



# SEM Operating Company, LLC

University 9 #2902WB

Reagan County, Texas

Job No. WT-17-138

2677'GL+26'KB @ 2703.00usft (H&P 467)

Lateral 1r1 PvA



## DESIGN TARGET DETAILS

| Name            | TVD     | +N/-S    | +E/-W  | Northing  | Easting    | Latitude         | Longitude         | Shape |
|-----------------|---------|----------|--------|-----------|------------|------------------|-------------------|-------|
| FTP (9-2902WB)  | 0.00    | -666.97  | 86.34  | 573166.22 | 1608537.54 | 31° 14' 11.760 N | 101° 35' 9.318 W  | Point |
| LTP (9-2902WB)  | 0.00    | -8503.26 | -72.65 | 565329.93 | 1608378.55 | 31° 12' 54.183 N | 101° 35' 10.132 W | Point |
| PBHL (9-2902WB) | 8168.00 | -8598.24 | -74.58 | 565234.95 | 1608376.62 | 31° 12' 53.242 N | 101° 35' 10.142 W | Point |
| T2 (9-2902WB)   | 8194.00 | -6471.19 | -32.20 | 567362.00 | 1608419.00 | 31° 13' 14.300 N | 101° 35' 9.930 W  | Point |
| T1 (9-2902WB)   | 8197.00 | -3538.19 | 27.80  | 570295.00 | 1608479.00 | 31° 13' 43.336 N | 101° 35' 9.619 W  | Point |
| LP (9-2902WB)   | 8207.00 | -666.97  | 86.34  | 573166.22 | 1608537.54 | 31° 14' 11.760 N | 101° 35' 9.318 W  | Point |

## ANNOTATIONS

| MD       | Inc   | Azi    | TVD     | +N/-S    | +E/-W   | Vsect   | Departure | Annotation                      |
|----------|-------|--------|---------|----------|---------|---------|-----------|---------------------------------|
| 700.00   | 0.16  | 342.34 | 699.99  | 2.37     | 2.23    | -2.41   | 3.85      | Last VES Gyro Survey            |
| 817.00   | 0.66  | 304.90 | 816.98  | 2.91     | 1.63    | -2.94   | 4.69      | First Aim MWD Survey @ 817'MD   |
| 8572.00  | 86.43 | 182.23 | 8160.01 | -667.51  | -196.39 | 671.35  | 895.79    | FTP @ 8572'MD                   |
| 16437.00 | 91.11 | 181.80 | 8161.88 | -8502.88 | -103.82 | 8503.24 | 8756.90   | LTP @ 16437'MD                  |
| 16473.00 | 91.12 | 182.82 | 8161.21 | -8538.86 | -104.78 | 8539.24 | 8792.89   | Final Aim MWD Survey @ 16473'MD |
| 16531.00 | 91.12 | 182.82 | 8160.07 | -8596.78 | -107.64 | 8597.20 | 8850.88   | Projected TD @ 16531'MD         |

### SITE DETAILS: University 9 #2902WB

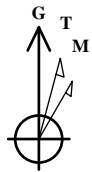
Site Centre Northing: 573833.19  
Easting: 1608451.20

Positional Uncertainty: 0.00  
Convergence: -0.65  
Local North: Grid

### PROJECT DETAILS: Reagan County, Texas

Geodetic System: US State Plane 1927 (Exact solution)  
Datum: NAD 1927 (NADCON CONUS)  
Ellipsoid: Clarke 1866  
Zone: Texas Central 4203

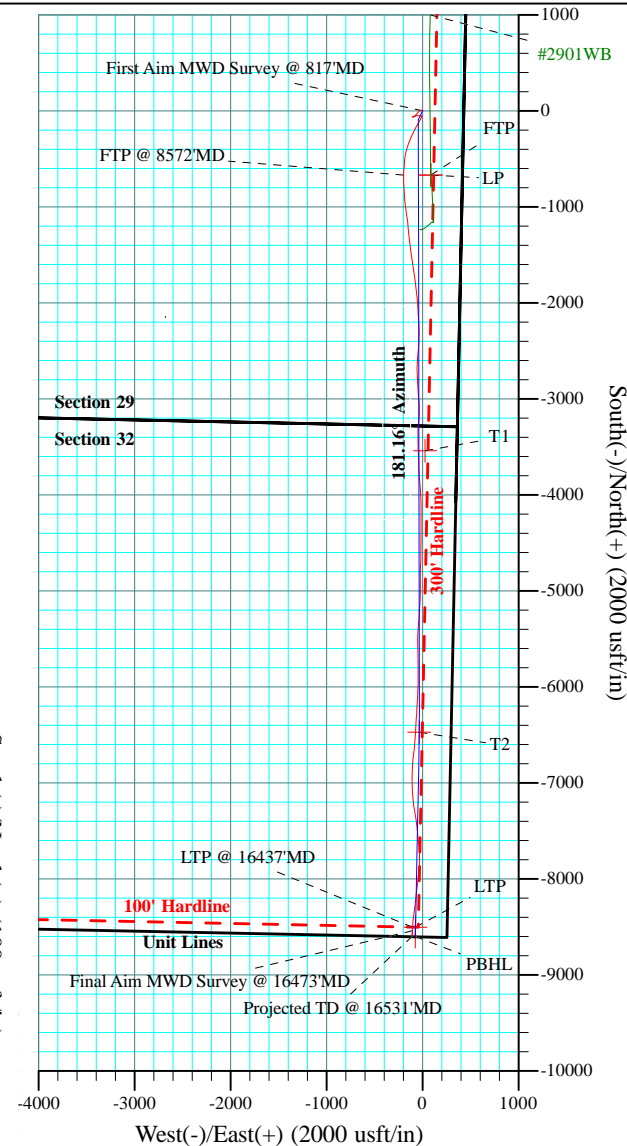
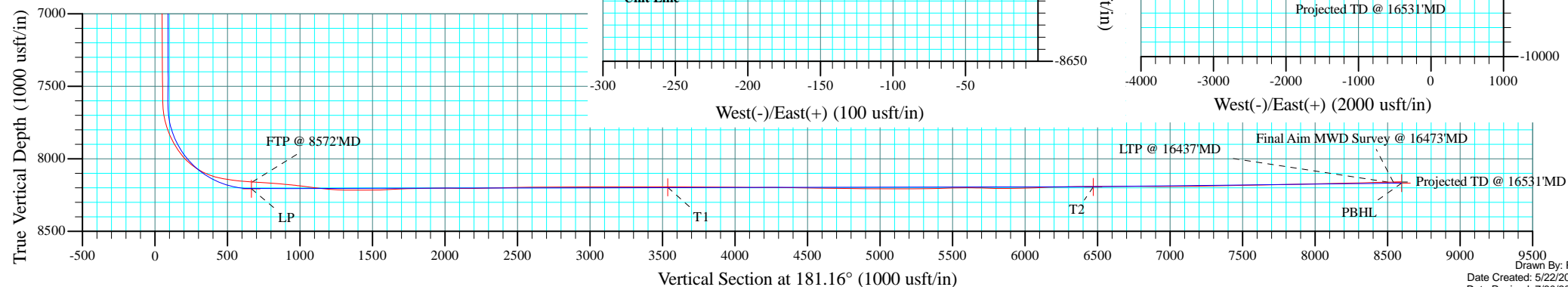
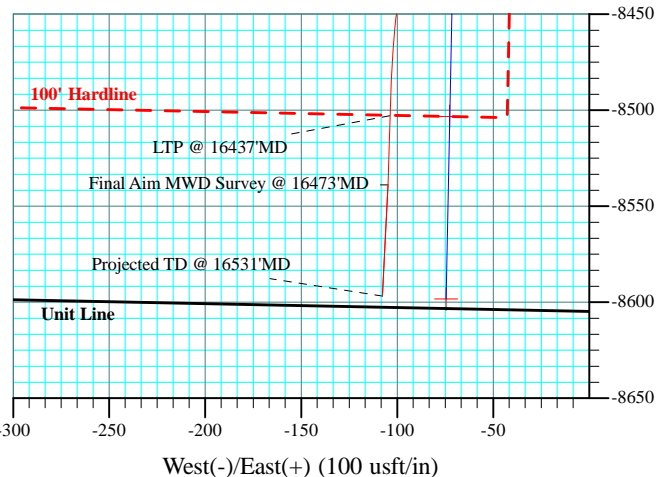
System Datum: Mean Sea Level



