

## Results of Directional Survey

|             |                     |           |                                    |
|-------------|---------------------|-----------|------------------------------------|
| API number: | <b>30-025-41140</b> |           |                                    |
| OGRID:      |                     | Operator: | <b>MURCHISON OIL &amp; GAS INC</b> |
|             |                     | Property: | <b>JACKSON UNIT</b> # 21H          |

|         |        |          |           |            |            |            |            |
|---------|--------|----------|-----------|------------|------------|------------|------------|
| surface | ULSTR: | <b>P</b> | <b>21</b> | <b>T</b>   | <b>24S</b> | <b>R</b>   | <b>33E</b> |
|         |        |          |           | <b>200</b> | <b>FSL</b> | <b>970</b> | <b>FEL</b> |

|              |           |                |            |             |            |            |            |
|--------------|-----------|----------------|------------|-------------|------------|------------|------------|
| BH Loc       | ULSTR:    | <b>A</b>       | <b>21</b>  | <b>T</b>    | <b>24S</b> | <b>R</b>   | <b>33E</b> |
| <b>15730</b> | <b>MD</b> | <b>11123.2</b> | <b>TVD</b> | <b>290</b>  | <b>FNL</b> | <b>969</b> | <b>FEL</b> |
|              |           |                |            | <b>4990</b> | <b>FSL</b> |            |            |

|              |           |                |            |            |            |            |            |
|--------------|-----------|----------------|------------|------------|------------|------------|------------|
| Top Perf/OH  | ULSTR:    | <b>P</b>       | <b>21</b>  | <b>T</b>   | <b>24S</b> | <b>R</b>   | <b>33E</b> |
| <b>11330</b> | <b>MD</b> | <b>11112.1</b> | <b>TVD</b> | <b>592</b> | <b>FSL</b> | <b>946</b> | <b>FEL</b> |

|              |           |                |            |             |            |            |            |
|--------------|-----------|----------------|------------|-------------|------------|------------|------------|
| Bot Perf/OH  | ULSTR:    | <b>A</b>       | <b>21</b>  | <b>T</b>    | <b>24S</b> | <b>R</b>   | <b>33E</b> |
| <b>15650</b> | <b>MD</b> | <b>11122.0</b> | <b>TVD</b> | <b>370</b>  | <b>FNL</b> | <b>971</b> | <b>FEL</b> |
|              |           |                |            | <b>4910</b> | <b>FSL</b> |            |            |

|              | MD           | N/S     | E/W   | VD       |
|--------------|--------------|---------|-------|----------|
|              | 11320        | 381.90  | 23.60 | 11111.2  |
| TOP PERFS/OH | <b>11330</b> | 391.84  | 24.26 | 11112.11 |
|              | 11352        | 413.70  | 25.70 | 11114.10 |
|              | 15646        | 4705.90 | -1.60 | 11121.90 |
| BOT PERFS/OH | <b>15650</b> | 4709.90 | -1.48 | 11121.96 |
|              | 15677        | 4736.90 | -0.70 | 11122.40 |

|              |              |         |      |          |   |
|--------------|--------------|---------|------|----------|---|
| NEXT TO LAST | 15720        | 4779.90 | 0.40 | 11123.10 | D |
| LAST READING | 15730        | 4789.90 | 0.70 | 11123.20 | D |
| TD           | <b>15730</b> | 4789.90 | 0.70 | 11123.20 | D |

|                  |      |    |     |    |
|------------------|------|----|-----|----|
| Surface Location | 200  | FS | 970 | FE |
| Projected BHL    | 4990 | FS | 969 | FE |
| Location of      |      |    |     |    |
| Top Perfs/OH     | 592  | FS | 946 | FE |
| Bottom Perfs/OH  | 4910 | FS | 971 | FE |

### SUMMARY of Subsurface Locations

|                  |              |      |    |     |    |             |
|------------------|--------------|------|----|-----|----|-------------|
| Surface Location | P-21-24S-33E | 200  | FS | 970 | FE | Vert. Depth |
|                  |              |      |    |     |    |             |
| Top Perfs/OH     | P-21-24S-33E | 592  | FS | 946 | FE | 11112.11    |
| Bottom Perfs/OH  | A-21-24S-33E | 4910 | FS | 971 | FE | 11121.96    |
|                  |              |      |    |     |    |             |
| Projected TD     | A-21-24S-33E | 4990 | FS | 969 | FE | 11123.20    |

MAY 05 2014



Job Number: SVMO-140167  
 Company: Murchison Oil & Gas  
 Lease/Well: Jackson 21H  
 Location: Lea County, NM  
 Rig Name: Nabors #M29  
 RKB: 22'  
 G.L. or M.S.L.: GL

State/Country: New Mexico/USA  
 Declination: 6.88°  
 Grid: East To Grid North  
 File name: S:\2014SU-1\MURCHI-1\MO\JACKSON\21H.SVY  
 Date/Time: 11-Feb-14 / 16:43  
 Curve Name: Surface - 5100' M.D. (Rate Gyro)

HOBBS OCD

APR 25 2014

RECEIVED

WINSERVE SURVEY CALCULATIONS  
 Minimum Curvature Method  
 Vertical Section Plane .00  
 Vertical Section Referenced to Wellhead  
 Rectangular Coordinates Referenced to Wellhead

We hereby certify that our survey data from  
 Surface MD to 5100 MD is, to the best of  
 our knowledge a true and accurate account of the  
 well bore.  
 Shawn Cooper 2/11/14  
 MS Energy Services Date

| Measured<br>Depth<br>FT | Incl<br>Angle<br>Deg | Drift<br>Direction<br>Deg | True<br>Vertical<br>Depth | N-S<br>FT | E-W<br>FT | Vertical<br>Section<br>FT | C L O S U R E  |                  | Dogleg<br>Severity<br>Deg/100 |
|-------------------------|----------------------|---------------------------|---------------------------|-----------|-----------|---------------------------|----------------|------------------|-------------------------------|
|                         |                      |                           |                           |           |           |                           | Distance<br>FT | Direction<br>Deg |                               |
| .00                     | .00                  | .00                       | .00                       | .00       | .00       | .00                       | .00            | .00              | .00                           |
| 100.00                  | .72                  | 40.13                     | 100.00                    | .48       | .40       | .48                       | .63            | 40.13            | .72                           |
| 200.00                  | 1.17                 | 37.74                     | 199.98                    | 1.77      | 1.43      | 1.77                      | 2.28           | 39.06            | .45                           |
| 300.00                  | 1.23                 | 38.23                     | 299.96                    | 3.42      | 2.72      | 3.42                      | 4.37           | 38.55            | .06                           |
| 400.00                  | 1.03                 | 40.72                     | 399.94                    | 4.94      | 3.97      | 4.94                      | 6.34           | 38.80            | .21                           |
|                         |                      |                           |                           |           |           |                           |                |                  |                               |
| 500.00                  | .76                  | 37.53                     | 499.93                    | 6.15      | 4.96      | 6.15                      | 7.90           | 38.91            | .27                           |
| 600.00                  | .65                  | 29.80                     | 599.92                    | 7.17      | 5.65      | 7.17                      | 9.13           | 38.25            | .15                           |
| 700.00                  | .52                  | 16.39                     | 699.92                    | 8.10      | 6.06      | 8.10                      | 10.11          | 36.82            | .19                           |
| 800.00                  | .30                  | 358.03                    | 799.91                    | 8.79      | 6.18      | 8.79                      | 10.75          | 35.10            | .25                           |
| 900.00                  | .26                  | 10.91                     | 899.91                    | 9.28      | 6.21      | 9.28                      | 11.17          | 33.81            | .07                           |

| Measured<br>Depth<br>FT | Incl<br>Angle<br>Deg | Drift<br>Direction<br>Deg | True<br>Vertical<br>Depth | N-S<br>FT | E-W<br>FT | Vertical<br>Section<br>FT | C L O S U R E  |                  | Dogleg<br>Severity<br>Deg/100 |
|-------------------------|----------------------|---------------------------|---------------------------|-----------|-----------|---------------------------|----------------|------------------|-------------------------------|
|                         |                      |                           |                           |           |           |                           | Distance<br>FT | Direction<br>Deg |                               |
| 1000.00                 | .28                  | 22.46                     | 999.91                    | 9.73      | 6.35      | 9.73                      | 11.62          | 33.14            | .06                           |
| 1100.00                 | .15                  | 22.62                     | 1099.91                   | 10.07     | 6.49      | 10.07                     | 11.98          | 32.81            | .13                           |
| 1200.00                 | .17                  | 27.94                     | 1199.91                   | 10.32     | 6.61      | 10.32                     | 12.26          | 32.64            | .02                           |
| 1300.00                 | .22                  | 17.98                     | 1299.91                   | 10.64     | 6.74      | 10.64                     | 12.59          | 32.37            | .06                           |
| 1400.00                 | .22                  | 15.10                     | 1399.91                   | 11.01     | 6.85      | 11.01                     | 12.96          | 31.90            | .01                           |
| 1500.00                 | .19                  | 334.73                    | 1499.91                   | 11.34     | 6.83      | 11.34                     | 13.24          | 31.06            | .14                           |
| 1600.00                 | .28                  | 337.77                    | 1599.91                   | 11.72     | 6.67      | 11.72                     | 13.48          | 29.64            | .09                           |
| 1700.00                 | .44                  | 330.25                    | 1699.91                   | 12.28     | 6.38      | 12.28                     | 13.84          | 27.48            | .17                           |
| 1800.00                 | .69                  | 324.61                    | 1799.90                   | 13.10     | 5.85      | 13.10                     | 14.35          | 24.04            | .26                           |
| 1900.00                 | .88                  | 321.87                    | 1899.89                   | 14.20     | 5.02      | 14.20                     | 15.06          | 19.48            | .19                           |
| 2000.00                 | 1.05                 | 318.56                    | 1999.88                   | 15.49     | 3.94      | 15.49                     | 15.98          | 14.28            | .18                           |
| 2100.00                 | 1.21                 | 313.96                    | 2099.86                   | 16.91     | 2.58      | 16.91                     | 17.10          | 8.66             | .18                           |
| 2200.00                 | 1.34                 | 309.44                    | 2199.83                   | 18.38     | .91       | 18.38                     | 18.41          | 2.84             | .16                           |
| 2300.00                 | 1.34                 | 307.67                    | 2299.81                   | 19.84     | -.92      | 19.84                     | 19.86          | 357.36           | .04                           |
| 2400.00                 | 1.27                 | 307.45                    | 2399.78                   | 21.23     | -2.72     | 21.23                     | 21.40          | 352.69           | .07                           |
| 2500.00                 | 1.19                 | 305.92                    | 2499.76                   | 22.51     | -4.44     | 22.51                     | 22.95          | 348.84           | .09                           |
| 2600.00                 | 1.19                 | 307.74                    | 2599.74                   | 23.76     | -6.10     | 23.76                     | 24.53          | 345.59           | .04                           |
| 2700.00                 | 1.18                 | 300.04                    | 2699.71                   | 24.91     | -7.82     | 24.91                     | 26.10          | 342.58           | .16                           |
| 2800.00                 | 1.16                 | 294.07                    | 2799.69                   | 25.84     | -9.63     | 25.84                     | 27.57          | 339.55           | .12                           |
| 2900.00                 | 1.25                 | 292.18                    | 2899.67                   | 26.66     | -11.57    | 26.66                     | 29.06          | 336.55           | .10                           |
| 3000.00                 | 1.61                 | 280.61                    | 2999.64                   | 27.33     | -13.96    | 27.33                     | 30.69          | 332.95           | .46                           |
| 3100.00                 | 2.14                 | 275.73                    | 3099.59                   | 27.78     | -17.20    | 27.78                     | 32.67          | 328.24           | .55                           |
| 3200.00                 | 2.32                 | 273.05                    | 3199.51                   | 28.07     | -21.07    | 28.07                     | 35.10          | 323.10           | .21                           |
| 3300.00                 | 2.33                 | 272.54                    | 3299.43                   | 28.27     | -25.13    | 28.27                     | 37.82          | 318.37           | .02                           |
| 3400.00                 | 2.29                 | 270.04                    | 3399.35                   | 28.36     | -29.16    | 28.36                     | 40.67          | 314.21           | .11                           |
| 3500.00                 | 2.10                 | 261.82                    | 3499.27                   | 28.10     | -32.97    | 28.10                     | 43.32          | 310.44           | .37                           |
| 3600.00                 | 2.09                 | 258.16                    | 3599.21                   | 27.46     | -36.57    | 27.46                     | 45.73          | 306.91           | .13                           |
| 3700.00                 | 1.92                 | 260.51                    | 3699.15                   | 26.81     | -40.00    | 26.81                     | 48.16          | 303.84           | .19                           |
| 3800.00                 | 1.08                 | 278.73                    | 3799.11                   | 26.68     | -42.59    | 26.68                     | 50.25          | 302.07           | .96                           |

