



## **Oasis Petroleum Permian LLC.**

**Ward County, TX (NAD27 TC)**

**UL Kerwin A 18-12**

**UL Kerwin A 18-12 7101H**

**API: 42-475-37675**

**OH**

**Design: Final Surveys**

## **Standard Survey Report**

**25 December, 2018**

|                  |                              |                                     |                                |
|------------------|------------------------------|-------------------------------------|--------------------------------|
| <b>Company:</b>  | Oasis Petroleum Permian LLC. | <b>Local Co-ordinate Reference:</b> | Well UL Kerwin A 18-12 7101H   |
| <b>Project:</b>  | Ward County, TX (NAD27 TC)   | <b>TVD Reference:</b>               | KB @ 2772.00usft (Integrity 8) |
| <b>Site:</b>     | UL Kerwin A 18-12            | <b>MD Reference:</b>                | KB @ 2772.00usft (Integrity 8) |
| <b>Well:</b>     | UL Kerwin A 18-12 7101H      | <b>North Reference:</b>             | Grid                           |
| <b>Wellbore:</b> | OH                           | <b>Survey Calculation Method:</b>   | Minimum Curvature              |
| <b>Design:</b>   | Final Surveys                | <b>Database:</b>                    | EDM 5000.14 Single User Db     |

|                    |                                      |                      |                |
|--------------------|--------------------------------------|----------------------|----------------|
| <b>Project</b>     | Ward County, TX (NAD27 TC)           |                      |                |
| <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>                  | UL Kerwin A 18-12 |                     |                   |                          |                   |
| <b>Site Position:</b>        |                   | <b>Northing:</b>    | 410,798.13 usft   | <b>Latitude:</b>         | 30° 45' 49.131 N  |
| <b>From:</b>                 | Map               | <b>Easting:</b>     | 1,090,346.85 usft | <b>Longitude:</b>        | 103° 13' 47.808 W |
| <b>Position Uncertainty:</b> | 0.00 usft         | <b>Slot Radius:</b> | 13-3/16 "         | <b>Grid Convergence:</b> | -1.49 °           |

|                             |                         |           |                            |                   |                      |                   |
|-----------------------------|-------------------------|-----------|----------------------------|-------------------|----------------------|-------------------|
| <b>Well</b>                 | UL Kerwin A 18-12 7101H |           |                            |                   |                      |                   |
| <b>Well Position</b>        | <b>+N/-S</b>            | 0.00 usft | <b>Northing:</b>           | 410,798.13 usft   | <b>Latitude:</b>     | 30° 45' 49.131 N  |
|                             | <b>+E/-W</b>            | 0.00 usft | <b>Easting:</b>            | 1,090,346.85 usft | <b>Longitude:</b>    | 103° 13' 47.808 W |
| <b>Position Uncertainty</b> |                         | 0.00 usft | <b>Wellhead Elevation:</b> | usft              | <b>Ground Level:</b> | 2,760.00 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> |
|                  | IGRF2015          | 12/10/18           | 6.53                   | 58.74                | 46,954.98482341            |

|                          |                                |                     |                     |                      |      |
|--------------------------|--------------------------------|---------------------|---------------------|----------------------|------|
| <b>Design</b>            | Final 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                | 88.99                |      |

|                       |                  |                           |                  |                    |  |
|-----------------------|------------------|---------------------------|------------------|--------------------|--|
| <b>Survey Program</b> | <b>Date</b>      | 12/25/18                  |                  |                    |  |
| <b>From (usft)</b>    | <b>To (usft)</b> | <b>Survey (Wellbore)</b>  | <b>Tool Name</b> | <b>Description</b> |  |
| 191.00                | 5,062.00         | Corrected Bit-Sensor (OH) | MWD              | MWD - Standard     |  |

|                                 |                        |                    |                              |                     |                     |                                |                                |                               |                              |      |
|---------------------------------|------------------------|--------------------|------------------------------|---------------------|---------------------|--------------------------------|--------------------------------|-------------------------------|------------------------------|------|
| <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                         | 0.00 |
| 191.00                          | 1.50                   | 247.80             | 190.98                       | -0.94               | -2.31               | -2.33                          | 0.79                           | 0.79                          | 0.00                         |      |
| <b>191' MD First MWD Survey</b> |                        |                    |                              |                     |                     |                                |                                |                               |                              |      |
| 334.00                          | 1.40                   | 253.70             | 333.93                       | -2.14               | -5.72               | -5.76                          | 0.13                           | -0.07                         | 4.13                         |      |
| 410.00                          | 1.50                   | 189.10             | 409.91                       | -3.38               | -6.77               | -6.83                          | 2.04                           | 0.13                          | -85.00                       |      |
| 497.00                          | 0.90                   | 201.50             | 496.89                       | -5.15               | -7.20               | -7.29                          | 0.75                           | -0.69                         | 14.25                        |      |
| 583.00                          | 1.00                   | 246.10             | 582.88                       | -6.08               | -8.14               | -8.24                          | 0.85                           | 0.12                          | 51.86                        |      |
| 671.00                          | 0.80                   | 236.10             | 670.87                       | -6.73               | -9.35               | -9.47                          | 0.29                           | -0.23                         | -11.36                       |      |
| 756.00                          | 0.70                   | 232.20             | 755.86                       | -7.38               | -10.25              | -10.38                         | 0.13                           | -0.12                         | -4.59                        |      |
| 844.00                          | 1.20                   | 225.50             | 843.85                       | -8.36               | -11.33              | -11.48                         | 0.58                           | 0.57                          | -7.61                        |      |
| 931.00                          | 1.10                   | 209.60             | 930.83                       | -9.72               | -12.40              | -12.57                         | 0.38                           | -0.11                         | -18.28                       |      |

|                  |                              |                                     |                                |
|------------------|------------------------------|-------------------------------------|--------------------------------|
| <b>Company:</b>  | Oasis Petroleum Permian LLC. | <b>Local Co-ordinate Reference:</b> | Well UL Kerwin A 18-12 7101H   |
| <b>Project:</b>  | Ward County, TX (NAD27 TC)   | <b>TVD Reference:</b>               | KB @ 2772.00usft (Integrity 8) |
| <b>Site:</b>     | UL Kerwin A 18-12            | <b>MD Reference:</b>                | KB @ 2772.00usft (Integrity 8) |
| <b>Well:</b>     | UL Kerwin A 18-12 7101H      | <b>North Reference:</b>             | Grid                           |
| <b>Wellbore:</b> | OH                           | <b>Survey Calculation Method:</b>   | Minimum Curvature              |
| <b>Design:</b>   | Final 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) |  |
| 1,020.00              | 1.40            | 203.00      | 1,019.81              | -11.46       | -13.24       | -13.44                  | 0.37                    | 0.34                   | -7.42                 |  |
| 1,107.00              | 1.40            | 224.50      | 1,106.79              | -13.20       | -14.40       | -14.63                  | 0.60                    | 0.00                   | 24.71                 |  |
| 1,195.00              | 0.80            | 169.80      | 1,194.77              | -14.57       | -15.05       | -15.30                  | 1.30                    | -0.68                  | -62.16                |  |
| 1,282.00              | 0.30            | 209.80      | 1,281.77              | -15.37       | -15.05       | -15.32                  | 0.69                    | -0.57                  | 45.98                 |  |
| 1,368.00              | 0.80            | 241.10      | 1,367.77              | -15.85       | -15.69       | -15.97                  | 0.66                    | 0.58                   | 36.40                 |  |
| 1,453.00              | 0.70            | 182.10      | 1,452.76              | -16.66       | -16.23       | -16.52                  | 0.87                    | -0.12                  | -69.41                |  |
| 1,538.00              | 0.40            | 195.20      | 1,537.76              | -17.46       | -16.33       | -16.63                  | 0.38                    | -0.35                  | 15.41                 |  |
| 1,623.00              | 0.10            | 178.50      | 1,622.75              | -17.82       | -16.40       | -16.71                  | 0.36                    | -0.35                  | -19.65                |  |
| 1,709.00              | 0.40            | 86.50       | 1,708.75              | -17.88       | -16.10       | -16.41                  | 0.48                    | 0.35                   | -106.98               |  |
| 1,796.00              | 0.80            | 90.60       | 1,795.75              | -17.87       | -15.19       | -15.50                  | 0.46                    | 0.46                   | 4.71                  |  |
| 1,882.00              | 1.20            | 85.00       | 1,881.74              | -17.80       | -13.69       | -14.00                  | 0.48                    | 0.47                   | -6.51                 |  |
| 1,967.00              | 2.20            | 63.50       | 1,966.70              | -16.99       | -11.35       | -11.64                  | 1.38                    | 1.18                   | -25.29                |  |
| 2,052.00              | 1.50            | 83.00       | 2,051.65              | -16.13       | -8.78        | -9.06                   | 1.10                    | -0.82                  | 22.94                 |  |
| 2,137.00              | 1.60            | 77.90       | 2,136.62              | -15.74       | -6.52        | -6.79                   | 0.20                    | 0.12                   | -6.00                 |  |
| 2,227.00              | 1.60            | 78.60       | 2,226.59              | -15.23       | -4.06        | -4.33                   | 0.02                    | 0.00                   | 0.78                  |  |
| 2,314.00              | 2.20            | 74.70       | 2,313.54              | -14.55       | -1.26        | -1.51                   | 0.71                    | 0.69                   | -4.48                 |  |
| 2,403.00              | 1.80            | 80.70       | 2,402.49              | -13.87       | 1.77         | 1.53                    | 0.51                    | -0.45                  | 6.74                  |  |
| 2,488.00              | 1.30            | 87.00       | 2,487.45              | -13.61       | 4.05         | 3.81                    | 0.62                    | -0.59                  | 7.41                  |  |
| 2,577.00              | 2.20            | 81.40       | 2,576.41              | -13.30       | 6.75         | 6.51                    | 1.03                    | 1.01                   | -6.29                 |  |
| 2,664.00              | 1.80            | 82.70       | 2,663.36              | -12.88       | 9.76         | 9.53                    | 0.46                    | -0.46                  | 1.49                  |  |
| 2,749.00              | 2.20            | 67.90       | 2,748.31              | -12.09       | 12.59        | 12.38                   | 0.76                    | 0.47                   | -17.41                |  |
| 2,836.00              | 1.80            | 83.40       | 2,835.25              | -11.31       | 15.50        | 15.29                   | 0.77                    | -0.46                  | 17.82                 |  |
| 2,924.00              | 2.20            | 67.70       | 2,923.20              | -10.51       | 18.43        | 18.24                   | 0.77                    | 0.45                   | -17.84                |  |
| 2,980.00              | 2.30            | 79.50       | 2,979.16              | -9.89        | 20.53        | 20.35                   | 0.84                    | 0.18                   | 21.07                 |  |
| 3,023.00              | 2.10            | 77.00       | 3,022.13              | -9.56        | 22.15        | 21.97                   | 0.52                    | -0.47                  | -5.81                 |  |
| 3,068.00              | 1.80            | 70.80       | 3,067.10              | -9.14        | 23.62        | 23.45                   | 0.81                    | -0.67                  | -13.78                |  |
| 3,110.00              | 1.50            | 111.20      | 3,109.08              | -9.12        | 24.75        | 24.59                   | 2.79                    | -0.71                  | 96.19                 |  |
| 3,155.00              | 1.30            | 75.20       | 3,154.07              | -9.21        | 25.80        | 25.63                   | 1.97                    | -0.44                  | -80.00                |  |
| 3,198.00              | 1.30            | 71.80       | 3,197.06              | -8.93        | 26.73        | 26.57                   | 0.18                    | 0.00                   | -7.91                 |  |
| 3,285.00              | 0.97            | 77.60       | 3,284.04              | -8.46        | 28.39        | 28.23                   | 0.40                    | -0.38                  | 6.67                  |  |
| 3,371.00              | 1.10            | 78.10       | 3,370.03              | -8.14        | 29.91        | 29.76                   | 0.15                    | 0.15                   | 0.58                  |  |
| 3,460.00              | 0.90            | 77.30       | 3,459.02              | -7.81        | 31.42        | 31.28                   | 0.23                    | -0.22                  | -0.90                 |  |
| 3,550.00              | 1.10            | 79.80       | 3,549.00              | -7.50        | 32.96        | 32.83                   | 0.23                    | 0.22                   | 2.78                  |  |
| 3,639.00              | 0.97            | 78.00       | 3,637.99              | -7.19        | 34.54        | 34.41                   | 0.15                    | -0.15                  | -2.02                 |  |
| 3,684.00              | 1.20            | 68.50       | 3,682.98              | -6.94        | 35.35        | 35.22                   | 0.65                    | 0.51                   | -21.11                |  |
| 3,726.00              | 1.00            | 73.90       | 3,724.97              | -6.68        | 36.11        | 35.99                   | 0.54                    | -0.48                  | 12.86                 |  |
| 3,816.00              | 1.30            | 74.70       | 3,814.95              | -6.19        | 37.85        | 37.74                   | 0.33                    | 0.33                   | 0.89                  |  |
| 3,905.00              | 1.80            | 75.00       | 3,903.92              | -5.56        | 40.18        | 40.07                   | 0.56                    | 0.56                   | 0.34                  |  |
| 3,994.00              | 2.20            | 77.50       | 3,992.87              | -4.83        | 43.20        | 43.10                   | 0.46                    | 0.45                   | 2.81                  |  |
| 4,037.00              | 2.00            | 76.90       | 4,035.84              | -4.48        | 44.73        | 44.65                   | 0.47                    | -0.47                  | -1.40                 |  |
| 4,080.00              | 2.10            | 76.50       | 4,078.81              | -4.13        | 46.23        | 46.15                   | 0.23                    | 0.23                   | -0.93                 |  |
| 4,122.00              | 2.30            | 78.40       | 4,120.78              | -3.78        | 47.80        | 47.73                   | 0.51                    | 0.48                   | 4.52                  |  |
| 4,165.00              | 2.10            | 78.20       | 4,163.75              | -3.44        | 49.42        | 49.35                   | 0.47                    | -0.47                  | -0.47                 |  |