Azimuths to Grid North  
True North: 0.65°  
Magnetic North: 6.51°

Magnetic Field  
Strength: 47672.7nT  
Dip Angle: 59.55°  
Date: 7/10/2017  
Model: HDGM

Magnetic North: 6.51° to Grid North



Drawn By: RG

Date Created: 5/22/2017

Date Revised: 7/30/2017

File: SEM Operating - University 9 #2902WB Lateral 1r1 PvA.wpc



# Aim Directional Services

## Survey Report

|                  |                            |                                     |                                       |
|------------------|----------------------------|-------------------------------------|---------------------------------------|
| <b>Company:</b>  | SEM Operating Company, LLC | <b>Local Co-ordinate Reference:</b> | Site University 9 #2902WB             |
| <b>Project:</b>  | Reagan County, Texas       | <b>TVD Reference:</b>               | 2677'GL+26'KB @ 2703.00usft (H&P 467) |
| <b>Site:</b>     | University 9 #2902WB       | <b>MD Reference:</b>                | 2677'GL+26'KB @ 2703.00usft (H&P 467) |
| <b>Well:</b>     | #2902WB                    | <b>North Reference:</b>             | Grid                                  |
| <b>Wellbore:</b> | As Drilled                 | <b>Survey Calculation Method:</b>   | Minimum Curvature                     |
| <b>Design:</b>   | Surveys                    | <b>Database:</b>                    | EDM 5000.14 Single User Db            |

|                    |                                      |                      |                |
|--------------------|--------------------------------------|----------------------|----------------|
| <b>Project</b>     | Reagan County, Texas                 |                      |                |
| <b>Map System:</b> | US State Plane 1927 (Exact solution) | <b>System Datum:</b> | Mean Sea Level |
| <b>Geo Datum:</b>  | NAD 1927 (NADCON CONUS)              |                      |                |
| <b>Map Zone:</b>   | Texas Central 4203                   |                      |                |

|                              |                      |                          |                   |
|------------------------------|----------------------|--------------------------|-------------------|
| <b>Site</b>                  | University 9 #2902WB |                          |                   |
| <b>Site Position:</b>        |                      | <b>Northing:</b>         | 573,833.19 usft   |
| <b>From:</b>                 | Map                  | <b>Easting:</b>          | 1,608,451.20 usft |
| <b>Position Uncertainty:</b> | 0.00 usft            | <b>Slot Radius:</b>      | 13-3/16 "         |
|                              |                      | <b>Latitude:</b>         | 31° 14' 18.352 N  |
|                              |                      | <b>Longitude:</b>        | 101° 35' 10.399 W |
|                              |                      | <b>Grid Convergence:</b> | -0.65 °           |

|                             |                       |           |                                     |
|-----------------------------|-----------------------|-----------|-------------------------------------|
| <b>Well</b>                 | #2902WB - Slot 2902WB |           |                                     |
| <b>Well Position</b>        | <b>+N/-S</b>          | 0.00 usft | <b>Northing:</b> 573,833.19 usft    |
|                             | <b>+E/-W</b>          | 0.00 usft | <b>Easting:</b> 1,608,451.20 usft   |
| <b>Position Uncertainty</b> | 0.00 usft             |           | <b>Wellhead Elevation:</b> usft     |
|                             |                       |           | <b>Latitude:</b> 31° 14' 18.352 N   |
|                             |                       |           | <b>Longitude:</b> 101° 35' 10.399 W |
|                             |                       |           | <b>Ground Level:</b> 2,677.00 usft  |