| Measured<br>Depth<br>FT           | Incl<br>Angle<br>Deg | Drift<br>Direction<br>Deg | True<br>Vertical<br>Depth | N-S<br>FT | E-W<br>FT | Vertical<br>Section<br>FT | C L O S U R E  |                  | Dogleg<br>Severity<br>Deg/100 |
|-----------------------------------|----------------------|---------------------------|---------------------------|-----------|-----------|---------------------------|----------------|------------------|-------------------------------|
|                                   |                      |                           |                           |           |           |                           | Distance<br>FT | Direction<br>Deg |                               |
| 3900.00                           | .23                  | 332.01                    | 3899.10                   | 27.00     | -43.61    | 27.00                     | 51.29          | 301.76           | .96                           |
| 4000.00                           | .85                  | 82.87                     | 3999.10                   | 27.27     | -42.97    | 27.27                     | 50.89          | 302.40           | .96                           |
| 4100.00                           | 1.10                 | 89.19                     | 4099.09                   | 27.38     | -41.27    | 27.38                     | 49.53          | 303.56           | .27                           |
| 4200.00                           | 1.08                 | 91.17                     | 4199.07                   | 27.37     | -39.37    | 27.37                     | 47.95          | 304.81           | .04                           |
| 4300.00                           | 1.20                 | 91.86                     | 4299.05                   | 27.32     | -37.38    | 27.32                     | 46.30          | 306.16           | .12                           |
| 4400.00                           | 1.76                 | 102.22                    | 4399.01                   | 26.96     | -34.84    | 26.96                     | 44.05          | 307.74           | .62                           |
| 4500.00                           | 2.69                 | 103.76                    | 4498.94                   | 26.08     | -31.06    | 26.08                     | 40.55          | 310.02           | .93                           |
| 4600.00                           | 2.37                 | 104.25                    | 4598.84                   | 25.01     | -26.77    | 25.01                     | 36.64          | 313.05           | .32                           |
| 4700.00                           | 2.24                 | 107.91                    | 4698.76                   | 23.90     | -22.91    | 23.90                     | 33.10          | 316.21           | .20                           |
| 4800.00                           | 2.07                 | 114.40                    | 4798.69                   | 22.55     | -19.40    | 22.55                     | 29.75          | 319.29           | .30                           |
| 4900.00                           | 2.10                 | 113.14                    | 4898.62                   | 21.09     | -16.07    | 21.09                     | 26.51          | 322.68           | .05                           |
| 5000.00                           | 1.78                 | 101.14                    | 4998.57                   | 20.07     | -12.87    | 20.07                     | 23.84          | 327.33           | .52                           |
| <b>Last Survey Depth Recorded</b> |                      |                           |                           |           |           |                           |                |                  |                               |
| 5100.00                           | 1.71                 | 89.85                     | 5098.52                   | 19.77     | -9.85     | 19.77                     | 22.09          | 333.51           | .35                           |

 MURCHISON OIL & GAS, INC.

## Murchison Oil and Gas

Jackson Unit Section 21

Jackson Unit 21H

HOBBS OCD

MAR 17 2014

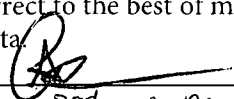
RECEIVED

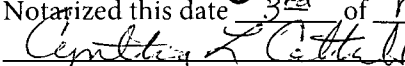
Survey: Jackson Unit 21H

## MOJO Standard Survey

26 February, 2014

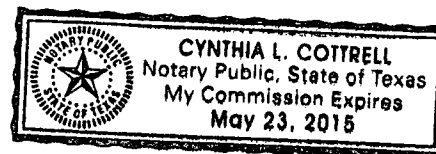
This survey is correct to the best of my knowledge and is supported  
by actual field data.

 (Signature)  
Notarized this date 3rd of March, 2014

  
Notary Signature County of Collin State of Texas



**MOJO**  
DIRECTIONAL CORPORATION



|                  |                         |                                     |                                        |
|------------------|-------------------------|-------------------------------------|----------------------------------------|
| <b>Company:</b>  | Murchison Oil and Gas   | <b>Local Co-ordinate Reference:</b> | Site Jackson Unit 21H                  |
| <b>Project:</b>  | Jackson Unit Section 21 | <b>TVD Reference:</b>               | WELL @ 3556.0usft (Original Well Elev) |
| <b>Site:</b>     | Jackson Unit 21H        | <b>MD Reference:</b>                | WELL @ 3556.0usft (Original Well Elev) |
| <b>Well:</b>     | Jackson Unit 21H        | <b>North Reference:</b>             | Grid                                   |
| <b>Wellbore:</b> | Jackson Unit 21H        | <b>Survey Calculation Method:</b>   | Minimum Curvature                      |
| <b>Design:</b>   | Jackson Unit 21H        | <b>Database:</b>                    | EDM 5000.1 Single User Db              |

|             |                           |                         |                |
|-------------|---------------------------|-------------------------|----------------|
| Project     |                           | Jackson Unit Section 21 |                |
| Map System: | US State Plane 1983       | System Datum:           | Mean Sea Level |
| Geo Datum:  | North American Datum 1983 |                         |                |
| Map Zone:   | New Mexico Eastern Zone   |                         |                |

|                       |          |                  |  |                   |  |
|-----------------------|----------|------------------|--|-------------------|--|
| Site                  |          | Jackson Unit 21H |  |                   |  |
| Site Position:        |          | Northing:        |  | 436,024.29 usft   |  |
| From:                 | Lat/Long | Easting:         |  | 776,886.41 usft   |  |
| Position Uncertainty: |          | Slot Radius:     |  | 13-3/16 "         |  |
|                       |          |                  |  | Grid Convergence: |  |
|                       |          |                  |  | 32° 11' 47.095 N  |  |
|                       |          |                  |  | 103° 34' 18.663 W |  |
|                       |          |                  |  | 0.41 °            |  |

|                      |       |                  |                     |                 |               |                   |
|----------------------|-------|------------------|---------------------|-----------------|---------------|-------------------|
| Well                 |       | Jackson Unit 21H |                     |                 |               |                   |
| Well Position        | +N/-S | 0.0 usft         | Northing:           | 436,024.29 usft | Latitude:     | 32° 11' 47.095 N  |
|                      | +E/-W | 0.0 usft         | Easting:            | 776,886.41 usft | Longitude:    | 103° 34' 18.663 W |
| Position Uncertainty |       | 0.0 usft         | Wellhead Elevation: | usft            | Ground Level: | 3,534.0 usft      |

|           |                  |             |                    |                  |                        |
|-----------|------------------|-------------|--------------------|------------------|------------------------|
| Wellbore  | Jackson Unit 21H |             |                    |                  |                        |
| Magnetics | Model Name       | Sample Date | Declination<br>(°) | Dip Angle<br>(°) | Field Strength<br>(nT) |
|           | IGRF2010         | 10/05/2013  | 7.35               | 60.11            | 48.409                 |

|                   |                            |                  |                 |                   |
|-------------------|----------------------------|------------------|-----------------|-------------------|
| Design            |                            | Jackson Unit 21H |                 |                   |
| Audit Notes:      |                            |                  |                 |                   |
| Version:          | 1.0                        | Phase:           | ACTUAL          | Tie On Depth: 0.0 |
| Vertical Section: | Depth From (TVD)<br>(usft) | +N/-S<br>(usft)  | +E/-W<br>(usft) | Direction<br>(°)  |
|                   | 0.0                        | 0.0              | 0.0             | 359.93            |

|                |              |                                     |           |                |
|----------------|--------------|-------------------------------------|-----------|----------------|
| Survey Program |              | Date 26/02/2014                     |           |                |
| From<br>(usft) | To<br>(usft) | Survey (Wellbore)                   | Tool Name | Description    |
| 100.0          | 15,730.0     | Jackson Unit 21H (Jackson Unit 21H) | MWD       | MWD - Standard |