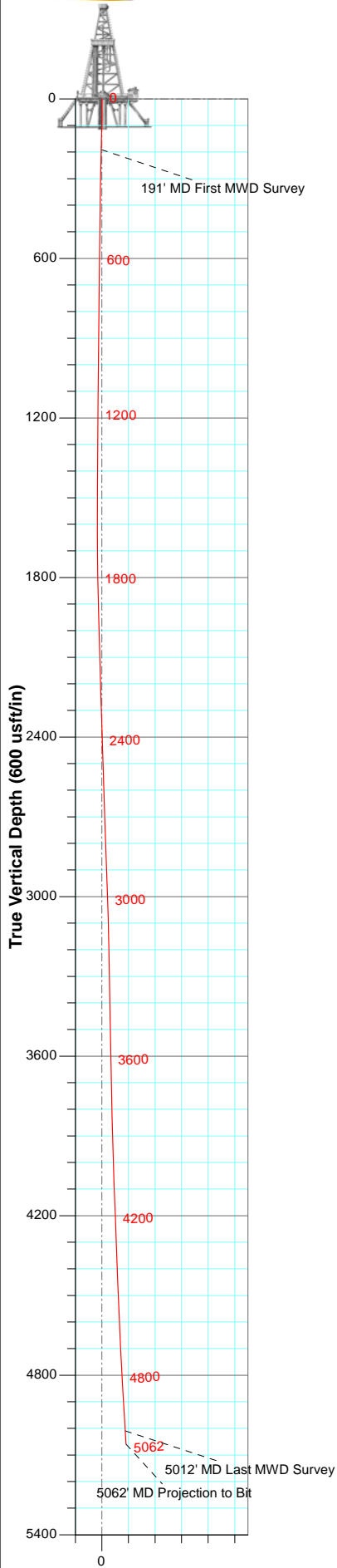
Windows User  
Survey Report

|                  |                              |                                     |                                |
|------------------|------------------------------|-------------------------------------|--------------------------------|
| <b>Company:</b>  | Oasis Petroleum Permian LLC. | <b>Local Co-ordinate Reference:</b> | Well UL Kerwin A 18-12 7101H   |
| <b>Project:</b>  | Ward County, TX (NAD27 TC)   | <b>TVD Reference:</b>               | KB @ 2772.00usft (Integrity 8) |
| <b>Site:</b>     | UL Kerwin A 18-12            | <b>MD Reference:</b>                | KB @ 2772.00usft (Integrity 8) |
| <b>Well:</b>     | UL Kerwin A 18-12 7101H      | <b>North Reference:</b>             | Grid                           |
| <b>Wellbore:</b> | OH                           | <b>Survey Calculation Method:</b>   | Minimum Curvature              |
| <b>Design:</b>   | Final Surveys                | <b>Database:</b>                    | EDM 5000.14 Single User Db     |

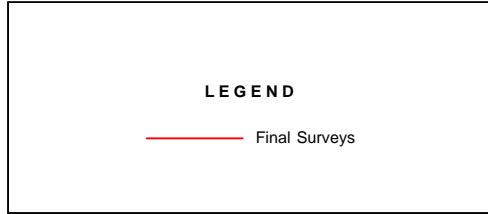
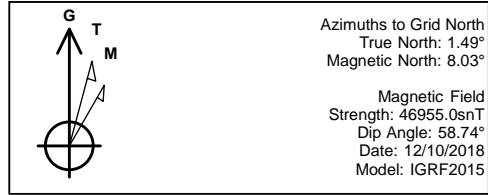
| Measured Depth (usft)             | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |  |
|-----------------------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|--|
| 4,208.00                          | 2.10            | 78.90       | 4,206.72              | -3.13        | 50.96        | 50.90                   | 0.06                    | 0.00                   | 1.63                  |  |
| 4,250.00                          | 2.20            | 74.20       | 4,248.69              | -2.76        | 52.49        | 52.44                   | 0.48                    | 0.24                   | -11.19                |  |
| 4,295.00                          | 2.10            | 79.80       | 4,293.66              | -2.38        | 54.14        | 54.09                   | 0.52                    | -0.22                  | 12.44                 |  |
| 4,340.00                          | 2.00            | 83.50       | 4,338.63              | -2.15        | 55.73        | 55.68                   | 0.37                    | -0.22                  | 8.22                  |  |
| 4,384.00                          | 2.20            | 77.10       | 4,382.60              | -1.87        | 57.31        | 57.27                   | 0.70                    | 0.45                   | -14.55                |  |
| 4,429.00                          | 2.30            | 80.40       | 4,427.56              | -1.53        | 59.05        | 59.01                   | 0.36                    | 0.22                   | 7.33                  |  |
| 4,474.00                          | 2.30            | 77.40       | 4,472.53              | -1.18        | 60.82        | 60.79                   | 0.27                    | 0.00                   | -6.67                 |  |
| 4,516.00                          | 2.50            | 78.10       | 4,514.49              | -0.81        | 62.54        | 62.51                   | 0.48                    | 0.48                   | 1.67                  |  |
| 4,559.00                          | 2.30            | 82.60       | 4,557.45              | -0.50        | 64.31        | 64.29                   | 0.64                    | -0.47                  | 10.47                 |  |
| 4,602.00                          | 2.40            | 83.40       | 4,600.42              | -0.29        | 66.06        | 66.04                   | 0.24                    | 0.23                   | 1.86                  |  |
| 4,644.00                          | 2.60            | 83.50       | 4,642.38              | -0.08        | 67.88        | 67.87                   | 0.48                    | 0.48                   | 0.24                  |  |
| 4,687.00                          | 2.80            | 79.80       | 4,685.33              | 0.22         | 69.88        | 69.88                   | 0.62                    | 0.47                   | -8.60                 |  |
| 4,730.00                          | 3.00            | 83.80       | 4,728.27              | 0.52         | 72.04        | 72.03                   | 0.66                    | 0.47                   | 9.30                  |  |
| 4,772.00                          | 3.20            | 86.40       | 4,770.21              | 0.72         | 74.30        | 74.30                   | 0.58                    | 0.48                   | 6.19                  |  |
| 4,815.00                          | 3.30            | 85.40       | 4,813.14              | 0.89         | 76.73        | 76.73                   | 0.27                    | 0.23                   | -2.33                 |  |
| 4,858.00                          | 3.10            | 87.70       | 4,856.08              | 1.04         | 79.12        | 79.13                   | 0.55                    | -0.47                  | 5.35                  |  |
| 4,900.00                          | 3.30            | 83.10       | 4,898.01              | 1.23         | 81.46        | 81.47                   | 0.77                    | 0.48                   | -10.95                |  |
| 4,943.00                          | 3.10            | 87.70       | 4,940.94              | 1.42         | 83.85        | 83.86                   | 0.76                    | -0.47                  | 10.70                 |  |
| 4,985.00                          | 3.30            | 88.80       | 4,982.88              | 1.49         | 86.19        | 86.21                   | 0.50                    | 0.48                   | 2.62                  |  |
| 5,012.00                          | 3.50            | 88.60       | 5,009.83              | 1.53         | 87.79        | 87.81                   | 0.74                    | 0.74                   | -0.74                 |  |
| <b>5012' MD Last MWD Survey</b>   |                 |             |                       |              |              |                         |                         |                        |                       |  |
| 5,062.00                          | 3.50            | 88.60       | 5,059.74              | 1.61         | 90.85        | 90.86                   | 0.00                    | 0.00                   | 0.00                  |  |
| <b>5062' MD Projection to Bit</b> |                 |             |                       |              |              |                         |                         |                        |                       |  |

| Measured Depth (usft) | Vertical Depth (usft) | Local Coordinates |              | Comment                    |
|-----------------------|-----------------------|-------------------|--------------|----------------------------|
|                       |                       | +N/-S (usft)      | +E/-W (usft) |                            |
| 5,012.00              | 5,009.83              | 1.53              | 87.79        | 5012' MD Last MWD Survey   |
| 5,062.00              | 5,059.74              | 1.61              | 90.85        | 5062' MD Projection to Bit |

Checked By: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: \_\_\_\_\_



| WELL DETAILS                                    |       |           |            |                  |                   |  |
|---|-------|-----------|------------|------------------|-------------------|--|
| Depth Reference: KB @ 2772.00usft (Integrity 8) |       |           |            |                  |                   |  |
| Ground Elevation: 2760.00                       |       |           |            |                  |                   |  |
| +N/-S   | +E/-W | Northing  | Easting    | Latitude         | Longitude         |  |
| 0.00  | 0.00  | 410798.13 | 1090346.85 | 30° 45' 49.131 N | 103° 13' 47.808 W |  |



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

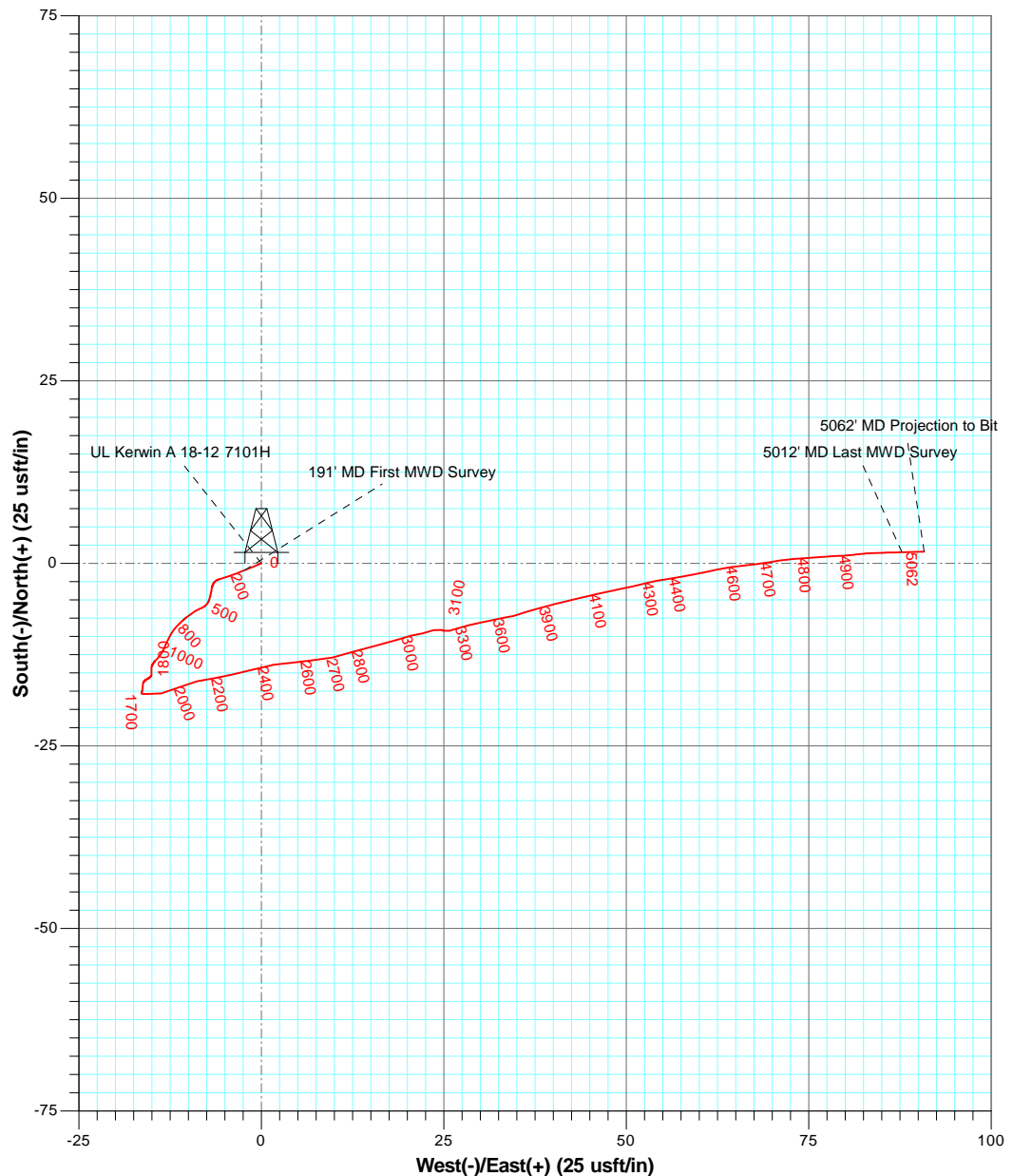
Local Origin: Well UL Kerwin A 18-12 7101H, Grid North

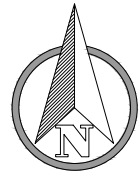
Latitude: 30° 45' 49.131 N  
 Longitude: 103° 13' 47.808 W

Grid East: 1090346.85  
 Grid North: 410798.13  
 Scale Factor: 1.000  
 Positional Uncertainty: 0.00  
 Convergence: -1.49

Geomagnetic Model: IGRF2015  
 Sample Date: 10-Dec-18  
 Magnetic Declination: 6.53°  
 Dip Angle from Horizontal: 58.74°  
 Magnetic Field Strength: 46954.98482342nT

To convert a Magnetic Direction to a Grid Direction, Add 8.02°  
 To convert a Magnetic Direction to a True Direction, Add 6.53° East  
 To convert a True Direction to a Grid Direction, Add 1.49°





0 500' 1000'  
1" = 1000 FEET

UNIVERSITY LAND  
A-U90  
SECTION 11, BLOCK 18

UNIVERSITY LAND  
A-U84  
SECTION 5, BLOCK 18

UNIVERSITY LAND  
A-U91  
SECTION 12, BLOCK 18

UNIVERSITY LAND  
A-U100  
SECTION 21, BLOCK 18

UNIVERSITY LAND  
A-U92  
SECTION 13, BLOCK 18

LEASE #66413  
320.35 ACRES

LEASE #66414  
320.35 ACRES

**SURFACE HOLE LOCATION/POP**  
**UL KERWIN A 18-12 #7101H**  
**ELEV. = 2,760'**

**DRIVING DIRECTIONS TO LOCATION:**  
FROM THE HIGHWAY 115 AND FM 2355, GO WEST ON 2355 FOR 9.25 MILES AND TURN SOUTH ONTO LEASE ROAD. GO SOUTH FOR 0.5 MILE AND THE LOCATION WILL BE ON THE LEFT(EAST) 475 FEET.

**INTEGRITY SERVICES**  
Bottom Hole Location:  
90.86' VS @ 88.99° Azm  
5062' MD, 5059.74' TVD  
1.61' N, 90.85' E

**LEGEND**

———— SURVEY LINE  
- - - - - LEASE LINE

**WELL LOCATION INFORMATION:**

**GENERAL NOTES**

COORDINATES SHOWN ARE BASED ON TEXAS PLANE COORDINATE SYSTEM OF NAD 27, TEXAS CENTRAL ZONE 4203 VERTICAL DATUM IS NAVD 88 LATITUDE AND LONGITUDE ARE NAD 27 AS SHOWN AREA, DISTANCES, AND COORDINATES ARE "GRID". UNITS ARE UNITED STATES SURVEY FOOT. ALL LEASE AND TRACT INFORMATION SHOWN HERE ON IS DONE SO BY LIMITED DEED RECORD INFORMATION ONLY. ALL ACREAGES SHOWN ARE BY DEED AND LEASE CALL, EXCEPT WHERE NOTED. THIS IS NOT IN ANY WAY A "BOUNDARY SURVEY".

