| -718.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1145.0             |
| -839.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1266.0             |

MAPID: 15900061000C    VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND    TWP/RNG: 3N 10E    SECTION: 5    QUARTERS/FOOTAGES: SW SW NE

QUADRANGLE: OLNEY    LONGITUDE: -88.120824

GEOLOGIST: SIEVER

CONFIDENTIAL: N    LATITUDE: 38.72364

DATE COLLECTED: 0 / 0 / 1938

SURFACE ELEVATION (FT.): 444.0    LOGGED (FT.): 4440.0

LOG TYPE:

SOURCE: PAPOOSE OC, LYNCH 0001

WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -161.0                 | BOND        | CARTHAGE      | LIMESTONE | -               | 605.0              |
| -334.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 778.0              |
| -563.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1007.0             |
| -1076.0                | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1520.0             |

MAPID: 15900284000C    VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND    TWP/RNG: 3N 10E    SECTION: 6    QUARTERS/FOOTAGES: SE NW SE

QUADRANGLE: NOBLE    LONGITUDE: -88.137142

GEOLOGIST: SIEVER

CONFIDENTIAL: N    LATITUDE: 38.719589

DATE COLLECTED: 0 / 0 / 1944

SURFACE ELEVATION (FT.): 439.0    LOGGED (FT.): 4390.0

LOG TYPE:

SOURCE: KIOWA DRC, BETBNR A C0001

WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -189.0                 | BOND        | CARTHAGE      | LIMESTONE | -               | 628.0              |
| -341.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 780.0              |
| -517.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 956.0              |
| -571.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1010.0             |
| -635.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1074.0             |
| -841.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1280.0             |
| -1036.0                | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1475.0             |

MAPID: 15900284000C VERSION: 2

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 10E SECTION: 6 QUARTERS/FOOTAGES: SE NW SE  
 QUADRANGLE: NOBLE LONGITUDE: -88.137142 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.719589 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 439.0 LOGGED (FT.): 1273.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -189.0                 | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 628.0      |         |
| -343.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 782.0      |         |
| -519.0                 | CARBONDALE | DANVILLE      | COAL      | 4.0             | 958.0      |         |
| -573.0                 | CARBONDALE | HERRIN        | COAL      | 4.5             | 1012.0     |         |
| -635.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 5.0             | 1074.0     |         |
| -720.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1159.0     |         |
| -834.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1273.0     |         |

MAPID: 15901665000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 10E SECTION: 7 QUARTERS/FOOTAGES: NE SE SE  
 QUADRANGLE: NOBLE LONGITUDE: -88.132459 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.703048 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 441.0 LOGGED (FT.): 1254.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -148.0                 | BOND       | CARTHAGE      | LIMESTONE | 7.0             | 589.0      |         |
| -397.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 13.0            | 838.0      |         |
| -517.0                 | CARBONDALE | DANVILLE      | COAL      | 4.0             | 958.0      |         |
| -565.0                 | CARBONDALE | HERRIN        | COAL      | 4.0             | 1006.0     |         |
| -634.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 5.0             | 1075.0     |         |
| -703.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1144.0     |         |
| -813.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1254.0     |         |



MAPID: 15900343000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 10E SECTION: 8 QUARTERS/FOOTAGES: 660' N line, 330' E line of SE

QUADRANGLE: OLNEY LONGITUDE: -88.113789 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.706089 DATE COLLECTED: 0 / 0 / 1943

SURFACE ELEVATION (FT.): 421.0 LOGGED (FT.): 4210.0 LOG TYPE:

SOURCE: NAT PET, PADDOCK R 0001 1 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -189.0                 | BOND        | CARTHAGE      | LIMESTONE | -               | 610.0              |
| -392.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 813.0              |
| -547.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 968.0              |
| -595.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1016.0             |
| -849.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1270.0             |
| -1092.0                | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1513.0             |

MAPID: 15900343000C VERSION: 2

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 10E SECTION: 8 QUARTERS/FOOTAGES: 660' N line, 330' E line of SE

QUADRANGLE: OLNEY LONGITUDE: -88.113789 GEOLOGIST: C TREWORYG

CONFIDENTIAL: N LATITUDE: 38.706089 DATE COLLECTED:

SURFACE ELEVATION (FT.): 421.0 LOGGED (FT.): 1259.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -188.0                 | BOND       | CARTHAGE      | LIMESTONE | 7.0             | 609.0              |
| -445.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 12.0            | 866.0              |
| -548.0                 | CARBONDALE | DANVILLE      | COAL      | 3.5             | 969.0              |
| -597.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1018.0             |
| -679.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 5.5             | 1100.0             |
| -729.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1150.0             |
| -838.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1259.0             |

MAPID: 15901666000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 10E SECTION: 8 QUARTERS/FOOTAGES: SW NE SW

QUADRANGLE: NOBLE LONGITUDE: -88.125466 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.704978 DATE COLLECTED:

SURFACE ELEVATION (FT.): 450.0 LOGGED (FT.): 1294.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -178.0                 | BOND       | CARTHAGE      | LIMESTONE | 7.0             | 628.0      |         |
| -426.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 7.0             | 876.0      |         |
| -537.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 987.0      |         |
| -584.0                 | CARBONDALE | HERRIN        | COAL      | 5.0             | 1034.0     |         |
| -653.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.5             | 1103.0     |         |
| -734.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1184.0     |         |
| -844.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1294.0     |         |

MAPID: 15900796000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 10E SECTION: 9 QUARTERS/FOOTAGES: SW NW NE

QUADRANGLE: OLNEY LONGITUDE: -88.102118 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.712706 DATE COLLECTED:

SURFACE ELEVATION (FT.): 437.0 LOGGED (FT.): 1280.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -176.0                 | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 613.0      |         |
| -355.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 13.0            | 792.0      |         |
| -525.0                 | CARBONDALE | DANVILLE      | COAL      | 2.5             | 962.0      |         |
| -579.0                 | CARBONDALE | HERRIN        | COAL      | 4.0             | 1016.0     |         |
| -644.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1081.0     |         |
| -733.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1170.0     |         |
| -843.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1280.0     |         |

MAPID: 15901670000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 10E SECTION: 9 QUARTERS/FOOTAGES: SE SW NW

QUADRANGLE: OLNEY LONGITUDE: -88.109107 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.708919 DATE COLLECTED:

SURFACE ELEVATION (FT.): 417.0 LOGGED (FT.): 1255.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -190.0                 | BOND       | CARTHAGE      | LIMESTONE | 5.0             | 607.0              |
| -533.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 950.0              |
| -586.0                 | CARBONDALE | HERRIN        | COAL      | 5.0             | 1003.0             |
| -650.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 5.0             | 1067.0             |
| -737.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1154.0             |
| -838.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1255.0             |

MAPID: 15901674000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 10E SECTION: 9 QUARTERS/FOOTAGES: 330' N line, 413' W line of SW SE

QUADRANGLE: OLNEY LONGITUDE: -88.10187 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.703627 DATE COLLECTED:

SURFACE ELEVATION (FT.): 433.0 LOGGED (FT.): 1302.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -178.0                 | BOND       | CARTHAGE      | LIMESTONE | 7.0             | 611.0              |
| -373.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 24.0            | 806.0              |
| -553.0                 | CARBONDALE | DANVILLE      | COAL      | 4.0             | 986.0              |
| -606.0                 | CARBONDALE | HERRIN        | COAL      | 4.0             | 1039.0             |
| -683.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 5.0             | 1116.0             |
| -755.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1188.0             |
| -869.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1302.0             |

MAPID: 15900062000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 10E SECTION: 10 QUARTERS/FOOTAGES: SE NW SE

QUADRANGLE: OLNEY LONGITUDE: -88.081353 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.705888 DATE COLLECTED: 0 / 0 / 1942

SURFACE ELEVATION (FT.): 473.0 LOGGED (FT.): 4730.0 LOG TYPE:

SOURCE: HIAWTHA OG, POWELL K 0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -352.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 825.0              |
| -524.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 997.0              |
| -579.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1052.0             |
| -657.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1130.0             |
| -743.0                 | CARBONDALE  | HOUCHIN CREEK | COAL      | -               | 1216.0             |
| -1078.0                | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1551.0             |

MAPID: 15900558000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 10E SECTION: 10 QUARTERS/FOOTAGES: NE NW SE

QUADRANGLE: OLNEY LONGITUDE: -88.081352 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.707696 DATE COLLECTED:

SURFACE ELEVATION (FT.): 464.0 LOGGED (FT.): 1327.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -344.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 808.0              |
| -524.0                 | CARBONDALE | DANVILLE      | COAL      | 4.0             | 988.0              |
| -583.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1047.0             |
| -658.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.5             | 1122.0             |
| -749.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1213.0             |
| -863.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1327.0             |

MAPID: 15901690000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 10E SECTION: 10 QUARTERS/FOOTAGES: 685' S line, 330' E line of NW NE

QUADRANGLE: OLNEY LONGITUDE: -88.081366 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.714113 DATE COLLECTED:

SURFACE ELEVATION (FT.): 489.0 LOGGED (FT.): 1336.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -330.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 19.0            | 819.0              |
| -502.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 991.0              |
| -573.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1062.0             |
| -642.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 5.0             | 1131.0             |
| -734.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1223.0             |
| -847.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1336.0             |

MAPID: 15900063000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 10E SECTION: 11 QUARTERS/FOOTAGES: 660' N line, 660' W line of SE

QUADRANGLE: OLNEY LONGITUDE: -88.064094 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.70713 DATE COLLECTED: 0 / 0 / 1943

SURFACE ELEVATION (FT.): 477.4 LOGGED (FT.): 4774.0 LOG TYPE:

SOURCE: HIAWTHA OG, WHARF A J 0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -347.6                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 825.0              |
| -535.6                 | CARBONDALE  | DANVILLE      | COAL      | -               | 1013.0             |
| -588.6                 | CARBONDALE  | HERRIN        | COAL      | -               | 1066.0             |
| -662.6                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1140.0             |
| -760.6                 | CARBONDALE  | HOUCHIN CREEK | COAL      | -               | 1238.0             |
| -1090.6                | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1568.0             |

MAPID: 1590063000C VERSION: 2

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 10E SECTION: 11 QUARTERS/FOOTAGES: 660' N line, 660' W line of SE

QUADRANGLE: OLNEY LONGITUDE: -88.064094 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.70713 DATE COLLECTED:

SURFACE ELEVATION (FT.): 477.0 LOGGED (FT.): 1347.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -347.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 824.0      |         |
| -513.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 990.0      |         |
| -595.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1072.0     |         |
| -668.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.5             | 1145.0     |         |
| -768.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1245.0     |         |
| -870.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1347.0     |         |

MAPID: 15900759000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 10E SECTION: 11 QUARTERS/FOOTAGES: NW NW NW

QUADRANGLE: OLNEY LONGITUDE: -88.07446 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.715072 DATE COLLECTED:

SURFACE ELEVATION (FT.): 493.0 LOGGED (FT.): 1352.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -355.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 848.0      |         |
| -527.0                 | CARBONDALE | DANVILLE      | COAL      | 3.5             | 1020.0     |         |
| -585.0                 | CARBONDALE | HERRIN        | COAL      | 4.0             | 1078.0     |         |
| -654.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 5.0             | 1147.0     |         |
| -741.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1234.0     |         |
| -859.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1352.0     |         |

MAPID: 15900760000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 10E SECTION: 13 QUARTERS/FOOTAGES: 330' S line, 660' E line of NE

QUADRANGLE: OLNEY LONGITUDE: -88.040973 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.696366 DATE COLLECTED:

SURFACE ELEVATION (FT.): 455.0 LOGGED (FT.): 1312.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -345.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 800.0      |         |
| -509.0                 | CARBONDALE | DANVILLE      | COAL      | 2.5             | 964.0      |         |
| -581.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1036.0     |         |
| -656.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1111.0     |         |
| -747.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1202.0     |         |
| -857.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1312.0     |         |

MAPID: 15901693000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 10E SECTION: 13 QUARTERS/FOOTAGES: SW SW SE

QUADRANGLE: OLNEY LONGITUDE: -88.046635 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.688767 DATE COLLECTED:

SURFACE ELEVATION (FT.): 507.0 LOGGED (FT.): 1344.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -347.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 854.0      |         |
| -515.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 1022.0     |         |
| -579.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1086.0     |         |
| -648.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.5             | 1155.0     |         |
| -744.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1251.0     |         |
| -837.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1344.0     |         |

MAPID: 15902725000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 10E SECTION: 13 QUARTERS/FOOTAGES: NE NW SW  
 QUADRANGLE: OLNEY LONGITUDE: -88.053622 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.693874 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 488.0 LOGGED (FT.): 1365.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -363.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 851.0      |         |
| -540.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 1028.0     |         |
| -598.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1086.0     |         |
| -672.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.5             | 1160.0     |         |
| -769.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1257.0     |         |
| -877.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1365.0     |         |

MAPID: 15900342000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 10E SECTION: 14 QUARTERS/FOOTAGES: NW NW SE  
 QUADRANGLE: OLNEY LONGITUDE: -88.065192 GEOLOGIST: SIEVER  
 CONFIDENTIAL: N LATITUDE: 38.693523 DATE COLLECTED: 0 / 0 / 1944  
 SURFACE ELEVATION (FT.): 446.0 LOGGED (FT.): 4460.0 LOG TYPE:  
 SOURCE: KINGWOODOC, CUTSHALL S0001 WELL TYPE: Oil and Gas Test  
 COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|-------------|---------------|-----------|-----------------|------------|---------|
|                        |             |               |           | UNIT            | OVERBURDEN |         |
| -354.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 800.0      |         |
| -536.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 982.0      |         |
| -594.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1040.0     |         |
| -654.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1100.0     |         |
| -844.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1290.0     |         |
| -1122.0                | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1568.0     |         |



MAPID: 15900342000C VERSION: 2

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 10E SECTION: 14 QUARTERS/FOOTAGES: NW NW SE  
 QUADRANGLE: OLNEY LONGITUDE: -88.065192 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.693523 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 446.0 LOGGED (FT.): 1327.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -356.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 16.0            | 802.0      |         |
| -537.0                 | CARBONDALE | DANVILLE      | COAL      | 4.0             | 983.0      |         |
| -594.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1040.0     |         |
| -670.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1116.0     |         |
| -770.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1216.0     |         |
| -881.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1327.0     |         |

MAPID: 15900510000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 10E SECTION: 14 QUARTERS/FOOTAGES: NW NW NW  
 QUADRANGLE: OLNEY LONGITUDE: -88.074458 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.700598 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 455.0 LOGGED (FT.): 1310.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -531.0                 | CARBONDALE | DANVILLE      | COAL      | 3.5             | 986.0      |         |
| -584.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1039.0     |         |
| -658.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1113.0     |         |
| -751.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1206.0     |         |
| -855.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1310.0     |         |

MAPID: 15901479000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 10E SECTION: 14 QUARTERS/FOOTAGES: SW SW SW

QUADRANGLE: OLNEY LONGITUDE: -88.074462 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.687886 DATE COLLECTED:

SURFACE ELEVATION (FT.): 475.0 LOGGED (FT.): 1353.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -358.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 16.0            | 833.0      |         |
| -546.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 1021.0     |         |
| -593.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1068.0     |         |
| -669.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.5             | 1144.0     |         |
| -773.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1248.0     |         |
| -878.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1353.0     |         |

MAPID: 15900651000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 10E SECTION: 15 QUARTERS/FOOTAGES: NW NE NE

QUADRANGLE: OLNEY LONGITUDE: -88.079058 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.700503 DATE COLLECTED:

SURFACE ELEVATION (FT.): 464.0 LOGGED (FT.): 1322.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -387.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 5.0             | 851.0      |         |
| -529.0                 | CARBONDALE | DANVILLE      | COAL      | 3.5             | 993.0      |         |
| -582.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1046.0     |         |
| -658.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.5             | 1122.0     |         |
| -748.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1212.0     |         |
| -858.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1322.0     |         |

MAPID: 15900761000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 10E SECTION: 15 QUARTERS/FOOTAGES: SW NW SE  
 QUADRANGLE: OLNEY LONGITUDE: -88.083631 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.691301 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 433.0 LOGGED (FT.): 1306.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -363.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 796.0              |
| -554.0                 | CARBONDALE | DANVILLE      | COAL      | 4.0             | 987.0              |
| -603.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1036.0             |
| -694.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 6.0             | 1127.0             |
| -765.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1198.0             |
| -873.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1306.0             |

MAPID: 15901694000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 10E SECTION: 15 QUARTERS/FOOTAGES: 340' S line, 330' E line of SW NW  
 QUADRANGLE: OLNEY LONGITUDE: -88.09053 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.694809 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 447.0 LOGGED (FT.): 1314.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -177.0                 | BOND       | CARTHAGE      | LIMESTONE | 7.0             | 624.0              |
| -368.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 11.0            | 815.0              |
| -556.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 1003.0             |
| -609.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1056.0             |
| -695.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 5.0             | 1142.0             |
| -764.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1211.0             |
| -867.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1314.0             |

MAPID: 15900762000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 10E SECTION: 16 QUARTERS/FOOTAGES: 660' N line, 330' W line of SE NE

QUADRANGLE: OLNEY LONGITUDE: -88.097477 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.695542 DATE COLLECTED:

SURFACE ELEVATION (FT.): 441.0 LOGGED (FT.): 1310.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -385.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 4.0             | 826.0              |
| -543.0                 | CARBONDALE | DANVILLE      | COAL      | 3.5             | 984.0              |
| -592.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1033.0             |
| -676.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.5             | 1117.0             |
| -757.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1198.0             |
| -869.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1310.0             |

MAPID: 15901696000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 10E SECTION: 16 QUARTERS/FOOTAGES: SE NE NW

QUADRANGLE: OLNEY LONGITUDE: -88.104491 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.698106 DATE COLLECTED:

SURFACE ELEVATION (FT.): 434.0 LOGGED (FT.): 1300.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -393.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 4.0             | 827.0              |
| -554.0                 | CARBONDALE | DANVILLE      | COAL      | 3.5             | 988.0              |
| -599.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1033.0             |
| -681.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 6.0             | 1115.0             |
| -756.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1190.0             |
| -866.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1300.0             |

MAPID: 15901700000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 10E SECTION: 16 QUARTERS/FOOTAGES: NW NE SW  
 QUADRANGLE: OLNEY LONGITUDE: -88.106787 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.692587 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 435.0 LOGGED (FT.): 1286.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -362.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 20.0            | 797.0              |
| -551.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 986.0              |
| -595.0                 | CARBONDALE | HERRIN        | COAL      | 5.0             | 1030.0             |
| -679.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 6.0             | 1114.0             |
| -745.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1180.0             |
| -851.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1286.0             |

MAPID: 15900763000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 10E SECTION: 17 QUARTERS/FOOTAGES: NW NW SW  
 QUADRANGLE: NOBLE LONGITUDE: -88.130131 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.692194 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 428.0 LOGGED (FT.): 1267.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -146.0                 | BOND       | CARTHAGE      | LIMESTONE | 5.0             | 574.0              |
| -324.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 13.0            | 752.0              |
| -518.0                 | CARBONDALE | DANVILLE      | COAL      | 3.5             | 946.0              |
| -565.0                 | CARBONDALE | HERRIN        | COAL      | 4.0             | 993.0              |
| -642.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 5.5             | 1070.0             |
| -742.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1170.0             |
| -839.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1267.0             |

MAPID: 15900764000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND

TWP/RNG: 3N 10E

SECTION: 18

QUARTERS/FOOTAGES: SE NE NW

QUADRANGLE: NOBLE

LONGITUDE: -88.141761

GEOLOGIST: C TREWORYG

CONFIDENTIAL: N

LATITUDE: 38.697533

DATE COLLECTED:

SURFACE ELEVATION (FT.): 432.0

LOGGED (FT.): 1236.0

LOG TYPE: Electric Log

SOURCE:

WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -139.0                 | BOND       | CARTHAGE      | LIMESTONE | 5.0             | 571.0              |
| -321.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 12.0            | 753.0              |
| -504.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 936.0              |
| -552.0                 | CARBONDALE | HERRIN        | COAL      | -               | 984.0              |
| -614.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1046.0             |
| -697.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1129.0             |
| -804.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1236.0             |

MAPID: 15900283000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND

TWP/RNG: 3N 10E

SECTION: 19

QUARTERS/FOOTAGES: NW SE SE

QUADRANGLE: NOBLE

LONGITUDE: -88.134741

GEOLOGIST: SIEVER

CONFIDENTIAL: N

LATITUDE: 38.673909

DATE COLLECTED: 0 / 0 / 1944

SURFACE ELEVATION (FT.): 414.0

LOGGED (FT.): 4140.0

LOG TYPE:

SOURCE: FRAZIER C, SCHLMYR E 0001

WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -316.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 730.0              |
| -500.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 914.0              |
| -542.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 956.0              |
| -612.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1026.0             |
| -816.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1230.0             |
| -1090.0                | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1504.0             |

MAPID: 15900283000C VERSION: 2

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 10E SECTION: 19 QUARTERS/FOOTAGES: NW SE SE  
 QUADRANGLE: NOBLE LONGITUDE: -88.134741 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.673909 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 414.0 LOGGED (FT.): 1220.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -124.0                 | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 538.0              |
| -308.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 16.0            | 722.0              |
| -501.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 915.0              |
| -544.0                 | CARBONDALE | HERRIN        | COAL      | -               | 958.0              |
| -612.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 5.0             | 1026.0             |
| -696.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1110.0             |
| -806.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1220.0             |

MAPID: 15900064000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 10E SECTION: 20 QUARTERS/FOOTAGES: NW NW SE  
 QUADRANGLE: OLNEY LONGITUDE: -88.120708 GEOLOGIST: SIEVER  
 CONFIDENTIAL: N LATITUDE: 38.677752 DATE COLLECTED: 0 / 0 / 1942  
 SURFACE ELEVATION (FT.): 419.0 LOGGED (FT.): 4190.0 LOG TYPE:  
 SOURCE: OHIO OIL, NELSON G C0001 WELL TYPE: Oil and Gas Test  
 COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -146.0                 | BOND        | CARTHAGE      | LIMESTONE | -               | 565.0              |
| -346.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 765.0              |
| -535.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 954.0              |
| -578.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 997.0              |
| -646.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1065.0             |
| -736.0                 | CARBONDALE  | HOUCHIN CREEK | COAL      | -               | 1155.0             |
| -1123.0                | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1542.0             |

MAPID: 1590064000C VERSION: 2

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 10E SECTION: 20 QUARTERS/FOOTAGES: NW NW SE  
 QUADRANGLE: OLNEY LONGITUDE: -88.120708 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.677752 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 419.0 LOGGED (FT.): 1272.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -147.0                 | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 566.0      |         |
| -337.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 16.0            | 756.0      |         |
| -533.0                 | CARBONDALE | DANVILLE      | COAL      | 4.0             | 952.0      |         |
| -577.0                 | CARBONDALE | HERRIN        | COAL      | -               | 996.0      |         |
| -645.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1064.0     |         |
| -736.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1155.0     |         |
| -853.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1272.0     |         |

MAPID: 15900766000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 10E SECTION: 20 QUARTERS/FOOTAGES: SW SW NW  
 QUADRANGLE: NOBLE LONGITUDE: -88.130102 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.679435 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 415.0 LOGGED (FT.): 1227.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -125.0                 | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 540.0      |         |
| -307.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 722.0      |         |
| -502.0                 | CARBONDALE | DANVILLE      | COAL      | 4.5             | 917.0      |         |
| -545.0                 | CARBONDALE | HERRIN        | COAL      | -               | 960.0      |         |
| -614.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.5             | 1029.0     |         |
| -700.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1115.0     |         |
| -812.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1227.0     |         |



MAPID: 15900913000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 10E SECTION: 20 QUARTERS/FOOTAGES: NE NE SE

QUADRANGLE: OLNEY LONGITUDE: -88.113672 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.677867 DATE COLLECTED:

SURFACE ELEVATION (FT.): 418.0 LOGGED (FT.): 1247.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -152.0                 | BOND       | CARTHAGE      | LIMESTONE | 5.0             | 570.0      |         |
| -328.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 746.0      |         |
| -508.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 926.0      |         |
| -552.0                 | CARBONDALE | HERRIN        | COAL      | -               | 970.0      |         |
| -630.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.0             | 1048.0     |         |
| -722.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1140.0     |         |
| -829.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1247.0     |         |

MAPID: 15900259000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 10E SECTION: 21 QUARTERS/FOOTAGES: NE NE NE

QUADRANGLE: OLNEY LONGITUDE: -88.095067 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.685548 DATE COLLECTED: 0 / 0 / 1945

SURFACE ELEVATION (FT.): 425.0 LOGGED (FT.): 4250.0 LOG TYPE:

SOURCE: MURRAY R R, KURTZ F W 0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|-------------|---------------|-----------|-----------------|------------|---------|
|                        |             |               |           | UNIT            | OVERBURDEN |         |
| -371.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 796.0      |         |
| -547.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 972.0      |         |
| -591.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1016.0     |         |
| -671.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1096.0     |         |
| -835.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1260.0     |         |
| -1119.0                | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1544.0     |         |

MAPID: 15900435000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 10E SECTION: 21 QUARTERS/FOOTAGES: NW SW SE  
 QUADRANGLE: OLNEY LONGITUDE: -88.101988 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.674471 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 450.0 LOGGED (FT.): 1295.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -155.0                 | BOND       | CARTHAGE      | LIMESTONE | 7.0             | 605.0      |         |
| -361.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 8.0             | 811.0      |         |
| -535.0                 | CARBONDALE | DANVILLE      | COAL      | 3.5             | 985.0      |         |
| -583.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1033.0     |         |
| -658.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1108.0     |         |
| -731.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1181.0     |         |
| -845.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1295.0     |         |

MAPID: 15900613000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 10E SECTION: 21 QUARTERS/FOOTAGES: NE SE NW  
 QUADRANGLE: OLNEY LONGITUDE: -88.104368 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.681709 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 422.0 LOGGED (FT.): 1275.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -165.0                 | BOND       | CARTHAGE      | LIMESTONE | 8.0             | 587.0      |         |
| -361.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 8.0             | 783.0      |         |
| -532.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 954.0      |         |
| -576.0                 | CARBONDALE | HERRIN        | COAL      | -               | 998.0      |         |
| -646.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.5             | 1068.0     |         |
| -743.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1165.0     |         |
| -853.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1275.0     |         |

MAPID: 15901712000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 10E SECTION: 21 QUARTERS/FOOTAGES: NW NE SE  
 QUADRANGLE: OLNEY LONGITUDE: -88.097353 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.678217 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 453.0 LOGGED (FT.): 1303.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -168.0                 | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 621.0      |         |
| -353.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 17.0            | 806.0      |         |
| -541.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 994.0      |         |
| -585.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1038.0     |         |
| -663.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 5.0             | 1116.0     |         |
| -739.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1192.0     |         |
| -850.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1303.0     |         |

MAPID: 15901717000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 10E SECTION: 21 QUARTERS/FOOTAGES: SW NE NW  
 QUADRANGLE: OLNEY LONGITUDE: -88.106715 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.683483 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 422.0 LOGGED (FT.): 1260.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -156.0                 | BOND       | CARTHAGE      | LIMESTONE | 8.0             | 578.0      |         |
| -352.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 9.0             | 774.0      |         |
| -530.0                 | CARBONDALE | DANVILLE      | COAL      | 3.5             | 952.0      |         |
| -644.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1066.0     |         |
| -732.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1154.0     |         |
| -838.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1260.0     |         |

**MAPID:** 15900308000C    **VERSION:** 1    **PROJECT:** RI 148  
**COUNTY:** RICHLAND    **TWP/RNG:** 3N 10E    **SECTION:** 22    **QUARTERS/FOOTAGES:** SE SE NE  
**QUADRANGLE:** OLNEY    **LONGITUDE:** -88.076712    **GEOLOGIST:** SIEVER  
**CONFIDENTIAL:** N    **LATITUDE:** 38.680545    **DATE COLLECTED:** 0 / 0 / 1937  
**SURFACE ELEVATION (FT.):** 476.6    **LOGGED (FT.):** 4766.0    **LOG TYPE:**  
**SOURCE:** NEELY R H, BAUGHMAN 0001    **WELL TYPE:** Oil and Gas Test  
**COMMENT:**

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -343.4                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 820.0              |
| -593.4                 | CARBONDALE  | HERRIN        | COAL      | -               | 1070.0             |
| -1125.4                | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1602.0             |

**MAPID:** 15900767000C    **VERSION:** 1    **PROJECT:** CGT-ECILL  
**COUNTY:** RICHLAND    **TWP/RNG:** 3N 10E    **SECTION:** 22    **QUARTERS/FOOTAGES:** NW NW SW  
**QUADRANGLE:** OLNEY    **LONGITUDE:** -88.092716    **GEOLOGIST:** C TREWORGY  
**CONFIDENTIAL:** N    **LATITUDE:** 38.678321    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 455.0    **LOGGED (FT.):** 1296.0    **LOG TYPE:** Electric Log  
**SOURCE:**    **WELL TYPE:** Oil and Gas Test  
**COMMENT:** GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -349.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 804.0              |
| -535.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 990.0              |
| -580.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1035.0             |
| -659.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 5.0             | 1114.0             |
| -738.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1193.0             |
| -841.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1296.0             |

**MAPID:** 15902525000C    **VERSION:** 1    **PROJECT:** CGT-ECILL  
**COUNTY:** RICHLAND    **TWP/RNG:** 3N 10E    **SECTION:** 23    **QUARTERS/FOOTAGES:** NW NW SE  
**QUADRANGLE:** OLNEY    **LONGITUDE:** -88.065116    **GEOLOGIST:** C TREWORGY  
**CONFIDENTIAL:** N    **LATITUDE:** 38.678974    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 484.0    **LOGGED (FT.):** 1364.0    **LOG TYPE:** Electric Log  
**SOURCE:**    **WELL TYPE:** Oil and Gas Test  
**COMMENT:** GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -359.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 19.0            | 843.0              |
| -546.0                 | CARBONDALE | DANVILLE      | COAL      | 3.5             | 1030.0             |
| -594.0                 | CARBONDALE | HERRIN        | COAL      | 4.0             | 1078.0             |
| -684.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 5.0             | 1168.0             |
| -773.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1257.0             |
| -880.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1364.0             |

MAPID: 15902561000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND

TWP/RNG: 3N 10E

SECTION: 23

QUARTERS/FOOTAGES: SE NE NE

QUADRANGLE: OLNEY

LONGITUDE: -88.058183

GEOLOGIST: C TREWORY

CONFIDENTIAL: N

LATITUDE: 38.684579

DATE COLLECTED:

SURFACE ELEVATION (FT.): 483.0

LOGGED (FT.): 1363.0

LOG TYPE: Electric Log

SOURCE:

WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -359.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 11.0            | 842.0              |
| -542.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 1025.0             |
| -596.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1079.0             |
| -674.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1157.0             |
| -771.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1254.0             |
| -880.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1363.0             |

MAPID: 15901719000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND

TWP/RNG: 3N 10E

SECTION: 24

QUARTERS/FOOTAGES: SE SW NW

QUADRANGLE: OLNEY

LONGITUDE: -88.053526

GEOLOGIST: C TREWORY

CONFIDENTIAL: N

LATITUDE: 38.681116

DATE COLLECTED:

SURFACE ELEVATION (FT.): 493.0

LOGGED (FT.): 1380.0

LOG TYPE: Electric Log

SOURCE:

WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -366.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 16.0            | 859.0              |
| -552.0                 | CARBONDALE | DANVILLE      | COAL      | 4.0             | 1045.0             |
| -608.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1101.0             |
| -694.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 5.0             | 1187.0             |
| -775.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1268.0             |
| -887.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1380.0             |

MAPID: 15901720000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 10E SECTION: 24 QUARTERS/FOOTAGES: 660' S line, 660' E line  
 QUADRANGLE: OLNEY LONGITUDE: -88.04071 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.675146 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 492.0 LOGGED (FT.): 1343.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -336.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 828.0              |
| -514.0                 | CARBONDALE | DANVILLE      | COAL      | 2.5             | 1006.0             |
| -572.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1064.0             |
| -651.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.5             | 1143.0             |
| -745.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1237.0             |
| -851.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1343.0             |

MAPID: 15900769000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 10E SECTION: 25 QUARTERS/FOOTAGES: NE NE SE  
 QUADRANGLE: OLNEY LONGITUDE: -88.039563 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.665117 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 503.0 LOGGED (FT.): 1352.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -339.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 842.0              |
| -519.0                 | CARBONDALE | DANVILLE      | COAL      | 4.0             | 1022.0             |
| -570.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1073.0             |
| -653.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1156.0             |
| -745.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1248.0             |
| -849.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1352.0             |

MAPID: 15901722000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 10E SECTION: 25 QUARTERS/FOOTAGES: NE NW SW  
 QUADRANGLE: OLNEY LONGITUDE: -88.053479 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.664682 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 508.0 LOGGED (FT.): 1371.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -329.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 837.0      |         |
| -513.0                 | CARBONDALE | DANVILLE      | COAL      | 3.5             | 1021.0     |         |
| -562.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1070.0     |         |
| -651.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 5.0             | 1159.0     |         |
| -725.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1233.0     |         |
| -863.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1371.0     |         |

MAPID: 15901453000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 10E SECTION: 26 QUARTERS/FOOTAGES: NE NE NW  
 QUADRANGLE: OLNEY LONGITUDE: -88.067387 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.671641 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 483.0 LOGGED (FT.): 1351.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -370.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 853.0      |         |
| -542.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 1025.0     |         |
| -592.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1075.0     |         |
| -681.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 6.0             | 1164.0     |         |
| -763.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1246.0     |         |
| -868.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1351.0     |         |

MAPID: 15901726000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 10E SECTION: 26 QUARTERS/FOOTAGES: SE SW SW  
 QUADRANGLE: OLNEY LONGITUDE: -88.071973 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.658806 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 481.0 LOGGED (FT.): 1315.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -114.0                 | BOND       | CARTHAGE      | LIMESTONE | 5.0             | 595.0      |         |
| -317.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 13.0            | 798.0      |         |
| -493.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 974.0      |         |
| -568.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1049.0     |         |
| -656.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 5.5             | 1137.0     |         |
| -725.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1206.0     |         |
| -834.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1315.0     |         |

MAPID: 15900606000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 10E SECTION: 27 QUARTERS/FOOTAGES: NW SW NW  
 QUADRANGLE: OLNEY LONGITUDE: -88.092717 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.667376 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 438.0 LOGGED (FT.): 1283.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -137.0                 | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 575.0      |         |
| -340.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 778.0      |         |
| -529.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 967.0      |         |
| -575.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1013.0     |         |
| -645.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1083.0     |         |
| -737.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1175.0     |         |
| -845.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1283.0     |         |



MAPID: 15901728000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 10E SECTION: 27 QUARTERS/FOOTAGES: SW SE NE  
 QUADRANGLE: OLNEY LONGITUDE: -88.078923 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.665916 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 470.0 LOGGED (FT.): 1305.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -328.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 798.0              |
| -517.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 987.0              |
| -562.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1032.0             |
| -638.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.5             | 1108.0             |
| -733.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1203.0             |
| -835.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1305.0             |

MAPID: 15900282000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 10E SECTION: 28 QUARTERS/FOOTAGES: SW SE SW  
 QUADRANGLE: OLNEY LONGITUDE: -88.106654 GEOLOGIST: SIEVER  
 CONFIDENTIAL: N LATITUDE: 38.657961 DATE COLLECTED: 0 / 0 / 1945  
 SURFACE ELEVATION (FT.): 440.0 LOGGED (FT.): 4400.0 LOG TYPE:  
 SOURCE: PURE OC, ROSS TRESS0001 WELL TYPE: Oil and Gas Test  
 COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER      | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|-------------|-----------|-----------------|--------------------|
|                        |             |             |           | UNIT            | OVERBURDEN COMMENT |
| -520.0                 | CARBONDALE  | DANVILLE    | COAL      | -               | 960.0              |
| -564.0                 | CARBONDALE  | HERRIN      | COAL      | -               | 1004.0             |
| -635.0                 | CARBONDALE  | SPRINGFIELD | COAL      | -               | 1075.0             |
| -840.0                 | SPOON       | PALZO       | SANDSTONE | -               | 1280.0             |
| -1154.0                | WALTERSBURG | GLEN DEAN   | LIMESTONE | -               | 1594.0             |

MAPID: 15900601000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 10E SECTION: 28 QUARTERS/FOOTAGES: SE NW NE  
 QUADRANGLE: OLNEY LONGITUDE: -88.099661 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.669051 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 440.0 LOGGED (FT.): 1275.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -145.0                 | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 585.0      |         |
| -345.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 6.0             | 785.0      |         |
| -526.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 966.0      |         |
| -572.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1012.0     |         |
| -640.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.0             | 1080.0     |         |
| -730.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1170.0     |         |
| -835.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1275.0     |         |

MAPID: 15900676000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 10E SECTION: 28 QUARTERS/FOOTAGES: 330' N line, 660' E line of NW SE  
 QUADRANGLE: OLNEY LONGITUDE: -88.100857 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.663549 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 443.0 LOGGED (FT.): 1264.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -142.0                 | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 585.0      |         |
| -342.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 8.0             | 785.0      |         |
| -519.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 962.0      |         |
| -562.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1005.0     |         |
| -630.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.0             | 1073.0     |         |
| -717.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1160.0     |         |
| -821.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1264.0     |         |

MAPID: 15900771000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 10E SECTION: 29 QUARTERS/FOOTAGES: SW SE NE  
 QUADRANGLE: OLNEY LONGITUDE: -88.115956 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.66508 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 440.0 LOGGED (FT.): 1264.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -122.0                 | BOND       | CARTHAGE      | LIMESTONE | 5.0             | 562.0      |         |
| -324.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 16.0            | 764.0      |         |
| -518.0                 | CARBONDALE | DANVILLE      | COAL      | 4.0             | 958.0      |         |
| -562.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1002.0     |         |
| -632.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 5.0             | 1072.0     |         |
| -720.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1160.0     |         |
| -824.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1264.0     |         |

MAPID: 15901732000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 10E SECTION: 29 QUARTERS/FOOTAGES: SE SE SW  
 QUADRANGLE: OLNEY LONGITUDE: -88.122962 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.657723 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 418.0 LOGGED (FT.): 1250.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -135.0                 | BOND       | CARTHAGE      | LIMESTONE | 5.0             | 553.0      |         |
| -339.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 757.0      |         |
| -541.0                 | CARBONDALE | DANVILLE      | COAL      | 3.5             | 959.0      |         |
| -587.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1005.0     |         |
| -675.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 5.0             | 1093.0     |         |
| -727.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1145.0     |         |
| -832.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1250.0     |         |

MAPID: 15900772000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 10E SECTION: 30 QUARTERS/FOOTAGES: SE SE SE

QUADRANGLE: NOBLE LONGITUDE: -88.132317 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.65761 DATE COLLECTED:

SURFACE ELEVATION (FT.): 423.0 LOGGED (FT.): 1242.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -118.0                 | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 541.0      |         |
| -320.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 743.0      |         |
| -515.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 938.0      |         |
| -557.0                 | CARBONDALE | HERRIN        | COAL      | -               | 980.0      |         |
| -625.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 5.0             | 1048.0     |         |
| -714.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1137.0     |         |
| -819.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1242.0     |         |

MAPID: 15900773000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 10E SECTION: 30 QUARTERS/FOOTAGES: NE NW SW

QUADRANGLE: NOBLE LONGITUDE: -88.146296 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.662989 DATE COLLECTED:

SURFACE ELEVATION (FT.): 413.0 LOGGED (FT.): 1223.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -120.0                 | BOND       | CARTHAGE      | LIMESTONE | 5.0             | 533.0      |         |
| -313.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 726.0      |         |
| -507.0                 | CARBONDALE | DANVILLE      | COAL      | 4.0             | 920.0      |         |
| -547.0                 | CARBONDALE | HERRIN        | COAL      | -               | 960.0      |         |
| -619.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.0             | 1032.0     |         |
| -704.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1117.0     |         |
| -810.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1223.0     |         |

MAPID: 15900537000C    VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND    TWP/RNG: 3N 10E    SECTION: 31    QUARTERS/FOOTAGES: NE NE SE

QUADRANGLE: NOBLE    LONGITUDE: -88.132221    GEOLOGIST: C TREWORYG

CONFIDENTIAL: N    LATITUDE: 38.648464    DATE COLLECTED:

SURFACE ELEVATION (FT.): 418.0    LOGGED (FT.): 1245.0    LOG TYPE: Electric Log

SOURCE:    WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -122.0                 | BOND       | CARTHAGE      | LIMESTONE | 5.0             | 540.0              |
| -323.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 741.0              |
| -511.0                 | CARBONDALE | DANVILLE      | COAL      | 2.5             | 929.0              |
| -562.0                 | CARBONDALE | HERRIN        | COAL      | -               | 980.0              |
| -631.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.0             | 1049.0             |
| -719.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1137.0             |
| -827.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1245.0             |