|                                  |  |                              |  |  |  |                                        |  |
|----------------------------------|--|------------------------------|--|--|--|----------------------------------------|--|
| Company: Murchison Oil and Gas   |  | Local Co-ordinate Reference: |  |  |  | Site Jackson Unit 21H                  |  |
| Project: Jackson Unit Section 21 |  | TVD Reference:               |  |  |  | WELL @ 3556.0usft (Original Well Elev) |  |
| Site: Jackson Unit 21H           |  | MD Reference:                |  |  |  | WELL @ 3556.0usft (Original Well Elev) |  |
| Well: Jackson Unit 21H           |  | North Reference:             |  |  |  | Grid                                   |  |
| Wellbore: Jackson Unit 21H       |  | Survey Calculation Method:   |  |  |  | Minimum Curvature                      |  |
| Design: Jackson Unit 21H         |  | Database:                    |  |  |  | EDM 5000.1 Single User Db              |  |

| Survey       |            |                      |               |                 |               |               |                  |                     |                    |                   |  |
|--------------|------------|----------------------|---------------|-----------------|---------------|---------------|------------------|---------------------|--------------------|-------------------|--|
| MD<br>(usft) | Inc<br>(°) | Azi (azimuth)<br>(°) | TVD<br>(usft) | TVDSS<br>(usft) | N/S<br>(usft) | E/W<br>(usft) | V. Sec<br>(usft) | DLeg<br>(°/100usft) | Northing<br>(usft) | Easting<br>(usft) |  |
| 0.0          | 0.00       | 0.00                 | 0.0           | -3,556.0        | 0.0           | 0.0           | 0.0              | 0.00                | 436,024.29         | 776,886.41        |  |
| 100.0        | 0.72       | 40.19                | 100.0         | -3,456.0        | 0.5           | 0.4           | 0.5              | 0.72                | 436,024.77         | 776,886.82        |  |
| 200.0        | 1.17       | 37.80                | 200.0         | -3,356.0        | 1.8           | 1.4           | 1.8              | 0.45                | 436,026.05         | 776,887.85        |  |
| 300.0        | 1.23       | 38.29                | 300.0         | -3,256.0        | 3.4           | 2.7           | 3.4              | 0.06                | 436,027.70         | 776,889.14        |  |
| 400.0        | 1.03       | 40.78                | 399.9         | -3,156.1        | 4.9           | 4.0           | 4.9              | 0.21                | 436,029.23         | 776,890.39        |  |
| 500.0        | 0.76       | 37.59                | 499.9         | -3,056.1        | 6.1           | 5.0           | 6.1              | 0.27                | 436,030.43         | 776,891.39        |  |
| 600.0        | 0.65       | 29.86                | 599.9         | -2,956.1        | 7.2           | 5.7           | 7.2              | 0.15                | 436,031.45         | 776,892.07        |  |
| 700.0        | 0.52       | 16.45                | 699.9         | -2,856.1        | 8.1           | 6.1           | 8.1              | 0.19                | 436,032.38         | 776,892.48        |  |
| 800.0        | 0.30       | 358.09               | 799.9         | -2,756.1        | 8.8           | 6.2           | 8.8              | 0.25                | 436,033.07         | 776,892.60        |  |
| 900.0        | 0.26       | 10.97                | 899.9         | -2,656.1        | 9.3           | 6.2           | 9.3              | 0.07                | 436,033.56         | 776,892.64        |  |
| 1,000.0      | 0.28       | 22.52                | 999.9         | -2,556.1        | 9.7           | 6.4           | 9.7              | 0.06                | 436,034.01         | 776,892.77        |  |
| 1,100.0      | 0.15       | 22.68                | 1,099.9       | -2,456.1        | 10.1          | 6.5           | 10.1             | 0.13                | 436,034.35         | 776,892.92        |  |
| 1,200.0      | 0.17       | 28.00                | 1,199.9       | -2,356.1        | 10.3          | 6.6           | 10.3             | 0.02                | 436,034.60         | 776,893.04        |  |
| 1,206.1      | 0.17       | 27.24                | 1,206.0       | -2,350.0        | 10.3          | 6.6           | 10.3             | 0.06                | 436,034.62         | 776,893.05        |  |
| Rustler      |            |                      |               |                 |               |               |                  |                     |                    |                   |  |
| 1,257.0      | 0.20       | 21.70                | 1,256.9       | -2,299.1        | 10.5          | 6.7           | 10.5             | 0.06                | 436,034.77         | 776,893.11        |  |
| 13 3/8"      |            |                      |               |                 |               |               |                  |                     |                    |                   |  |
| 1,300.0      | 0.22       | 18.04                | 1,299.9       | -2,256.1        | 10.6          | 6.8           | 10.6             | 0.06                | 436,034.92         | 776,893.17        |  |
| 1,400.0      | 0.22       | 15.16                | 1,399.9       | -2,156.1        | 11.0          | 6.9           | 11.0             | 0.01                | 436,035.29         | 776,893.28        |  |
| 1,500.0      | 0.19       | 334.79               | 1,499.9       | -2,056.1        | 11.3          | 6.8           | 11.3             | 0.14                | 436,035.62         | 776,893.26        |  |
| 1,600.0      | 0.28       | 337.83               | 1,599.9       | -1,956.1        | 11.7          | 6.7           | 11.7             | 0.09                | 436,036.00         | 776,893.09        |  |
| 1,700.0      | 0.44       | 330.31               | 1,699.9       | -1,856.1        | 12.3          | 6.4           | 12.3             | 0.17                | 436,036.56         | 776,892.81        |  |
| 1,800.0      | 0.69       | 324.67               | 1,799.9       | -1,756.1        | 13.1          | 5.9           | 13.1             | 0.26                | 436,037.38         | 776,892.27        |  |
| 1,900.0      | 0.88       | 321.93               | 1,899.9       | -1,656.1        | 14.2          | 5.0           | 14.2             | 0.19                | 436,038.48         | 776,891.45        |  |
| 2,000.0      | 1.05       | 318.62               | 1,999.9       | -1,556.1        | 15.5          | 4.0           | 15.5             | 0.18                | 436,039.77         | 776,890.37        |  |
| 2,100.0      | 1.21       | 314.02               | 2,099.9       | -1,456.1        | 16.9          | 2.6           | 16.9             | 0.18                | 436,041.19         | 776,889.01        |  |
| 2,200.0      | 1.34       | 309.50               | 2,199.8       | -1,356.2        | 18.4          | 0.9           | 18.4             | 0.16                | 436,042.67         | 776,887.35        |  |

|                                         |  |                                                              |  |  |  |
|-----------------------------------------|--|--------------------------------------------------------------|--|--|--|
| <b>Company:</b> Murchison Oil and Gas   |  | <b>Local Co-ordinate Reference:</b> Site Jackson Unit 21H    |  |  |  |
| <b>Project:</b> Jackson Unit Section 21 |  | <b>TVD Reference:</b> WELL @ 3556.0usft (Original Well Elev) |  |  |  |
| <b>Site:</b> Jackson Unit 21H           |  | <b>MD Reference:</b> WELL @ 3556.0usft (Original Well Elev)  |  |  |  |
| <b>Well:</b> Jackson Unit 21H           |  | <b>North Reference:</b> Grid                                 |  |  |  |
| <b>Wellbore:</b> Jackson Unit 21H       |  | <b>Survey Calculation Method:</b> Minimum Curvature          |  |  |  |
| <b>Design:</b> Jackson Unit 21H         |  | <b>Database:</b> EDM 5000.1 Single User Db                   |  |  |  |