|                  |                   |                    |                        |                      |                            |
|------------------|-------------------|--------------------|------------------------|----------------------|----------------------------|
| <b>Wellbore</b>  | As Drilled        |                    |                        |                      |                            |
| <b>Magnetics</b> | <b>Model Name</b> | <b>Sample Date</b> | <b>Declination (°)</b> | <b>Dip Angle (°)</b> | <b>Field Strength (nT)</b> |
|                  | HDGM              | 7/7/2017           | 5.87                   | 59.55                | 47,673.60000000            |

|                          |                                |                     |                     |                      |      |
|--------------------------|--------------------------------|---------------------|---------------------|----------------------|------|
| <b>Design</b>            | Surveys                        |                     |                     |                      |      |
| <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                | 181.16               |      |

|                       |                  |                              |                      |                     |  |
|-----------------------|------------------|------------------------------|----------------------|---------------------|--|
| <b>Survey Program</b> | <b>Date</b>      | 7/30/2017                    |                      |                     |  |
| <b>From (usft)</b>    | <b>To (usft)</b> | <b>Survey (Wellbore)</b>     | <b>Tool Name</b>     | <b>Description</b>  |  |
| 50.00                 | 700.00           | VES Gyro Svys (As Drilled)   | VES_C670Ga_GYROFLEX_ | VESSI Gyroflex Gyro |  |
| 817.00                | 16,531.00        | Aim MWD Surveys (As Drilled) | B001Mb_MWD+HRGM      | OWSG MWD + HRGM     |  |

|                                      |                        |                    |                              |                     |                     |                                |                                |                               |                              |  |
|--------------------------------------|------------------------|--------------------|------------------------------|---------------------|---------------------|--------------------------------|--------------------------------|-------------------------------|------------------------------|--|
| <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> |  |
| 700.00                               | 0.16                   | 342.34             | 699.99                       | 2.37                | 2.23                | -2.41                          | 0.00                           | 0.00                          | 0.00                         |  |
| 817.00                               | 0.66                   | 304.90             | 816.98                       | 2.91                | 1.63                | -2.94                          | 0.46                           | 0.43                          | -32.00                       |  |
| <b>First Aim MWD Survey @ 817'MD</b> |                        |                    |                              |                     |                     |                                |                                |                               |                              |  |
| 1,015.00                             | 0.84                   | 302.09             | 1,014.97                     | 4.33                | -0.54               | -4.32                          | 0.09                           | 0.09                          | -1.42                        |  |
| 1,205.00                             | 0.75                   | 278.44             | 1,204.95                     | 5.25                | -2.95               | -5.19                          | 0.18                           | -0.05                         | -12.45                       |  |
| 1,393.00                             | 0.92                   | 272.47             | 1,392.93                     | 5.50                | -5.67               | -5.38                          | 0.10                           | 0.09                          | -3.18                        |  |
| 1,582.00                             | 1.05                   | 296.29             | 1,581.90                     | 6.33                | -8.74               | -6.15                          | 0.23                           | 0.07                          | 12.60                        |  |
| 1,771.00                             | 1.19                   | 296.81             | 1,770.87                     | 7.98                | -12.05              | -7.74                          | 0.07                           | 0.07                          | 0.28                         |  |
| 1,959.00                             | 2.15                   | 247.24             | 1,958.79                     | 7.50                | -17.04              | -7.15                          | 0.88                           | 0.51                          | -26.37                       |  |
| 2,148.00                             | 4.00                   | 245.31             | 2,147.51                     | 3.37                | -26.30              | -2.84                          | 0.98                           | 0.98                          | -1.02                        |  |



# Aim Directional Services

## Survey Report

|                  |                            |                                     |                                       |
|------------------|----------------------------|-------------------------------------|---------------------------------------|
| <b>Company:</b>  | SEM Operating Company, LLC | <b>Local Co-ordinate Reference:</b> | Site University 9 #2902WB             |
| <b>Project:</b>  | Reagan County, Texas       | <b>TVD Reference:</b>               | 2677'GL+26'KB @ 2703.00usft (H&P 467) |
| <b>Site:</b>     | University 9 #2902WB       | <b>MD Reference:</b>                | 2677'GL+26'KB @ 2703.00usft (H&P 467) |
| <b>Well:</b>     | #2902WB                    | <b>North Reference:</b>             | Grid                                  |
| <b>Wellbore:</b> | As Drilled                 | <b>Survey Calculation Method:</b>   | Minimum Curvature                     |
| <b>Design:</b>   | Surveys                    | <b>Database:</b>                    | EDM 5000.14 Single User Db            |

