



## Directional Survey Certification

2948 I-70 Business Loop  
Grand Junction, CO 81504  
(970)-245-9447 Fax (970)-245-9454

|                 |                          |
|-----------------|--------------------------|
| Operator        | TEP Rocky Mountain, LLC. |
| Well Name & No. | GM 43-5                  |
| County & State  | Garfield County, CO      |
| SDI Job No.     | OP.004226                |
| Rig             | H&P 271                  |

I, Mel Mireles Jr., having personal knowledge of all the facts, hereby certify that the attached directional survey run from a measured depth of 153 feet to a measured depth of 7,234 feet is true and correct as determined from all available records.

  
Signature

21-Sep-17  
Date

**Mel Mireles Jr.**  
Grand Junction Assistant Well Planner  
Scientific Drilling - Colorado District

|                  |                           |                                     |  |
|------------------|---------------------------|-------------------------------------|--|
| <b>Company:</b>  | TEP Rocky Mountain LLC    | <b>Local Co-ordinate Reference:</b> | Well GM 43-5 - Slot A4 (GM 43-5)           |
| <b>Project:</b>  | Garfield County, CO NAD83 | <b>TVD Reference:</b>               | GL 5977' & RKB 24' @ 6001.00usft (H&P 271) |
| <b>Site:</b>     | MV 34-5 Pad               | <b>MD Reference:</b>                | GL 5977' & RKB 24' @ 6001.00usft (H&P 271) |
| <b>Well:</b>     | GM 43-5                   | <b>North Reference:</b>             | True                                       |
| <b>Wellbore:</b> | OH                        | <b>Survey Calculation Method:</b>   | Minimum Curvature                          |
| <b>Design:</b>   | OH                        | <b>Database:</b>                    | Grand Junction District                    |

|                    |                           |                      |                |
|--------------------|---------------------------|----------------------|----------------|
| <b>Project</b>     | Garfield County, CO NAD83 |                      |                |
| <b>Map System:</b> | US State Plane 1983       | <b>System Datum:</b> | Mean Sea Level |
| <b>Geo Datum:</b>  | North American Datum 1983 |                      |                |
| <b>Map Zone:</b>   | Colorado Central Zone     |                      |                |

|                       |           |              |                   |                   |              |
|-----------------------|-----------|--------------|-------------------|-------------------|--------------|
| Site                  |           | MV 34-5 Pad  |                   |                   |              |
| Site Position:        |           | Northing:    | 1,603,476.79 usft | Latitude:         | 39.4609066   |
| From:                 | Map       | Easting:     | 2,258,772.10 usft | Longitude:        | -108.1256571 |
| Position Uncertainty: | 0.00 usft | Slot Radius: | 13.20 in          | Grid Convergence: | -1.66 °      |

| Well                 |       | GM 43-5 - Slot A4 (GM 43-5) |                     |                   |               |               |
|----------------------|-------|-----------------------------|---------------------|-------------------|---------------|---------------|
| Well Position        | +N/-S | 0.00 usft                   | Northing:           | 1,603,526.71 usft | Latitude:     | 39.4610462    |
|                      | +E/-W | 0.00 usft                   | Easting:            | 2,258,804.61 usft | Longitude:    | -108.1255471  |
| Position Uncertainty |       | 0.00 usft                   | Wellhead Elevation: | 0.00 usft         | Ground Level: | 5,977.00 usft |

|                  |                   |                    |                        |                      |                            |
|------------------|-------------------|--------------------|------------------------|----------------------|----------------------------|
| <b>Wellbore</b>  | OH                |                    |                        |                      |                            |
| <b>Magnetics</b> | <b>Model Name</b> | <b>Sample Date</b> | <b>Declination (°)</b> | <b>Dip Angle (°)</b> | <b>Field Strength (nT)</b> |
|                  | HDGM              | 9/9/2017           | 9.57                   | 65.77                | 51,767                     |