MAPID: 15900351000C    VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND    TWP/RNG: 3N 10E    SECTION: 32    QUARTERS/FOOTAGES: 330' S line, 660' W line of NE

QUADRANGLE: OLNEY    LONGITUDE: -88.119437    GEOLOGIST: SIEVER

CONFIDENTIAL: N    LATITUDE: 38.65048    DATE COLLECTED: 0 / 0 / 1946

SURFACE ELEVATION (FT.): 440.0    LOGGED (FT.): 4400.0    LOG TYPE:

SOURCE: PURE OC, EBERHRDT E00A1    WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -336.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 776.0              |
| -528.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 968.0              |
| -594.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1034.0             |
| -684.0                 | CARBONDALE | SPRINGFIELD   | COAL      | -               | 1124.0             |

MAPID: 15900351000C VERSION: 2

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 10E SECTION: 32 QUARTERS/FOOTAGES: 330' S line, 660' W line of NE

QUADRANGLE: OLNEY LONGITUDE: -88.119437 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.65048 DATE COLLECTED:

SURFACE ELEVATION (FT.): 437.0 LOGGED (FT.): 1285.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -123.0                 | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 560.0              |
| -339.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 17.0            | 776.0              |
| -530.0                 | CARBONDALE | DANVILLE      | COAL      | 4.0             | 967.0              |
| -607.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1044.0             |
| -656.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1093.0             |
| -739.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1176.0             |
| -848.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1285.0             |

MAPID: 15901741000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 10E SECTION: 32 QUARTERS/FOOTAGES: SW NW SW

QUADRANGLE: NOBLE LONGITUDE: -88.129876 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.646664 DATE COLLECTED:

SURFACE ELEVATION (FT.): 429.0 LOGGED (FT.): 1260.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -311.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 740.0              |
| -491.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 920.0              |
| -566.0                 | CARBONDALE | HERRIN        | COAL      | -               | 995.0              |
| -633.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1062.0             |
| -724.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1153.0             |
| -831.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1260.0             |

MAPID: 15901742000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 10E SECTION: 32 QUARTERS/FOOTAGES: 330' S line, 660' E line of NW NW

QUADRANGLE: NOBLE LONGITUDE: -88.12877 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.653995 DATE COLLECTED:

SURFACE ELEVATION (FT.): 423.0 LOGGED (FT.): 1258.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -127.0                 | BOND       | CARTHAGE      | LIMESTONE | 5.0             | 550.0              |
| -323.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 746.0              |
| -523.0                 | CARBONDALE | DANVILLE      | COAL      | 4.0             | 946.0              |
| -567.0                 | CARBONDALE | HERRIN        | COAL      | -               | 990.0              |
| -639.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.0             | 1062.0             |
| -726.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1149.0             |
| -835.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1258.0             |

MAPID: 15900260000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 10E SECTION: 33 QUARTERS/FOOTAGES: SW NW NE

QUADRANGLE: OLNEY LONGITUDE: -88.102047 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.654405 DATE COLLECTED: 0 / 0 / 1945

SURFACE ELEVATION (FT.): 440.0 LOGGED (FT.): 4400.0 LOG TYPE:

SOURCE: PURE&OHIO, GREEN R L 0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -325.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 765.0              |
| -500.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 940.0              |
| -555.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 995.0              |
| -624.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1064.0             |
| -814.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1254.0             |
| -1160.0                | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1600.0             |

MAPID: 15900260000C VERSION: 2

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 10E SECTION: 33 QUARTERS/FOOTAGES: SW NW NE  
 QUADRANGLE: OLNEY LONGITUDE: -88.102047 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.654405 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 440.0 LOGGED (FT.): 1250.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -110.0                 | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 550.0      |         |
| -318.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 758.0      |         |
| -499.0                 | CARBONDALE | DANVILLE      | COAL      | 4.0             | 939.0      |         |
| -550.0                 | CARBONDALE | HERRIN        | COAL      | -               | 990.0      |         |
| -624.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.0             | 1064.0     |         |
| -715.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1155.0     |         |
| -810.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1250.0     |         |

MAPID: 15900281000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 10E SECTION: 33 QUARTERS/FOOTAGES: NE NE NW  
 QUADRANGLE: OLNEY LONGITUDE: -88.104351 GEOLOGIST: SIEVER  
 CONFIDENTIAL: N LATITUDE: 38.65618 DATE COLLECTED: 0 / 0 / 1944  
 SURFACE ELEVATION (FT.): 439.0 LOGGED (FT.): 4390.0 LOG TYPE:  
 SOURCE: PURE&OHIO, KOERTG CON0001 WELL TYPE: Oil and Gas Test  
 COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|-------------|---------------|-----------|-----------------|------------|---------|
|                        |             |               |           | UNIT            | OVERBURDEN |         |
| -331.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 770.0      |         |
| -521.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 960.0      |         |
| -566.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1005.0     |         |
| -641.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1080.0     |         |
| -851.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1290.0     |         |
| -1153.0                | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1592.0     |         |



MAPID: 15900575000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 10E SECTION: 33 QUARTERS/FOOTAGES: SW SW SW  
 QUADRANGLE: OLNEY LONGITUDE: -88.111305 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.643333 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 440.0 LOGGED (FT.): 1249.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -103.0                 | BOND       | CARTHAGE      | LIMESTONE | 5.0             | 543.0      |         |
| -324.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 764.0      |         |
| -503.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 943.0      |         |
| -573.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1013.0     |         |
| -662.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 6.0             | 1102.0     |         |
| -708.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1148.0     |         |
| -809.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1249.0     |         |

MAPID: 15901744000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 10E SECTION: 33 QUARTERS/FOOTAGES: NE SW SE  
 QUADRANGLE: OLNEY LONGITUDE: -88.099757 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.645359 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 442.0 LOGGED (FT.): 1258.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -114.0                 | BOND       | CARTHAGE      | LIMESTONE | 7.0             | 556.0      |         |
| -328.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 770.0      |         |
| -517.0                 | CARBONDALE | DANVILLE      | COAL      | 3.5             | 959.0      |         |
| -576.0                 | CARBONDALE | HERRIN        | COAL      | 5.0             | 1018.0     |         |
| -668.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 5.0             | 1110.0     |         |
| -717.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1159.0     |         |
| -816.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1258.0     |         |

MAPID: 15900775000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 10E SECTION: 34 QUARTERS/FOOTAGES: NE NW NW  
 QUADRANGLE: OLNEY LONGITUDE: -88.090489 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.656468 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 451.0 LOGGED (FT.): 1292.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -126.0                 | BOND       | CARTHAGE      | LIMESTONE | 7.0             | 577.0              |
| -342.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 7.0             | 793.0              |
| -504.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 955.0              |
| -568.0                 | CARBONDALE | HERRIN        | COAL      | 4.0             | 1019.0             |
| -646.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1097.0             |
| -729.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1180.0             |
| -841.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1292.0             |

MAPID: 15900776000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 10E SECTION: 35 QUARTERS/FOOTAGES: SE SW SE  
 QUADRANGLE: OLNEY LONGITUDE: -88.06277 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.644384 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 499.0 LOGGED (FT.): 1328.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -105.0                 | BOND       | CARTHAGE      | LIMESTONE | 5.0             | 604.0              |
| -318.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 17.0            | 817.0              |
| -488.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 987.0              |
| -557.0                 | CARBONDALE | HERRIN        | COAL      | 4.0             | 1056.0             |
| -639.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1138.0             |
| -728.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1227.0             |
| -829.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1328.0             |

MAPID: 15900777000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 10E SECTION: 36 QUARTERS/FOOTAGES: 330' N line, 358' E line of NW

QUADRANGLE: OLNEY LONGITUDE: -88.048952 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.657515 DATE COLLECTED:

SURFACE ELEVATION (FT.): 509.0 LOGGED (FT.): 1345.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -189.0                 | BOND       | CARTHAGE      | LIMESTONE | 7.0             | 698.0              |
| -335.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 17.0            | 844.0              |
| -511.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 1020.0             |
| -575.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1084.0             |
| -662.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 5.5             | 1171.0             |
| -731.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1240.0             |
| -836.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1345.0             |

MAPID: 15900732000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 11E SECTION: 7 QUARTERS/FOOTAGES: 330' S line, 330' W line of SW

QUADRANGLE: OLNEY LONGITUDE: -88.037578 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.70382 DATE COLLECTED:

SURFACE ELEVATION (FT.): 462.0 LOGGED (FT.): 1340.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -373.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 835.0              |
| -542.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 1004.0             |
| -608.0                 | CARBONDALE | HERRIN        | COAL      | 4.0             | 1070.0             |
| -694.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 5.0             | 1156.0             |
| -769.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1231.0             |
| -878.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1340.0             |

MAPID: 15900778000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 11E SECTION: 7 QUARTERS/FOOTAGES: 330' N line, 330' E line of SE

QUADRANGLE: OLNEY LONGITUDE: -88.024893 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.70946 DATE COLLECTED:

SURFACE ELEVATION (FT.): 494.0 LOGGED (FT.): 1397.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -378.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 11.0            | 872.0              |
| -545.0                 | CARBONDALE | DANVILLE      | COAL      | 1.5             | 1039.0             |
| -612.0                 | CARBONDALE | HERRIN        | COAL      | 5.0             | 1106.0             |
| -691.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.5             | 1185.0             |
| -800.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1294.0             |
| -903.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1397.0             |

MAPID: 15900875000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 11E SECTION: 7 QUARTERS/FOOTAGES: 330' S line, 330' W line of NW

QUADRANGLE: OLNEY LONGITUDE: -88.037538 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.711269 DATE COLLECTED:

SURFACE ELEVATION (FT.): 506.0 LOGGED (FT.): 1389.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -365.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 13.0            | 871.0              |
| -534.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 1040.0             |
| -599.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1105.0             |
| -676.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 5.0             | 1182.0             |
| -774.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1280.0             |
| -883.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1389.0             |

MAPID: 15900693000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 11E SECTION: 18 QUARTERS/FOOTAGES: 990' S line, 1152' E line of NW

QUADRANGLE: OLNEY LONGITUDE: -88.037001 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.698323 DATE COLLECTED:

SURFACE ELEVATION (FT.): 488.0 LOGGED (FT.): 1363.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -352.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 840.0              |
| -513.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 1001.0             |
| -590.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1078.0             |
| -667.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1155.0             |
| -757.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1245.0             |
| -875.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1363.0             |

MAPID: 15900779000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 11E SECTION: 18 QUARTERS/FOOTAGES: NE SE SE

QUADRANGLE: OLNEY LONGITUDE: -88.024727 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.69108 DATE COLLECTED:

SURFACE ELEVATION (FT.): 499.0 LOGGED (FT.): 1366.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -349.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 848.0              |
| -507.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 1006.0             |
| -577.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1076.0             |
| -655.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.0             | 1154.0             |
| -743.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1242.0             |
| -867.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1366.0             |

MAPID: 15900009000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 11E SECTION: 19 QUARTERS/FOOTAGES: SW SW SW

QUADRANGLE: OLNEY LONGITUDE: -88.037446 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.674556 DATE COLLECTED: 0 / 0 / 1943

SURFACE ELEVATION (FT.): 493.0 LOGGED (FT.): 4930.0 LOG TYPE:

SOURCE: SOHIO PROD, HEAP E 0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -343.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 836.0              |
| -520.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 1013.0             |
| -580.0                 | CARBONDALE  | HERRIN        | COAL      | 4.0             | 1073.0             |
| -661.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1154.0             |
| -758.0                 | CARBONDALE  | HOUCHIN CREEK | COAL      | -               | 1251.0             |
| -1176.0                | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1669.0             |

MAPID: 15900780000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 11E SECTION: 19 QUARTERS/FOOTAGES: NE NE SE

QUADRANGLE: OLNEY LONGITUDE: -88.024671 GEOLOGIST: C TREWORYG

CONFIDENTIAL: N LATITUDE: 38.680027 DATE COLLECTED:

SURFACE ELEVATION (FT.): 524.0 LOGGED (FT.): 1365.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -330.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 12.0            | 854.0              |
| -492.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 1016.0             |
| -558.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1082.0             |
| -638.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1162.0             |
| -725.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1249.0             |
| -841.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1365.0             |

MAPID: 15901754000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 11E SECTION: 30 QUARTERS/FOOTAGES: NE NW SE  
 QUADRANGLE: OLNEY LONGITUDE: -88.02933 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.665245 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 500.0 LOGGED (FT.): 1325.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -319.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 18.0            | 819.0      |         |
| -488.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 988.0      |         |
| -540.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1040.0     |         |
| -624.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1124.0     |         |
| -710.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1210.0     |         |
| -825.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1325.0     |         |

MAPID: 15901755000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 11E SECTION: 30 QUARTERS/FOOTAGES: 330' S line, 330' W line of NW  
 QUADRANGLE: OLNEY LONGITUDE: -88.037233 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.667101 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 497.0 LOGGED (FT.): 1343.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -337.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 834.0      |         |
| -512.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 1009.0     |         |
| -563.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1060.0     |         |
| -644.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1141.0     |         |
| -739.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1236.0     |         |
| -846.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1343.0     |         |

MAPID: 15900782000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 14W SECTION: 2 QUARTERS/FOOTAGES: 330' N line, 337' W line of SE  
 QUADRANGLE: CLAREMONT LONGITUDE: -87.935953 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.723845 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 529.0 LOGGED (FT.): 1332.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -311.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 11.0            | 840.0              |
| -462.0                 | CARBONDALE | DANVILLE      | COAL      | 1.5             | 991.0              |
| -527.0                 | CARBONDALE | HERRIN        | COAL      | 5.0             | 1056.0             |
| -603.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1132.0             |
| -697.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1226.0             |
| -803.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1332.0             |

MAPID: 15925631000C VERSION: 1

PROJECT: ISGS96

COUNTY: RICHLAND TWP/RNG: 3N 14W SECTION: 2 QUARTERS/FOOTAGES: 1200' S line, 1000' E line  
 QUADRANGLE: CLAREMONT LONGITUDE: -87.931233 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.720645 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 525.0 LOGGED (FT.): 1137.3 LOG TYPE: Company map  
 SOURCE: UTAH INTERNATIONAL ISGS-99901 WELL TYPE: Unknown well type  
 COMMENT: DATA & LOCATION FROM COMPANY MAP

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER      | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|-------------|-----------|-----------------|--------------------|
|                        |            |             |           | UNIT            | OVERBURDEN COMMENT |
| -533.0                 | CARBONDALE | HERRIN      | COAL      | 4.5             | 1058.0             |
| -609.0                 | CARBONDALE | SPRINGFIELD | COAL      | 3.3             | 1134.0             |

MAPID: 15925632000C VERSION: 1

PROJECT: ISGS96

COUNTY: RICHLAND TWP/RNG: 3N 14W SECTION: 2 QUARTERS/FOOTAGES: 1200' S line, 4300' W line  
 QUADRANGLE: CLAREMONT LONGITUDE: -87.931456 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.720642 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 525.0 LOGGED (FT.): 1137.3 LOG TYPE: Company map  
 SOURCE: UTAH INTERNATIONAL ISGS-99902 WELL TYPE: Unknown well type  
 COMMENT: DATA & LOCATION FROM COMPANY MAP

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER      | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|-------------|-----------|-----------------|--------------------|
|                        |            |             |           | UNIT            | OVERBURDEN COMMENT |
| -533.0                 | CARBONDALE | HERRIN      | COAL      | 4.1             | 1058.0             |
| -609.0                 | CARBONDALE | SPRINGFIELD | COAL      | 3.3             | 1134.0             |



MAPID: 15900065000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 14W SECTION: 3 QUARTERS/FOOTAGES: 660' N line, 660' E line of SW NE

QUADRANGLE: CLAREMONT LONGITUDE: -87.953617 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.726675 DATE COLLECTED: 0 / 0 / 1942

SURFACE ELEVATION (FT.): 536.0 LOGGED (FT.): 5360.0 LOG TYPE:

SOURCE: SEABOARD, STEBER A 0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -296.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 832.0              |
| -459.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 995.0              |
| -528.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1064.0             |
| -594.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1130.0             |
| -694.0                 | CARBONDALE  | HOUCHIN CREEK | COAL      | -               | 1230.0             |
| -1006.0                | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1542.0             |

MAPID: 15900065000C VERSION: 2

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 14W SECTION: 3 QUARTERS/FOOTAGES: 660' N line, 660' E line of SW NE

QUADRANGLE: CLAREMONT LONGITUDE: -87.953617 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.726675 DATE COLLECTED:

SURFACE ELEVATION (FT.): 536.0 LOGGED (FT.): 1354.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -299.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 16.0            | 835.0              |
| -458.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 994.0              |
| -525.0                 | CARBONDALE | HERRIN        | COAL      | 5.0             | 1061.0             |
| -597.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.0             | 1133.0             |
| -697.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1233.0             |
| -818.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1354.0             |

MAPID: 15925633000C VERSION: 1

PROJECT: ISGS96

COUNTY: RICHLAND TWP/RNG: 3N 14W SECTION: 3 QUARTERS/FOOTAGES: 3000' S line, 2000' E line

QUADRANGLE: CLAREMONT LONGITUDE: -87.953622 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.725651 DATE COLLECTED:

SURFACE ELEVATION (FT.): 533.0 LOGGED (FT.): 1136.5 LOG TYPE: Company map

SOURCE: UTAH INTERNATIONAL ISGS-99903 WELL TYPE: Unknown well type

COMMENT: DATA & LOCATION FROM COMPANY MAP

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER      | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|-------------|-----------|-----------------|--------------------|
|                        |            |             |           | UNIT            | OVERBURDEN COMMENT |
| -528.0                 | CARBONDALE | HERRIN      | COAL      | 5.0             | 1061.0             |
| -600.0                 | CARBONDALE | SPRINGFIELD | COAL      | 3.5             | 1133.0             |

MAPID: 15902663000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 14W SECTION: 4 QUARTERS/FOOTAGES: 330' N line, 365' E line of NW SW  
 QUADRANGLE: CLAREMONT LONGITUDE: -87.980821 GEOLOGIST: C TREWORGY  
 CONFIDENTIAL: N LATITUDE: 38.724058 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 503.0 LOGGED (FT.): 1379.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -361.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 17.0            | 864.0              |
| -517.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 1020.0             |
| -590.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1093.0             |
| -660.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1163.0             |
| -782.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1285.0             |
| -876.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1379.0             |

MAPID: 15925634000C VERSION: 1

PROJECT: ISGS96

COUNTY: RICHLAND TWP/RNG: 3N 14W SECTION: 4 QUARTERS/FOOTAGES: 1900' S line, 1100' W line  
 QUADRANGLE: CLAREMONT LONGITUDE: -87.980338 GEOLOGIST: C TREWORGY  
 CONFIDENTIAL: N LATITUDE: 38.722898 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 500.0 LOGGED (FT.): 1168.5 LOG TYPE: Company map  
 SOURCE: UTAH INTERNATIONAL ISGS-99904 WELL TYPE: Unknown well type  
 COMMENT: DATA & LOCATION FROM COMPANY MAP

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER      | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|-------------|-----------|-----------------|--------------------|
|                        |            |             |           | UNIT            | OVERBURDEN COMMENT |
| -593.0                 | CARBONDALE | HERRIN      | COAL      | 5.0             | 1093.0             |
| -665.0                 | CARBONDALE | SPRINGFIELD | COAL      | 3.5             | 1165.0             |

MAPID: 15900489000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 14W SECTION: 5 QUARTERS/FOOTAGES: NW SE NE  
 QUADRANGLE: CLAREMONT LONGITUDE: -87.987693 GEOLOGIST: C TREWORGY  
 CONFIDENTIAL: N LATITUDE: 38.727773 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 530.0 LOGGED (FT.): 1418.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -384.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 16.0            | 914.0              |
| -533.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 1063.0             |
| -607.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1137.0             |
| -676.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1206.0             |
| -795.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1325.0             |
| -888.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1418.0             |

MAPID: 15901758000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND

TWP/RNG: 3N 14W

SECTION: 5

QUARTERS/FOOTAGES: SW NW NW

QUADRANGLE: OLNEY

LONGITUDE: -88.001684

GEOLOGIST: C TREWORYG

CONFIDENTIAL: N

LATITUDE: 38.729719

DATE COLLECTED:

SURFACE ELEVATION (FT.): 539.0

LOGGED (FT.): 1420.0

LOG TYPE: Electric Log

SOURCE:

WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -168.0                 | BOND       | CARTHAGE      | LIMESTONE | 8.0             | 707.0      |         |
| -379.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 16.0            | 918.0      |         |
| -543.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 1082.0     |         |
| -613.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1152.0     |         |
| -679.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.0             | 1218.0     |         |
| -789.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1328.0     |         |
| -881.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1420.0     |         |

MAPID: 15900213000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND

TWP/RNG: 3N 14W

SECTION: 6

QUARTERS/FOOTAGES: NE NW SW

QUADRANGLE: OLNEY

LONGITUDE: -88.019839

GEOLOGIST: SIEVER

CONFIDENTIAL: N

LATITUDE: 38.724402

DATE COLLECTED: 0 / 0 / 1943

SURFACE ELEVATION (FT.): 514.0

LOGGED (FT.): 5140.0

LOG TYPE:

SOURCE: SOHIO PROD, BALMER W 0001

WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -218.0                 | BOND       | CARTHAGE      | LIMESTONE | -               | 732.0      |         |
| -408.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 922.0      |         |
| -559.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 1073.0     |         |
| -634.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1148.0     |         |
| -714.0                 | CARBONDALE | SPRINGFIELD   | COAL      | -               | 1228.0     |         |
| -812.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1326.0     |         |

MAPID: 15900213000C VERSION: 2

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 14W SECTION: 6 QUARTERS/FOOTAGES: NE NW SW  
 QUADRANGLE: OLNEY LONGITUDE: -88.019839 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.724402 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 514.0 LOGGED (FT.): 1420.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: FAIR LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -400.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 914.0              |
| -558.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 1072.0             |
| -634.0                 | CARBONDALE | HERRIN        | COAL      | 4.5             | 1148.0             |
| -714.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 6.0             | 1228.0             |
| -812.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1326.0             |
| -906.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1420.0             |

MAPID: 15900688000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 14W SECTION: 7 QUARTERS/FOOTAGES: NE NW NE  
 QUADRANGLE: OLNEY LONGITUDE: -88.00944 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.717192 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 516.0 LOGGED (FT.): 1431.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -402.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 10.0            | 918.0              |
| -558.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 1074.0             |
| -632.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1148.0             |
| -706.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1222.0             |
| -814.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1330.0             |
| -915.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1431.0             |

**MAPID:** 1590176000C    **VERSION:** 1    **PROJECT:** CGT-ECILL  
**COUNTY:** RICHLAND    **TWP/RNG:** 3N 14W    **SECTION:** 8    **QUARTERS/FOOTAGES:** NW NE SW  
**QUADRANGLE:** CLAREMONT    **LONGITUDE:** -87.997176    **GEOLOGIST:** C TREWORY  
**CONFIDENTIAL:** N    **LATITUDE:** 38.709518    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 515.0    **LOGGED (FT.):** 1438.0    **LOG TYPE:** Electric Log  
**SOURCE:**    **WELL TYPE:** Oil and Gas Test  
**COMMENT:** GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -449.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 9.0             | 964.0      |         |
| -545.0                 | CARBONDALE | DANVILLE      | COAL      | 2.5             | 1060.0     |         |
| -616.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1131.0     |         |
| -690.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.5             | 1205.0     |         |
| -813.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1328.0     |         |
| -923.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1438.0     |         |

**MAPID:** 15925635000C    **VERSION:** 1    **PROJECT:** ISGS96  
**COUNTY:** RICHLAND    **TWP/RNG:** 3N 14W    **SECTION:** 8    **QUARTERS/FOOTAGES:** 2650' S line, 300' E line  
**QUADRANGLE:** CLAREMONT    **LONGITUDE:** -87.985331    **GEOLOGIST:** C TREWORY  
**CONFIDENTIAL:** N    **LATITUDE:** 38.710212    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 500.0    **LOGGED (FT.):** 1184.8    **LOG TYPE:** Drillers Log  
**SOURCE:** UTAH INTERNATIONAL    NR-11    **WELL TYPE:** Coal Test  
**COMMENT:** DATA & LOCATION FROM COMPANY MAP

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER      | LITHOLOGY | THICKNESS (FT.) |            | COMMENT                 |
|------------------------|------------|-------------|-----------|-----------------|------------|-------------------------|
|                        |            |             |           | UNIT            | OVERBURDEN |                         |
| -583.0                 | CARBONDALE | JAMESTOWN   | COAL      | 2.5             | 1083.0     | BTU 11.5; SULFUR<br>1.2 |
| -607.0                 | CARBONDALE | HERRIN      | COAL      | 5.0             | 1107.0     |                         |
| -681.0                 | CARBONDALE | SPRINGFIELD | COAL      | 3.8             | 1181.0     |                         |

**MAPID:** 15900783000C    **VERSION:** 1    **PROJECT:** CGT-ECILL  
**COUNTY:** RICHLAND    **TWP/RNG:** 3N 14W    **SECTION:** 10    **QUARTERS/FOOTAGES:** SE NE SW  
**QUADRANGLE:** CLAREMONT    **LONGITUDE:** -87.957326    **GEOLOGIST:** C TREWORY  
**CONFIDENTIAL:** N    **LATITUDE:** 38.70728    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 535.0    **LOGGED (FT.):** 1394.0    **LOG TYPE:** Electric Log  
**SOURCE:**    **WELL TYPE:** Oil and Gas Test  
**COMMENT:** GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -342.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 10.0            | 877.0      |         |
| -502.0                 | CARBONDALE | DANVILLE      | COAL      | 2.5             | 1037.0     |         |
| -575.0                 | CARBONDALE | HERRIN        | COAL      | 4.5             | 1110.0     |         |
| -657.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.5             | 1192.0     |         |
| -759.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1294.0     |         |
| -859.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1394.0     |         |

**MAPID:** 15925636000C    **VERSION:** 1    **PROJECT:** ISGS96  
**COUNTY:** RICHLAND    **TWP/RNG:** 3N 14W    **SECTION:** 10    **QUARTERS/FOOTAGES:** 3750' N line, 2200' W line  
**QUADRANGLE:** CLAREMONT    **LONGITUDE:** -87.957835    **GEOLOGIST:** C TREWORGY  
**CONFIDENTIAL:** N    **LATITUDE:** 38.707061    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 532.0    **LOGGED (FT.):** 1198.0    **LOG TYPE:** Company map  
**SOURCE:** UTAH INTERNATIONAL    ISGS-99905    **WELL TYPE:** Unknown well type  
**COMMENT:** DATA & LOCATION FROM COMPANY MAP

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER      | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|-------------|-----------|-----------------|------------|---------|
|                        |            |             |           | UNIT            | OVERBURDEN |         |
| -578.0                 | CARBONDALE | HERRIN      | COAL      | 5.0             | 1110.0     |         |
| -662.0                 | CARBONDALE | SPRINGFIELD | COAL      | 4.0             | 1194.0     |         |

**MAPID:** 15925637000C    **VERSION:** 1    **PROJECT:** ISGS96  
**COUNTY:** RICHLAND    **TWP/RNG:** 3N 14W    **SECTION:** 10    **QUARTERS/FOOTAGES:** 1' N line, 1900' E line  
**QUADRANGLE:** CLAREMONT    **LONGITUDE:** -87.953329    **GEOLOGIST:** C TREWORGY  
**CONFIDENTIAL:** N    **LATITUDE:** 38.717363    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 533.0    **LOGGED (FT.):** 1164.1    **LOG TYPE:** Drillers Log  
**SOURCE:** UTAH INTERNATIONAL    NR-12    **WELL TYPE:** Coal Test  
**COMMENT:** DATA & LOCATION FROM COMPANY MAP

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER      | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|-------------|-----------|-----------------|------------|---------|
|                        |            |             |           | UNIT            | OVERBURDEN |         |
| -531.0                 | CARBONDALE | JAMESTOWN   | COAL      | 2.9             | 1064.0     |         |
| -552.0                 | CARBONDALE | HERRIN      | COAL      | 5.6             | 1085.0     |         |
| -627.0                 | CARBONDALE | SPRINGFIELD | COAL      | 4.1             | 1160.0     |         |

**MAPID:** 15900280000C    **VERSION:** 1    **PROJECT:** RI 148  
**COUNTY:** RICHLAND    **TWP/RNG:** 3N 14W    **SECTION:** 11    **QUARTERS/FOOTAGES:** SE SE SW  
**QUADRANGLE:** CLAREMONT    **LONGITUDE:** -87.938471    **GEOLOGIST:** SIEVER  
**CONFIDENTIAL:** N    **LATITUDE:** 38.703516    **DATE COLLECTED:** 0 / 0 / 1944  
**SURFACE ELEVATION (FT.):** 538.0    **LOGGED (FT.):** 5380.0    **LOG TYPE:**  
**SOURCE:** MLLR&MCBRD, ATKINS H M0001    **WELL TYPE:** Oil and Gas Test  
**COMMENT:**

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|-------------|---------------|-----------|-----------------|------------|---------|
|                        |             |               |           | UNIT            | OVERBURDEN |         |
| -332.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 870.0      |         |
| -502.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 1040.0     |         |
| -572.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1110.0     |         |
| -657.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1195.0     |         |
| -812.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1350.0     |         |
| -1012.0                | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1550.0     |         |

MAPID: 1590028000C VERSION: 2

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 14W SECTION: 11 QUARTERS/FOOTAGES: SE SE SW

QUADRANGLE: CLAREMONT LONGITUDE: -87.938471 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.703516 DATE COLLECTED:

SURFACE ELEVATION (FT.): 538.0 LOGGED (FT.): 1390.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: FAIR LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -334.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 17.0            | 872.0      |         |
| -500.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 1038.0     |         |
| -574.0                 | CARBONDALE | HERRIN        | COAL      | 4.0             | 1112.0     |         |
| -654.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.5             | 1192.0     |         |
| -752.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1290.0     |         |
| -852.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1390.0     |         |

MAPID: 15900066000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 14W SECTION: 12 QUARTERS/FOOTAGES: 660' S line, 660' W line of SW

QUADRANGLE: CLAREMONT LONGITUDE: -87.925515 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.704445 DATE COLLECTED: 0 / 0 / 1942

SURFACE ELEVATION (FT.): 556.0 LOGGED (FT.): 5560.0 LOG TYPE:

SOURCE: NADEL&GSMN, MCEVELLY 0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|-------------|---------------|-----------|-----------------|------------|---------|
|                        |             |               |           | UNIT            | OVERBURDEN |         |
| -288.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 844.0      |         |
| -514.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1070.0     |         |
| -591.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1147.0     |         |
| -685.0                 | CARBONDALE  | HOUCHIN CREEK | COAL      | -               | 1241.0     |         |
| -924.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1480.0     |         |

MAPID: 15900066000C    VERSION: 2

PROJECT: CGT-ECILL

COUNTY: RICHLAND    TWP/RNG: 3N 14W    SECTION: 12    QUARTERS/FOOTAGES: 660' S line, 660' W line of SW

QUADRANGLE: CLAREMONT    LONGITUDE: -87.925515    GEOLOGIST: C TREWORGY

CONFIDENTIAL: N    LATITUDE: 38.704445    DATE COLLECTED:

SURFACE ELEVATION (FT.): 556.0    LOGGED (FT.): 1330.0    LOG TYPE: Electric Log

SOURCE:    WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -279.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 17.0            | 835.0      |         |
| -514.0                 | CARBONDALE | HERRIN        | COAL      | 4.0             | 1070.0     |         |
| -590.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1146.0     |         |
| -685.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1241.0     |         |
| -774.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1330.0     |         |

MAPID: 15900784000C    VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND    TWP/RNG: 3N 14W    SECTION: 13    QUARTERS/FOOTAGES: NE NE SE

QUADRANGLE: CLAREMONT    LONGITUDE: -87.910327    GEOLOGIST: C TREWORGY

CONFIDENTIAL: N    LATITUDE: 38.694259    DATE COLLECTED:

SURFACE ELEVATION (FT.): 549.0    LOGGED (FT.): 1273.0    LOG TYPE: Electric Log

SOURCE:    WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -242.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 791.0      |         |
| -403.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 952.0      |         |
| -464.0                 | CARBONDALE | HERRIN        | COAL      | 3.5             | 1013.0     |         |
| -549.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1098.0     |         |
| -641.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1190.0     |         |
| -724.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1273.0     |         |



**MAPID:** 15900563000C    **VERSION:** 1    **PROJECT:** CGT-ECILL  
**COUNTY:** RICHLAND    **TWP/RNG:** 3N 14W    **SECTION:** 15    **QUARTERS/FOOTAGES:** NW NW SE  
**QUADRANGLE:** CLAREMONT    **LONGITUDE:** -87.955057    **GEOLOGIST:** C TREWORY  
**CONFIDENTIAL:** N    **LATITUDE:** 38.694295    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 534.0    **LOGGED (FT.):** 1413.0    **LOG TYPE:** Electric Log  
**SOURCE:**    **WELL TYPE:** Oil and Gas Test  
**COMMENT:** GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -358.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 892.0      |         |
| -528.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 1062.0     |         |
| -598.0                 | CARBONDALE | HERRIN        | COAL      | 4.0             | 1132.0     |         |
| -679.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.5             | 1213.0     |         |
| -775.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1309.0     |         |
| -879.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1413.0     |         |

**MAPID:** 15900785000C    **VERSION:** 1    **PROJECT:** CGT-ECILL  
**COUNTY:** RICHLAND    **TWP/RNG:** 3N 14W    **SECTION:** 16    **QUARTERS/FOOTAGES:** SW NW NW  
**QUADRANGLE:** CLAREMONT    **LONGITUDE:** -87.983158    **GEOLOGIST:** C TREWORY  
**CONFIDENTIAL:** N    **LATITUDE:** 38.700061    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 508.0    **LOGGED (FT.):** 1420.0    **LOG TYPE:** Electric Log  
**SOURCE:**    **WELL TYPE:** Oil and Gas Test  
**COMMENT:** FAIR LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -371.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 16.0            | 879.0      |         |
| -539.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 1047.0     |         |
| -608.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1116.0     |         |
| -686.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.5             | 1194.0     |         |
| -778.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1286.0     |         |
| -912.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1420.0     |         |

**MAPID:** 15925638000C    **VERSION:** 1    **PROJECT:** ISGS96  
**COUNTY:** RICHLAND    **TWP/RNG:** 3N 14W    **SECTION:** 16    **QUARTERS/FOOTAGES:** 1000' N line, 1100' W line  
**QUADRANGLE:** CLAREMONT    **LONGITUDE:** -87.980451    **GEOLOGIST:** C TREWORY  
**CONFIDENTIAL:** N    **LATITUDE:** 38.700106    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 504.0    **LOGGED (FT.):** 1198.0    **LOG TYPE:** Company map  
**SOURCE:** UTAH INTERNATIONAL    ISGS-99906    **WELL TYPE:** Unknown well type  
**COMMENT:** DATA & LOCATION FROM COMPANY MAP

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER      | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|-------------|-----------|-----------------|------------|---------|
|                        |            |             |           | UNIT            | OVERBURDEN |         |
| -612.0                 | CARBONDALE | HERRIN      | COAL      | 4.2             | 1116.0     |         |
| -690.0                 | CARBONDALE | SPRINGFIELD | COAL      | 4.0             | 1194.0     |         |

**MAPID:** 15901761000C    **VERSION:** 1    **PROJECT:** CGT-ECILL  
**COUNTY:** RICHLAND    **TWP/RNG:** 3N 14W    **SECTION:** 17    **QUARTERS/FOOTAGES:** NE NE SW  
**QUADRANGLE:** CLAREMONT    **LONGITUDE:** -87.994921    **GEOLOGIST:** C TREWORY  
**CONFIDENTIAL:** N    **LATITUDE:** 38.694469    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 507.0    **LOGGED (FT.):** 1415.0    **LOG TYPE:** Electric Log  
**SOURCE:**    **WELL TYPE:** Oil and Gas Test  
**COMMENT:** GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -379.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 16.0            | 886.0              |
| -549.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 1056.0             |
| -614.0                 | CARBONDALE | HERRIN        | COAL      | 4.5             | 1121.0             |
| -702.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1209.0             |
| -794.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1301.0             |
| -908.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1415.0             |

**MAPID:** 15901762000C    **VERSION:** 1    **PROJECT:** CGT-ECILL  
**COUNTY:** RICHLAND    **TWP/RNG:** 3N 14W    **SECTION:** 17    **QUARTERS/FOOTAGES:** SW SW NW  
**QUADRANGLE:** OLNEY    **LONGITUDE:** -88.001956    **GEOLOGIST:** C TREWORY  
**CONFIDENTIAL:** N    **LATITUDE:** 38.696377    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 509.0    **LOGGED (FT.):** 1410.0    **LOG TYPE:** Electric Log  
**SOURCE:**    **WELL TYPE:** Oil and Gas Test  
**COMMENT:** GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -367.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 16.0            | 876.0              |
| -535.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 1044.0             |
| -599.0                 | CARBONDALE | HERRIN        | COAL      | 4.0             | 1108.0             |
| -681.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1190.0             |
| -781.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1290.0             |
| -901.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1410.0             |

**MAPID:** 15925639000C    **VERSION:** 1    **PROJECT:** ISGS96  
**COUNTY:** RICHLAND    **TWP/RNG:** 3N 14W    **SECTION:** 17    **QUARTERS/FOOTAGES:** 2500' S line, 1500' E line  
**QUADRANGLE:** CLAREMONT    **LONGITUDE:** -87.989651    **GEOLOGIST:** C TREWORY  
**CONFIDENTIAL:** N    **LATITUDE:** 38.694762    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 505.0    **LOGGED (FT.):** 1214.0    **LOG TYPE:** Company map  
**SOURCE:** UTAH INTERNATIONAL    ISGS-99907    **WELL TYPE:** Unknown well type  
**COMMENT:** DATA & LOCATION FROM COMPANY MAP

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER      | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|-------------|-----------|-----------------|--------------------|
|                        |            |             |           | UNIT            | OVERBURDEN COMMENT |
| -617.0                 | CARBONDALE | HERRIN      | COAL      | 4.2             | 1122.0             |
| -705.0                 | CARBONDALE | SPRINGFIELD | COAL      | 4.0             | 1210.0             |

MAPID: 15900067000C    VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND    TWP/RNG: 3N 14W    SECTION: 18    QUARTERS/FOOTAGES: NE SE SW

QUADRANGLE: OLNEY    LONGITUDE: -88.014619    GEOLOGIST: SIEVER

CONFIDENTIAL: N    LATITUDE: 38.690794    DATE COLLECTED: 0 / 0 / 1941

SURFACE ELEVATION (FT.): 509.0    LOGGED (FT.): 5090.0    LOG TYPE:

SOURCE: SNCLR WYOM, LEGAN T 0001    WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|-------------|---------------|-----------|-----------------|------------|---------|
|                        |             |               |           | UNIT            | OVERBURDEN |         |
| -358.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 867.0      |         |
| -581.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1090.0     |         |
| -665.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1174.0     |         |
| -761.0                 | CARBONDALE  | HOUCHIN CREEK | COAL      | -               | 1270.0     |         |
| -1161.0                | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1670.0     |         |

MAPID: 15901764000C    VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND    TWP/RNG: 3N 14W    SECTION: 18    QUARTERS/FOOTAGES: 353' N line, 330' E line

QUADRANGLE: OLNEY    LONGITUDE: -88.004298    GEOLOGIST: C TREWORGY

CONFIDENTIAL: N    LATITUDE: 38.701957    DATE COLLECTED:

SURFACE ELEVATION (FT.): 510.0    LOGGED (FT.): 1396.0    LOG TYPE: Electric Log

SOURCE:    WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -365.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 875.0      |         |
| -525.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 1035.0     |         |
| -594.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1104.0     |         |
| -672.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1182.0     |         |
| -770.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1280.0     |         |
| -886.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1396.0     |         |

MAPID: 15900786000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 14W SECTION: 19 QUARTERS/FOOTAGES: NE SE SE  
 QUADRANGLE: OLNEY LONGITUDE: -88.004433 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.676062 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 509.0 LOGGED (FT.): 1365.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -329.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 13.0            | 838.0      |         |
| -488.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 997.0      |         |
| -564.0                 | CARBONDALE | HERRIN        | COAL      | 4.0             | 1073.0     |         |
| -644.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.5             | 1153.0     |         |
| -734.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1243.0     |         |
| -856.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1365.0     |         |

MAPID: 15901765000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 14W SECTION: 20 QUARTERS/FOOTAGES: SE SE SW  
 QUADRANGLE: CLAREMONT LONGITUDE: -87.99499 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.674189 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 460.0 LOGGED (FT.): 1290.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -312.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 772.0      |         |
| -468.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 928.0      |         |
| -551.0                 | CARBONDALE | HERRIN        | COAL      | 5.0             | 1011.0     |         |
| -631.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.0             | 1091.0     |         |
| -728.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1188.0     |         |
| -830.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1290.0     |         |

