

### REFERENCE WELLPATH IDENTIFICATION

|          |                       |          |                            |
|----------|-----------------------|----------|----------------------------|
| Operator | SOUTHWESTERN ENERGY   | Slot     | Slot #605H                 |
| Area     | Ohio County, WV       | Well     | Edward Dremak OHI 605H     |
| Field    | Ohio                  | Wellbore | Edward Dremak OHI 605H AWB |
| Facility | Edward Dremak OHI Pad |          |                            |

### REPORT SETUP INFORMATION

|                     |                                    |                      |  |
|---------------------|------------------------------------|----------------------|--|
| Projection System   | NAD83 / UTM Zone 17 North, US feet | Software System      | WellArchitect@ 5.1   |
| North Reference     | Grid                               | User                 | Atenjien   |
| Scale               | 0.999611                           | Report Generated     | 19/Mar/2019 at 09:43   |
| Convergence at slot | 0.22° East                         | Database/Source file | WA_MPL_EASTERNUS_Defn/Edward_Dremak_OHI_605H_AWP_Proj_19174_.xml |

### WELLPATH LOCATION

|                       | Local coordinates |          | Grid coordinates |                 | Geographic coordinates |                |
|-----------------------|-------------------|----------|------------------|-----------------|------------------------|----------------|
|                       | North[ft]         | East[ft] | Easting[US ft]   | Northing[US ft] | Latitude               | Longitude      |
| Slot Location         | -23.38            | 46.27    | 1737787.08       | 14584680.96     | 40°09'30.990"N         | 80°39'05.416"W |
| Facility Reference Pt |                   |          | 1737740.83       | 14584704.33     | 40°09'31.223"N         | 80°39'06.011"W |
| Field Reference Pt    |                   |          | 0.00             | 0.00            | 0°00'00.000"           | 85°29'19.478"W |

### WELLPATH DATUM

|                          |                   |  |                   |
|--------------------------|-------------------|--|-------------------|
| Calculation method       | Minimum curvature | SDC 40 (KB) to Facility Vertical Datum           | 1113.40ft         |
| Horizontal Reference Pt  | Slot              | SDC 40 (KB) to Mean Sea Level                    | 1113.40ft         |
| Vertical Reference Pt    | SDC 40 (KB)       | SDC 40 (KB) to Ground Level at Slot (Slot #605H) | 26.00ft           |
| MD Reference Pt          | SDC 40 (KB)       | Section Origin                                   | N 0.00, E 0.00 ft |
| Field Vertical Reference | Mean Sea Level    | Section Azimuth                                  | 357.43°           |

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# Actual Wellpath Report

Edward Dremak OHI 605H AWP Proj: 19174'

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| Area     | Ohio County, WV       | Well     | Edward Dremak OHI 605H     |
| Field    | Ohio                  | Wellbore | Edward Dremak OHI 605H AWB |
| Facility | Edward Dremak OHI Pad |          |                            |

## WELLPATH DATA (218 stations) + = interpolated/extrapolated station

| MD [ft] | Inclination [°] | Azimuth [°] | TVD [ft] | Vert Sect [ft] | North [ft] | East [ft] | Grid East [US ft] | Grid North [US ft] | Latitude       | Longitude      | Closure Dist [ft] | Closure Dir [°] | DLS ["/100ft] | Build Rate ["/100ft] | Turn Rate ["/100ft] |
|---------|-----------------|-------------|----------|----------------|------------|-----------|-------------------|--------------------|----------------|----------------|-------------------|-----------------|---------------|----------------------|---------------------|
| 0.00    | 0.000           | 140.430     | 0.00     | 0.00           | 0.00       | 0.00      | 1737787.08        | 14584680.96        | 40°09'30.990"N | 80°39'05.416"W | 0.00              | 0.000           | 0.00          | 0.00                 | 0.00                |
| 26.00   | 0.000           | 140.430     | 26.00    | 0.00           | 0.00       | 0.00      | 1737787.08        | 14584680.96        | 40°09'30.990"N | 80°39'05.416"W | 0.00              | 0.000           | 0.00          | 0.00                 | 0.00                |
| 149.00  | 0.150           | 140.430     | 149.00   | -0.13          | -0.12      | 0.10      | 1737787.18        | 14584680.84        | 40°09'30.989"N | 80°39'05.415"W | 0.16              | 140.430         | 0.12          | 0.12                 | 114.17              |
| 240.00  | 0.300           | 185.490     | 240.00   | -0.46          | -0.45      | 0.16      | 1737787.24        | 14584680.51        | 40°09'30.988"N | 80°39'05.414"W | 0.48              | 161.040         | 0.24          | 0.16                 | 49.52               |
| 298.00  | 0.430           | 192.370     | 298.00   | -0.82          | -0.82      | 0.09      | 1737787.18        | 14584680.15        | 40°09'30.982"N | 80°39'05.415"W | 0.82              | 173.400         | 0.24          | 0.22                 | 11.86               |
| 389.00  | 0.510           | 165.010     | 389.00   | -1.55          | -1.54      | 0.13      | 1737787.21        | 14584679.42        | 40°09'30.975"N | 80°39'05.415"W | 1.55              | 175.323         | 0.26          | 0.09                 | -30.07              |
| 419.00  | 0.760           | 192.610     | 418.99   | -1.87          | -1.86      | 0.12      | 1737787.20        | 14584679.10        | 40°09'30.972"N | 80°39'05.415"W | 1.87              | 176.404         | 1.29          | 0.83                 | 92.00               |
| 510.00  | 2.020           | 181.410     | 509.96   | -4.05          | -4.06      | -0.05     | 1737787.03        | 14584676.91        | 40°09'30.950"N | 80°39'05.417"W | 4.06              | 180.763         | 1.41          | 1.38                 | -12.31              |
| 603.00  | 5.100           | 180.650     | 602.77   | -9.81          | -9.83      | -0.14     | 1737786.94        | 14584671.14        | 40°09'30.893"N | 80°39'05.419"W | 9.83              | 180.823         | 3.31          | 3.31                 | -0.82               |
| 695.00  | 6.870           | 170.260     | 694.27   | -19.36         | -19.34     | 0.74      | 1737787.82        | 14584661.63        | 40°09'30.799"N | 80°39'05.408"W | 19.36             | 177.799         | 2.25          | 1.92                 | -11.29              |
| 788.00  | 7.390           | 150.000     | 786.57   | -30.19         | -30.01     | 4.68      | 1737791.76        | 14584650.97        | 40°09'30.693"N | 80°39'05.357"W | 30.37             | 171.144         | 2.75          | 0.56                 | -21.78              |
| 881.00  | 7.870           | 116.220     | 878.79   | -38.57         | -38.00     | 13.38     | 1737800.46        | 14584642.98        | 40°09'30.614"N | 80°39'05.246"W | 40.29             | 160.601         | 4.78          | 0.52                 | -36.32              |
| 974.00  | 8.740           | 92.210      | 970.84   | -42.22         | -41.09     | 26.16     | 1737813.23        | 14584639.89        | 40°09'30.583"N | 80°39'05.081"W | 48.71             | 147.518         | 3.81          | 0.94                 | -25.82              |
| 1067.00 | 9.060           | 75.290      | 1062.74  | -41.27         | -39.50     | 40.30     | 1737827.37        | 14584641.48        | 40°09'30.598"N | 80°39'04.899"W | 56.43             | 134.425         | 2.83          | 0.34                 | -18.19              |
| 1159.00 | 10.510          | 65.930      | 1153.40  | -36.67         | -34.24     | 54.97     | 1737842.03        | 14584646.74        | 40°09'30.650"N | 80°39'04.710"W | 64.76             | 121.917         | 2.33          | 1.58                 | -10.17              |
| 1252.00 | 11.730          | 72.390      | 1244.66  | -31.11         | -27.92     | 71.73     | 1737858.78        | 14584653.05        | 40°09'30.712"N | 80°39'04.494"W | 76.97             | 111.269         | 1.87          | 1.31                 | 6.95                |
| 1345.00 | 13.860          | 78.690      | 1335.35  | -26.96         | -22.88     | 91.67     | 1737878.71        | 14584658.10        | 40°09'30.761"N | 80°39'04.237"W | 94.48             | 104.012         | 2.73          | 2.29                 | 6.77                |
| 1438.00 | 13.870          | 77.600      | 1425.64  | -23.37         | -18.30     | 113.48    | 1737900.51        | 14584662.67        | 40°09'30.805"N | 80°39'03.956"W | 114.94            | 99.160          | 0.28          | 0.01                 | -1.17               |
| 1530.00 | 14.100          | 74.250      | 1514.91  | -18.93         | -12.89     | 135.03    | 1737922.06        | 14584668.08        | 40°09'30.858"N | 80°39'03.678"W | 135.64            | 95.452          | 0.91          | 0.25                 | -3.64               |
| 1604.00 | 16.210          | 72.680      | 1586.33  | -14.24         | -7.37      | 153.57    | 1737940.59        | 14584673.60        | 40°09'30.911"N | 80°39'03.439"W | 153.75            | 92.746          | 2.90          | 2.85                 | -2.12               |
| 1674.00 | 18.280          | 72.020      | 1653.18  | -8.84          | -1.07      | 173.34    | 1737960.35        | 14584679.90        | 40°09'30.973"N | 80°39'03.184"W | 173.34            | 90.353          | 2.97          | 2.96                 | -0.94               |
| 1730.00 | 19.460          | 71.140      | 1706.17  | -3.89          | 4.66       | 190.52    | 1737977.53        | 14584685.62        | 40°09'31.029"N | 80°39'02.962"W | 190.58            | 88.599          | 2.17          | 2.11                 | -1.57               |
| 1822.00 | 18.070          | 73.030      | 1793.28  | 3.96           | 13.78      | 218.67    | 1738005.67        | 14584694.74        | 40°09'31.118"N | 80°39'02.599"W | 219.11            | 86.395          | 1.65          | -1.51                | 2.05                |
| 1913.00 | 18.380          | 73.210      | 1879.72  | 10.99          | 22.04      | 245.91    | 1738032.89        | 14584703.00        | 40°09'31.198"N | 80°39'02.248"W | 246.89            | 84.878          | 0.35          | 0.34                 | 0.20                |
| 2006.00 | 21.310          | 68.510      | 1967.19  | 20.08          | 32.47      | 275.68    | 1738062.65        | 14584713.42        | 40°09'31.300"N | 80°39'01.864"W | 277.58            | 83.282          | 3.59          | 3.15                 | -5.05               |
| 2099.00 | 24.290          | 65.420      | 2052.92  | 32.73          | 46.62      | 308.80    | 1738095.76        | 14584727.57        | 40°09'31.439"N | 80°39'01.437"W | 312.30            | 81.415          | 3.45          | 3.20                 | -3.32               |
| 2191.00 | 25.920          | 65.360      | 2136.22  | 47.38          | 62.88      | 344.29    | 1738131.24        | 14584743.82        | 40°09'31.598"N | 80°39'00.979"W | 349.98            | 79.650          | 1.77          | 1.77                 | -0.07               |
| 2284.00 | 28.350          | 65.490      | 2218.98  | 63.27          | 80.51      | 382.86    | 1738169.79        | 14584761.45        | 40°09'31.771"N | 80°39'00.481"W | 391.24            | 78.124          | 2.61          | 2.61                 | 0.14                |
| 2377.00 | 30.670          | 65.930      | 2299.91  | 80.21          | 99.35      | 424.62    | 1738211.53        | 14584780.28        | 40°09'31.955"N | 80°38'59.942"W | 436.08            | 76.831          | 2.51          | 2.49                 | 0.47                |
| 2470.00 | 32.610          | 69.950      | 2379.09  | 96.44          | 117.62     | 469.82    | 1738256.72        | 14584798.54        | 40°09'32.134"N | 80°38'59.359"W | 484.32            | 75.945          | 3.08          | 2.09                 | 4.32                |