|                          |                                |                     |                     |                      |      |
|--------------------------|--------------------------------|---------------------|---------------------|----------------------|------|
| <b>Design</b>            | OH                             |                     |                     |                      |      |
| <b>Audit Notes:</b>      |                                |                     |                     |                      |      |
| <b>Version:</b>          | 1.0                            | <b>Phase:</b>       | ACTUAL              | <b>Tie On Depth:</b> | 0.00 |
| <b>Vertical Section:</b> | <b>Depth From (TVD) (usft)</b> | <b>+N/-S (usft)</b> | <b>+E/-W (usft)</b> | <b>Direction (°)</b> |      |
|                          | 0.00                           | 0.00                | 0.00                | 358.33               |      |

|                       |                  |  |                  |                                    |  |
|-----------------------|------------------|--|------------------|------------------------------------|--|
| <b>Survey Program</b> | <b>Date</b>      | 9/21/2017                              |                  |                                    |  |
| <b>From (usft)</b>    | <b>To (usft)</b> | <b>Survey (Wellbore)</b>               | <b>Tool Name</b> | <b>Description</b>                 |  |
| 153.00                | 677.00           | Survey #1 - Gyro MWD Survey (OH)       | SDI Gyro MWD 104 | SDI Gyro MWD Error Model Ver 1.0.4 |  |
| 677.00                | 940.00           | Survey #2 - Surface MWD Survey (OH)    | SDI MWD          | SDI MWD - Standard ver 1.0.1       |  |
| 1,035.00              | 7,234.00         | Survey #3 - Production MWD Survey (OH) | SDI MWD          | SDI MWD - Standard ver 1.0.1       |  |

|                                  |                        |                    |                              |                     |                     |                                |                                |                               |                              |  |
|----------------------------------|------------------------|--------------------|------------------------------|---------------------|---------------------|--------------------------------|--------------------------------|-------------------------------|------------------------------|--|
| <b>Survey</b>                    |                        |                    |                              |                     |                     |                                |                                |                               |                              |  |
| <b>Measured Depth (usft)</b>     | <b>Inclination (°)</b> | <b>Azimuth (°)</b> | <b>Vertical Depth (usft)</b> | <b>+N/-S (usft)</b> | <b>+E/-W (usft)</b> | <b>Vertical Section (usft)</b> | <b>Dogleg Rate (°/100usft)</b> | <b>Build Rate (°/100usft)</b> | <b>Turn Rate (°/100usft)</b> |  |
| 0.00                             | 0.00                   | 0.00               | 0.00                         | 0.00                | 0.00                | 0.00                           | 0.00                           | 0.00                          | 0.00                         |  |
| 153.00                           | 1.58                   | 79.63              | 152.98                       | 0.38                | 2.07                | 0.32                           | 1.03                           | 1.03                          | 0.00                         |  |
| <b>First SDI Gyro MWD Survey</b> |                        |                    |                              |                     |                     |                                |                                |                               |                              |  |
| 215.00                           | 3.26                   | 61.61              | 214.92                       | 1.37                | 4.47                | 1.24                           | 2.94                           | 2.71                          | -29.06                       |  |
| 307.00                           | 5.81                   | 16.61              | 306.65                       | 7.08                | 8.10                | 6.84                           | 4.56                           | 2.77                          | -48.91                       |  |
| 399.00                           | 10.38                  | 10.55              | 397.71                       | 19.70               | 10.95               | 19.37                          | 5.05                           | 4.97                          | -6.59                        |  |
| 491.00                           | 14.69                  | 5.01               | 487.50                       | 39.48               | 13.49               | 39.07                          | 4.86                           | 4.68                          | -6.02                        |  |
| 584.00                           | 18.65                  | 3.34               | 576.58                       | 66.08               | 15.39               | 65.60                          | 4.29                           | 4.26                          | -1.80                        |  |

|                  |                           |                                     |  |
|------------------|---------------------------|-------------------------------------|--|
| <b>Company:</b>  | TEP Rocky Mountain LLC    | <b>Local Co-ordinate Reference:</b> | Well GM 43-5 - Slot A4 (GM 43-5)           |
| <b>Project:</b>  | Garfield County, CO NAD83 | <b>TVD Reference:</b>               | GL 5977' & RKB 24' @ 6001.00usft (H&P 271) |
| <b>Site:</b>     | MV 34-5 Pad               | <b>MD Reference:</b>                | GL 5977' & RKB 24' @ 6001.00usft (H&P 271) |
| <b>Well:</b>     | GM 43-5                   | <b>North Reference:</b>             | True                                       |
| <b>Wellbore:</b> | OH                        | <b>Survey Calculation Method:</b>   | Minimum Curvature                          |
| <b>Design:</b>   | OH                        | <b>Database:</b>                    | Grand Junction District                    |