MAPID: 15900787000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 14W SECTION: 21 QUARTERS/FOOTAGES: SE SE SE

QUADRANGLE: CLAREMONT LONGITUDE: -87.966804 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.673946 DATE COLLECTED:

SURFACE ELEVATION (FT.): 506.0 LOGGED (FT.): 1328.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -337.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 843.0              |
| -500.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 1006.0             |
| -566.0                 | CARBONDALE | HERRIN        | COAL      | 5.0             | 1072.0             |
| -655.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 6.0             | 1161.0             |
| -730.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1236.0             |
| -822.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1328.0             |

MAPID: 15901766000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 14W SECTION: 21 QUARTERS/FOOTAGES: SW NW SW

QUADRANGLE: CLAREMONT LONGITUDE: -87.983284 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.677783 DATE COLLECTED:

SURFACE ELEVATION (FT.): 506.0 LOGGED (FT.): 1350.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -329.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 835.0              |
| -569.0                 | CARBONDALE | HERRIN        | COAL      | 5.0             | 1075.0             |
| -654.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 5.0             | 1160.0             |
| -752.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1258.0             |
| -844.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1350.0             |

MAPID: 15900788000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 14W SECTION: 22 QUARTERS/FOOTAGES: NE NW NW

QUADRANGLE: CLAREMONT LONGITUDE: -87.962147 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.686876 DATE COLLECTED:

SURFACE ELEVATION (FT.): 514.0 LOGGED (FT.): 1196.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -256.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 17.0            | 770.0              |
| -529.0                 | CARBONDALE | DANVILLE      | COAL      | 2.5             | 1043.0             |
| -595.0                 | CARBONDALE | HERRIN        | COAL      | 6.0             | 1109.0             |
| -677.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 5.0             | 1191.0             |

MAPID: 15901768000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 14W SECTION: 22 QUARTERS/FOOTAGES: NE NW SE  
 QUADRANGLE: CLAREMONT LONGITUDE: -87.952773 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.679536 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 524.0 LOGGED (FT.): 1386.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -353.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 877.0              |
| -524.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 1048.0             |
| -586.0                 | CARBONDALE | HERRIN        | COAL      | 5.0             | 1110.0             |
| -667.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1191.0             |
| -762.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1286.0             |
| -862.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1386.0             |

MAPID: 15901769000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 14W SECTION: 22 QUARTERS/FOOTAGES: SE NE NE  
 QUADRANGLE: CLAREMONT LONGITUDE: -87.948074 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.685046 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 532.0 LOGGED (FT.): 1403.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -355.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 17.0            | 887.0              |
| -528.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 1060.0             |
| -592.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1124.0             |
| -672.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1204.0             |
| -769.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1301.0             |
| -871.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1403.0             |

MAPID: 15901770000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 14W SECTION: 23 QUARTERS/FOOTAGES: SW NW SW  
 QUADRANGLE: CLAREMONT LONGITUDE: -87.945754 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.677733 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 519.0 LOGGED (FT.): 1386.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -352.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 871.0              |
| -528.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 1047.0             |
| -588.0                 | CARBONDALE | HERRIN        | COAL      | 5.0             | 1107.0             |
| -669.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.5             | 1188.0             |
| -769.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1288.0             |
| -867.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1386.0             |

MAPID: 15900068000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 14W SECTION: 26 QUARTERS/FOOTAGES: 660' S line, 660' E line of SW  
 QUADRANGLE: CLAREMONT LONGITUDE: -87.939909 GEOLOGIST: SIEVER  
 CONFIDENTIAL: N LATITUDE: 38.660099 DATE COLLECTED: 0 / 0 / 1942  
 SURFACE ELEVATION (FT.): 508.0 LOGGED (FT.): 5080.0 LOG TYPE:  
 SOURCE: NADEL&GSMN, EATON T F 0001 WELL TYPE: Oil and Gas Test  
 COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -340.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 848.0              |
| -552.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1060.0             |
| -647.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1155.0             |
| -722.0                 | CARBONDALE  | HOUCHIN CREEK | COAL      | -               | 1230.0             |
| -1039.0                | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1547.0             |

MAPID: 15900068000C    VERSION: 2

PROJECT: CGT-ECILL

COUNTY: RICHLAND    TWP/RNG: 3N 14W    SECTION: 26    QUARTERS/FOOTAGES: 660' S line, 660' E line of SW

QUADRANGLE: CLAREMONT    LONGITUDE: -87.939909    GEOLOGIST: C TREWORYG

CONFIDENTIAL: N    LATITUDE: 38.660099    DATE COLLECTED:

SURFACE ELEVATION (FT.): 508.0    LOGGED (FT.): 1339.0    LOG TYPE: Electric Log

SOURCE:    WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -322.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 830.0      |         |
| -553.0                 | CARBONDALE | HERRIN        | COAL      | 5.0             | 1061.0     |         |
| -646.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 5.5             | 1154.0     |         |
| -722.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1230.0     |         |
| -831.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1339.0     |         |

MAPID: 15900790000C    VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND    TWP/RNG: 3N 14W    SECTION: 27    QUARTERS/FOOTAGES: SW SE SE

QUADRANGLE: CLAREMONT    LONGITUDE: -87.950502    GEOLOGIST: C TREWORYG

CONFIDENTIAL: N    LATITUDE: 38.65925    DATE COLLECTED:

SURFACE ELEVATION (FT.): 454.0    LOGGED (FT.): 1259.0    LOG TYPE: Electric Log

SOURCE:    WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -312.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 766.0      |         |
| -481.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 935.0      |         |
| -544.0                 | CARBONDALE | HERRIN        | COAL      | 5.0             | 998.0      |         |
| -634.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 6.0             | 1088.0     |         |
| -702.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1156.0     |         |
| -805.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1259.0     |         |



MAPID: 15901773000C    VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND    TWP/RNG: 3N 14W    SECTION: 27    QUARTERS/FOOTAGES: NE NE NW

QUADRANGLE: CLAREMONT    LONGITUDE: -87.957456    GEOLOGIST: C TREWORYG

CONFIDENTIAL: N    LATITUDE: 38.672155    DATE COLLECTED:

SURFACE ELEVATION (FT.): 504.0    LOGGED (FT.): 1323.0    LOG TYPE: Electric Log

SOURCE:    WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -327.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 831.0      |         |
| -562.0                 | CARBONDALE | HERRIN        | COAL      | 4.5             | 1066.0     |         |
| -647.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 5.0             | 1151.0     |         |
| -727.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1231.0     |         |
| -819.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1323.0     |         |

MAPID: 15900791000C    VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND    TWP/RNG: 3N 14W    SECTION: 28    QUARTERS/FOOTAGES: SW NE NW

QUADRANGLE: CLAREMONT    LONGITUDE: -87.978598    GEOLOGIST: C TREWORYG

CONFIDENTIAL: N    LATITUDE: 38.670405    DATE COLLECTED:

SURFACE ELEVATION (FT.): 499.0    LOGGED (FT.): 1312.0    LOG TYPE: Electric Log

SOURCE:    WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -306.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 805.0      |         |
| -462.0                 | CARBONDALE | DANVILLE      | COAL      | 2.5             | 961.0      |         |
| -539.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1038.0     |         |
| -619.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.5             | 1118.0     |         |
| -718.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1217.0     |         |
| -813.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1312.0     |         |

MAPID: 15901778000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 14W SECTION: 28 QUARTERS/FOOTAGES: NE SW SW  
 QUADRANGLE: CLAREMONT LONGITUDE: -87.980991 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.661231 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 449.0 LOGGED (FT.): 1148.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -287.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 17.0            | 736.0      |         |
| -447.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 896.0      |         |
| -523.0                 | CARBONDALE | HERRIN        | COAL      | 4.5             | 972.0      |         |
| -604.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.0             | 1053.0     |         |
| -699.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1148.0     |         |

MAPID: 15901779000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 14W SECTION: 29 QUARTERS/FOOTAGES: SE NW NE  
 QUADRANGLE: CLAREMONT LONGITUDE: -87.990338 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.670492 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 454.0 LOGGED (FT.): 1281.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -317.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 771.0      |         |
| -477.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 931.0      |         |
| -555.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1009.0     |         |
| -635.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1089.0     |         |
| -742.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1196.0     |         |
| -827.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1281.0     |         |

MAPID: 1590178000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 14W SECTION: 29 QUARTERS/FOOTAGES: NE NW SE

QUADRANGLE: CLAREMONT LONGITUDE: -87.990371 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.664967 DATE COLLECTED:

SURFACE ELEVATION (FT.): 457.0 LOGGED (FT.): 1273.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -304.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 16.0            | 761.0      |         |
| -466.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 923.0      |         |
| -525.0                 | CARBONDALE | HERRIN        | COAL      | 3.0             | 982.0      |         |
| -613.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.0             | 1070.0     |         |
| -708.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1165.0     |         |
| -816.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1273.0     |         |

MAPID: 15901781000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 14W SECTION: 29 QUARTERS/FOOTAGES: SE SW SE

QUADRANGLE: CLAREMONT LONGITUDE: -87.990404 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.65944 DATE COLLECTED:

SURFACE ELEVATION (FT.): 493.0 LOGGED (FT.): 1301.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -290.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 783.0      |         |
| -455.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 948.0      |         |
| -532.0                 | CARBONDALE | HERRIN        | COAL      | 5.0             | 1025.0     |         |
| -611.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.5             | 1104.0     |         |
| -707.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1200.0     |         |
| -808.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1301.0     |         |

MAPID: 15900793000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND

TWP/RNG: 3N 14W

SECTION: 31

QUARTERS/FOOTAGES: NE NE NE

QUADRANGLE: OLNEY

LONGITUDE: -88.004601

GEOLOGIST: C TREWORY

CONFIDENTIAL: N

LATITUDE: 38.657639

DATE COLLECTED:

SURFACE ELEVATION (FT.): 513.0

LOGGED (FT.): 1320.0

LOG TYPE: Electric Log

SOURCE:

WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -291.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 804.0              |
| -454.0                 | CARBONDALE | DANVILLE      | COAL      | 2.5             | 967.0              |
| -523.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1036.0             |
| -608.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.5             | 1121.0             |
| -705.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1218.0             |
| -807.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1320.0             |

MAPID: 15901787000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND

TWP/RNG: 3N 14W

SECTION: 31

QUARTERS/FOOTAGES: 73' N line, 330' W line of SW SW

QUADRANGLE: OLNEY

LONGITUDE: -88.022479

GEOLOGIST: C TREWORY

CONFIDENTIAL: N

LATITUDE: 38.647439

DATE COLLECTED:

SURFACE ELEVATION (FT.): 517.0

LOGGED (FT.): 1350.0

LOG TYPE: Electric Log

SOURCE:

WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -321.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 17.0            | 838.0              |
| -503.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 1020.0             |
| -553.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1070.0             |
| -652.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 6.0             | 1169.0             |
| -720.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1237.0             |
| -833.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1350.0             |

MAPID: 15900007000C VERSION: 2

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 14W SECTION: 32 QUARTERS/FOOTAGES: 660' S line, 330' E line of SW  
 QUADRANGLE: CLAREMONT LONGITUDE: -87.995206 GEOLOGIST: SIEVER  
 CONFIDENTIAL: N LATITUDE: 38.645625 DATE COLLECTED: 0 / 0 / 1942  
 SURFACE ELEVATION (FT.): 493.0 LOGGED (FT.): 4930.0 LOG TYPE:  
 SOURCE: SEABOARD, KIMMEL M 0001 WELL TYPE: Oil and Gas Test  
 COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|-------------|---------------|-----------|-----------------|------------|---------|
|                        |             |               |           | UNIT            | OVERBURDEN |         |
| -297.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 790.0      |         |
| -470.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 963.0      |         |
| -523.0                 | CARBONDALE  | HERRIN        | COAL      | 2.0             | 1016.0     |         |
| -619.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1112.0     |         |
| -1097.0                | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1590.0     |         |

MAPID: 15900007000C VERSION: 3

PROJECT: CONTROL

COUNTY: RICHLAND TWP/RNG: 3N 14W SECTION: 32 QUARTERS/FOOTAGES: 660' S line, 330' E line of SW  
 QUADRANGLE: CLAREMONT LONGITUDE: -87.995206 GEOLOGIST: HINES  
 CONFIDENTIAL: N LATITUDE: 38.645625 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): LOGGED (FT.): 3231.0 LOG TYPE: Survey Sample Study  
 SOURCE: SEABOARD OIL OF DELAWARE WELL TYPE: Oil and Gas Test  
 COMMENT: OILWELLS LOGGED BY COAL SECT-LOGS IN GRU

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

MAPID: 15900511000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 14W SECTION: 32 QUARTERS/FOOTAGES: NW NE NE  
 QUADRANGLE: CLAREMONT LONGITUDE: -87.988069 GEOLOGIST: C TREWORGY  
 CONFIDENTIAL: N LATITUDE: 38.657593 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 494.0 LOGGED (FT.): 1306.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -294.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 17.0            | 788.0      |         |
| -461.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 955.0      |         |
| -539.0                 | CARBONDALE | HERRIN        | COAL      | 5.0             | 1033.0     |         |
| -616.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.0             | 1110.0     |         |
| -714.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1208.0     |         |
| -812.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1306.0     |         |

MAPID: 15900543000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 14W SECTION: 32 QUARTERS/FOOTAGES: SE SW NE  
 QUADRANGLE: CLAREMONT LONGITUDE: -87.990468 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.652074 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 488.0 LOGGED (FT.): 1306.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -295.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 783.0      |         |
| -466.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 954.0      |         |
| -526.0                 | CARBONDALE | HERRIN        | COAL      | 4.5             | 1014.0     |         |
| -620.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1108.0     |         |
| -712.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1200.0     |         |
| -818.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1306.0     |         |

MAPID: 15901788000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 14W SECTION: 32 QUARTERS/FOOTAGES: NW SE NW  
 QUADRANGLE: CLAREMONT LONGITUDE: -87.997496 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.653935 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 470.0 LOGGED (FT.): 1303.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -310.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 18.0            | 780.0      |         |
| -475.0                 | CARBONDALE | DANVILLE      | COAL      | 2.5             | 945.0      |         |
| -550.0                 | CARBONDALE | HERRIN        | COAL      | 5.0             | 1020.0     |         |
| -642.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.5             | 1112.0     |         |
| -720.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1190.0     |         |
| -833.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1303.0     |         |

MAPID: 15902672000C VERSION: 1

PROJECT: EIA-DOE

COUNTY: RICHLAND TWP/RNG: 3N 14W SECTION: 32 QUARTERS/FOOTAGES:  
 QUADRANGLE: CLAREMONT LONGITUDE: -87.993998 GEOLOGIST: PRUSSEN  
 CONFIDENTIAL: N LATITUDE: 38.651165 DATE COLLECTED: 7 / 6 / 1957  
 SURFACE ELEVATION (FT.): 484.0 LOGGED (FT.): 138.0 LOG TYPE: Drillers Log  
 SOURCE: HANNA COAL CO. 18 FR WELL TYPE: Coal Test  
 COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION | MEMBER | LITHOLOGY    | THICKNESS (FT.) |            | COMMENT                   |
|------------------------|-----------|--------|--------------|-----------------|------------|---------------------------|
|                        |           |        |              | UNIT            | OVERBURDEN |                           |
| -                      |           |        | UNCLASSIFIED | 0.0             |            | FOLDER IN CLOSET<br>EMPTY |

MAPID: 15923694000C VERSION: 1

PROJECT: NCRDS87

COUNTY: RICHLAND TWP/RNG: 3N 14W SECTION: 32 QUARTERS/FOOTAGES: SW SE

QUADRANGLE: CLAREMONT LONGITUDE: -87.991699 GEOLOGIST: WEIBEL

CONFIDENTIAL: N LATITUDE: 38.645632 DATE COLLECTED: 7 / 6 / 1957

SURFACE ELEVATION (FT.): 483.0 LOGGED (FT.): 138.0 LOG TYPE: Drillers Log

SOURCE: HANNA COAL CO. WELL TYPE: Coal Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION | MEMBER  | LITHOLOGY      | THICKNESS (FT.) |            | COMMENT |
|------------------------|-----------|---------|----------------|-----------------|------------|---------|
|                        |           |         |                | UNIT            | OVERBURDEN |         |
| 483.0                  |           |         | UNCONSOLIDATED | 25.0            | 0.0        |         |
| 458.0                  | MATTOON   | BONPAS  | LIMESTONE      | 0.1             | 25.0       |         |
| 457.9                  | MATTOON   | CALHOUN | COAL           | 0.8             | 25.1       |         |
| 457.2                  | MATTOON   |         | UNDERCLAY      | 15.2            | 25.8       |         |
| 442.0                  | MATTOON   |         | GRAY SHALE     | 31.3            | 41.0       |         |
| 410.7                  | MATTOON   |         | CLAYSTONE      | 1.6             | 72.3       |         |
| 409.1                  | MATTOON   |         | GRAY SHALE     | 50.8            | 73.9       |         |
| 358.3                  | MATTOON   |         | DARK SHALE     | 6.3             | 124.7      |         |
| 352.0                  | MATTOON   |         | LIMESTONE      | 1.7             | 131.0      |         |
| 350.3                  | MATTOON   |         | CLAYSTONE      | 5.3             | 132.7      |         |

MAPID: 15900069000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 14W SECTION: 33 QUARTERS/FOOTAGES: SE SE NW

QUADRANGLE: CLAREMONT LONGITUDE: -87.976361 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.651981 DATE COLLECTED: 0 / 0 / 1943

SURFACE ELEVATION (FT.): 472.0 LOGGED (FT.): 4720.0 LOG TYPE:

SOURCE: HASSLER J, BUNN S L 0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|-------------|---------------|-----------|-----------------|------------|---------|
|                        |             |               |           | UNIT            | OVERBURDEN |         |
| -314.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 786.0      |         |
| -476.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 948.0      |         |
| -553.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1025.0     |         |
| -636.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1108.0     |         |
| -723.0                 | CARBONDALE  | HOUCHIN CREEK | COAL      | -               | 1195.0     |         |
| -1088.0                | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1560.0     |         |

MAPID: 15900794000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 14W SECTION: 33 QUARTERS/FOOTAGES: SW SW NW  
 QUADRANGLE: CLAREMONT LONGITUDE: -87.983423 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.652046 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 444.0 LOGGED (FT.): 1290.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -313.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 757.0              |
| -482.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 926.0              |
| -561.0                 | CARBONDALE | HERRIN        | COAL      | 5.0             | 1005.0             |
| -645.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.5             | 1089.0             |
| -734.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1178.0             |
| -846.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1290.0             |

MAPID: 15901794000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 14W SECTION: 33 QUARTERS/FOOTAGES: SW SE SE  
 QUADRANGLE: CLAREMONT LONGITUDE: -87.969401 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.644541 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 458.0 LOGGED (FT.): 1254.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -293.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 9.0             | 751.0              |
| -457.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 915.0              |
| -529.0                 | CARBONDALE | HERRIN        | COAL      | 5.0             | 987.0              |
| -612.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1070.0             |
| -702.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1160.0             |
| -796.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1254.0             |



MAPID: 15901796000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 14W SECTION: 33 QUARTERS/FOOTAGES: NE SW NE  
 QUADRANGLE: CLAREMONT LONGITUDE: -87.971632 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.653779 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 486.0 LOGGED (FT.): 1314.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -311.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 797.0              |
| -475.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 961.0              |
| -548.0                 | CARBONDALE | HERRIN        | COAL      | 4.5             | 1034.0             |
| -632.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1118.0             |
| -724.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1210.0             |
| -828.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1314.0             |

MAPID: 15900070000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 14W SECTION: 34 QUARTERS/FOOTAGES: SE SE SW  
 QUADRANGLE: CLAREMONT LONGITUDE: -87.957647 GEOLOGIST: SIEVER  
 CONFIDENTIAL: N LATITUDE: 38.644482 DATE COLLECTED: 0 / 0 / 1941  
 SURFACE ELEVATION (FT.): 491.0 LOGGED (FT.): 4910.0 LOG TYPE:  
 SOURCE: CASE&POMRY, BUNN A E 0001 WELL TYPE: Oil and Gas Test  
 COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -299.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 790.0              |
| -462.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 953.0              |
| -534.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1025.0             |
| -612.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1103.0             |
| -705.0                 | CARBONDALE  | HOUCHIN CREEK | COAL      | -               | 1196.0             |
| -1085.0                | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1576.0             |

MAPID: 15900071000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 3N 14W SECTION: 34 QUARTERS/FOOTAGES: SW SW SE

QUADRANGLE: CLAREMONT LONGITUDE: -87.955295 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.644476 DATE COLLECTED: 0 / 0 / 1941

SURFACE ELEVATION (FT.): 484.0 LOGGED (FT.): 4840.0 LOG TYPE:

SOURCE: CASE&POMRY, BOWERS 0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -305.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 789.0              |
| -473.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 957.0              |
| -551.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1035.0             |
| -647.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1131.0             |
| -705.0                 | CARBONDALE  | HOUCHIN CREEK | COAL      | -               | 1189.0             |
| -1073.0                | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1557.0             |

MAPID: 15901810000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 14W SECTION: 34 QUARTERS/FOOTAGES: 660' N line, 330' W line of NE SE

QUADRANGLE: CLAREMONT LONGITUDE: -87.950575 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.649107 DATE COLLECTED:

SURFACE ELEVATION (FT.): 501.0 LOGGED (FT.): 1280.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: #6 CUT OUT, FAIR LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -293.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 16.0            | 794.0              |
| -462.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 963.0              |
| -625.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 7.0             | 1126.0             |
| -879.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1380.0             |

MAPID: 15901813000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 3N 14W SECTION: 34 QUARTERS/FOOTAGES: NE NW SW  
 QUADRANGLE: CLAREMONT LONGITUDE: -87.96228 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.65003 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 482.0 LOGGED (FT.): 1290.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -291.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 773.0              |
| -452.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 934.0              |
| -525.0                 | CARBONDALE | HERRIN        | COAL      | 4.5             | 1007.0             |
| -603.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1085.0             |
| -702.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1184.0             |
| -808.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1290.0             |

MAPID: 15901828000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 9E SECTION: 1 QUARTERS/FOOTAGES: 660' S line, 330' W line of NW SE  
 QUADRANGLE: WAKEFIELD LONGITUDE: -88.158327 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.808247 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 533.0 LOGGED (FT.): 1304.5 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -114.0                 | BOND       | CARTHAGE      | LIMESTONE | 5.0             | 647.0              |
| -299.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 12.0            | 832.0              |
| -441.0                 | CARBONDALE | DANVILLE      | COAL      | 2.5             | 974.0              |
| -507.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1040.0             |
| -557.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.0             | 1090.0             |
| -743.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1276.0             |
| -769.0                 | SPOON      | SEELYVILLE    | COAL      | 2.5             | 1302.0             |

MAPID: 15901837000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 9E SECTION: 1 QUARTERS/FOOTAGES: SE SW NW

QUADRANGLE: WAKEFIELD LONGITUDE: -88.165531 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.811119 DATE COLLECTED:

SURFACE ELEVATION (FT.): 518.0 LOGGED (FT.): 1322.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -140.0                 | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 658.0              |
| -340.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 12.0            | 858.0              |
| -472.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 990.0              |
| -539.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1057.0             |
| -589.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.5             | 1107.0             |
| -651.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1169.0             |
| -777.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1295.0             |
| -802.0                 | SPOON      | SEELYVILLE    | COAL      | 2.0             | 1320.0             |

MAPID: 15900797000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 9E SECTION: 2 QUARTERS/FOOTAGES: 670' S line, 330' E line

QUADRANGLE: WAKEFIELD LONGITUDE: -88.170231 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.804908 DATE COLLECTED:

SURFACE ELEVATION (FT.): 519.0 LOGGED (FT.): 1311.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -163.0                 | BOND       | CARTHAGE      | LIMESTONE | 5.0             | 682.0              |
| -365.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 884.0              |
| -495.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 1014.0             |
| -563.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1082.0             |
| -615.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 5.0             | 1134.0             |
| -677.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1196.0             |
| -792.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1311.0             |

MAPID: 15901877000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 9E SECTION: 2 QUARTERS/FOOTAGES: NW NW SE

QUADRANGLE: WAKEFIELD LONGITUDE: -88.177134 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.809418 DATE COLLECTED:

SURFACE ELEVATION (FT.): 509.0 LOGGED (FT.): 1382.5 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -190.0                 | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 699.0      |         |
| -384.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 8.0             | 893.0      |         |
| -528.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 1037.0     |         |
| -594.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1103.0     |         |
| -646.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 5.0             | 1155.0     |         |
| -712.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1221.0     |         |
| -847.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1356.0     |         |
| -871.0                 | SPOON      | SEELYVILLE    | COAL      | 2.5             | 1380.0     |         |

MAPID: 15900798000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 9E SECTION: 3 QUARTERS/FOOTAGES: NE NW SW

QUADRANGLE: WAKEFIELD LONGITUDE: -88.202654 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.809985 DATE COLLECTED:

SURFACE ELEVATION (FT.): 488.0 LOGGED (FT.): 1339.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -196.0                 | BOND       | CARTHAGE      | LIMESTONE | 7.0             | 684.0      |         |
| -390.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 6.0             | 878.0      |         |
| -524.0                 | CARBONDALE | DANVILLE      | COAL      | 2.5             | 1012.0     |         |
| -595.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1083.0     |         |
| -646.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 5.0             | 1134.0     |         |
| -718.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1206.0     |         |
| -829.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1317.0     |         |
| -849.0                 | SPOON      | SEELYVILLE    | COAL      | 2.0             | 1337.0     |         |

MAPID: 15900662000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 9E SECTION: 5 QUARTERS/FOOTAGES: SW NW NW

QUADRANGLE: WAKEFIELD LONGITUDE: -88.242837 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.815571 DATE COLLECTED:

SURFACE ELEVATION (FT.): 474.0 LOGGED (FT.): 1374.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -209.0                 | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 683.0              |
| -410.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 884.0              |
| -578.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 1052.0             |
| -629.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1103.0             |
| -676.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.5             | 1150.0             |
| -756.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1230.0             |
| -879.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1353.0             |
| -900.0                 | SPOON      | SEELYVILLE    | COAL      | -               | 1374.0             |

MAPID: 15901879000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 9E SECTION: 5 QUARTERS/FOOTAGES: SE SE SE

QUADRANGLE: WAKEFIELD LONGITUDE: -88.225952 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.804804 DATE COLLECTED:

SURFACE ELEVATION (FT.): 502.0 LOGGED (FT.): 1360.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -204.0                 | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 706.0              |
| -408.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 910.0              |
| -552.0                 | CARBONDALE | DANVILLE      | COAL      | 2.5             | 1054.0             |
| -602.0                 | CARBONDALE | HERRIN        | COAL      | 5.0             | 1104.0             |
| -656.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.5             | 1158.0             |
| -738.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1240.0             |
| -858.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1360.0             |

MAPID: 15900799000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 9E SECTION: 6 QUARTERS/FOOTAGES: SE SE SE

QUADRANGLE: WAKEFIELD LONGITUDE: -88.244964 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.804624 DATE COLLECTED:

SURFACE ELEVATION (FT.): 471.0 LOGGED (FT.): 1342.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -202.0                 | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 673.0              |
| -377.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 848.0              |
| -552.0                 | CARBONDALE | DANVILLE      | COAL      | 2.5             | 1023.0             |
| -606.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1077.0             |
| -659.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1130.0             |
| -745.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1216.0             |
| -859.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1330.0             |
| -871.0                 | SPOON      | SEELYVILLE    | COAL      | -               | 1342.0             |

MAPID: 15900800000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 9E SECTION: 7 QUARTERS/FOOTAGES: NE SW SE

QUADRANGLE: WAKEFIELD LONGITUDE: -88.249558 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.791957 DATE COLLECTED:

SURFACE ELEVATION (FT.): 469.0 LOGGED (FT.): 1347.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -231.0                 | BOND       | CARTHAGE      | LIMESTONE | 7.0             | 700.0              |
| -437.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 906.0              |
| -574.0                 | CARBONDALE | DANVILLE      | COAL      | 2.5             | 1043.0             |
| -623.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1092.0             |
| -684.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.5             | 1153.0             |
| -741.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1210.0             |
| -867.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1336.0             |
| -878.0                 | SPOON      | SEELYVILLE    | COAL      | -               | 1347.0             |

MAPID: 15902615000C    VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND    TWP/RNG: 4N 9E    SECTION: 7    QUARTERS/FOOTAGES: SW SW NE

QUADRANGLE: SAILOR SPRINGS    LONGITUDE: -88.251905    GEOLOGIST: C TREWORY

CONFIDENTIAL: N    LATITUDE: 38.797374    DATE COLLECTED:

SURFACE ELEVATION (FT.): 448.0    LOGGED (FT.): 1337.0    LOG TYPE: Electric Log

SOURCE:    WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -255.0                 | BOND       | CARTHAGE      | LIMESTONE | -               | 703.0              |
| -470.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 918.0              |
| -570.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 1018.0             |
| -620.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1068.0             |
| -674.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.5             | 1122.0             |
| -758.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1206.0             |
| -876.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1324.0             |
| -889.0                 | SPOON      | SEELYVILLE    | COAL      | -               | 1337.0             |

MAPID: 15900626000C    VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND    TWP/RNG: 4N 9E    SECTION: 8    QUARTERS/FOOTAGES: NW SW NE

QUADRANGLE: WAKEFIELD    LONGITUDE: -88.233055    GEOLOGIST: C TREWORY

CONFIDENTIAL: N    LATITUDE: 38.799285    DATE COLLECTED:

SURFACE ELEVATION (FT.): 473.0    LOGGED (FT.): 1380.0    LOG TYPE: Electric Log

SOURCE:    WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -237.0                 | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 710.0              |
| -429.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 902.0              |
| -592.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 1065.0             |
| -641.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1114.0             |
| -702.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 5.0             | 1175.0             |
| -775.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1248.0             |
| -892.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1365.0             |
| -907.0                 | SPOON      | SEELYVILLE    | COAL      | -               | 1380.0             |



MAPID: 15900279000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 4N 9E SECTION: 9 QUARTERS/FOOTAGES: 330' S line, 1661' E line

QUADRANGLE: WAKEFIELD LONGITUDE: -88.211966 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.790157 DATE COLLECTED: 0 / 0 / 1944

SURFACE ELEVATION (FT.): 480.0 LOGGED (FT.): 4800.0 LOG TYPE:

SOURCE: PURE OC, GRAY W T S0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|-------------|---------------|-----------|-----------------|------------|---------|
|                        |             |               |           | UNIT            | OVERBURDEN |         |
| -240.0                 | BOND        | CARTHAGE      | LIMESTONE | -               | 720.0      |         |
| -427.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 907.0      |         |
| -590.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 1070.0     |         |
| -640.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1120.0     |         |
| -700.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1180.0     |         |
| -860.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1340.0     |         |
| -1030.0                | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1510.0     |         |

MAPID: 15900279000C VERSION: 2

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 9E SECTION: 9 QUARTERS/FOOTAGES: 330' S line, 1661' E line

QUADRANGLE: WAKEFIELD LONGITUDE: -88.211966 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.790157 DATE COLLECTED:

SURFACE ELEVATION (FT.): 480.0 LOGGED (FT.): 1372.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -240.0                 | BOND       | CARTHAGE      | LIMESTONE | 7.0             | 720.0      |         |
| -428.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 38.0            | 908.0      |         |
| -590.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 1070.0     |         |
| -644.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1124.0     |         |
| -702.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.5             | 1182.0     |         |
| -778.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1258.0     |         |
| -892.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1372.0     |         |

MAPID: 15902606000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 9E SECTION: 9 QUARTERS/FOOTAGES: SE NW SW  
 QUADRANGLE: WAKEFIELD LONGITUDE: -88.221213 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.793857 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 461.0 LOGGED (FT.): 1315.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -224.0                 | BOND       | CARTHAGE      | LIMESTONE | 7.0             | 685.0      |         |
| -400.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 18.0            | 861.0      |         |
| -567.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 1028.0     |         |
| -617.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1078.0     |         |
| -683.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 5.0             | 1144.0     |         |
| -744.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1205.0     |         |
| -854.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1315.0     |         |

MAPID: 15900432000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 9E SECTION: 11 QUARTERS/FOOTAGES: NE NE NE  
 QUADRANGLE: WAKEFIELD LONGITUDE: -88.170192 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.802127 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 531.0 LOGGED (FT.): 1325.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -152.0                 | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 683.0      |         |
| -364.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 895.0      |         |
| -479.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 1010.0     |         |
| -544.0                 | CARBONDALE | HERRIN        | COAL      | 5.0             | 1075.0     |         |
| -594.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.0             | 1125.0     |         |
| -662.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1193.0     |         |
| -769.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1300.0     |         |
| -794.0                 | SPOON      | SEELYVILLE    | COAL      | -               | 1325.0     |         |

MAPID: 15900455000C    VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND    TWP/RNG: 4N 9E    SECTION: 11    QUARTERS/FOOTAGES: SE SE SE

QUADRANGLE: WAKEFIELD    LONGITUDE: -88.170107    GEOLOGIST: C TREWORYG

CONFIDENTIAL: N    LATITUDE: 38.789097    DATE COLLECTED:

SURFACE ELEVATION (FT.): 559.0    LOGGED (FT.): 1327.0    LOG TYPE: Electric Log

SOURCE:    WELL TYPE: Oil and Gas Test

COMMENT:    &&&&&&&, GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -131.0                 | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 690.0              |
| -313.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 872.0              |
| -468.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 1027.0             |
| -527.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1086.0             |
| -580.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1139.0             |
| -651.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1210.0             |
| -755.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1314.0             |
| -768.0                 | SPOON      | SEELYVILLE    | COAL      | -               | 1327.0             |

MAPID: 15901884000C    VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND    TWP/RNG: 4N 9E    SECTION: 11    QUARTERS/FOOTAGES: 455' S line, 330' E line of SW NE

QUADRANGLE: WAKEFIELD    LONGITUDE: -88.174797    GEOLOGIST: C TREWORYG

CONFIDENTIAL: N    LATITUDE: 38.79695    DATE COLLECTED:

SURFACE ELEVATION (FT.): 544.0    LOGGED (FT.): 1360.0    LOG TYPE: Electric Log

SOURCE:    WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -156.0                 | BOND       | CARTHAGE      | LIMESTONE | 5.0             | 700.0              |
| -342.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 886.0              |
| -491.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 1035.0             |
| -553.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1097.0             |
| -605.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1149.0             |
| -679.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1223.0             |
| -789.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1333.0             |
| -816.0                 | SPOON      | SEELYVILLE    | COAL      | -               | 1360.0             |

MAPID: 15900123000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 4N 9E SECTION: 12 QUARTERS/FOOTAGES: NE NE SE

QUADRANGLE: WAKEFIELD LONGITUDE: -88.151085

GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.794322

DATE COLLECTED: 0 / 0 / 1940

SURFACE ELEVATION (FT.): 561.0 LOGGED (FT.): 5610.0

LOG TYPE:

SOURCE: PURE OC, BAUMAN M 0001

WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -132.0                 | BOND       | CARTHAGE      | LIMESTONE | -               | 693.0              |
| -311.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 872.0              |
| -459.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 1020.0             |
| -502.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1063.0             |
| -573.0                 | CARBONDALE | SPRINGFIELD   | COAL      | -               | 1134.0             |
| -647.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1208.0             |

MAPID: 15900125000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 4N 9E SECTION: 12 QUARTERS/FOOTAGES: SE SW NW

QUADRANGLE: WAKEFIELD LONGITUDE: -88.165415

GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.796451

DATE COLLECTED: 0 / 0 / 1942

SURFACE ELEVATION (FT.): 533.0 LOGGED (FT.): 5330.0

LOG TYPE:

SOURCE: PURE OC, ROBERTS A 00A1

WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -133.0                 | BOND       | CARTHAGE      | LIMESTONE | -               | 666.0              |
| -313.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 846.0              |
| -455.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 988.0              |
| -507.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1040.0             |
| -571.0                 | CARBONDALE | SPRINGFIELD   | COAL      | -               | 1104.0             |

MAPID: 15900278000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 4N 9E SECTION: 12 QUARTERS/FOOTAGES: SE NE SW

QUADRANGLE: WAKEFIELD LONGITUDE: -88.160628

GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.792649

DATE COLLECTED: 0 / 0 / 1944

SURFACE ELEVATION (FT.): 538.0

LOGGED (FT.): 5380.0

LOG TYPE:

SOURCE: PURE OC, RUNYEN R F0001

WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -132.0                 | BOND        | CARTHAGE      | LIMESTONE | -               | 670.0              |
| -348.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 886.0              |
| -450.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 988.0              |
| -506.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1044.0             |
| -558.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1096.0             |
| -766.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1304.0             |
| -834.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1372.0             |

MAPID: 15901889000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 9E SECTION: 12 QUARTERS/FOOTAGES: SW NW SE

QUADRANGLE: WAKEFIELD LONGITUDE: -88.158244

GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.792605

DATE COLLECTED:

SURFACE ELEVATION (FT.): 538.0

LOGGED (FT.): 1296.0

LOG TYPE: Electric Log

SOURCE:

WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -138.0                 | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 676.0              |
| -294.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 832.0              |
| -450.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 988.0              |
| -511.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1049.0             |
| -561.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.5             | 1099.0             |
| -638.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1176.0             |
| -734.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1272.0             |
| -758.0                 | SPOON      | SEELYVILLE    | COAL      | -               | 1296.0             |

MAPID: 15900126000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 4N 9E SECTION: 13 QUARTERS/FOOTAGES: SW SW NW

QUADRANGLE: WAKEFIELD LONGITUDE: -88.167554

GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.781734

DATE COLLECTED: 0 / 0 / 1939

SURFACE ELEVATION (FT.): 559.0 LOGGED (FT.): 5590.0

LOG TYPE:

SOURCE: OHIO OIL, CHAPMAN CW0001

WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -143.0                 | BOND       | CARTHAGE      | LIMESTONE | -               | 702.0              |
| -313.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 872.0              |
| -469.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 1028.0             |
| -521.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1080.0             |
| -578.0                 | CARBONDALE | SPRINGFIELD   | COAL      | -               | 1137.0             |

MAPID: 15900127000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 4N 9E SECTION: 13 QUARTERS/FOOTAGES: SW NW NW

QUADRANGLE: WAKEFIELD LONGITUDE: -88.167665

GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.785383

DATE COLLECTED: 0 / 0 / 1942

SURFACE ELEVATION (FT.): 551.0 LOGGED (FT.): 5510.0

LOG TYPE:

SOURCE: PURE OC, CHAPMAN CW0001

WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -136.0                 | BOND       | CARTHAGE      | LIMESTONE | -               | 687.0              |
| -318.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 869.0              |
| -472.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 1023.0             |
| -527.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1078.0             |
| -582.0                 | CARBONDALE | SPRINGFIELD   | COAL      | -               | 1133.0             |

MAPID: 15900277000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 4N 9E SECTION: 13 QUARTERS/FOOTAGES: SE SE NW

QUADRANGLE: WAKEFIELD LONGITUDE: -88.160465 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.781653 DATE COLLECTED: 0 / 0 / 1944

SURFACE ELEVATION (FT.): 532.0 LOGGED (FT.): 5320.0 LOG TYPE:

SOURCE: PURE OC, MOORE K C 0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -314.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 846.0              |
| -478.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 1010.0             |
| -533.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1065.0             |
| -591.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1123.0             |
| -808.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1340.0             |
| -838.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1370.0             |

MAPID: 15900420000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 9E SECTION: 13 QUARTERS/FOOTAGES: SE SW NE

QUADRANGLE: WAKEFIELD LONGITUDE: -88.155739 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.781595 DATE COLLECTED:

SURFACE ELEVATION (FT.): 494.0 LOGGED (FT.): 1282.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -310.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 804.0              |
| -470.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 964.0              |
| -529.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1023.0             |
| -581.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1075.0             |
| -655.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1149.0             |
| -758.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1252.0             |
| -784.0                 | SPOON      | SEELYVILLE    | COAL      | 4.0             | 1278.0             |

MAPID: 15900802000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 9E SECTION: 13 QUARTERS/FOOTAGES: SW NE SE  
 QUADRANGLE: WAKEFIELD LONGITUDE: -88.153304 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.777945 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 486.0 LOGGED (FT.): 1218.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -298.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 784.0      |         |
| -460.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 946.0      |         |
| -520.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1006.0     |         |
| -580.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 5.0             | 1066.0     |         |
| -634.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1120.0     |         |
| -732.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1218.0     |         |