| 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) |
| 2,336.00              | 4.44            | 221.84      | 2,335.02              | -4.79        | -37.11       | 5.54                    | 0.94                    | 0.23                   | -12.48                |
| 2,525.00              | 5.85            | 219.21      | 2,523.25              | -17.70       | -48.08       | 18.67                   | 0.76                    | 0.75                   | -1.39                 |
| 2,713.00              | 6.15            | 221.40      | 2,710.22              | -32.68       | -60.80       | 33.90                   | 0.20                    | 0.16                   | 1.16                  |
| 2,901.00              | 4.40            | 229.05      | 2,897.42              | -44.96       | -72.91       | 46.43                   | 1.00                    | -0.93                  | 4.07                  |
| 3,090.00              | 3.34            | 234.59      | 3,085.99              | -52.90       | -82.87       | 54.57                   | 0.59                    | -0.56                  | 2.93                  |
| 3,278.00              | 1.36            | 242.94      | 3,273.82              | -57.09       | -89.32       | 58.89                   | 1.07                    | -1.05                  | 4.44                  |
| 3,467.00              | 1.32            | 246.28      | 3,462.77              | -58.99       | -93.31       | 60.86                   | 0.05                    | -0.02                  | 1.77                  |
| 3,656.00              | 1.67            | 245.40      | 3,651.70              | -61.01       | -97.81       | 62.98                   | 0.19                    | 0.19                   | -0.47                 |
| 3,844.00              | 0.97            | 270.71      | 3,839.65              | -62.13       | -101.89      | 64.18                   | 0.48                    | -0.37                  | 13.46                 |
| 4,033.00              | 0.18            | 122.97      | 4,028.64              | -62.27       | -103.24      | 64.35                   | 0.60                    | -0.42                  | -78.17                |
| 4,221.00              | 1.27            | 79.90       | 4,216.63              | -62.07       | -100.94      | 64.10                   | 0.61                    | 0.58                   | -22.91                |
| 4,410.00              | 1.27            | 74.71       | 4,405.58              | -61.15       | -96.86       | 63.09                   | 0.06                    | 0.00                   | -2.75                 |
| 4,598.00              | 1.32            | 75.06       | 4,593.53              | -60.04       | -92.76       | 61.90                   | 0.03                    | 0.03                   | 0.19                  |
| 4,786.00              | 1.32            | 78.14       | 4,781.48              | -59.04       | -88.55       | 60.82                   | 0.04                    | 0.00                   | 1.64                  |
| 4,975.00              | 1.80            | 70.32       | 4,970.41              | -57.59       | -83.62       | 59.27                   | 0.28                    | 0.25                   | -4.14                 |
| 5,163.00              | 2.73            | 64.17       | 5,158.26              | -54.64       | -76.81       | 56.19                   | 0.51                    | 0.49                   | -3.27                 |
| 5,313.00              | 1.93            | 71.99       | 5,308.14              | -52.31       | -71.19       | 53.74                   | 0.57                    | -0.53                  | 5.21                  |
| 5,502.00              | 1.41            | 75.86       | 5,497.06              | -50.75       | -65.91       | 52.08                   | 0.28                    | -0.28                  | 2.05                  |
| 5,689.00              | 2.11            | 84.47       | 5,683.97              | -49.86       | -60.25       | 51.07                   | 0.40                    | 0.37                   | 4.60                  |
| 5,876.00              | 2.07            | 81.66       | 5,870.85              | -49.04       | -53.49       | 50.11                   | 0.06                    | -0.02                  | -1.50                 |
| 6,067.00              | 1.93            | 93.43       | 6,061.73              | -48.73       | -46.86       | 49.67                   | 0.23                    | -0.07                  | 6.16                  |
| 6,255.00              | 2.55            | 87.90       | 6,249.59              | -48.77       | -39.52       | 49.56                   | 0.35                    | 0.33                   | -2.94                 |
| 6,443.00              | 2.90            | 92.12       | 6,437.37              | -48.79       | -30.59       | 49.40                   | 0.21                    | 0.19                   | 2.24                  |
| 6,632.00              | 2.77            | 87.28       | 6,626.14              | -48.75       | -21.25       | 49.17                   | 0.14                    | -0.07                  | -2.56                 |
| 6,820.00              | 1.93            | 90.27       | 6,813.98              | -48.55       | -13.55       | 48.81                   | 0.45                    | -0.45                  | 1.59                  |
| 7,009.00              | 0.44            | 153.11      | 7,002.94              | -49.21       | -10.04       | 49.40                   | 0.94                    | -0.79                  | 33.25                 |
| 7,197.00              | 0.62            | 131.67      | 7,190.93              | -50.53       | -8.95        | 50.70                   | 0.14                    | 0.10                   | -11.40                |
| 7,386.00              | 0.70            | 122.35      | 7,379.92              | -51.83       | -7.21        | 51.96                   | 0.07                    | 0.04                   | -4.93                 |
| 7,467.00              | 0.75            | 115.49      | 7,460.91              | -52.32       | -6.31        | 52.44                   | 0.12                    | 0.06                   | -8.47                 |
| 7,578.00              | 1.32            | 116.81      | 7,571.90              | -53.21       | -4.52        | 53.29                   | 0.51                    | 0.51                   | 1.19                  |
| 7,641.00              | 3.03            | 215.95      | 7,634.86              | -54.89       | -4.85        | 54.97                   | 5.54                    | 2.71                   | 157.37                |
| 7,673.00              | 6.51            | 205.58      | 7,666.75              | -57.21       | -6.13        | 57.32                   | 11.16                   | 10.88                  | -32.41                |
| 7,705.00              | 10.37           | 204.26      | 7,698.39              | -61.47       | -8.10        | 61.62                   | 12.08                   | 12.06                  | -4.13                 |
| 7,736.00              | 14.02           | 204.62      | 7,728.69              | -67.43       | -10.81       | 67.64                   | 11.78                   | 11.77                  | 1.16                  |
| 7,767.00              | 17.41           | 205.93      | 7,758.53              | -75.02       | -14.40       | 75.29                   | 10.99                   | 10.94                  | 4.23                  |
| 7,799.00              | 20.79           | 209.36      | 7,788.76              | -84.28       | -19.28       | 84.65                   | 11.13                   | 10.56                  | 10.72                 |
| 7,830.00              | 24.00           | 210.59      | 7,817.42              | -94.50       | -25.19       | 94.99                   | 10.46                   | 10.35                  | 3.97                  |
| 7,862.00              | 26.81           | 210.77      | 7,846.32              | -106.31      | -32.19       | 106.94                  | 8.78                    | 8.78                   | 0.56                  |
| 7,893.00              | 30.24           | 209.98      | 7,873.56              | -119.08      | -39.67       | 119.86                  | 11.13                   | 11.06                  | -2.55                 |
| 7,924.00              | 33.01           | 209.71      | 7,899.95              | -133.18      | -47.76       | 134.12                  | 8.95                    | 8.94                   | -0.87                 |
| 7,956.00              | 35.74           | 209.01      | 7,926.36              | -148.92      | -56.61       | 150.04                  | 8.62                    | 8.53                   | -2.19                 |
| 7,987.00              | 39.25           | 208.57      | 7,950.95              | -165.46      | -65.70       | 166.76                  | 11.36                   | 11.32                  | -1.42                 |
| 8,018.00              | 42.59           | 207.96      | 7,974.37              | -183.34      | -75.31       | 184.83                  | 10.85                   | 10.77                  | -1.97                 |