| Survey                                 |                 |             |                       |              |              |                         |                         |                        |                       |
|--|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| Measured Depth (usft)                  | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
| <b>Last SDI Gyro MWD Survey</b>        |                 |             |                       |              |              |                         |                         |                        |                       |
| 677.00                                 | 22.79           | 2.02        | 663.54                | 98.94        | 16.89        | 98.41                   | 4.48                    | 4.45                   | -1.42                 |
| <b>First SDI Surface MWD Survey</b>    |                 |             |                       |              |              |                         |                         |                        |                       |
| 754.00                                 | 27.16           | 3.29        | 733.33                | 131.40       | 18.42        | 130.81                  | 5.72                    | 5.68                   | 1.65                  |
| 847.00                                 | 31.59           | 1.18        | 814.35                | 176.97       | 20.14        | 176.31                  | 4.89                    | 4.76                   | -2.27                 |
| 940.00                                 | 35.48           | 359.24      | 891.86                | 228.33       | 20.29        | 227.65                  | 4.34                    | 4.18                   | -2.09                 |
| <b>Last SDI Surface MWD Survey</b>     |                 |             |                       |              |              |                         |                         |                        |                       |
| 1,035.00                               | 40.23           | 357.27      | 966.85                | 286.58       | 18.46        | 285.92                  | 5.16                    | 5.00                   | -2.07                 |
| <b>First SDI Production MWD Survey</b> |                 |             |                       |              |              |                         |                         |                        |                       |
| 1,175.00                               | 40.44           | 355.69      | 1,073.57              | 377.02       | 12.89        | 376.48                  | 0.75                    | 0.15                   | -1.13                 |
| 1,269.00                               | 41.80           | 356.25      | 1,144.38              | 438.68       | 8.55         | 438.25                  | 1.50                    | 1.45                   | 0.60                  |
| 1,364.00                               | 41.24           | 356.51      | 1,215.51              | 501.53       | 4.58         | 501.18                  | 0.62                    | -0.59                  | 0.27                  |
| 1,458.00                               | 40.01           | 356.42      | 1,286.86              | 562.62       | 0.80         | 562.35                  | 1.31                    | -1.31                  | -0.10                 |
| 1,553.00                               | 41.83           | 355.42      | 1,358.64              | 624.68       | -3.63        | 624.52                  | 2.04                    | 1.92                   | -1.05                 |
| 1,648.00                               | 40.43           | 354.78      | 1,430.19              | 686.94       | -8.97        | 686.91                  | 1.54                    | -1.47                  | -0.67                 |
| 1,742.00                               | 40.09           | 354.80      | 1,501.92              | 747.43       | -14.48       | 747.54                  | 0.36                    | -0.36                  | 0.02                  |
| 1,837.00                               | 41.85           | 355.95      | 1,573.65              | 809.52       | -19.49       | 809.74                  | 2.02                    | 1.85                   | 1.21                  |
| 1,932.00                               | 42.12           | 357.97      | 1,644.27              | 872.97       | -22.86       | 873.26                  | 1.45                    | 0.28                   | 2.13                  |
| 2,026.00                               | 41.31           | 356.38      | 1,714.44              | 935.44       | -25.94       | 935.80                  | 1.42                    | -0.86                  | -1.69                 |
| 2,121.00                               | 40.87           | 357.95      | 1,786.04              | 997.79       | -29.03       | 998.22                  | 1.18                    | -0.46                  | 1.65                  |
| 2,216.00                               | 39.66           | 356.84      | 1,858.53              | 1,059.13     | -31.81       | 1,059.61                | 1.48                    | -1.27                  | -1.17                 |