MAPID: 15901901000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 9E SECTION: 13 QUARTERS/FOOTAGES: 330' S line, 334' W line of NE NW  
 QUADRANGLE: WAKEFIELD LONGITUDE: -88.162932 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.78532 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 541.0 LOGGED (FT.): 1286.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -152.0                 | BOND       | CARTHAGE      | LIMESTONE | 4.0             | 693.0      |         |
| -305.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 13.0            | 846.0      |         |
| -463.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 1004.0     |         |
| -519.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1060.0     |         |
| -576.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1117.0     |         |
| -647.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1188.0     |         |
| -745.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1286.0     |         |



MAPID: 15900128000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 4N 9E SECTION: 14 QUARTERS/FOOTAGES: SE SE SE

QUADRANGLE: WAKEFIELD LONGITUDE: -88.169686

GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.774472

DATE COLLECTED: 0 / 0 / 1939

SURFACE ELEVATION (FT.): 511.0 LOGGED (FT.): 5110.0

LOG TYPE:

SOURCE: PURE OC, STORER C 001A

WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -316.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 827.0              |
| -473.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 984.0              |
| -524.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1035.0             |
| -583.0                 | CARBONDALE | SPRINGFIELD   | COAL      | -               | 1094.0             |

MAPID: 15900445000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 9E SECTION: 14 QUARTERS/FOOTAGES: 660' N line, 330' E line of NW

QUADRANGLE: WAKEFIELD LONGITUDE: -88.179397

GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.786563

DATE COLLECTED:

SURFACE ELEVATION (FT.): 565.0 LOGGED (FT.): 1343.0

LOG TYPE: Electric Log

SOURCE:

WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -135.0                 | BOND       | CARTHAGE      | LIMESTONE | 5.0             | 700.0              |
| -322.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 887.0              |
| -482.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 1047.0             |
| -535.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1100.0             |
| -588.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.5             | 1153.0             |
| -661.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1226.0             |
| -767.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1332.0             |
| -778.0                 | SPOON      | SEELYVILLE    | COAL      | -               | 1343.0             |

MAPID: 15902535000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 9E SECTION: 14 QUARTERS/FOOTAGES: NE NE SW  
 QUADRANGLE: WAKEFIELD LONGITUDE: -88.179273 GEOLOGIST: C TREWORGY  
 CONFIDENTIAL: N LATITUDE: 38.780154 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 580.0 LOGGED (FT.): 1355.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -147.0                 | BOND       | CARTHAGE      | LIMESTONE | 8.0             | 727.0      |         |
| -482.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 1062.0     |         |
| -524.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1104.0     |         |
| -587.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1167.0     |         |
| -655.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1235.0     |         |
| -753.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1333.0     |         |
| -775.0                 | SPOON      | SEELYVILLE    | COAL      | -               | 1355.0     |         |

MAPID: 15901924000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 9E SECTION: 17 QUARTERS/FOOTAGES: SE SE NE  
 QUADRANGLE: WAKEFIELD LONGITUDE: -88.225915 GEOLOGIST: C TREWORGY  
 CONFIDENTIAL: N LATITUDE: 38.782878 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 495.0 LOGGED (FT.): 1306.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -175.0                 | BOND       | CARTHAGE      | LIMESTONE | 7.0             | 670.0      |         |
| -367.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 862.0      |         |
| -523.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 1018.0     |         |
| -568.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1063.0     |         |
| -627.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1122.0     |         |
| -703.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1198.0     |         |
| -811.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1306.0     |         |

MAPID: 15901926000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 9E SECTION: 17 QUARTERS/FOOTAGES: NW NW NW  
 QUADRANGLE: WAKEFIELD LONGITUDE: -88.242549 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.788355 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 458.0 LOGGED (FT.): 1322.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -233.0                 | BOND       | CARTHAGE      | LIMESTONE | 10.0            | 691.0              |
| -390.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 28.0            | 848.0              |
| -569.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 1027.0             |
| -614.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1072.0             |
| -670.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1128.0             |
| -737.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1195.0             |
| -864.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1322.0             |

MAPID: 15901927000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 9E SECTION: 17 QUARTERS/FOOTAGES: 330' S line, 430' W line of NE SW  
 QUADRANGLE: WAKEFIELD LONGITUDE: -88.237572 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.77919 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 472.0 LOGGED (FT.): 1308.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -200.0                 | BOND       | CARTHAGE      | LIMESTONE | 8.0             | 672.0              |
| -541.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 1013.0             |
| -588.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1060.0             |
| -638.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1110.0             |
| -712.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1184.0             |
| -836.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1308.0             |

MAPID: 15900490000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 9E SECTION: 18 QUARTERS/FOOTAGES: NW NW SE  
 QUADRANGLE: SAILOR SPRINGS LONGITUDE: -88.25199 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.781052 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 460.0 LOGGED (FT.): 1327.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -203.0                 | BOND       | CARTHAGE      | LIMESTONE | 7.0             | 663.0      |         |
| -559.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 1019.0     |         |
| -608.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1068.0     |         |
| -663.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.5             | 1123.0     |         |
| -731.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1191.0     |         |
| -867.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1327.0     |         |

MAPID: 15900805000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 9E SECTION: 19 QUARTERS/FOOTAGES: SE SE NW  
 QUADRANGLE: SAILOR SPRINGS LONGITUDE: -88.254277 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.768296 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 455.0 LOGGED (FT.): 1165.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -408.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 863.0      |         |
| -530.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 985.0      |         |
| -585.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1040.0     |         |
| -630.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.0             | 1085.0     |         |
| -710.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1165.0     |         |

MAPID: 15900888000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 9E SECTION: 20 QUARTERS/FOOTAGES: NW SW NE

QUADRANGLE: WAKEFIELD LONGITUDE: -88.233106 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.769903 DATE COLLECTED:

SURFACE ELEVATION (FT.): 455.0 LOGGED (FT.): 1280.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -485.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 940.0      |         |
| -543.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 998.0      |         |
| -588.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1043.0     |         |
| -640.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1095.0     |         |
| -710.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1165.0     |         |
| -825.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1280.0     |         |

MAPID: 15900806000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 9E SECTION: 21 QUARTERS/FOOTAGES: SW SE NW

QUADRANGLE: WAKEFIELD LONGITUDE: -88.21884 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.76796 DATE COLLECTED:

SURFACE ELEVATION (FT.): 514.0 LOGGED (FT.): 1414.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -277.0                 | BOND       | CARTHAGE      | LIMESTONE | 7.0             | 791.0      |         |
| -492.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 11.0            | 1006.0     |         |
| -613.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 1127.0     |         |
| -656.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1170.0     |         |
| -714.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.5             | 1228.0     |         |
| -790.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1304.0     |         |
| -900.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1414.0     |         |

MAPID: 15900129000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 4N 9E SECTION: 22 QUARTERS/FOOTAGES: NE SW SW

QUADRANGLE: WAKEFIELD LONGITUDE: -88.202344 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.762244 DATE COLLECTED: 0 / 0 / 1942

SURFACE ELEVATION (FT.): 529.0 LOGGED (FT.): 5290.0 LOG TYPE:

SOURCE: PURE OC, HASLER A 00A1 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -187.0                 | BOND       | CARTHAGE      | LIMESTONE | -               | 716.0              |
| -369.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 898.0              |
| -525.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 1054.0             |
| -571.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1100.0             |
| -632.0                 | CARBONDALE | SPRINGFIELD   | COAL      | -               | 1161.0             |
| -704.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1233.0             |

MAPID: 15900130000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 4N 9E SECTION: 22 QUARTERS/FOOTAGES: NE NE SE

QUADRANGLE: WAKEFIELD LONGITUDE: -88.188395 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.765604 DATE COLLECTED: 0 / 0 / 1942

SURFACE ELEVATION (FT.): 528.0 LOGGED (FT.): 5280.0 LOG TYPE:

SOURCE: PURE OC, HAYS H D 0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -360.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 888.0              |
| -506.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 1034.0             |
| -548.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1076.0             |
| -606.0                 | CARBONDALE | SPRINGFIELD   | COAL      | -               | 1134.0             |
| -680.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1208.0             |

**MAPID:** 15900807000C    **VERSION:** 1    **PROJECT:** CGT-ECILL  
**COUNTY:** RICHLAND    **TWP/RNG:** 4N 9E    **SECTION:** 22    **QUARTERS/FOOTAGES:** SE SW NE  
**QUADRANGLE:** WAKEFIELD    **LONGITUDE:** -88.193084    **GEOLOGIST:** C TREWORY  
**CONFIDENTIAL:** N    **LATITUDE:** 38.767557    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 531.0    **LOGGED (FT.):** 1337.0    **LOG TYPE:** Electric Log  
**SOURCE:**    **WELL TYPE:** Oil and Gas Test  
**COMMENT:** GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER      | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|-------------|-----------|-----------------|------------|---------|
|                        |            |             |           | UNIT            | OVERBURDEN |         |
| -176.0                 | BOND       | CARTHAGE    | LIMESTONE | 6.0             | 707.0      |         |
| -521.0                 | CARBONDALE | DANVILLE    | COAL      | -               | 1052.0     |         |
| -573.0                 | CARBONDALE | HERRIN      | COAL      | -               | 1104.0     |         |
| -631.0                 | CARBONDALE | SPRINGFIELD | COAL      | 4.5             | 1162.0     |         |
| -806.0                 | CARBONDALE | COLCHESTER  | COAL      | -               | 1337.0     |         |

**MAPID:** 15900131000C    **VERSION:** 1    **PROJECT:** RI 148  
**COUNTY:** RICHLAND    **TWP/RNG:** 4N 9E    **SECTION:** 23    **QUARTERS/FOOTAGES:** SE SW NW  
**QUADRANGLE:** WAKEFIELD    **LONGITUDE:** -88.18376    **GEOLOGIST:** SIEVER  
**CONFIDENTIAL:** N    **LATITUDE:** 38.767374    **DATE COLLECTED:** 0 / 0 / 1942  
**SURFACE ELEVATION (FT.):** 524.0    **LOGGED (FT.):** 5240.0    **LOG TYPE:**  
**SOURCE:** PURE OC, ENGLEADOW C0001    **WELL TYPE:** Oil and Gas Test  
**COMMENT:**

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -386.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 910.0      |         |
| -521.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 1045.0     |         |
| -566.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1090.0     |         |
| -634.0                 | CARBONDALE | SPRINGFIELD   | COAL      | -               | 1158.0     |         |

**MAPID:** 15900132000C    **VERSION:** 1    **PROJECT:** RI 148  
**COUNTY:** RICHLAND    **TWP/RNG:** 4N 9E    **SECTION:** 23    **QUARTERS/FOOTAGES:** SW SE SE  
**QUADRANGLE:** WAKEFIELD    **LONGITUDE:** -88.172023    **GEOLOGIST:** SIEVER  
**CONFIDENTIAL:** N    **LATITUDE:** 38.759827    **DATE COLLECTED:** 0 / 0 / 1939  
**SURFACE ELEVATION (FT.):** 504.0    **LOGGED (FT.):** 5040.0    **LOG TYPE:**  
**SOURCE:** MABEE J E, SPARR M 0001    **WELL TYPE:** Oil and Gas Test  
**COMMENT:**

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -308.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 812.0      |         |
| -468.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 972.0      |         |
| -511.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1015.0     |         |
| -570.0                 | CARBONDALE | SPRINGFIELD   | COAL      | -               | 1074.0     |         |
| -630.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1134.0     |         |

**MAPID:** 15900133000C    **VERSION:** 1    **PROJECT:** RI 148  
**COUNTY:** RICHLAND    **TWP/RNG:** 4N 9E    **SECTION:** 23    **QUARTERS/FOOTAGES:** NE NE SE  
**QUADRANGLE:** WAKEFIELD    **LONGITUDE:** -88.169685    **GEOLOGIST:** SIEVER  
**CONFIDENTIAL:** N    **LATITUDE:** 38.765303    **DATE COLLECTED:** 0 / 0 / 1939  
**SURFACE ELEVATION (FT.):** 512.0    **LOGGED (FT.):** 5120.0    **LOG TYPE:**  
**SOURCE:** MABEE J E, SPARR M 0008    **WELL TYPE:** Oil and Gas Test  
**COMMENT:**

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -298.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 810.0              |
| -464.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 976.0              |
| -510.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1022.0             |
| -568.0                 | CARBONDALE | SPRINGFIELD   | COAL      | -               | 1080.0             |

**MAPID:** 15900135000C    **VERSION:** 2    **PROJECT:** RI 148  
**COUNTY:** RICHLAND    **TWP/RNG:** 4N 9E    **SECTION:** 23    **QUARTERS/FOOTAGES:** SE SE SW  
**QUADRANGLE:** WAKEFIELD    **LONGITUDE:** -88.178979    **GEOLOGIST:** SIEVER  
**CONFIDENTIAL:** N    **LATITUDE:** 38.759918    **DATE COLLECTED:** 0 / 0 / 1938  
**SURFACE ELEVATION (FT.):** 508.0    **LOGGED (FT.):** 5080.0    **LOG TYPE:**  
**SOURCE:** PURE OC, WAKFLD F L0002    **WELL TYPE:** Oil and Gas Test  
**COMMENT:**

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -354.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 862.0              |
| -535.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1043.0             |
| -607.0                 | CARBONDALE | SPRINGFIELD   | COAL      | -               | 1115.0             |

**MAPID:** 15900135000C    **VERSION:** 3    **PROJECT:** CONTROL  
**COUNTY:** RICHLAND    **TWP/RNG:** 4N 9E    **SECTION:** 23    **QUARTERS/FOOTAGES:** SE SE SW  
**QUADRANGLE:** WAKEFIELD    **LONGITUDE:** -88.178979    **GEOLOGIST:** HINES  
**CONFIDENTIAL:** N    **LATITUDE:** 38.759918    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):**    **LOGGED (FT.):** 2614.0    **LOG TYPE:** Survey Sample Study  
**SOURCE:**    **WELL TYPE:** Oil and Gas Test  
**COMMENT:** OILWELLS LOGGED BY COAL SECT-LOGS IN GRU

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



**MAPID:** 15900205000C    **VERSION:** 1    **PROJECT:** RI 148  
**COUNTY:** RICHLAND    **TWP/RNG:** 4N 9E    **SECTION:** 23    **QUARTERS/FOOTAGES:** SE NW SE  
**QUADRANGLE:** WAKEFIELD    **LONGITUDE:** -88.174355    **GEOLOGIST:** SIEVER  
**CONFIDENTIAL:** N    **LATITUDE:** 38.763537    **DATE COLLECTED:** 0 / 0 / 1939  
**SURFACE ELEVATION (FT.):** 511.0    **LOGGED (FT.):** 5110.0    **LOG TYPE:**  
**SOURCE:** PURE OC, CAZEL H 004A    **WELL TYPE:** Oil and Gas Test  
**COMMENT:**

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -141.0                 | BOND       | CARTHAGE      | LIMESTONE | -               | 652.0              |
| -332.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 843.0              |
| -481.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 992.0              |
| -526.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1037.0             |
| -581.0                 | CARBONDALE | SPRINGFIELD   | COAL      | -               | 1092.0             |
| -656.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1167.0             |

**MAPID:** 15900206000C    **VERSION:** 1    **PROJECT:** RI 148  
**COUNTY:** RICHLAND    **TWP/RNG:** 4N 9E    **SECTION:** 23    **QUARTERS/FOOTAGES:** SW NE SE  
**QUADRANGLE:** WAKEFIELD    **LONGITUDE:** -88.172025    **GEOLOGIST:** SIEVER  
**CONFIDENTIAL:** N    **LATITUDE:** 38.763502    **DATE COLLECTED:** 0 / 0 / 1939  
**SURFACE ELEVATION (FT.):** 514.0    **LOGGED (FT.):** 5140.0    **LOG TYPE:**  
**SOURCE:** MABEE J E, SPARR M 0003    **WELL TYPE:** Oil and Gas Test  
**COMMENT:**

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -321.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 835.0              |
| -472.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 986.0              |
| -518.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1032.0             |
| -573.0                 | CARBONDALE | SPRINGFIELD   | COAL      | -               | 1087.0             |
| -638.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1152.0             |

**MAPID:** 15900207000C    **VERSION:** 1    **PROJECT:** RI 148  
**COUNTY:** RICHLAND    **TWP/RNG:** 4N 9E    **SECTION:** 23    **QUARTERS/FOOTAGES:** NE NE SE  
**QUADRANGLE:** WAKEFIELD    **LONGITUDE:** -88.169685    **GEOLOGIST:** SIEVER  
**CONFIDENTIAL:** N    **LATITUDE:** 38.765303    **DATE COLLECTED:** 0 / 0 / 1939  
**SURFACE ELEVATION (FT.):** 516.0    **LOGGED (FT.):** 5160.0    **LOG TYPE:**  
**SOURCE:** MABEE J E, SPARR M 0004    **WELL TYPE:** Oil and Gas Test  
**COMMENT:**

| ELEVATION<br>TOP (FT.) | FORMATION | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-----------|---------------|-----------|-----------------|--------------------|
|                        |           |               |           | UNIT            | OVERBURDEN COMMENT |
| -306.0                 | MODESTO   | WEST FRANKLIN | LIMESTONE | -               | 822.0              |

MAPID: 15900209000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 4N 9E SECTION: 23 QUARTERS/FOOTAGES: NE SE SE

QUADRANGLE: WAKEFIELD LONGITUDE: -88.169697 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.761634 DATE COLLECTED: 0 / 0 / 1939

SURFACE ELEVATION (FT.): 504.0 LOGGED (FT.): 5040.0 LOG TYPE:

SOURCE: MABEE J E, SPARR M 0006 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -311.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 815.0              |
| -511.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1015.0             |

MAPID: 15900210000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 4N 9E SECTION: 23 QUARTERS/FOOTAGES: SE NE SE

QUADRANGLE: WAKEFIELD LONGITUDE: -88.169691 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.763467 DATE COLLECTED: 0 / 0 / 1939

SURFACE ELEVATION (FT.): 511.0 LOGGED (FT.): 5110.0 LOG TYPE:

SOURCE: MABEE J E, SPARR M 0007 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -295.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 806.0              |
| -466.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 977.0              |
| -511.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1022.0             |
| -566.0                 | CARBONDALE | SPRINGFIELD   | COAL      | -               | 1077.0             |

MAPID: 15900692000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 9E SECTION: 23 QUARTERS/FOOTAGES: 1320' S line, 660' E line

QUADRANGLE: WAKEFIELD LONGITUDE: -88.170858 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.762539 DATE COLLECTED:

SURFACE ELEVATION (FT.): 515.0 LOGGED (FT.): 1280.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -465.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 980.0              |
| -512.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1027.0             |
| -571.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1086.0             |
| -634.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1149.0             |
| -738.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1253.0             |
| -765.0                 | SPOON      | SEELYVILLE    | COAL      | -               | 1280.0             |

MAPID: 15901952000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 9E SECTION: 23 QUARTERS/FOOTAGES: SE NE NW  
 QUADRANGLE: WAKEFIELD LONGITUDE: -88.179108 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.770982 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 549.0 LOGGED (FT.): 1340.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -495.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 1044.0     |         |
| -541.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1090.0     |         |
| -595.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.5             | 1144.0     |         |
| -670.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1219.0     |         |
| -766.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1315.0     |         |
| -791.0                 | SPOON      | SEELYVILLE    | COAL      | -               | 1340.0     |         |

MAPID: 15901966000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 9E SECTION: 23 QUARTERS/FOOTAGES: SW NW SW  
 QUADRANGLE: WAKEFIELD LONGITUDE: -88.186021 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.763708 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 517.0 LOGGED (FT.): 1305.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: FAIR LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -487.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 1004.0     |         |
| -531.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1048.0     |         |
| -587.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 2.0             | 1104.0     |         |
| -663.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1180.0     |         |
| -758.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1275.0     |         |
| -788.0                 | SPOON      | SEELYVILLE    | COAL      | -               | 1305.0     |         |

MAPID: 15900143000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 4N 9E SECTION: 24 QUARTERS/FOOTAGES: SE NW SE

QUADRANGLE: WAKEFIELD LONGITUDE: -88.155581

GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.763291

DATE COLLECTED: 0 / 0 / 1939

SURFACE ELEVATION (FT.): 490.0 LOGGED (FT.): 4900.0

LOG TYPE:

SOURCE: PURE OC, SAYRE O 002A

WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -317.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 807.0              |
| -474.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 964.0              |
| -529.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1019.0             |
| -587.0                 | CARBONDALE | SPRINGFIELD   | COAL      | -               | 1077.0             |

MAPID: 15900211000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 4N 9E SECTION: 24 QUARTERS/FOOTAGES: NW SE NE

QUADRANGLE: WAKEFIELD LONGITUDE: -88.153223

GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.768802

DATE COLLECTED: 0 / 0 / 1939

SURFACE ELEVATION (FT.): 488.0 LOGGED (FT.): 4880.0

LOG TYPE:

SOURCE: ALLEN&HRWL, SECHREST 0001

WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -319.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 807.0              |
| -486.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 974.0              |
| -529.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1017.0             |
| -593.0                 | CARBONDALE | SPRINGFIELD   | COAL      | -               | 1081.0             |
| -656.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1144.0             |

MAPID: 15901978000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 9E SECTION: 24 QUARTERS/FOOTAGES: NE SE SW

QUADRANGLE: WAKEFIELD LONGITUDE: -88.160294

GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.761509

DATE COLLECTED:

SURFACE ELEVATION (FT.): 498.0 LOGGED (FT.): 1290.0

LOG TYPE: Electric Log

SOURCE:

WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER      | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|-------------|-----------|-----------------|--------------------|
|                        |            |             |           | UNIT            | OVERBURDEN COMMENT |
| -482.0                 | CARBONDALE | DANVILLE    | COAL      | -               | 980.0              |
| -532.0                 | CARBONDALE | HERRIN      | COAL      | -               | 1030.0             |
| -590.0                 | CARBONDALE | SPRINGFIELD | COAL      | 4.0             | 1088.0             |
| -764.0                 | CARBONDALE | COLCHESTER  | COAL      | -               | 1262.0             |
| -792.0                 | SPOON      | SEELYVILLE  | COAL      | -               | 1290.0             |

MAPID: 1590198000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 9E SECTION: 24 QUARTERS/FOOTAGES: SE SW NE

QUADRANGLE: WAKEFIELD LONGITUDE: -88.155575 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.766979 DATE COLLECTED:

SURFACE ELEVATION (FT.): 490.0 LOGGED (FT.): 1258.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -312.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 12.0            | 802.0      |         |
| -478.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 968.0      |         |
| -536.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1026.0     |         |
| -594.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 5.0             | 1084.0     |         |
| -660.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1150.0     |         |
| -768.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1258.0     |         |

MAPID: 15902001000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 9E SECTION: 24 QUARTERS/FOOTAGES: NW NW NE

QUADRANGLE: WAKEFIELD LONGITUDE: -88.157914 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.772531 DATE COLLECTED:

SURFACE ELEVATION (FT.): 513.0 LOGGED (FT.): 1284.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -306.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 13.0            | 819.0      |         |
| -469.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 982.0      |         |
| -524.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1037.0     |         |
| -580.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.5             | 1093.0     |         |
| -646.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1159.0     |         |
| -745.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1258.0     |         |
| -771.0                 | SPOON      | SEELYVILLE    | COAL      | -               | 1284.0     |         |

**MAPID:** 15900146000C    **VERSION:** 1    **PROJECT:** RI 148  
**COUNTY:** RICHLAND    **TWP/RNG:** 4N 9E    **SECTION:** 25    **QUARTERS/FOOTAGES:** SW NW SE  
**QUADRANGLE:** NOBLE    **LONGITUDE:** -88.157889    **GEOLOGIST:** SIEVER  
**CONFIDENTIAL:** N    **LATITUDE:** 38.748836    **DATE COLLECTED:** 0 / 0 / 1942  
**SURFACE ELEVATION (FT.):** 488.0    **LOGGED (FT.):** 4880.0    **LOG TYPE:**  
**SOURCE:** PURE OC, LUCAS ETAL0001    **WELL TYPE:** Oil and Gas Test  
**COMMENT:**

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -333.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 821.0              |
| -470.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 958.0              |
| -523.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1011.0             |
| -581.0                 | CARBONDALE | SPRINGFIELD   | COAL      | -               | 1069.0             |

**MAPID:** 15900147000C    **VERSION:** 1    **PROJECT:** CONTROL  
**COUNTY:** RICHLAND    **TWP/RNG:** 4N 9E    **SECTION:** 25    **QUARTERS/FOOTAGES:** 330' N line, 330' W line of NE SW  
**QUADRANGLE:** WAKEFIELD    **LONGITUDE:** -88.162695    **GEOLOGIST:** HINES  
**CONFIDENTIAL:** N    **LATITUDE:** 38.750656    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):**    **LOGGED (FT.):** 2630.0    **LOG TYPE:** Survey Sample Study  
**SOURCE:**    **WELL TYPE:** Oil and Gas Test  
**COMMENT:** OILWELLS LOGGED BY COAL SECT-LOGS IN GRU

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

**MAPID:** 15902015000C    **VERSION:** 1    **PROJECT:** CGT-ECILL  
**COUNTY:** RICHLAND    **TWP/RNG:** 4N 9E    **SECTION:** 25    **QUARTERS/FOOTAGES:** SW NW SE  
**QUADRANGLE:** NOBLE    **LONGITUDE:** -88.157889    **GEOLOGIST:** C TREWORGY  
**CONFIDENTIAL:** N    **LATITUDE:** 38.748836    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 491.0    **LOGGED (FT.):** 1127.0    **LOG TYPE:** Electric Log  
**SOURCE:**    **WELL TYPE:** Oil and Gas Test  
**COMMENT:** GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -109.0                 | BOND       | CARTHAGE      | LIMESTONE | 5.0             | 600.0              |
| -287.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 12.0            | 778.0              |
| -456.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 947.0              |
| -507.0                 | CARBONDALE | HERRIN        | COAL      | -               | 998.0              |
| -566.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.5             | 1057.0             |
| -636.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1127.0             |

MAPID: 15902020000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 9E SECTION: 25 QUARTERS/FOOTAGES: NW SE NW  
 QUADRANGLE: WAKEFIELD LONGITUDE: -88.162663 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.754272 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 495.0 LOGGED (FT.): 1257.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -316.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 811.0              |
| -475.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 970.0              |
| -529.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1024.0             |
| -584.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.5             | 1079.0             |
| -664.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1159.0             |
| -762.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1257.0             |

MAPID: 15900148000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 4N 9E SECTION: 26 QUARTERS/FOOTAGES: NW SW SE  
 QUADRANGLE: NOBLE LONGITUDE: -88.176677 GEOLOGIST: SIEVER  
 CONFIDENTIAL: N LATITUDE: 38.747177 DATE COLLECTED: 0 / 0 / 1942  
 SURFACE ELEVATION (FT.): 493.0 LOGGED (FT.): 4930.0 LOG TYPE:  
 SOURCE: PURE OC, HARRELL P 0001 WELL TYPE: Oil and Gas Test  
 COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -327.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 820.0              |
| -485.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 978.0              |
| -529.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1022.0             |
| -589.0                 | CARBONDALE | SPRINGFIELD   | COAL      | -               | 1082.0             |
| -657.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1150.0             |

MAPID: 15900150000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 4N 9E SECTION: 26 QUARTERS/FOOTAGES: NW NE NE  
 QUADRANGLE: WAKEFIELD LONGITUDE: -88.172025 GEOLOGIST: SIEVER  
 CONFIDENTIAL: N LATITUDE: 38.758002 DATE COLLECTED: 0 / 0 / 1939  
 SURFACE ELEVATION (FT.): 500.0 LOGGED (FT.): 5000.0 LOG TYPE:  
 SOURCE: PURE OC, WAKFLD F L006A WELL TYPE: Oil and Gas Test  
 COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -322.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 822.0              |
| -507.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1007.0             |
| -564.0                 | CARBONDALE | SPRINGFIELD   | COAL      | -               | 1064.0             |

MAPID: 15900323000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 4N 9E SECTION: 26 QUARTERS/FOOTAGES: SW NW SW

QUADRANGLE: NOBLE LONGITUDE: -88.18585 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.749104 DATE COLLECTED: 0 / 0 / 1945

SURFACE ELEVATION (FT.): 503.0 LOGGED (FT.): 5030.0 LOG TYPE:

SOURCE: PURE OC, HASKELL E 0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|-------------|---------------|-----------|-----------------|------------|---------|
|                        |             |               |           | UNIT            | OVERBURDEN |         |
| -153.0                 | BOND        | CARTHAGE      | LIMESTONE | -               | 656.0      |         |
| -317.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 820.0      |         |
| -493.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 996.0      |         |
| -539.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1042.0     |         |
| -595.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1098.0     |         |
| -781.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1284.0     |         |
| -887.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1390.0     |         |

MAPID: 15902035000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 9E SECTION: 26 QUARTERS/FOOTAGES: NW SE SW

QUADRANGLE: NOBLE LONGITUDE: -88.181255 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.747232 DATE COLLECTED:

SURFACE ELEVATION (FT.): 481.0 LOGGED (FT.): 1290.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -319.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 17.0            | 800.0      |         |
| -499.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 980.0      |         |
| -541.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1022.0     |         |
| -601.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.5             | 1082.0     |         |
| -671.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1152.0     |         |
| -782.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1263.0     |         |
| -809.0                 | SPOON      | SEELYVILLE    | COAL      | -               | 1290.0     |         |



MAPID: 15902047000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 9E SECTION: 26 QUARTERS/FOOTAGES: SW SE NE  
 QUADRANGLE: WAKEFIELD LONGITUDE: -88.172063 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.752563 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 499.0 LOGGED (FT.): 1291.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -322.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 32.0            | 821.0      |         |
| -477.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 976.0      |         |
| -524.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1023.0     |         |
| -580.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.5             | 1079.0     |         |
| -651.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1150.0     |         |
| -764.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1263.0     |         |
| -792.0                 | SPOON      | SEELYVILLE    | COAL      | -               | 1291.0     |         |

MAPID: 15902061000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 9E SECTION: 26 QUARTERS/FOOTAGES: NE SW NE  
 QUADRANGLE: WAKEFIELD LONGITUDE: -88.174356 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.754404 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 500.0 LOGGED (FT.): 1238.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -328.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 10.0            | 828.0      |         |
| -474.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 974.0      |         |
| -520.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1020.0     |         |
| -591.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1091.0     |         |
| -635.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1135.0     |         |
| -738.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1238.0     |         |

MAPID: 15900002000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 4N 9E SECTION: 27 QUARTERS/FOOTAGES: SE SW NW

QUADRANGLE: WAKEFIELD LONGITUDE: -88.202299 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.753099 DATE COLLECTED: 0 / 0 / 1942

SURFACE ELEVATION (FT.): 530.0 LOGGED (FT.): 5300.0 LOG TYPE:

SOURCE: PURE OC, MURVIN W 00B2 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -173.0                 | BOND       | CARTHAGE      | LIMESTONE | -               | 703.0              |
| -370.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 900.0              |
| -530.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 1060.0             |
| -577.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1107.0             |

MAPID: 15900151000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 4N 9E SECTION: 27 QUARTERS/FOOTAGES: SE NW NW

QUADRANGLE: WAKEFIELD LONGITUDE: -88.202317 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.756749 DATE COLLECTED: 0 / 0 / 1942

SURFACE ELEVATION (FT.): 538.0 LOGGED (FT.): 5380.0 LOG TYPE:

SOURCE: PURE OC, MURVIN W 00B1 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -165.0                 | BOND       | CARTHAGE      | LIMESTONE | -               | 703.0              |
| -354.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 892.0              |
| -504.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 1042.0             |
| -552.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1090.0             |
| -610.0                 | CARBONDALE | SPRINGFIELD   | COAL      | -               | 1148.0             |
| -685.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1223.0             |

MAPID: 15900327000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 4N 9E SECTION: 27 QUARTERS/FOOTAGES: NE NE SE

QUADRANGLE: WAKEFIELD LONGITUDE: -88.188185 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.750958 DATE COLLECTED: 0 / 0 / 1945

SURFACE ELEVATION (FT.): 506.0 LOGGED (FT.): 5060.0 LOG TYPE:

SOURCE: PURE OC, WASSON L A0002 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -144.0                 | BOND        | CARTHAGE      | LIMESTONE | -               | 650.0              |
| -314.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 820.0              |
| -486.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 992.0              |
| -536.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1042.0             |
| -594.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1100.0             |
| -774.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1280.0             |
| -895.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1401.0             |

MAPID: 15900497000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 9E SECTION: 27 QUARTERS/FOOTAGES: SW NE NW

QUADRANGLE: WAKEFIELD LONGITUDE: -88.199966 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.756692 DATE COLLECTED:

SURFACE ELEVATION (FT.): 538.0 LOGGED (FT.): 1337.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -147.0                 | BOND       | CARTHAGE      | LIMESTONE | 5.0             | 685.0              |
| -320.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 18.0            | 858.0              |
| -482.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 1020.0             |
| -532.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1070.0             |
| -587.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1125.0             |
| -660.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1198.0             |
| -760.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1298.0             |
| -799.0                 | SPOON      | SEELYVILLE    | COAL      | -               | 1337.0             |

MAPID: 15900585000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 9E SECTION: 27 QUARTERS/FOOTAGES: NE SE NW

QUADRANGLE: WAKEFIELD LONGITUDE: -88.19761 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.754813 DATE COLLECTED:

SURFACE ELEVATION (FT.): 524.0 LOGGED (FT.): 1291.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -320.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 17.0            | 844.0      |         |
| -489.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 1013.0     |         |
| -540.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1064.0     |         |
| -602.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1126.0     |         |
| -669.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1193.0     |         |
| -767.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1291.0     |         |

MAPID: 15902067000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 9E SECTION: 27 QUARTERS/FOOTAGES: SE NE SW

QUADRANGLE: NOBLE LONGITUDE: -88.197579 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.749346 DATE COLLECTED:

SURFACE ELEVATION (FT.): 517.0 LOGGED (FT.): 1329.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -355.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 10.0            | 872.0      |         |
| -489.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 1006.0     |         |
| -540.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1057.0     |         |
| -598.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.5             | 1115.0     |         |
| -671.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1188.0     |         |
| -770.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1287.0     |         |
| -812.0                 | SPOON      | SEELYVILLE    | COAL      | -               | 1329.0     |         |

MAPID: 15900152000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 4N 9E SECTION: 28 QUARTERS/FOOTAGES: NE NW SE

QUADRANGLE: WAKEFIELD LONGITUDE: -88.211716 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.751395 DATE COLLECTED: 0 / 0 / 1941

SURFACE ELEVATION (FT.): 509.0 LOGGED (FT.): 5090.0 LOG TYPE:

SOURCE: PURE OC, BOLEY L R 00A1 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -196.0                 | BOND       | CARTHAGE      | LIMESTONE | -               | 705.0              |
| -361.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 870.0              |
| -531.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 1040.0             |
| -572.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1081.0             |
| -638.0                 | CARBONDALE | SPRINGFIELD   | COAL      | -               | 1147.0             |
| -698.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1207.0             |

MAPID: 15900276000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 4N 9E SECTION: 28 QUARTERS/FOOTAGES: SE SE NW

QUADRANGLE: WAKEFIELD LONGITUDE: -88.216436 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.753237 DATE COLLECTED: 0 / 0 / 1944

SURFACE ELEVATION (FT.): 495.0 LOGGED (FT.): 4950.0 LOG TYPE:

SOURCE: PURE OC, PELAUM E 00B1 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -215.0                 | BOND        | CARTHAGE      | LIMESTONE | -               | 710.0              |
| -391.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 886.0              |
| -555.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 1050.0             |
| -605.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1100.0             |
| -675.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1170.0             |
| -809.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1304.0             |
| -963.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1458.0             |

MAPID: 15900810000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 9E SECTION: 28 QUARTERS/FOOTAGES: NE NW NE  
 QUADRANGLE: WAKEFIELD LONGITUDE: -88.211732 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.758665 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 506.0 LOGGED (FT.): 1370.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -224.0                 | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 730.0      |         |
| -544.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 1050.0     |         |
| -590.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1096.0     |         |
| -646.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1152.0     |         |
| -722.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1228.0     |         |
| -824.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1330.0     |         |
| -864.0                 | SPOON      | SEELYVILLE    | COAL      | -               | 1370.0     |         |

MAPID: 15900916000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 9E SECTION: 28 QUARTERS/FOOTAGES: NE SW SE  
 QUADRANGLE: NOBLE LONGITUDE: -88.211708 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.747762 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 509.0 LOGGED (FT.): 1330.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -189.0                 | BOND       | CARTHAGE      | LIMESTONE | 5.0             | 698.0      |         |
| -341.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 850.0      |         |
| -516.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 1025.0     |         |
| -562.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1071.0     |         |
| -624.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.5             | 1133.0     |         |
| -696.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1205.0     |         |
| -795.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1304.0     |         |
| -821.0                 | SPOON      | SEELYVILLE    | COAL      | -               | 1330.0     |         |

MAPID: 15900154000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 4N 9E SECTION: 32 QUARTERS/FOOTAGES: 330' S line, 663' E line of NE

QUADRANGLE: NOBLE LONGITUDE: -88.226994 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.738789 DATE COLLECTED: 0 / 0 / 1940

SURFACE ELEVATION (FT.): 501.0 LOGGED (FT.): 5010.0 LOG TYPE:

SOURCE: DUNCANBROS, SCHILLING 0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -380.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 881.0              |
| -528.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 1029.0             |
| -578.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1079.0             |
| -639.0                 | CARBONDALE | SPRINGFIELD   | COAL      | -               | 1140.0             |
| -709.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1210.0             |

MAPID: 15900154000C VERSION: 2

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 9E SECTION: 32 QUARTERS/FOOTAGES: 330' S line, 663' E line of NE

QUADRANGLE: NOBLE LONGITUDE: -88.226994 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.738789 DATE COLLECTED:

SURFACE ELEVATION (FT.): 501.0 LOGGED (FT.): 1314.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -377.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 10.0            | 878.0              |
| -526.0                 | CARBONDALE | DANVILLE      | COAL      | 2.5             | 1027.0             |
| -577.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1078.0             |
| -638.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.5             | 1139.0             |
| -709.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1210.0             |
| -813.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1314.0             |

**MAPID:** 15900156000C    **VERSION:** 1    **PROJECT:** RI 148  
**COUNTY:** RICHLAND    **TWP/RNG:** 4N 9E    **SECTION:** 33    **QUARTERS/FOOTAGES:** SE NW NW  
**QUADRANGLE:** NOBLE    **LONGITUDE:** -88.221137    **GEOLOGIST:** SIEVER  
**CONFIDENTIAL:** N    **LATITUDE:** 38.742402    **DATE COLLECTED:** 0 / 0 / 1942  
**SURFACE ELEVATION (FT.):** 502.0    **LOGGED (FT.):** 5020.0    **LOG TYPE:**  
**SOURCE:** SHFFR&MTCH, BOLEY L R 0001    **WELL TYPE:** Oil and Gas Test  
**COMMENT:**

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -359.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 861.0              |
| -519.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 1021.0             |
| -573.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1075.0             |
| -641.0                 | CARBONDALE | SPRINGFIELD   | COAL      | -               | 1143.0             |
| -705.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1207.0             |

**MAPID:** 15900158000C    **VERSION:** 1    **PROJECT:** RI 148  
**COUNTY:** RICHLAND    **TWP/RNG:** 4N 9E    **SECTION:** 33    **QUARTERS/FOOTAGES:** SE SE NW  
**QUADRANGLE:** NOBLE    **LONGITUDE:** -88.216395    **GEOLOGIST:** SIEVER  
**CONFIDENTIAL:** N    **LATITUDE:** 38.738666    **DATE COLLECTED:** 0 / 0 / 1941  
**SURFACE ELEVATION (FT.):** 525.0    **LOGGED (FT.):** 5250.0    **LOG TYPE:**  
**SOURCE:** SHFFER ETL, PFLAUM 0001    **WELL TYPE:** Oil and Gas Test  
**COMMENT:**

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -326.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 851.0              |
| -486.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 1011.0             |
| -543.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1068.0             |
| -592.0                 | CARBONDALE | SPRINGFIELD   | COAL      | -               | 1117.0             |
| -673.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1198.0             |

**MAPID:** 15900159000C    **VERSION:** 1    **PROJECT:** RI 148  
**COUNTY:** RICHLAND    **TWP/RNG:** 4N 9E    **SECTION:** 33    **QUARTERS/FOOTAGES:** SW SW NE  
**QUADRANGLE:** NOBLE    **LONGITUDE:** -88.214034    **GEOLOGIST:** SIEVER  
**CONFIDENTIAL:** N    **LATITUDE:** 38.738635    **DATE COLLECTED:** 0 / 0 / 1943  
**SURFACE ELEVATION (FT.):** 531.0    **LOGGED (FT.):** 5310.0    **LOG TYPE:**  
**SOURCE:** PURE OC, WILSON W E00A3    **WELL TYPE:** Oil and Gas Test  
**COMMENT:**