|                  |                            |                                     |                                       |
|------------------|----------------------------|-------------------------------------|---------------------------------------|
| <b>Company:</b>  | SEM Operating Company, LLC | <b>Local Co-ordinate Reference:</b> | Site University 9 #2902WB             |
| <b>Project:</b>  | Reagan County, Texas       | <b>TVD Reference:</b>               | 2677'GL+26'KB @ 2703.00usft (H&P 467) |
| <b>Site:</b>     | University 9 #2902WB       | <b>MD Reference:</b>                | 2677'GL+26'KB @ 2703.00usft (H&P 467) |
| <b>Well:</b>     | #2902WB                    | <b>North Reference:</b>             | Grid                                  |
| <b>Wellbore:</b> | As Drilled                 | <b>Survey Calculation Method:</b>   | Minimum Curvature                     |
| <b>Design:</b>   | Surveys                    | <b>Database:</b>                    | EDM 5000.14 Single User Db            |

| 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) |
| 8,050.00              | 45.63           | 206.81      | 7,997.35              | -203.12      | -85.55       | 204.81                  | 9.82                    | 9.50                   | -3.59                 |
| 8,081.00              | 49.71           | 206.11      | 8,018.22              | -223.63      | -95.75       | 225.53                  | 13.27                   | 13.16                  | -2.26                 |
| 8,113.00              | 52.79           | 205.58      | 8,038.24              | -246.09      | -106.63      | 248.20                  | 9.71                    | 9.63                   | -1.66                 |
| 8,144.00              | 56.26           | 204.09      | 8,056.23              | -269.00      | -117.22      | 271.32                  | 11.86                   | 11.19                  | -4.81                 |
| 8,175.00              | 60.00           | 203.03      | 8,072.60              | -293.13      | -127.74      | 295.66                  | 12.41                   | 12.06                  | -3.42                 |
| 8,207.00              | 63.43           | 201.10      | 8,087.76              | -319.24      | -138.31      | 321.98                  | 11.96                   | 10.72                  | -6.03                 |
| 8,238.00              | 66.68           | 199.52      | 8,100.83              | -345.60      | -148.06      | 348.53                  | 11.46                   | 10.48                  | -5.10                 |
| 8,269.00              | 70.51           | 197.94      | 8,112.15              | -372.93      | -157.32      | 376.04                  | 13.23                   | 12.35                  | -5.10                 |
| 8,301.00              | 73.76           | 195.39      | 8,121.96              | -402.10      | -166.05      | 405.38                  | 12.67                   | 10.16                  | -7.97                 |
| 8,332.00              | 76.66           | 193.28      | 8,129.88              | -431.14      | -173.47      | 434.56                  | 11.44                   | 9.35                   | -6.81                 |
| 8,364.00              | 79.52           | 189.76      | 8,136.48              | -461.81      | -179.71      | 465.35                  | 13.99                   | 8.94                   | -11.00                |
| 8,395.00              | 80.88           | 186.60      | 8,141.76              | -492.04      | -184.06      | 495.67                  | 10.96                   | 4.39                   | -10.19                |
| 8,427.00              | 81.41           | 186.16      | 8,146.68              | -523.47      | -187.57      | 527.16                  | 2.14                    | 1.66                   | -1.38                 |
| 8,458.00              | 83.43           | 184.05      | 8,150.77              | -554.07      | -190.30      | 557.81                  | 9.38                    | 6.52                   | -6.81                 |
| 8,490.00              | 84.70           | 181.76      | 8,154.08              | -585.85      | -191.92      | 589.62                  | 8.15                    | 3.97                   | -7.16                 |
| 8,521.00              | 85.93           | 184.22      | 8,156.62              | -616.71      | -193.53      | 620.50                  | 8.85                    | 3.97                   | 7.94                  |
| 8,572.00              | 86.43           | 182.23      | 8,160.01              | -667.51      | -196.39      | 671.35                  | 4.02                    | 0.98                   | -3.91                 |
| <b>FTP @ 8572'MD</b>  |                 |             |                       |              |              |                         |                         |                        |                       |
| 8,584.00              | 86.55           | 181.76      | 8,160.75              | -679.48      | -196.81      | 683.32                  | 4.02                    | 0.99                   | -3.90                 |
| 8,615.00              | 86.29           | 179.57      | 8,162.68              | -710.42      | -197.16      | 714.26                  | 7.10                    | -0.84                  | -7.06                 |
| 8,710.00              | 85.36           | 174.73      | 8,169.60              | -805.02      | -192.46      | 808.75                  | 5.17                    | -0.98                  | -5.09                 |
| 8,804.00              | 85.27           | 178.78      | 8,177.28              | -898.53      | -187.16      | 902.14                  | 4.30                    | -0.10                  | 4.31                  |
| 8,898.00              | 83.47           | 172.18      | 8,186.52              | -991.73      | -179.80      | 995.17                  | 7.24                    | -1.91                  | -7.02                 |
| 8,993.00              | 82.37           | 170.51      | 8,198.23              | -1,084.93    | -165.61      | 1,088.06                | 2.09                    | -1.16                  | -1.76                 |
| 9,072.00              | 84.40           | 171.48      | 8,207.33              | -1,162.43    | -153.33      | 1,165.30                | 2.84                    | 2.57                   | 1.23                  |
| 9,087.00              | 84.75           | 172.89      | 8,208.74              | -1,177.23    | -151.30      | 1,180.05                | 9.64                    | 2.33                   | 9.40                  |
| 9,181.00              | 87.74           | 176.31      | 8,214.90              | -1,270.58    | -142.48      | 1,273.21                | 4.83                    | 3.18                   | 3.64                  |
| 9,275.00              | 90.64           | 173.24      | 8,216.23              | -1,364.16    | -133.92      | 1,366.59                | 4.49                    | 3.09                   | -3.27                 |
| 9,369.00              | 88.62           | 172.97      | 8,216.84              | -1,457.48    | -122.64      | 1,459.66                | 2.17                    | -2.15                  | -0.29                 |
| 9,464.00              | 92.48           | 170.95      | 8,215.93              | -1,551.51    | -109.36      | 1,553.41                | 4.59                    | 4.06                   | -2.13                 |
| 9,558.00              | 93.76           | 172.10      | 8,210.81              | -1,644.35    | -95.52       | 1,645.94                | 1.83                    | 1.36                   | 1.22                  |
| 9,652.00              | 91.78           | 170.25      | 8,206.27              | -1,737.12    | -81.12       | 1,738.40                | 2.88                    | -2.11                  | -1.97                 |
| 9,746.00              | 90.55           | 173.94      | 8,204.36              | -1,830.19    | -68.20       | 1,831.19                | 4.14                    | -1.31                  | 3.93                  |
| 9,840.00              | 90.51           | 173.85      | 8,203.49              | -1,923.65    | -58.20       | 1,924.43                | 0.10                    | -0.04                  | -0.10                 |
| 9,840.04              | 90.51           | 173.85      | 8,203.49              | -1,923.69    | -58.19       | 1,924.47                | 0.00                    | 0.00                   | 0.00                  |
| 9,935.00              | 89.49           | 177.28      | 8,203.49              | -2,018.35    | -50.85       | 2,018.97                | 3.77                    | -1.07                  | 3.61                  |
| 10,029.00             | 88.79           | 175.88      | 8,204.90              | -2,112.17    | -45.25       | 2,112.65                | 1.66                    | -0.74                  | -1.49                 |
| 10,123.00             | 91.16           | 176.93      | 8,204.94              | -2,205.98    | -39.35       | 2,206.32                | 2.76                    | 2.52                   | 1.12                  |
| 10,218.00             | 91.47           | 178.60      | 8,202.76              | -2,300.87    | -35.65       | 2,301.13                | 1.79                    | 0.33                   | 1.76                  |
| 10,312.00             | 91.43           | 183.35      | 8,200.38              | -2,394.80    | -37.25       | 2,395.07                | 5.05                    | -0.04                  | 5.05                  |
| 10,406.00             | 90.77           | 184.66      | 8,198.57              | -2,488.55    | -43.81       | 2,488.93                | 1.56                    | -0.70                  | 1.39                  |
| 10,501.00             | 91.38           | 184.49      | 8,196.79              | -2,583.24    | -51.39       | 2,583.75                | 0.67                    | 0.64                   | -0.18                 |
| 10,595.00             | 90.68           | 181.15      | 8,195.10              | -2,677.09    | -56.01       | 2,677.68                | 3.63                    | -0.74                  | -3.55                 |
| 10,690.00             | 89.63           | 175.79      | 8,194.84              | -2,772.02    | -53.48       | 2,772.54                | 5.75                    | -1.11                  | -5.64                 |