| 2,310.00                               | 40.46           | 357.55      | 1,930.48              | 1,119.55     | -34.77       | 1,120.09                | 0.98                    | 0.85                   | 0.76                  |
| 2,405.00                               | 39.11           | 357.94      | 2,003.48              | 1,180.30     | -37.16       | 1,180.88                | 1.45                    | -1.42                  | 0.41                  |
| 2,499.00                               | 37.62           | 358.12      | 2,077.18              | 1,238.60     | -39.17       | 1,239.22                | 1.59                    | -1.59                  | 0.19                  |
| 2,593.00                               | 34.23           | 356.99      | 2,153.29              | 1,293.69     | -41.50       | 1,294.35                | 3.67                    | -3.61                  | -1.20                 |
| 2,688.00                               | 32.69           | 357.76      | 2,232.54              | 1,346.02     | -43.91       | 1,346.72                | 1.68                    | -1.62                  | 0.81                  |
| 2,782.00                               | 30.95           | 357.89      | 2,312.41              | 1,395.54     | -45.79       | 1,396.28                | 1.85                    | -1.85                  | 0.14                  |
| 2,877.00                               | 29.05           | 357.68      | 2,394.68              | 1,443.00     | -47.62       | 1,443.78                | 2.00                    | -2.00                  | -0.22                 |
| 2,971.00                               | 25.76           | 356.92      | 2,478.12              | 1,486.21     | -49.64       | 1,487.03                | 3.52                    | -3.50                  | -0.81                 |
| 3,066.00                               | 21.90           | 355.08      | 2,565.01              | 1,524.49     | -52.27       | 1,525.37                | 4.14                    | -4.06                  | -1.94                 |
| 3,160.00                               | 19.88           | 354.19      | 2,652.82              | 1,557.86     | -55.40       | 1,558.82                | 2.18                    | -2.15                  | -0.95                 |
| 3,255.00                               | 18.51           | 354.51      | 2,742.54              | 1,588.95     | -58.47       | 1,589.97                | 1.45                    | -1.44                  | 0.34                  |
| 3,349.00                               | 17.30           | 354.54      | 2,831.99              | 1,617.71     | -61.23       | 1,618.81                | 1.29                    | -1.29                  | 0.03                  |
| 3,443.00                               | 16.44           | 353.94      | 2,921.94              | 1,644.85     | -63.97       | 1,646.02                | 0.93                    | -0.91                  | -0.64                 |
| 3,538.00                               | 15.65           | 354.29      | 3,013.24              | 1,670.97     | -66.66       | 1,672.20                | 0.84                    | -0.83                  | 0.37                  |
| 3,632.00                               | 13.89           | 357.19      | 3,104.13              | 1,694.86     | -68.47       | 1,696.13                | 2.03                    | -1.87                  | 3.09                  |
| 3,727.00                               | 11.80           | 2.98        | 3,196.75              | 1,715.95     | -68.53       | 1,717.22                | 2.58                    | -2.20                  | 6.09                  |
| 3,821.00                               | 9.50            | 6.42        | 3,289.13              | 1,733.26     | -67.16       | 1,734.48                | 2.54                    | -2.45                  | 3.66                  |
| 3,916.00                               | 7.30            | 16.08       | 3,383.11              | 1,746.85     | -64.61       | 1,747.99                | 2.74                    | -2.32                  | 10.17                 |
| 4,010.00                               | 5.45            | 31.20       | 3,476.53              | 1,756.41     | -60.65       | 1,757.43                | 2.64                    | -1.97                  | 16.09                 |
| 4,105.00                               | 4.84            | 30.06       | 3,571.14              | 1,763.74     | -56.30       | 1,764.63                | 0.65                    | -0.64                  | -1.20                 |
| 4,129.45                               | 4.69            | 30.65       | 3,595.50              | 1,765.49     | -55.27       | 1,766.35                | 0.66                    | -0.62                  | 2.43                  |
| <b>GM 43-5 MVRD</b>                    |                 |             |                       |              |              |                         |                         |                        |                       |
| 4,200.00                               | 4.25            | 32.61       | 3,665.85              | 1,770.17     | -52.40       | 1,770.95                | 0.66                    | -0.62                  | 2.77                  |