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| Field    | Ohio                  | Wellbore | Edward Dremak OHI 605H AWB |
| Facility | Edward Dremak OHI Pad |          |                            |

## WELLPATH DATA (218 stations)

| MD [ft] | Inclination [°] | Azimuth [°] | TVD [ft] | Vert Sect [ft] | North [ft] | East [ft] | Grid East [US ft] | Grid North [US ft] | Latitude       | Longitude      | Closure Dist [ft] | Closure Dir [°] | DLS ["/100ft] | Build Rate ["/100ft] | Turn Rate ["/100ft] |
|---------|-----------------|-------------|----------|----------------|------------|-----------|-------------------|--------------------|----------------|----------------|-------------------|-----------------|---------------|----------------------|---------------------|
| 2559.00 | 33.650          | 72.270      | 2453.63  | 110.09         | 133.35     | 515.84    | 1738302.72        | 14584814.26        | 40°09'32.288"N | 80°38'58.766"W | 532.80            | 75.506          | 1.84          | 1.17                 | 2.61                |
| 2652.00 | 34.470          | 72.710      | 2530.67  | 123.51         | 149.02     | 565.51    | 1738352.37        | 14584829.93        | 40°09'32.441"N | 80°38'58.125"W | 584.82            | 75.237          | 0.92          | 0.88                 | 0.47                |
| 2745.00 | 36.020          | 71.630      | 2606.62  | 137.65         | 165.46     | 616.60    | 1738403.44        | 14584846.36        | 40°09'32.601"N | 80°38'57.466"W | 638.41            | 74.979          | 1.80          | 1.67                 | -1.16               |
| 2837.00 | 37.000          | 70.230      | 2680.57  | 153.20         | 183.35     | 668.32    | 1738455.14        | 14584864.24        | 40°09'32.776"N | 80°38'56.799"W | 693.02            | 74.659          | 1.40          | 1.07                 | -1.52               |
| 2930.00 | 35.850          | 71.290      | 2755.40  | 169.05         | 201.55     | 720.46    | 1738507.26        | 14584882.44        | 40°09'32.954"N | 80°38'56.127"W | 748.12            | 74.371          | 1.41          | -1.24                | 1.14                |
| 3023.00 | 36.250          | 69.880      | 2830.59  | 184.91         | 219.75     | 772.07    | 1738558.85        | 14584900.63        | 40°09'33.132"N | 80°38'55.461"W | 802.73            | 74.112          | 0.99          | 0.43                 | -1.52               |
| 3116.00 | 37.180          | 67.050      | 2905.15  | 202.99         | 240.17     | 823.77    | 1738610.53        | 14584921.04        | 40°09'33.331"N | 80°38'54.794"W | 858.06            | 73.746          | 2.08          | 1.00                 | -3.04               |
| 3208.00 | 35.030          | 68.890      | 2979.47  | 221.07         | 260.52     | 874.01    | 1738660.75        | 14584941.38        | 40°09'33.531"N | 80°38'54.146"W | 912.01            | 73.402          | 2.62          | -2.34                | 2.00                |
| 3301.00 | 34.540          | 70.060      | 3055.86  | 237.42         | 279.12     | 923.69    | 1738710.41        | 14584959.98        | 40°09'33.713"N | 80°38'53.505"W | 964.94            | 73.186          | 0.89          | -0.53                | 1.26                |
| 3394.00 | 34.190          | 67.320      | 3132.63  | 254.28         | 298.19     | 972.59    | 1738759.29        | 14584979.04        | 40°09'33.899"N | 80°38'52.875"W | 1017.27           | 72.955          | 1.70          | -0.38                | -2.95               |
| 3486.00 | 35.200          | 67.450      | 3208.27  | 272.23         | 318.33     | 1020.93   | 1738807.61        | 14584999.17        | 40°09'34.096"N | 80°38'52.251"W | 1069.41           | 72.682          | 1.10          | 1.10                 | 0.14                |
| 3579.00 | 36.530          | 69.680      | 3283.64  | 289.83         | 338.22     | 1071.64   | 1738858.31        | 14585019.05        | 40°09'34.291"N | 80°38'51.597"W | 1123.75           | 72.484          | 2.00          | 1.43                 | 2.40                |
| 3672.00 | 37.020          | 71.710      | 3358.13  | 305.85         | 356.62     | 1124.19   | 1738910.83        | 14585037.44        | 40°09'34.470"N | 80°38'50.919"W | 1179.39           | 72.400          | 1.41          | 0.53                 | 2.18                |
| 3765.00 | 36.260          | 69.500      | 3432.76  | 321.91         | 375.04     | 1176.53   | 1738963.15        | 14585055.86        | 40°09'34.650"N | 80°38'50.244"W | 1234.86           | 72.320          | 1.64          | -0.82                | -2.38               |
| 3855.00 | 37.130          | 69.610      | 3504.92  | 338.41         | 393.82     | 1226.92   | 1739013.53        | 14585074.63        | 40°09'34.834"N | 80°38'49.594"W | 1288.58           | 72.204          | 0.97          | 0.97                 | 0.12                |
| 3947.00 | 37.860          | 71.650      | 3577.92  | 354.59         | 412.39     | 1279.75   | 1739066.33        | 14585093.19        | 40°09'35.015"N | 80°38'48.913"W | 1344.55           | 72.139          | 1.57          | 0.79                 | 2.22                |
| 4040.00 | 37.260          | 70.280      | 3651.64  | 370.65         | 430.87     | 1333.34   | 1739119.90        | 14585111.67        | 40°09'35.196"N | 80°38'48.222"W | 1401.23           | 72.092          | 1.11          | -0.65                | -1.47               |
| 4133.00 | 38.220          | 70.840      | 3725.18  | 387.17         | 449.81     | 1387.02   | 1739173.56        | 14585130.60        | 40°09'35.381"N | 80°38'47.529"W | 1458.13           | 72.032          | 1.10          | 1.03                 | 0.60                |
| 4226.00 | 37.540          | 69.610      | 3798.59  | 404.05         | 469.13     | 1440.75   | 1739227.27        | 14585149.91        | 40°09'35.570"N | 80°38'46.836"W | 1515.21           | 71.964          | 1.09          | -0.73                | -1.32               |
| 4319.00 | 37.850          | 69.940      | 3872.18  | 421.30         | 488.79     | 1494.11   | 1739280.61        | 14585169.56        | 40°09'35.762"N | 80°38'46.148"W | 1572.03           | 71.885          | 0.40          | 0.33                 | 0.35                |
| 4411.00 | 39.040          | 72.970      | 3944.24  | 437.02         | 506.95     | 1548.34   | 1739334.81        | 14585187.72        | 40°09'35.939"N | 80°38'45.449"W | 1629.22           | 71.871          | 2.42          | 1.29                 | 3.29                |
| 4504.00 | 38.570          | 71.650      | 4016.71  | 452.22         | 524.66     | 1603.86   | 1739390.31        | 14585205.42        | 40°09'36.112"N | 80°38'44.733"W | 1687.49           | 71.886          | 1.02          | -0.51                | -1.42               |
| 4597.00 | 37.610          | 74.010      | 4089.91  | 466.69         | 541.61     | 1658.66   | 1739448.09        | 14585222.36        | 40°09'36.277"N | 80°38'44.026"W | 1744.85           | 71.916          | 1.88          | -1.03                | 2.54                |
| 4689.00 | 36.430          | 73.270      | 4163.37  | 479.89         | 557.20     | 1711.81   | 1739498.22        | 14585239.65        | 40°09'36.431"N | 80°38'43.341"W | 1800.21           | 71.970          | 1.37          | -1.28                | -0.80               |
| 4782.00 | 37.850          | 72.120      | 4237.50  | 494.17         | 573.91     | 1765.41   | 1739551.80        | 14585254.65        | 40°09'36.593"N | 80°38'42.649"W | 1856.36           | 71.991          | 1.70          | 1.53                 | -1.24               |
| 4875.00 | 36.940          | 68.880      | 4311.39  | 510.60         | 592.74     | 1818.64   | 1739605.01        | 14585273.48        | 40°09'36.777"N | 80°38'41.963"W | 1912.80           | 71.948          | 2.33          | -0.98                | -3.48               |
| 4968.00 | 37.030          | 69.480      | 4385.68  | 528.12         | 612.63     | 1870.94   | 1739657.29        | 14585293.35        | 40°09'36.971"N | 80°38'41.288"W | 1968.68           | 71.869          | 0.40          | 0.10                 | 0.65                |
| 5060.00 | 37.920          | 71.940      | 4458.70  | 544.21         | 631.11     | 1923.76   | 1739710.09        | 14585311.82        | 40°09'37.151"N | 80°38'40.607"W | 2024.64           | 71.837          | 1.89          | 0.97                 | 2.67                |
| 5153.00 | 36.660          | 70.570      | 4532.69  | 559.90         | 649.20     | 1977.12   | 1739763.43        | 14585329.91        | 40°09'37.328"N | 80°38'39.919"W | 2080.98           | 71.822          | 1.62          | -1.35                | -1.47               |
| 5246.00 | 35.930          | 72.670      | 4607.64  | 574.90         | 666.99     | 2029.35   | 1739815.64        | 14585347.27        | 40°09'37.498"N | 80°38'39.245"W | 2136.02           | 71.817          | 1.55          | -0.78                | 2.26                |