**SURFACE HOLE LOCATION/POP:**  
NAD 83, TEXAS CENTRAL ZONE COORD'S  
Y = 10,553,373.66, X = 1,386,811.68  
LAT: N 31.58834°, LONG: W 103.25548°  
SHL: 472' FWL & 210' FSL  
SHL: 472' FWLL & 210' FSLL

**LAST TAKE LOCATION:**  
NAD 83, TEXAS CENTRAL ZONE COORD'S  
Y = 10,558,014.52, X = 1,385,308.86  
LAT: N 31.60099°, LONG: W 103.26069°  
FT: 330' FWLL & 200' FNLL

NAD 27, TEXAS CENTRAL ZONE COORD'S  
Y = 710,798.13, X = 1,090,346.85  
LAT: N 31.58821°, LONG: W 103.25503°

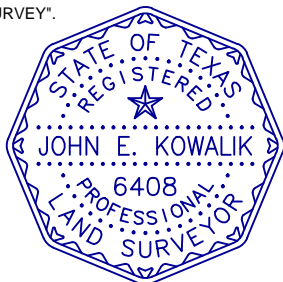
NAD 27, TEXAS CENTRAL ZONE COORD'S  
Y = 715,438.92, X = 1,088,844.09  
LAT: N 31.60086°, LONG: W 103.26025°

**FIRST TAKE LOCATION:**  
NAD 83, TEXAS CENTRAL ZONE COORD'S  
Y = 10,553,323.94, X = 1,386,677.78  
LAT: N 31.58820°, LONG: W 103.25590°  
FT: 330' FWLL & 200' FSLL

**BOTTOM HOLE LOCATION:**  
NAD 83, TEXAS CENTRAL ZONE COORD'S  
Y = 10,558,158.51, X = 1,385,266.83  
LAT: N 31.60138°, LONG: W 103.26084°  
SHL: 330' FWL & 50' FNL  
SHL: 330' FWLL & 50' FNLL

NAD 27, TEXAS CENTRAL ZONE COORD'S  
Y = 710,748.41 X = 1,090,212.95  
LAT: N 31.58807°, LONG: W 103.25546°

NAD 27, TEXAS CENTRAL ZONE COORD'S  
Y = 715,582.91, X = 1,088,802.06  
LAT: N 31.60125°, LONG: W 103.26039°



I HEREBY STATE THAT THIS PLAT SHOWS THE SUBJECT SURFACE LOCATION AS STAKED ON THE GROUND.

*John Kowalik*

JOHN E. KOWALIK  
REGISTERED PROFESSIONAL LAND SURVEYOR  
STATE OF TEXAS NO. 6408

**PLAT OF:**

A PROPOSED WELL LOCATION FOR:  
**OASIS PETROLEUM PERMIAN LLC**  
**UL KERWIN A 18-12 #7101H**  
SITUATED IN THE UNIVERSITY LANDS SURVEY, A-U91,  
SECTION 12, BLOCK 18, AND BEING APPROXIMATELY 8.5  
MILES NORTHWEST OF PYOTE IN WARD COUNTY, TEXAS.

DATE: 09-17-2018  
DRAWN BY: GG  
CHECKED BY: JK  
FIELD CREW: DL  
PROJECT NO: 2018081887  
SCALE: 1" = 1000'  
SHEET: 1  
REVISION: 2



550 Bailey Ave., 205 - Fort Worth, TX 76107  
Ph: 817.349.9800 - Fax: 979.732.5271  
TBPE Firm 17957 | TBPLS Firm 10193887  
www.fscinc.net



## Survey Certification Letter

January 23, 2019

State of Texas  
County of Ward

I, Chris Harris, certify that; I am employed by **Integrity Services, LLC**; that I did on the day(s) of 12/10/2018 through 12/26/2018 conducted and / or supervised the MWD survey(s) taken from the depth of 191 feet to depth of 5012 feet; that the data is true, correct, complete and within the specifications and limitations of the survey tool provided by **Integrity Services, LLC**; that I am authorized and qualified to make this survey report; that was requested by Oasis Petroleum Permian LLC. for the surveys performed on the UL Kerwin A 18-12 7101H well, API No. 42-475-37675. In Ward County, Texas; and that I have reviewed this report and find that it conforms to the principles and procedures set forth by **Integrity Services, LLC**.

*Chris Harris*

Chris Harris  
Performance Supervisor  
P.O. Box 5989 | Midland, TX 79704  
Office: 432-682-0703  
[chris@integrity-serv.com](mailto:chris@integrity-serv.com)



## **Oasis Petroleum**

Ward Co., TX

UL

Kerwin A 18-12 #7101H

Wellbore #1

Design: Wellbore #1

## **Completion Report**

04 February, 2019



|                  |                       |                                     |                                    |
|------------------|-----------------------|-------------------------------------|------------------------------------|
| <b>Company:</b>  | Oasis Petroleum       | <b>Local Co-ordinate Reference:</b> | Well Kerwin A 18-12 #7101H         |
| <b>Project:</b>  | Ward Co., TX          | <b>TVD Reference:</b>               | RKB = 33 @ 2793.00ft (Nabors X-50) |
| <b>Site:</b>     | UL                    | <b>MD Reference:</b>                | RKB = 33 @ 2793.00ft (Nabors X-50) |
| <b>Well:</b>     | Kerwin A 18-12 #7101H | <b>North Reference:</b>             | Grid                               |
| <b>Wellbore:</b> | Wellbore #1           | <b>Survey Calculation Method:</b>   | Minimum Curvature                  |
| <b>Design:</b>   | Wellbore #1           | <b>Database:</b>                    | RyanUSA_32Bit                      |

|                    |                                      |                      |                |
|--------------------|--------------------------------------|----------------------|----------------|
| <b>Project</b>     | Ward Co., TX                         |                      |                |
| <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>                  | UL      |                          |                      |
| <b>Site Position:</b>        |         | <b>Northing:</b>         | 713,065.810 usft     |
| <b>From:</b>                 | Map     | <b>Easting:</b>          | 1,097,785.670 usft   |
| <b>Position Uncertainty:</b> | 0.00 ft | <b>Slot Radius:</b>      | 13-3/16 "            |
|                              |         | <b>Latitude:</b>         | 31° 35' 41.927666 N  |
|                              |         | <b>Longitude:</b>        | 103° 13' 52.821158 W |
|                              |         | <b>Grid Convergence:</b> | -1.49 °              |

|                             |                       |         |                            |                      |
|-----------------------------|-----------------------|---------|----------------------------|----------------------|
| <b>Well</b>                 | Kerwin A 18-12 #7101H |         |                            |                      |
| <b>Well Position</b>        | <b>+N/-S</b>          | 0.00 ft | <b>Northing:</b>           | 710,798.130 usft     |
|                             | <b>+E/-W</b>          | 0.00 ft | <b>Easting:</b>            | 1,090,346.850 usft   |
| <b>Position Uncertainty</b> |                       | 2.00 ft | <b>Wellhead Elevation:</b> | ft                   |
|                             |                       |         | <b>Latitude:</b>           | 31° 35' 17.566214 N  |
|                             |                       |         | <b>Longitude:</b>          | 103° 15' 18.112538 W |
|                             |                       |         | <b>Ground Level:</b>       | 2,760.00 ft          |

|                  |                   |                    |                        |                      |                            |
|------------------|-------------------|--------------------|------------------------|----------------------|----------------------------|
| <b>Wellbore</b>  | Wellbore #1       |                    |                        |                      |                            |
| <b>Magnetics</b> | <b>Model Name</b> | <b>Sample Date</b> | <b>Declination (°)</b> | <b>Dip Angle (°)</b> | <b>Field Strength (nT)</b> |
|                  | HDGM_FILE         | 12/3/2018          | 7.13                   | 59.47                | 47,455.80000000            |

|                          |                              |                   |                   |                      |      |
|--------------------------|------------------------------|-------------------|-------------------|----------------------|------|
| <b>Design</b>            | Wellbore #1                  |                   |                   |                      |      |
| <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) (ft)</b> | <b>+N/-S (ft)</b> | <b>+E/-W (ft)</b> | <b>Direction (°)</b> |      |
|                          | 0.00                         | 0.00              | 0.00              | 343.73               |      |



Nabors Drilling Solutions  
Completion Report



|                  |                       |                                     |                                    |
|------------------|-----------------------|-------------------------------------|------------------------------------|
| <b>Company:</b>  | Oasis Petroleum       | <b>Local Co-ordinate Reference:</b> | Well Kerwin A 18-12 #7101H         |
| <b>Project:</b>  | Ward Co., TX          | <b>TVD Reference:</b>               | RKB = 33 @ 2793.00ft (Nabors X-50) |
| <b>Site:</b>     | UL                    | <b>MD Reference:</b>                | RKB = 33 @ 2793.00ft (Nabors X-50) |
| <b>Well:</b>     | Kerwin A 18-12 #7101H | <b>North Reference:</b>             | Grid                               |
| <b>Wellbore:</b> | Wellbore #1           | <b>Survey Calculation Method:</b>   | Minimum Curvature                  |
| <b>Design:</b>   | Wellbore #1           | <b>Database:</b>                    | RyanUSA_32Bit                      |

| From (ft) | To (ft)   | Survey (Wellbore)           | Tool Name | Description            |
|-----------|-----------|-----------------------------|-----------|------------------------|
| 241.00    | 5,062.00  | Survey #1 (Wellbore #1)     | MWD+IGRF  | OWSG MWD + IGRF or WMM |
| 5,203.00  | 13,675.00 | Survey #2 NDS (Wellbore #1) | MWD+HRGM  | OWSG MWD + HRGM        |

| MD (ft)  | Inc (°) | Azi (azimuth) (°) | TVD (ft) | V. Sec (ft) | N/S (ft) | E/W (ft) | Closure Distance (ft) | Closure Azimuth (°) | DLeg (°/100ft) |
|----------|---------|-------------------|----------|-------------|----------|----------|-----------------------|---------------------|----------------|
| 0.00     | 0.00    | 0.00              | 0.00     | 0.00        | 0.00     | 0.00     | 0.00                  | 0.00                | 0.00           |
| 241.00   | 1.50    | 247.80            | 240.97   | -0.33       | -1.19    | -2.92    | 3.15                  | 247.80              | 0.62           |
| 297.00   | 0.70    | 189.40            | 296.96   | -0.71       | -1.81    | -3.66    | 4.08                  | 243.70              | 2.29           |
| 325.00   | 0.50    | 222.90            | 324.96   | -0.93       | -2.06    | -3.77    | 4.30                  | 241.27              | 1.41           |
| 384.00   | 1.40    | 253.70            | 383.95   | -1.06       | -2.46    | -4.63    | 5.24                  | 242.08              | 1.70           |
| 559.00   | 0.50    | 250.30            | 558.93   | -1.11       | -3.31    | -7.40    | 8.11                  | 245.89              | 0.52           |
| 732.00   | 1.20    | 232.20            | 731.91   | -1.82       | -4.68    | -9.55    | 10.63                 | 243.90              | 0.43           |
| 907.00   | 1.50    | 221.30            | 906.86   | -3.72       | -7.52    | -12.51   | 14.59                 | 238.98              | 0.22           |
| 1,039.00 | 1.40    | 203.00            | 1,038.82 | -5.89       | -10.30   | -14.28   | 17.61                 | 234.18              | 0.36           |
| 1,126.00 | 1.40    | 224.50            | 1,125.79 | -7.23       | -12.04   | -15.44   | 19.58                 | 232.05              | 0.60           |
| 1,214.00 | 0.80    | 169.80            | 1,213.78 | -8.37       | -13.41   | -16.08   | 20.94                 | 230.17              | 1.30           |
| 1,387.00 | 0.80    | 241.10            | 1,386.76 | -9.83       | -15.18   | -16.92   | 22.74                 | 228.10              | 0.54           |
| 1,557.00 | 0.40    | 195.20            | 1,556.76 | -10.60      | -16.33   | -18.12   | 24.39                 | 227.97              | 0.35           |
| 1,728.00 | 0.40    | 86.50             | 1,727.75 | -11.24      | -16.87   | -17.68   | 24.44                 | 226.34              | 0.38           |
| 1,900.00 | 1.20    | 95.90             | 1,899.74 | -12.05      | -17.02   | -15.29   | 22.88                 | 221.94              | 0.47           |
| 2,028.00 | 2.20    | 68.90             | 2,027.68 | -12.35      | -16.27   | -11.66   | 20.02                 | 215.63              | 0.98           |
| 2,114.00 | 1.60    | 58.50             | 2,113.63 | -11.90      | -15.05   | -9.10    | 17.59                 | 211.16              | 0.80           |
| 2,201.00 | 1.60    | 62.10             | 2,200.60 | -11.33      | -13.85   | -6.99    | 15.51                 | 206.79              | 0.12           |
| 2,290.00 | 1.40    | 59.90             | 2,289.57 | -10.82      | -12.72   | -4.95    | 13.65                 | 201.27              | 0.23           |
| 2,333.00 | 2.20    | 74.70             | 2,332.55 | -10.71      | -12.24   | -3.70    | 12.79                 | 196.83              | 2.14           |
| 2,422.00 | 1.80    | 80.70             | 2,421.49 | -10.91      | -11.56   | -0.67    | 11.58                 | 183.34              | 0.51           |

|                  |                       |                                     |                                    |
|------------------|-----------------------|-------------------------------------|------------------------------------|
| <b>Company:</b>  | Oasis Petroleum       | <b>Local Co-ordinate Reference:</b> | Well Kerwin A 18-12 #7101H         |
| <b>Project:</b>  | Ward Co., TX          | <b>TVD Reference:</b>               | RKB = 33 @ 2793.00ft (Nabors X-50) |
| <b>Site:</b>     | UL                    | <b>MD Reference:</b>                | RKB = 33 @ 2793.00ft (Nabors X-50) |
| <b>Well:</b>     | Kerwin A 18-12 #7101H | <b>North Reference:</b>             | Grid                               |
| <b>Wellbore:</b> | Wellbore #1           | <b>Survey Calculation Method:</b>   | Minimum Curvature                  |
| <b>Design:</b>   | Wellbore #1           | <b>Database:</b>                    | RyanUSA_32Bit                      |