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -327.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 858.0              |
| -491.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 1022.0             |
| -545.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1076.0             |
| -596.0                 | CARBONDALE | SPRINGFIELD   | COAL      | -               | 1127.0             |
| -669.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1200.0             |



MAPID: 15900449000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 9E SECTION: 33 QUARTERS/FOOTAGES: SE NW NW  
 QUADRANGLE: NOBLE LONGITUDE: -88.221137 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.742402 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 507.0 LOGGED (FT.): 1308.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -193.0                 | BOND       | CARTHAGE      | LIMESTONE | 7.0             | 700.0      |         |
| -350.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 857.0      |         |
| -516.0                 | CARBONDALE | DANVILLE      | COAL      | 2.5             | 1023.0     |         |
| -568.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1075.0     |         |
| -627.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1134.0     |         |
| -702.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1209.0     |         |
| -801.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1308.0     |         |

MAPID: 15900579000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 9E SECTION: 33 QUARTERS/FOOTAGES: 660' S line, 330' W line of SE  
 QUADRANGLE: NOBLE LONGITUDE: -88.214017 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.732188 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 513.0 LOGGED (FT.): 1299.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -154.0                 | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 667.0      |         |
| -304.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 817.0      |         |
| -468.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 981.0      |         |
| -520.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1033.0     |         |
| -577.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1090.0     |         |
| -665.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1178.0     |         |
| -753.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1266.0     |         |
| -786.0                 | SPOON      | SEELYVILLE    | COAL      | -               | 1299.0     |         |

MAPID: 15900516000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 9E SECTION: 34 QUARTERS/FOOTAGES: NE SW NW  
 QUADRANGLE: NOBLE LONGITUDE: -88.202243 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.740301 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 540.0 LOGGED (FT.): 1300.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -312.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 18.0            | 852.0      |         |
| -483.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 1023.0     |         |
| -530.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1070.0     |         |
| -590.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1130.0     |         |
| -660.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1200.0     |         |
| -760.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1300.0     |         |

MAPID: 15902105000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 9E SECTION: 34 QUARTERS/FOOTAGES: SW NE SE  
 QUADRANGLE: NOBLE LONGITUDE: -88.190453 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.734627 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 493.0 LOGGED (FT.): 1310.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -424.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 917.0      |         |
| -498.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 991.0      |         |
| -549.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1042.0     |         |
| -611.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.0             | 1104.0     |         |
| -783.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1276.0     |         |
| -787.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1280.0     |         |
| -817.0                 | SPOON      | SEELYVILLE    | COAL      | -               | 1310.0     |         |

**MAPID:** 15900155000C    **VERSION:** 1    **PROJECT:** RI 148  
**COUNTY:** RICHLAND    **TWP/RNG:** 4N 9E    **SECTION:** 35    **QUARTERS/FOOTAGES:** NW NW NE  
**QUADRANGLE:** NOBLE    **LONGITUDE:** -88.176656    **GEOLOGIST:** SIEVER  
**CONFIDENTIAL:** N    **LATITUDE:** 38.743546    **DATE COLLECTED:** 0 / 0 / 1943  
**SURFACE ELEVATION (FT.):** 485.0    **LOGGED (FT.):** 4850.0    **LOG TYPE:**  
**SOURCE:** PURE OC, BETBNR A C0001    **WELL TYPE:** Oil and Gas Test  
**COMMENT:**

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -327.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 812.0              |
| -491.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 976.0              |
| -536.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1021.0             |
| -592.0                 | CARBONDALE | SPRINGFIELD   | COAL      | -               | 1077.0             |

**MAPID:** 15900261000C    **VERSION:** 1    **PROJECT:** RI 148  
**COUNTY:** RICHLAND    **TWP/RNG:** 4N 9E    **SECTION:** 35    **QUARTERS/FOOTAGES:** 2011' S line, 1651' W line  
**QUADRANGLE:** NOBLE    **LONGITUDE:** -88.18111    **GEOLOGIST:** SIEVER  
**CONFIDENTIAL:** N    **LATITUDE:** 38.735501    **DATE COLLECTED:** 0 / 0 / 1945  
**SURFACE ELEVATION (FT.):** 482.0    **LOGGED (FT.):** 4820.0    **LOG TYPE:**  
**SOURCE:** PURE OC, BERGER E 0001    **WELL TYPE:** Oil and Gas Test  
**COMMENT:**

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -336.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 818.0              |
| -512.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 994.0              |
| -563.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1045.0             |
| -632.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1114.0             |
| -793.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1275.0             |
| -914.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1396.0             |

**MAPID:** 15900261000C    **VERSION:** 2    **PROJECT:** CGT-ECILL  
**COUNTY:** RICHLAND    **TWP/RNG:** 4N 9E    **SECTION:** 35    **QUARTERS/FOOTAGES:** 2011' S line, 1651' W line  
**QUADRANGLE:** NOBLE    **LONGITUDE:** -88.18111    **GEOLOGIST:** C TREWORYG  
**CONFIDENTIAL:** N    **LATITUDE:** 38.735501    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 482.0    **LOGGED (FT.):** 1270.0    **LOG TYPE:** Electric Log  
**SOURCE:**    **WELL TYPE:** Oil and Gas Test  
**COMMENT:** GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -346.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 8.0             | 828.0              |
| -513.0                 | CARBONDALE | DANVILLE      | COAL      | 2.5             | 995.0              |
| -564.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1046.0             |
| -632.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.5             | 1114.0             |
| -788.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1270.0             |

MAPID: 15902119000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 9E SECTION: 35 QUARTERS/FOOTAGES: SE NW NE

QUADRANGLE: NOBLE LONGITUDE: -88.174307 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.741694 DATE COLLECTED:

SURFACE ELEVATION (FT.): 485.0 LOGGED (FT.): 1290.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -500.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 985.0      |         |
| -548.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1033.0     |         |
| -616.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1101.0     |         |
| -668.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1153.0     |         |
| -771.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1256.0     |         |
| -805.0                 | SPOON      | SEELYVILLE    | COAL      | -               | 1290.0     |         |

MAPID: 15900275000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 4N 9E SECTION: 36 QUARTERS/FOOTAGES: SE SE NW

QUADRANGLE: NOBLE LONGITUDE: -88.160082 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.737977 DATE COLLECTED: 0 / 0 / 1944

SURFACE ELEVATION (FT.): 481.0 LOGGED (FT.): 4810.0 LOG TYPE:

SOURCE: PURE OC, DIESSER T 0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|-------------|---------------|-----------|-----------------|------------|---------|
|                        |             |               |           | UNIT            | OVERBURDEN |         |
| -315.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 796.0      |         |
| -493.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 974.0      |         |
| -543.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1024.0     |         |
| -609.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1090.0     |         |
| -784.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1265.0     |         |
| -923.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1404.0     |         |

MAPID: 15900275000C VERSION: 2

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 9E SECTION: 36 QUARTERS/FOOTAGES: SE SE NW  
 QUADRANGLE: NOBLE LONGITUDE: -88.160082 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.737977 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 481.0 LOGGED (FT.): 1262.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -317.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 17.0            | 798.0      |         |
| -492.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 973.0      |         |
| -545.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1026.0     |         |
| -609.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 5.0             | 1090.0     |         |
| -781.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1262.0     |         |

MAPID: 15902134000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 9E SECTION: 36 QUARTERS/FOOTAGES: 688' N line, 330' E line of NW NW  
 QUADRANGLE: NOBLE LONGITUDE: -88.164972 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.742457 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 489.0 LOGGED (FT.): 1268.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -145.0                 | BOND       | CARTHAGE      | LIMESTONE | 7.0             | 634.0      |         |
| -318.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 16.0            | 807.0      |         |
| -495.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 984.0      |         |
| -547.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1036.0     |         |
| -618.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 5.5             | 1107.0     |         |
| -779.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1268.0     |         |

MAPID: 15900091000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 4N 10E SECTION: 1 QUARTERS/FOOTAGES: 660' S line, 990' E line of SW

QUADRANGLE: DUNDAS LONGITUDE: -88.051333 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.806909 DATE COLLECTED: 0 / 0 / 1942

SURFACE ELEVATION (FT.): 513.0 LOGGED (FT.): 5130.0 LOG TYPE:

SOURCE: GULF ET AL, DEITRICH H0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -389.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 902.0              |
| -537.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 1050.0             |
| -615.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1128.0             |
| -664.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1177.0             |
| -760.0                 | CARBONDALE  | HOUCHIN CREEK | COAL      | -               | 1273.0             |
| -1007.0                | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1520.0             |

MAPID: 15900091000C VERSION: 2

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 10E SECTION: 1 QUARTERS/FOOTAGES: 660' S line, 990' E line of SW

QUADRANGLE: DUNDAS LONGITUDE: -88.051333 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.806909 DATE COLLECTED:

SURFACE ELEVATION (FT.): 513.0 LOGGED (FT.): 1390.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -380.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 17.0            | 893.0              |
| -536.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 1049.0             |
| -615.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1128.0             |
| -662.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 5.0             | 1175.0             |
| -759.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1272.0             |
| -877.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1390.0             |

MAPID: 15900814000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 10E SECTION: 1 QUARTERS/FOOTAGES: SW NW NE

QUADRANGLE: DUNDAS LONGITUDE: -88.046591 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.817068 DATE COLLECTED:

SURFACE ELEVATION (FT.): 534.0 LOGGED (FT.): 1384.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -364.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 16.0            | 898.0      |         |
| -520.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 1054.0     |         |
| -594.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1128.0     |         |
| -636.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1170.0     |         |
| -720.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1254.0     |         |
| -850.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1384.0     |         |

MAPID: 15900815000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 10E SECTION: 2 QUARTERS/FOOTAGES: SW NE SE

QUADRANGLE: DUNDAS LONGITUDE: -88.060641 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.809399 DATE COLLECTED:

SURFACE ELEVATION (FT.): 514.0 LOGGED (FT.): 1353.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -360.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 874.0      |         |
| -516.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 1030.0     |         |
| -592.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1106.0     |         |
| -638.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.0             | 1152.0     |         |
| -731.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1245.0     |         |
| -839.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1353.0     |         |

MAPID: 15900871000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 10E SECTION: 2 QUARTERS/FOOTAGES: NW NW SW  
 QUADRANGLE: DUNDAS LONGITUDE: -88.074498 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.811014 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 484.0 LOGGED (FT.): 1300.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -352.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 836.0      |         |
| -506.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 990.0      |         |
| -579.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1063.0     |         |
| -623.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.0             | 1107.0     |         |
| -706.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1190.0     |         |
| -816.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1300.0     |         |

MAPID: 15902138000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 10E SECTION: 2 QUARTERS/FOOTAGES: SE SE NW  
 QUADRANGLE: DUNDAS LONGITUDE: -88.067591 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.812989 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 495.0 LOGGED (FT.): 1326.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -361.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 856.0      |         |
| -517.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 1012.0     |         |
| -591.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1086.0     |         |
| -636.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.0             | 1131.0     |         |
| -725.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1220.0     |         |
| -831.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1326.0     |         |



MAPID: 15902141000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 10E SECTION: 3 QUARTERS/FOOTAGES: SE SW SE  
 QUADRANGLE: DUNDAS LONGITUDE: -88.08142 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.805091 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 477.0 LOGGED (FT.): 1312.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -198.0                 | BOND       | CARTHAGE      | LIMESTONE | 4.0             | 675.0              |
| -363.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 16.0            | 840.0              |
| -515.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 992.0              |
| -592.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1069.0             |
| -638.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.0             | 1115.0             |
| -721.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1198.0             |
| -835.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1312.0             |

MAPID: 15902149000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 10E SECTION: 3 QUARTERS/FOOTAGES: NE SE NW  
 QUADRANGLE: DUNDAS LONGITUDE: -88.086295 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.814386 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 467.0 LOGGED (FT.): 1287.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -173.0                 | BOND       | CARTHAGE      | LIMESTONE | 3.0             | 640.0              |
| -358.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 825.0              |
| -513.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 980.0              |
| -591.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1058.0             |
| -633.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1100.0             |
| -716.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1183.0             |
| -820.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1287.0             |

MAPID: 15900416000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 10E SECTION: 4 QUARTERS/FOOTAGES: NW SW SW

QUADRANGLE: DUNDAS LONGITUDE: -88.111485 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.805932 DATE COLLECTED:

SURFACE ELEVATION (FT.): 453.0 LOGGED (FT.): 1266.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -153.0                 | BOND       | CARTHAGE      | LIMESTONE | 7.0             | 606.0      |         |
| -348.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 8.0             | 801.0      |         |
| -500.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 953.0      |         |
| -572.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1025.0     |         |
| -625.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.0             | 1078.0     |         |
| -701.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1154.0     |         |
| -813.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1266.0     |         |

MAPID: 15902151000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 10E SECTION: 4 QUARTERS/FOOTAGES: SE NE SE

QUADRANGLE: DUNDAS LONGITUDE: -88.095612 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.808306 DATE COLLECTED:

SURFACE ELEVATION (FT.): 462.0 LOGGED (FT.): 1278.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -171.0                 | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 633.0      |         |
| -349.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 811.0      |         |
| -501.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 963.0      |         |
| -574.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1036.0     |         |
| -619.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.5             | 1081.0     |         |
| -700.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1162.0     |         |
| -816.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1278.0     |         |

MAPID: 15900548000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 10E SECTION: 5 QUARTERS/FOOTAGES: SE SW NW

QUADRANGLE: WAKEFIELD LONGITUDE: -88.127945 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.811302 DATE COLLECTED:

SURFACE ELEVATION (FT.): 471.0 LOGGED (FT.): 1162.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT                                   |
|------------------------|------------|---------------|-----------|-----------------|------------|---|
|                        |            |               |           | UNIT            | OVERBURDEN |   |
| -335.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 22.0            | 806.0      |   |
| -485.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 956.0      |   |
| -557.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1028.0     |   |
| -608.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.5             | 1079.0     |   |
| -684.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1155.0     |   |
| -691.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1162.0     | CORREL SEEMS OFF; PROB<br>1262' DEP - CPK |

MAPID: 15900584000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 10E SECTION: 5 QUARTERS/FOOTAGES: NW NW SW

QUADRANGLE: WAKEFIELD LONGITUDE: -88.130266 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.809349 DATE COLLECTED:

SURFACE ELEVATION (FT.): 472.0 LOGGED (FT.): 1245.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -327.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 21.0            | 799.0      |         |
| -473.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 945.0      |         |
| -543.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1015.0     |         |
| -593.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.0             | 1065.0     |         |
| -663.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1135.0     |         |
| -773.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1245.0     |         |

MAPID: 15902156000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 10E SECTION: 5 QUARTERS/FOOTAGES: NE SW SE

QUADRANGLE: DUNDAS LONGITUDE: -88.118489 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.805786 DATE COLLECTED:

SURFACE ELEVATION (FT.): 464.0 LOGGED (FT.): 1264.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -333.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 797.0      |         |
| -486.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 950.0      |         |
| -562.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1026.0     |         |
| -617.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 2.5             | 1081.0     |         |
| -686.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1150.0     |         |
| -800.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1264.0     |         |

MAPID: 15900161000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 4N 10E SECTION: 6 QUARTERS/FOOTAGES: SW NE NE

QUADRANGLE: WAKEFIELD LONGITUDE: -88.134941 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.814882 DATE COLLECTED: 0 / 0 / 1941

SURFACE ELEVATION (FT.): 484.0 LOGGED (FT.): 4840.0 LOG TYPE:

SOURCE: PURE OC, KERMICLE E00A4 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -316.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 800.0      |         |
| -463.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 947.0      |         |
| -537.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1021.0     |         |
| -584.0                 | CARBONDALE | SPRINGFIELD   | COAL      | -               | 1068.0     |         |

MAPID: 15900162000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 4N 10E SECTION: 6 QUARTERS/FOOTAGES: NW SW SW

QUADRANGLE: WAKEFIELD LONGITUDE: -88.148706

GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.805148

DATE COLLECTED: 0 / 0 / 1940

SURFACE ELEVATION (FT.): 517.0

LOGGED (FT.): 5170.0

LOG TYPE:

SOURCE: PURE OC, WACHTEL J 005A

WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -121.0                 | BOND       | CARTHAGE      | LIMESTONE | -               | 638.0      |         |
| -318.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 835.0      |         |
| -480.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 997.0      |         |
| -508.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1025.0     |         |
| -556.0                 | CARBONDALE | SPRINGFIELD   | COAL      | -               | 1073.0     |         |
| -526.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1043.0     |         |

MAPID: 15900591000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 10E SECTION: 6 QUARTERS/FOOTAGES: SW NW SE

QUADRANGLE: WAKEFIELD LONGITUDE: -88.139492

GEOLOGIST: C TREWORYG

CONFIDENTIAL: N LATITUDE: 38.807233

DATE COLLECTED:

SURFACE ELEVATION (FT.): 478.0

LOGGED (FT.): 1232.0

LOG TYPE: Electric Log

SOURCE:

WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -308.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 17.0            | 786.0      |         |
| -454.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 932.0      |         |
| -572.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1050.0     |         |
| -642.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1120.0     |         |
| -754.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1232.0     |         |

MAPID: 15902161000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 10E SECTION: 6 QUARTERS/FOOTAGES: NE SE SE

QUADRANGLE: WAKEFIELD LONGITUDE: -88.132559

GEOLOGIST: C TREWORYG

CONFIDENTIAL: N LATITUDE: 38.805514

DATE COLLECTED:

SURFACE ELEVATION (FT.): 469.0

LOGGED (FT.): 1043.0

LOG TYPE: Electric Log

SOURCE:

WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -308.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 25.0            | 777.0      |         |
| -451.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 920.0      |         |
| -521.0                 | CARBONDALE | HERRIN        | COAL      | -               | 990.0      |         |
| -570.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1039.0     |         |

MAPID: 15900163000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 4N 10E SECTION: 7 QUARTERS/FOOTAGES: SE SW NE

QUADRANGLE: WAKEFIELD LONGITUDE: -88.137159 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.796208 DATE COLLECTED: 0 / 0 / 1940

SURFACE ELEVATION (FT.): 520.0 LOGGED (FT.): 5200.0 LOG TYPE:

SOURCE: PURE OC, HOEL CONSL0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -305.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 825.0              |
| -448.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 968.0              |
| -517.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1037.0             |
| -568.0                 | CARBONDALE | SPRINGFIELD   | COAL      | -               | 1088.0             |

MAPID: 15902196000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 10E SECTION: 7 QUARTERS/FOOTAGES: SE SE NW

QUADRANGLE: WAKEFIELD LONGITUDE: -88.141786 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.796133 DATE COLLECTED:

SURFACE ELEVATION (FT.): 549.0 LOGGED (FT.): 1293.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -294.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 20.0            | 843.0              |
| -444.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 993.0              |
| -511.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1060.0             |
| -562.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.5             | 1111.0             |
| -641.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1190.0             |
| -744.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1293.0             |

MAPID: 15900819000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 10E SECTION: 8 QUARTERS/FOOTAGES: NW SW NW

QUADRANGLE: WAKEFIELD LONGITUDE: -88.130203 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.798144 DATE COLLECTED:

SURFACE ELEVATION (FT.): 490.0 LOGGED (FT.): 1220.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -297.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 787.0      |         |
| -444.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 934.0      |         |
| -515.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1005.0     |         |
| -569.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.5             | 1059.0     |         |
| -630.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1120.0     |         |
| -730.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1220.0     |         |

MAPID: 15900474000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 10E SECTION: 9 QUARTERS/FOOTAGES: NW NW NW

QUADRANGLE: DUNDAS LONGITUDE: -88.111433 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.802121 DATE COLLECTED:

SURFACE ELEVATION (FT.): 460.0 LOGGED (FT.): 1271.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -145.0                 | BOND       | CARTHAGE      | LIMESTONE | 8.0             | 605.0      |         |
| -338.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 16.0            | 798.0      |         |
| -497.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 957.0      |         |
| -571.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1031.0     |         |
| -620.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1080.0     |         |
| -700.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1160.0     |         |
| -811.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1271.0     |         |

MAPID: 15900820000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 10E SECTION: 9 QUARTERS/FOOTAGES: SW SE SE  
 QUADRANGLE: DUNDAS LONGITUDE: -88.097831 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.789732 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 451.0 LOGGED (FT.): 1255.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -145.0                 | BOND       | CARTHAGE      | LIMESTONE | 5.0             | 596.0      |         |
| -336.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 787.0      |         |
| -488.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 939.0      |         |
| -563.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1014.0     |         |
| -611.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.0             | 1062.0     |         |
| -694.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1145.0     |         |
| -804.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1255.0     |         |

MAPID: 15902205000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 10E SECTION: 9 QUARTERS/FOOTAGES: SE NE NE  
 QUADRANGLE: DUNDAS LONGITUDE: -88.095588 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.800768 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 452.0 LOGGED (FT.): 1244.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -140.0                 | BOND       | CARTHAGE      | LIMESTONE | 5.0             | 592.0      |         |
| -331.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 783.0      |         |
| -482.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 934.0      |         |
| -566.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1018.0     |         |
| -602.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.0             | 1054.0     |         |
| -686.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1138.0     |         |
| -792.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1244.0     |         |



MAPID: 15900285000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 4N 10E SECTION: 10 QUARTERS/FOOTAGES: SW SW NE

QUADRANGLE: DUNDAS LONGITUDE: -88.08381 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.797593 DATE COLLECTED: 0 / 0 / 1944

SURFACE ELEVATION (FT.): 477.0 LOGGED (FT.): 4770.0 LOG TYPE:

SOURCE: TEXAS CO, KESLER I 0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -153.0                 | BOND        | CARTHAGE      | LIMESTONE | -               | 630.0              |
| -333.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 810.0              |
| -483.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 960.0              |
| -556.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1033.0             |
| -601.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1078.0             |
| -833.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1310.0             |
| -961.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1438.0             |

MAPID: 15900482000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 10E SECTION: 10 QUARTERS/FOOTAGES: SW SW SW

QUADRANGLE: DUNDAS LONGITUDE: -88.093231 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.789908 DATE COLLECTED:

SURFACE ELEVATION (FT.): 473.0 LOGGED (FT.): 1276.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -147.0                 | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 620.0              |
| -337.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 810.0              |
| -488.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 961.0              |
| -563.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1036.0             |
| -609.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1082.0             |
| -704.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1177.0             |
| -803.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1276.0             |

MAPID: 15900821000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 10E SECTION: 10 QUARTERS/FOOTAGES: SE NE NE

QUADRANGLE: DUNDAS LONGITUDE: -88.076684 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.801587 DATE COLLECTED:

SURFACE ELEVATION (FT.): 478.0 LOGGED (FT.): 1295.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -180.0                 | BOND       | CARTHAGE      | LIMESTONE | 7.0             | 658.0              |
| -352.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 830.0              |
| -505.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 983.0              |
| -579.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1057.0             |
| -622.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1100.0             |
| -706.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1184.0             |
| -817.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1295.0             |

MAPID: 15902206000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 10E SECTION: 10 QUARTERS/FOOTAGES: NW NE SW

QUADRANGLE: DUNDAS LONGITUDE: -88.088536 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.795569 DATE COLLECTED:

SURFACE ELEVATION (FT.): 463.0 LOGGED (FT.): 1243.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -145.0                 | BOND       | CARTHAGE      | LIMESTONE | 5.0             | 608.0              |
| -331.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 794.0              |
| -480.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 943.0              |
| -553.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1016.0             |
| -595.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.0             | 1058.0             |
| -679.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1142.0             |
| -780.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1243.0             |

MAPID: 15900822000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 10E SECTION: 11 QUARTERS/FOOTAGES: SW NW NE

QUADRANGLE: DUNDAS LONGITUDE: -88.06519 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.801898 DATE COLLECTED:

SURFACE ELEVATION (FT.): 504.0 LOGGED (FT.): 1344.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -360.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 16.0            | 864.0      |         |
| -514.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 1018.0     |         |
| -592.0                 | CARBONDALE | HERRIN        | COAL      | 4.0             | 1096.0     |         |
| -637.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.5             | 1141.0     |         |
| -730.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1234.0     |         |
| -840.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1344.0     |         |

MAPID: 15900823000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 10E SECTION: 12 QUARTERS/FOOTAGES: SW NE SE

QUADRANGLE: DUNDAS LONGITUDE: -88.042109 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.795387 DATE COLLECTED:

SURFACE ELEVATION (FT.): 496.0 LOGGED (FT.): 1408.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -388.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 17.0            | 884.0      |         |
| -556.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 1052.0     |         |
| -639.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1135.0     |         |
| -688.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1184.0     |         |
| -794.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1290.0     |         |
| -912.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1408.0     |         |

MAPID: 15902222000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 10E SECTION: 12 QUARTERS/FOOTAGES: NW SW NE  
 QUADRANGLE: DUNDAS LONGITUDE: -88.04669 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.800674 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 501.0 LOGGED (FT.): 1390.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -386.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 16.0            | 887.0      |         |
| -543.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 1044.0     |         |
| -624.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1125.0     |         |
| -683.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1184.0     |         |
| -774.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1275.0     |         |
| -889.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1390.0     |         |

MAPID: 15902223000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 10E SECTION: 13 QUARTERS/FOOTAGES: NE NW NW  
 QUADRANGLE: DUNDAS LONGITUDE: -88.053515 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.789337 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 484.0 LOGGED (FT.): 1359.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -376.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 16.0            | 860.0      |         |
| -616.0                 | CARBONDALE | HERRIN        | COAL      | 5.0             | 1100.0     |         |
| -665.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1149.0     |         |
| -766.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1250.0     |         |
| -875.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1359.0     |         |

MAPID: 15902224000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 10E SECTION: 13 QUARTERS/FOOTAGES: 330' S line, 360' W line  
 QUADRANGLE: DUNDAS LONGITUDE: -88.055611 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.776488 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 484.0 LOGGED (FT.): 1248.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -316.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 800.0      |         |
| -466.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 950.0      |         |
| -536.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1020.0     |         |
| -580.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1064.0     |         |
| -668.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1152.0     |         |
| -764.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1248.0     |         |

MAPID: 15902225000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 10E SECTION: 13 QUARTERS/FOOTAGES: SE SW NE  
 QUADRANGLE: DUNDAS LONGITUDE: -88.044421 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.7843 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 493.0 LOGGED (FT.): 1351.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -369.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 13.0            | 862.0      |         |
| -525.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 1018.0     |         |
| -601.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1094.0     |         |
| -652.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1145.0     |         |
| -753.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1246.0     |         |
| -858.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1351.0     |         |

MAPID: 15902234000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 10E SECTION: 14 QUARTERS/FOOTAGES: SE NE NE

QUADRANGLE: DUNDAS LONGITUDE: -88.05809 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.787315 DATE COLLECTED:

SURFACE ELEVATION (FT.): 473.0 LOGGED (FT.): 1304.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -357.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 830.0      |         |
| -509.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 982.0      |         |
| -590.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1063.0     |         |
| -635.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1108.0     |         |
| -727.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1200.0     |         |
| -831.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1304.0     |         |

MAPID: 15900164000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 4N 10E SECTION: 15 QUARTERS/FOOTAGES: SE SE SW

QUADRANGLE: DUNDAS LONGITUDE: -88.086195 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.77562 DATE COLLECTED: 0 / 0 / 1939

SURFACE ELEVATION (FT.): 474.0 LOGGED (FT.): 4740.0 LOG TYPE:

SOURCE: PYRAMD PET, HOUSER 0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -140.0                 | BOND       | CARTHAGE      | LIMESTONE | -               | 614.0      |         |
| -323.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 797.0      |         |
| -466.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 940.0      |         |
| -540.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1014.0     |         |

MAPID: 15900286000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 4N 10E SECTION: 15 QUARTERS/FOOTAGES: SW NE SE

QUADRANGLE: DUNDAS LONGITUDE: -88.079215 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.779472 DATE COLLECTED: 0 / 0 / 1944

SURFACE ELEVATION (FT.): 474.0 LOGGED (FT.): 4740.0 LOG TYPE:

SOURCE: TEXAS CO, KOWA WM 0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -316.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 790.0              |
| -466.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 940.0              |
| -530.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1004.0             |
| -576.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1050.0             |
| -801.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1275.0             |
| -959.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1433.0             |

MAPID: 15900826000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 10E SECTION: 15 QUARTERS/FOOTAGES: NW SE NW

QUADRANGLE: DUNDAS LONGITUDE: -88.088531 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.784619 DATE COLLECTED:

SURFACE ELEVATION (FT.): 473.0 LOGGED (FT.): 1270.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -143.0                 | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 616.0              |
| -333.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 19.0            | 806.0              |
| -485.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 958.0              |
| -553.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1026.0             |
| -604.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.5             | 1077.0             |
| -797.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1270.0             |

MAPID: 15902247000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 10E SECTION: 16 QUARTERS/FOOTAGES: SW SW NE  
 QUADRANGLE: DUNDAS LONGITUDE: -88.10238 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.782304 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 435.0 LOGGED (FT.): 1253.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -158.0                 | BOND       | CARTHAGE      | LIMESTONE | 5.0             | 593.0      |         |
| -342.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 11.0            | 777.0      |         |
| -500.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 935.0      |         |
| -574.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1009.0     |         |
| -628.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.5             | 1063.0     |         |
| -705.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1140.0     |         |
| -818.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1253.0     |         |

MAPID: 15900827000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 10E SECTION: 17 QUARTERS/FOOTAGES: NW NW NE  
 QUADRANGLE: DUNDAS LONGITUDE: -88.120856 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.787249 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 479.0 LOGGED (FT.): 1262.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -147.0                 | BOND       | CARTHAGE      | LIMESTONE | 4.0             | 626.0      |         |
| -330.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 809.0      |         |
| -485.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 964.0      |         |
| -551.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1030.0     |         |
| -609.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.0             | 1088.0     |         |
| -673.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1152.0     |         |
| -783.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1262.0     |         |



MAPID: 15902583000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 10E SECTION: 17 QUARTERS/FOOTAGES: NE SW SW

QUADRANGLE: WAKEFIELD LONGITUDE: -88.127859 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.776252 DATE COLLECTED:

SURFACE ELEVATION (FT.): 514.0 LOGGED (FT.): 1293.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -147.0                 | BOND       | CARTHAGE      | LIMESTONE | 5.0             | 661.0      |         |
| -325.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 839.0      |         |
| -489.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 1003.0     |         |
| -554.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1068.0     |         |
| -608.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.5             | 1122.0     |         |
| -676.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1190.0     |         |
| -779.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1293.0     |         |

MAPID: 15900165000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 4N 10E SECTION: 18 QUARTERS/FOOTAGES: NW NW SW

QUADRANGLE: WAKEFIELD LONGITUDE: -88.14865 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.779727 DATE COLLECTED: 0 / 0 / 1940

SURFACE ELEVATION (FT.): 536.0 LOGGED (FT.): 5360.0 LOG TYPE:

SOURCE: DYSON&ANDR, ASH 0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -300.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 836.0      |         |
| -444.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 980.0      |         |
| -504.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1040.0     |         |
| -556.0                 | CARBONDALE | SPRINGFIELD   | COAL      | -               | 1092.0     |         |
| -627.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1163.0     |         |

MAPID: 15900166000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 4N 10E SECTION: 18 QUARTERS/FOOTAGES: SW SW NW

QUADRANGLE: WAKEFIELD LONGITUDE: -88.148675 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.781535 DATE COLLECTED: 0 / 0 / 1940

SURFACE ELEVATION (FT.): 531.0 LOGGED (FT.): 5310.0 LOG TYPE:

SOURCE: DYSON&ANDR, ASH 0002 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -291.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 822.0      |         |
| -443.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 974.0      |         |
| -501.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1032.0     |         |
| -552.0                 | CARBONDALE | SPRINGFIELD   | COAL      | -               | 1083.0     |         |
| -628.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1159.0     |         |

MAPID: 15900499000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 10E SECTION: 18 QUARTERS/FOOTAGES: SE NW SE

QUADRANGLE: WAKEFIELD LONGITUDE: -88.137113 GEOLOGIST: C TREWORYG

CONFIDENTIAL: N LATITUDE: 38.777988 DATE COLLECTED:

SURFACE ELEVATION (FT.): 527.0 LOGGED (FT.): 1300.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -315.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 842.0      |         |
| -476.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 1003.0     |         |
| -538.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1065.0     |         |
| -590.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1117.0     |         |
| -669.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1196.0     |         |
| -773.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1300.0     |         |

MAPID: 15900167000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 4N 10E SECTION: 19 QUARTERS/FOOTAGES: 992' N line, 2237' W line of NW

QUADRANGLE: WAKEFIELD LONGITUDE: -88.14181 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.770682 DATE COLLECTED: 0 / 0 / 1943

SURFACE ELEVATION (FT.): 478.0 LOGGED (FT.): 4780.0 LOG TYPE:

SOURCE: PURE OC, GERTSCH P 0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -142.0                 | BOND       | CARTHAGE      | LIMESTONE | -               | 620.0      |         |
| -319.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 797.0      |         |
| -472.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 950.0      |         |
| -534.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1012.0     |         |
| -585.0                 | CARBONDALE | SPRINGFIELD   | COAL      | -               | 1063.0     |         |

MAPID: 15900167000C VERSION: 2

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 10E SECTION: 19 QUARTERS/FOOTAGES: 992' N line, 2237' W line of NW

QUADRANGLE: WAKEFIELD LONGITUDE: -88.14181 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.770682 DATE COLLECTED:

SURFACE ELEVATION (FT.): 478.0 LOGGED (FT.): 1243.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -142.0                 | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 620.0      |         |
| -311.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 789.0      |         |
| -473.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 951.0      |         |
| -534.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1012.0     |         |
| -585.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.5             | 1063.0     |         |
| -765.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1243.0     |         |

MAPID: 15902255000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 10E SECTION: 19 QUARTERS/FOOTAGES: SW NW NW

QUADRANGLE: WAKEFIELD LONGITUDE: -88.148547 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.770622 DATE COLLECTED:

SURFACE ELEVATION (FT.): 499.0 LOGGED (FT.): 1269.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -136.0                 | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 635.0              |
| -309.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 9.0             | 808.0              |
| -473.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 972.0              |
| -533.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1032.0             |
| -589.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.5             | 1088.0             |
| -770.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1269.0             |

MAPID: 15902549000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 10E SECTION: 20 QUARTERS/FOOTAGES: NE SE SE

QUADRANGLE: DUNDAS LONGITUDE: -88.113959 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.761942 DATE COLLECTED:

SURFACE ELEVATION (FT.): 471.0 LOGGED (FT.): 1266.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -134.0                 | BOND       | CARTHAGE      | LIMESTONE | 5.0             | 605.0              |
| -315.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 786.0              |
| -479.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 950.0              |
| -556.0                 | CARBONDALE | HERRIN        | COAL      | 4.0             | 1027.0             |
| -609.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1080.0             |
| -679.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1150.0             |
| -795.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1266.0             |

MAPID: 15902544000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 10E SECTION: 21 QUARTERS/FOOTAGES: NW SW SW  
 QUADRANGLE: DUNDAS LONGITUDE: -88.111658 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.762017 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): LOGGED (FT.): 1277.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -                      | BOND       | CARTHAGE      | LIMESTONE | 5.0             | 613.0      |         |
| -                      | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 800.0      |         |
| -                      | CARBONDALE | DANVILLE      | COAL      | -               | 962.0      |         |
| -                      | CARBONDALE | HERRIN        | COAL      | 4.0             | 1042.0     |         |
| -                      | CARBONDALE | SPRINGFIELD   | COAL      | 3.5             | 1091.0     |         |
| -                      | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1160.0     |         |
| -                      | CARBONDALE | COLCHESTER    | COAL      | -               | 1277.0     |         |

MAPID: 15900003000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 4N 10E SECTION: 22 QUARTERS/FOOTAGES: SW SE NW  
 QUADRANGLE: DUNDAS LONGITUDE: -88.088559 GEOLOGIST: SIEVER  
 CONFIDENTIAL: N LATITUDE: 38.768315 DATE COLLECTED: 0 / 0 / 1942  
 SURFACE ELEVATION (FT.): 471.0 LOGGED (FT.): 4710.0 LOG TYPE:  
 SOURCE: TEXAS CO, HASLNGR K0001 WELL TYPE: Oil and Gas Test  
 COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|-------------|---------------|-----------|-----------------|------------|---------|
|                        |             |               |           | UNIT            | OVERBURDEN |         |
| -167.0                 | BOND        | CARTHAGE      | LIMESTONE | -               | 638.0      |         |
| -338.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 809.0      |         |
| -494.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 965.0      |         |
| -559.0                 | CARBONDALE  | HERRIN        | COAL      | 5.0             | 1030.0     |         |
| -611.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1082.0     |         |
| -684.0                 | CARBONDALE  | HOUCHIN CREEK | COAL      | -               | 1155.0     |         |
| -984.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1455.0     |         |

**MAPID:** 15900168000C    **VERSION:** 2    **PROJECT:** RI 148  
**COUNTY:** RICHLAND    **TWP/RNG:** 4N 10E    **SECTION:** 22    **QUARTERS/FOOTAGES:** SE SE SE  
**QUADRANGLE:** DUNDAS    **LONGITUDE:** -88.077046    **GEOLOGIST:** SIEVER  
**CONFIDENTIAL:** N    **LATITUDE:** 38.761313    **DATE COLLECTED:** 0 / 0 / 1938  
**SURFACE ELEVATION (FT.):** 443.0    **LOGGED (FT.):** 4430.0    **LOG TYPE:**  
**SOURCE:** PYRAMD PET, SLY GEO 0001    **WELL TYPE:** Oil and Gas Test  
**COMMENT:**

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -175.0                 | BOND       | CARTHAGE      | LIMESTONE | -               | 618.0      |         |
| -355.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 798.0      |         |
| -577.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1020.0     |         |

**MAPID:** 15900168000C    **VERSION:** 3    **PROJECT:** CONTROL  
**COUNTY:** RICHLAND    **TWP/RNG:** 4N 10E    **SECTION:** 22    **QUARTERS/FOOTAGES:** SE SE SE  
**QUADRANGLE:** DUNDAS    **LONGITUDE:** -88.077046    **GEOLOGIST:** HINES  
**CONFIDENTIAL:** N    **LATITUDE:** 38.761313    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):**    **LOGGED (FT.):** 3036.0    **LOG TYPE:** Survey Sample Study  
**SOURCE:** PYRAMID PETROLEUM    **WELL TYPE:** Oil and Gas Test  
**COMMENT:** OILWELLS LOGGED BY COAL SECT-LOGS IN GRU

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

**MAPID:** 15900169000C    **VERSION:** 1    **PROJECT:** RI 148  
**COUNTY:** RICHLAND    **TWP/RNG:** 4N 10E    **SECTION:** 22    **QUARTERS/FOOTAGES:** SE SW SE  
**QUADRANGLE:** DUNDAS    **LONGITUDE:** -88.081671    **GEOLOGIST:** SIEVER  
**CONFIDENTIAL:** N    **LATITUDE:** 38.761224    **DATE COLLECTED:** 0 / 0 / 1938  
**SURFACE ELEVATION (FT.):** 470.0    **LOGGED (FT.):** 4700.0    **LOG TYPE:**  
**SOURCE:** TEXAS CO, WINTERS W 0001    **WELL TYPE:** Oil and Gas Test  
**COMMENT:**

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -354.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 824.0      |         |
| -510.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 980.0      |         |
| -572.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1042.0     |         |
| -632.0                 | CARBONDALE | SPRINGFIELD   | COAL      | -               | 1102.0     |         |
| -713.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1183.0     |         |

**MAPID:** 15900262000C    **VERSION:** 1    **PROJECT:** RI 148  
**COUNTY:** RICHLAND    **TWP/RNG:** 4N 10E    **SECTION:** 22    **QUARTERS/FOOTAGES:** NE SE NE  
**QUADRANGLE:** DUNDAS    **LONGITUDE:** -88.076959    **GEOLOGIST:** SIEVER  
**CONFIDENTIAL:** N    **LATITUDE:** 38.770435    **DATE COLLECTED:** 0 / 0 / 1944  
**SURFACE ELEVATION (FT.):** 450.0    **LOGGED (FT.):** 4500.0    **LOG TYPE:**  
**SOURCE:** TEXAS CO, SCHERER C 0004    **WELL TYPE:** Oil and Gas Test  
**COMMENT:**

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -320.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 770.0              |
| -470.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 920.0              |
| -600.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1050.0             |
| -805.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1255.0             |
| -993.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1443.0             |

**MAPID:** 15900287000C    **VERSION:** 1    **PROJECT:** RI 148  
**COUNTY:** RICHLAND    **TWP/RNG:** 4N 10E    **SECTION:** 22    **QUARTERS/FOOTAGES:** NW SW NE  
**QUADRANGLE:** DUNDAS    **LONGITUDE:** -88.083911    **GEOLOGIST:** SIEVER  
**CONFIDENTIAL:** N    **LATITUDE:** 38.770246    **DATE COLLECTED:** 0 / 0 / 1944  
**SURFACE ELEVATION (FT.):** 465.0    **LOGGED (FT.):** 4650.0    **LOG TYPE:**  
**SOURCE:** TEXAS CO, BAIRD M 0002    **WELL TYPE:** Oil and Gas Test  
**COMMENT:**