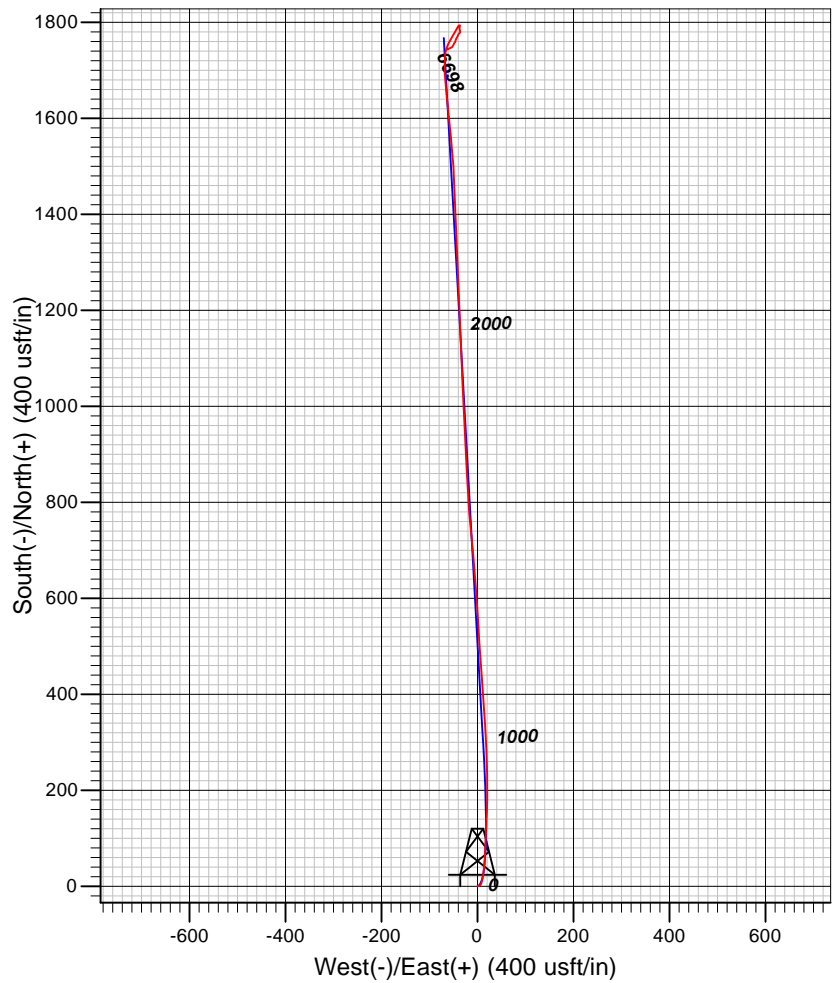
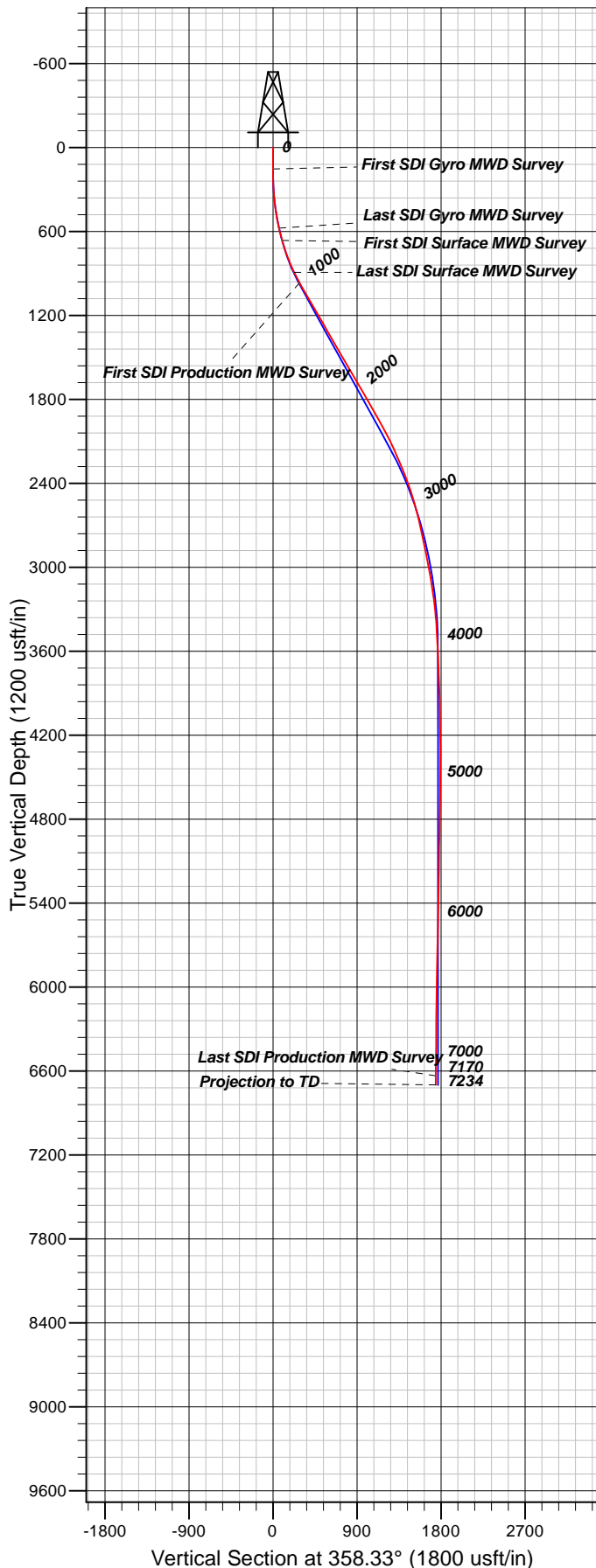
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|------------------|---------------------------|-------------------------------------|--|
| <b>Company:</b>  | TEP Rocky Mountain LLC    | <b>Local Co-ordinate Reference:</b> | Well GM 43-5 - Slot A4 (GM 43-5)           |
| <b>Project:</b>  | Garfield County, CO NAD83 | <b>TVD Reference:</b>               | GL 5977' & RKB 24' @ 6001.00usft (H&P 271) |
| <b>Site:</b>     | MV 34-5 Pad               | <b>MD Reference:</b>                | GL 5977' & RKB 24' @ 6001.00usft (H&P 271) |
| <b>Well:</b>     | GM 43-5                   | <b>North Reference:</b>             | True                                       |
| <b>Wellbore:</b> | OH                        | <b>Survey Calculation Method:</b>   | Minimum Curvature                          |
| <b>Design:</b>   | OH                        | <b>Database:</b>                    | Grand Junction District                    |