| Survey   |         |                   |          |             |          |          |                       |                     |                |  |
|----------|---------|-------------------|----------|-------------|----------|----------|-----------------------|---------------------|----------------|--|
| MD (ft)  | Inc (°) | Azi (azimuth) (°) | TVD (ft) | V. Sec (ft) | N/S (ft) | E/W (ft) | Closure Distance (ft) | Closure Azimuth (°) | DLeg (°/100ft) |  |
| 2,465.00 | 1.10    | 67.10             | 2,464.48 | -10.94      | -11.29   | 0.37     | 11.30                 | 178.11              | 1.80           |  |
| 2,507.00 | 1.30    | 87.00             | 2,506.47 | -11.01      | -11.11   | 1.22     | 11.18                 | 173.74              | 1.09           |  |
| 2,550.00 | 1.30    | 70.30             | 2,549.46 | -11.09      | -10.92   | 2.17     | 11.13                 | 168.78              | 0.88           |  |
| 2,595.00 | 2.20    | 82.50             | 2,594.44 | -11.19      | -10.64   | 3.50     | 11.20                 | 161.77              | 2.15           |  |
| 2,680.00 | 1.80    | 82.70             | 2,679.38 | -11.65      | -10.25   | 6.44     | 12.11                 | 147.85              | 0.47           |  |
| 2,765.00 | 2.20    | 67.90             | 2,764.33 | -11.69      | -9.47    | 9.28     | 13.26                 | 135.58              | 0.76           |  |
| 2,852.00 | 1.80    | 83.40             | 2,851.28 | -11.75      | -8.68    | 12.18    | 14.96                 | 125.48              | 0.77           |  |
| 2,985.00 | 2.20    | 67.70             | 2,984.20 | -11.83      | -7.48    | 16.62    | 18.23                 | 114.22              | 0.51           |  |
| 3,030.00 | 2.30    | 79.50             | 3,029.17 | -11.83      | -6.98    | 18.31    | 19.60                 | 110.88              | 1.05           |  |
| 3,073.00 | 2.10    | 77.00             | 3,072.13 | -11.97      | -6.65    | 19.92    | 21.00                 | 108.46              | 0.52           |  |
| 3,118.00 | 1.80    | 70.80             | 3,117.11 | -11.98      | -6.23    | 21.40    | 22.28                 | 106.24              | 0.81           |  |
| 3,160.00 | 1.50    | 111.20            | 3,159.09 | -12.28      | -6.21    | 22.53    | 23.37                 | 105.42              | 2.79           |  |
| 3,205.00 | 1.30    | 75.20             | 3,204.08 | -12.65      | -6.30    | 23.57    | 24.40                 | 104.95              | 1.97           |  |
| 3,248.00 | 1.30    | 71.80             | 3,247.07 | -12.64      | -6.02    | 24.51    | 25.24                 | 103.80              | 0.18           |  |
| 3,335.00 | 0.97    | 77.60             | 3,334.05 | -12.66      | -5.55    | 26.17    | 26.75                 | 101.98              | 0.40           |  |
| 3,421.00 | 1.10    | 78.10             | 3,420.04 | -12.77      | -5.23    | 27.68    | 28.17                 | 100.69              | 0.15           |  |
| 3,510.00 | 0.90    | 77.30             | 3,509.02 | -12.88      | -4.90    | 29.20    | 29.61                 | 99.52               | 0.23           |  |
| 3,600.00 | 1.10    | 79.80             | 3,599.01 | -13.02      | -4.59    | 30.74    | 31.08                 | 98.49               | 0.23           |  |
| 3,689.00 | 0.97    | 78.00             | 3,688.00 | -13.16      | -4.28    | 32.32    | 32.60                 | 97.54               | 0.15           |  |
| 3,734.00 | 1.20    | 68.50             | 3,732.99 | -13.15      | -4.03    | 33.13    | 33.37                 | 96.93               | 0.65           |  |
| 3,776.00 | 1.00    | 73.90             | 3,774.98 | -13.11      | -3.77    | 33.89    | 34.10                 | 96.34               | 0.54           |  |
| 3,866.00 | 1.30    | 74.70             | 3,864.96 | -13.13      | -3.28    | 35.63    | 35.78                 | 95.26               | 0.33           |  |
| 3,955.00 | 1.80    | 75.00             | 3,953.93 | -13.18      | -2.65    | 37.95    | 38.05                 | 93.99               | 0.56           |  |
| 4,044.00 | 2.20    | 77.50             | 4,042.87 | -13.32      | -1.92    | 40.97    | 41.02                 | 92.68               | 0.46           |  |
| 4,130.00 | 2.10    | 76.50             | 4,128.81 | -13.51      | -1.19    | 44.12    | 44.13                 | 91.55               | 0.12           |  |
| 4,172.00 | 2.30    | 78.40             | 4,170.78 | -13.61      | -0.84    | 45.69    | 45.70                 | 91.06               | 0.51           |  |
| 4,215.00 | 2.10    | 78.20             | 4,213.75 | -13.74      | -0.51    | 47.31    | 47.31                 | 90.62               | 0.47           |  |



Nabors Drilling Solutions  
Completion Report



**Company:** Oasis Petroleum  
**Project:** Ward Co., TX  
**Site:** UL  
**Well:** Kerwin A 18-12 #7101H  
**Wellbore:** Wellbore #1  
**Design:** Wellbore #1

**Local Co-ordinate Reference:** Well Kerwin A 18-12 #7101H  
**TVD Reference:** RKB = 33 @ 2793.00ft (Nabors X-50)  
**MD Reference:** RKB = 33 @ 2793.00ft (Nabors X-50)  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature  
**Database:** RyanUSA\_32Bit

| Survey   |         |                   |          |             |          |          |                       |                     |                |  |
|----------|---------|-------------------|----------|-------------|----------|----------|-----------------------|---------------------|----------------|--|
| MD (ft)  | Inc (°) | Azi (azimuth) (°) | TVD (ft) | V. Sec (ft) | N/S (ft) | E/W (ft) | Closure Distance (ft) | Closure Azimuth (°) | DLeg (°/100ft) |  |
| 4,258.00 | 2.10    | 78.90             | 4,256.72 | -13.88      | -0.20    | 48.85    | 48.85                 | 90.23               | 0.06           |  |
| 4,300.00 | 2.20    | 74.20             | 4,298.69 | -13.95      | 0.17     | 50.38    | 50.38                 | 89.81               | 0.48           |  |
| 4,345.00 | 2.10    | 79.80             | 4,343.66 | -14.05      | 0.55     | 52.02    | 52.03                 | 89.39               | 0.52           |  |
| 4,390.00 | 2.00    | 83.50             | 4,388.63 | -14.27      | 0.79     | 53.62    | 53.62                 | 89.16               | 0.37           |  |
| 4,434.00 | 2.20    | 77.10             | 4,432.60 | -14.45      | 1.06     | 55.20    | 55.21                 | 88.90               | 0.70           |  |
| 4,479.00 | 2.30    | 80.40             | 4,477.57 | -14.60      | 1.41     | 56.93    | 56.95                 | 88.59               | 0.36           |  |
| 4,524.00 | 2.30    | 77.40             | 4,522.53 | -14.76      | 1.75     | 58.71    | 58.73                 | 88.29               | 0.27           |  |
| 4,566.00 | 2.50    | 78.10             | 4,564.49 | -14.89      | 2.13     | 60.42    | 60.46                 | 87.98               | 0.48           |  |
| 4,609.00 | 2.30    | 82.60             | 4,607.46 | -15.09      | 2.43     | 62.20    | 62.25                 | 87.76               | 0.64           |  |
| 4,652.00 | 2.40    | 83.40             | 4,650.42 | -15.38      | 2.65     | 63.95    | 64.00                 | 87.63               | 0.24           |  |
| 4,694.00 | 2.60    | 83.50             | 4,692.38 | -15.69      | 2.85     | 65.77    | 65.83                 | 87.52               | 0.48           |  |
| 4,737.00 | 2.80    | 79.80             | 4,735.33 | -15.96      | 3.15     | 67.77    | 67.84                 | 87.34               | 0.62           |  |
| 4,780.00 | 3.00    | 83.80             | 4,778.28 | -16.27      | 3.46     | 69.92    | 70.01                 | 87.17               | 0.66           |  |
| 4,822.00 | 3.20    | 86.40             | 4,820.22 | -16.72      | 3.65     | 72.19    | 72.28                 | 87.11               | 0.58           |  |
| 4,865.00 | 3.30    | 85.40             | 4,863.15 | -17.23      | 3.83     | 74.62    | 74.71                 | 87.07               | 0.27           |  |
| 4,908.00 | 3.10    | 87.70             | 4,906.08 | -17.76      | 3.97     | 77.01    | 77.11                 | 87.05               | 0.55           |  |
| 4,950.00 | 3.30    | 83.10             | 4,948.01 | -18.24      | 4.16     | 79.35    | 79.46                 | 87.00               | 0.77           |  |
| 4,993.00 | 3.10    | 87.70             | 4,990.95 | -18.72      | 4.36     | 81.74    | 81.85                 | 86.95               | 0.76           |  |
| 5,035.00 | 3.30    | 88.80             | 5,032.88 | -19.31      | 4.43     | 84.08    | 84.20                 | 86.99               | 0.50           |  |
| 5,062.00 | 3.50    | 88.60             | 5,059.83 | -19.72      | 4.46     | 85.68    | 85.80                 | 87.02               | 0.74           |  |
| 5,203.00 | 3.75    | 94.77             | 5,200.55 | -22.48      | 4.19     | 94.58    | 94.67                 | 87.47               | 0.33           |  |
| 5,292.00 | 4.38    | 110.42            | 5,289.33 | -25.55      | 2.76     | 100.67   | 100.70                | 88.43               | 1.43           |  |
| 5,470.00 | 3.75    | 122.19            | 5,466.89 | -33.97      | -2.71    | 111.96   | 111.99                | 91.39               | 0.59           |  |
| 5,648.00 | 3.69    | 144.87            | 5,644.52 | -43.75      | -10.50   | 120.18   | 120.64                | 94.99               | 0.82           |  |
| 5,825.00 | 4.69    | 172.12            | 5,821.06 | -56.30      | -22.33   | 124.45   | 126.44                | 100.17              | 1.24           |  |
| 6,003.00 | 6.88    | 181.26            | 5,998.15 | -73.67      | -40.20   | 125.22   | 131.51                | 107.80              | 1.33           |  |
| 6,181.00 | 6.50    | 207.27            | 6,174.98 | -91.14      | -59.82   | 120.37   | 134.41                | 116.43              | 1.70           |  |

**Company:** Oasis Petroleum  
**Project:** Ward Co., TX  
**Site:** UL  
**Well:** Kerwin A 18-12 #7101H  
**Wellbore:** Wellbore #1  
**Design:** Wellbore #1

**Local Co-ordinate Reference:** Well Kerwin A 18-12 #7101H  
**TVD Reference:** RKB = 33 @ 2793.00ft (Nabors X-50)  
**MD Reference:** RKB = 33 @ 2793.00ft (Nabors X-50)  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature  
**Database:** RyanUSA\_32Bit

| Survey    |         |                   |           |             |          |          |                       |                     |                |  |
|-----------|---------|-------------------|-----------|-------------|----------|----------|-----------------------|---------------------|----------------|--|
| MD (ft)   | Inc (°) | Azi (azimuth) (°) | TVD (ft)  | V. Sec (ft) | N/S (ft) | E/W (ft) | Closure Distance (ft) | Closure Azimuth (°) | DLeg (°/100ft) |  |
| 6,359.00  | 6.38    | 225.73            | 6,351.87  | -103.09     | -75.68   | 108.67   | 132.42                | 124.85              | 1.16           |  |
| 6,537.00  | 6.25    | 220.98            | 6,528.79  | -112.97     | -89.89   | 95.23    | 130.96                | 133.35              | 0.30           |  |
| 6,715.00  | 5.81    | 226.78            | 6,705.81  | -122.30     | -103.38  | 82.31    | 132.15                | 141.47              | 0.42           |  |
| 6,893.00  | 5.38    | 229.42            | 6,882.96  | -129.82     | -114.98  | 69.41    | 134.30                | 148.88              | 0.28           |  |
| 7,071.00  | 5.06    | 229.60            | 7,060.22  | -136.46     | -125.49  | 57.09    | 137.87                | 155.54              | 0.18           |  |
| 7,249.00  | 4.06    | 226.78            | 7,237.66  | -142.53     | -134.90  | 46.52    | 142.69                | 160.97              | 0.58           |  |
| 7,426.00  | 2.75    | 233.99            | 7,414.34  | -146.80     | -141.68  | 38.52    | 146.83                | 164.79              | 0.78           |  |
| 7,604.00  | 1.56    | 241.73            | 7,592.21  | -148.75     | -145.34  | 32.93    | 149.03                | 167.23              | 0.69           |  |
| 7,782.00  | 2.25    | 231.00            | 7,770.12  | -150.60     | -148.69  | 28.08    | 151.32                | 169.30              | 0.43           |  |
| 7,960.00  | 1.63    | 231.53            | 7,948.01  | -152.91     | -152.46  | 23.39    | 154.25                | 171.28              | 0.35           |  |
| 8,138.00  | 1.81    | 224.15            | 8,125.93  | -155.25     | -156.05  | 19.44    | 157.26                | 172.90              | 0.16           |  |
| 8,316.00  | 1.69    | 216.06            | 8,303.85  | -158.24     | -160.19  | 15.94    | 160.98                | 174.32              | 0.15           |  |
| 8,494.00  | 1.44    | 222.21            | 8,481.78  | -161.02     | -163.97  | 12.89    | 164.48                | 175.50              | 0.17           |  |
| 8,673.00  | 1.38    | 200.24            | 8,660.73  | -163.93     | -167.66  | 10.64    | 168.00                | 176.37              | 0.30           |  |
| 8,852.00  | 1.19    | 232.94            | 8,839.69  | -166.32     | -170.80  | 8.41     | 171.01                | 177.18              | 0.42           |  |
| 9,029.00  | 1.31    | 222.04            | 9,016.65  | -168.03     | -173.41  | 5.59     | 173.50                | 178.15              | 0.15           |  |
| 9,207.00  | 1.75    | 216.41            | 9,194.58  | -170.75     | -177.11  | 2.61     | 177.13                | 179.16              | 0.26           |  |
| 9,385.00  | 1.75    | 218.00            | 9,372.50  | -173.99     | -181.44  | -0.68    | 181.44                | 180.21              | 0.03           |  |
| 9,563.00  | 1.50    | 226.08            | 9,550.43  | -176.65     | -185.20  | -4.03    | 185.24                | 181.25              | 0.19           |  |
| 9,741.00  | 1.31    | 210.26            | 9,728.37  | -179.13     | -188.57  | -6.73    | 188.69                | 182.04              | 0.24           |  |
| 9,919.00  | 0.75    | 221.86            | 9,906.34  | -181.15     | -191.20  | -8.53    | 191.39                | 182.56              | 0.33           |  |
| 10,097.00 | 0.69    | 161.04            | 10,084.33 | -182.84     | -193.08  | -8.96    | 193.29                | 182.66              | 0.41           |  |
| 10,275.00 | 1.06    | 141.35            | 10,262.31 | -185.43     | -195.38  | -7.59    | 195.53                | 182.22              | 0.26           |  |
| 10,453.00 | 1.38    | 138.54            | 10,440.27 | -188.89     | -198.27  | -5.14    | 198.34                | 181.48              | 0.18           |  |
| 10,633.00 | 1.63    | 223.44            | 10,620.23 | -192.14     | -201.75  | -5.46    | 201.83                | 181.55              | 1.13           |  |
| 10,811.00 | 0.81    | 218.17            | 10,798.19 | -194.15     | -204.58  | -7.98    | 204.74                | 182.23              | 0.46           |  |
| 10,990.00 | 1.81    | 236.28            | 10,977.14 | -195.74     | -207.14  | -11.12   | 207.44                | 183.07              | 0.60           |  |

**Company:** Oasis Petroleum  
**Project:** Ward Co., TX  
**Site:** UL  
**Well:** Kerwin A 18-12 #7101H  
**Wellbore:** Wellbore #1  
**Design:** Wellbore #1