| Survey       |            |                      |               |                 |               |               |                  |                     |                    |                   |  |
|--------------|------------|----------------------|---------------|-----------------|---------------|---------------|------------------|---------------------|--------------------|-------------------|--|
| MD<br>(usft) | Inc<br>(°) | Azi (azimuth)<br>(°) | TVD<br>(usft) | TVDSS<br>(usft) | N/S<br>(usft) | E/W<br>(usft) | V. Sec<br>(usft) | DLeg<br>(°/100usft) | Northing<br>(usft) | Easting<br>(usft) |  |
| 2,300.0      | 1.34       | 307.73               | 2,299.8       | -1,256.2        | 19.8          | -0.9          | 19.8             | 0.04                | 436,044.13         | 776,885.52        |  |
| 2,400.0      | 1.27       | 307.51               | 2,399.8       | -1,156.2        | 21.2          | -2.7          | 21.2             | 0.07                | 436,045.52         | 776,883.71        |  |
| 2,500.0      | 1.19       | 305.98               | 2,499.8       | -1,056.2        | 22.5          | -4.4          | 22.5             | 0.09                | 436,046.80         | 776,882.00        |  |
| 2,600.0      | 1.19       | 307.80               | 2,599.7       | -956.3          | 23.8          | -6.1          | 23.8             | 0.04                | 436,048.05         | 776,880.33        |  |
| 2,700.0      | 1.18       | 300.10               | 2,699.7       | -856.3          | 24.9          | -7.8          | 24.9             | 0.16                | 436,049.20         | 776,878.62        |  |
| 2,800.0      | 1.16       | 294.13               | 2,799.7       | -756.3          | 25.8          | -9.6          | 25.9             | 0.12                | 436,050.13         | 776,876.81        |  |
| 2,900.0      | 1.25       | 292.24               | 2,899.7       | -656.3          | 26.7          | -11.5         | 26.7             | 0.10                | 436,050.96         | 776,874.88        |  |
| 3,000.0      | 1.61       | 280.67               | 2,999.6       | -556.4          | 27.3          | -13.9         | 27.4             | 0.46                | 436,051.63         | 776,872.49        |  |
| 3,100.0      | 2.14       | 275.79               | 3,099.6       | -456.4          | 27.8          | -17.2         | 27.8             | 0.55                | 436,052.08         | 776,869.25        |  |
| 3,200.0      | 2.32       | 273.11               | 3,199.5       | -356.5          | 28.1          | -21.0         | 28.1             | 0.21                | 436,052.38         | 776,865.37        |  |
| 3,300.0      | 2.33       | 272.60               | 3,299.4       | -256.6          | 28.3          | -25.1         | 28.3             | 0.02                | 436,052.58         | 776,861.32        |  |
| 3,400.0      | 2.29       | 270.10               | 3,399.3       | -156.7          | 28.4          | -29.1         | 28.4             | 0.11                | 436,052.68         | 776,857.29        |  |
| 3,500.0      | 2.10       | 261.88               | 3,499.3       | -56.7           | 28.1          | -32.9         | 28.2             | 0.37                | 436,052.42         | 776,853.48        |  |
| 3,600.0      | 2.09       | 258.22               | 3,599.2       | 43.2            | 27.5          | -36.5         | 27.5             | 0.13                | 436,051.79         | 776,849.88        |  |
| 3,700.0      | 1.92       | 260.57               | 3,699.1       | 143.1           | 26.9          | -40.0         | 26.9             | 0.19                | 436,051.14         | 776,846.44        |  |
| 3,800.0      | 1.08       | 278.79               | 3,799.1       | 243.1           | 26.7          | -42.6         | 26.8             | 0.96                | 436,051.01         | 776,843.86        |  |
| 3,900.0      | 0.23       | 332.07               | 3,899.1       | 343.1           | 27.0          | -43.6         | 27.1             | 0.96                | 436,051.33         | 776,842.83        |  |
| 4,000.0      | 0.85       | 82.93                | 3,999.1       | 443.1           | 27.3          | -42.9         | 27.4             | 0.96                | 436,051.60         | 776,843.47        |  |
| 4,100.0      | 1.10       | 89.25                | 4,099.1       | 543.1           | 27.4          | -41.2         | 27.5             | 0.27                | 436,051.71         | 776,845.17        |  |
| 4,200.0      | 1.08       | 91.23                | 4,199.1       | 643.1           | 27.4          | -39.3         | 27.5             | 0.04                | 436,051.70         | 776,847.07        |  |
| 4,300.0      | 1.20       | 91.92                | 4,299.0       | 743.0           | 27.4          | -37.4         | 27.4             | 0.12                | 436,051.64         | 776,849.06        |  |
| 4,400.0      | 1.76       | 102.28               | 4,399.0       | 843.0           | 27.0          | -34.8         | 27.0             | 0.62                | 436,051.28         | 776,851.61        |  |
| 4,500.0      | 2.69       | 103.82               | 4,498.9       | 942.9           | 26.1          | -31.0         | 26.1             | 0.93                | 436,050.39         | 776,855.39        |  |
| 4,600.0      | 2.37       | 104.31               | 4,598.8       | 1,042.8         | 25.0          | -26.7         | 25.1             | 0.32                | 436,049.32         | 776,859.67        |  |
| 4,700.0      | 2.24       | 107.97               | 4,698.8       | 1,142.8         | 23.9          | -22.9         | 24.0             | 0.20                | 436,048.21         | 776,863.53        |  |
| 4,800.0      | 2.07       | 114.46               | 4,798.7       | 1,242.7         | 22.6          | -19.4         | 22.6             | 0.30                | 436,046.86         | 776,867.03        |  |
| 4,900.0      | 2.10       | 113.20               | 4,898.6       | 1,342.6         | 21.1          | -16.1         | 21.1             | 0.05                | 436,045.39         | 776,870.36        |  |

|                  |                         |                                     |                                        |
|------------------|-------------------------|-------------------------------------|----------------------------------------|
| <b>Company:</b>  | Murchison Oil and Gas   | <b>Local Co-ordinate Reference:</b> | Site Jackson Unit 21H                  |
| <b>Project:</b>  | Jackson Unit Section 21 | <b>TVD Reference:</b>               | WELL @ 3556.0usft (Original Well Elev) |
| <b>Site:</b>     | Jackson Unit 21H        | <b>MD Reference:</b>                | WELL @ 3556.0usft (Original Well Elev) |
| <b>Well:</b>     | Jackson Unit 21H        | <b>North Reference:</b>             | Grid                                   |
| <b>Wellbore:</b> | Jackson Unit 21H        | <b>Survey Calculation Method:</b>   | Minimum Curvature                      |
| <b>Design:</b>   | Jackson Unit 21H        | <b>Database:</b>                    | EDM 5000.1 Single User Db              |

| Survey        |            |                      |               |                 |               |               |                  |                     |                    |                   |  |
|---------------|------------|----------------------|---------------|-----------------|---------------|---------------|------------------|---------------------|--------------------|-------------------|--|
| MD<br>(usft)  | Inc<br>(°) | Azi (azimuth)<br>(°) | TVD<br>(usft) | TVDSS<br>(usft) | N/S<br>(usft) | E/W<br>(usft) | V. Sec<br>(usft) | DLeg<br>(°/100usft) | Northing<br>(usft) | Easting<br>(usft) |  |
| 5,000.0       | 1.78       | 101.20               | 4,998.6       | 1,442.6         | 20.1          | -12.8         | 20.1             | 0.52                | 436,044.37         | 776,873.57        |  |
| 5,100.0       | 1.71       | 89.91                | 5,098.5       | 1,542.5         | 19.8          | -9.8          | 19.8             | 0.35                | 436,044.07         | 776,876.58        |  |
| 5,172.5       | 1.69       | 82.37                | 5,171.0       | 1,615.0         | 19.9          | -7.7          | 19.9             | 0.31                | 436,044.21         | 776,878.72        |  |
| Delaware      |            |                      |               |                 |               |               |                  |                     |                    |                   |  |
| 5,184.0       | 1.69       | 81.16                | 5,182.5       | 1,626.5         | 20.0          | -7.4          | 20.0             | 0.31                | 436,044.26         | 776,879.06        |  |
| 9 5/8"        |            |                      |               |                 |               |               |                  |                     |                    |                   |  |
| 5,261.0       | 1.70       | 73.10                | 5,259.4       | 1,703.4         | 20.5          | -5.1          | 20.5             | 0.31                | 436,044.76         | 776,881.27        |  |
| 5,355.0       | 0.90       | 120.10               | 5,353.4       | 1,797.4         | 20.5          | -3.2          | 20.5             | 1.35                | 436,044.80         | 776,883.24        |  |
| 5,450.0       | 1.40       | 161.60               | 5,448.4       | 1,892.4         | 19.0          | -2.2          | 19.0             | 0.99                | 436,043.32         | 776,884.26        |  |
| 5,545.0       | 1.50       | 165.40               | 5,543.4       | 1,987.4         | 16.7          | -1.5          | 16.7             | 0.15                | 436,041.02         | 776,884.94        |  |
| 5,640.0       | 1.20       | 175.50               | 5,638.4       | 2,082.4         | 14.5          | -1.1          | 14.5             | 0.40                | 436,038.82         | 776,885.33        |  |
| 5,735.0       | 1.30       | 172.10               | 5,733.3       | 2,177.3         | 12.5          | -0.9          | 12.5             | 0.13                | 436,036.77         | 776,885.55        |  |
| 5,830.0       | 1.20       | 172.10               | 5,828.3       | 2,272.3         | 10.4          | -0.6          | 10.4             | 0.11                | 436,034.71         | 776,885.84        |  |
| 5,924.0       | 1.20       | 177.80               | 5,922.3       | 2,366.3         | 8.5           | -0.4          | 8.5              | 0.13                | 436,032.75         | 776,886.01        |  |
| 6,019.0       | 1.10       | 168.30               | 6,017.3       | 2,461.3         | 6.6           | -0.2          | 6.6              | 0.23                | 436,030.87         | 776,886.23        |  |
| 6,113.0       | 0.90       | 173.60               | 6,111.3       | 2,555.3         | 5.0           | 0.1           | 5.0              | 0.23                | 436,029.25         | 776,886.50        |  |
| 6,172.8       | 0.89       | 183.80               | 6,171.0       | 2,615.0         | 4.0           | 0.1           | 4.0              | 0.27                | 436,028.32         | 776,886.52        |  |
| Cherry Canyon |            |                      |               |                 |               |               |                  |                     |                    |                   |  |
| 6,208.0       | 0.90       | 189.80               | 6,206.2       | 2,650.2         | 3.5           | 0.0           | 3.5              | 0.27                | 436,027.77         | 776,886.46        |  |
| 6,302.0       | 0.90       | 189.50               | 6,300.2       | 2,744.2         | 2.0           | -0.2          | 2.0              | 0.01                | 436,026.32         | 776,886.21        |  |
| 6,397.0       | 0.80       | 176.70               | 6,395.2       | 2,839.2         | 0.6           | -0.3          | 0.6              | 0.23                | 436,024.92         | 776,886.12        |  |
| 6,492.0       | 0.80       | 186.30               | 6,490.2       | 2,934.2         | -0.7          | -0.3          | -0.7             | 0.14                | 436,023.60         | 776,886.09        |  |
| 6,587.0       | 0.90       | 183.90               | 6,585.2       | 3,029.2         | -2.1          | -0.4          | -2.1             | 0.11                | 436,022.19         | 776,885.97        |  |
| 6,681.0       | 0.70       | 186.90               | 6,679.2       | 3,123.2         | -3.4          | -0.6          | -3.4             | 0.22                | 436,020.89         | 776,885.85        |  |
| 6,776.0       | 0.90       | 193.60               | 6,774.2       | 3,218.2         | -4.7          | -0.8          | -4.7             | 0.23                | 436,019.59         | 776,885.60        |  |
| 6,871.0       | 1.00       | 203.50               | 6,869.2       | 3,313.2         | -6.2          | -1.3          | -6.2             | 0.20                | 436,018.10         | 776,885.10        |  |
| 6,965.0       | 0.90       | 213.00               | 6,963.2       | 3,407.2         | -7.6          | -2.0          | -7.6             | 0.20                | 436,016.73         | 776,884.37        |  |

|                  |                         |                                     |                                        |
|------------------|-------------------------|-------------------------------------|----------------------------------------|
| <b>Company:</b>  | Murchison Oil and Gas   | <b>Local Co-ordinate Reference:</b> | Site Jackson Unit 21H                  |
| <b>Project:</b>  | Jackson Unit Section 21 | <b>TVD Reference:</b>               | WELL @ 3556.0usft (Original Well Elev) |
| <b>Site:</b>     | Jackson Unit 21H        | <b>MD Reference:</b>                | WELL @ 3556.0usft (Original Well Elev) |
| <b>Well:</b>     | Jackson Unit 21H        | <b>North Reference:</b>             | Grid                                   |
| <b>Wellbore:</b> | Jackson Unit 21H        | <b>Survey Calculation Method:</b>   | Minimum Curvature                      |
| <b>Design:</b>   | Jackson Unit 21H        | <b>Database:</b>                    | EDM 5000.1 Single User Db              |