# Aim Directional Services

## Survey Report

|                  |                            |                                     |                                       |
|------------------|----------------------------|-------------------------------------|---------------------------------------|
| <b>Company:</b>  | SEM Operating Company, LLC | <b>Local Co-ordinate Reference:</b> | Site University 9 #2902WB             |
| <b>Project:</b>  | Reagan County, Texas       | <b>TVD Reference:</b>               | 2677'GL+26'KB @ 2703.00usft (H&P 467) |
| <b>Site:</b>     | University 9 #2902WB       | <b>MD Reference:</b>                | 2677'GL+26'KB @ 2703.00usft (H&P 467) |
| <b>Well:</b>     | #2902WB                    | <b>North Reference:</b>             | Grid                                  |
| <b>Wellbore:</b> | As Drilled                 | <b>Survey Calculation Method:</b>   | Minimum Curvature                     |
| <b>Design:</b>   | Surveys                    | <b>Database:</b>                    | EDM 5000.14 Single User Db            |

| 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) |
| 10,784.00             | 91.12           | 178.86      | 8,194.23              | -2,865.90    | -49.09       | 2,866.31                | 3.63                    | 1.59                   | 3.27                  |
| 10,878.00             | 89.71           | 173.41      | 8,193.55              | -2,959.65    | -42.75       | 2,959.91                | 5.99                    | -1.50                  | -5.80                 |
| 10,973.00             | 89.80           | 175.26      | 8,193.95              | -3,054.18    | -33.38       | 3,054.23                | 1.95                    | 0.09                   | 1.95                  |
| 11,067.00             | 89.58           | 183.96      | 8,194.46              | -3,148.09    | -32.74       | 3,148.10                | 9.26                    | -0.23                  | 9.26                  |
| 11,162.00             | 90.51           | 185.81      | 8,194.39              | -3,242.74    | -40.83       | 3,242.90                | 2.18                    | 0.98                   | 1.95                  |
| 11,256.00             | 89.71           | 182.03      | 8,194.21              | -3,336.50    | -47.25       | 3,336.77                | 4.11                    | -0.85                  | -4.02                 |
| 11,351.00             | 89.80           | 178.34      | 8,194.61              | -3,431.48    | -47.56       | 3,431.74                | 3.89                    | 0.09                   | -3.88                 |
| 11,445.00             | 89.85           | 177.63      | 8,194.90              | -3,525.42    | -44.25       | 3,525.60                | 0.76                    | 0.05                   | -0.76                 |
| 11,540.00             | 90.11           | 177.72      | 8,194.93              | -3,620.34    | -40.40       | 3,620.42                | 0.29                    | 0.27                   | 0.09                  |
| 11,635.00             | 89.85           | 179.57      | 8,194.97              | -3,715.31    | -38.15       | 3,715.32                | 1.97                    | -0.27                  | 1.95                  |
| 11,729.00             | 90.20           | 175.00      | 8,194.93              | -3,809.18    | -33.70       | 3,809.08                | 4.88                    | 0.37                   | -4.86                 |
| 11,824.00             | 89.10           | 173.33      | 8,195.51              | -3,903.68    | -24.05       | 3,903.37                | 2.10                    | -1.16                  | -1.76                 |
| 11,918.00             | 90.24           | 180.01      | 8,196.05              | -3,997.47    | -18.59       | 3,997.03                | 7.21                    | 1.21                   | 7.11                  |
| 12,012.00             | 88.26           | 176.58      | 8,197.28              | -4,091.40    | -15.79       | 4,090.88                | 4.21                    | -2.11                  | -3.65                 |
| 12,107.00             | 90.33           | 181.50      | 8,198.45              | -4,186.35    | -14.20       | 4,185.77                | 5.62                    | 2.18                   | 5.18                  |
| 12,201.00             | 89.45           | 180.45      | 8,198.63              | -4,280.33    | -15.80       | 4,279.77                | 1.46                    | -0.94                  | -1.12                 |
| 12,296.00             | 89.93           | 178.86      | 8,199.14              | -4,375.32    | -15.23       | 4,374.73                | 1.75                    | 0.51                   | -1.67                 |
| 12,390.00             | 88.44           | 182.20      | 8,200.48              | -4,469.29    | -16.10       | 4,468.70                | 3.89                    | -1.59                  | 3.55                  |
| 12,484.00             | 88.88           | 179.57      | 8,202.68              | -4,563.25    | -17.55       | 4,562.67                | 2.84                    | 0.47                   | -2.80                 |