**Local Co-ordinate Reference:** Well Kerwin A 18-12 #7101H  
**TVD Reference:** RKB = 33 @ 2793.00ft (Nabors X-50)  
**MD Reference:** RKB = 33 @ 2793.00ft (Nabors X-50)  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature  
**Database:** RyanUSA\_32Bit

| Survey              |         |                   |           |             |          |          |                       |                     |                |  |
|---------------------|---------|-------------------|-----------|-------------|----------|----------|-----------------------|---------------------|----------------|--|
| MD (ft)             | Inc (°) | Azi (azimuth) (°) | TVD (ft)  | V. Sec (ft) | N/S (ft) | E/W (ft) | Closure Distance (ft) | Closure Azimuth (°) | DLeg (°/100ft) |  |
| 11,168.00           | 1.38    | 249.28            | 11,155.07 | -196.74     | -209.46  | -15.46   | 210.03                | 184.22              | 0.31           |  |
| 11,345.00           | 1.25    | 263.70            | 11,332.02 | -196.58     | -210.43  | -19.37   | 211.32                | 185.26              | 0.20           |  |
| 11,452.00           | 0.94    | 259.66            | 11,439.00 | -196.28     | -210.72  | -21.39   | 211.80                | 185.80              | 0.30           |  |
| 11,521.00           | 1.50    | 277.04            | 11,507.99 | -195.87     | -210.71  | -22.85   | 211.94                | 186.19              | 0.96           |  |
| 11,555.00           | 1.38    | 282.31            | 11,541.98 | -195.50     | -210.56  | -23.69   | 211.89                | 186.42              | 0.53           |  |
| 11,645.00           | 7.44    | 333.99            | 11,631.69 | -189.23     | -205.09  | -27.31   | 206.90                | 187.58              | 7.41           |  |
| 11,734.00           | 17.75   | 338.39            | 11,718.43 | -169.99     | -187.25  | -34.85   | 190.47                | 190.54              | 11.63          |  |
| 11,823.00           | 26.44   | 341.90            | 11,800.82 | -136.61     | -155.74  | -46.02   | 162.40                | 196.46              | 9.87           |  |
| 11,913.00           | 35.06   | 339.44            | 11,878.09 | -90.72      | -112.41  | -61.36   | 128.07                | 208.63              | 9.68           |  |
| 12,002.00           | 43.44   | 337.86            | 11,946.96 | -34.69      | -60.04   | -81.90   | 101.55                | 233.76              | 9.48           |  |
| 12,092.00           | 53.38   | 336.28            | 12,006.62 | 32.07       | 1.84     | -108.16  | 108.18                | 270.98              | 11.12          |  |
| 12,150.24           | 57.75   | 337.58            | 12,039.55 | 79.76       | 46.03    | -126.97  | 135.05                | 289.93              | 7.72           |  |
| <b>#7101H - FTP</b> |         |                   |           |             |          |          |                       |                     |                |  |
| 12,181.00           | 60.06   | 338.21            | 12,055.44 | 105.96      | 70.43    | -136.88  | 153.93                | 297.23              | 7.72           |  |
| 12,271.00           | 64.31   | 339.97            | 12,097.43 | 185.28      | 144.78   | -165.26  | 219.70                | 311.22              | 5.03           |  |
| 12,360.00           | 76.69   | 341.37            | 12,127.08 | 268.89      | 223.80   | -192.93  | 295.48                | 319.24              | 13.99          |  |
| 12,449.00           | 86.75   | 344.54            | 12,139.88 | 356.83      | 307.89   | -218.68  | 377.65                | 324.62              | 11.84          |  |
| 12,538.00           | 92.88   | 341.90            | 12,140.17 | 445.78      | 393.06   | -244.36  | 462.82                | 328.13              | 7.50           |  |
| 12,720.00           | 92.13   | 344.01            | 12,132.21 | 627.57      | 566.88   | -297.66  | 640.28                | 332.30              | 1.23           |  |
| 12,809.00           | 89.00   | 341.20            | 12,131.34 | 716.53      | 651.79   | -324.26  | 727.99                | 333.55              | 4.73           |  |
| 12,899.00           | 90.94   | 341.55            | 12,131.38 | 806.45      | 737.07   | -353.00  | 817.24                | 334.41              | 2.19           |  |
| 12,988.00           | 91.88   | 345.42            | 12,129.19 | 895.41      | 822.36   | -378.29  | 905.19                | 335.30              | 4.47           |  |
| 13,077.00           | 89.31   | 342.78            | 12,128.27 | 984.38      | 907.93   | -402.66  | 993.22                | 336.08              | 4.14           |  |
| 13,166.00           | 89.69   | 343.13            | 12,129.04 | 1,073.37    | 993.02   | -428.75  | 1,081.63              | 336.65              | 0.58           |  |
| 13,255.00           | 91.44   | 343.31            | 12,128.17 | 1,162.36    | 1,078.22 | -454.44  | 1,170.08              | 337.15              | 1.98           |  |
| 13,345.00           | 89.38   | 343.66            | 12,127.52 | 1,252.35    | 1,164.50 | -480.02  | 1,259.56              | 337.60              | 2.32           |  |
| 13,434.00           | 89.38   | 343.13            | 12,128.49 | 1,341.35    | 1,249.79 | -505.46  | 1,348.13              | 337.98              | 0.60           |  |

|                  |                       |                                     |                                    |
|------------------|-----------------------|-------------------------------------|------------------------------------|
| <b>Company:</b>  | Oasis Petroleum       | <b>Local Co-ordinate Reference:</b> | Well Kerwin A 18-12 #7101H         |
| <b>Project:</b>  | Ward Co., TX          | <b>TVD Reference:</b>               | RKB = 33 @ 2793.00ft (Nabors X-50) |
| <b>Site:</b>     | UL                    | <b>MD Reference:</b>                | RKB = 33 @ 2793.00ft (Nabors X-50) |
| <b>Well:</b>     | Kerwin A 18-12 #7101H | <b>North Reference:</b>             | Grid                               |
| <b>Wellbore:</b> | Wellbore #1           | <b>Survey Calculation Method:</b>   | Minimum Curvature                  |
| <b>Design:</b>   | Wellbore #1           | <b>Database:</b>                    | RyanUSA_32Bit                      |

| Survey                             |         |                   |           |             |          |          |                       |                     |                |  |
|------------------------------------|---------|-------------------|-----------|-------------|----------|----------|-----------------------|---------------------|----------------|--|
| MD (ft)                            | Inc (°) | Azi (azimuth) (°) | TVD (ft)  | V. Sec (ft) | N/S (ft) | E/W (ft) | Closure Distance (ft) | Closure Azimuth (°) | DLeg (°/100ft) |  |
| 13,523.00                          | 89.69   | 342.78            | 12,129.21 | 1,430.33    | 1,334.87 | -531.54  | 1,436.81              | 338.29              | 0.53           |  |
| 13,613.00                          | 91.50   | 342.78            | 12,128.27 | 1,520.31    | 1,420.83 | -558.18  | 1,526.54              | 338.55              | 2.01           |  |
| 13,675.00                          | 91.50   | 342.78            | 12,126.65 | 1,582.28    | 1,480.03 | -576.53  | 1,588.36              | 338.72              | 0.00           |  |
| <b>#7101H - BHL - #7101H - LTP</b> |         |                   |           |             |          |          |                       |                     |                |  |

| Design Annotations  |                     |                   |            |                 |  |
|---------------------|---------------------|-------------------|------------|-----------------|--|
| Measured Depth (ft) | Vertical Depth (ft) | Local Coordinates |            | Comment         |  |
|                     |                     | +N/-S (ft)        | +E/-W (ft) |                 |  |
| 13,675.00           | 12,126.65           | 1,480.03          | -576.53    | PTB @ 13675' MD |  |

Checked By: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: \_\_\_\_\_



## **Oasis Petroleum**

Ward Co., TX

UL

Kerwin A 18-12 #7101H

Wellbore #2 ST01

Design: Wellbore #2 ST01

## **Completion Report**

08 February, 2019





Nabors Drilling Solutions  
Completion Report



|                  |                       |                                     |                                    |
|------------------|-----------------------|-------------------------------------|------------------------------------|
| <b>Company:</b>  | Oasis Petroleum       | <b>Local Co-ordinate Reference:</b> | Well Kerwin A 18-12 #7101H         |
| <b>Project:</b>  | Ward Co., TX          | <b>TVD Reference:</b>               | RKB = 33 @ 2793.00ft (Nabors X-50) |
| <b>Site:</b>     | UL                    | <b>MD Reference:</b>                | RKB = 33 @ 2793.00ft (Nabors X-50) |
| <b>Well:</b>     | Kerwin A 18-12 #7101H | <b>North Reference:</b>             | Grid                               |
| <b>Wellbore:</b> | Wellbore #2 ST01      | <b>Survey Calculation Method:</b>   | Minimum Curvature                  |
| <b>Design:</b>   | Wellbore #2 ST01      | <b>Database:</b>                    | RyanUSA_32Bit                      |

|                    |                                      |                      |                |
|--------------------|--------------------------------------|----------------------|----------------|
| <b>Project</b>     | Ward Co., TX                         |                      |                |
| <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>                  | UL      |                          |                      |
| <b>Site Position:</b>        |         | <b>Northing:</b>         | 713,065.810 usft     |
| <b>From:</b>                 | Map     | <b>Easting:</b>          | 1,097,785.670 usft   |
| <b>Position Uncertainty:</b> | 0.00 ft | <b>Slot Radius:</b>      | 13-3/16 "            |
|                              |         | <b>Latitude:</b>         | 31° 35' 41.927666 N  |
|                              |         | <b>Longitude:</b>        | 103° 13' 52.821158 W |
|                              |         | <b>Grid Convergence:</b> | -1.49 °              |

|                             |                       |         |                            |                      |
|-----------------------------|-----------------------|---------|----------------------------|----------------------|
| <b>Well</b>                 | Kerwin A 18-12 #7101H |         |                            |                      |
| <b>Well Position</b>        | <b>+N/-S</b>          | 0.00 ft | <b>Northing:</b>           | 710,798.130 usft     |
|                             | <b>+E/-W</b>          | 0.00 ft | <b>Easting:</b>            | 1,090,346.850 usft   |
| <b>Position Uncertainty</b> |                       | 2.00 ft | <b>Wellhead Elevation:</b> | ft                   |
|                             |                       |         | <b>Latitude:</b>           | 31° 35' 17.566214 N  |
|                             |                       |         | <b>Longitude:</b>          | 103° 15' 18.112538 W |
|                             |                       |         | <b>Ground Level:</b>       | 2,760.00 ft          |

|                  |                   |                    |                        |                      |                            |
|------------------|-------------------|--------------------|------------------------|----------------------|----------------------------|
| <b>Wellbore</b>  | Wellbore #2 ST01  |                    |                        |                      |                            |
| <b>Magnetics</b> | <b>Model Name</b> | <b>Sample Date</b> | <b>Declination (°)</b> | <b>Dip Angle (°)</b> | <b>Field Strength (nT)</b> |
|                  | HDGM_FILE         | 1/22/2019          | 7.13                   | 59.47                | 47,440.10000000            |

|                          |                              |                   |                   |                      |      |
|--------------------------|------------------------------|-------------------|-------------------|----------------------|------|
| <b>Design</b>            | Wellbore #2 ST01             |                   |                   |                      |      |
| <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) (ft)</b> | <b>+N/-S (ft)</b> | <b>+E/-W (ft)</b> | <b>Direction (°)</b> |      |
|                          | 0.00                         | 0.00              | 0.00              | 342.15               |      |



Nabors Drilling Solutions  
Completion Report



|                  |                       |                                     |                                    |
|------------------|-----------------------|-------------------------------------|------------------------------------|
| <b>Company:</b>  | Oasis Petroleum       | <b>Local Co-ordinate Reference:</b> | Well Kerwin A 18-12 #7101H         |
| <b>Project:</b>  | Ward Co., TX          | <b>TVD Reference:</b>               | RKB = 33 @ 2793.00ft (Nabors X-50) |
| <b>Site:</b>     | UL                    | <b>MD Reference:</b>                | RKB = 33 @ 2793.00ft (Nabors X-50) |
| <b>Well:</b>     | Kerwin A 18-12 #7101H | <b>North Reference:</b>             | Grid                               |
| <b>Wellbore:</b> | Wellbore #2 ST01      | <b>Survey Calculation Method:</b>   | Minimum Curvature                  |
| <b>Design:</b>   | Wellbore #2 ST01      | <b>Database:</b>                    | RyanUSA_32Bit                      |

| From (ft) | To (ft)   | Survey (Wellbore)                      | Tool Name | Description     |
|-----------|-----------|--|-----------|-----------------|
| 241.00    | 13,166.00 | Survey #1 OH Surveys (Wellbore #2 ST01 | MWD+HRGM  | OWSG MWD + HRGM |
| 13,166.00 | 17,122.00 | Survey #2 ST01 Surveys (Wellbore #2 ST | MWD+HRGM  | OWSG MWD + HRGM |

| MD (ft)  | Inc (°) | Azi (azimuth) (°) | TVD (ft) | V. Sec (ft) | N/S (ft) | E/W (ft) | Closure Distance (ft) | Closure Azimuth (°) | DLeg (°/100ft) |
|----------|---------|-------------------|----------|-------------|----------|----------|-----------------------|---------------------|----------------|
| 0.00     | 0.00    | 0.00              | 0.00     | 0.00        | 0.00     | 0.00     | 0.00                  | 0.00                | 0.00           |
| 241.00   | 1.50    | 247.80            | 240.97   | -0.24       | -1.19    | -2.92    | 3.15                  | 247.80              | 0.62           |
| 297.00   | 0.70    | 189.40            | 296.96   | -0.60       | -1.81    | -3.66    | 4.08                  | 243.70              | 2.29           |
| 325.00   | 0.50    | 222.90            | 324.96   | -0.81       | -2.06    | -3.77    | 4.30                  | 241.27              | 1.41           |
| 384.00   | 1.40    | 253.70            | 383.95   | -0.92       | -2.46    | -4.63    | 5.24                  | 242.08              | 1.70           |
| 559.00   | 0.50    | 250.30            | 558.93   | -0.88       | -3.31    | -7.40    | 8.11                  | 245.89              | 0.52           |
| 732.00   | 1.20    | 232.20            | 731.91   | -1.53       | -4.68    | -9.55    | 10.63                 | 243.90              | 0.43           |
| 907.00   | 1.50    | 221.30            | 906.86   | -3.33       | -7.52    | -12.51   | 14.59                 | 238.98              | 0.22           |
| 1,039.00 | 1.40    | 203.00            | 1,038.82 | -5.43       | -10.30   | -14.28   | 17.61                 | 234.18              | 0.36           |
| 1,126.00 | 1.40    | 224.50            | 1,125.79 | -6.73       | -12.04   | -15.44   | 19.58                 | 232.05              | 0.60           |
| 1,214.00 | 0.80    | 169.80            | 1,213.78 | -7.84       | -13.41   | -16.08   | 20.94                 | 230.17              | 1.30           |
| 1,387.00 | 0.80    | 241.10            | 1,386.76 | -9.27       | -15.18   | -16.92   | 22.74                 | 228.10              | 0.54           |
| 1,557.00 | 0.40    | 195.20            | 1,556.76 | -9.99       | -16.33   | -18.12   | 24.39                 | 227.97              | 0.35           |
| 1,728.00 | 0.40    | 86.50             | 1,727.75 | -10.64      | -16.87   | -17.68   | 24.44                 | 226.34              | 0.38           |
| 1,900.00 | 1.20    | 95.90             | 1,899.74 | -11.51      | -17.02   | -15.29   | 22.88                 | 221.94              | 0.47           |
| 2,028.00 | 2.20    | 68.90             | 2,027.68 | -11.91      | -16.27   | -11.66   | 20.02                 | 215.63              | 0.98           |
| 2,114.00 | 1.60    | 58.50             | 2,113.63 | -11.54      | -15.05   | -9.10    | 17.59                 | 211.16              | 0.80           |
| 2,201.00 | 1.60    | 62.10             | 2,200.60 | -11.04      | -13.85   | -6.99    | 15.51                 | 206.79              | 0.12           |
| 2,290.00 | 1.40    | 59.90             | 2,289.57 | -10.59      | -12.72   | -4.95    | 13.65                 | 201.27              | 0.23           |
| 2,333.00 | 2.20    | 74.70             | 2,332.55 | -10.52      | -12.24   | -3.70    | 12.79                 | 196.83              | 2.14           |
| 2,422.00 | 1.80    | 80.70             | 2,421.49 | -10.80      | -11.56   | -0.67    | 11.58                 | 183.34              | 0.51           |