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# Actual Wellpath Report

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| Ohio County, WV       | Wellbore | Edward Dremak OHI 605H AWB |
| Ohio                  |          |                            |
| Edward Dremak OHI Pad |          |                            |

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| MD [ft] | Inclination [°] | Azimuth [°] | TVD [ft] | Vert. Sect [ft] | North [ft] | East [ft] | Grid East [US ft] | Grid North [US ft] | Latitude       | Longitude      | Closure Dist [ft] | Closure Dir [°] | DLS [°/100ft] | Build Rate [°/100ft] | Turn Rate [°/100ft] |
|---------|-----------------|-------------|----------|-----------------|------------|-----------|-------------------|--------------------|----------------|----------------|-------------------|-----------------|---------------|----------------------|---------------------|
| 5339.00 | 34.910          | 71.660      | 4683.43  | 589.09          | 683.07     | 2080.66   | 1739866.93        | 14585363.77        | 40°09'37.659"N | 80°38'38.583"W | 2189.91           | 71.825          | 1.26          | -1.10                | -1.09               |
| 5431.00 | 35.720          | 71.860      | 4758.50  | 603.45          | 699.71     | 2131.17   | 1739917.42        | 14585380.40        | 40°09'37.821"N | 80°38'37.932"W | 2243.10           | 71.824          | 0.89          | 0.88                 | 0.22                |
| 5524.00 | 37.140          | 72.720      | 4833.33  | 617.87          | 716.51     | 2183.78   | 1739970.01        | 14585397.19        | 40°09'37.985"N | 80°38'37.253"W | 2298.32           | 71.835          | 1.62          | 1.53                 | 0.92                |
| 5617.00 | 35.550          | 69.890      | 4908.24  | 633.14          | 734.14     | 2235.98   | 1740022.19        | 14585414.82        | 40°09'38.157"N | 80°38'36.580"W | 2353.42           | 71.823          | 2.48          | -1.71                | -3.04               |
| 5710.00 | 35.760          | 69.680      | 4983.80  | 649.58          | 752.88     | 2286.85   | 1740073.04        | 14585433.55        | 40°09'38.340"N | 80°38'35.924"W | 2407.59           | 71.777          | 0.26          | 0.23                 | -0.23               |
| 5803.00 | 36.670          | 70.410      | 5058.84  | 665.99          | 771.62     | 2338.50   | 1740124.67        | 14585452.29        | 40°09'38.524"N | 80°38'35.258"W | 2462.51           | 71.739          | 1.08          | 0.98                 | 0.78                |
| 5896.00 | 36.980          | 70.540      | 5133.28  | 682.24          | 790.25     | 2391.03   | 1740177.18        | 14585470.91        | 40°09'38.706"N | 80°38'34.580"W | 2518.24           | 71.711          | 0.34          | 0.33                 | 0.14                |
| 5988.00 | 37.980          | 70.480      | 5206.29  | 698.54          | 808.93     | 2443.81   | 1740229.93        | 14585489.58        | 40°09'38.888"N | 80°38'33.900"W | 2574.21           | 71.685          | 1.09          | 1.09                 | -0.07               |
| 6081.00 | 39.470          | 70.770      | 5278.84  | 715.36          | 828.23     | 2498.69   | 1740284.79        | 14585508.87        | 40°09'39.077"N | 80°38'33.192"W | 2632.38           | 71.661          | 1.61          | 1.60                 | 0.31                |
| 6172.00 | 39.440          | 69.110      | 5349.11  | 732.73          | 848.06     | 2553.01   | 1740339.09        | 14585528.69        | 40°09'39.270"N | 80°38'32.491"W | 2690.18           | 71.624          | 1.16          | -0.03                | -1.82               |
| 6248.00 | 37.100          | 55.620      | 5408.87  | 752.44          | 869.66     | 2594.56   | 1740380.62        | 14585550.28        | 40°09'39.482"N | 80°38'31.955"W | 2736.43           | 71.470          | 11.40         | -3.08                | -17.75              |
| 6340.00 | 41.390          | 51.060      | 5480.12  | 785.12          | 904.46     | 2641.14   | 1740427.19        | 14585585.07        | 40°09'39.824"N | 80°38'31.353"W | 2791.72           | 71.096          | 5.62          | 4.66                 | -4.96               |
| 6430.00 | 48.410          | 48.520      | 5543.84  | 823.96          | 945.51     | 2689.57   | 1740475.60        | 14585626.10        | 40°09'40.228"N | 80°38'30.727"W | 2850.92           | 70.631          | 8.05          | 7.80                 | -2.82               |
| 6523.00 | 50.680          | 38.390      | 5604.27  | 873.05          | 996.83     | 2738.04   | 1740524.05        | 14585667.40        | 40°09'40.733"N | 80°38'30.100"W | 2913.85           | 69.995          | 8.63          | 2.44                 | -10.89              |
| 6615.00 | 49.670          | 26.980      | 5663.11  | 962.77          | 1056.09    | 2776.12   | 1740562.12        | 14585736.64        | 40°09'41.317"N | 80°38'29.607"W | 2970.22           | 69.172          | 9.58          | -1.10                | -12.40              |
| 6662.00 | 51.620          | 22.930      | 5693.11  | 962.77          | 1089.03    | 2791.43   | 1740577.42        | 14585769.57        | 40°09'41.642"N | 80°38'29.408"W | 2996.35           | 68.688          | 7.85          | 4.15                 | -8.62               |
| 6708.00 | 56.270          | 19.960      | 5720.18  | 996.73          | 1123.64    | 2805.00   | 1740590.98        | 14585804.16        | 40°09'41.984"N | 80°38'29.231"W | 3021.68           | 68.170          | 11.38         | 10.11                | -6.46               |
| 6754.00 | 62.250          | 15.820      | 5743.69  | 1033.76         | 1161.25    | 2817.09   | 1740603.07        | 14585841.76        | 40°09'42.355"N | 80°38'29.073"W | 3047.05           | 67.598          | 15.12         | 13.00                | -9.00               |
| 6801.00 | 68.060          | 11.790      | 5763.44  | 1074.66         | 1202.64    | 2827.23   | 1740613.20        | 14585883.14        | 40°09'42.763"N | 80°38'28.941"W | 3072.39           | 66.956          | 14.60         | 12.36                | -8.57               |
| 6847.00 | 70.810          | 7.340       | 5779.60  | 1116.75         | 1245.10    | 2834.37   | 1740620.34        | 14585925.58        | 40°09'43.183"N | 80°38'28.847"W | 3095.79           | 66.285          | 10.85         | 5.98                 | -9.67               |
| 6894.00 | 74.300          | 3.800       | 5793.69  | 1161.13         | 1289.71    | 2838.70   | 1740624.68        | 14585970.17        | 40°09'43.623"N | 80°38'28.788"W | 3117.95           | 65.566          | 10.33         | 7.43                 | -7.53               |
| 6940.00 | 78.540          | 359.210     | 5804.50  | 1205.70         | 1334.39    | 2839.86   | 1740625.83        | 14586014.83        | 40°09'44.065"N | 80°38'28.771"W | 3137.74           | 64.832          | 13.38         | 9.22                 | -9.98               |
| 6986.00 | 82.720          | 354.150     | 5811.99  | 1251.06         | 1379.67    | 2837.22   | 1740623.19        | 14586060.09        | 40°09'44.512"N | 80°38'28.803"W | 3154.89           | 64.068          | 14.15         | 9.09                 | -11.00              |
| 7033.00 | 88.030          | 349.590     | 5815.78  | 1297.66         | 1426.02    | 2830.59   | 1740616.57        | 14586106.42        | 40°09'44.971"N | 80°38'28.886"W | 3169.51           | 63.262          | 14.87         | 11.30                | -9.70               |
| 7079.00 | 90.620          | 344.730     | 5816.32  | 1342.90         | 1470.85    | 2820.38   | 1740606.35        | 14586151.23        | 40°09'45.414"N | 80°38'29.015"W | 3180.87           | 62.458          | 11.97         | 5.63                 | -10.57              |
| 7172.00 | 90.650          | 340.540     | 5815.29  | 1432.79         | 1559.58    | 2792.63   | 1740578.62        | 14586239.94        | 40°09'46.292"N | 80°38'29.368"W | 3198.60           | 60.818          | 4.51          | 0.03                 | -4.51               |
| 7265.00 | 90.680          | 338.470     | 5814.21  | 1521.27         | 1646.68    | 2760.07   | 1740546.07        | 14586327.00        | 40°09'47.154"N | 80°38'29.723"W | 3213.96           | 59.179          | 2.23          | 0.03                 | -2.23               |
| 7357.00 | 90.740          | 337.390     | 5813.07  | 1607.98         | 1731.94    | 2725.50   | 1740511.52        | 14586412.22        | 40°09'47.998"N | 80°38'30.223"W | 3229.24           | 57.566          | 1.18          | 0.07                 | -1.17               |
| 7450.00 | 90.710          | 339.050     | 5811.90  | 1695.79         | 1818.29    | 2691.00   | 1740477.03        | 14586498.54        | 40°09'48.853"N | 80°38'30.663"W | 3247.72           | 55.953          | 1.79          | -0.03                | 1.78                |
| 7543.00 | 90.770          | 341.590     | 5810.69  | 1784.66         | 1905.84    | 2659.69   | 1740445.73        | 14586586.06        | 40°09'49.719"N | 80°38'31.062"W | 3272.03           | 54.376          | 2.73          | 0.06                 | 2.73                |