| Survey                          |                 |             |                       |              |              |                         |                         |                        |                       |  |
|---------------------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|--|
| Measured Depth (usft)           | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |  |
| 4,294.00                        | 3.61            | 25.82       | 3,759.62              | 1,775.77     | -49.23       | 1,776.45                | 0.84                    | -0.68                  | -7.22                 |  |
| 4,389.00                        | 3.17            | 24.87       | 3,854.46              | 1,780.85     | -46.82       | 1,781.46                | 0.47                    | -0.46                  | -1.00                 |  |
| 4,483.00                        | 2.64            | 31.11       | 3,948.34              | 1,785.06     | -44.61       | 1,785.60                | 0.66                    | -0.56                  | 6.64                  |  |
| 4,577.00                        | 2.05            | 36.53       | 4,042.26              | 1,788.26     | -42.49       | 1,788.74                | 0.67                    | -0.63                  | 5.77                  |  |
| 4,672.00                        | 1.60            | 33.06       | 4,137.21              | 1,790.74     | -40.76       | 1,791.17                | 0.49                    | -0.47                  | -3.65                 |  |
| 4,767.00                        | 1.23            | 46.32       | 4,232.18              | 1,792.56     | -39.30       | 1,792.94                | 0.52                    | -0.39                  | 13.96                 |  |
| 4,861.00                        | 1.11            | 48.06       | 4,326.16              | 1,793.86     | -37.89       | 1,794.20                | 0.13                    | -0.13                  | 1.85                  |  |
| 4,956.00                        | 0.79            | 157.24      | 4,421.15              | 1,793.87     | -36.95       | 1,794.19                | 1.64                    | -0.34                  | 114.93                |  |
| 5,050.00                        | 1.24            | 194.31      | 4,515.14              | 1,792.29     | -36.95       | 1,792.61                | 0.82                    | 0.48                   | 39.44                 |  |
| 5,145.00                        | 1.11            | 184.44      | 4,610.12              | 1,790.38     | -37.28       | 1,790.70                | 0.25                    | -0.14                  | -10.39                |  |
| 5,240.00                        | 1.23            | 179.82      | 4,705.10              | 1,788.44     | -37.35       | 1,788.77                | 0.16                    | 0.13                   | -4.86                 |  |
| 5,334.00                        | 1.58            | 171.21      | 4,799.07              | 1,786.15     | -37.14       | 1,786.47                | 0.43                    | 0.37                   | -9.16                 |  |
| 5,429.00                        | 1.58            | 170.42      | 4,894.04              | 1,783.56     | -36.73       | 1,783.88                | 0.02                    | 0.00                   | -0.83                 |  |
| 5,524.00                        | 1.93            | 180.70      | 4,988.99              | 1,780.67     | -36.53       | 1,780.98                | 0.49                    | 0.37                   | 10.82                 |  |
| 5,618.00                        | 1.06            | 208.48      | 5,082.96              | 1,778.33     | -36.96       | 1,778.65                | 1.18                    | -0.93                  | 29.55                 |  |
| 5,713.00                        | 1.40            | 231.33      | 5,177.94              | 1,776.83     | -38.29       | 1,777.19                | 0.62                    | 0.36                   | 24.05                 |  |
| 5,807.00                        | 1.37            | 213.79      | 5,271.91              | 1,775.18     | -39.81       | 1,775.58                | 0.45                    | -0.03                  | -18.66                |  |
| 5,902.00                        | 1.80            | 203.86      | 5,366.87              | 1,772.87     | -41.04       | 1,773.31                | 0.54                    | 0.45                   | -10.45                |  |
| 5,996.00                        | 1.92            | 199.82      | 5,460.82              | 1,770.04     | -42.17       | 1,770.51                | 0.19                    | 0.13                   | -4.30                 |  |
| 6,091.00                        | 2.18            | 204.94      | 5,555.76              | 1,766.90     | -43.48       | 1,767.42                | 0.33                    | 0.27                   | 5.39                  |  |
| 6,185.00                        | 2.69            | 203.10      | 5,649.68              | 1,763.25     | -45.09       | 1,763.82                | 0.55                    | 0.54                   | -1.96                 |  |
| 6,280.00                        | 1.76            | 205.49      | 5,744.61              | 1,759.88     | -46.60       | 1,760.49                | 0.98                    | -0.98                  | 2.52                  |  |
| 6,374.00                        | 1.76            | 208.12      | 5,838.56              | 1,757.31     | -47.90       | 1,757.96                | 0.09                    | 0.00                   | 2.80                  |  |
| 6,469.00                        | 2.20            | 204.61      | 5,933.50              | 1,754.36     | -49.35       | 1,755.06                | 0.48                    | 0.46                   | -3.69                 |  |
| 6,564.00                        | 0.59            | 228.28      | 6,028.47              | 1,752.38     | -50.47       | 1,753.11                | 1.76                    | -1.69                  | 24.92                 |  |
| 6,659.00                        | 1.06            | 209.09      | 6,123.46              | 1,751.29     | -51.26       | 1,752.04                | 0.57                    | 0.49                   | -20.20                |  |
| 6,754.00                        | 1.58            | 216.83      | 6,218.44              | 1,749.47     | -52.48       | 1,750.26                | 0.58                    | 0.55                   | 8.15                  |  |
| 6,848.00                        | 1.06            | 233.61      | 6,312.41              | 1,747.92     | -53.95       | 1,748.75                | 0.68                    | -0.55                  | 17.85                 |  |
| 6,943.00                        | 1.49            | 249.08      | 6,407.39              | 1,746.95     | -55.81       | 1,747.84                | 0.58                    | 0.45                   | 16.28                 |  |
| 7,038.00                        | 1.87            | 247.86      | 6,502.35              | 1,745.93     | -58.40       | 1,746.89                | 0.40                    | 0.40                   | -1.28                 |  |
| 7,132.00                        | 1.49            | 236.87      | 6,596.31              | 1,744.68     | -60.85       | 1,745.71                | 0.53                    | -0.40                  | -11.69                |  |
| 7,170.00                        | 1.49            | 244.95      | 6,634.30              | 1,744.20     | -61.71       | 1,745.26                | 0.55                    | 0.00                   | 21.26                 |  |
| Last SDI Production MWD Survey  |                 |             |                       |              |              |                         |                         |                        |                       |  |
| 7,234.00                        | 1.49            | 244.95      | 6,698.27              | 1,743.50     | -63.22       | 1,744.60                | 0.00                    | 0.00                   | 0.00                  |  |
| Projection to TD - GM 43-5 PBHL |                 |             |                       |              |              |                         |                         |                        |                       |  |