**Company:** Oasis Petroleum  
**Project:** Ward Co., TX  
**Site:** UL  
**Well:** Kerwin A 18-12 #7101H  
**Wellbore:** Wellbore #2 ST01  
**Design:** Wellbore #2 ST01

**Local Co-ordinate Reference:** Well Kerwin A 18-12 #7101H  
**TVD Reference:** RKB = 33 @ 2793.00ft (Nabors X-50)  
**MD Reference:** RKB = 33 @ 2793.00ft (Nabors X-50)  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature  
**Database:** RyanUSA\_32Bit

| Survey   |         |                   |          |             |          |          |                       |                     |                |  |
|----------|---------|-------------------|----------|-------------|----------|----------|-----------------------|---------------------|----------------|--|
| MD (ft)  | Inc (°) | Azi (azimuth) (°) | TVD (ft) | V. Sec (ft) | N/S (ft) | E/W (ft) | Closure Distance (ft) | Closure Azimuth (°) | DLeg (°/100ft) |  |
| 2,465.00 | 1.10    | 67.10             | 2,464.48 | -10.86      | -11.29   | 0.37     | 11.30                 | 178.11              | 1.80           |  |
| 2,507.00 | 1.30    | 87.00             | 2,506.47 | -10.95      | -11.11   | 1.22     | 11.18                 | 173.74              | 1.09           |  |
| 2,550.00 | 1.30    | 70.30             | 2,549.46 | -11.06      | -10.92   | 2.17     | 11.13                 | 168.78              | 0.88           |  |
| 2,595.00 | 2.20    | 82.50             | 2,594.44 | -11.20      | -10.64   | 3.50     | 11.20                 | 161.77              | 2.15           |  |
| 2,680.00 | 1.80    | 82.70             | 2,679.38 | -11.74      | -10.25   | 6.44     | 12.11                 | 147.85              | 0.47           |  |
| 2,765.00 | 2.20    | 67.90             | 2,764.33 | -11.86      | -9.47    | 9.28     | 13.26                 | 135.58              | 0.76           |  |
| 2,852.00 | 1.80    | 83.40             | 2,851.28 | -12.00      | -8.68    | 12.18    | 14.96                 | 125.48              | 0.77           |  |
| 2,985.00 | 2.20    | 67.70             | 2,984.20 | -12.21      | -7.48    | 16.62    | 18.23                 | 114.22              | 0.51           |  |
| 3,030.00 | 2.30    | 79.50             | 3,029.17 | -12.26      | -6.98    | 18.31    | 19.60                 | 110.88              | 1.05           |  |
| 3,073.00 | 2.10    | 77.00             | 3,072.13 | -12.44      | -6.65    | 19.92    | 21.00                 | 108.46              | 0.52           |  |
| 3,118.00 | 1.80    | 70.80             | 3,117.11 | -12.49      | -6.23    | 21.40    | 22.28                 | 106.24              | 0.81           |  |
| 3,160.00 | 1.50    | 111.20            | 3,159.09 | -12.82      | -6.21    | 22.53    | 23.37                 | 105.42              | 2.79           |  |
| 3,205.00 | 1.30    | 75.20             | 3,204.08 | -13.22      | -6.30    | 23.57    | 24.40                 | 104.95              | 1.97           |  |
| 3,248.00 | 1.30    | 71.80             | 3,247.07 | -13.24      | -6.02    | 24.51    | 25.24                 | 103.80              | 0.18           |  |
| 3,335.00 | 0.97    | 77.60             | 3,334.05 | -13.31      | -5.55    | 26.17    | 26.75                 | 101.98              | 0.40           |  |
| 3,421.00 | 1.10    | 78.10             | 3,420.04 | -13.46      | -5.23    | 27.68    | 28.17                 | 100.69              | 0.15           |  |
| 3,510.00 | 0.90    | 77.30             | 3,509.02 | -13.61      | -4.90    | 29.20    | 29.61                 | 99.52               | 0.23           |  |
| 3,600.00 | 1.10    | 79.80             | 3,599.01 | -13.79      | -4.59    | 30.74    | 31.08                 | 98.49               | 0.23           |  |
| 3,689.00 | 0.97    | 78.00             | 3,688.00 | -13.98      | -4.28    | 32.32    | 32.60                 | 97.54               | 0.15           |  |
| 3,734.00 | 1.20    | 68.50             | 3,732.99 | -13.99      | -4.03    | 33.13    | 33.37                 | 96.93               | 0.65           |  |
| 3,776.00 | 1.00    | 73.90             | 3,774.98 | -13.97      | -3.77    | 33.89    | 34.10                 | 96.34               | 0.54           |  |
| 3,866.00 | 1.30    | 74.70             | 3,864.96 | -14.04      | -3.28    | 35.63    | 35.78                 | 95.26               | 0.33           |  |
| 3,955.00 | 1.80    | 75.00             | 3,953.93 | -14.16      | -2.65    | 37.95    | 38.05                 | 93.99               | 0.56           |  |
| 4,044.00 | 2.20    | 77.50             | 4,042.87 | -14.38      | -1.92    | 40.97    | 41.02                 | 92.68               | 0.46           |  |
| 4,130.00 | 2.10    | 76.50             | 4,128.81 | -14.66      | -1.19    | 44.12    | 44.13                 | 91.55               | 0.12           |  |
| 4,172.00 | 2.30    | 78.40             | 4,170.78 | -14.81      | -0.84    | 45.69    | 45.70                 | 91.06               | 0.51           |  |
| 4,215.00 | 2.10    | 78.20             | 4,213.75 | -14.99      | -0.51    | 47.31    | 47.31                 | 90.62               | 0.47           |  |



Nabors Drilling Solutions  
Completion Report



|                  |                       |                                     |                                    |
|------------------|-----------------------|-------------------------------------|------------------------------------|
| <b>Company:</b>  | Oasis Petroleum       | <b>Local Co-ordinate Reference:</b> | Well Kerwin A 18-12 #7101H         |
| <b>Project:</b>  | Ward Co., TX          | <b>TVD Reference:</b>               | RKB = 33 @ 2793.00ft (Nabors X-50) |
| <b>Site:</b>     | UL                    | <b>MD Reference:</b>                | RKB = 33 @ 2793.00ft (Nabors X-50) |
| <b>Well:</b>     | Kerwin A 18-12 #7101H | <b>North Reference:</b>             | Grid                               |
| <b>Wellbore:</b> | Wellbore #2 ST01      | <b>Survey Calculation Method:</b>   | Minimum Curvature                  |
| <b>Design:</b>   | Wellbore #2 ST01      | <b>Database:</b>                    | RyanUSA_32Bit                      |

| Survey   |         |                   |          |             |          |          |                       |                     |                |  |
|----------|---------|-------------------|----------|-------------|----------|----------|-----------------------|---------------------|----------------|--|
| MD (ft)  | Inc (°) | Azi (azimuth) (°) | TVD (ft) | V. Sec (ft) | N/S (ft) | E/W (ft) | Closure Distance (ft) | Closure Azimuth (°) | DLeg (°/100ft) |  |
| 4,258.00 | 2.10    | 78.90             | 4,256.72 | -15.16      | -0.20    | 48.85    | 48.85                 | 90.23               | 0.06           |  |
| 4,300.00 | 2.20    | 74.20             | 4,298.69 | -15.28      | 0.17     | 50.38    | 50.38                 | 89.81               | 0.48           |  |
| 4,345.00 | 2.10    | 79.80             | 4,343.66 | -15.42      | 0.55     | 52.02    | 52.03                 | 89.39               | 0.52           |  |
| 4,390.00 | 2.00    | 83.50             | 4,388.63 | -15.68      | 0.79     | 53.62    | 53.62                 | 89.16               | 0.37           |  |
| 4,434.00 | 2.20    | 77.10             | 4,432.60 | -15.91      | 1.06     | 55.20    | 55.21                 | 88.90               | 0.70           |  |
| 4,479.00 | 2.30    | 80.40             | 4,477.57 | -16.11      | 1.41     | 56.93    | 56.95                 | 88.59               | 0.36           |  |
| 4,524.00 | 2.30    | 77.40             | 4,522.53 | -16.33      | 1.75     | 58.71    | 58.73                 | 88.29               | 0.27           |  |
| 4,566.00 | 2.50    | 78.10             | 4,564.49 | -16.50      | 2.13     | 60.42    | 60.46                 | 87.98               | 0.48           |  |
| 4,609.00 | 2.30    | 82.60             | 4,607.46 | -16.75      | 2.43     | 62.20    | 62.25                 | 87.76               | 0.64           |  |
| 4,652.00 | 2.40    | 83.40             | 4,650.42 | -17.08      | 2.65     | 63.95    | 64.00                 | 87.63               | 0.24           |  |
| 4,694.00 | 2.60    | 83.50             | 4,692.38 | -17.44      | 2.85     | 65.77    | 65.83                 | 87.52               | 0.48           |  |
| 4,737.00 | 2.80    | 79.80             | 4,735.33 | -17.77      | 3.15     | 67.77    | 67.84                 | 87.34               | 0.62           |  |
| 4,780.00 | 3.00    | 83.80             | 4,778.28 | -18.14      | 3.46     | 69.92    | 70.01                 | 87.17               | 0.66           |  |
| 4,822.00 | 3.20    | 86.40             | 4,820.22 | -18.65      | 3.65     | 72.19    | 72.28                 | 87.11               | 0.58           |  |
| 4,865.00 | 3.30    | 85.40             | 4,863.15 | -19.23      | 3.83     | 74.62    | 74.71                 | 87.07               | 0.27           |  |
| 4,908.00 | 3.10    | 87.70             | 4,906.08 | -19.83      | 3.97     | 77.01    | 77.11                 | 87.05               | 0.55           |  |
| 4,950.00 | 3.30    | 83.10             | 4,948.01 | -20.36      | 4.16     | 79.35    | 79.46                 | 87.00               | 0.77           |  |
| 4,993.00 | 3.10    | 87.70             | 4,990.95 | -20.91      | 4.36     | 81.74    | 81.85                 | 86.95               | 0.76           |  |
| 5,035.00 | 3.30    | 88.80             | 5,032.88 | -21.56      | 4.43     | 84.08    | 84.20                 | 86.99               | 0.50           |  |
| 5,062.00 | 3.50    | 88.60             | 5,059.83 | -22.01      | 4.46     | 85.68    | 85.80                 | 87.02               | 0.74           |  |
| 5,203.00 | 3.75    | 94.77             | 5,200.55 | -25.01      | 4.19     | 94.58    | 94.67                 | 87.47               | 0.33           |  |
| 5,292.00 | 4.38    | 110.42            | 5,289.33 | -28.23      | 2.76     | 100.67   | 100.70                | 88.43               | 1.43           |  |
| 5,470.00 | 3.75    | 122.19            | 5,466.89 | -36.90      | -2.71    | 111.96   | 111.99                | 91.39               | 0.59           |  |
| 5,648.00 | 3.69    | 144.87            | 5,644.52 | -46.83      | -10.50   | 120.18   | 120.64                | 94.99               | 0.82           |  |
| 5,825.00 | 4.69    | 172.12            | 5,821.06 | -59.40      | -22.33   | 124.45   | 126.44                | 100.17              | 1.24           |  |
| 6,003.00 | 6.88    | 181.26            | 5,998.15 | -76.64      | -40.20   | 125.22   | 131.51                | 107.80              | 1.33           |  |
| 6,181.00 | 6.50    | 207.27            | 6,174.98 | -93.83      | -59.82   | 120.37   | 134.41                | 116.43              | 1.70           |  |

**Company:** Oasis Petroleum  
**Project:** Ward Co., TX  
**Site:** UL  
**Well:** Kerwin A 18-12 #7101H  
**Wellbore:** Wellbore #2 ST01  
**Design:** Wellbore #2 ST01

**Local Co-ordinate Reference:** Well Kerwin A 18-12 #7101H  
**TVD Reference:** RKB = 33 @ 2793.00ft (Nabors X-50)  
**MD Reference:** RKB = 33 @ 2793.00ft (Nabors X-50)  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature  
**Database:** RyanUSA\_32Bit