WV Department of Environmental Protection

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## REFERENCE WELLPATH IDENTIFICATION

| Operator            | Slot     | Slot #605H                 |
|---------------------|----------|----------------------------|
| SOUTHWESTERN ENERGY | Well     | Edward Dremak OHI 605H     |
| Area                | Wellbore | Edward Dremak OHI 605H AWB |
| Field               |          |                            |
| Facility            |          |                            |

## WELLPATH DATA (218 stations)

| MD [ft]  | Inclination [°] | Azimuth [°] | TVD [ft] | Vert Sect [ft] | North [ft] | East [ft] | Grid East [US ft] | Grid North [US ft] | Latitude       | Longitude      | Closure Dist [ft] | Closure Dir [°] | DLS [°/100ft] | Build Rate [°/100ft] | Turn Rate [°/100ft] |
|----------|-----------------|-------------|----------|----------------|------------|-----------|-------------------|--------------------|----------------|----------------|-------------------|-----------------|---------------|----------------------|---------------------|
| 7632.00  | 90.710          | 343.590     | 5809.55  | 1870.68        | 1990.75    | 2633.06   | 1740419.11        | 14586670.94        | 40°09'50.559"N | 80°38'31.401"W | 3300.92           | 52.909          | 2.25          | -0.07                | 2.25                |
| 7725.00  | 90.490          | 343.060     | 5808.57  | 1960.87        | 2079.84    | 2606.38   | 1740392.44        | 14586759.99        | 40°09'51.441"N | 80°38'31.740"W | 3334.50           | 51.411          | 0.62          | -0.24                | -0.57               |
| 7818.00  | 90.430          | 341.230     | 5807.82  | 2050.58        | 2168.35    | 2577.87   | 1740363.94        | 14586848.46        | 40°09'52.316"N | 80°38'32.102"W | 3368.55           | 49.931          | 1.97          | -0.06                | -1.97               |
| 7911.00  | 90.220          | 340.510     | 5807.30  | 2139.72        | 2256.21    | 2547.39   | 1740333.47        | 14586936.29        | 40°09'53.186"N | 80°38'32.490"W | 3402.89           | 48.469          | 0.81          | -0.23                | -0.77               |
| 8004.00  | 90.550          | 341.000     | 5806.67  | 2228.80        | 2344.01    | 2516.74   | 1740302.83        | 14587024.06        | 40°09'54.055"N | 80°38'32.881"W | 3439.24           | 47.035          | 0.64          | 0.35                 | 0.53                |
| 8096.00  | 90.550          | 340.190     | 5805.79  | 2316.86        | 2430.78    | 2486.17   | 1740272.28        | 14587110.79        | 40°09'54.913"N | 80°38'33.270"W | 3477.03           | 45.645          | 0.88          | 0.00                 | -0.88               |
| 8189.00  | 90.490          | 340.160     | 5804.94  | 2405.67        | 2518.27    | 2454.63   | 1740240.75        | 14587198.24        | 40°09'55.779"N | 80°38'33.672"W | 3516.66           | 44.267          | 0.07          | -0.06                | -0.03               |
| 8282.00  | 90.400          | 340.650     | 5804.22  | 2494.59        | 2605.88    | 2423.44   | 1740209.58        | 14587285.82        | 40°09'56.646"N | 80°38'34.069"W | 3558.61           | 42.923          | 0.54          | -0.10                | 0.53                |
| 8374.00  | 90.460          | 339.560     | 5803.53  | 2582.41        | 2692.38    | 2392.14   | 1740178.28        | 14587372.29        | 40°09'57.502"N | 80°38'34.468"W | 3601.56           | 41.621          | 1.19          | 0.07                 | -1.18               |
| 8464.00  | 90.370          | 339.220     | 5802.88  | 2667.98        | 2776.62    | 2360.46   | 1740146.62        | 14587456.50        | 40°09'58.336"N | 80°38'34.871"W | 3644.36           | 40.369          | 0.39          | -0.10                | -0.38               |
| 8557.00  | 90.460          | 340.910     | 5802.21  | 2756.74        | 2864.04    | 2328.75   | 1740114.92        | 14587543.89        | 40°09'59.201"N | 80°38'35.275"W | 3691.32           | 39.115          | 1.82          | 0.10                 | 1.82                |
| 8649.00  | 90.220          | 342.520     | 5801.66  | 2845.30        | 2951.39    | 2299.89   | 1740086.07        | 14587631.20        | 40°10'00.066"N | 80°38'35.642"W | 3741.68           | 37.928          | 1.77          | -0.26                | 1.75                |
| 8739.00  | 90.430          | 343.520     | 5801.15  | 2932.46        | 3037.47    | 2273.61   | 1740059.80        | 14587717.24        | 40°10'00.917"N | 80°38'35.977"W | 3794.14           | 36.816          | 1.14          | 0.23                 | 1.11                |
| 8832.00  | 90.370          | 343.160     | 5800.50  | 3022.66        | 3126.56    | 2246.94   | 1740033.15        | 14587806.30        | 40°10'01.799"N | 80°38'36.315"W | 3850.21           | 35.703          | 0.39          | -0.06                | -0.39               |
| 8924.00  | 90.490          | 342.340     | 5799.81  | 3111.66        | 3214.42    | 2219.66   | 1740005.88        | 14587894.12        | 40°10'02.668"N | 80°38'36.662"W | 3906.33           | 34.626          | 0.90          | 0.13                 | -0.89               |
| 9017.00  | 90.620          | 343.080     | 5798.91  | 3201.60        | 3303.21    | 2192.02   | 1739978.25        | 14587982.88        | 40°10'03.546"N | 80°38'37.014"W | 3964.36           | 33.568          | 0.81          | 0.14                 | 0.80                |
| 9110.00  | 90.800          | 343.880     | 5797.76  | 3291.85        | 3392.36    | 2165.58   | 1739951.82        | 14588072.00        | 40°10'04.429"N | 80°38'37.350"W | 4024.66           | 32.553          | 0.88          | 0.19                 | 0.86                |
| 9202.00  | 90.770          | 344.440     | 5796.50  | 3381.38        | 3480.86    | 2140.47   | 1739926.72        | 14588160.46        | 40°10'05.304"N | 80°38'37.668"W | 4086.32           | 31.588          | 0.61          | -0.03                | 0.61                |
| 9295.00  | 90.400          | 344.410     | 5795.55  | 3471.99        | 3570.44    | 2115.50   | 1739901.76        | 14588250.01        | 40°10'06.190"N | 80°38'37.985"W | 4150.11           | 30.647          | 0.40          | -0.40                | -0.03               |
| 9388.00  | 90.310          | 343.110     | 5794.97  | 3562.35        | 3659.73    | 2089.50   | 1739875.76        | 14588339.26        | 40°10'07.074"N | 80°38'38.316"W | 4214.21           | 29.724          | 1.40          | -0.10                | -1.40               |
| 9480.00  | 90.430          | 342.730     | 5794.38  | 3651.42        | 3747.67    | 2062.48   | 1739848.75        | 14588427.17        | 40°10'07.944"N | 80°38'38.659"W | 4277.71           | 28.826          | 0.43          | 0.13                 | -0.41               |
| 9573.00  | 90.460          | 343.820     | 5793.65  | 3741.59        | 3836.73    | 2035.71   | 1739822.00        | 14588516.19        | 40°10'08.825"N | 80°38'39.000"W | 4343.34           | 27.950          | 1.17          | 0.03                 | 1.17                |
| 9666.00  | 90.340          | 343.600     | 5793.01  | 3831.93        | 3925.99    | 2009.63   | 1739795.92        | 14588605.42        | 40°10'09.708"N | 80°38'39.331"W | 4410.45           | 27.107          | 0.27          | -0.13                | -0.24               |
| 9758.00  | 90.340          | 345.390     | 5792.46  | 3921.59        | 4014.64    | 1985.04   | 1739771.34        | 14588694.03        | 40°10'10.585"N | 80°38'39.643"W | 4478.58           | 26.310          | 1.95          | 0.00                 | 1.95                |
| 9851.00  | 90.280          | 347.000     | 5791.96  | 4012.81        | 4104.95    | 1962.85   | 1739749.16        | 14588784.31        | 40°10'11.478"N | 80°38'39.924"W | 4550.10           | 25.556          | 1.73          | -0.06                | 1.73                |
| 9944.00  | 90.400          | 348.320     | 5791.40  | 4104.46        | 4195.80    | 1942.97   | 1739729.29        | 14588875.12        | 40°10'12.377"N | 80°38'40.176"W | 4623.84           | 24.848          | 1.43          | 0.13                 | 1.42                |
| 10037.00 | 90.280          | 349.190     | 5790.85  | 4196.39        | 4287.01    | 1924.84   | 1739711.16        | 14588966.30        | 40°10'13.279"N | 80°38'40.405"W | 4699.30           | 24.180          | 0.94          | -0.13                | 0.94                |
| 10130.00 | 90.000          | 348.990     | 5790.63  | 4288.41        | 4378.33    | 1907.23   | 1739693.57        | 14589057.58        | 40°10'14.182"N | 80°38'40.627"W | 4775.70           | 23.538          | 0.37          | -0.30                | -0.22               |
| 10222.00 | 90.060          | 348.090     | 5790.58  | 4379.30        | 4468.49    | 1888.96   | 1739675.30        | 14589147.71        | 40°10'15.074"N | 80°38'40.857"W | 4851.35           | 22.915          | 0.98          | 0.07                 | -0.98               |
| 10315.00 | 90.120          | 347.290     | 5790.43  | 4470.96        | 4559.35    | 1869.13   | 1739655.48        | 14589238.54        | 40°10'15.972"N | 80°38'41.108"W | 4927.61           | 22.291          | 0.86          | 0.06                 | -0.86               |