| 12,579.00             | 89.19           | 179.83      | 8,204.28              | -4,658.23    | -17.05       | 4,657.62                | 0.43                    | 0.33                   | 0.27                  |
| 12,674.00             | 89.63           | 183.70      | 8,205.26              | -4,753.16    | -19.98       | 4,752.59                | 4.10                    | 0.46                   | 4.07                  |
| 12,768.00             | 89.98           | 181.76      | 8,205.58              | -4,847.05    | -24.46       | 4,846.55                | 2.10                    | 0.37                   | -2.06                 |
| 12,863.00             | 89.36           | 176.93      | 8,206.12              | -4,942.02    | -23.37       | 4,941.48                | 5.13                    | -0.65                  | -5.08                 |
| 12,957.00             | 89.27           | 181.15      | 8,207.25              | -5,035.98    | -21.80       | 5,035.38                | 4.49                    | -0.10                  | 4.49                  |
| 13,052.00             | 90.29           | 185.63      | 8,207.61              | -5,130.78    | -27.41       | 5,130.29                | 4.84                    | 1.07                   | 4.72                  |
| 13,146.00             | 89.45           | 182.03      | 8,207.83              | -5,224.56    | -33.69       | 5,224.17                | 3.93                    | -0.89                  | -3.83                 |
| 13,240.00             | 91.60           | 183.96      | 8,206.97              | -5,318.41    | -38.60       | 5,318.11                | 3.07                    | 2.29                   | 2.05                  |
| 13,335.00             | 91.91           | 185.46      | 8,204.06              | -5,413.05    | -46.40       | 5,412.88                | 1.61                    | 0.33                   | 1.58                  |
| 13,429.00             | 90.81           | 179.30      | 8,201.82              | -5,506.89    | -50.30       | 5,506.78                | 6.65                    | -1.17                  | -6.55                 |
| 13,523.00             | 90.29           | 180.18      | 8,200.92              | -5,600.89    | -49.87       | 5,600.75                | 1.09                    | -0.55                  | 0.94                  |
| 13,618.00             | 88.62           | 177.90      | 8,201.82              | -5,695.86    | -48.28       | 5,695.67                | 2.97                    | -1.76                  | -2.40                 |
| 13,713.00             | 88.75           | 177.90      | 8,204.00              | -5,790.77    | -44.80       | 5,790.49                | 0.14                    | 0.14                   | 0.00                  |
| 13,807.00             | 90.07           | 180.27      | 8,204.97              | -5,884.74    | -43.30       | 5,884.41                | 2.89                    | 1.40                   | 2.52                  |
| 13,902.00             | 91.74           | 183.17      | 8,203.47              | -5,979.68    | -46.15       | 5,979.38                | 3.52                    | 1.76                   | 3.05                  |
| 13,996.00             | 92.18           | 183.79      | 8,200.26              | -6,073.45    | -51.85       | 6,073.25                | 0.81                    | 0.47                   | 0.66                  |
| 14,091.00             | 91.91           | 183.08      | 8,196.87              | -6,168.21    | -57.54       | 6,168.12                | 0.80                    | -0.28                  | -0.75                 |
| 14,185.00             | 91.34           | 181.24      | 8,194.20              | -6,262.11    | -61.08       | 6,262.06                | 2.05                    | -0.61                  | -1.96                 |
| 14,280.00             | 90.55           | 184.93      | 8,192.63              | -6,356.94    | -66.19       | 6,356.98                | 3.97                    | -0.83                  | 3.88                  |
| 14,374.00             | 90.24           | 182.12      | 8,191.99              | -6,450.75    | -71.97       | 6,450.88                | 3.01                    | -0.33                  | -2.99                 |
| 14,469.00             | 90.51           | 183.96      | 8,191.36              | -6,545.61    | -77.01       | 6,545.83                | 1.96                    | 0.28                   | 1.94                  |
| 14,563.00             | 90.59           | 186.51      | 8,190.46              | -6,639.20    | -85.58       | 6,639.58                | 2.71                    | 0.09                   | 2.71                  |
| 14,657.00             | 89.85           | 187.65      | 8,190.10              | -6,732.48    | -97.17       | 6,733.07                | 1.45                    | -0.79                  | 1.21                  |
| 14,752.00             | 88.75           | 181.59      | 8,191.26              | -6,827.12    | -104.82      | 6,827.85                | 6.48                    | -1.16                  | -6.38                 |