| Survey    |         |                   |           |             |          |          |                       |                     |                |  |
|-----------|---------|-------------------|-----------|-------------|----------|----------|-----------------------|---------------------|----------------|--|
| MD (ft)   | Inc (°) | Azi (azimuth) (°) | TVD (ft)  | V. Sec (ft) | N/S (ft) | E/W (ft) | Closure Distance (ft) | Closure Azimuth (°) | DLeg (°/100ft) |  |
| 6,359.00  | 6.38    | 225.73            | 6,351.87  | -105.34     | -75.68   | 108.67   | 132.42                | 124.85              | 1.16           |  |
| 6,537.00  | 6.25    | 220.98            | 6,528.79  | -114.76     | -89.89   | 95.23    | 130.96                | 133.35              | 0.30           |  |
| 6,715.00  | 5.81    | 226.78            | 6,705.81  | -123.63     | -103.38  | 82.31    | 132.15                | 141.47              | 0.42           |  |
| 6,893.00  | 5.38    | 229.42            | 6,882.96  | -130.72     | -114.98  | 69.41    | 134.30                | 148.88              | 0.28           |  |
| 7,071.00  | 5.06    | 229.60            | 7,060.22  | -136.95     | -125.49  | 57.09    | 137.87                | 155.54              | 0.18           |  |
| 7,249.00  | 4.06    | 226.78            | 7,237.66  | -142.66     | -134.90  | 46.52    | 142.69                | 160.97              | 0.58           |  |
| 7,426.00  | 2.75    | 233.99            | 7,414.34  | -146.67     | -141.68  | 38.52    | 146.83                | 164.79              | 0.78           |  |
| 7,604.00  | 1.56    | 241.73            | 7,592.21  | -148.44     | -145.34  | 32.93    | 149.03                | 167.23              | 0.69           |  |
| 7,782.00  | 2.25    | 231.00            | 7,770.12  | -150.14     | -148.69  | 28.08    | 151.32                | 169.30              | 0.43           |  |
| 7,960.00  | 1.63    | 231.53            | 7,948.01  | -152.29     | -152.46  | 23.39    | 154.25                | 171.28              | 0.35           |  |
| 8,138.00  | 1.81    | 224.15            | 8,125.93  | -154.50     | -156.05  | 19.44    | 157.26                | 172.90              | 0.16           |  |
| 8,316.00  | 1.69    | 216.06            | 8,303.85  | -157.37     | -160.19  | 15.94    | 160.98                | 174.32              | 0.15           |  |
| 8,494.00  | 1.44    | 222.21            | 8,481.78  | -160.03     | -163.97  | 12.89    | 164.48                | 175.50              | 0.17           |  |
| 8,673.00  | 1.38    | 200.24            | 8,660.73  | -162.85     | -167.66  | 10.64    | 168.00                | 176.37              | 0.30           |  |
| 8,852.00  | 1.19    | 232.94            | 8,839.69  | -165.16     | -170.80  | 8.41     | 171.01                | 177.18              | 0.42           |  |
| 9,029.00  | 1.31    | 222.04            | 9,016.65  | -166.78     | -173.41  | 5.59     | 173.50                | 178.15              | 0.15           |  |
| 9,207.00  | 1.75    | 216.41            | 9,194.58  | -169.39     | -177.11  | 2.61     | 177.13                | 179.16              | 0.26           |  |
| 9,385.00  | 1.75    | 218.00            | 9,372.50  | -172.50     | -181.44  | -0.68    | 181.44                | 180.21              | 0.03           |  |
| 9,563.00  | 1.50    | 226.08            | 9,550.43  | -175.05     | -185.20  | -4.03    | 185.24                | 181.25              | 0.19           |  |
| 9,741.00  | 1.31    | 210.26            | 9,728.37  | -177.43     | -188.57  | -6.73    | 188.69                | 182.04              | 0.24           |  |
| 9,919.00  | 0.75    | 221.86            | 9,906.34  | -179.38     | -191.20  | -8.53    | 191.39                | 182.56              | 0.33           |  |
| 10,097.00 | 0.69    | 161.04            | 10,084.33 | -181.04     | -193.08  | -8.96    | 193.29                | 182.66              | 0.41           |  |
| 10,275.00 | 1.06    | 141.35            | 10,262.31 | -183.65     | -195.38  | -7.59    | 195.53                | 182.22              | 0.26           |  |
| 10,453.00 | 1.38    | 138.54            | 10,440.27 | -187.15     | -198.27  | -5.14    | 198.34                | 181.48              | 0.18           |  |
| 10,633.00 | 1.63    | 223.44            | 10,620.23 | -190.37     | -201.75  | -5.46    | 201.83                | 181.55              | 1.13           |  |
| 10,811.00 | 0.81    | 218.17            | 10,798.19 | -192.29     | -204.58  | -7.98    | 204.74                | 182.23              | 0.46           |  |
| 10,990.00 | 1.81    | 236.28            | 10,977.14 | -193.77     | -207.14  | -11.12   | 207.44                | 183.07              | 0.60           |  |

**Company:** Oasis Petroleum  
**Project:** Ward Co., TX  
**Site:** UL  
**Well:** Kerwin A 18-12 #7101H  
**Wellbore:** Wellbore #2 ST01  
**Design:** Wellbore #2 ST01

**Local Co-ordinate Reference:** Well Kerwin A 18-12 #7101H  
**TVD Reference:** RKB = 33 @ 2793.00ft (Nabors X-50)  
**MD Reference:** RKB = 33 @ 2793.00ft (Nabors X-50)  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature  
**Database:** RyanUSA\_32Bit

| Survey              |         |                   |           |             |          |          |                       |                     |                |  |
|---------------------|---------|-------------------|-----------|-------------|----------|----------|-----------------------|---------------------|----------------|--|
| MD (ft)             | Inc (°) | Azi (azimuth) (°) | TVD (ft)  | V. Sec (ft) | N/S (ft) | E/W (ft) | Closure Distance (ft) | Closure Azimuth (°) | DLeg (°/100ft) |  |
| 11,168.00           | 1.38    | 249.28            | 11,155.07 | -194.64     | -209.46  | -15.46   | 210.03                | 184.22              | 0.31           |  |
| 11,345.00           | 1.25    | 263.70            | 11,332.02 | -194.36     | -210.43  | -19.37   | 211.32                | 185.26              | 0.20           |  |
| 11,452.00           | 0.94    | 259.66            | 11,439.00 | -194.02     | -210.72  | -21.39   | 211.80                | 185.80              | 0.30           |  |
| 11,521.00           | 1.50    | 277.04            | 11,507.99 | -193.56     | -210.71  | -22.85   | 211.94                | 186.19              | 0.96           |  |
| 11,555.00           | 1.38    | 282.31            | 11,541.98 | -193.17     | -210.56  | -23.69   | 211.89                | 186.42              | 0.53           |  |
| 11,645.00           | 7.44    | 333.99            | 11,631.69 | -186.85     | -205.09  | -27.31   | 206.90                | 187.58              | 7.41           |  |
| 11,734.00           | 17.75   | 338.39            | 11,718.43 | -167.55     | -187.25  | -34.85   | 190.47                | 190.54              | 11.63          |  |
| 11,823.00           | 26.44   | 341.90            | 11,800.82 | -134.14     | -155.74  | -46.02   | 162.40                | 196.46              | 9.87           |  |
| 11,913.00           | 35.06   | 339.44            | 11,878.09 | -88.19      | -112.41  | -61.36   | 128.07                | 208.63              | 9.68           |  |
| 12,002.00           | 43.44   | 337.86            | 11,946.96 | -32.05      | -60.04   | -81.90   | 101.55                | 233.76              | 9.48           |  |
| 12,092.00           | 53.38   | 336.28            | 12,006.62 | 34.91       | 1.84     | -108.16  | 108.18                | 270.98              | 11.12          |  |
| 12,150.24           | 57.75   | 337.58            | 12,039.55 | 82.73       | 46.03    | -126.97  | 135.05                | 289.93              | 7.72           |  |
| <b>#7101H - FTP</b> |         |                   |           |             |          |          |                       |                     |                |  |
| 12,181.00           | 60.06   | 338.21            | 12,055.44 | 109.00      | 70.43    | -136.88  | 153.93                | 297.23              | 7.72           |  |
| 12,271.00           | 64.31   | 339.97            | 12,097.43 | 188.46      | 144.78   | -165.26  | 219.70                | 311.22              | 5.03           |  |
| 12,360.00           | 76.69   | 341.37            | 12,127.08 | 272.16      | 223.80   | -192.93  | 295.48                | 319.24              | 13.99          |  |
| 12,449.00           | 86.75   | 344.54            | 12,139.88 | 360.10      | 307.89   | -218.68  | 377.65                | 324.62              | 11.84          |  |
| 12,538.00           | 92.88   | 341.90            | 12,140.17 | 449.04      | 393.06   | -244.36  | 462.82                | 328.13              | 7.50           |  |
| 12,720.00           | 92.13   | 344.01            | 12,132.21 | 630.83      | 566.88   | -297.66  | 640.28                | 332.30              | 1.23           |  |
| 12,809.00           | 89.00   | 341.20            | 12,131.34 | 719.81      | 651.79   | -324.26  | 727.99                | 333.55              | 4.73           |  |
| 12,899.00           | 90.94   | 341.55            | 12,131.38 | 809.79      | 737.07   | -353.00  | 817.24                | 334.41              | 2.19           |  |
| 12,988.00           | 91.88   | 345.42            | 12,129.19 | 898.72      | 822.36   | -378.29  | 905.19                | 335.30              | 4.47           |  |
| 13,077.00           | 89.31   | 342.78            | 12,128.27 | 987.65      | 907.93   | -402.66  | 993.22                | 336.08              | 4.14           |  |
| 13,166.00           | 89.69   | 343.13            | 12,129.04 | 1,076.64    | 993.02   | -428.75  | 1,081.63              | 336.65              | 0.58           |  |
| 13,235.00           | 88.69   | 344.36            | 12,130.02 | 1,145.61    | 1,059.25 | -448.06  | 1,150.12              | 337.07              | 2.30           |  |
| 13,324.00           | 88.44   | 344.19            | 12,132.25 | 1,234.52    | 1,144.90 | -472.17  | 1,238.44              | 337.59              | 0.34           |  |
| 13,413.00           | 87.88   | 345.59            | 12,135.11 | 1,323.37    | 1,230.77 | -495.36  | 1,326.72              | 338.08              | 1.69           |  |



**Company:** Oasis Petroleum  
**Project:** Ward Co., TX  
**Site:** UL  
**Well:** Kerwin A 18-12 #7101H  
**Wellbore:** Wellbore #2 ST01  
**Design:** Wellbore #2 ST01

**Local Co-ordinate Reference:** Well Kerwin A 18-12 #7101H  
**TVD Reference:** RKB = 33 @ 2793.00ft (Nabors X-50)  
**MD Reference:** RKB = 33 @ 2793.00ft (Nabors X-50)  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature  
**Database:** RyanUSA\_32Bit

| Survey    |         |                   |           |             |          |           |                       |                     |                |  |
|-----------|---------|-------------------|-----------|-------------|----------|-----------|-----------------------|---------------------|----------------|--|
| MD (ft)   | Inc (°) | Azi (azimuth) (°) | TVD (ft)  | V. Sec (ft) | N/S (ft) | E/W (ft)  | Closure Distance (ft) | Closure Azimuth (°) | DLeg (°/100ft) |  |
| 13,503.00 | 88.75   | 344.54            | 12,137.75 | 1,413.21    | 1,317.69 | -518.55   | 1,416.05              | 338.52              | 1.51           |  |
| 13,592.00 | 90.13   | 343.83            | 12,138.62 | 1,502.15    | 1,403.32 | -542.80   | 1,504.64              | 338.85              | 1.74           |  |
| 13,682.00 | 93.56   | 343.66            | 12,135.73 | 1,592.05    | 1,489.66 | -567.98   | 1,594.27              | 339.13              | 3.82           |  |
| 13,771.00 | 87.00   | 343.66            | 12,135.29 | 1,680.97    | 1,575.02 | -593.00   | 1,682.95              | 339.37              | 7.37           |  |
| 13,860.00 | 90.31   | 344.36            | 12,137.38 | 1,769.89    | 1,660.54 | -617.51   | 1,771.64              | 339.60              | 3.80           |  |
| 13,881.00 | 90.38   | 344.71            | 12,137.25 | 1,790.87    | 1,680.78 | -623.11   | 1,792.56              | 339.66              | 1.70           |  |
| 13,970.00 | 90.25   | 345.07            | 12,136.76 | 1,879.76    | 1,766.70 | -646.31   | 1,881.21              | 339.91              | 0.43           |  |
| 14,059.00 | 90.25   | 343.13            | 12,136.38 | 1,968.71    | 1,852.29 | -670.69   | 1,969.97              | 340.10              | 2.18           |  |
| 14,148.00 | 91.56   | 343.48            | 12,134.97 | 2,057.68    | 1,937.53 | -696.25   | 2,058.83              | 340.23              | 1.52           |  |
| 14,237.00 | 92.94   | 344.01            | 12,131.48 | 2,146.57    | 2,022.90 | -721.14   | 2,147.60              | 340.38              | 1.66           |  |
| 14,326.00 | 92.94   | 343.48            | 12,126.91 | 2,235.42    | 2,108.23 | -746.02   | 2,236.33              | 340.51              | 0.59           |  |
| 14,415.00 | 88.31   | 341.73            | 12,125.94 | 2,324.38    | 2,193.13 | -772.62   | 2,325.24              | 340.59              | 5.56           |  |
| 14,504.00 | 88.69   | 341.20            | 12,128.27 | 2,413.35    | 2,277.48 | -800.90   | 2,414.20              | 340.63              | 0.73           |  |
| 14,593.00 | 89.69   | 340.49            | 12,129.53 | 2,502.31    | 2,361.54 | -830.10   | 2,503.19              | 340.63              | 1.38           |  |
| 14,682.00 | 91.50   | 339.09            | 12,128.60 | 2,591.23    | 2,445.05 | -860.84   | 2,592.17              | 340.60              | 2.57           |  |
| 14,771.00 | 91.31   | 337.68            | 12,126.42 | 2,680.00    | 2,527.77 | -893.62   | 2,681.08              | 340.53              | 1.60           |  |
| 14,860.00 | 92.88   | 339.97            | 12,123.17 | 2,768.79    | 2,610.70 | -925.74   | 2,769.97              | 340.48              | 3.12           |  |
| 14,949.00 | 93.69   | 342.78            | 12,118.07 | 2,857.62    | 2,694.89 | -954.12   | 2,858.80              | 340.50              | 3.28           |  |
| 15,037.00 | 91.94   | 343.66            | 12,113.75 | 2,945.50    | 2,779.03 | -979.49   | 2,946.60              | 340.58              | 2.23           |  |
| 15,127.00 | 91.88   | 343.31            | 12,110.75 | 3,035.42    | 2,865.27 | -1,005.06 | 3,036.43              | 340.67              | 0.39           |  |
| 15,215.00 | 85.69   | 342.78            | 12,112.61 | 3,123.35    | 2,949.39 | -1,030.70 | 3,124.30              | 340.74              | 7.06           |  |
| 15,304.00 | 88.38   | 342.08            | 12,117.21 | 3,212.22    | 3,034.11 | -1,057.53 | 3,213.13              | 340.78              | 3.12           |  |
| 15,393.00 | 92.13   | 343.48            | 12,116.82 | 3,301.20    | 3,119.11 | -1,083.88 | 3,302.06              | 340.84              | 4.50           |  |
| 15,482.00 | 93.75   | 344.01            | 12,112.25 | 3,390.04    | 3,204.43 | -1,108.75 | 3,390.83              | 340.91              | 1.91           |  |
| 15,571.00 | 93.25   | 344.36            | 12,106.82 | 3,478.82    | 3,289.90 | -1,132.96 | 3,479.52              | 341.00              | 0.69           |  |
| 15,660.00 | 91.56   | 343.66            | 12,103.09 | 3,567.69    | 3,375.38 | -1,157.46 | 3,568.32              | 341.07              | 2.06           |  |
| 15,749.00 | 90.38   | 343.66            | 12,101.58 | 3,656.64    | 3,460.77 | -1,182.49 | 3,657.22              | 341.14              | 1.33           |  |

|                  |                       |                                     |                                    |
|------------------|-----------------------|-------------------------------------|------------------------------------|
| <b>Company:</b>  | Oasis Petroleum       | <b>Local Co-ordinate Reference:</b> | Well Kerwin A 18-12 #7101H         |
| <b>Project:</b>  | Ward Co., TX          | <b>TVD Reference:</b>               | RKB = 33 @ 2793.00ft (Nabors X-50) |
| <b>Site:</b>     | UL                    | <b>MD Reference:</b>                | RKB = 33 @ 2793.00ft (Nabors X-50) |
| <b>Well:</b>     | Kerwin A 18-12 #7101H | <b>North Reference:</b>             | Grid                               |
| <b>Wellbore:</b> | Wellbore #2 ST01      | <b>Survey Calculation Method:</b>   | Minimum Curvature                  |
| <b>Design:</b>   | Wellbore #2 ST01      | <b>Database:</b>                    | RyanUSA_32Bit                      |