|                  |                           |                                     |  |
|------------------|---------------------------|-------------------------------------|--|
| <b>Company:</b>  | TEP Rocky Mountain LLC    | <b>Local Co-ordinate Reference:</b> | Well GM 43-5 - Slot A4 (GM 43-5)           |
| <b>Project:</b>  | Garfield County, CO NAD83 | <b>TVD Reference:</b>               | GL 5977' & RKB 24' @ 6001.00usft (H&P 271) |
| <b>Site:</b>     | MV 34-5 Pad               | <b>MD Reference:</b>                | GL 5977' & RKB 24' @ 6001.00usft (H&P 271) |
| <b>Well:</b>     | GM 43-5                   | <b>North Reference:</b>             | True                                       |
| <b>Wellbore:</b> | OH                        | <b>Survey Calculation Method:</b>   | Minimum Curvature                          |
| <b>Design:</b>   | OH                        | <b>Database:</b>                    | Grand Junction District                    |

| Design Annotations    |                       |                   |              |                                 |  |
|-----------------------|-----------------------|-------------------|--------------|---------------------------------|--|
| Measured Depth (usft) | Vertical Depth (usft) | Local Coordinates |              |                                 |  |
|                       |                       | +N/-S (usft)      | +E/-W (usft) | Comment                         |  |
| 153.00                | 152.98                | 0.38              | 2.07         | First SDI Gyro MWD Survey       |  |
| 584.00                | 576.58                | 66.08             | 15.39        | Last SDI Gyro MWD Survey        |  |
| 677.00                | 663.54                | 98.94             | 16.89        | First SDI Surface MWD Survey    |  |
| 940.00                | 891.86                | 228.33            | 20.29        | Last SDI Surface MWD Survey     |  |
| 1,035.00              | 966.85                | 286.58            | 18.46        | First SDI Production MWD Survey |  |
| 7,170.00              | 6,634.30              | 1,744.20          | -61.71       | Last SDI Production MWD Survey  |  |
| 7,234.00              | 6,698.27              | 1,743.50          | -63.22       | Projection to TD                |  |