| Survey               |            |                      |               |                 |               |               |                  |                     |                    |                   |  |
|----------------------|------------|----------------------|---------------|-----------------|---------------|---------------|------------------|---------------------|--------------------|-------------------|--|
| MD<br>(usft)         | Inc<br>(°) | Azi (azimuth)<br>(°) | TVD<br>(usft) | TVDSS<br>(usft) | N/S<br>(usft) | E/W<br>(usft) | V. Sec<br>(usft) | DLeg<br>(°/100usft) | Northing<br>(usft) | Easting<br>(usft) |  |
| 7,060.0              | 0.90       | 196.10               | 7,058.1       | 3,502.1         | -8.9          | -2.7          | -8.9             | 0.28                | 436,015.39         | 776,883.75        |  |
| 7,155.0              | 0.80       | 213.70               | 7,153.1       | 3,597.1         | -10.2         | -3.2          | -10.2            | 0.29                | 436,014.12         | 776,883.18        |  |
| 7,250.0              | 0.90       | 210.00               | 7,248.1       | 3,692.1         | -11.4         | -4.0          | -11.4            | 0.12                | 436,012.92         | 776,882.44        |  |
| 7,345.0              | 0.90       | 197.10               | 7,343.1       | 3,787.1         | -12.7         | -4.6          | -12.7            | 0.21                | 436,011.56         | 776,881.84        |  |
| 7,440.0              | 0.80       | 205.50               | 7,438.1       | 3,882.1         | -14.0         | -5.1          | -14.0            | 0.17                | 436,010.25         | 776,881.34        |  |
| 7,535.0              | 0.80       | 168.40               | 7,533.1       | 3,977.1         | -15.3         | -5.2          | -15.3            | 0.54                | 436,009.00         | 776,881.19        |  |
| 7,602.9              | 0.80       | 167.19               | 7,601.0       | 4,045.0         | -16.2         | -5.0          | -16.2            | 0.02                | 436,008.08         | 776,881.39        |  |
| <b>Brushy Canyon</b> |            |                      |               |                 |               |               |                  |                     |                    |                   |  |
| 7,631.0              | 0.80       | 166.70               | 7,629.1       | 4,073.1         | -16.6         | -4.9          | -16.6            | 0.02                | 436,007.69         | 776,881.48        |  |
| 7,725.0              | 0.70       | 42.50                | 7,723.1       | 4,167.1         | -16.8         | -4.4          | -16.8            | 1.41                | 436,007.48         | 776,882.02        |  |
| 7,820.0              | 0.90       | 41.40                | 7,818.1       | 4,262.1         | -15.8         | -3.5          | -15.8            | 0.21                | 436,008.47         | 776,882.90        |  |
| 7,915.0              | 1.10       | 54.10                | 7,913.1       | 4,357.1         | -14.7         | -2.3          | -14.7            | 0.31                | 436,009.56         | 776,884.13        |  |
| 8,010.0              | 1.20       | 40.50                | 8,008.0       | 4,452.0         | -13.4         | -0.9          | -13.4            | 0.31                | 436,010.85         | 776,885.52        |  |
| 8,105.0              | 1.10       | 45.80                | 8,103.0       | 4,547.0         | -12.0         | 0.4           | -12.0            | 0.15                | 436,012.24         | 776,886.82        |  |
| 8,200.0              | 0.80       | 35.10                | 8,198.0       | 4,642.0         | -10.9         | 1.4           | -10.9            | 0.37                | 436,013.42         | 776,887.85        |  |
| 8,295.0              | 0.60       | 38.10                | 8,293.0       | 4,737.0         | -9.9          | 2.1           | -9.9             | 0.21                | 436,014.36         | 776,888.54        |  |
| 8,390.0              | 0.60       | 54.80                | 8,388.0       | 4,832.0         | -9.3          | 2.8           | -9.3             | 0.18                | 436,015.03         | 776,889.25        |  |
| 8,484.0              | 0.50       | 35.10                | 8,482.0       | 4,926.0         | -8.6          | 3.5           | -8.6             | 0.23                | 436,015.65         | 776,889.89        |  |
| 8,579.0              | 0.50       | 52.90                | 8,577.0       | 5,021.0         | -8.0          | 4.0           | -8.0             | 0.16                | 436,016.24         | 776,890.46        |  |
| 8,673.0              | 0.50       | 34.10                | 8,671.0       | 5,115.0         | -7.5          | 4.6           | -7.5             | 0.17                | 436,016.83         | 776,891.02        |  |
| 8,768.0              | 0.50       | 60.10                | 8,766.0       | 5,210.0         | -6.9          | 5.2           | -6.9             | 0.24                | 436,017.38         | 776,891.61        |  |
| 8,862.0              | 0.60       | 64.40                | 8,860.0       | 5,304.0         | -6.5          | 6.0           | -6.5             | 0.12                | 436,017.80         | 776,892.41        |  |
| 8,957.0              | 0.50       | 65.50                | 8,955.0       | 5,399.0         | -6.1          | 6.8           | -6.1             | 0.11                | 436,018.18         | 776,893.23        |  |
| 9,051.0              | 0.50       | 57.80                | 9,049.0       | 5,493.0         | -5.7          | 7.5           | -5.7             | 0.07                | 436,018.57         | 776,893.96        |  |
| 9,118.0              | 0.54       | 27.04                | 9,116.0       | 5,560.0         | -5.3          | 7.9           | -5.3             | 0.42                | 436,019.01         | 776,894.35        |  |
| <b>Bone Spring</b>   |            |                      |               |                 |               |               |                  |                     |                    |                   |  |
| 9,146.0              | 0.60       | 16.80                | 9,144.0       | 5,588.0         | -5.0          | 8.0           | -5.0             | 0.42                | 436,019.27         | 776,894.45        |  |

|                  |                         |                                     |                                        |
|------------------|-------------------------|-------------------------------------|----------------------------------------|
| <b>Company:</b>  | Murchison Oil and Gas   | <b>Local Co-ordinate Reference:</b> | Site Jackson Unit 21H                  |
| <b>Project:</b>  | Jackson Unit Section 21 | <b>TVD Reference:</b>               | WELL @ 3556.0usft (Original Well Elev) |
| <b>Site:</b>     | Jackson Unit 21H        | <b>MD Reference:</b>                | WELL @ 3556.0usft (Original Well Elev) |
| <b>Well:</b>     | Jackson Unit 21H        | <b>North Reference:</b>             | Grid                                   |
| <b>Wellbore:</b> | Jackson Unit 21H        | <b>Survey Calculation Method:</b>   | Minimum Curvature                      |
| <b>Design:</b>   | Jackson Unit 21H        | <b>Database:</b>                    | EDM 5000.1 Single User Db              |

| Survey                      |            |                      |               |                 |               |               |                  |                     |                    |                   |  |
|-----------------------------|------------|----------------------|---------------|-----------------|---------------|---------------|------------------|---------------------|--------------------|-------------------|--|
| MD<br>(usft)                | Inc<br>(°) | Azi (azimuth)<br>(°) | TVD<br>(usft) | TVDSS<br>(usft) | N/S<br>(usft) | E/W<br>(usft) | V. Sec<br>(usft) | DLeg<br>(°/100usft) | Northing<br>(usft) | Easting<br>(usft) |  |
| 9,223.0                     | 0.59       | 0.14                 | 9,221.0       | 5,665.0         | -4.2          | 8.2           | -4.2             | 0.22                | 436,020.05         | 776,894.57        |  |
| <b>Avalon Shale</b>         |            |                      |               |                 |               |               |                  |                     |                    |                   |  |
| 9,242.0                     | 0.60       | 356.10               | 9,240.0       | 5,684.0         | -4.0          | 8.1           | -4.0             | 0.22                | 436,020.25         | 776,894.56        |  |
| 9,336.0                     | 0.80       | 329.60               | 9,333.9       | 5,777.9         | -3.0          | 7.8           | -3.0             | 0.40                | 436,021.31         | 776,894.20        |  |
| 9,430.0                     | 0.30       | 348.90               | 9,427.9       | 5,871.9         | -2.2          | 7.4           | -2.2             | 0.56                | 436,022.12         | 776,893.82        |  |
| 9,525.0                     | 0.10       | 162.40               | 9,522.9       | 5,966.9         | -2.0          | 7.4           | -2.0             | 0.42                | 436,022.28         | 776,893.79        |  |
| 9,620.0                     | 0.10       | 190.80               | 9,617.9       | 6,061.9         | -2.2          | 7.4           | -2.2             | 0.05                | 436,022.12         | 776,893.80        |  |
| 9,715.0                     | 0.60       | 225.90               | 9,712.9       | 6,156.9         | -2.6          | 7.0           | -2.6             | 0.55                | 436,021.69         | 776,893.43        |  |
| 9,809.0                     | 0.40       | 243.30               | 9,806.9       | 6,250.9         | -3.1          | 6.4           | -3.1             | 0.26                | 436,021.20         | 776,892.78        |  |
| 9,904.0                     | 0.60       | 241.60               | 9,901.9       | 6,345.9         | -3.5          | 5.6           | -3.5             | 0.21                | 436,020.82         | 776,892.05        |  |
| 9,999.0                     | 0.80       | 239.30               | 9,996.9       | 6,440.9         | -4.0          | 4.6           | -4.1             | 0.21                | 436,020.24         | 776,891.04        |  |
| 10,093.0                    | 0.80       | 228.30               | 10,090.9      | 6,534.9         | -4.8          | 3.6           | -4.8             | 0.16                | 436,019.47         | 776,889.99        |  |
| 10,143.1                    | 0.91       | 229.23               | 10,141.0      | 6,585.0         | -5.3          | 3.0           | -5.3             | 0.21                | 436,018.98         | 776,889.43        |  |
| <b>1st Bone Spring Sand</b> |            |                      |               |                 |               |               |                  |                     |                    |                   |  |
| 10,188.0                    | 1.00       | 229.90               | 10,185.9      | 6,629.9         | -5.8          | 2.4           | -5.8             | 0.21                | 436,018.50         | 776,888.86        |  |
| 10,283.0                    | 1.00       | 210.80               | 10,280.9      | 6,724.9         | -7.0          | 1.4           | -7.0             | 0.35                | 436,017.25         | 776,887.80        |  |
| 10,378.0                    | 0.80       | 238.30               | 10,375.9      | 6,819.9         | -8.1          | 0.4           | -8.1             | 0.49                | 436,016.19         | 776,886.81        |  |
| 10,473.0                    | 1.00       | 237.90               | 10,470.9      | 6,914.9         | -8.9          | -0.9          | -8.9             | 0.21                | 436,015.40         | 776,885.54        |  |
| 10,568.0                    | 1.40       | 267.40               | 10,565.8      | 7,009.8         | -9.4          | -2.7          | -9.4             | 0.76                | 436,014.91         | 776,883.68        |  |
| 10,596.0                    | 1.20       | 271.70               | 10,593.8      | 7,037.8         | -9.4          | -3.4          | -9.4             | 0.79                | 436,014.90         | 776,883.05        |  |
| 10,643.0                    | 1.71       | 268.61               | 10,640.8      | 7,084.8         | -9.4          | -4.6          | -9.4             | 1.10                | 436,014.90         | 776,881.86        |  |
| <b>7"</b>                   |            |                      |               |                 |               |               |                  |                     |                    |                   |  |
| 10,688.0                    | 2.20       | 267.00               | 10,685.8      | 7,129.8         | -9.5          | -6.1          | -9.4             | 1.10                | 436,014.84         | 776,880.32        |  |
| 10,720.0                    | 4.60       | 350.40               | 10,717.8      | 7,161.8         | -8.2          | -6.9          | -8.2             | 15.20               | 436,016.07         | 776,879.49        |  |
| 10,752.0                    | 10.50      | 4.90                 | 10,749.5      | 7,193.5         | -4.0          | -6.9          | -4.0             | 19.23               | 436,020.24         | 776,879.53        |  |
| 10,783.0                    | 13.60      | 7.20                 | 10,779.8      | 7,223.8         | 2.4           | -6.2          | 2.4              | 10.12               | 436,026.68         | 776,880.23        |  |
| 10,799.8                    | 15.37      | 9.68                 | 10,796.0      | 7,240.0         | 6.5           | -5.6          | 6.5              | 11.19               | 436,030.82         | 776,880.85        |  |
| <b>2nd Bone Spring Sand</b> |            |                      |               |                 |               |               |                  |                     |                    |                   |  |