|                  |                            |                                     |                                       |
|------------------|----------------------------|-------------------------------------|---------------------------------------|
| <b>Company:</b>  | SEM Operating Company, LLC | <b>Local Co-ordinate Reference:</b> | Site University 9 #2902WB             |
| <b>Project:</b>  | Reagan County, Texas       | <b>TVD Reference:</b>               | 2677'GL+26'KB @ 2703.00usft (H&P 467) |
| <b>Site:</b>     | University 9 #2902WB       | <b>MD Reference:</b>                | 2677'GL+26'KB @ 2703.00usft (H&P 467) |
| <b>Well:</b>     | #2902WB                    | <b>North Reference:</b>             | Grid                                  |
| <b>Wellbore:</b> | As Drilled                 | <b>Survey Calculation Method:</b>   | Minimum Curvature                     |
| <b>Design:</b>   | Surveys                    | <b>Database:</b>                    | EDM 5000.14 Single User Db            |

| 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) |  |
| 14,846.00                              | 89.58           | 181.32      | 8,192.63              | -6,921.08    | -107.20      | 6,921.83                | 0.93                    | 0.88                   | -0.29                 |  |
| 14,941.00                              | 91.38           | 180.01      | 8,191.84              | -7,016.07    | -108.31      | 7,016.82                | 2.34                    | 1.89                   | -1.38                 |  |
| 15,036.00                              | 90.64           | 175.26      | 8,190.16              | -7,110.94    | -104.39      | 7,111.60                | 5.06                    | -0.78                  | -5.00                 |  |
| 15,130.00                              | 90.99           | 173.77      | 8,188.82              | -7,204.50    | -95.40       | 7,204.96                | 1.63                    | 0.37                   | -1.59                 |  |
| 15,225.00                              | 91.16           | 168.40      | 8,187.04              | -7,298.30    | -80.69       | 7,298.44                | 5.65                    | 0.18                   | -5.65                 |  |
| 15,320.00                              | 90.73           | 173.41      | 8,185.47              | -7,392.06    | -65.68       | 7,391.88                | 5.29                    | -0.45                  | 5.27                  |  |
| 15,414.00                              | 90.95           | 172.45      | 8,184.09              | -7,485.34    | -54.11       | 7,484.90                | 1.05                    | 0.23                   | -1.02                 |  |
| 15,509.00                              | 91.47           | 176.05      | 8,182.09              | -7,579.82    | -44.60       | 7,579.17                | 3.83                    | 0.55                   | 3.79                  |  |
| 15,603.00                              | 91.52           | 172.89      | 8,179.63              | -7,673.34    | -35.54       | 7,672.49                | 3.36                    | 0.05                   | -3.36                 |  |
| 15,698.00                              | 90.46           | 180.80      | 8,177.99              | -7,768.11    | -30.32       | 7,767.13                | 8.40                    | -1.12                  | 8.33                  |  |
| 15,792.00                              | 91.08           | 183.43      | 8,176.73              | -7,862.03    | -33.79       | 7,861.10                | 2.87                    | 0.66                   | 2.80                  |  |
| 15,887.00                              | 91.82           | 186.42      | 8,174.32              | -7,956.63    | -41.94       | 7,955.85                | 3.24                    | 0.78                   | 3.15                  |  |
| 15,981.00                              | 90.73           | 186.42      | 8,172.23              | -8,050.02    | -52.45       | 8,049.43                | 1.16                    | -1.16                  | 0.00                  |  |
| 16,076.00                              | 91.78           | 187.30      | 8,170.15              | -8,144.32    | -63.79       | 8,143.94                | 1.44                    | 1.11                   | 0.93                  |  |
| 16,170.00                              | 90.64           | 185.54      | 8,168.16              | -8,237.70    | -74.30       | 8,237.52                | 2.23                    | -1.21                  | -1.87                 |  |
| 16,264.00                              | 91.69           | 187.92      | 8,166.25              | -8,331.02    | -85.31       | 8,331.04                | 2.77                    | 1.12                   | 2.53                  |  |
| 16,359.00                              | 91.47           | 187.13      | 8,163.63              | -8,425.17    | -97.75       | 8,425.42                | 0.86                    | -0.23                  | -0.83                 |  |
| 16,437.00                              | 91.11           | 181.80      | 8,161.88              | -8,502.89    | -103.82      | 8,503.24                | 6.84                    | -0.47                  | -6.83                 |  |
| <b>LTP @ 16437'MD</b>                  |                 |             |                       |              |              |                         |                         |                        |                       |  |
| 16,453.00                              | 91.03           | 180.71      | 8,161.58              | -8,518.88    | -104.17      | 8,519.24                | 6.84                    | -0.47                  | -6.83                 |  |
| 16,473.00                              | 91.12           | 182.82      | 8,161.21              | -8,538.86    | -104.78      | 8,539.24                | 10.56                   | 0.45                   | 10.55                 |  |
| <b>Final Aim MWD Survey @ 16473'MD</b> |                 |             |                       |              |              |                         |                         |                        |                       |  |
| 16,531.00                              | 91.12           | 182.82      | 8,160.07              | -8,596.78    | -107.64      | 8,597.20                | 0.00                    | 0.00                   | 0.00                  |  |
| <b>Projected TD @ 16531'MD</b>         |                 |             |                       |              |              |                         |                         |                        |                       |  |

| Survey Annotations    |                       |                   |              |                                 |  |
|-----------------------|-----------------------|-------------------|--------------|---------------------------------|--|
| Measured Depth (usft) | Vertical Depth (usft) | Local Coordinates |              |                                 |  |
|                       |                       | +N/-S (usft)      | +E/-W (usft) | Comment                         |  |
| 817.00                | 816.98                | 2.91              | 1.63         | First Aim MWD Survey @ 817'MD   |  |
| 8,572.00              | 8,160.01              | -667.51           | -196.39      | FTP @ 8572'MD                   |  |
| 16,437.00             | 8,161.88              | -8,502.89         | -103.82      | LTP @ 16437'MD                  |  |
| 16,473.00             | 8,161.21              | -8,538.86         | -104.78      | Final Aim MWD Survey @ 16473'MD |  |
| 16,531.00             | 8,160.07              | -8,596.78         | -107.64      | Projected TD @ 16531'MD         |  |

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