|                   |                    |             |
|-------------------|--------------------|-------------|
| Checked By: _____ | Approved By: _____ | Date: _____ |
|-------------------|--------------------|-------------|



#### Well Details: GM 43-5

TVD Reference: GL 5977' & RKB 24' @ 6001.00usft (H&P 271) and Level: 5977.00  
 +N/-S +E/-W Northing Easting Latitude Longitude Slot  
 0.00 0.00 1603526.72 2258804.61 39.4610462 -108.1255471 A4 (GM 43-5)

#### REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Well GM 43-5 - Slot A4 (GM 43-5), True North  
 Vertical (TVD) Reference: GL 5977' & RKB 24' @ 6001.00usft (H&P 271)  
 Section (VS) Reference: Slot - A4 (GM 43-5)(0.00N, 0.00E)  
 Measured Depth Reference: GL 5977' & RKB 24' @ 6001.00usft (H&P 271)  
 Calculation Method: Minimum Curvature

#### PROJECT DETAILS: Garfield County, CO NAD83

Geodetic System: US State Plane 1983  
 Datum: North American Datum 1983  
 Ellipsoid: GRS 1980  
 Zone: Colorado Central Zone

System Datum: Mean Sea Level

Plan: OH

12:46, September 21 2017  
 Created By: Mel Mireles Jr.