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -139.0                 | BOND        | CARTHAGE      | LIMESTONE | -               | 604.0              |
| -325.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 790.0              |
| -481.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 946.0              |
| -550.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1015.0             |
| -600.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1065.0             |
| -795.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1260.0             |
| -985.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1450.0             |

MAPID: 15900288000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 4N 10E SECTION: 22 QUARTERS/FOOTAGES: SW NE NE

QUADRANGLE: DUNDAS LONGITUDE: -88.079262 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.772191 DATE COLLECTED: 0 / 0 / 1944

SURFACE ELEVATION (FT.): 478.0 LOGGED (FT.): 4780.0 LOG TYPE:

SOURCE: TEXAS CO, SCHERER C 0002 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -146.0                 | BOND        | CARTHAGE      | LIMESTONE | -               | 624.0              |
| -323.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 801.0              |
| -422.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 900.0              |
| -548.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1026.0             |
| -602.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1080.0             |
| -980.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1458.0             |

MAPID: 15900289000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 4N 10E SECTION: 22 QUARTERS/FOOTAGES: NE NE NE

QUADRANGLE: DUNDAS LONGITUDE: -88.076925 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.774082 DATE COLLECTED: 0 / 0 / 1944

SURFACE ELEVATION (FT.): 478.0 LOGGED (FT.): 4780.0 LOG TYPE:

SOURCE: TEXAS CO, SCHERER C 0003 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -322.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 800.0              |
| -472.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 950.0              |
| -542.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1020.0             |
| -592.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1070.0             |
| -830.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1308.0             |
| -984.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1462.0             |



MAPID: 1590226000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 10E SECTION: 22 QUARTERS/FOOTAGES: 45' S line, 330' E line of NW NE

QUADRANGLE: DUNDAS LONGITUDE: -88.081589 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.771342 DATE COLLECTED:

SURFACE ELEVATION (FT.): 477.0 LOGGED (FT.): 1280.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -143.0                 | BOND       | CARTHAGE      | LIMESTONE | 5.0             | 620.0              |
| -327.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 16.0            | 804.0              |
| -479.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 956.0              |
| -611.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.0             | 1088.0             |
| -695.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1172.0             |
| -803.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1280.0             |

MAPID: 1590017000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 4N 10E SECTION: 23 QUARTERS/FOOTAGES: SE NW NW

QUADRANGLE: DUNDAS LONGITUDE: -88.072254 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.772381 DATE COLLECTED: 0 / 0 / 1939

SURFACE ELEVATION (FT.): 449.0 LOGGED (FT.): 4490.0 LOG TYPE:

SOURCE: GULF REF, DEHLINGR R0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -158.0                 | BOND       | CARTHAGE      | LIMESTONE | -               | 607.0              |
| -336.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 785.0              |
| -476.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 925.0              |
| -556.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1005.0             |
| -601.0                 | CARBONDALE | SPRINGFIELD   | COAL      | -               | 1050.0             |
| -691.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1140.0             |

MAPID: 15900263000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 4N 10E SECTION: 23 QUARTERS/FOOTAGES: NE NE NE

QUADRANGLE: DUNDAS LONGITUDE: -88.058083 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.774578 DATE COLLECTED: 0 / 0 / 1945

SURFACE ELEVATION (FT.): 489.0 LOGGED (FT.): 4890.0 LOG TYPE:

SOURCE: TEXAS CO, FRITSCHL W0004 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -309.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 798.0              |
| -461.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 950.0              |
| -525.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1014.0             |
| -573.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1062.0             |
| -761.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1250.0             |
| -1006.0                | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1495.0             |

MAPID: 15900264000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 4N 10E SECTION: 23 QUARTERS/FOOTAGES: NE SW NE

QUADRANGLE: DUNDAS LONGITUDE: -88.062886 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.7708 DATE COLLECTED: 0 / 0 / 1945

SURFACE ELEVATION (FT.): 486.0 LOGGED (FT.): 4860.0 LOG TYPE:

SOURCE: TEXAS CO, FRITSCHL W0005 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -170.0                 | BOND        | CARTHAGE      | LIMESTONE | -               | 656.0              |
| -335.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 821.0              |
| -490.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 976.0              |
| -544.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1030.0             |
| -614.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1100.0             |
| -824.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1310.0             |
| -1008.0                | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1494.0             |

MAPID: 15900264000C VERSION: 2

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 10E SECTION: 23 QUARTERS/FOOTAGES: NE SW NE  
 QUADRANGLE: DUNDAS LONGITUDE: -88.062886 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.7708 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 486.0 LOGGED (FT.): 1293.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -336.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 16.0            | 822.0      |         |
| -491.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 977.0      |         |
| -565.0                 | CARBONDALE | HERRIN        | COAL      | 4.0             | 1051.0     |         |
| -612.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1098.0     |         |
| -705.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1191.0     |         |
| -807.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1293.0     |         |

MAPID: 15900266000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 4N 10E SECTION: 23 QUARTERS/FOOTAGES: NE NE SE  
 QUADRANGLE: DUNDAS LONGITUDE: -88.058295 GEOLOGIST: SIEVER  
 CONFIDENTIAL: N LATITUDE: 38.767264 DATE COLLECTED: 0 / 0 / 1945  
 SURFACE ELEVATION (FT.): 482.0 LOGGED (FT.): 4820.0 LOG TYPE:  
 SOURCE: TEXAS CO, SCHERER J 0001 WELL TYPE: Oil and Gas Test  
 COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|-------------|---------------|-----------|-----------------|------------|---------|
|                        |             |               |           | UNIT            | OVERBURDEN |         |
| -348.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 830.0      |         |
| -498.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 980.0      |         |
| -548.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1030.0     |         |
| -618.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1100.0     |         |
| -828.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1310.0     |         |
| -1013.0                | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1495.0     |         |

MAPID: 15902277000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 10E SECTION: 23 QUARTERS/FOOTAGES: NE SW SE  
 QUADRANGLE: DUNDAS LONGITUDE: -88.063059 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.763488 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 464.0 LOGGED (FT.): 1288.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -161.0                 | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 625.0      |         |
| -336.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 800.0      |         |
| -485.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 949.0      |         |
| -570.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1034.0     |         |
| -618.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.5             | 1082.0     |         |
| -714.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1178.0     |         |
| -824.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1288.0     |         |

MAPID: 15900171000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 4N 10E SECTION: 24 QUARTERS/FOOTAGES: NE NW NE  
 QUADRANGLE: DUNDAS LONGITUDE: -88.044419 GEOLOGIST: SIEVER  
 CONFIDENTIAL: N LATITUDE: 38.775128 DATE COLLECTED: 0 / 0 / 1942  
 SURFACE ELEVATION (FT.): 501.0 LOGGED (FT.): 5010.0 LOG TYPE:  
 SOURCE: GULF ET AL, FRITSCHL W0001 WELL TYPE: Oil and Gas Test  
 COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -175.0                 | BOND       | CARTHAGE      | LIMESTONE | -               | 676.0      |         |
| -347.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 848.0      |         |
| -487.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 988.0      |         |
| -566.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1067.0     |         |
| -614.0                 | CARBONDALE | SPRINGFIELD   | COAL      | -               | 1115.0     |         |
| -709.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1210.0     |         |

MAPID: 15900171000C VERSION: 2

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 10E SECTION: 24 QUARTERS/FOOTAGES: NE NW NE  
 QUADRANGLE: DUNDAS LONGITUDE: -88.044419 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.775128 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 501.0 LOGGED (FT.): 1313.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: FAIR LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -339.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 840.0      |         |
| -487.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 988.0      |         |
| -566.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1067.0     |         |
| -614.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.0             | 1115.0     |         |
| -709.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1210.0     |         |
| -812.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1313.0     |         |

MAPID: 15900269000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 4N 10E SECTION: 24 QUARTERS/FOOTAGES: SW NE NW  
 QUADRANGLE: DUNDAS LONGITUDE: -88.051273 GEOLOGIST: SIEVER  
 CONFIDENTIAL: N LATITUDE: 38.772999 DATE COLLECTED: 0 / 0 / 1945  
 SURFACE ELEVATION (FT.): 495.0 LOGGED (FT.): 4950.0 LOG TYPE:  
 SOURCE: TEXAS CO, FRITSCHL W0001 WELL TYPE: Oil and Gas Test  
 COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|-------------|---------------|-----------|-----------------|------------|---------|
|                        |             |               |           | UNIT            | OVERBURDEN |         |
| -311.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 806.0      |         |
| -461.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 956.0      |         |
| -513.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1008.0     |         |
| -581.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1076.0     |         |
| -815.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1310.0     |         |
| -1035.0                | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1530.0     |         |

MAPID: 15900269000C VERSION: 2

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 10E SECTION: 24 QUARTERS/FOOTAGES: SW NE NW  
 QUADRANGLE: DUNDAS LONGITUDE: -88.051273 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.772999 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 495.0 LOGGED (FT.): 1264.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -311.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 17.0            | 806.0      |         |
| -460.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 955.0      |         |
| -535.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1030.0     |         |
| -582.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.5             | 1077.0     |         |
| -674.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1169.0     |         |
| -769.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1264.0     |         |

MAPID: 15900270000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 4N 10E SECTION: 24 QUARTERS/FOOTAGES: SW NW NW  
 QUADRANGLE: DUNDAS LONGITUDE: -88.055823 GEOLOGIST: SIEVER  
 CONFIDENTIAL: N LATITUDE: 38.772824 DATE COLLECTED: 0 / 0 / 1945  
 SURFACE ELEVATION (FT.): 496.0 LOGGED (FT.): 4960.0 LOG TYPE:  
 SOURCE: TEXAS CO, FRITSCHL W0002 WELL TYPE: Oil and Gas Test  
 COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|-------------|---------------|-----------|-----------------|------------|---------|
|                        |             |               |           | UNIT            | OVERBURDEN |         |
| -310.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 806.0      |         |
| -462.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 958.0      |         |
| -518.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1014.0     |         |
| -570.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1066.0     |         |
| -770.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1266.0     |         |
| -1011.0                | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1507.0     |         |

MAPID: 15900271000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 4N 10E SECTION: 24 QUARTERS/FOOTAGES: SW NW SW

QUADRANGLE: DUNDAS LONGITUDE: -88.056032 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.765496 DATE COLLECTED: 0 / 0 / 1945

SURFACE ELEVATION (FT.): 488.0 LOGGED (FT.): 4880.0 LOG TYPE:

SOURCE: TEXAS CO, FRITSCHL W0003 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|-------------|---------------|-----------|-----------------|------------|---------|
|                        |             |               |           | UNIT            | OVERBURDEN |         |
| -165.0                 | BOND        | CARTHAGE      | LIMESTONE | -               | 653.0      |         |
| -338.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 826.0      |         |
| -492.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 980.0      |         |
| -544.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1032.0     |         |
| -615.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1103.0     |         |
| -827.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1315.0     |         |
| -1018.0                | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1506.0     |         |

MAPID: 15900272000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 4N 10E SECTION: 24 QUARTERS/FOOTAGES: NE NW SW

QUADRANGLE: DUNDAS LONGITUDE: -88.053686 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.7674 DATE COLLECTED: 0 / 0 / 1945

SURFACE ELEVATION (FT.): 490.0 LOGGED (FT.): 4900.0 LOG TYPE:

SOURCE: TEXAS CO, FRITSCHL W0006 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|-------------|---------------|-----------|-----------------|------------|---------|
|                        |             |               |           | UNIT            | OVERBURDEN |         |
| -157.0                 | BOND        | CARTHAGE      | LIMESTONE | -               | 647.0      |         |
| -335.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 825.0      |         |
| -486.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 976.0      |         |
| -538.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1028.0     |         |
| -610.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1100.0     |         |
| -1029.0                | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1519.0     |         |

MAPID: 15900272000C VERSION: 2

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 10E SECTION: 24 QUARTERS/FOOTAGES: NE NW SW  
 QUADRANGLE: DUNDAS LONGITUDE: -88.053686 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.7674 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 490.0 LOGGED (FT.): 1301.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: FAIR LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -158.0                 | BOND       | CARTHAGE      | LIMESTONE | 5.0             | 648.0      |         |
| -335.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 16.0            | 825.0      |         |
| -562.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1052.0     |         |
| -612.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.5             | 1102.0     |         |
| -705.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1195.0     |         |
| -811.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1301.0     |         |

MAPID: 15900346000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 4N 10E SECTION: 24 QUARTERS/FOOTAGES: SW SW SW  
 QUADRANGLE: DUNDAS LONGITUDE: -88.056138 GEOLOGIST: SIEVER  
 CONFIDENTIAL: N LATITUDE: 38.761834 DATE COLLECTED: 0 / 0 / 1945  
 SURFACE ELEVATION (FT.): 494.0 LOGGED (FT.): 4940.0 LOG TYPE:  
 SOURCE: TEXAS CO, FRITSCHL W0008 WELL TYPE: Oil and Gas Test  
 COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|-------------|---------------|-----------|-----------------|------------|---------|
|                        |             |               |           | UNIT            | OVERBURDEN |         |
| -344.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 838.0      |         |
| -496.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 990.0      |         |
| -566.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1060.0     |         |
| -616.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1110.0     |         |
| -831.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1325.0     |         |
| -1012.0                | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1506.0     |         |



MAPID: 15902293000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 10E SECTION: 25 QUARTERS/FOOTAGES: 660' S line, 330' W line of SE SW

QUADRANGLE: OLNEY LONGITUDE: -88.051465 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.74852 DATE COLLECTED:

SURFACE ELEVATION (FT.): 511.0 LOGGED (FT.): 1382.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -369.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 880.0              |
| -527.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 1038.0             |
| -599.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1110.0             |
| -664.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.5             | 1175.0             |
| -763.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1274.0             |
| -871.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1382.0             |

MAPID: 15902297000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 10E SECTION: 25 QUARTERS/FOOTAGES: 326' N line, 330' W line of NE SE

QUADRANGLE: DUNDAS LONGITUDE: -88.042177 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.753196 DATE COLLECTED:

SURFACE ELEVATION (FT.): 485.0 LOGGED (FT.): 1318.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -350.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 13.0            | 835.0              |
| -504.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 989.0              |
| -576.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1061.0             |
| -639.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.0             | 1124.0             |
| -727.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1212.0             |
| -833.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1318.0             |

MAPID: 15900173000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 4N 10E SECTION: 26 QUARTERS/FOOTAGES: NW SW SW

QUADRANGLE: OLNEY LONGITUDE: -88.074782 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.748811 DATE COLLECTED: 0 / 0 / 1938

SURFACE ELEVATION (FT.): 495.0 LOGGED (FT.): 4950.0 LOG TYPE:

SOURCE: SYLVESTR F, MILLER 0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -384.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 879.0              |
| -597.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1092.0             |
| -658.0                 | CARBONDALE | SPRINGFIELD   | COAL      | -               | 1153.0             |

**MAPID:** 15900174000C    **VERSION:** 1    **PROJECT:** RI 148  
**COUNTY:** RICHLAND    **TWP/RNG:** 4N 10E    **SECTION:** 26    **QUARTERS/FOOTAGES:** NW NW NW  
**QUADRANGLE:** DUNDAS    **LONGITUDE:** -88.07474    **GEOLOGIST:** SIEVER  
**CONFIDENTIAL:** N    **LATITUDE:** 38.759557    **DATE COLLECTED:** 0 / 0 / 1938  
**SURFACE ELEVATION (FT.):** 446.0    **LOGGED (FT.):** 4460.0    **LOG TYPE:**  
**SOURCE:** PYRAMD PET, U OF CHI 0001    **WELL TYPE:** Oil and Gas Test  
**COMMENT:**

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -354.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 800.0              |
| -579.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1025.0             |

**MAPID:** 15900175000C    **VERSION:** 1    **PROJECT:** RI 148  
**COUNTY:** RICHLAND    **TWP/RNG:** 4N 10E    **SECTION:** 26    **QUARTERS/FOOTAGES:** SE NW NW  
**QUADRANGLE:** DUNDAS    **LONGITUDE:** -88.072422    **GEOLOGIST:** SIEVER  
**CONFIDENTIAL:** N    **LATITUDE:** 38.757825    **DATE COLLECTED:** 0 / 0 / 1938  
**SURFACE ELEVATION (FT.):** 446.0    **LOGGED (FT.):** 4460.0    **LOG TYPE:**  
**SOURCE:** PYRAMD PET, U OF CHI 0003    **WELL TYPE:** Oil and Gas Test  
**COMMENT:**

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -179.0                 | BOND       | CARTHAGE      | LIMESTONE | -               | 625.0              |
| -363.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 809.0              |
| -510.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 956.0              |
| -579.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1025.0             |
| -631.0                 | CARBONDALE | SPRINGFIELD   | COAL      | -               | 1077.0             |
| -721.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1167.0             |

**MAPID:** 15900347000C    **VERSION:** 1    **PROJECT:** CGT-ECILL  
**COUNTY:** RICHLAND    **TWP/RNG:** 4N 10E    **SECTION:** 26    **QUARTERS/FOOTAGES:** NE NE NE  
**QUADRANGLE:** DUNDAS    **LONGITUDE:** -88.058478    **GEOLOGIST:** C TREWORGY  
**CONFIDENTIAL:** N    **LATITUDE:** 38.759966    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 476.0    **LOGGED (FT.):** 1316.0    **LOG TYPE:** Electric Log  
**SOURCE:**    **WELL TYPE:** Oil and Gas Test  
**COMMENT:** GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -182.0                 | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 658.0              |
| -352.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 23.0            | 828.0              |
| -500.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 976.0              |
| -572.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1048.0             |
| -626.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.5             | 1102.0             |
| -720.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1196.0             |
| -840.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1316.0             |

MAPID: 15900348000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 4N 10E SECTION: 26 QUARTERS/FOOTAGES: NE NW NE

QUADRANGLE: DUNDAS LONGITUDE: -88.063125

GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.75985

DATE COLLECTED: 0 / 0 / 1945

SURFACE ELEVATION (FT.): 449.0 LOGGED (FT.): 4490.0

LOG TYPE:

SOURCE: SLAGTR AJR, WTTLWRTH A0001

WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|-------------|---------------|-----------|-----------------|------------|---------|
|                        |             |               |           | UNIT            | OVERBURDEN |         |
| -161.0                 | BOND        | CARTHAGE      | LIMESTONE | -               | 610.0      |         |
| -336.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 785.0      |         |
| -486.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 935.0      |         |
| -571.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1020.0     |         |
| -626.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1075.0     |         |
| -851.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1300.0     |         |
| -1023.0                | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1472.0     |         |

MAPID: 15900428000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 10E SECTION: 26 QUARTERS/FOOTAGES: NW SE SW

QUADRANGLE: OLNEY LONGITUDE: -88.070122

GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.748919

DATE COLLECTED:

SURFACE ELEVATION (FT.): 494.0 LOGGED (FT.): 1378.0

LOG TYPE: Electric Log

SOURCE:

WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -380.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 16.0            | 874.0      |         |
| -542.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 1036.0     |         |
| -614.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1108.0     |         |
| -678.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.5             | 1172.0     |         |
| -763.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1257.0     |         |
| -884.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1378.0     |         |

MAPID: 15902298000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 10E SECTION: 26 QUARTERS/FOOTAGES: NE SE SE  
 QUADRANGLE: OLNEY LONGITUDE: -88.058471 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.749189 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 513.0 LOGGED (FT.): 1374.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -362.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 8.0             | 875.0      |         |
| -516.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 1029.0     |         |
| -587.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1100.0     |         |
| -648.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1161.0     |         |
| -748.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1261.0     |         |
| -861.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1374.0     |         |

MAPID: 15900176000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 4N 10E SECTION: 27 QUARTERS/FOOTAGES: SW SW NW  
 QUADRANGLE: DUNDAS LONGITUDE: -88.093294 GEOLOGIST: SIEVER  
 CONFIDENTIAL: N LATITUDE: 38.75372 DATE COLLECTED: 0 / 0 / 1938  
 SURFACE ELEVATION (FT.): 464.0 LOGGED (FT.): 4640.0 LOG TYPE:  
 SOURCE: KINGWOODOC, ALLEN 0001 WELL TYPE: Oil and Gas Test  
 COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -356.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 820.0      |         |
| -576.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1040.0     |         |
| -636.0                 | CARBONDALE | SPRINGFIELD   | COAL      | -               | 1100.0     |         |

MAPID: 15900177000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 4N 10E SECTION: 27 QUARTERS/FOOTAGES: SW NE SW  
 QUADRANGLE: DUNDAS LONGITUDE: -88.088692 GEOLOGIST: SIEVER  
 CONFIDENTIAL: N LATITUDE: 38.75021 DATE COLLECTED: 0 / 0 / 1942  
 SURFACE ELEVATION (FT.): 468.0 LOGGED (FT.): 4680.0 LOG TYPE:  
 SOURCE: MENHALL CO, MILLER B 0001 WELL TYPE: Oil and Gas Test  
 COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -163.0                 | BOND       | CARTHAGE      | LIMESTONE | -               | 631.0      |         |
| -358.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 826.0      |         |
| -517.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 985.0      |         |
| -580.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1048.0     |         |
| -636.0                 | CARBONDALE | SPRINGFIELD   | COAL      | -               | 1104.0     |         |
| -709.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1177.0     |         |

MAPID: 15902312000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 10E SECTION: 27 QUARTERS/FOOTAGES: 671' S line, 16' E line of SE SW

QUADRANGLE: OLNEY LONGITUDE: -88.085288 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.747642 DATE COLLECTED:

SURFACE ELEVATION (FT.): 468.0 LOGGED (FT.): 1296.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -357.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 10.0            | 825.0      |         |
| -518.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 986.0      |         |
| -580.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1048.0     |         |
| -638.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1106.0     |         |
| -828.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1296.0     |         |

MAPID: 15902314000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 10E SECTION: 27 QUARTERS/FOOTAGES: 505' S line, 505' W line

QUADRANGLE: OLNEY LONGITUDE: -88.092734 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.746937 DATE COLLECTED:

SURFACE ELEVATION (FT.): 454.0 LOGGED (FT.): 1287.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -174.0                 | BOND       | CARTHAGE      | LIMESTONE | 7.0             | 628.0      |         |
| -368.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 5.0             | 822.0      |         |
| -519.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 973.0      |         |
| -580.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1034.0     |         |
| -640.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1094.0     |         |
| -712.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1166.0     |         |
| -833.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1287.0     |         |

MAPID: 15902323000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 10E SECTION: 27 QUARTERS/FOOTAGES: 664' S line, 48' W line of NE SE

QUADRANGLE: DUNDAS LONGITUDE: -88.080404 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.751382 DATE COLLECTED:

SURFACE ELEVATION (FT.): 477.0 LOGGED (FT.): 1322.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -176.0                 | BOND       | CARTHAGE      | LIMESTONE | 5.0             | 653.0              |
| -363.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 16.0            | 840.0              |
| -525.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 1002.0             |
| -590.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1067.0             |
| -651.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.5             | 1128.0             |
| -723.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1200.0             |
| -845.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1322.0             |

MAPID: 15900900000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 10E SECTION: 28 QUARTERS/FOOTAGES: SW SW NW

QUADRANGLE: DUNDAS LONGITUDE: -88.111759 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.753072 DATE COLLECTED:

SURFACE ELEVATION (FT.): 428.0 LOGGED (FT.): 1237.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -135.0                 | BOND       | CARTHAGE      | LIMESTONE | 5.0             | 563.0              |
| -322.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 750.0              |
| -490.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 918.0              |
| -566.0                 | CARBONDALE | HERRIN        | COAL      | -               | 994.0              |
| -622.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.0             | 1050.0             |
| -698.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1126.0             |
| -809.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1237.0             |

MAPID: 15900922000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 10E SECTION: 28 QUARTERS/FOOTAGES: SW SW SE

QUADRANGLE: OLNEY LONGITUDE: -88.102607 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.746195 DATE COLLECTED:

SURFACE ELEVATION (FT.): 452.0 LOGGED (FT.): 1290.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -374.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 19.0            | 826.0              |
| -526.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 978.0              |
| -588.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1040.0             |
| -645.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1097.0             |
| -718.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1170.0             |
| -838.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1290.0             |

MAPID: 15900938000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 10E SECTION: 28 QUARTERS/FOOTAGES: 660' S line, 330' W line of NE NW

QUADRANGLE: DUNDAS LONGITUDE: -88.107084 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.757743 DATE COLLECTED:

SURFACE ELEVATION (FT.): 431.0 LOGGED (FT.): 1243.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -136.0                 | BOND       | CARTHAGE      | LIMESTONE | 4.0             | 567.0              |
| -326.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 757.0              |
| -490.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 921.0              |
| -567.0                 | CARBONDALE | HERRIN        | COAL      | -               | 998.0              |
| -622.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.0             | 1053.0             |
| -695.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1126.0             |
| -812.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1243.0             |

MAPID: 15900832000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 10E SECTION: 29 QUARTERS/FOOTAGES: SW SW NE  
 QUADRANGLE: DUNDAS LONGITUDE: -88.120952 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.752851 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 453.0 LOGGED (FT.): 1232.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -132.0                 | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 585.0      |         |
| -307.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 12.0            | 760.0      |         |
| -468.0                 | CARBONDALE | DANVILLE      | COAL      | 2.5             | 921.0      |         |
| -539.0                 | CARBONDALE | HERRIN        | COAL      | -               | 992.0      |         |
| -595.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1048.0     |         |
| -667.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1120.0     |         |
| -779.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1232.0     |         |

MAPID: 15900833000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 10E SECTION: 30 QUARTERS/FOOTAGES: SW SE NE  
 QUADRANGLE: WAKEFIELD LONGITUDE: -88.134721 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.75266 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 471.0 LOGGED (FT.): 1240.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -311.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 20.0            | 782.0      |         |
| -461.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 932.0      |         |
| -523.0                 | CARBONDALE | HERRIN        | COAL      | -               | 994.0      |         |
| -582.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.0             | 1053.0     |         |
| -657.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1128.0     |         |
| -769.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1240.0     |         |



MAPID: 15900898000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 10E SECTION: 32 QUARTERS/FOOTAGES: NE NE SE  
 QUADRANGLE: OLNEY LONGITUDE: -88.114216 GEOLOGIST: C TREWORGY  
 CONFIDENTIAL: N LATITUDE: 38.736834 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 426.0 LOGGED (FT.): 1220.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -135.0                 | BOND       | CARTHAGE      | LIMESTONE | 5.0             | 561.0      |         |
| -321.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 747.0      |         |
| -489.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 915.0      |         |
| -544.0                 | CARBONDALE | HERRIN        | COAL      | -               | 970.0      |         |
| -606.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1032.0     |         |
| -678.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1104.0     |         |
| -794.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1220.0     |         |

MAPID: 15900899000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 10E SECTION: 32 QUARTERS/FOOTAGES: NE NE NE  
 QUADRANGLE: OLNEY LONGITUDE: -88.114173 GEOLOGIST: C TREWORGY  
 CONFIDENTIAL: N LATITUDE: 38.744109 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 429.0 LOGGED (FT.): 1227.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -148.0                 | BOND       | CARTHAGE      | LIMESTONE | 5.0             | 577.0      |         |
| -325.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 10.0            | 754.0      |         |
| -494.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 923.0      |         |
| -553.0                 | CARBONDALE | HERRIN        | COAL      | -               | 982.0      |         |
| -612.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1041.0     |         |
| -681.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1110.0     |         |
| -798.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1227.0     |         |

MAPID: 15900672000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 10E SECTION: 33 QUARTERS/FOOTAGES: NE NW SE  
 QUADRANGLE: OLNEY LONGITUDE: -88.100355 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.737145 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 448.0 LOGGED (FT.): 1276.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -161.0                 | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 609.0      |         |
| -359.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 23.0            | 807.0      |         |
| -516.0                 | CARBONDALE | DANVILLE      | COAL      | 2.5             | 964.0      |         |
| -577.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1025.0     |         |
| -644.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1092.0     |         |
| -710.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1158.0     |         |
| -828.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1276.0     |         |

MAPID: 15900921000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 10E SECTION: 33 QUARTERS/FOOTAGES: 420' N line, 330' W line of NE NW  
 QUADRANGLE: OLNEY LONGITUDE: -88.107239 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.744023 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 455.0 LOGGED (FT.): 1270.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -173.0                 | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 628.0      |         |
| -359.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 20.0            | 814.0      |         |
| -511.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 966.0      |         |
| -571.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1026.0     |         |
| -638.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.5             | 1093.0     |         |
| -703.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1158.0     |         |
| -815.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1270.0     |         |

**MAPID:** 15900072000C    **VERSION:** 1    **PROJECT:** RI 148  
**COUNTY:** RICHLAND    **TWP/RNG:** 4N 10E    **SECTION:** 34    **QUARTERS/FOOTAGES:** 587' N line, 532' W line of SE NW  
**QUADRANGLE:** OLNEY    **LONGITUDE:** -88.08803    **GEOLOGIST:** SIEVER  
**CONFIDENTIAL:** N    **LATITUDE:** 38.740419    **DATE COLLECTED:** 0 / 0 / 1943  
**SURFACE ELEVATION (FT.):** 465.0    **LOGGED (FT.):** 4650.0    **LOG TYPE:**  
**SOURCE:** SOWSTRN OG, CITY OLNEY0001    **WELL TYPE:** Oil and Gas Test  
**COMMENT:**

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -201.0                 | BOND       | CARTHAGE      | LIMESTONE | -               | 666.0              |
| -382.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 847.0              |
| -606.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1071.0             |
| -667.0                 | CARBONDALE | SPRINGFIELD   | COAL      | -               | 1132.0             |
| -747.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1212.0             |

**MAPID:** 15900072000C    **VERSION:** 2    **PROJECT:** CGT-ECILL  
**COUNTY:** RICHLAND    **TWP/RNG:** 4N 10E    **SECTION:** 34    **QUARTERS/FOOTAGES:** 587' N line, 532' W line of SE NW  
**QUADRANGLE:** OLNEY    **LONGITUDE:** -88.08803    **GEOLOGIST:** C TREWORGY  
**CONFIDENTIAL:** N    **LATITUDE:** 38.740419    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 465.0    **LOGGED (FT.):** 1320.0    **LOG TYPE:** Electric Log  
**SOURCE:**    **WELL TYPE:** Oil and Gas Test  
**COMMENT:** GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -201.0                 | BOND       | CARTHAGE      | LIMESTONE | 7.0             | 666.0              |
| -374.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 839.0              |
| -543.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 1008.0             |
| -607.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1072.0             |
| -665.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1130.0             |
| -747.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1212.0             |
| -855.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1320.0             |

**MAPID:** 15900178000C    **VERSION:** 1    **PROJECT:** RI 148  
**COUNTY:** RICHLAND    **TWP/RNG:** 4N 10E    **SECTION:** 35    **QUARTERS/FOOTAGES:** NW NW NW  
**QUADRANGLE:** OLNEY    **LONGITUDE:** -88.074791    **GEOLOGIST:** SIEVER  
**CONFIDENTIAL:** N    **LATITUDE:** 38.745205    **DATE COLLECTED:** 0 / 0 / 1938  
**SURFACE ELEVATION (FT.):** 494.0    **LOGGED (FT.):** 4940.0    **LOG TYPE:**  
**SOURCE:** KINGWOODOC, MCCANE 0001    **WELL TYPE:** Oil and Gas Test  
**COMMENT:**

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -403.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 897.0              |
| -628.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1122.0             |
| -689.0                 | CARBONDALE | SPRINGFIELD   | COAL      | -               | 1183.0             |

MAPID: 15900836000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 10E SECTION: 35 QUARTERS/FOOTAGES: SE SE NE

QUADRANGLE: OLNEY LONGITUDE: -88.05856 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.740109 DATE COLLECTED:

SURFACE ELEVATION (FT.): 507.0 LOGGED (FT.): 1373.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -396.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 903.0      |         |
| -541.0                 | CARBONDALE | DANVILLE      | COAL      | 4.0             | 1048.0     |         |
| -602.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1109.0     |         |
| -684.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 5.0             | 1191.0     |         |
| -762.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1269.0     |         |
| -866.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1373.0     |         |

MAPID: 15900099000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 4N 11E SECTION: 6 QUARTERS/FOOTAGES: 330' N line, 660' E line of SE SE NE

QUADRANGLE: DUNDAS LONGITUDE: -88.025769 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.813675 DATE COLLECTED: 0 / 0 / 1941

SURFACE ELEVATION (FT.): 507.0 LOGGED (FT.): 5070.0 LOG TYPE:

SOURCE: MAGNOLIA, STERCHI S 0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -347.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 854.0      |         |
| -496.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 1003.0     |         |
| -565.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1072.0     |         |
| -610.0                 | CARBONDALE | SPRINGFIELD   | COAL      | -               | 1117.0     |         |
| -703.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1210.0     |         |

MAPID: 15900099000C VERSION: 2

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 11E SECTION: 6 QUARTERS/FOOTAGES: 330' N line, 660' E line of SE SE NE

QUADRANGLE: DUNDAS LONGITUDE: -88.025769 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.813675 DATE COLLECTED:

SURFACE ELEVATION (FT.): 507.0 LOGGED (FT.): 1367.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: FAIR LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -340.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 847.0      |         |
| -494.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 1001.0     |         |
| -565.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1072.0     |         |
| -608.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1115.0     |         |
| -702.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1209.0     |         |
| -823.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1330.0     |         |
| -860.0                 | SPOON      | SEELYVILLE    | COAL      | -               | 1367.0     |         |

MAPID: 15900136000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 4N 11E SECTION: 6 QUARTERS/FOOTAGES: SE NE NE

QUADRANGLE: DUNDAS LONGITUDE: -88.024623 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.817335 DATE COLLECTED: 0 / 0 / 1941

SURFACE ELEVATION (FT.): 506.0 LOGGED (FT.): 5060.0 LOG TYPE:

SOURCE: OLSON OC, NUDING A F0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -357.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 863.0      |         |
| -509.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 1015.0     |         |
| -580.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1086.0     |         |
| -624.0                 | CARBONDALE | SPRINGFIELD   | COAL      | -               | 1130.0     |         |
| -721.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1227.0     |         |

MAPID: 15900838000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 11E SECTION: 6 QUARTERS/FOOTAGES: 330' N line, 330' W line of NW SW  
 QUADRANGLE: DUNDAS LONGITUDE: -88.037272 GEOLOGIST: C TREWORGY  
 CONFIDENTIAL: N LATITUDE: 38.811849 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 522.0 LOGGED (FT.): 1405.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -350.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 872.0              |
| -506.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 1028.0             |
| -584.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1106.0             |
| -622.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.5             | 1144.0             |
| -710.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1232.0             |
| -841.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1363.0             |
| -878.0                 | SPOON      | SEELYVILLE    | COAL      | 5.0             | 1400.0             |

MAPID: 15902338000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 11E SECTION: 18 QUARTERS/FOOTAGES: 330' N line, 330' E line of SE  
 QUADRANGLE: DUNDAS LONGITUDE: -88.024729 GEOLOGIST: C TREWORGY  
 CONFIDENTIAL: N LATITUDE: 38.782644 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 496.0 LOGGED (FT.): 1390.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -188.0                 | BOND       | CARTHAGE      | LIMESTONE | 5.0             | 684.0              |
| -388.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 884.0              |
| -544.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 1040.0             |
| -620.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1116.0             |
| -675.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.0             | 1171.0             |
| -779.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1275.0             |
| -894.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1390.0             |

MAPID: 15902339000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 11E SECTION: 18 QUARTERS/FOOTAGES: NW NW SW  
 QUADRANGLE: DUNDAS LONGITUDE: -88.037794 GEOLOGIST: C TREWORGY  
 CONFIDENTIAL: N LATITUDE: 38.782726 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 505.0 LOGGED (FT.): 1402.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -357.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 862.0      |         |
| -509.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 1014.0     |         |
| -585.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1090.0     |         |
| -636.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.0             | 1141.0     |         |
| -735.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1240.0     |         |
| -839.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1344.0     |         |
| -894.0                 | SPOON      | SEELYVILLE    | COAL      | 3.0             | 1399.0     |         |

MAPID: 15900883000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 11E SECTION: 19 QUARTERS/FOOTAGES: 990' S line, 330' E line of NW  
 QUADRANGLE: DUNDAS LONGITUDE: -88.034144 GEOLOGIST: C TREWORGY  
 CONFIDENTIAL: N LATITUDE: 38.771542 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 483.0 LOGGED (FT.): 1280.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -330.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 13.0            | 813.0      |         |
| -475.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 958.0      |         |
| -552.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1035.0     |         |
| -600.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.0             | 1083.0     |         |
| -697.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1180.0     |         |
| -797.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1280.0     |         |

MAPID: 15900887000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 11E SECTION: 30 QUARTERS/FOOTAGES: SW NE SE  
 QUADRANGLE: DUNDAS LONGITUDE: -88.027115 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.75162 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 498.0 LOGGED (FT.): 1358.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -374.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 8.0             | 872.0      |         |
| -524.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 1022.0     |         |
| -602.0                 | CARBONDALE | HERRIN        | COAL      | 4.5             | 1100.0     |         |
| -663.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.5             | 1161.0     |         |
| -761.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1259.0     |         |
| -860.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1358.0     |         |

MAPID: 15902676000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 11E SECTION: 31 QUARTERS/FOOTAGES: SW SW NE  
 QUADRANGLE: OLNEY LONGITUDE: -88.031772 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.740707 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 544.0 LOGGED (FT.): 1432.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -196.0                 | BOND       | CARTHAGE      | LIMESTONE | 5.0             | 740.0      |         |
| -389.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 12.0            | 933.0      |         |
| -553.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 1097.0     |         |
| -627.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1171.0     |         |
| -698.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1242.0     |         |
| -786.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1330.0     |         |
| -888.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1432.0     |         |



MAPID: 15902342000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 14W SECTION: 2 QUARTERS/FOOTAGES: 330' N line, 660' W line of SW SW  
 QUADRANGLE: LANDES LONGITUDE: -87.943799 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.808811 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 482.0 LOGGED (FT.): 1282.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -311.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 793.0      |         |
| -460.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 942.0      |         |
| -528.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1010.0     |         |
| -589.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1071.0     |         |
| -704.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1186.0     |         |
| -800.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1282.0     |         |

MAPID: 15900841000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 14W SECTION: 4 QUARTERS/FOOTAGES: SE SE SW  
 QUADRANGLE: LANDES LONGITUDE: -87.975711 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.806951 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 496.0 LOGGED (FT.): 1342.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -355.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 851.0      |         |
| -510.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 1006.0     |         |
| -584.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1080.0     |         |
| -645.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1141.0     |         |
| -748.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1244.0     |         |
| -846.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1342.0     |         |

MAPID: 15902343000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 14W SECTION: 4 QUARTERS/FOOTAGES: NW NW NW  
 QUADRANGLE: LANDES LONGITUDE: -87.982691 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.819514 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 473.0 LOGGED (FT.): 1348.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -366.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 16.0            | 839.0      |         |
| -522.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 995.0      |         |
| -597.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1070.0     |         |
| -656.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1129.0     |         |
| -759.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1232.0     |         |
| -875.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1348.0     |         |

MAPID: 15900842000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 14W SECTION: 5 QUARTERS/FOOTAGES: NW SW SE  
 QUADRANGLE: LANDES LONGITUDE: -87.992257 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.80865 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 495.0 LOGGED (FT.): 1348.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -357.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 23.0            | 852.0      |         |
| -515.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 1010.0     |         |
| -595.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1090.0     |         |
| -645.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1140.0     |         |
| -754.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1249.0     |         |
| -853.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1348.0     |         |

MAPID: 15902344000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 14W SECTION: 5 QUARTERS/FOOTAGES: NE SE NE

QUADRANGLE: LANDES LONGITUDE: -87.985094 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.815904 DATE COLLECTED:

SURFACE ELEVATION (FT.): 476.0 LOGGED (FT.): 1364.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -197.0                 | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 673.0      |         |
| -375.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 851.0      |         |
| -529.0                 | CARBONDALE | DANVILLE      | COAL      | 2.5             | 1005.0     |         |
| -607.0                 | CARBONDALE | HERRIN        | COAL      | 5.0             | 1083.0     |         |
| -661.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.5             | 1137.0     |         |
| -774.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1250.0     |         |
| -888.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1364.0     |         |

MAPID: 15900092000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 4N 14W SECTION: 6 QUARTERS/FOOTAGES: NW SW NW

QUADRANGLE: DUNDAS LONGITUDE: -88.02217 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.815653 DATE COLLECTED: 0 / 0 / 1941

SURFACE ELEVATION (FT.): 494.0 LOGGED (FT.): 4940.0 LOG TYPE:

SOURCE: NOLF E G, NUDING A F0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|-------------|---------------|-----------|-----------------|------------|---------|
|                        |             |               |           | UNIT            | OVERBURDEN |         |
| -348.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 842.0      |         |
| -498.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 992.0      |         |
| -568.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1062.0     |         |
| -611.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1105.0     |         |
| -986.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1480.0     |         |

MAPID: 15900137000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 4N 14W SECTION: 6 QUARTERS/FOOTAGES: 330' S line, 660' E line of NE NW

QUADRANGLE: DUNDAS LONGITUDE: -88.01556 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.81749 DATE COLLECTED: 0 / 0 / 1942

SURFACE ELEVATION (FT.): 500.0 LOGGED (FT.): 5000.0 LOG TYPE:

SOURCE: NOLF OC, STERCH HRS0002 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -361.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 861.0      |         |
| -512.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 1012.0     |         |
| -584.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1084.0     |         |
| -628.0                 | CARBONDALE | SPRINGFIELD   | COAL      | -               | 1128.0     |         |
| -728.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1228.0     |         |

MAPID: 15900137000C VERSION: 2

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 14W SECTION: 6 QUARTERS/FOOTAGES: 330' S line, 660' E line of NE NW

QUADRANGLE: DUNDAS LONGITUDE: -88.01556 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.81749 DATE COLLECTED:

SURFACE ELEVATION (FT.): 500.0 LOGGED (FT.): 1356.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -356.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 856.0      |         |
| -512.0                 | CARBONDALE | DANVILLE      | COAL      | 2.5             | 1012.0     |         |
| -586.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1086.0     |         |
| -629.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1129.0     |         |
| -730.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1230.0     |         |
| -856.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1356.0     |         |

MAPID: 15900486000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 14W SECTION: 6 QUARTERS/FOOTAGES: SW SW SW  
 QUADRANGLE: DUNDAS LONGITUDE: -88.022119 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.80675 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 478.0 LOGGED (FT.): 1277.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -328.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 806.0      |         |
| -476.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 954.0      |         |
| -550.0                 | CARBONDALE | HERRIN        | COAL      | 5.0             | 1028.0     |         |
| -594.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.5             | 1072.0     |         |
| -682.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1160.0     |         |
| -799.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1277.0     |         |

MAPID: 15900600000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 14W SECTION: 7 QUARTERS/FOOTAGES: SW NE NE  
 QUADRANGLE: DUNDAS LONGITUDE: -88.006697 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.803093 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 494.0 LOGGED (FT.): 1324.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -349.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 843.0      |         |
| -500.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 994.0      |         |
| -575.0                 | CARBONDALE | HERRIN        | COAL      | 5.0             | 1069.0     |         |
| -618.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1112.0     |         |
| -712.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1206.0     |         |
| -830.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1324.0     |         |

**MAPID:** 15900843000C    **VERSION:** 1    **PROJECT:** CGT-ECILL  
**COUNTY:** RICHLAND    **TWP/RNG:** 4N 14W    **SECTION:** 7    **QUARTERS/FOOTAGES:** 330' N line, 660' E line of NW  
**QUADRANGLE:** DUNDAS    **LONGITUDE:** -88.015466    **GEOLOGIST:** C TREWORY  
**CONFIDENTIAL:** N    **LATITUDE:** 38.804951    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 480.0    **LOGGED (FT.):** 1304.0    **LOG TYPE:** Electric Log  
**SOURCE:**    **WELL TYPE:** Oil and Gas Test  
**COMMENT:** GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -342.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 16.0            | 822.0              |
| -494.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 974.0              |
| -568.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1048.0             |
| -614.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.0             | 1094.0             |
| -710.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1190.0             |
| -824.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1304.0             |

**MAPID:** 15900138000C    **VERSION:** 1    **PROJECT:** RI 148  
**COUNTY:** RICHLAND    **TWP/RNG:** 4N 14W    **SECTION:** 10    **QUARTERS/FOOTAGES:** NE SE NE  
**QUADRANGLE:** LANDES    **LONGITUDE:** -87.947378    **GEOLOGIST:** SIEVER  
**CONFIDENTIAL:** N    **LATITUDE:** 38.801509    **DATE COLLECTED:** 0 / 0 / 1942  
**SURFACE ELEVATION (FT.):** 484.0    **LOGGED (FT.):** 4840.0    **LOG TYPE:**  
**SOURCE:** BOLES E A, PETTY W 0001    **WELL TYPE:** Oil and Gas Test  
**COMMENT:**

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|--------|-----------|-----------------|--------------------|
|                        |            |        |           | UNIT            | OVERBURDEN COMMENT |
| -543.0                 | CARBONDALE | HERRIN | COAL      | -               | 1027.0             |

**MAPID:** 15900138000C    **VERSION:** 2    **PROJECT:** CGT-ECILL  
**COUNTY:** RICHLAND    **TWP/RNG:** 4N 14W    **SECTION:** 10    **QUARTERS/FOOTAGES:** NE SE NE  
**QUADRANGLE:** LANDES    **LONGITUDE:** -87.947378    **GEOLOGIST:** C TREWORY  
**CONFIDENTIAL:** N    **LATITUDE:** 38.801509    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 487.0    **LOGGED (FT.):** 1293.0    **LOG TYPE:** Electric Log  
**SOURCE:**    **WELL TYPE:** Oil and Gas Test  
**COMMENT:** GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -319.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 806.0              |
| -475.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 962.0              |
| -543.0                 | CARBONDALE | HERRIN        | COAL      | 5.0             | 1030.0             |
| -606.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1093.0             |
| -716.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1203.0             |
| -806.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1293.0             |

MAPID: 15902347000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 14W SECTION: 10 QUARTERS/FOOTAGES: NE SW SE  
 QUADRANGLE: LANDES LONGITUDE: -87.952141 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.794082 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 494.0 LOGGED (FT.): 1297.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -315.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 809.0      |         |
| -466.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 960.0      |         |
| -534.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1028.0     |         |
| -599.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.0             | 1093.0     |         |
| -710.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1204.0     |         |
| -803.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1297.0     |         |

MAPID: 15900004000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 4N 14W SECTION: 11 QUARTERS/FOOTAGES: NE SW NW  
 QUADRANGLE: LANDES LONGITUDE: -87.942653 GEOLOGIST: SIEVER  
 CONFIDENTIAL: N LATITUDE: 38.801504 DATE COLLECTED: 0 / 0 / 1942  
 SURFACE ELEVATION (FT.): 483.0 LOGGED (FT.): 4830.0 LOG TYPE:  
 SOURCE: LEE R TRST, MILLER J 0001 WELL TYPE: Oil and Gas Test  
 COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|-------------|---------------|-----------|-----------------|------------|---------|
|                        |             |               |           | UNIT            | OVERBURDEN |         |
| -310.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 793.0      |         |
| -463.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 946.0      |         |
| -530.0                 | CARBONDALE  | HERRIN        | COAL      | 4.0             | 1013.0     |         |
| -594.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | 3.0             | 1077.0     |         |
| -692.0                 | CARBONDALE  | HOUCHIN CREEK | COAL      | -               | 1175.0     |         |
| -941.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1424.0     |         |

MAPID: 15900004000C VERSION: 2

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 14W SECTION: 11 QUARTERS/FOOTAGES: NE SW NW  
 QUADRANGLE: LANDES LONGITUDE: -87.942653 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.801504 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 483.0 LOGGED (FT.): 1279.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -312.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 795.0      |         |
| -465.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 948.0      |         |
| -529.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1012.0     |         |
| -593.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1076.0     |         |
| -699.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1182.0     |         |
| -796.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1279.0     |         |

MAPID: 15900844000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 14W SECTION: 13 QUARTERS/FOOTAGES: NW SW NE  
 QUADRANGLE: LANDES LONGITUDE: -87.916723 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.786558 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 474.0 LOGGED (FT.): 1166.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -229.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 703.0      |         |
| -369.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 843.0      |         |
| -431.0                 | CARBONDALE | HERRIN        | COAL      | 4.5             | 905.0      |         |
| -496.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.5             | 970.0      |         |
| -598.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1072.0     |         |
| -692.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1166.0     |         |



MAPID: 15900139000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 4N 14W SECTION: 16 QUARTERS/FOOTAGES: NE SE NE

QUADRANGLE: LANDES LONGITUDE: -87.966312 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.786624 DATE COLLECTED: 0 / 0 / 1943

SURFACE ELEVATION (FT.): 567.0 LOGGED (FT.): 5670.0 LOG TYPE:

SOURCE: SUN OC, RENNIER 0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -161.0                 | BOND       | CARTHAGE      | LIMESTONE | -               | 728.0      |         |
| -345.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 912.0      |         |
| -559.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1126.0     |         |
| -620.0                 | CARBONDALE | SPRINGFIELD   | COAL      | -               | 1187.0     |         |
| -726.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1293.0     |         |

MAPID: 15900139000C VERSION: 2

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 14W SECTION: 16 QUARTERS/FOOTAGES: NE SE NE

QUADRANGLE: LANDES LONGITUDE: -87.966312 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.786624 DATE COLLECTED:

SURFACE ELEVATION (FT.): 567.0 LOGGED (FT.): 1393.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -151.0                 | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 718.0      |         |
| -337.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 17.0            | 904.0      |         |
| -483.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 1050.0     |         |
| -557.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1124.0     |         |
| -618.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1185.0     |         |
| -726.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1293.0     |         |
| -826.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1393.0     |         |

MAPID: 15902351000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 14W SECTION: 16 QUARTERS/FOOTAGES: NW NW NW  
 QUADRANGLE: LANDES LONGITUDE: -87.982891 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.790319 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 534.0 LOGGED (FT.): 1423.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -373.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 907.0      |         |
| -532.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 1066.0     |         |
| -608.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1142.0     |         |
| -669.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1203.0     |         |
| -773.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1307.0     |         |
| -889.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1423.0     |         |

MAPID: 15903181000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 14W SECTION: 17 QUARTERS/FOOTAGES: SE SW SW  
 QUADRANGLE: LANDES LONGITUDE: -87.999404 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.777324 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 520.0 LOGGED (FT.): 1415.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -386.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 17.0            | 906.0      |         |
| -544.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 1064.0     |         |
| -620.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1140.0     |         |
| -677.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1197.0     |         |
| -783.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1303.0     |         |
| -895.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1415.0     |         |

MAPID: 15900845000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 14W SECTION: 18 QUARTERS/FOOTAGES: NE NE NE

QUADRANGLE: DUNDAS LONGITUDE: -88.003918 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.790147 DATE COLLECTED:

SURFACE ELEVATION (FT.): 522.0 LOGGED (FT.): 1408.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -288.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 810.0      |         |
| -542.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 1064.0     |         |
| -620.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1142.0     |         |
| -671.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.5             | 1193.0     |         |
| -776.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1298.0     |         |
| -886.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1408.0     |         |

MAPID: 15903180000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 14W SECTION: 19 QUARTERS/FOOTAGES: SW SE SE

QUADRANGLE: DUNDAS LONGITUDE: -88.00664 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.762486 DATE COLLECTED:

SURFACE ELEVATION (FT.): 523.0 LOGGED (FT.): 1360.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -353.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 876.0      |         |
| -504.0                 | CARBONDALE | DANVILLE      | COAL      | 2.5             | 1027.0     |         |
| -577.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1100.0     |         |
| -630.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.0             | 1153.0     |         |
| -733.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1256.0     |         |
| -837.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1360.0     |         |

MAPID: 15900408000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 14W SECTION: 22 QUARTERS/FOOTAGES: NE NE SE  
 QUADRANGLE: LANDES LONGITUDE: -87.947569 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.768011 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 482.0 LOGGED (FT.): 1264.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -305.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 13.0            | 787.0      |         |
| -457.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 939.0      |         |
| -523.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1005.0     |         |
| -579.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.5             | 1061.0     |         |
| -680.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1162.0     |         |
| -782.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1264.0     |         |

MAPID: 15902352000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 14W SECTION: 22 QUARTERS/FOOTAGES: NE SW SE  
 QUADRANGLE: LANDES LONGITUDE: -87.952288 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.764311 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 485.0 LOGGED (FT.): 1252.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -300.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 785.0      |         |
| -448.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 933.0      |         |
| -570.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.5             | 1055.0     |         |
| -669.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1154.0     |         |
| -767.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1252.0     |         |

MAPID: 15900140000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 4N 14W SECTION: 23 QUARTERS/FOOTAGES: 660' S line, 330' E line of SW

QUADRANGLE: LANDES LONGITUDE: -87.938175 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.763288 DATE COLLECTED: 0 / 0 / 1941

SURFACE ELEVATION (FT.): 480.0 LOGGED (FT.): 4800.0 LOG TYPE:

SOURCE: YORK ET AL, RICHEY 0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -288.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 768.0              |
| -436.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 916.0              |
| -504.0                 | CARBONDALE | HERRIN        | COAL      | -               | 984.0              |
| -566.0                 | CARBONDALE | SPRINGFIELD   | COAL      | -               | 1046.0             |
| -664.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1144.0             |

MAPID: 15900140000C VERSION: 2

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 14W SECTION: 23 QUARTERS/FOOTAGES: 660' S line, 330' E line of SW

QUADRANGLE: LANDES LONGITUDE: -87.938175 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.763288 DATE COLLECTED:

SURFACE ELEVATION (FT.): 480.0 LOGGED (FT.): 1254.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -280.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 16.0            | 760.0              |
| -434.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 914.0              |
| -504.0                 | CARBONDALE | HERRIN        | COAL      | -               | 984.0              |
| -564.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.5             | 1044.0             |
| -664.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1144.0             |
| -774.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1254.0             |

MAPID: 15900846000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 14W SECTION: 23 QUARTERS/FOOTAGES: NE SE NE  
 QUADRANGLE: LANDES LONGITUDE: -87.92868 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.771667 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 467.0 LOGGED (FT.): 1217.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -272.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 739.0      |         |
| -424.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 891.0      |         |
| -488.0                 | CARBONDALE | HERRIN        | COAL      | -               | 955.0      |         |
| -551.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.0             | 1018.0     |         |
| -654.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1121.0     |         |
| -750.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1217.0     |         |

MAPID: 15923628000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 14W SECTION: 26 QUARTERS/FOOTAGES: 330' S line, 660' W line of NW  
 QUADRANGLE: LANDES LONGITUDE: -87.944127 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.755118 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 483.0 LOGGED (FT.): 1251.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: FAIR LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -282.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 765.0      |         |
| -427.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 910.0      |         |
| -500.0                 | CARBONDALE | HERRIN        | COAL      | -               | 983.0      |         |
| -562.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.0             | 1045.0     |         |
| -667.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1150.0     |         |
| -768.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1251.0     |         |

**MAPID:** 15900847000C    **VERSION:** 1    **PROJECT:** CGT-ECILL  
**COUNTY:** RICHLAND    **TWP/RNG:** 4N 14W    **SECTION:** 27    **QUARTERS/FOOTAGES:** NE SE NE  
**QUADRANGLE:** LANDES    **LONGITUDE:** -87.947621    **GEOLOGIST:** C TREWORY  
**CONFIDENTIAL:** N    **LATITUDE:** 38.75694    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 484.0    **LOGGED (FT.):** 1252.0    **LOG TYPE:** Electric Log  
**SOURCE:**    **WELL TYPE:** Oil and Gas Test  
**COMMENT:** GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -293.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 12.0            | 777.0      |         |
| -434.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 918.0      |         |
| -506.0                 | CARBONDALE | HERRIN        | COAL      | 4.5             | 990.0      |         |
| -566.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.5             | 1050.0     |         |
| -658.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1142.0     |         |
| -768.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1252.0     |         |

**MAPID:** 15900848000C    **VERSION:** 1    **PROJECT:** CGT-ECILL  
**COUNTY:** RICHLAND    **TWP/RNG:** 4N 14W    **SECTION:** 28    **QUARTERS/FOOTAGES:** SE SE SE  
**QUADRANGLE:** CLAREMONT    **LONGITUDE:** -87.966586    **GEOLOGIST:** C TREWORY  
**CONFIDENTIAL:** N    **LATITUDE:** 38.747893    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 512.0    **LOGGED (FT.):** 1307.0    **LOG TYPE:** Electric Log  
**SOURCE:**    **WELL TYPE:** Oil and Gas Test  
**COMMENT:** GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -314.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 25.0            | 826.0      |         |
| -463.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 975.0      |         |
| -528.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1040.0     |         |
| -590.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1102.0     |         |
| -702.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1214.0     |         |
| -795.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1307.0     |         |

**MAPID:** 15925640000C    **VERSION:** 1    **PROJECT:** ISGS96  
**COUNTY:** RICHLAND    **TWP/RNG:** 4N 14W    **SECTION:** 28    **QUARTERS/FOOTAGES:** 400' S line, 250' E line  
**QUADRANGLE:** CLAREMONT    **LONGITUDE:** -87.966286    **GEOLOGIST:** C TREWORY  
**CONFIDENTIAL:** N    **LATITUDE:** 38.748082    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 510.0    **LOGGED (FT.):** 1108.5    **LOG TYPE:** Company map  
**SOURCE:** UTAH INTERNATIONAL    ISGS-99908    **WELL TYPE:** Unknown well type  
**COMMENT:** DATA & LOCATION FROM COMPANY MAP

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER      | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|-------------|-----------|-----------------|------------|---------|
|                        |            |             |           | UNIT            | OVERBURDEN |         |
| -533.0                 | CARBONDALE | HERRIN      | COAL      | 5.2             | 1043.0     |         |
| -594.0                 | CARBONDALE | SPRINGFIELD | COAL      | 4.5             | 1104.0     |         |

**MAPID:** 15900849000C    **VERSION:** 1    **PROJECT:** CGT-ECILL  
**COUNTY:** RICHLAND    **TWP/RNG:** 4N 14W    **SECTION:** 29    **QUARTERS/FOOTAGES:** SE NE SW  
**QUADRANGLE:** LANDES    **LONGITUDE:** -87.994813    **GEOLOGIST:** C TREWORY  
**CONFIDENTIAL:** N    **LATITUDE:** 38.751622    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 565.0    **LOGGED (FT.):** 1412.0    **LOG TYPE:** Electric Log  
**SOURCE:**    **WELL TYPE:** Oil and Gas Test  
**COMMENT:** GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -360.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 925.0      |         |
| -518.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 1083.0     |         |
| -592.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1157.0     |         |
| -661.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 6.0             | 1226.0     |         |
| -743.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1308.0     |         |
| -847.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1412.0     |         |

**MAPID:** 15902991000C    **VERSION:** 1    **PROJECT:** CGT-ECILL  
**COUNTY:** RICHLAND    **TWP/RNG:** 4N 14W    **SECTION:** 29    **QUARTERS/FOOTAGES:** SW NW NE  
**QUADRANGLE:** LANDES    **LONGITUDE:** -87.992335    **GEOLOGIST:** C TREWORY  
**CONFIDENTIAL:** N    **LATITUDE:** 38.758871    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 593.0    **LOGGED (FT.):** 1416.0    **LOG TYPE:** Electric Log  
**SOURCE:**    **WELL TYPE:** Oil and Gas Test  
**COMMENT:** FAIR LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -344.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 937.0      |         |
| -498.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 1091.0     |         |
| -567.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1160.0     |         |
| -620.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.0             | 1213.0     |         |
| -717.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1310.0     |         |
| -823.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1416.0     |         |

**MAPID:** 15925641000C    **VERSION:** 1    **PROJECT:** ISGS96  
**COUNTY:** RICHLAND    **TWP/RNG:** 4N 14W    **SECTION:** 29    **QUARTERS/FOOTAGES:** 100' S line, 350' W line  
**QUADRANGLE:** OLNEY    **LONGITUDE:** -88.001908    **GEOLOGIST:** C TREWORY  
**CONFIDENTIAL:** N    **LATITUDE:** 38.747404    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 550.0    **LOGGED (FT.):** 1252.3    **LOG TYPE:** Drillers Log  
**SOURCE:** UTAH INTERNATIONAL    NR-6    **WELL TYPE:** Coal Test  
**COMMENT:** DATA & LOCATION FROM COMPANY MAP

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER      | LITHOLOGY | THICKNESS (FT.) |            | COMMENT             |
|------------------------|------------|-------------|-----------|-----------------|------------|---------------------|
|                        |            |             |           | UNIT            | OVERBURDEN |                     |
| -600.0                 | CARBONDALE | JAMESTOWN   | COAL      | 3.0             | 1150.0     | 9.0 BTU; 2.0 SULFUR |
| -624.0                 | CARBONDALE | HERRIN      | COAL      | 5.8             | 1174.0     |                     |
| -697.0                 | CARBONDALE | SPRINGFIELD | COAL      | 5.3             | 1247.0     |                     |



MAPID: 15900141000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 4N 14W SECTION: 30 QUARTERS/FOOTAGES: SW NW SW

QUADRANGLE: DUNDAS LONGITUDE: -88.022339 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.751703 DATE COLLECTED: 0 / 0 / 1942

SURFACE ELEVATION (FT.): 490.0 LOGGED (FT.): 4900.0 LOG TYPE:

SOURCE: GULF ET AL, BOHRER L 0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -206.0                 | BOND       | CARTHAGE      | LIMESTONE | -               | 696.0              |
| -398.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 888.0              |
| -540.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 1030.0             |
| -621.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1111.0             |
| -680.0                 | CARBONDALE | SPRINGFIELD   | COAL      | -               | 1170.0             |
| -780.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1270.0             |

MAPID: 15900141000C VERSION: 2

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 14W SECTION: 30 QUARTERS/FOOTAGES: SW NW SW

QUADRANGLE: DUNDAS LONGITUDE: -88.022339 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.751703 DATE COLLECTED:

SURFACE ELEVATION (FT.): 490.0 LOGGED (FT.): 1325.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -206.0                 | BOND       | CARTHAGE      | LIMESTONE | 5.0             | 696.0              |
| -389.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 13.0            | 879.0              |
| -540.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 1030.0             |
| -620.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1110.0             |
| -679.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1169.0             |
| -780.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1270.0             |
| -835.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1325.0             |

MAPID: 1590085000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 4N 14W SECTION: 32 QUARTERS/FOOTAGES: 870' N line, 330' E line of SW SE  
 QUADRANGLE: CLAREMONT LONGITUDE: -87.991273 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.733621 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 541.0 LOGGED (FT.): 1420.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -371.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 16.0            | 912.0      |         |
| -533.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 1074.0     |         |
| -606.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1147.0     |         |
| -678.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.5             | 1219.0     |         |
| -779.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1320.0     |         |
| -879.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1420.0     |         |

MAPID: 15925642000C VERSION: 1

PROJECT: ISGS96

COUNTY: RICHLAND TWP/RNG: 4N 14W SECTION: 32 QUARTERS/FOOTAGES: 700' S line, 1200' E line  
 QUADRANGLE: CLAREMONT LONGITUDE: -87.988419 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.734255 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 539.0 LOGGED (FT.): 1225.0 LOG TYPE: Company map  
 SOURCE: UTAH INTERNATIONAL ISGS-99909 WELL TYPE: Unknown well type  
 COMMENT: DATA & LOCATION FROM COMPANY MAP

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER      | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|-------------|-----------|-----------------|------------|---------|
|                        |            |             |           | UNIT            | OVERBURDEN |         |
| -606.0                 | CARBONDALE | HERRIN      | COAL      | 5.5             | 1145.0     |         |
| -681.0                 | CARBONDALE | SPRINGFIELD | COAL      | 5.0             | 1220.0     |         |

MAPID: 15925643000C VERSION: 1

PROJECT: ISGS96

COUNTY: RICHLAND TWP/RNG: 4N 14W SECTION: 33 QUARTERS/FOOTAGES: 50' N line, 100' E line  
 QUADRANGLE: CLAREMONT LONGITUDE: -87.96577 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.746838 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 505.0 LOGGED (FT.): 1097.2 LOG TYPE: Drillers Log  
 SOURCE: UTAH INTERNATIONAL NR-5 WELL TYPE: Coal Test  
 COMMENT: DATA & LOCATION FROM COMPANY MAP

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER      | LITHOLOGY | THICKNESS (FT.) |            | COMMENT             |
|------------------------|------------|-------------|-----------|-----------------|------------|---------------------|
|                        |            |             |           | UNIT            | OVERBURDEN |                     |
| -514.0                 | CARBONDALE | JAMESTOWN   | COAL      | 3.0             | 1019.0     | 9.0 BTU; 1.1 SULFUR |
| -536.0                 | CARBONDALE | HERRIN      | COAL      | 5.6             | 1041.0     |                     |
| -588.0                 | CARBONDALE | SPRINGFIELD | COAL      | 4.2             | 1093.0     |                     |

**MAPID:** 15925644000C    **VERSION:** 1    **PROJECT:** ISGS96  
**COUNTY:** RICHLAND    **TWP/RNG:** 4N 14W    **SECTION:** 36    **QUARTERS/FOOTAGES:** 200' S line, 2300' W line  
**QUADRANGLE:** CLAREMONT    **LONGITUDE:** -87.919547    **GEOLOGIST:** C TREWORGY  
**CONFIDENTIAL:** N    **LATITUDE:** 38.73268    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 480.0    **LOGGED (FT.):** 1063.0    **LOG TYPE:** Drillers Log  
**SOURCE:** UTAH INTERNATIONAL    NR-4    **WELL TYPE:** Coal Test  
**COMMENT:** DATA & LOCATION FROM COMPANY MAP

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER      | LITHOLOGY | THICKNESS (FT.) |            | COMMENT                  |
|------------------------|------------|-------------|-----------|-----------------|------------|--------------------------|
|                        |            |             |           | UNIT            | OVERBURDEN |                          |
| -478.0                 | CARBONDALE | JAMESTOWN   | COAL      | 3.0             | 958.0      | BTU 13.5; SULFUR<br>.75? |
| -503.0                 | CARBONDALE | HERRIN      | COAL      | 5.5             | 983.0      |                          |
| -578.0                 | CARBONDALE | SPRINGFIELD | COAL      | 5.0             | 1058.0     |                          |

**MAPID:** 15900102000C    **VERSION:** 1    **PROJECT:** RI 148  
**COUNTY:** RICHLAND    **TWP/RNG:** 5N 9E    **SECTION:** 25    **QUARTERS/FOOTAGES:** SE NE SE  
**QUADRANGLE:** WAKEFIELD    **LONGITUDE:** -88.151459    **GEOLOGIST:** SIEVER  
**CONFIDENTIAL:** N    **LATITUDE:** 38.836744    **DATE COLLECTED:** 0 / 0 / 1942  
**SURFACE ELEVATION (FT.):** 492.0    **LOGGED (FT.):** 4920.0    **LOG TYPE:**  
**SOURCE:** POWERS R R, WRIGHT F 0001    **WELL TYPE:** Oil and Gas Test  
**COMMENT:**

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|-------------|---------------|-----------|-----------------|------------|---------|
|                        |             |               |           | UNIT            | OVERBURDEN |         |
| -305.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 797.0      |         |
| -485.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 977.0      |         |
| -551.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1043.0     |         |
| -597.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1089.0     |         |
| -655.0                 | CARBONDALE  | HOUCHIN CREEK | COAL      | -               | 1147.0     |         |
| -855.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1347.0     |         |

MAPID: 15902354000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 5N 9E SECTION: 25 QUARTERS/FOOTAGES: SE SE SE  
 QUADRANGLE: WAKEFIELD LONGITUDE: -88.151366 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.833059 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 479.0 LOGGED (FT.): 1266.5 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: DAVIS?@ 1300', GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -311.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 790.0      |         |
| -466.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 945.0      |         |
| -531.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1010.0     |         |
| -571.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1050.0     |         |
| -633.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1112.0     |         |
| -768.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1247.0     |         |
| -784.0                 | SPOON      | SEELYVILLE    | COAL      | 3.5             | 1263.0     |         |

MAPID: 15902355000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 5N 9E SECTION: 25 QUARTERS/FOOTAGES: SW NE SE  
 QUADRANGLE: WAKEFIELD LONGITUDE: -88.153768 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.83674 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 494.0 LOGGED (FT.): 1278.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -67.0                  | BOND       | CARTHAGE      | LIMESTONE | 4.0             | 561.0      |         |
| -341.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 11.0            | 835.0      |         |
| -490.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 984.0      |         |
| -554.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1048.0     |         |
| -595.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1089.0     |         |
| -658.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1152.0     |         |
| -784.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1278.0     |         |

MAPID: 15900852000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 5N 9E SECTION: 26 QUARTERS/FOOTAGES: SW SW NE  
 QUADRANGLE: WAKEFIELD LONGITUDE: -88.17677 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.840365 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 504.0 LOGGED (FT.): 1395.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: FAIR LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -399.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 7.0             | 903.0      |         |
| -564.0                 | CARBONDALE | DANVILLE      | COAL      | 2.5             | 1068.0     |         |
| -626.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1130.0     |         |
| -671.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.5             | 1175.0     |         |
| -744.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1248.0     |         |
| -872.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1376.0     |         |
| -888.0                 | SPOON      | SEELYVILLE    | COAL      | 3.0             | 1392.0     |         |

MAPID: 15900454000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 5N 9E SECTION: 27 QUARTERS/FOOTAGES: NW SE NE  
 QUADRANGLE: WAKEFIELD LONGITUDE: -88.190721 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.842287 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 480.0 LOGGED (FT.): 1387.5 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -575.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 1055.0     |         |
| -632.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1112.0     |         |
| -676.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1156.0     |         |
| -750.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1230.0     |         |
| -886.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1366.0     |         |
| -904.0                 | SPOON      | SEELYVILLE    | COAL      | 3.5             | 1384.0     |         |

MAPID: 15902356000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 5N 9E SECTION: 27 QUARTERS/FOOTAGES: SW SW NW  
 QUADRANGLE: WAKEFIELD LONGITUDE: -88.205695 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.840657 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 494.0 LOGGED (FT.): 1393.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -386.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 880.0      |         |
| -563.0                 | CARBONDALE | DANVILLE      | COAL      | 2.5             | 1057.0     |         |
| -616.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1110.0     |         |
| -665.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1159.0     |         |
| -738.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1232.0     |         |
| -870.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1364.0     |         |
| -893.0                 | SPOON      | SEELYVILLE    | COAL      | 6.0             | 1387.0     |         |

MAPID: 15900103000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 5N 9E SECTION: 28 QUARTERS/FOOTAGES: SE SE NW  
 QUADRANGLE: WAKEFIELD LONGITUDE: -88.217488 GEOLOGIST: SIEVER  
 CONFIDENTIAL: N LATITUDE: 38.840741 DATE COLLECTED: 0 / 0 / 1942  
 SURFACE ELEVATION (FT.): 497.0 LOGGED (FT.): 4970.0 LOG TYPE:  
 SOURCE: GULF REF, WAKEFLD L 0001 WELL TYPE: Oil and Gas Test  
 COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|-------------|---------------|-----------|-----------------|------------|---------|
|                        |             |               |           | UNIT            | OVERBURDEN |         |
| -429.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 926.0      |         |
| -655.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1152.0     |         |
| -708.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1205.0     |         |
| -777.0                 | CARBONDALE  | HOUCHIN CREEK | COAL      | -               | 1274.0     |         |
| -949.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1446.0     |         |

MAPID: 15900103000C    VERSION: 2

PROJECT: CGT-ECILL

COUNTY: RICHLAND    TWP/RNG: 5N 9E    SECTION: 28    QUARTERS/FOOTAGES: SE SE NW  
 QUADRANGLE: WAKEFIELD    LONGITUDE: -88.217488    GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N    LATITUDE: 38.840741    DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 497.0    LOGGED (FT.): 1423.0    LOG TYPE: Electric Log  
 SOURCE:    WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -249.0                 | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 746.0              |
| -420.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 20.0            | 917.0              |
| -606.0                 | CARBONDALE | DANVILLE      | COAL      | 3.5             | 1103.0             |
| -656.0                 | CARBONDALE | HERRIN        | COAL      | 5.5             | 1153.0             |
| -706.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 5.5             | 1203.0             |
| -777.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1274.0             |
| -913.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1410.0             |
| -923.0                 | SPOON      | SEELYVILLE    | COAL      | 3.0             | 1420.0             |

MAPID: 15900853000C    VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND    TWP/RNG: 5N 9E    SECTION: 29    QUARTERS/FOOTAGES: SW NW SW  
 QUADRANGLE: WAKEFIELD    LONGITUDE: -88.243189    GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N    LATITUDE: 38.83716    DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 493.0    LOGGED (FT.): 1398.0    LOG TYPE: Electric Log  
 SOURCE:    WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -226.0                 | BOND       | CARTHAGE      | LIMESTONE | 5.0             | 719.0              |
| -427.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 920.0              |
| -581.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 1074.0             |
| -626.0                 | CARBONDALE | HERRIN        | COAL      | 5.0             | 1119.0             |
| -673.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1166.0             |
| -737.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1230.0             |
| -891.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1384.0             |
| -905.0                 | SPOON      | SEELYVILLE    | COAL      | -               | 1398.0             |

MAPID: 15900677000C    VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND    TWP/RNG: 5N 9E    SECTION: 30    QUARTERS/FOOTAGES: 330' N line, 410' W line of SE

QUADRANGLE: SAILOR SPRINGS    LONGITUDE: -88.252223    GEOLOGIST: C TREWORGY

CONFIDENTIAL: N    LATITUDE: 38.839154    DATE COLLECTED:

SURFACE ELEVATION (FT.): 465.0    LOGGED (FT.): 1372.0    LOG TYPE: Electric Log

SOURCE:    WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -242.0                 | BOND       | CARTHAGE      | LIMESTONE | 6.0             | 707.0              |
| -426.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 891.0              |
| -585.0                 | CARBONDALE | DANVILLE      | COAL      | 2.5             | 1050.0             |
| -633.0                 | CARBONDALE | HERRIN        | COAL      | 5.0             | 1098.0             |
| -676.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1141.0             |
| -745.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1210.0             |
| -895.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1360.0             |
| -905.0                 | SPOON      | SEELYVILLE    | COAL      | 2.0             | 1370.0             |

MAPID: 15900876000C    VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND    TWP/RNG: 5N 9E    SECTION: 30    QUARTERS/FOOTAGES: NW SW SE

QUADRANGLE: SAILOR SPRINGS    LONGITUDE: -88.252506    GEOLOGIST: C TREWORGY

CONFIDENTIAL: N    LATITUDE: 38.835501    DATE COLLECTED:

SURFACE ELEVATION (FT.): 487.0    LOGGED (FT.): 1409.0    LOG TYPE: Electric Log

SOURCE:    WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -238.0                 | BOND       | CARTHAGE      | LIMESTONE | 7.0             | 725.0              |
| -431.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 918.0              |
| -584.0                 | CARBONDALE | DANVILLE      | COAL      | 2.5             | 1071.0             |
| -631.0                 | CARBONDALE | HERRIN        | COAL      | 5.0             | 1118.0             |
| -677.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.5             | 1164.0             |
| -743.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1230.0             |
| -896.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1383.0             |
| -918.0                 | SPOON      | SEELYVILLE    | COAL      | 4.0             | 1405.0             |



MAPID: 15900273000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 5N 9E SECTION: 31 QUARTERS/FOOTAGES: NW NW NW

QUADRANGLE: SAILOR SPRINGS LONGITUDE: -88.257764 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.831932 DATE COLLECTED: 0 / 0 / 1945

SURFACE ELEVATION (FT.): 488.0 LOGGED (FT.): 4880.0 LOG TYPE:

SOURCE: KINGWOODOC, KLINGER G 0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -220.0                 | BOND        | CARTHAGE      | LIMESTONE | -               | 708.0              |
| -416.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 904.0              |
| -566.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 1054.0             |
| -612.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1100.0             |
| -662.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1150.0             |
| -857.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1345.0             |
| -998.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1486.0             |

MAPID: 15902358000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 5N 9E SECTION: 31 QUARTERS/FOOTAGES: NW NE SE

QUADRANGLE: WAKEFIELD LONGITUDE: -88.24769 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.824317 DATE COLLECTED:

SURFACE ELEVATION (FT.): 483.0 LOGGED (FT.): 1364.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -244.0                 | BOND       | CARTHAGE      | LIMESTONE | 7.0             | 727.0              |
| -399.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 882.0              |
| -582.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 1065.0             |
| -632.0                 | CARBONDALE | HERRIN        | COAL      | 5.0             | 1115.0             |
| -677.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.5             | 1160.0             |
| -749.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1232.0             |
| -881.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1364.0             |

MAPID: 15902359000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 5N 9E SECTION: 33 QUARTERS/FOOTAGES: SW SE SE  
 QUADRANGLE: WAKEFIELD LONGITUDE: -88.210402 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.81844 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 485.0 LOGGED (FT.): 1372.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -213.0                 | BOND       | CARTHAGE      | LIMESTONE | 8.0             | 698.0              |
| -389.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 20.0            | 874.0              |
| -552.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 1037.0             |
| -615.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1100.0             |
| -663.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1148.0             |
| -736.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1221.0             |
| -876.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1361.0             |
| -885.0                 | SPOON      | SEELYVILLE    | COAL      | 2.0             | 1370.0             |

MAPID: 15900854000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 5N 9E SECTION: 34 QUARTERS/FOOTAGES: NE SW NW  
 QUADRANGLE: WAKEFIELD LONGITUDE: -88.203428 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.827724 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 492.0 LOGGED (FT.): 1396.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -219.0                 | BOND       | CARTHAGE      | LIMESTONE | 7.0             | 711.0              |
| -399.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 891.0              |
| -567.0                 | CARBONDALE | DANVILLE      | COAL      | 2.5             | 1059.0             |
| -628.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1120.0             |
| -680.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 5.0             | 1172.0             |
| -742.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1234.0             |
| -891.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1383.0             |
| -901.0                 | SPOON      | SEELYVILLE    | COAL      | 3.0             | 1393.0             |

MAPID: 15900105000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 5N 9E SECTION: 36 QUARTERS/FOOTAGES: NE SE SW

QUADRANGLE: WAKEFIELD LONGITUDE: -88.160759 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.820145 DATE COLLECTED: 0 / 0 / 1941

SURFACE ELEVATION (FT.): 490.0 LOGGED (FT.): 4900.0 LOG TYPE:

SOURCE: PURE OC, CAVINS W 0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|-------------|---------------|-----------|-----------------|------------|---------|
|                        |             |               |           | UNIT            | OVERBURDEN |         |
| -315.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 805.0      |         |
| -457.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 947.0      |         |
| -523.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1013.0     |         |
| -569.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1059.0     |         |
| -847.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1337.0     |         |

MAPID: 15900411000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 5N 9E SECTION: 36 QUARTERS/FOOTAGES: SW SE SW

QUADRANGLE: WAKEFIELD LONGITUDE: -88.163176 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.818339 DATE COLLECTED:

SURFACE ELEVATION (FT.): 495.0 LOGGED (FT.): 1271.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -132.0                 | BOND       | CARTHAGE      | LIMESTONE | 5.0             | 627.0      |         |
| -315.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 13.0            | 810.0      |         |
| -463.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 958.0      |         |
| -530.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1025.0     |         |
| -575.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1070.0     |         |
| -648.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1143.0     |         |
| -776.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1271.0     |         |

MAPID: 15902362000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 5N 9E SECTION: 36 QUARTERS/FOOTAGES: SE SE NW

QUADRANGLE: WAKEFIELD LONGITUDE: -88.160715 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.825691 DATE COLLECTED:

SURFACE ELEVATION (FT.): 501.0 LOGGED (FT.): 1301.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -141.0                 | BOND       | CARTHAGE      | LIMESTONE | 5.0             | 642.0              |
| -325.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 13.0            | 826.0              |
| -479.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 980.0              |
| -554.0                 | CARBONDALE | HERRIN        | COAL      | 5.0             | 1055.0             |
| -589.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.5             | 1090.0             |
| -643.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1144.0             |
| -783.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1284.0             |
| -798.0                 | SPOON      | SEELYVILLE    | COAL      | 2.0             | 1299.0             |

MAPID: 15900106000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 5N 10E SECTION: 25 QUARTERS/FOOTAGES: SE NW SW

QUADRANGLE: DUNDAS LONGITUDE: -88.053445 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.839074 DATE COLLECTED: 0 / 0 / 1943

SURFACE ELEVATION (FT.): 497.0 LOGGED (FT.): 4970.0 LOG TYPE:

SOURCE: GULF REF, MOSSER C 0002 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -368.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 865.0              |
| -513.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 1010.0             |
| -585.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1082.0             |
| -624.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1121.0             |
| -941.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1438.0             |

MAPID: 15900212000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 5N 10E SECTION: 25 QUARTERS/FOOTAGES: 672' N line, 660' E line of SW

QUADRANGLE: DUNDAS LONGITUDE: -88.050018 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.840091 DATE COLLECTED: 0 / 0 / 1943

SURFACE ELEVATION (FT.): 501.0 LOGGED (FT.): 5010.0 LOG TYPE:

SOURCE: GULF REF, STERCHI H 0003 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -201.0                 | BOND       | CARTHAGE      | LIMESTONE | -               | 702.0              |
| -367.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 868.0              |
| -509.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 1010.0             |
| -584.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1085.0             |
| -623.0                 | CARBONDALE | SPRINGFIELD   | COAL      | -               | 1124.0             |
| -700.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1201.0             |

MAPID: 15900212000C VERSION: 2

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 5N 10E SECTION: 25 QUARTERS/FOOTAGES: 672' N line, 660' E line of SW

QUADRANGLE: DUNDAS LONGITUDE: -88.050018 GEOLOGIST: C TREWORYG

CONFIDENTIAL: N LATITUDE: 38.840091 DATE COLLECTED:

SURFACE ELEVATION (FT.): 501.0 LOGGED (FT.): 1373.5 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -357.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 16.0            | 858.0              |
| -510.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 1011.0             |
| -584.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1085.0             |
| -611.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1112.0             |
| -699.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1200.0             |
| -852.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1353.0             |
| -865.0                 | SPOON      | SEELYVILLE    | COAL      | 7.5             | 1366.0             |

**MAPID:** 15900290000C    **VERSION:** 1    **PROJECT:** RI 148  
**COUNTY:** RICHLAND    **TWP/RNG:** 5N 10E    **SECTION:** 25    **QUARTERS/FOOTAGES:** SE SW NW  
**QUADRANGLE:** DUNDAS    **LONGITUDE:** -88.053472    **GEOLOGIST:** SIEVER  
**CONFIDENTIAL:** N    **LATITUDE:** 38.842799    **DATE COLLECTED:** 0 / 0 / 1944  
**SURFACE ELEVATION (FT.):** 492.0    **LOGGED (FT.):** 4920.0    **LOG TYPE:**  
**SOURCE:** GULF REF, HARDING L 0001    **WELL TYPE:** Oil and Gas Test  
**COMMENT:**

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|-------------|---------------|-----------|-----------------|------------|---------|
|                        |             |               |           | UNIT            | OVERBURDEN |         |
| -346.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 838.0      |         |
| -516.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 1008.0     |         |
| -588.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1080.0     |         |
| -628.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1120.0     |         |
| -938.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1430.0     |         |

**MAPID:** 15902382000C    **VERSION:** 1    **PROJECT:** CGT-ECILL  
**COUNTY:** RICHLAND    **TWP/RNG:** 5N 10E    **SECTION:** 25    **QUARTERS/FOOTAGES:** SE SW SW  
**QUADRANGLE:** DUNDAS    **LONGITUDE:** -88.053422    **GEOLOGIST:** C TREWORGY  
**CONFIDENTIAL:** N    **LATITUDE:** 38.835349    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 494.0    **LOGGED (FT.):** 1366.0    **LOG TYPE:** Electric Log  
**SOURCE:**    **WELL TYPE:** Oil and Gas Test  
**COMMENT:** GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -357.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 17.0            | 851.0      |         |
| -510.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 1004.0     |         |
| -586.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1080.0     |         |
| -624.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1118.0     |         |
| -702.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1196.0     |         |
| -854.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1348.0     |         |
| -866.0                 | SPOON      | SEELYVILLE    | COAL      | 6.0             | 1360.0     |         |

**MAPID:** 15900107000C    **VERSION:** 1    **PROJECT:** RI 148  
**COUNTY:** RICHLAND    **TWP/RNG:** 5N 10E    **SECTION:** 26    **QUARTERS/FOOTAGES:** SE NE NE  
**QUADRANGLE:** DUNDAS    **LONGITUDE:** -88.058157    **GEOLOGIST:** SIEVER  
**CONFIDENTIAL:** N    **LATITUDE:** 38.84646    **DATE COLLECTED:** 0 / 0 / 1942  
**SURFACE ELEVATION (FT.):** 485.0    **LOGGED (FT.):** 4850.0    **LOG TYPE:**  
**SOURCE:** SUN OC, HARDING L 0001    **WELL TYPE:** Oil and Gas Test  
**COMMENT:**

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|--------|-----------|-----------------|------------|---------|
|                        |            |        |           | UNIT            | OVERBURDEN |         |
| -593.0                 | CARBONDALE | HERRIN | COAL      | -               | 1078.0     |         |

MAPID: 15900107000C VERSION: 2

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 5N 10E SECTION: 26 QUARTERS/FOOTAGES: SE NE NE  
 QUADRANGLE: DUNDAS LONGITUDE: -88.058157 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.84646 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 485.0 LOGGED (FT.): 1347.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -362.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 847.0      |         |
| -517.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 1002.0     |         |
| -595.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1080.0     |         |
| -635.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1120.0     |         |
| -715.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1200.0     |         |
| -846.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1331.0     |         |
| -856.0                 | SPOON      | SEELYVILLE    | COAL      | 6.0             | 1341.0     |         |

MAPID: 15900108000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 5N 10E SECTION: 26 QUARTERS/FOOTAGES: SE NW SE  
 QUADRANGLE: DUNDAS LONGITUDE: -88.062888 GEOLOGIST: SIEVER  
 CONFIDENTIAL: N LATITUDE: 38.838926 DATE COLLECTED: 0 / 0 / 1942  
 SURFACE ELEVATION (FT.): 481.0 LOGGED (FT.): 4810.0 LOG TYPE:  
 SOURCE: SUN OC, MILLER O 0001 WELL TYPE: Oil and Gas Test  
 COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|-------------|---------------|-----------|-----------------|------------|---------|
|                        |             |               |           | UNIT            | OVERBURDEN |         |
| -365.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 846.0      |         |
| -511.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 992.0      |         |
| -587.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1068.0     |         |
| -630.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1111.0     |         |
| -927.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1408.0     |         |

MAPID: 15900109000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 5N 10E SECTION: 26 QUARTERS/FOOTAGES: SE SE SE

QUADRANGLE: DUNDAS LONGITUDE: -88.058074 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.835222 DATE COLLECTED: 0 / 0 / 1942

SURFACE ELEVATION (FT.): 494.0 LOGGED (FT.): 4940.0 LOG TYPE:

SOURCE: GULF REF, STIFF C 0002 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -366.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 860.0              |
| -514.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 1008.0             |
| -590.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1084.0             |
| -630.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1124.0             |
| -939.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1433.0             |

MAPID: 15900110000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 5N 10E SECTION: 26 QUARTERS/FOOTAGES: SW SW NE

QUADRANGLE: DUNDAS LONGITUDE: -88.065278 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.842636 DATE COLLECTED: 0 / 0 / 1943

SURFACE ELEVATION (FT.): 482.0 LOGGED (FT.): 4820.0 LOG TYPE:

SOURCE: PURE OC, STIFF E 0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -354.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 836.0              |
| -498.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 980.0              |
| -575.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1057.0             |
| -614.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1096.0             |
| -918.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1400.0             |



MAPID: 15902384000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 5N 10E SECTION: 26 QUARTERS/FOOTAGES: SW NE SW  
 QUADRANGLE: DUNDAS LONGITUDE: -88.07007 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.838865 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 476.0 LOGGED (FT.): 1314.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -339.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 815.0      |         |
| -490.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 966.0      |         |
| -569.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1045.0     |         |
| -604.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1080.0     |         |
| -680.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1156.0     |         |
| -838.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1314.0     |         |

MAPID: 15900855000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 5N 10E SECTION: 27 QUARTERS/FOOTAGES: 330' S line, 370' E line of NE SW  
 QUADRANGLE: DUNDAS LONGITUDE: -88.086653 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.838453 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 479.0 LOGGED (FT.): 1338.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -344.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 823.0      |         |
| -502.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 981.0      |         |
| -571.0                 | CARBONDALE | HERRIN        | COAL      | 5.0             | 1050.0     |         |
| -606.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1085.0     |         |
| -682.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1161.0     |         |
| -839.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1318.0     |         |
| -854.0                 | SPOON      | SEELYVILLE    | COAL      | 5.0             | 1333.0     |         |

MAPID: 15900856000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 5N 10E SECTION: 28 QUARTERS/FOOTAGES: 660' S line, 330' E line of SW SW

QUADRANGLE: DUNDAS LONGITUDE: -88.109833 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.835008 DATE COLLECTED:

SURFACE ELEVATION (FT.): 474.0 LOGGED (FT.): 1340.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -344.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 818.0      |         |
| -501.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 975.0      |         |
| -569.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1043.0     |         |
| -608.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.0             | 1082.0     |         |
| -677.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1151.0     |         |
| -836.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1310.0     |         |
| -862.0                 | SPOON      | SEELYVILLE    | COAL      | 4.0             | 1336.0     |         |

MAPID: 15902392000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 5N 10E SECTION: 28 QUARTERS/FOOTAGES: NW NW SE

QUADRANGLE: DUNDAS LONGITUDE: -88.102862 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.839811 DATE COLLECTED:

SURFACE ELEVATION (FT.): 472.0 LOGGED (FT.): 1332.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -341.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 813.0      |         |
| -502.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 974.0      |         |
| -573.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1045.0     |         |
| -608.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.5             | 1080.0     |         |
| -678.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1150.0     |         |
| -833.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1305.0     |         |
| -852.0                 | SPOON      | SEELYVILLE    | COAL      | 8.0             | 1324.0     |         |

MAPID: 15902394000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 5N 10E SECTION: 28 QUARTERS/FOOTAGES: SE NE NW  
 QUADRANGLE: DUNDAS LONGITUDE: -88.105272 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.845257 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 479.0 LOGGED (FT.): 1292.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -328.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 13.0            | 807.0      |         |
| -481.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 960.0      |         |
| -553.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1032.0     |         |
| -588.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1067.0     |         |
| -651.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1130.0     |         |
| -813.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1292.0     |         |

MAPID: 15900112000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 5N 10E SECTION: 29 QUARTERS/FOOTAGES: SW NE SE  
 QUADRANGLE: DUNDAS LONGITUDE: -88.116917 GEOLOGIST: SIEVER  
 CONFIDENTIAL: N LATITUDE: 38.837597 DATE COLLECTED: 0 / 0 / 1939  
 SURFACE ELEVATION (FT.): 450.0 LOGGED (FT.): 4500.0 LOG TYPE:  
 SOURCE: PURE OC, BARTLETT F0001 WELL TYPE: Oil and Gas Test  
 COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|-------------|---------------|-----------|-----------------|------------|---------|
|                        |             |               |           | UNIT            | OVERBURDEN |         |
| -331.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 781.0      |         |
| -483.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 933.0      |         |
| -851.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1301.0     |         |

MAPID: 15900452000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 5N 10E SECTION: 29 QUARTERS/FOOTAGES: NW SE NW  
 QUADRANGLE: WAKEFIELD LONGITUDE: -88.126393 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.842867 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 478.0 LOGGED (FT.): 1263.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -297.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 12.0            | 775.0      |         |
| -452.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 930.0      |         |
| -515.0                 | CARBONDALE | HERRIN        | COAL      | -               | 993.0      |         |
| -551.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1029.0     |         |
| -621.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1099.0     |         |
| -762.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1240.0     |         |
| -785.0                 | SPOON      | SEELYVILLE    | COAL      | -               | 1263.0     |         |

MAPID: 15900090000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 5N 10E SECTION: 30 QUARTERS/FOOTAGES: SE SW NE  
 QUADRANGLE: WAKEFIELD LONGITUDE: -88.137915 GEOLOGIST: SIEVER  
 CONFIDENTIAL: N LATITUDE: 38.840747 DATE COLLECTED: 0 / 0 / 1939  
 SURFACE ELEVATION (FT.): 487.0 LOGGED (FT.): 4870.0 LOG TYPE:  
 SOURCE: PURE OC, HEAP M 0001 WELL TYPE: Oil and Gas Test  
 COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|-------------|---------------|-----------|-----------------|------------|---------|
|                        |             |               |           | UNIT            | OVERBURDEN |         |
| -318.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 805.0      |         |
| -472.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 959.0      |         |
| -538.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1025.0     |         |
| -576.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1063.0     |         |
| -818.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1305.0     |         |

MAPID: 15900571000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 5N 10E SECTION: 30 QUARTERS/FOOTAGES: NE SW NW  
 QUADRANGLE: WAKEFIELD LONGITUDE: -88.147041 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.842363 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 493.0 LOGGED (FT.): 1288.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -328.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 18.0            | 821.0      |         |
| -485.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 978.0      |         |
| -550.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1043.0     |         |
| -592.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1085.0     |         |
| -657.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1150.0     |         |
| -779.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1272.0     |         |
| -795.0                 | SPOON      | SEELYVILLE    | COAL      | -               | 1288.0     |         |

MAPID: 15902416000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 5N 10E SECTION: 30 QUARTERS/FOOTAGES: SW SW SE  
 QUADRANGLE: WAKEFIELD LONGITUDE: -88.140044 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.833342 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 482.0 LOGGED (FT.): 1266.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -303.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 10.0            | 785.0      |         |
| -458.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 940.0      |         |
| -526.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1008.0     |         |
| -566.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1048.0     |         |
| -628.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1110.0     |         |
| -768.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1250.0     |         |
| -781.0                 | SPOON      | SEELYVILLE    | COAL      | 3.0             | 1263.0     |         |

**MAPID:** 1590010000C    **VERSION:** 1    **PROJECT:** RI 148  
**COUNTY:** RICHLAND    **TWP/RNG:** 5N 10E    **SECTION:** 31    **QUARTERS/FOOTAGES:** NE NE SW  
**QUADRANGLE:** WAKEFIELD    **LONGITUDE:** -88.142391    **GEOLOGIST:** SIEVER  
**CONFIDENTIAL:** N    **LATITUDE:** 38.823962    **DATE COLLECTED:** 0 / 0 / 1939  
**SURFACE ELEVATION (FT.):** 485.0    **LOGGED (FT.):** 4850.0    **LOG TYPE:**  
**SOURCE:** PURE OC, MURRY G 002A    **WELL TYPE:** Oil and Gas Test  
**COMMENT:**

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -302.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 787.0              |
| -446.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 931.0              |
| -510.0                 | CARBONDALE | HERRIN        | COAL      | -               | 995.0              |

**MAPID:** 15900241000C    **VERSION:** 1    **PROJECT:** RI 148  
**COUNTY:** RICHLAND    **TWP/RNG:** 5N 10E    **SECTION:** 31    **QUARTERS/FOOTAGES:** NE NW SW  
**QUADRANGLE:** WAKEFIELD    **LONGITUDE:** -88.146982    **GEOLOGIST:** SIEVER  
**CONFIDENTIAL:** N    **LATITUDE:** 38.823809    **DATE COLLECTED:** 0 / 0 / 1939  
**SURFACE ELEVATION (FT.):** 486.0    **LOGGED (FT.):** 4860.0    **LOG TYPE:**  
**SOURCE:** PURE OC, KROPP E E 001A    **WELL TYPE:** Oil and Gas Test  
**COMMENT:**

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -120.0                 | BOND       | CARTHAGE      | LIMESTONE | -               | 606.0              |
| -327.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | -               | 813.0              |
| -516.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1002.0             |

**MAPID:** 15900859000C    **VERSION:** 1    **PROJECT:** CGT-ECILL  
**COUNTY:** RICHLAND    **TWP/RNG:** 5N 10E    **SECTION:** 32    **QUARTERS/FOOTAGES:** SE SW SE  
**QUADRANGLE:** DUNDAS    **LONGITUDE:** -88.119218    **GEOLOGIST:** C TREWORGY  
**CONFIDENTIAL:** N    **LATITUDE:** 38.819136    **DATE COLLECTED:**  
**SURFACE ELEVATION (FT.):** 467.0    **LOGGED (FT.):** 1273.0    **LOG TYPE:** Electric Log  
**SOURCE:**    **WELL TYPE:** Oil and Gas Test  
**COMMENT:** FAIR LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -337.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 804.0              |
| -497.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 964.0              |
| -567.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1034.0             |
| -613.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1080.0             |
| -689.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1156.0             |
| -806.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1273.0             |

MAPID: 15900274000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 5N 10E SECTION: 33 QUARTERS/FOOTAGES: SW SE SE

QUADRANGLE: DUNDAS LONGITUDE: -88.098044 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.819722 DATE COLLECTED: 0 / 0 / 1945

SURFACE ELEVATION (FT.): 476.0 LOGGED (FT.): 4760.0 LOG TYPE:

SOURCE: PURE OC, STIFF J E 00A1 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -348.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 824.0              |
| -504.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 980.0              |
| -570.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1046.0             |
| -614.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1090.0             |
| -779.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1255.0             |
| -904.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1380.0             |

MAPID: 15900555000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 5N 10E SECTION: 33 QUARTERS/FOOTAGES: NE NW SW

QUADRANGLE: DUNDAS LONGITUDE: -88.10984 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.824919 DATE COLLECTED:

SURFACE ELEVATION (FT.): 461.0 LOGGED (FT.): 1317.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -340.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 801.0              |
| -502.0                 | CARBONDALE | DANVILLE      | COAL      | 2.5             | 963.0              |
| -571.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1032.0             |
| -614.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.5             | 1075.0             |
| -689.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1150.0             |
| -814.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1275.0             |
| -852.0                 | SPOON      | SEELYVILLE    | COAL      | 4.0             | 1313.0             |

MAPID: 15902454000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 5N 10E SECTION: 33 QUARTERS/FOOTAGES: NW NW SE  
 QUADRANGLE: DUNDAS LONGITUDE: -88.102781 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.82511 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 475.0 LOGGED (FT.): 1339.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -355.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 13.0            | 830.0      |         |
| -515.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 990.0      |         |
| -585.0                 | CARBONDALE | HERRIN        | COAL      | 5.0             | 1060.0     |         |
| -627.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.5             | 1102.0     |         |
| -705.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1180.0     |         |
| -830.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1305.0     |         |
| -860.0                 | SPOON      | SEELYVILLE    | COAL      | 4.0             | 1335.0     |         |

MAPID: 15900468000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 5N 10E SECTION: 34 QUARTERS/FOOTAGES: NE SW SE  
 QUADRANGLE: DUNDAS LONGITUDE: -88.08194 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.822036 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 471.0 LOGGED (FT.): 1326.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -366.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 12.0            | 837.0      |         |
| -600.0                 | CARBONDALE | HERRIN        | COAL      | 5.0             | 1071.0     |         |
| -642.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1113.0     |         |
| -722.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1193.0     |         |
| -842.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1313.0     |         |
| -855.0                 | SPOON      | SEELYVILLE    | COAL      | -               | 1326.0     |         |



MAPID: 15902463000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 5N 10E SECTION: 34 QUARTERS/FOOTAGES: NE SE NW

QUADRANGLE: DUNDAS LONGITUDE: -88.086519 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.829257 DATE COLLECTED:

SURFACE ELEVATION (FT.): 475.0 LOGGED (FT.): 1323.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -369.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 844.0      |         |
| -528.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 1003.0     |         |
| -602.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1077.0     |         |
| -640.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.5             | 1115.0     |         |
| -718.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1193.0     |         |
| -848.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1323.0     |         |

MAPID: 15900001000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 5N 10E SECTION: 35 QUARTERS/FOOTAGES: SE SE NE

QUADRANGLE: DUNDAS LONGITUDE: -88.058171 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.827843 DATE COLLECTED: 0 / 0 / 1942

SURFACE ELEVATION (FT.): 510.0 LOGGED (FT.): 5100.0 LOG TYPE:

SOURCE: GULF REF, RITTER J C0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|-------------|---------------|-----------|-----------------|------------|---------|
|                        |             |               |           | UNIT            | OVERBURDEN |         |
| -366.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 876.0      |         |
| -515.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 1025.0     |         |
| -587.0                 | CARBONDALE  | HERRIN        | COAL      | 4.0             | 1097.0     |         |
| -628.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1138.0     |         |
| -940.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1450.0     |         |

MAPID: 15900093000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 5N 10E SECTION: 35 QUARTERS/FOOTAGES: SE NE NE

QUADRANGLE: DUNDAS LONGITUDE: -88.05811 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.831525 DATE COLLECTED: 0 / 0 / 1942

SURFACE ELEVATION (FT.): 500.0 LOGGED (FT.): 5000.0 LOG TYPE:

SOURCE: GULF ET AL, STIFF C 0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -375.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 875.0              |
| -524.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 1024.0             |
| -602.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1102.0             |
| -645.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1145.0             |
| -729.0                 | CARBONDALE  | HOUCHIN CREEK | COAL      | -               | 1229.0             |
| -936.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1436.0             |

MAPID: 15900094000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 5N 10E SECTION: 35 QUARTERS/FOOTAGES: SE NW NE

QUADRANGLE: DUNDAS LONGITUDE: -88.062919 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.831496 DATE COLLECTED: 0 / 0 / 1942

SURFACE ELEVATION (FT.): 498.0 LOGGED (FT.): 4980.0 LOG TYPE:

SOURCE: GULF REF, BERRY L 0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -371.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 869.0              |
| -520.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 1018.0             |
| -594.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1092.0             |
| -636.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1134.0             |
| -932.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1430.0             |

MAPID: 15900094000C VERSION: 2

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 5N 10E SECTION: 35 QUARTERS/FOOTAGES: SE NW NE  
 QUADRANGLE: DUNDAS LONGITUDE: -88.062919 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.831496 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 498.0 LOGGED (FT.): 1373.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -363.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 861.0      |         |
| -518.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 1016.0     |         |
| -596.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1094.0     |         |
| -635.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.0             | 1133.0     |         |
| -718.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1216.0     |         |
| -846.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1344.0     |         |
| -872.0                 | SPOON      | SEELYVILLE    | COAL      | 3.0             | 1370.0     |         |

MAPID: 15902470000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 5N 10E SECTION: 35 QUARTERS/FOOTAGES: SE NW SE  
 QUADRANGLE: DUNDAS LONGITUDE: -88.063025 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.824131 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 509.0 LOGGED (FT.): 1334.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -354.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 16.0            | 863.0      |         |
| -511.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 1020.0     |         |
| -589.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1098.0     |         |
| -631.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1140.0     |         |
| -715.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1224.0     |         |
| -825.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1334.0     |         |

MAPID: 15900095000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 5N 10E SECTION: 36 QUARTERS/FOOTAGES: SE NW NW

QUADRANGLE: DUNDAS LONGITUDE: -88.053452 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.831647 DATE COLLECTED: 0 / 0 / 1942

SURFACE ELEVATION (FT.): 503.0 LOGGED (FT.): 5030.0 LOG TYPE:

SOURCE: GULF REF, HAHN C 0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -364.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 867.0              |
| -499.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 1002.0             |
| -583.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1086.0             |
| -627.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1130.0             |
| -705.0                 | CARBONDALE  | HOUCHIN CREEK | COAL      | -               | 1208.0             |
| -935.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1438.0             |

MAPID: 15900095000C VERSION: 2

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 5N 10E SECTION: 36 QUARTERS/FOOTAGES: SE NW NW

QUADRANGLE: DUNDAS LONGITUDE: -88.053452 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.831647 DATE COLLECTED:

SURFACE ELEVATION (FT.): 503.0 LOGGED (FT.): 1342.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -356.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 859.0              |
| -508.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 1011.0             |
| -583.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1086.0             |
| -623.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1126.0             |
| -707.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1210.0             |
| -831.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1334.0             |
| -834.0                 | SPOON      | SEELYVILLE    | COAL      | 5.0             | 1337.0             |

MAPID: 15900227000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 5N 10E SECTION: 36 QUARTERS/FOOTAGES: SE SW NW

QUADRANGLE: DUNDAS LONGITUDE: -88.053495 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.827953 DATE COLLECTED: 0 / 0 / 1942

SURFACE ELEVATION (FT.): 505.0 LOGGED (FT.): 5050.0 LOG TYPE:

SOURCE: GULF REF, RITTER J C0002 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -349.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 854.0              |
| -501.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 1006.0             |
| -585.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1090.0             |
| -625.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1130.0             |
| -795.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1300.0             |
| -1091.0                | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1596.0             |

MAPID: 15900240000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 5N 10E SECTION: 36 QUARTERS/FOOTAGES: NW NE NW

QUADRANGLE: DUNDAS LONGITUDE: -88.051129 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.833575 DATE COLLECTED: 0 / 0 / 1943

SURFACE ELEVATION (FT.): 503.0 LOGGED (FT.): 5030.0 LOG TYPE:

SOURCE: GULF REF, STERCHI H 0004 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -367.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 870.0              |
| -523.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 1026.0             |
| -579.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1082.0             |
| -701.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1204.0             |
| -951.0                 | SPOON       | PALZO         | SANDSTONE | -               | 1454.0             |
| -934.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1437.0             |

MAPID: 15902473000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 5N 10E SECTION: 36 QUARTERS/FOOTAGES: 800' S line, 330' E line of NE

QUADRANGLE: DUNDAS LONGITUDE: -88.03961 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.82964 DATE COLLECTED:

SURFACE ELEVATION (FT.): 537.0 LOGGED (FT.): 1264.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -370.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 16.0            | 907.0      |         |
| -528.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 1065.0     |         |
| -603.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1140.0     |         |
| -645.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.5             | 1182.0     |         |
| -727.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1264.0     |         |

MAPID: 15902476000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 5N 10E SECTION: 36 QUARTERS/FOOTAGES: NW SW SW

QUADRANGLE: DUNDAS LONGITUDE: -88.055896 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.822356 DATE COLLECTED:

SURFACE ELEVATION (FT.): 512.0 LOGGED (FT.): 1386.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -360.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 872.0      |         |
| -512.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 1024.0     |         |
| -588.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1100.0     |         |
| -630.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1142.0     |         |
| -722.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1234.0     |         |
| -835.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1347.0     |         |
| -870.0                 | SPOON      | SEELYVILLE    | COAL      | 4.0             | 1382.0     |         |

MAPID: 15902481000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 5N 11E SECTION: 30 QUARTERS/FOOTAGES: 1102' N line, 330' E line of NW

QUADRANGLE: DUNDAS LONGITUDE: -88.032011 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.846511 DATE COLLECTED:

SURFACE ELEVATION (FT.): 518.0 LOGGED (FT.): 1396.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -369.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 887.0              |
| -524.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 1042.0             |
| -600.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1118.0             |
| -639.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1157.0             |
| -728.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1246.0             |
| -858.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1376.0             |
| -870.0                 | SPOON      | SEELYVILLE    | COAL      | 8.0             | 1388.0             |

MAPID: 15902485000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 5N 11E SECTION: 30 QUARTERS/FOOTAGES: 337' N line, 333' W line of SW

QUADRANGLE: DUNDAS LONGITUDE: -88.03728 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.841287 DATE COLLECTED:

SURFACE ELEVATION (FT.): 534.0 LOGGED (FT.): 1421.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -369.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 903.0              |
| -525.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 1059.0             |
| -601.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1135.0             |
| -639.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.5             | 1173.0             |
| -719.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1253.0             |
| -868.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1402.0             |
| -881.0                 | SPOON      | SEELYVILLE    | COAL      | 6.0             | 1415.0             |

MAPID: 15900097000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 5N 11E SECTION: 31 QUARTERS/FOOTAGES: SE SE SE

QUADRANGLE: DUNDAS LONGITUDE: -88.024296 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.821014 DATE COLLECTED: 0 / 0 / 1942

SURFACE ELEVATION (FT.): 517.0 LOGGED (FT.): 5170.0 LOG TYPE:

SOURCE: JABLNSKI F, STERCHI 0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|-------------|---------------|-----------|-----------------|------------|---------|
|                        |             |               |           | UNIT            | OVERBURDEN |         |
| -364.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 881.0      |         |
| -522.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 1039.0     |         |
| -588.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1105.0     |         |
| -632.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1149.0     |         |
| -985.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1502.0     |         |

MAPID: 15902487000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 5N 11E SECTION: 31 QUARTERS/FOOTAGES: NW NE NE

QUADRANGLE: DUNDAS LONGITUDE: -88.026782 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.834089 DATE COLLECTED:

SURFACE ELEVATION (FT.): 507.0 LOGGED (FT.): 1365.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -347.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 854.0      |         |
| -501.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 1008.0     |         |
| -577.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1084.0     |         |
| -613.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1120.0     |         |
| -693.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1200.0     |         |
| -843.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1350.0     |         |
| -853.0                 | SPOON      | SEELYVILLE    | COAL      | 5.0             | 1360.0     |         |



MAPID: 15902488000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 5N 11E SECTION: 31 QUARTERS/FOOTAGES: NW NW SE

QUADRANGLE: DUNDAS LONGITUDE: -88.03135 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.826579 DATE COLLECTED:

SURFACE ELEVATION (FT.): 535.0 LOGGED (FT.): 1411.5 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -358.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 893.0      |         |
| -515.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 1050.0     |         |
| -589.0                 | CARBONDALE | HERRIN        | COAL      | 4.5             | 1124.0     |         |
| -632.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.0             | 1167.0     |         |
| -718.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1253.0     |         |
| -872.0                 | SPOON      | SEELYVILLE    | COAL      | 4.5             | 1407.0     |         |

MAPID: 15900861000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 5N 14W SECTION: 27 QUARTERS/FOOTAGES: NE SE SW

QUADRANGLE: LANDES LONGITUDE: -87.956618 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.837957 DATE COLLECTED:

SURFACE ELEVATION (FT.): 451.0 LOGGED (FT.): 1314.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -319.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 770.0      |         |
| -466.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 917.0      |         |
| -536.0                 | CARBONDALE | HERRIN        | COAL      | -               | 987.0      |         |
| -595.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1046.0     |         |
| -685.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1136.0     |         |
| -840.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1291.0     |         |
| -855.0                 | SPOON      | SEELYVILLE    | COAL      | 8.0             | 1306.0     |         |

MAPID: 15900862000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 5N 14W SECTION: 29 QUARTERS/FOOTAGES: 858' N line, 330' W line of SW

QUADRANGLE: DUNDAS LONGITUDE: -88.001367 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.840009 DATE COLLECTED:

SURFACE ELEVATION (FT.): 464.0 LOGGED (FT.): 1336.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: FAIR LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -366.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 16.0            | 830.0              |
| -515.0                 | CARBONDALE | DANVILLE      | COAL      | 2.5             | 979.0              |
| -586.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1050.0             |
| -630.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.5             | 1094.0             |
| -716.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1180.0             |
| -872.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1336.0             |

MAPID: 15902491000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 5N 14W SECTION: 30 QUARTERS/FOOTAGES: 330' S line, 975' E line of SW NW

QUADRANGLE: DUNDAS LONGITUDE: -88.021521 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.843283 DATE COLLECTED:

SURFACE ELEVATION (FT.): 480.0 LOGGED (FT.): 1330.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -348.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 16.0            | 828.0              |
| -496.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 976.0              |
| -568.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1048.0             |
| -606.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1086.0             |
| -685.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1165.0             |
| -828.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1308.0             |
| -843.0                 | SPOON      | SEELYVILLE    | COAL      | 7.0             | 1323.0             |

MAPID: 15902493000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 5N 14W SECTION: 30 QUARTERS/FOOTAGES: SW NW SE  
 QUADRANGLE: DUNDAS LONGITUDE: -88.011613 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.839625 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 475.0 LOGGED (FT.): 1350.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -356.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 831.0              |
| -505.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 980.0              |
| -579.0                 | CARBONDALE | HERRIN        | COAL      | 4.5             | 1054.0             |
| -619.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1094.0             |
| -703.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1178.0             |
| -854.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1329.0             |
| -867.0                 | SPOON      | SEELYVILLE    | COAL      | 8.0             | 1342.0             |

MAPID: 15902494000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 5N 14W SECTION: 30 QUARTERS/FOOTAGES: 363' S line, 330' W line of NE SE  
 QUADRANGLE: DUNDAS LONGITUDE: -88.006556 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.839706 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 478.0 LOGGED (FT.): 1352.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -356.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 834.0              |
| -509.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 987.0              |
| -582.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1060.0             |
| -626.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.5             | 1104.0             |
| -702.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1180.0             |
| -857.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1335.0             |
| -869.0                 | SPOON      | SEELYVILLE    | COAL      | 5.0             | 1347.0             |

MAPID: 15900096000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 5N 14W SECTION: 31 QUARTERS/FOOTAGES: SE NW SE

QUADRANGLE: DUNDAS LONGITUDE: -88.009057 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.824831 DATE COLLECTED: 0 / 0 / 1942

SURFACE ELEVATION (FT.): 504.0 LOGGED (FT.): 5040.0 LOG TYPE:

SOURCE: HELMRH&PYN, VN ALMEN J0001 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -357.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 861.0              |
| -512.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 1016.0             |
| -584.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1088.0             |
| -628.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1132.0             |
| -726.0                 | CARBONDALE  | HOUCHIN CREEK | COAL      | -               | 1230.0             |
| -971.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1475.0             |

MAPID: 15900098000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 5N 14W SECTION: 31 QUARTERS/FOOTAGES: SE SE SW

QUADRANGLE: DUNDAS LONGITUDE: -88.014179 GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.821087 DATE COLLECTED: 0 / 0 / 1942

SURFACE ELEVATION (FT.): 504.0 LOGGED (FT.): 5040.0 LOG TYPE:

SOURCE: HELMRH&PYN, STERCH HRS0002 WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -366.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 870.0              |
| -521.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 1025.0             |
| -591.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1095.0             |
| -636.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1140.0             |
| -736.0                 | CARBONDALE  | HOUCHIN CREEK | COAL      | -               | 1240.0             |
| -974.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1478.0             |

MAPID: 15900101000C VERSION: 1

PROJECT: RI 148

COUNTY: RICHLAND TWP/RNG: 5N 14W SECTION: 31 QUARTERS/FOOTAGES: SE NW SW

QUADRANGLE: DUNDAS LONGITUDE: -88.019326

GEOLOGIST: SIEVER

CONFIDENTIAL: N LATITUDE: 38.82478

DATE COLLECTED: 0 / 0 / 1942

SURFACE ELEVATION (FT.): 520.0 LOGGED (FT.): 5200.0

LOG TYPE:

SOURCE: LEBOW S, VN ALMEN P0001

WELL TYPE: Oil and Gas Test

COMMENT:

| ELEVATION<br>TOP (FT.) | FORMATION   | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|-------------|---------------|-----------|-----------------|--------------------|
|                        |             |               |           | UNIT            | OVERBURDEN COMMENT |
| -368.0                 | MODESTO     | WEST FRANKLIN | LIMESTONE | -               | 888.0              |
| -519.0                 | CARBONDALE  | DANVILLE      | COAL      | -               | 1039.0             |
| -593.0                 | CARBONDALE  | HERRIN        | COAL      | -               | 1113.0             |
| -634.0                 | CARBONDALE  | SPRINGFIELD   | COAL      | -               | 1154.0             |
| -724.0                 | CARBONDALE  | HOUCHIN CREEK | COAL      | -               | 1244.0             |
| -987.0                 | WALTERSBURG | GLEN DEAN     | LIMESTONE | -               | 1507.0             |

MAPID: 15902497000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 5N 14W SECTION: 31 QUARTERS/FOOTAGES: NW SE NE

QUADRANGLE: DUNDAS LONGITUDE: -88.006473

GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.830398

DATE COLLECTED:

SURFACE ELEVATION (FT.): 475.0 LOGGED (FT.): 1362.0

LOG TYPE: Electric Log

SOURCE:

WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -353.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 828.0              |
| -511.0                 | CARBONDALE | DANVILLE      | COAL      | 2.0             | 986.0              |
| -580.0                 | CARBONDALE | HERRIN        | COAL      | 5.5             | 1055.0             |
| -623.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1098.0             |
| -715.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1190.0             |
| -871.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1346.0             |
| -882.0                 | SPOON      | SEELYVILLE    | COAL      | 5.0             | 1357.0             |

MAPID: 15902498000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 5N 14W SECTION: 31 QUARTERS/FOOTAGES: 330' S line, 660' W line of SW

QUADRANGLE: DUNDAS LONGITUDE: -88.020802 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.821017 DATE COLLECTED:

SURFACE ELEVATION (FT.): 510.0 LOGGED (FT.): 1353.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -357.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 13.0            | 867.0              |
| -520.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 1030.0             |
| -584.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1094.0             |
| -626.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1136.0             |
| -722.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1232.0             |
| -843.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1353.0             |

MAPID: 15902505000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 5N 14W SECTION: 31 QUARTERS/FOOTAGES: 330' N line, 116' W line of SW NE

QUADRANGLE: DUNDAS LONGITUDE: -88.012513 GEOLOGIST: C TREWORY

CONFIDENTIAL: N LATITUDE: 38.830406 DATE COLLECTED:

SURFACE ELEVATION (FT.): 489.0 LOGGED (FT.): 1370.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -351.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 840.0              |
| -579.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1068.0             |
| -621.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.0             | 1110.0             |
| -707.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1196.0             |
| -860.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1349.0             |
| -874.0                 | SPOON      | SEELYVILLE    | COAL      | 7.0             | 1363.0             |

MAPID: 15900865000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 5N 14W SECTION: 32 QUARTERS/FOOTAGES: 330' S line, 330' W line of SE SW

QUADRANGLE: LANDES LONGITUDE: -87.996801 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.821205 DATE COLLECTED:

SURFACE ELEVATION (FT.): 460.0 LOGGED (FT.): 1377.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -363.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 823.0              |
| -516.0                 | CARBONDALE | DANVILLE      | COAL      | 3.0             | 976.0              |
| -584.0                 | CARBONDALE | HERRIN        | COAL      | 4.5             | 1044.0             |
| -633.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.0             | 1093.0             |
| -737.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1197.0             |
| -852.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1312.0             |
| -912.0                 | SPOON      | SEELYVILLE    | COAL      | 5.0             | 1372.0             |

MAPID: 15900866000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 5N 14W SECTION: 33 QUARTERS/FOOTAGES: SW SW SW

QUADRANGLE: LANDES LONGITUDE: -87.982677 GEOLOGIST: C TREWORGY

CONFIDENTIAL: N LATITUDE: 38.821331 DATE COLLECTED:

SURFACE ELEVATION (FT.): 473.0 LOGGED (FT.): 1342.0 LOG TYPE: Electric Log

SOURCE: WELL TYPE: Oil and Gas Test

COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |                    |
|------------------------|------------|---------------|-----------|-----------------|--------------------|
|                        |            |               |           | UNIT            | OVERBURDEN COMMENT |
| -183.0                 | BOND       | CARTHAGE      | LIMESTONE | 8.0             | 656.0              |
| -360.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 15.0            | 833.0              |
| -514.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 987.0              |
| -593.0                 | CARBONDALE | HERRIN        | COAL      | -               | 1066.0             |
| -648.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 4.0             | 1121.0             |
| -751.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1224.0             |
| -869.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1342.0             |

MAPID: 15900867000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 5N 14W SECTION: 35 QUARTERS/FOOTAGES: NE SE SE  
 QUADRANGLE: LANDES LONGITUDE: -87.928334 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.823242 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 470.0 LOGGED (FT.): 1297.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: FAIR LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -286.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 13.0            | 756.0      |         |
| -430.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 900.0      |         |
| -500.0                 | CARBONDALE | HERRIN        | COAL      | -               | 970.0      |         |
| -566.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 2.5             | 1036.0     |         |
| -660.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1130.0     |         |
| -808.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1278.0     |         |
| -820.0                 | SPOON      | SEELYVILLE    | COAL      | 7.0             | 1290.0     |         |

MAPID: 15900890000C VERSION: 1

PROJECT: CGT-ECILL

COUNTY: RICHLAND TWP/RNG: 5N 14W SECTION: 35 QUARTERS/FOOTAGES: NW NE NE  
 QUADRANGLE: LANDES LONGITUDE: -87.930621 GEOLOGIST: C TREWORY  
 CONFIDENTIAL: N LATITUDE: 38.834434 DATE COLLECTED:  
 SURFACE ELEVATION (FT.): 475.0 LOGGED (FT.): 1316.0 LOG TYPE: Electric Log  
 SOURCE: WELL TYPE: Oil and Gas Test  
 COMMENT: GOOD LOG

| ELEVATION<br>TOP (FT.) | FORMATION  | MEMBER        | LITHOLOGY | THICKNESS (FT.) |            | COMMENT |
|------------------------|------------|---------------|-----------|-----------------|------------|---------|
|                        |            |               |           | UNIT            | OVERBURDEN |         |
| -303.0                 | MODESTO    | WEST FRANKLIN | LIMESTONE | 14.0            | 778.0      |         |
| -453.0                 | CARBONDALE | DANVILLE      | COAL      | -               | 928.0      |         |
| -522.0                 | CARBONDALE | HERRIN        | COAL      | -               | 997.0      |         |
| -587.0                 | CARBONDALE | SPRINGFIELD   | COAL      | 3.5             | 1062.0     |         |
| -680.0                 | CARBONDALE | HOUCHIN CREEK | COAL      | -               | 1155.0     |         |
| -820.0                 | CARBONDALE | COLCHESTER    | COAL      | -               | 1295.0     |         |
| -834.0                 | SPOON      | SEELYVILLE    | COAL      | 7.0             | 1309.0     |         |