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## REFERENCE WELLPATH IDENTIFICATION

| Operator | SOUTHWESTERN ENERGY   | Slot     | Slot #605H                 |
|----------|-----------------------|----------|----------------------------|
| Area     | Ohio County, WV       | Well     | Edward Dremak OHI 605H     |
| Field    | Ohio                  | Wellbore | Edward Dremak OHI 605H AWB |
| Facility | Edward Dremak OHI Pad |          |                            |

## WELLPATH DATA (218 stations)

| MD [ft]  | Inclination [°] | Azimuth [°] | TVD [ft] | VertSect [ft] | North [ft] | East [ft] | Grid East [US ft] | Grid North [US ft] | Latitude       | Longitude      | Closure Dist [ft] | Closure Dir [°] | DLS [°/100ft] | Build Rate [°/100ft] | Turn Rate [°/100ft] |
|----------|-----------------|-------------|----------|---------------|------------|-----------|-------------------|--------------------|----------------|----------------|-------------------|-----------------|---------------|----------------------|---------------------|
| 10408.00 | 90.490          | 348.630     | 5789.94  | 4562.69       | 4650.31    | 1849.73   | 1739636.09        | 14589329.45        | 40°10'16.872"N | 80°38'41.353"W | 5004.68           | 21.691          | 1.49          | 0.40                 | 1.44                |
| 10501.00 | 90.680          | 349.170     | 5788.99  | 4654.65       | 4741.56    | 1831.83   | 1739618.19        | 14589420.67        | 40°10'17.774"N | 80°38'41.579"W | 5083.11           | 21.123          | 0.62          | 0.20                 | 0.58                |
| 10590.00 | 90.580          | 348.990     | 5788.01  | 4742.70       | 4828.94    | 1814.97   | 1739601.34        | 14589508.02        | 40°10'18.639"N | 80°38'41.792"W | 5158.76           | 20.599          | 0.23          | -0.11                | -0.20               |
| 10683.00 | 90.550          | 346.640     | 5787.09  | 4834.39       | 4919.84    | 1795.34   | 1739581.72        | 14589598.88        | 40°10'19.538"N | 80°38'42.040"W | 5237.18           | 20.048          | 2.53          | -0.03                | -2.53               |
| 10776.00 | 90.550          | 343.120     | 5786.20  | 4925.15       | 5009.60    | 1771.09   | 1739557.48        | 14589688.60        | 40°10'20.426"N | 80°38'42.348"W | 5313.46           | 19.470          | 3.78          | 0.00                 | -3.78               |
| 10868.00 | 90.710          | 340.770     | 5785.19  | 5013.79       | 5097.06    | 1742.58   | 1739528.98        | 14589776.03        | 40°10'21.291"N | 80°38'42.711"W | 5386.70           | 18.874          | 2.56          | 0.17                 | -2.55               |
| 10955.00 | 90.580          | 340.900     | 5784.21  | 5097.17       | 5179.23    | 1714.02   | 1739500.43        | 14589858.17        | 40°10'22.104"N | 80°38'43.074"W | 5455.48           | 18.311          | 0.21          | -0.15                | 0.15                |
| 11045.00 | 90.620          | 340.070     | 5783.26  | 5183.25       | 5264.06    | 1683.95   | 1739470.38        | 14589942.96        | 40°10'22.944"N | 80°38'43.457"W | 5526.84           | 17.739          | 0.92          | 0.04                 | -0.92               |
| 11136.00 | 90.890          | 339.940     | 5782.06  | 5270.07       | 5349.56    | 1652.84   | 1739439.28        | 14590028.43        | 40°10'23.790"N | 80°38'43.854"W | 5599.08           | 17.169          | 0.33          | 0.30                 | -0.14               |
| 11226.00 | 90.950          | 339.420     | 5780.62  | 5355.77       | 5433.95    | 1621.59   | 1739408.04        | 14590112.79        | 40°10'24.625"N | 80°38'44.252"W | 5670.75           | 16.616          | 0.58          | 0.07                 | -0.58               |
| 11319.00 | 90.370          | 338.330     | 5779.55  | 5443.93       | 5520.69    | 1588.08   | 1739374.54        | 14590199.50        | 40°10'25.483"N | 80°38'44.679"W | 5744.57           | 16.048          | 1.33          | -0.62                | -1.17               |
| 11411.00 | 90.520          | 340.300     | 5778.83  | 5531.36       | 5606.76    | 1555.58   | 1739342.06        | 14590285.53        | 40°10'26.335"N | 80°38'45.093"W | 5818.55           | 15.507          | 2.15          | 0.16                 | 2.14                |
| 11504.00 | 90.280          | 341.860     | 5778.18  | 5620.60       | 5694.73    | 1525.43   | 1739311.91        | 14590373.46        | 40°10'27.206"N | 80°38'45.477"W | 5895.49           | 14.996          | 1.70          | -0.26                | 1.68                |
| 11597.00 | 90.490          | 344.350     | 5777.56  | 5710.70       | 5783.70    | 1498.40   | 1739284.90        | 14590462.41        | 40°10'28.086"N | 80°38'45.821"W | 5974.65           | 14.524          | 2.69          | 0.23                 | 2.68                |
| 11687.00 | 90.620          | 345.150     | 5776.69  | 5798.50       | 5870.53    | 1474.73   | 1739261.24        | 14590549.20        | 40°10'28.945"N | 80°38'46.121"W | 6052.93           | 14.101          | 0.90          | 0.14                 | 0.89                |
| 11780.00 | 90.830          | 344.540     | 5775.51  | 5889.26       | 5960.29    | 1450.42   | 1739236.94        | 14590638.92        | 40°10'29.833"N | 80°38'46.430"W | 6134.23           | 13.677          | 0.69          | 0.23                 | -0.66               |
| 11872.00 | 90.620          | 343.700     | 5774.35  | 5978.78       | 6048.77    | 1425.25   | 1739211.77        | 14590727.37        | 40°10'30.708"N | 80°38'46.750"W | 6214.41           | 13.259          | 0.94          | -0.23                | -0.91               |
| 11965.00 | 90.550          | 342.850     | 5773.40  | 6068.95       | 6137.83    | 1398.49   | 1739185.02        | 14590816.39        | 40°10'31.589"N | 80°38'47.090"W | 6295.13           | 12.836          | 0.92          | -0.08                | -0.91               |
| 12058.00 | 90.650          | 341.480     | 5772.42  | 6158.66       | 6226.35    | 1370.01   | 1739156.55        | 14590904.88        | 40°10'32.465"N | 80°38'47.452"W | 6375.30           | 12.409          | 1.48          | 0.11                 | -1.47               |
| 12151.00 | 90.520          | 341.390     | 5771.47  | 6248.05       | 6314.51    | 1340.40   | 1739126.96        | 14590993.00        | 40°10'33.338"N | 80°38'47.829"W | 6455.21           | 11.984          | 0.17          | -0.14                | -0.10               |
| 12243.00 | 90.490          | 341.030     | 5770.66  | 6336.39       | 6401.60    | 1310.77   | 1739097.92        | 14591080.06        | 40°10'34.199"N | 80°38'48.206"W | 6534.42           | 11.572          | 0.39          | -0.03                | -0.39               |
| 12336.00 | 90.280          | 342.070     | 5770.04  | 6425.84       | 6489.82    | 1281.34   | 1739067.34        | 14591168.24        | 40°10'35.072"N | 80°38'48.581"W | 6615.10           | 11.169          | 1.14          | -0.23                | 1.12                |
| 12429.00 | 90.180          | 342.350     | 5769.66  | 6515.57       | 6578.37    | 1252.92   | 1739039.51        | 14591256.76        | 40°10'35.948"N | 80°38'48.943"W | 6696.62           | 10.783          | 0.32          | -0.11                | 0.30                |
| 12522.00 | 90.220          | 342.270     | 5769.34  | 6605.35       | 6666.97    | 1224.66   | 1739011.26        | 14591345.33        | 40°10'36.825"N | 80°38'49.302"W | 6778.52           | 10.409          | 0.10          | 0.04                 | -0.09               |
| 12614.00 | 91.230          | 342.940     | 5768.18  | 6694.28       | 6754.76    | 1197.16   | 1738983.77        | 14591433.08        | 40°10'37.694"N | 80°38'49.652"W | 6860.02           | 10.050          | 1.32          | 1.10                 | 0.73                |
| 12707.00 | 90.120          | 345.200     | 5767.08  | 6784.75       | 6844.17    | 1171.64   | 1738958.26        | 14591522.46        | 40°10'38.578"N | 80°38'49.976"W | 6943.73           | 9.714           | 2.71          | -1.19                | 2.43                |
| 12800.00 | 90.060          | 346.400     | 5766.93  | 6875.84       | 6934.33    | 1148.83   | 1738935.46        | 14591612.58        | 40°10'39.470"N | 80°38'50.265"W | 7028.85           | 9.407           | 1.29          | -0.06                | 1.29                |
| 12893.00 | 90.860          | 348.540     | 5766.19  | 6967.43       | 7025.10    | 1128.65   | 1738915.29        | 14591703.32        | 40°10'40.368"N | 80°38'50.521"W | 7115.19           | 9.127           | 2.46          | 0.86                 | 2.30                |
| 12985.00 | 90.920          | 348.340     | 5764.76  | 7058.29       | 7115.23    | 1110.22   | 1738896.87        | 14591793.41        | 40°10'41.259"N | 80°38'50.754"W | 7201.32           | 8.869           | 0.23          | 0.07                 | -0.22               |
| 13078.00 | 90.800          | 346.460     | 5763.36  | 7149.85       | 7205.97    | 1089.93   | 1738876.59        | 14591884.12        | 40°10'42.157"N | 80°38'51.010"W | 7287.94           | 8.601           | 2.03          | -0.13                | -2.02               |