|                  |                         |                                     |                                        |
|------------------|-------------------------|-------------------------------------|----------------------------------------|
| <b>Company:</b>  | Murchison Oil and Gas   | <b>Local Co-ordinate Reference:</b> | Site Jackson Unit 21H                  |
| <b>Project:</b>  | Jackson Unit Section 21 | <b>TVD Reference:</b>               | WELL @ 3556.0usft (Original Well Elev) |
| <b>Site:</b>     | Jackson Unit 21H        | <b>MD Reference:</b>                | WELL @ 3556.0usft (Original Well Elev) |
| <b>Well:</b>     | Jackson Unit 21H        | <b>North Reference:</b>             | Grid                                   |
| <b>Wellbore:</b> | Jackson Unit 21H        | <b>Survey Calculation Method:</b>   | Minimum Curvature                      |
| <b>Design:</b>   | Jackson Unit 21H        | <b>Database:</b>                    | EDM 5000.1 Single User Db              |

| Survey       |            |                      |               |                 |               |               |                  |                     |                    |                   |  |
|--------------|------------|----------------------|---------------|-----------------|---------------|---------------|------------------|---------------------|--------------------|-------------------|--|
| MD<br>(usft) | Inc<br>(°) | Azi (azimuth)<br>(°) | TVD<br>(usft) | TVDSS<br>(usft) | N/S<br>(usft) | E/W<br>(usft) | V. Sec<br>(usft) | DLeg<br>(°/100usft) | Northing<br>(usft) | Easting<br>(usft) |  |
| 10,815.0     | 17.00      | 11.50                | 10,810.6      | 7,254.6         | 10.7          | -4.8          | 10.7             | 11.19               | 436,035.00         | 776,881.63        |  |
| 10,847.0     | 21.70      | 13.70                | 10,840.8      | 7,284.8         | 21.0          | -2.4          | 21.0             | 14.86               | 436,045.33         | 776,883.97        |  |
| 10,878.0     | 27.10      | 12.10                | 10,869.0      | 7,313.0         | 33.5          | 0.4           | 33.5             | 17.55               | 436,057.81         | 776,886.81        |  |
| 10,910.0     | 31.50      | 9.10                 | 10,896.9      | 7,340.9         | 48.9          | 3.2           | 48.9             | 14.49               | 436,073.20         | 776,889.66        |  |
| 10,942.0     | 36.10      | 6.90                 | 10,923.5      | 7,367.5         | 66.5          | 5.7           | 66.5             | 14.87               | 436,090.83         | 776,892.11        |  |
| 10,973.0     | 40.10      | 5.50                 | 10,947.9      | 7,391.9         | 85.6          | 7.8           | 85.5             | 13.20               | 436,109.84         | 776,894.17        |  |
| 11,005.0     | 43.20      | 4.00                 | 10,971.8      | 7,415.8         | 106.7         | 9.5           | 106.7            | 10.18               | 436,131.03         | 776,895.92        |  |
| 11,037.0     | 47.10      | 3.20                 | 10,994.4      | 7,438.4         | 129.4         | 10.9          | 129.4            | 12.32               | 436,153.67         | 776,897.34        |  |
| 11,068.0     | 51.20      | 3.20                 | 11,014.7      | 7,458.7         | 152.8         | 12.2          | 152.8            | 13.23               | 436,177.08         | 776,898.65        |  |
| 11,100.0     | 54.70      | 3.30                 | 11,033.9      | 7,477.9         | 178.3         | 13.7          | 178.3            | 10.94               | 436,202.57         | 776,900.10        |  |
| 11,131.0     | 59.20      | 3.30                 | 11,050.8      | 7,494.8         | 204.2         | 15.2          | 204.2            | 14.52               | 436,228.50         | 776,901.59        |  |
| 11,163.0     | 63.90      | 2.60                 | 11,066.1      | 7,510.1         | 232.3         | 16.6          | 232.3            | 14.81               | 436,256.59         | 776,903.04        |  |
| 11,194.0     | 68.40      | 2.30                 | 11,078.6      | 7,522.6         | 260.6         | 17.8          | 260.6            | 14.54               | 436,284.91         | 776,904.25        |  |
| 11,225.0     | 72.20      | 2.20                 | 11,089.1      | 7,533.1         | 289.8         | 19.0          | 289.8            | 12.26               | 436,314.07         | 776,905.39        |  |
| 11,257.0     | 74.00      | 1.90                 | 11,098.4      | 7,542.4         | 320.4         | 20.1          | 320.4            | 5.70                | 436,344.67         | 776,906.49        |  |
| 11,288.0     | 78.00      | 3.80                 | 11,105.9      | 7,549.9         | 350.4         | 21.6          | 350.4            | 14.21               | 436,374.70         | 776,907.99        |  |
| 11,320.0     | 82.80      | 3.70                 | 11,111.2      | 7,555.2         | 381.9         | 23.6          | 381.9            | 15.00               | 436,406.18         | 776,910.05        |  |
| 11,352.0     | 86.90      | 3.80                 | 11,114.1      | 7,558.1         | 413.7         | 25.7          | 413.7            | 12.82               | 436,437.97         | 776,912.13        |  |
| 11,383.0     | 87.50      | 3.80                 | 11,115.6      | 7,559.6         | 444.6         | 27.8          | 444.5            | 1.94                | 436,468.87         | 776,914.19        |  |
| 11,415.0     | 87.40      | 3.50                 | 11,117.0      | 7,561.0         | 476.5         | 29.8          | 476.4            | 0.99                | 436,500.77         | 776,916.22        |  |
| 11,446.0     | 87.40      | 0.80                 | 11,118.4      | 7,562.4         | 507.4         | 31.0          | 507.4            | 8.70                | 436,531.72         | 776,917.38        |  |
| 11,478.0     | 88.00      | 358.90               | 11,119.7      | 7,563.7         | 539.4         | 30.9          | 539.4            | 6.22                | 436,563.69         | 776,917.30        |  |
| 11,510.0     | 90.50      | 358.30               | 11,120.1      | 7,564.1         | 571.4         | 30.1          | 571.3            | 8.03                | 436,595.67         | 776,916.52        |  |
| 11,541.0     | 90.60      | 358.20               | 11,119.8      | 7,563.8         | 602.4         | 29.2          | 602.3            | 0.46                | 436,626.66         | 776,915.57        |  |
| 11,573.0     | 90.20      | 358.00               | 11,119.6      | 7,563.6         | 634.4         | 28.1          | 634.3            | 1.40                | 436,658.64         | 776,914.51        |  |
| 11,668.0     | 90.40      | 357.20               | 11,119.1      | 7,563.1         | 729.3         | 24.1          | 729.2            | 0.87                | 436,753.55         | 776,910.53        |  |
| 11,763.0     | 91.00      | 358.70               | 11,117.9      | 7,561.9         | 824.2         | 20.7          | 824.2            | 1.70                | 436,848.48         | 776,907.13        |  |

|                                         |  |                                                              |  |  |  |
|-----------------------------------------|--|--------------------------------------------------------------|--|--|--|
| <b>Company:</b> Murchison Oil and Gas   |  | <b>Local Co-ordinate Reference:</b> Site Jackson Unit 21H    |  |  |  |
| <b>Project:</b> Jackson Unit Section 21 |  | <b>TVD Reference:</b> WELL @ 3556.0usft (Original Well Elev) |  |  |  |
| <b>Site:</b> Jackson Unit 21H           |  | <b>MD Reference:</b> WELL @ 3556.0usft (Original Well Elev)  |  |  |  |
| <b>Well:</b> Jackson Unit 21H           |  | <b>North Reference:</b> Grid                                 |  |  |  |
| <b>Wellbore:</b> Jackson Unit 21H       |  | <b>Survey Calculation Method:</b> Minimum Curvature          |  |  |  |
| <b>Design:</b> Jackson Unit 21H         |  | <b>Database:</b> EDM 5000.1 Single User Db                   |  |  |  |