| Survey              |         |                   |           |             |          |           |                       |                     |                |  |
|---------------------|---------|-------------------|-----------|-------------|----------|-----------|-----------------------|---------------------|----------------|--|
| MD (ft)             | Inc (°) | Azi (azimuth) (°) | TVD (ft)  | V. Sec (ft) | N/S (ft) | E/W (ft)  | Closure Distance (ft) | Closure Azimuth (°) | DLeg (°/100ft) |  |
| 15,838.00           | 88.13   | 344.01            | 12,102.74 | 3,745.59    | 3,546.24 | -1,207.27 | 3,746.11              | 341.20              | 2.56           |  |
| 15,927.00           | 91.94   | 347.35            | 12,102.68 | 3,834.39    | 3,632.45 | -1,229.27 | 3,834.81              | 341.30              | 5.69           |  |
| 16,016.00           | 92.50   | 347.00            | 12,099.23 | 3,922.98    | 3,719.16 | -1,249.01 | 3,923.29              | 341.44              | 0.74           |  |
| 16,105.00           | 91.00   | 347.00            | 12,096.52 | 4,011.62    | 3,805.84 | -1,269.03 | 4,011.84              | 341.56              | 1.69           |  |
| 16,194.00           | 89.31   | 345.94            | 12,096.28 | 4,100.36    | 3,892.36 | -1,289.85 | 4,100.51              | 341.67              | 2.24           |  |
| 16,283.00           | 88.94   | 345.42            | 12,097.63 | 4,189.19    | 3,978.59 | -1,311.86 | 4,189.29              | 341.75              | 0.72           |  |
| 16,372.00           | 89.69   | 345.59            | 12,098.70 | 4,278.03    | 4,064.75 | -1,334.13 | 4,278.09              | 341.83              | 0.86           |  |
| 16,461.00           | 90.81   | 345.24            | 12,098.31 | 4,366.88    | 4,150.88 | -1,356.54 | 4,366.92              | 341.90              | 1.32           |  |
| 16,550.00           | 89.56   | 344.54            | 12,098.02 | 4,455.77    | 4,236.80 | -1,379.74 | 4,455.80              | 341.96              | 1.61           |  |
| 16,639.00           | 86.38   | 342.08            | 12,101.18 | 4,544.68    | 4,321.98 | -1,405.28 | 4,544.70              | 341.99              | 4.52           |  |
| 16,728.00           | 90.63   | 342.96            | 12,103.50 | 4,633.63    | 4,406.82 | -1,432.00 | 4,633.65              | 342.00              | 4.88           |  |
| 16,817.00           | 89.25   | 344.36            | 12,103.59 | 4,722.59    | 4,492.22 | -1,457.03 | 4,722.60              | 342.03              | 2.21           |  |
| 16,906.00           | 92.38   | 344.54            | 12,102.32 | 4,811.50    | 4,577.94 | -1,480.89 | 4,811.51              | 342.07              | 3.52           |  |
| 16,970.51           | 93.87   | 343.77            | 12,098.81 | 4,875.88    | 4,639.91 | -1,498.47 | 4,875.88              | 342.10              | 2.60           |  |
| <b>#7101H - LTP</b> |         |                   |           |             |          |           |                       |                     |                |  |
| 16,995.00           | 94.44   | 343.48            | 12,097.03 | 4,900.29    | 4,663.34 | -1,505.36 | 4,900.29              | 342.11              | 2.60           |  |
| 17,060.00           | 95.69   | 343.83            | 12,091.29 | 4,965.01    | 4,725.47 | -1,523.58 | 4,965.01              | 342.13              | 2.00           |  |
| 17,118.44           | 95.69   | 343.83            | 12,085.50 | 5,023.14    | 4,781.32 | -1,539.77 | 5,023.14              | 342.15              | 0.00           |  |
| <b>#7101H - BHL</b> |         |                   |           |             |          |           |                       |                     |                |  |
| 17,122.00           | 95.69   | 343.83            | 12,085.15 | 5,026.68    | 4,784.72 | -1,540.76 | 5,026.68              | 342.15              | 0.00           |  |

| Design Annotations  |                     |                   |            |                 |
|---------------------|---------------------|-------------------|------------|-----------------|
| Measured Depth (ft) | Vertical Depth (ft) | Local Coordinates |            | Comment         |
|                     |                     | +N/-S (ft)        | +E/-W (ft) |                 |
| 17,122.00           | 12,085.15           | 4,784.72          | -1,540.76  | PTB @ 17122' MD |



**Nabors Drilling Solutions**  
Completion Report



|                  |                       |                                     |                                    |
|------------------|-----------------------|-------------------------------------|------------------------------------|
| <b>Company:</b>  | Oasis Petroleum       | <b>Local Co-ordinate Reference:</b> | Well Kerwin A 18-12 #7101H         |
| <b>Project:</b>  | Ward Co., TX          | <b>TVD Reference:</b>               | RKB = 33 @ 2793.00ft (Nabors X-50) |
| <b>Site:</b>     | UL                    | <b>MD Reference:</b>                | RKB = 33 @ 2793.00ft (Nabors X-50) |
| <b>Well:</b>     | Kerwin A 18-12 #7101H | <b>North Reference:</b>             | Grid                               |
| <b>Wellbore:</b> | Wellbore #2 ST01      | <b>Survey Calculation Method:</b>   | Minimum Curvature                  |
| <b>Design:</b>   | Wellbore #2 ST01      | <b>Database:</b>                    | RyanUSA_32Bit                      |

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

UNIVERSITY LAND  
A-U90  
SECTION 11, BLOCK 18



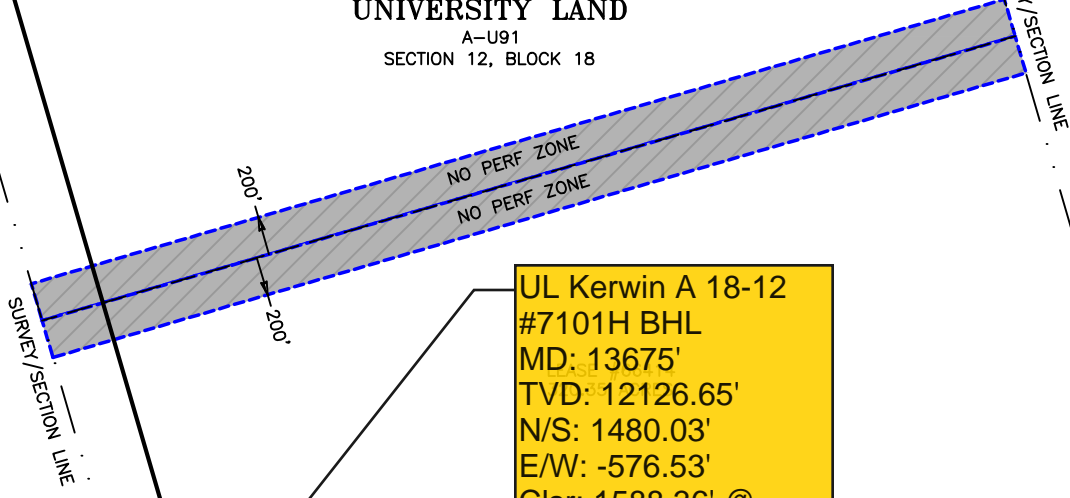
0 500' 1000'  
1" = 1000 FEET

**UL Kerwin A 18-12 #7101H BHL**  
MD: 17122'  
TVD: 12085.15'  
N/S: 4784.72'  
E/W: -1540.76'  
Clsr: 5026.68' @ 342.15°

LEASE #66413  
320.35 ACRES

UNIVERSITY LAND  
A-U84  
SECTION 5, BLOCK 18

UNIVERSITY LAND  
A-U91  
SECTION 12, BLOCK 18



**UL Kerwin A 18-12 #7101H BHL**  
MD: 13675'  
TVD: 12126.65'  
N/S: 1480.03'  
E/W: -576.53'  
Clsr: 1588.36' @ 338.72°

UNIVERSITY LAND  
A-U100  
SECTION 21, BLOCK 18

UNIVERSITY LAND  
A-U92  
SECTION 13, BLOCK 18

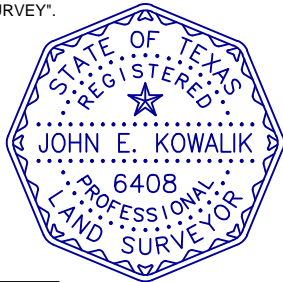
**DRIVING DIRECTIONS TO LOCATION:**  
FROM THE HIGHWAY 115 AND FM 2355, GO WEST ON 2355 FOR 9.25 MILES AND TURN SOUTH ONTO LEASE ROAD. GO SOUTH FOR 0.5 MILE AND THE LOCATION WILL BE ON THE LEFT(EAST) 475 FEET.

**LEGEND**

- SURVEY LINE
- - - LEASE LINE

**GENERAL NOTES**

COORDINATES SHOWN ARE BASED ON TEXAS PLANE COORDINATE SYSTEM OF NAD 27, TEXAS CENTRAL ZONE 4203 VERTICAL DATUM IS NAVD 88 LATITUDE AND LONGITUDE ARE NAD 27 AS SHOWN AREA, DISTANCES, AND COORDINATES ARE "GRID". UNITS ARE UNITED STATES SURVEY FOOT. ALL LEASE AND TRACT INFORMATION SHOWN HERE ON IS DONE SO BY LIMITED DEED RECORD INFORMATION ONLY. ALL ACREAGES SHOWN ARE BY DEED AND LEASE CALL, EXCEPT WHERE NOTED. THIS IS NOT IN ANY WAY A "BOUNDARY SURVEY".



I HEREBY STATE THAT THIS PLAT SHOWS THE SUBJECT SURFACE LOCATION AS STAKED ON THE GROUND.

*John Kowalik*

JOHN E. KOWALIK  
REGISTERED PROFESSIONAL LAND SURVEYOR  
STATE OF TEXAS NO. 6408

**WELL LOCATION INFORMATION:**

|  |  |
|--|--|
| <b>SURFACE HOLE LOCATION/POP:</b><br>NAD 83, TEXAS CENTRAL ZONE COORD'S<br>Y = 10,553,373.66, X = 1,386,811.68<br>LAT: N 31.58834°, LONG: W 103.25548°<br>SHL: 472' FWL & 210' FSL<br>SHL: 472' FWLL & 210' FSLL | <b>LAST TAKE LOCATION:</b><br>NAD 83, TEXAS CENTRAL ZONE COORD'S<br>Y = 10,558,014.52, X = 1,385,308.86<br>LAT: N 31.60099°, LONG: W 103.26069°<br>FT: 330' FWLL & 200' FNLL                               |
| <b>NAD 27, TEXAS CENTRAL ZONE COORD'S</b><br>Y = 710,798.13, X = 1,090,346.85<br>LAT: N 31.58821°, LONG: W 103.25503°  | <b>NAD 27, TEXAS CENTRAL ZONE COORD'S</b><br>Y = 715,438.92, X = 1,088,844.09<br>LAT: N 31.60086°, LONG: W 103.26025°  |
| <b>FIRST TAKE LOCATION:</b><br>NAD 83, TEXAS CENTRAL ZONE COORD'S<br>Y = 10,553,323.94, X = 1,386,677.78<br>LAT: N 31.58820°, LONG: W 103.25590°<br>FT: 330' FWLL & 200' FSLL                                    | <b>BOTTOM HOLE LOCATION:</b><br>NAD 83, TEXAS CENTRAL ZONE COORD'S<br>Y = 10,558,158.51, X = 1,385,266.83<br>LAT: N 31.60138°, LONG: W 103.26084°<br>SHL: 330' FWL & 50' FNLL<br>SHL: 330' FWLL & 50' FNLL |
| <b>NAD 27, TEXAS CENTRAL ZONE COORD'S</b><br>Y = 710,748.41 X = 1,090,212.95<br>LAT: N 31.58807°, LONG: W 103.25546°   | <b>NAD 27, TEXAS CENTRAL ZONE COORD'S</b><br>Y = 715,582.91, X = 1,088,802.06<br>LAT: N 31.60125°, LONG: W 103.26039°  |

**PLAT OF:**

A PROPOSED WELL LOCATION FOR:  
**OASIS PETROLEUM PERMIAN LLC**  
**UL KERWIN A 18-12 #7101H**  
SITUATED IN THE UNIVERSITY LANDS SURVEY, A-U91,  
SECTION 12, BLOCK 18, AND BEING APPROXIMATELY 8.5  
MILES NORTHWEST OF PYOTE IN WARD COUNTY, TEXAS.

DATE: 09-17-2018  
DRAWN BY: GG  
CHECKED BY: JK  
FIELD CREW: DL  
PROJECT NO: 2018081887  
SCALE: 1" = 1000'  
SHEET: 1  
REVISION: 2



550 Bailey Ave., 205 - Fort Worth, TX 76107  
Ph: 817.349.9800 - Fax: 979.732.5271  
TBPE Firm 17957 | TBPLS Firm 10193887  
www.fscinc.net



NABORS DRILLING TECHNOLOGIES USA, INC.

515 West Greens Road

Houston, TX 77067

Phone: 281.874.0035

Fax: 281.872.5205

Thursday, January 31, 2019

Railroad Commission of Texas  
Oil and Gas Division  
PO Box 12967  
Capitol Station  
Austin, TX 78711-2967

Subject: **Survey Certification Letter**

Attention: **Pam Johns**

Survey Company: **NABORS DRILLING TECH USA, INC.**

Job Number: **T6139**

Survey Job Type: **Nabors MWD**

Customer: **Oasis Petroleum Permian LLC**

Well Name: **Kerwin A 18-12 #7101H ST01**

Rig Name: **Nabors X50**

Operator #: **598880**

Surface: **31.58821 N / -103.25503 W**

A.P.I. No: **42-475-37675-0100**

Location: **Ward, TX**

RKB Height: **33'**

Distance to Bit: **62'**

| <i>Surveyor Name</i> | <i>Surveyor Title</i> | <i>Borehole Number</i> | <i>Start Depth</i> | <i>End Depth</i> | <i>Start Date</i> | <i>End Date</i> | <i>Type of</i> | <i>TD Straight Line Projection</i> |
|----------------------|-----------------------|------------------------|--------------------|------------------|-------------------|-----------------|----------------|------------------------------------|
| Brandon Holt         | MWD Supervisor        | OH                     | 5062'              | 13613'           | 01/02/19          | 01/21/19        | MWD            | 13675'                             |
| Brandon Holt         | MWD Supervisor        | ST1                    | 13166'             | 17060'           | 01/22/19          | 01/31/19        | MWD            | 17122'                             |

The data and calculations for this survey have been checked by me and conform to the calibration standards and operational procedures set forth by NABORS DRILLING TECHNOLOGIES USA, INC. I am authorized and qualified to review the data, calculations and these reports; the reports represents true and correct Directional Surveys of this well based on the original data, the minimum curvature method, corrected to Grid North and obtained at the well site.

**Brandon Holt**  
MWD Supervisor  
NABORS DRILLING TECHNOLOGIES USA, INC.