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# Actual Wellpath Report

Edward Dremak OHI 605H AWP Proj: 19174'  
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## REFERENCE WELLPATH IDENTIFICATION

|          |                       |          |                            |
|----------|-----------------------|----------|----------------------------|
| Operator | SOUTHWESTERN ENERGY   | Slot     | Slot #605H                 |
| Area     | Ohio County, WV       | Well     | Edward Dremak OHI 605H     |
| Field    | Ohio                  | Wellbore | Edward Dremak OHI 605H AWB |
| Facility | Edward Dremak OHI Pad |          |                            |

## WELLPATH DATA (218 stations)

| MD [ft]  | Inclination [°] | Azimuth [°] | TVD [ft] | Vert Sect [ft] | North [ft] | East [ft] | Grid East [US ft] | Grid North [US ft] | Latitude       | Longitude      | Closure Dist [ft] | Closure Dir [°] | DLS [°/100ft] | Build Rate [°/100ft] | Turn Rate [°/100ft] |
|----------|-----------------|-------------|----------|----------------|------------|-----------|-------------------|--------------------|----------------|----------------|-------------------|-----------------|---------------|----------------------|---------------------|
| 13171.00 | 90.340          | 344.350     | 5762.44  | 7240.80        | 7295.96    | 1066.50   | 1738853.17        | 14591974.07        | 40°10'43.047"N | 80°38'51.307"W | 7373.50           | 8.316           | 2.32          | -0.49                | -2.27               |
| 13263.00 | 90.490          | 342.100     | 5761.77  | 7329.98        | 7384.04    | 1039.95   | 1738826.63        | 14592062.12        | 40°10'43.918"N | 80°38'51.645"W | 7456.91           | 8.017           | 2.45          | 0.16                 | -2.45               |
| 13356.00 | 90.430          | 342.150     | 5761.02  | 7419.68        | 7472.55    | 1011.41   | 1738798.09        | 14592150.59        | 40°10'44.794"N | 80°38'52.008"W | 7540.68           | 7.708           | 0.08          | -0.06                | 0.05                |
| 13449.00 | 90.710          | 343.000     | 5760.10  | 7509.57        | 7561.27    | 983.56    | 1738770.26        | 14592239.28        | 40°10'45.672"N | 80°38'52.363"W | 7624.98           | 7.411           | 0.96          | 0.30                 | 0.91                |
| 13541.00 | 90.800          | 342.960     | 5758.89  | 7598.65        | 7649.24    | 956.63    | 1738743.34        | 14592327.21        | 40°10'46.542"N | 80°38'52.705"W | 7708.82           | 7.129           | 0.11          | 0.10                 | -0.04               |
| 13634.00 | 90.920          | 343.170     | 5757.49  | 7688.73        | 7738.19    | 929.55    | 1738716.26        | 14592416.13        | 40°10'47.422"N | 80°38'53.049"W | 7793.82           | 6.850           | 0.26          | 0.13                 | 0.23                |
| 13727.00 | 90.800          | 342.620     | 5756.09  | 7778.74        | 7827.07    | 902.20    | 1738688.92        | 14592504.97        | 40°10'48.302"N | 80°38'53.397"W | 7878.90           | 6.575           | 0.61          | -0.13                | -0.59               |
| 13820.00 | 90.800          | 342.830     | 5754.90  | 7868.69        | 7915.87    | 874.58    | 1738661.32        | 14592593.73        | 40°10'49.180"N | 80°38'53.748"W | 7964.03           | 6.305           | 0.23          | 0.00                 | 0.23                |
| 13912.00 | 90.770          | 342.820     | 5753.54  | 7957.71        | 8003.76    | 847.42    | 1738634.17        | 14592681.59        | 40°10'50.050"N | 80°38'54.094"W | 8048.49           | 6.044           | 0.03          | -0.03                | -0.01               |
| 14005.00 | 90.860          | 342.440     | 5752.21  | 8047.61        | 8092.51    | 819.66    | 1738606.42        | 14592770.30        | 40°10'50.928"N | 80°38'54.447"W | 8133.91           | 5.784           | 0.42          | 0.10                 | -0.41               |
| 14098.00 | 90.770          | 342.930     | 5750.89  | 8137.54        | 8181.28    | 791.98    | 1738578.75        | 14592859.05        | 40°10'51.806"N | 80°38'54.799"W | 8219.53           | 5.529           | 0.54          | -0.10                | 0.53                |
| 14191.00 | 90.650          | 343.620     | 5749.74  | 8227.71        | 8270.34    | 765.22    | 1738552.00        | 14592948.07        | 40°10'52.688"N | 80°38'55.139"W | 8305.67           | 5.286           | 0.75          | -0.13                | 0.74                |
| 14283.00 | 90.800          | 345.610     | 5748.57  | 8317.41        | 8359.03    | 740.81    | 1738527.61        | 14593036.73        | 40°10'53.565"N | 80°38'55.449"W | 8391.79           | 5.065           | 2.17          | 0.16                 | 2.16                |
| 14376.00 | 90.800          | 346.670     | 5747.27  | 8408.60        | 8449.31    | 718.54    | 1738505.34        | 14593126.97        | 40°10'54.458"N | 80°38'55.732"W | 8479.81           | 4.861           | 1.14          | 0.00                 | 1.14                |
| 14469.00 | 90.890          | 348.320     | 5745.90  | 8500.19        | 8540.09    | 698.40    | 1738485.21        | 14593217.72        | 40°10'55.356"N | 80°38'55.986"W | 8568.60           | 4.675           | 1.78          | 0.10                 | 1.77                |
| 14562.00 | 90.890          | 347.330     | 5744.46  | 8591.87        | 8630.99    | 678.79    | 1738465.61        | 14593308.58        | 40°10'56.255"N | 80°38'56.234"W | 8657.64           | 4.497           | 1.06          | 0.00                 | -1.06               |
| 14654.00 | 90.770          | 344.980     | 5743.13  | 8682.08        | 8720.30    | 656.78    | 1738443.61        | 14593397.86        | 40°10'57.138"N | 80°38'56.513"W | 8745.00           | 4.307           | 2.56          | -0.13                | -2.55               |
| 14747.00 | 90.800          | 343.560     | 5741.85  | 8772.63        | 8809.81    | 631.57    | 1738418.41        | 14593487.33        | 40°10'58.024"N | 80°38'56.834"W | 8832.42           | 4.100           | 1.53          | 0.03                 | -1.53               |
| 14840.00 | 90.830          | 341.170     | 5740.53  | 8862.42        | 8898.42    | 603.40    | 1738390.25        | 14593575.91        | 40°10'58.901"N | 80°38'57.192"W | 8918.86           | 3.879           | 2.57          | 0.03                 | -2.57               |
| 14932.00 | 90.800          | 340.610     | 5739.22  | 8950.60        | 8985.34    | 573.29    | 1738360.14        | 14593662.79        | 40°10'59.761"N | 80°38'57.576"W | 9003.61           | 3.651           | 0.61          | -0.03                | -0.61               |
| 15025.00 | 90.830          | 340.750     | 5737.90  | 9039.65        | 9073.10    | 542.52    | 1738329.39        | 14593750.51        | 40°11'00.629"N | 80°38'57.968"W | 9089.30           | 3.422           | 0.15          | 0.03                 | 0.15                |
| 15118.00 | 90.800          | 340.390     | 5736.57  | 9128.64        | 9160.79    | 511.59    | 1738298.47        | 14593838.17        | 40°11'01.497"N | 80°38'58.362"W | 9175.07           | 3.196           | 0.39          | -0.03                | -0.39               |
| 15211.00 | 90.800          | 342.510     | 5735.28  | 9218.03        | 9248.95    | 482.01    | 1738268.90        | 14593926.29        | 40°11'02.369"N | 80°38'58.738"W | 9261.50           | 2.983           | 2.28          | 0.00                 | 2.28                |
| 15304.00 | 90.770          | 344.410     | 5734.00  | 9308.27        | 9338.09    | 455.53    | 1738242.44        | 14594015.40        | 40°11'03.251"N | 80°38'59.075"W | 9349.19           | 2.793           | 2.04          | -0.03                | 2.04                |
| 15397.00 | 90.740          | 345.190     | 5732.78  | 9399.01        | 9427.82    | 431.15    | 1738218.07        | 14594105.10        | 40°11'04.139"N | 80°38'59.385"W | 9437.68           | 2.618           | 0.84          | -0.03                | 0.84                |
| 15489.00 | 90.680          | 345.940     | 5731.64  | 9489.04        | 9516.91    | 408.22    | 1738195.14        | 14594194.15        | 40°11'05.020"N | 80°38'59.675"W | 9525.66           | 2.456           | 0.82          | -0.07                | 0.82                |
| 15582.00 | 90.830          | 345.390     | 5730.41  | 9580.07        | 9607.01    | 385.20    | 1738172.13        | 14594284.21        | 40°11'05.911"N | 80°38'59.968"W | 9614.73           | 2.296           | 0.61          | 0.16                 | -0.59               |
| 15675.00 | 90.620          | 344.740     | 5729.23  | 9670.91        | 9696.86    | 361.23    | 1738148.17        | 14594374.03        | 40°11'06.800"N | 80°39'00.272"W | 9703.59           | 2.133           | 0.73          | -0.23                | -0.70               |
| 15768.00 | 90.680          | 344.260     | 5728.18  | 9761.54        | 9786.47    | 336.38    | 1738123.33        | 14594463.61        | 40°11'07.687"N | 80°39'00.587"W | 9792.25           | 1.969           | 0.52          | 0.06                 | -0.52               |
| 15860.00 | 90.460          | 344.890     | 5727.26  | 9851.23        | 9875.15    | 311.91    | 1738098.87        | 14594552.25        | 40°11'08.564"N | 80°39'00.898"W | 9880.08           | 1.809           | 0.73          | -0.24                | 0.68                |