| Survey       |            |                      |               |                 |               |               |                  |                     |                    |                   |
|--------------|------------|----------------------|---------------|-----------------|---------------|---------------|------------------|---------------------|--------------------|-------------------|
| MD<br>(usft) | Inc<br>(°) | Azi (azimuth)<br>(°) | TVD<br>(usft) | TVDSS<br>(usft) | N/S<br>(usft) | E/W<br>(usft) | V. Sec<br>(usft) | DLeg<br>(°/100usft) | Northing<br>(usft) | Easting<br>(usft) |
| 11,857.0     | 90.30      | 358.00               | 11,116.9      | 7,560.9         | 918.1         | 18.0          | 918.1            | 1.05                | 436,942.44         | 776,904.43        |
| 11,952.0     | 89.50      | 358.70               | 11,117.0      | 7,561.0         | 1,013.1       | 15.3          | 1,013.1          | 1.12                | 437,037.40         | 776,901.69        |
| 12,049.0     | 88.50      | 359.40               | 11,118.7      | 7,562.7         | 1,110.1       | 13.7          | 1,110.1          | 1.26                | 437,134.37         | 776,900.08        |
| 12,142.0     | 88.60      | 0.60                 | 11,121.1      | 7,565.1         | 1,203.0       | 13.7          | 1,203.0          | 1.29                | 437,227.33         | 776,900.08        |
| 12,237.0     | 91.10      | 359.90               | 11,121.3      | 7,565.3         | 1,298.0       | 14.1          | 1,298.0          | 2.73                | 437,322.32         | 776,900.50        |
| 12,331.0     | 90.30      | 0.00                 | 11,120.2      | 7,564.2         | 1,392.0       | 14.0          | 1,392.0          | 0.86                | 437,416.32         | 776,900.42        |
| 12,426.0     | 89.80      | 0.40                 | 11,120.1      | 7,564.1         | 1,487.0       | 14.3          | 1,487.0          | 0.67                | 437,511.32         | 776,900.75        |
| 12,520.0     | 89.10      | 359.80               | 11,121.0      | 7,565.0         | 1,581.0       | 14.5          | 1,581.0          | 0.98                | 437,605.31         | 776,900.91        |
| 12,615.0     | 91.70      | 1.10                 | 11,120.3      | 7,564.3         | 1,676.0       | 15.2          | 1,676.0          | 3.06                | 437,700.29         | 776,901.66        |
| 12,710.0     | 91.10      | 0.50                 | 11,118.0      | 7,562.0         | 1,771.0       | 16.6          | 1,770.9          | 0.89                | 437,795.26         | 776,902.98        |
| 12,805.0     | 90.60      | 359.90               | 11,116.6      | 7,560.6         | 1,866.0       | 16.9          | 1,865.9          | 0.82                | 437,890.24         | 776,903.31        |
| 12,900.0     | 89.80      | 359.70               | 11,116.3      | 7,560.3         | 1,961.0       | 16.6          | 1,960.9          | 0.87                | 437,985.24         | 776,902.98        |
| 12,995.0     | 89.10      | 359.40               | 11,117.2      | 7,561.2         | 2,055.9       | 15.8          | 2,055.9          | 0.80                | 438,080.23         | 776,902.24        |
| 13,090.0     | 88.80      | 359.00               | 11,118.9      | 7,562.9         | 2,150.9       | 14.5          | 2,150.9          | 0.53                | 438,175.21         | 776,900.91        |
| 13,184.0     | 91.00      | 359.70               | 11,119.1      | 7,563.1         | 2,244.9       | 13.4          | 2,244.9          | 2.46                | 438,269.20         | 776,899.84        |
| 13,278.0     | 90.70      | 359.90               | 11,117.7      | 7,561.7         | 2,338.9       | 13.1          | 2,338.9          | 0.38                | 438,363.19         | 776,899.52        |
| 13,373.0     | 89.70      | 359.90               | 11,117.4      | 7,561.4         | 2,433.9       | 12.9          | 2,433.9          | 1.05                | 438,458.18         | 776,899.35        |
| 13,468.0     | 89.70      | 0.10                 | 11,117.9      | 7,561.9         | 2,528.9       | 12.9          | 2,528.9          | 0.21                | 438,553.18         | 776,899.35        |
| 13,563.0     | 89.00      | 359.80               | 11,119.0      | 7,563.0         | 2,623.9       | 12.9          | 2,623.9          | 0.80                | 438,648.18         | 776,899.27        |
| 13,657.0     | 90.60      | 359.80               | 11,119.3      | 7,563.3         | 2,717.9       | 12.5          | 2,717.9          | 1.70                | 438,742.17         | 776,898.94        |
| 13,752.0     | 90.00      | 359.90               | 11,118.8      | 7,562.8         | 2,812.9       | 12.3          | 2,812.9          | 0.64                | 438,837.17         | 776,898.69        |
| 13,846.0     | 89.30      | 359.50               | 11,119.4      | 7,563.4         | 2,906.9       | 11.8          | 2,906.9          | 0.86                | 438,931.17         | 776,898.20        |
| 13,941.0     | 90.20      | 0.10                 | 11,119.8      | 7,563.8         | 3,001.9       | 11.5          | 3,001.9          | 1.14                | 439,026.16         | 776,897.87        |
| 14,036.0     | 89.50      | 0.60                 | 11,120.0      | 7,564.0         | 3,096.9       | 12.0          | 3,096.9          | 0.91                | 439,121.16         | 776,898.45        |
| 14,130.0     | 90.30      | 1.30                 | 11,120.2      | 7,564.2         | 3,190.9       | 13.6          | 3,190.8          | 1.13                | 439,215.15         | 776,900.01        |
| 14,225.0     | 89.70      | 1.80                 | 11,120.2      | 7,564.2         | 3,285.8       | 16.2          | 3,285.8          | 0.82                | 439,310.11         | 776,902.58        |
| 14,320.0     | 90.80      | 1.90                 | 11,119.8      | 7,563.8         | 3,380.8       | 19.2          | 3,380.7          | 1.16                | 439,405.06         | 776,905.64        |

|                  |                         |                                     |                                        |
|------------------|-------------------------|-------------------------------------|----------------------------------------|
| <b>Company:</b>  | Murchison Oil and Gas   | <b>Local Co-ordinate Reference:</b> | Site Jackson Unit 21H                  |
| <b>Project:</b>  | Jackson Unit Section 21 | <b>TVD Reference:</b>               | WELL @ 3556.0usft (Original Well Elev) |
| <b>Site:</b>     | Jackson Unit 21H        | <b>MD Reference:</b>                | WELL @ 3556.0usft (Original Well Elev) |
| <b>Well:</b>     | Jackson Unit 21H        | <b>North Reference:</b>             | Grid                                   |
| <b>Wellbore:</b> | Jackson Unit 21H        | <b>Survey Calculation Method:</b>   | Minimum Curvature                      |
| <b>Design:</b>   | Jackson Unit 21H        | <b>Database:</b>                    | EDM 5000.1 Single User Db              |

| Survey       |            |                      |               |                 |               |               |                  |                     |                    |                   |  |
|--------------|------------|----------------------|---------------|-----------------|---------------|---------------|------------------|---------------------|--------------------|-------------------|--|
| MD<br>(usft) | Inc<br>(°) | Azi (azimuth)<br>(°) | TVD<br>(usft) | TVDSS<br>(usft) | N/S<br>(usft) | E/W<br>(usft) | V. Sec<br>(usft) | DLeg<br>(°/100usft) | Northing<br>(usft) | Easting<br>(usft) |  |
| 14,414.0     | 90.50      | 1.60                 | 11,118.7      | 7,562.7         | 3,474.7       | 22.1          | 3,474.7          | 0.45                | 439,499.01         | 776,908.51        |  |
| 14,509.0     | 91.10      | 359.10               | 11,117.4      | 7,561.4         | 3,569.7       | 22.7          | 3,569.7          | 2.71                | 439,593.99         | 776,909.09        |  |
| 14,604.0     | 90.60      | 358.90               | 11,116.0      | 7,560.0         | 3,664.7       | 21.0          | 3,664.6          | 0.57                | 439,688.96         | 776,907.44        |  |
| 14,699.0     | 90.20      | 358.70               | 11,115.3      | 7,559.3         | 3,759.7       | 19.0          | 3,759.6          | 0.47                | 439,783.94         | 776,905.45        |  |
| 14,794.0     | 89.70      | 358.20               | 11,115.4      | 7,559.4         | 3,854.6       | 16.5          | 3,854.6          | 0.74                | 439,878.90         | 776,902.88        |  |
| 14,888.0     | 89.50      | 357.80               | 11,116.0      | 7,560.0         | 3,948.6       | 13.2          | 3,948.5          | 0.48                | 439,972.84         | 776,899.60        |  |
| 14,983.0     | 89.40      | 357.50               | 11,117.0      | 7,561.0         | 4,043.5       | 9.3           | 4,043.5          | 0.33                | 440,067.76         | 776,895.70        |  |
| 15,078.0     | 88.30      | 357.00               | 11,118.9      | 7,562.9         | 4,138.3       | 4.7           | 4,138.3          | 1.27                | 440,162.63         | 776,891.14        |  |
| 15,173.0     | 90.40      | 356.20               | 11,119.9      | 7,563.9         | 4,233.2       | -0.9          | 4,233.2          | 2.37                | 440,257.45         | 776,885.51        |  |
| 15,268.0     | 89.50      | 358.10               | 11,120.0      | 7,564.0         | 4,328.0       | -5.6          | 4,328.0          | 2.21                | 440,352.33         | 776,880.79        |  |
| 15,362.0     | 89.70      | 358.90               | 11,120.7      | 7,564.7         | 4,422.0       | -8.1          | 4,422.0          | 0.88                | 440,446.29         | 776,878.33        |  |
| 15,457.0     | 89.90      | 1.60                 | 11,121.0      | 7,565.0         | 4,517.0       | -7.7          | 4,517.0          | 2.85                | 440,541.28         | 776,878.74        |  |
| 15,551.0     | 89.90      | 2.00                 | 11,121.2      | 7,565.2         | 4,610.9       | -4.7          | 4,611.0          | 0.43                | 440,635.24         | 776,881.69        |  |
| 15,646.0     | 89.20      | 1.80                 | 11,121.9      | 7,565.9         | 4,705.9       | -1.6          | 4,705.9          | 0.77                | 440,730.18         | 776,884.84        |  |
| 15,677.0     | 89.10      | 1.50                 | 11,122.4      | 7,566.4         | 4,736.9       | -0.7          | 4,736.9          | 1.02                | 440,761.16         | 776,885.74        |  |
| 15,720.0     | 89.10      | 1.50                 | 11,123.1      | 7,567.1         | 4,779.9       | 0.4           | 4,779.9          | 0.00                | 440,804.14         | 776,886.86        |  |
| 4 1/2"       |            |                      |               |                 |               |               |                  |                     |                    |                   |  |
| 15,730.0     | 89.10      | 1.50                 | 11,123.2      | 7,567.2         | 4,789.9       | 0.7           | 4,789.8          | 0.00                | 440,814.14         | 776,887.12        |  |

| Casing Points               |                             |         |                           |                         |  |
|-----------------------------|-----------------------------|---------|---------------------------|-------------------------|--|
| Measured<br>Depth<br>(usft) | Vertical<br>Depth<br>(usft) | Name    | Casing<br>Diameter<br>(") | Hole<br>Diameter<br>(") |  |
| 10,643.0                    | 10,640.8                    | 7"      | 7                         | 8-1/2                   |  |
| 5,184.0                     | 5,182.5                     | 9 5/8"  | 9-5/8                     | 12-1/4                  |  |
| 1,257.0                     | 1,256.9                     | 13 3/8" | 13-3/8                    | 16                      |  |
| 15,720.0                    | 11,123.1                    | 4 1/2"  | 5-1/2                     | 6-1/8                   |  |

|                  |                         |                                     |                                        |
|------------------|-------------------------|-------------------------------------|----------------------------------------|
| <b>Company:</b>  | Murchison Oil and Gas   | <b>Local Co-ordinate Reference:</b> | Site Jackson Unit 21H                  |
| <b>Project:</b>  | Jackson Unit Section 21 | <b>TVD Reference:</b>               | WELL @ 3556.0usft (Original Well Elev) |
| <b>Site:</b>     | Jackson Unit 21H        | <b>MD Reference:</b>                | WELL @ 3556.0usft (Original Well Elev) |
| <b>Well:</b>     | Jackson Unit 21H        | <b>North Reference:</b>             | Grid                                   |
| <b>Wellbore:</b> | Jackson Unit 21H        | <b>Survey Calculation Method:</b>   | Minimum Curvature                      |
| <b>Design:</b>   | Jackson Unit 21H        | <b>Database:</b>                    | EDM 5000.1 Single User Db              |

| Formations            |                       |                      |         |  |
|-----------------------|-----------------------|----------------------|---------|--|
| Measured Depth (usft) | Vertical Depth (usft) | Name                 | Dip (°) |  |
| 10,799.8              | 10,796.0              | 2nd Bone Spring Sand | 0.00    |  |
| 7,602.9               | 7,601.0               | Brushy Canyon        | 0.00    |  |
| 1,206.1               | 1,206.0               | Rustler              | 0.00    |  |
| 10,143.1              | 10,141.0              | 1st Bone Spring Sand | 0.00    |  |
| 9,118.0               | 9,116.0               | Bone Spring          | 0.00    |  |
| 6,172.8               | 6,171.0               | Cherry Canyon        | 0.00    |  |
| 5,172.5               | 5,171.0               | Delaware             | 0.00    |  |
| 9,223.0               | 9,221.0               | Avalon Shale         | 0.00    |  |

| Survey Annotations    |                       |                   |              |                                   |
|-----------------------|-----------------------|-------------------|--------------|-----------------------------------|
| Measured Depth (usft) | Vertical Depth (usft) | Local Coordinates |              | Comment                           |
|                       |                       | +N/-S (usft)      | +E/-W (usft) |                                   |
| 11,037.0              | 10,994.4              | 129.4             | 10.9         | Cross Hard Boundary at 11037ft MD |
| 15,690.0              | 11,122.6              | 4,749.9           | -0.3         | Cross Hard Boundary at 15690ft MD |

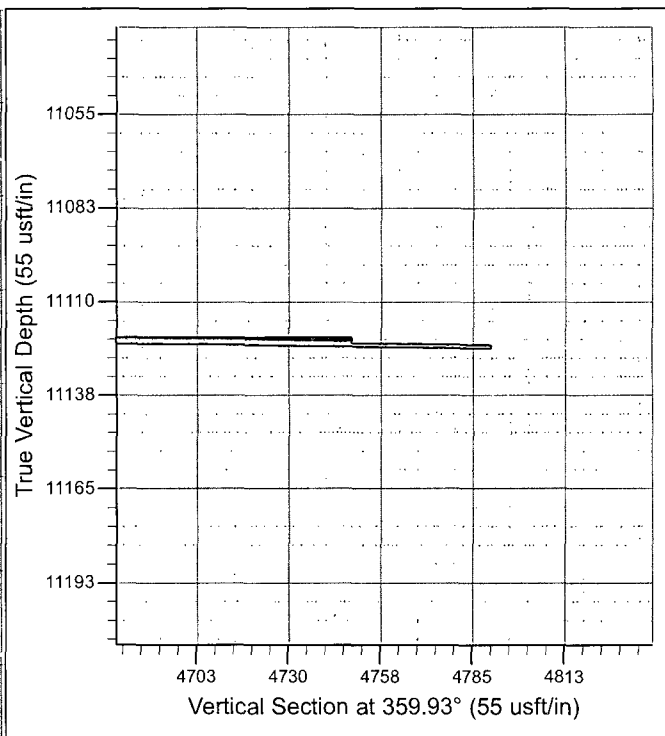
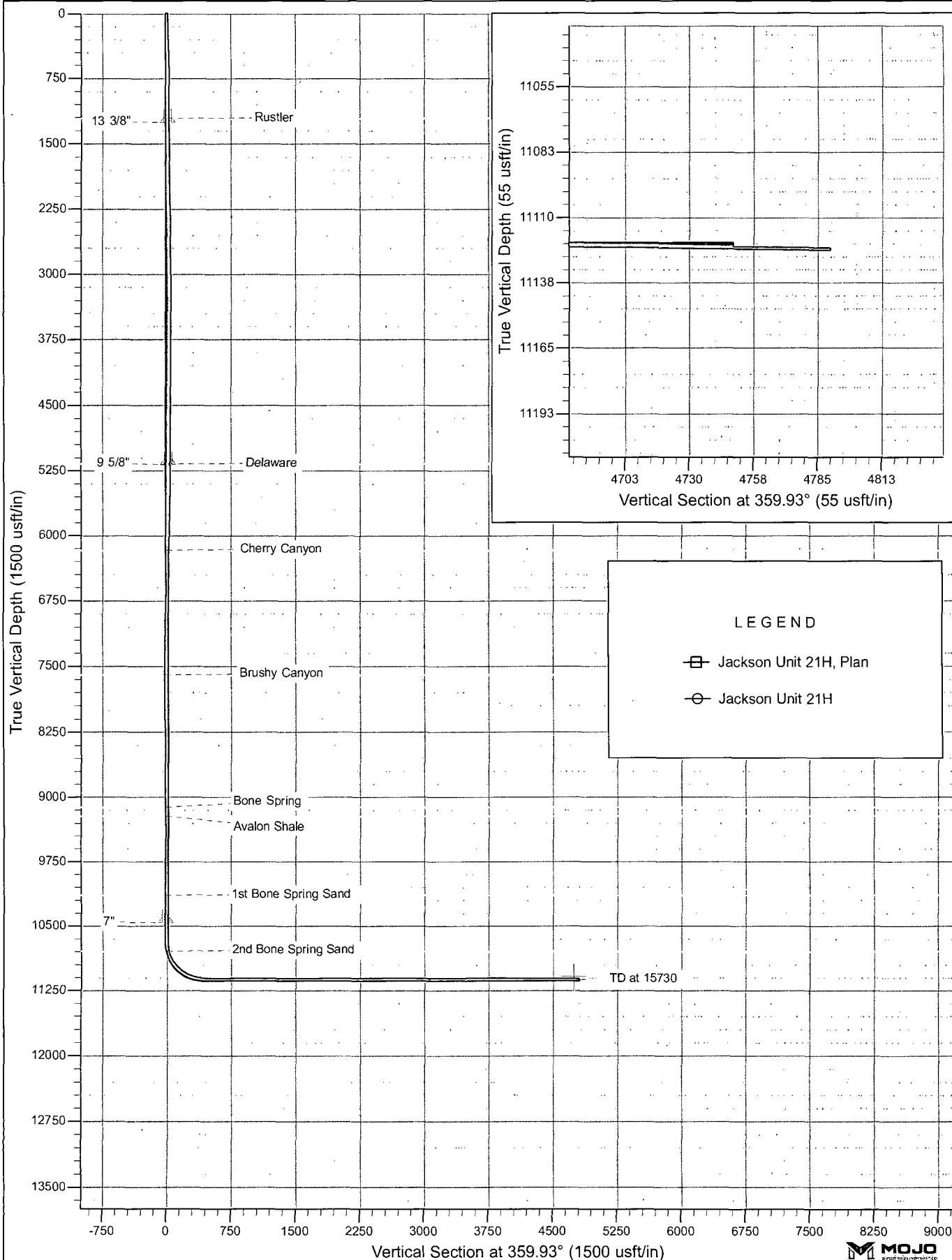
|                   |                    |             |
|-------------------|--------------------|-------------|
| Checked By: _____ | Approved By: _____ | Date: _____ |
|-------------------|--------------------|-------------|

Project: Jackson Unit Section 21  
 Site: Jackson Unit 21H  
 Well: Jackson Unit 21H  
 Wellbore: Jackson Unit 21H  
 Design: Jackson Unit 21H

 MURCHISON OIL & GAS, INC.



Azimuths to Grid North  
 True North: -0.41°  
 Magnetic North: 6.94°  
 Magnetic Field  
 Strength: 48408.6snT  
 Dip Angle: 60.11°  
 Date: 10/05/2013  
 Model: IGRF2010



**LEGEND**

-  Jackson Unit 21H, Plan
-  Jackson Unit 21H

Project: Jackson Unit Section 21  
Site: Jackson Unit 21H  
Well: Jackson Unit 21H  
Wellbore: Jackson Unit 21H  
Design: Jackson Unit 21H

 MURCHISON OIL & GAS, INC.



Azimuths to Grid North  
True North: -0.41°  
Magnetic North: 6.94°

Magnetic Field  
Strength: 48408.6snT  
Dip Angle: 60.11°  
Date: 10/05/2013  
Model: IGRF2010