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# Actual Wellpath Report

Edward Dremak OHI 605H AWP Proj: 19174'

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## REFERENCE WELLPATH IDENTIFICATION

|          |                       |          |                            |
|----------|-----------------------|----------|----------------------------|
| Operator | SOUTHWESTERN ENERGY   | Slot     | Slot #605H                 |
| Area     | Ohio County, WV       | Well     | Edward Dremak OHI 605H     |
| Field    | Ohio                  | Wellbore | Edward Dremak OHI 605H AWB |
| Facility | Edward Dremak OHI Pad |          |                            |

## WELLPATH DATA (218 stations)

| MD [ft]  | Inclination [°] | Azimuth [°] | TVD [ft] | Vert Sect [ft] | North [ft] | East [ft] | Grid East [US ft] | Grid North [US ft] | Latitude       | Longitude      | Closure Dist [ft] | Closure Dir [°] | DLS ["/100ft] | Build Rate ["/100ft] | Turn Rate ["/100ft] |
|----------|-----------------|-------------|----------|----------------|------------|-----------|-------------------|--------------------|----------------|----------------|-------------------|-----------------|---------------|----------------------|---------------------|
| 15953.00 | 90.400          | 345.390     | 5726.57  | 9942.10        | 9965.04    | 288.06    | 1738075.03        | 14594642.10        | 40°11'09.453"N | 80°39'01.201"W | 9969.20           | 1.656           | 0.54          | -0.06                | 0.54                |
| 16046.00 | 90.250          | 345.080     | 5726.04  | 10033.00       | 10054.97   | 264.36    | 1738051.34        | 14594732.00        | 40°11'10.343"N | 80°39'01.502"W | 10058.44          | 1.506           | 0.37          | -0.16                | -0.33               |
| 16138.00 | 90.310          | 345.050     | 5725.59  | 10122.86       | 10143.86   | 240.65    | 1738027.64        | 14594820.85        | 40°11'11.222"N | 80°39'01.803"W | 10146.71          | 1.359           | 0.07          | 0.07                 | -0.03               |
| 16231.00 | 90.430          | 346.740     | 5724.99  | 10213.98       | 10234.05   | 217.99    | 1738004.98        | 14594911.01        | 40°11'12.114"N | 80°39'02.090"W | 10236.37          | 1.220           | 1.82          | 0.13                 | 1.82                |
| 16324.00 | 90.830          | 348.580     | 5723.97  | 10305.62       | 10324.89   | 198.11    | 1737985.12        | 14595001.82        | 40°11'13.013"N | 80°39'02.342"W | 10326.79          | 1.099           | 2.02          | 0.43                 | 1.98                |
| 16417.00 | 90.710          | 347.540     | 5722.72  | 10397.37       | 10415.87   | 178.87    | 1737965.89        | 14595092.76        | 40°11'13.912"N | 80°39'02.585"W | 10417.40          | 0.984           | 1.13          | -0.13                | -1.12               |
| 16509.00 | 90.800          | 347.520     | 5721.50  | 10487.99       | 10505.69   | 159.01    | 1737946.03        | 14595182.54        | 40°11'14.801"N | 80°39'02.836"W | 10506.89          | 0.867           | 0.10          | 0.10                 | -0.02               |
| 16602.00 | 90.740          | 347.030     | 5720.25  | 10579.53       | 10596.40   | 138.53    | 1737925.55        | 14595273.22        | 40°11'15.698"N | 80°39'03.096"W | 10597.30          | 0.749           | 0.53          | -0.06                | -0.53               |
| 16694.00 | 90.710          | 344.040     | 5719.09  | 10669.54       | 10685.46   | 115.55    | 1737902.59        | 14595362.25        | 40°11'16.579"N | 80°39'03.387"W | 10686.09          | 0.620           | 3.25          | -0.03                | -3.25               |
| 16787.00 | 90.680          | 342.220     | 5717.96  | 10759.64       | 10774.45   | 88.57     | 1737875.61        | 14595451.20        | 40°11'17.459"N | 80°39'03.730"W | 10774.82          | 0.471           | 1.96          | -0.03                | -1.96               |
| 16880.00 | 90.400          | 342.030     | 5717.08  | 10849.34       | 10862.96   | 60.02     | 1737847.08        | 14595539.67        | 40°11'18.335"N | 80°39'04.094"W | 10863.12          | 0.317           | 0.36          | -0.30                | -0.20               |
| 16973.00 | 90.460          | 341.670     | 5716.39  | 10938.92       | 10951.33   | 31.05     | 1737818.12        | 14595628.01        | 40°11'19.209"N | 80°39'04.462"W | 10951.37          | 0.162           | 0.39          | 0.06                 | -0.39               |
| 17063.00 | 90.310          | 340.930     | 5715.78  | 11025.38       | 11036.57   | 2.20      | 1737789.28        | 14595713.22        | 40°11'20.053"N | 80°39'04.830"W | 11036.57          | 0.011           | 0.84          | -0.17                | -0.82               |
| 17152.00 | 90.680          | 341.910     | 5715.01  | 11110.92       | 11120.93   | -26.16    | 1737760.93        | 14595797.55        | 40°11'20.888"N | 80°39'05.191"W | 11120.96          | 359.865         | 1.18          | 0.42                 | 1.10                |
| 17245.00 | 90.460          | 342.460     | 5714.09  | 11200.64       | 11209.47   | -54.61    | 1737732.49        | 14595886.05        | 40°11'21.764"N | 80°39'05.553"W | 11209.60          | 359.721         | 0.64          | -0.24                | 0.59                |
| 17338.00 | 90.550          | 344.870     | 5713.27  | 11290.96       | 11298.70   | -80.76    | 1737706.35        | 14595975.25        | 40°11'22.647"N | 80°39'05.886"W | 11298.99          | 359.590         | 2.59          | 0.10                 | 2.59                |
| 17430.00 | 90.770          | 346.990     | 5712.21  | 11381.10       | 11387.93   | -103.13   | 1737684.00        | 14596064.44        | 40°11'23.529"N | 80°39'06.169"W | 11388.40          | 359.481         | 2.32          | 0.24                 | 2.30                |
| 17523.00 | 91.320          | 349.180     | 5710.51  | 11472.85       | 11478.91   | -122.32   | 1737664.81        | 14596155.38        | 40°11'24.429"N | 80°39'06.412"W | 11479.56          | 359.389         | 2.43          | 0.59                 | 2.35                |
| 17616.00 | 91.260          | 346.690     | 5708.42  | 11564.54       | 11569.82   | -141.76   | 1737645.38        | 14596246.26        | 40°11'25.328"N | 80°39'06.658"W | 11570.69          | 359.298         | 2.68          | -0.06                | -2.68               |
| 17709.00 | 91.110          | 343.080     | 5706.49  | 11655.29       | 11659.57   | -166.00   | 1737621.15        | 14596335.97        | 40°11'26.216"N | 80°39'06.966"W | 11660.75          | 359.184         | 3.88          | -0.16                | -3.88               |
| 17801.00 | 90.680          | 341.340     | 5705.06  | 11744.05       | 11747.16   | -194.10   | 1737593.06        | 14596423.53        | 40°11'27.083"N | 80°39'07.323"W | 11748.76          | 359.053         | 1.95          | -0.47                | -1.89               |
| 17894.00 | 90.580          | 341.790     | 5704.03  | 11833.50       | 11835.38   | -223.51   | 1737563.66        | 14596511.71        | 40°11'27.955"N | 80°39'07.698"W | 11837.49          | 358.918         | 0.50          | -0.11                | 0.48                |
| 17987.00 | 90.550          | 342.290     | 5703.12  | 11923.16       | 11923.84   | -252.18   | 1737535.00        | 14596600.14        | 40°11'28.831"N | 80°39'08.063"W | 11926.51          | 358.788         | 0.54          | -0.03                | 0.54                |
| 18079.00 | 90.650          | 341.770     | 5702.15  | 12011.85       | 12011.35   | -280.57   | 1737506.63        | 14596687.62        | 40°11'29.697"N | 80°39'08.424"W | 12014.63          | 358.662         | 0.58          | 0.11                 | -0.57               |
| 18172.00 | 90.620          | 341.960     | 5701.12  | 12101.43       | 12099.73   | -309.51   | 1737477.69        | 14596775.96        | 40°11'30.571"N | 80°39'08.793"W | 12103.68          | 358.535         | 0.21          | -0.03                | 0.20                |
| 18265.00 | 90.520          | 342.050     | 5700.20  | 12191.08       | 12188.17   | -338.24   | 1737448.97        | 14596864.37        | 40°11'31.446"N | 80°39'09.158"W | 12192.86          | 358.410         | 0.14          | -0.11                | 0.10                |
| 18350.00 | 90.580          | 342.030     | 5699.38  | 12273.03       | 12269.03   | -364.45   | 1737422.77        | 14596945.19        | 40°11'32.246"N | 80°39'09.492"W | 12274.44          | 358.299         | 0.07          | 0.07                 | -0.02               |
| 18435.00 | 90.150          | 342.430     | 5698.84  | 12355.05       | 12349.97   | -390.39   | 1737396.84        | 14597026.10        | 40°11'33.047"N | 80°39'09.822"W | 12356.14          | 358.189         | 0.69          | -0.51                | 0.47                |
| 18520.00 | 90.120          | 342.200     | 5698.64  | 12437.11       | 12430.95   | -416.21   | 1737371.03        | 14597107.05        | 40°11'33.848"N | 80°39'10.151"W | 12437.92          | 358.082         | 0.27          | -0.04                | -0.27               |
| 18605.00 | 90.800          | 344.660     | 5697.96  | 12519.58       | 12512.41   | -440.45   | 1737346.80        | 14597188.48        | 40°11'34.654"N | 80°39'10.459"W | 12520.16          | 357.984         | 3.00          | 0.80                 | 2.89                |

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## REFERENCE WELLPATH IDENTIFICATION

|          |                       |  |          |                            |
|----------|-----------------------|--|----------|----------------------------|
| Operator | SOUTHWESTERN ENERGY   |  | Slot     | Slot #605H                 |
| Area     | Ohio County, WV       |  | Well     | Edward Dremak OHI 605H     |
| Field    | Ohio                  |  | Wellbore | Edward Dremak OHI 605H AWB |
| Facility | Edward Dremak OHI Pad |  |          |                            |

## WELLPATH DATA (218 stations)

| MD [ft]  | Inclination [°] | Azimuth [°] | TVD [ft] | Vert Sect [ft] | North [ft] | East [ft] | Grid East [US ft] | Grid North [US ft] | Latitude       | Longitude      | Closure Dist [ft] | Closure Dir [°] | DLS [°/100ft] | Build Rate [°/100ft] | Turn Rate [°/100ft] |
|----------|-----------------|-------------|----------|----------------|------------|-----------|-------------------|--------------------|----------------|----------------|-------------------|-----------------|---------------|----------------------|---------------------|
| 18691.00 | 90.710          | 346.700     | 5696.82  | 12603.76       | 12595.73   | -461.72   | 1737325.54        | 14597271.77        | 40°11'35.478"N | 80°39'10.729"W | 12604.19          | 357.901         | 2.37          | -0.10                | 2.37                |
| 18784.00 | 90.770          | 347.300     | 5695.62  | 12695.22       | 12686.34   | -482.64   | 1737304.63        | 14597362.34        | 40°11'36.375"N | 80°39'10.994"W | 12695.51          | 357.821         | 0.65          | 0.06                 | 0.65                |
| 18869.00 | 90.860          | 347.900     | 5694.41  | 12778.96       | 12769.35   | -500.89   | 1737286.39        | 14597445.31        | 40°11'37.196"N | 80°39'11.225"W | 12779.17          | 357.754         | 0.71          | 0.11                 | 0.71                |
| 18953.00 | 90.710          | 344.630     | 5693.26  | 12861.35       | 12850.92   | -520.83   | 1737266.46        | 14597526.86        | 40°11'38.002"N | 80°39'11.478"W | 12861.47          | 357.679         | 3.90          | -0.18                | -3.89               |
| 19042.00 | 91.260          | 341.390     | 5691.73  | 12947.52       | 12936.02   | -546.83   | 1737240.47        | 14597611.92        | 40°11'38.844"N | 80°39'11.809"W | 12947.57          | 357.579         | 3.69          | 0.62                 | -3.64               |
| 19128.00 | 91.480          | 341.120     | 5689.68  | 13030.10       | 13017.43   | -574.45   | 1737212.85        | 14597693.30        | 40°11'39.650"N | 80°39'12.160"W | 13030.10          | 357.473         | 0.40          | 0.26                 | -0.31               |
| 19149.00 | 91.390          | 341.040     | 5689.15  | 13050.24       | 13037.29   | -581.26   | 1737206.05        | 14597713.15        | 40°11'39.846"N | 80°39'12.247"W | 13050.24          | 357.447         | 0.57          | -0.43                | -0.38               |
| 19174.00 | 91.390          | 341.040     | 5688.54  | 13074.22       | 13060.93   | -589.38   | 1737197.93        | 14597736.78        | 40°11'40.080"N | 80°39'12.351"W | 13074.22          | 357.416         | 0.00          | 0.00                 | 0.00                |

## HOLE & CASING SECTIONS - Ref Wellbore: Edward Dremak OHI 605H AWB Ref Wellpath: Edward Dremak OHI 605H AWP Proj: 19174'

| String/Diameter             | Start MD [ft] | End MD [ft] | Interval [ft] | Start TVD [ft] | End TVD [ft] | Start N/S [ft] | Start E/W [ft] | End N/S [ft] | End E/W [ft] |
|-----------------------------|---------------|-------------|---------------|----------------|--------------|----------------|----------------|--------------|--------------|
| 20in Conductor              | 26.00         | 126.00      | 100.00        | 26.00          | 126.00       | 0.00           | 0.00           | -0.08        | 0.07         |
| 17.5in Open Hole            | 126.00        | 355.00      | 229.00        | 126.00         | 355.00       | -0.08          | 0.07           | -1.26        | 0.07         |
| 13.375in Casing Surface     | 26.00         | 355.00      | 329.00        | 26.00          | 355.00       | 0.00           | 0.00           | -1.26        | 0.07         |
| 12.25in Open Hole           | 355.00        | 1672.00     | 1317.00       | 355.00         | 1651.28      | -1.26          | 0.07           | -1.26        | 172.75       |
| 9.625in Casing Intermediate | 26.00         | 1652.00     | 1626.00       | 26.00          | 1632.26      | 0.00           | 0.00           | -3.15        | 166.89       |
| 8.75in Open Hole            | 1672.00       | 6240.00     | 4568.00       | 1651.28        | 5402.50      | -1.26          | 172.75         | 866.98       | 2590.53      |
| 8.5in Open Hole             | 6240.00       | 19174.00    | 12934.00      | 5402.50        | 5688.54      | 866.98         | 2590.53        | 13060.93     | -589.38      |
| 5.5in Casing Production     | 26.00         | 19174.00    | 19148.00      | 26.00          | 5688.54      | 0.00           | 0.00           | 13060.93     | -589.38      |

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| REFERENCE WELLPATH IDENTIFICATION |                            |
|-----------------------------------|----------------------------|
| Operator                          | SOUTHWESTERN ENERGY        |
| Area                              | Ohio County, WV            |
| Field                             | Ohio                       |
| Facility                          | Edward Dremak OHI Pad      |
| Slot                              | Slot #605H                 |
| Well                              | Edward Dremak OHI 605H     |
| Wellbore                          | Edward Dremak OHI 605H AWB |

| TARGETS                          |          |            |           |                   |                    |                |                |       |
|----------------------------------|----------|------------|-----------|-------------------|--------------------|----------------|----------------|-------|
| Name                             | TVD [ft] | North [ft] | East [ft] | Grid East [US ft] | Grid North [US ft] | Latitude       | Longitude      | Shape |
| Edward Dremak OHI 605H BHL Rev-2 | 5686.00  | 13080.18   | -587.28   | 1737200.03        | 14597756.03        | 40°11'40.271"N | 80°39'12.323"W | point |
| Edward Dremak OHI 605H LP Rev-3  | 5815.00  | 1504.03    | 2732.16   | 1740518.18        | 14586184.40        | 40°09'45.746"N | 80°38'30.150"W | point |

| WELLPATH COMPOSITION - Ref Wellbore: Edward Dremak OHI 605H AWB    Ref Wellpath: Edward Dremak OHI 605H AWP Proj: 19174' |             |                              |                                       |
|--|-------------|------------------------------|---------------------------------------|
| Start MD [ft]  | End MD [ft] | Positional Uncertainty Model | Log Name/Comment                      |
| 26.00  | 298.00      | OWSG MWD rev2 + HRGM         | Wellbore                              |
| 298.00   | 1604.00     | OWSG MWD rev2 + HRGM         | Edward Dremak OHI 605H AWB            |
| 1604.00  | 6172.00     | OWSG MWD rev2 + HRGM         | Edward Dremak OHI 605H AWB            |
| 6172.00  | 19149.00    | BHI AutoTrak Curve (Short)   | Edward Dremak OHI 605H AWB            |
| 19149.00   | 19174.00    | Blind Drilling (std)         | Edward Dremak OHI 605H AWB            |
|  |             |                              | 01_Premier MWD <17 1/2"> (149'-298')  |
|  |             |                              | 02_Premier MWD <12 1/4"> (389'-1604') |
|  |             |                              | 03_Premier MWD <8 3/4"> (1674'-6172') |
|  |             |                              | 04_BH AT Curve <8 1/2"> (6248'-19149) |
|  |             |                              | Projection to bit                     |

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# Actual Wellpath Report

Edward Dremak OHI 605H AWP Proj: 19174'  
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| REFERENCE WELLPATH IDENTIFICATION |                       |          |                            |
|-----------------------------------|-----------------------|----------|----------------------------|
| Operator                          | SOUTHWESTERN ENERGY   | Slot     | Slot #605H                 |
| Area                              | Ohio County, WV       | Well     | Edward Dremak OHI 605H     |
| Field                             | Ohio                  | Wellbore | Edward Dremak OHI 605H AWB |
| Facility                          | Edward Dremak OHI Pad |          |                            |

| COMMENTS   |
|--|
| <p><b>Wellpath general comments</b><br/>           API: 47-069-00291-0000<br/>           BH Job #: 109652154<br/>           Rig: SDC 40<br/>           Duration: 02/23/2019 - 02/27/2019</p> |

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