



KB: 3188.00  
GL: 3161.00

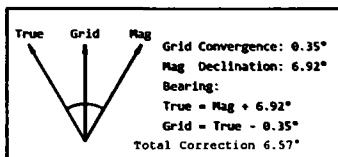


**Mewbourne Oil Company**  
Red Hills West 21 W1AP Fed Com #2H  
Lea Co, NM  
Plan P1:V2



**Weatherford**

## Plan vs Actual



**Plan Data for Red Hills West 21 W1AP Fed Com #2H**

Field: Mewbourne Oil Company (Mad 83 NREZ)  
Map Unit: USFt Vertical Reference Datum (VRD): Mean Sea Level  
Projected Coordinate System: NAD83 / New Mexico East (ftUS)

Site: Red Hills West 21 Pad  
Unit: USFt TVD Reference:  
Company Name: Mewbourne Oil Company  
Position: Northing: 377117.80USFt Latitude: 32.035059°  
Easting: 745835.00USFt Longitude: -103.673394°  
North Reference: Grid Grid Convergence: 0.35°  
Elevation Above VRD: 3161.00USFt  
Comment: Lea County, New Mexico

Slot: Red Hills West 21 W1AP Fed Com #2H  
Position:  
Offset is from Site centre  
+N/-S: 0.00USFt Northing: 377117.80USFt Latitude: 32.035059°  
+E/-W: 0.00USFt Easting: 745835.00USFt Longitude: -103.673394°  
Elevation Above VRD: 3161.00USFt

Well: Red Hills West 21 W1AP Fed Com #2H  
Type: Main-Well  
File Number: 13490219 Plan: P1:V2  
Vertical Section: Position offset of origin from Slot centre:  
+N/-S: 0.00USFt Azimuth: 176.26°  
+E/-W: 0.00USFt  
Magnetic Parameters:  
Model: Field Strength: Declination: Dip: Date:  
bgga2018 47703(NT) 6.92° 59.80° 2018-11-15  
Comment: Patterson 217

### Plan Data for Red Hills West 21 W1AP Fed Com #2H

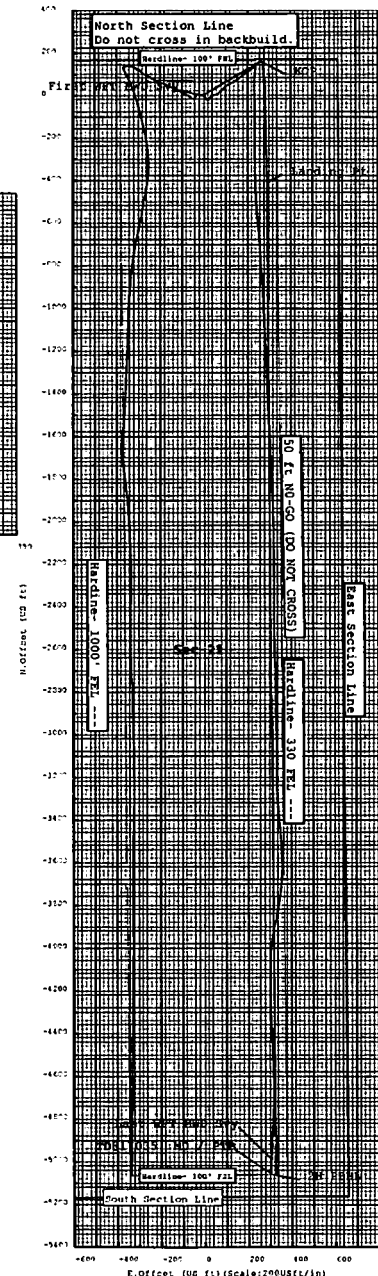
| Casing Point Information:         |          |          |         |        |           |           |
|-----------------------------------|----------|----------|---------|--------|-----------|-----------|
| Position offsets from Slot centre |          |          |         |        |           |           |
| Name                              | MD       | TVD      | +N/-S   | +E/-W  | Northing  | Easting   |
|                                   | (USFt)   | (USFt)   | (USFt)  | (USFt) | (USFt)    | (USFt)    |
| 13 3/8 in                         | 575.00   | 575.00   | 0.00    | 0.00   | 377117.80 | 745835.00 |
| 9 5/8 in                          | 4360.00  | 4359.45  | 15.03   | 25.28  | 377132.83 | 745860.28 |
| 7 in                              | 12388.80 | 12105.57 | -265.03 | 291.05 | 376852.77 | 746126.05 |

### Plan Data for Red Hills West 21 W1AP Fed Com #2H

| Target Set Information:           |          |           |          |        |           |           |
|-----------------------------------|----------|-----------|----------|--------|-----------|-----------|
| Name: RH21M2H                     |          |           |          |        |           |           |
| Position offsets from Slot centre |          |           |          |        |           |           |
| Name                              | TVD      | Elevation | +N/-S    | +E/-W  | Northing  | Easting   |
|                                   | (USFt)   | (USFt)    | (USFt)   | (USFt) | (USFt)    | (USFt)    |
| 2H PBHL                           | 12141.24 | -8953.24  | -5062.85 | 330.21 | 372054.95 | 746165.21 |

### Plan Data for Red Hills West 21 W1AP Fed Com #2H

| Plan Point Information:                                            |       |        |          |          |        |           |           |         |        |            |
|--------------------------------------------------------------------|-------|--------|----------|----------|--------|-----------|-----------|---------|--------|------------|
| Dogleg Severity Unit: */100.00ft Position offsets from Slot centre |       |        |          |          |        |           |           |         |        |            |
| MD                                                                 | Inc   | Az     | TVD      | +N/-S    | +E/-W  | Northing  | Easting   | VSec    | DLS    | Comments   |
| (USFt)                                                             | (°)   | (°)    | (USFt)   | (USFt)   | (USFt) | (USFt)    | (USFt)    | (USFt)  | (DLSU) |            |
| 0.00                                                               | 0.00  | 0.00   | 0.00     | 0.00     | 0.00   | 377117.80 | 745835.00 | -0.00   | 0.00   |            |
| 3500.00                                                            | 0.00  | 0.00   | 3500.00  | 0.00     | 0.00   | 377117.80 | 745835.00 | -0.00   | 0.00   | Nudge      |
| 3725.62                                                            | 2.26  | 59.26  | 3725.56  | 2.27     | 3.82   | 377120.07 | 745838.82 | -2.02   | 1.00   | Hold       |
| 11547.13                                                           | 2.26  | 59.26  | 11541.01 | 159.64   | 268.48 | 377277.44 | 746103.48 | -141.79 | 0.00   | KOP        |
| 12456.51                                                           | 89.80 | 179.54 | 12125.00 | -411.03  | 292.86 | 376706.77 | 746127.86 | 429.26  | 10.00  | Landing Pt |
| 17108.51                                                           | 89.80 | 179.54 | 12141.24 | -5062.85 | 330.21 | 372054.95 | 746165.21 | 5073.61 | 0.00   | 2H PBHL    |



Drawing By: Ty Hardin Date: 31 October 2018  
Office Name: Drilling Services - Houston  
Address: 12101 Cutten Road  
Houston, TX 77066  
Phone: Office: +1.832.955.0032 | Cell: +1.713.882.8256

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## Weatherford

Drilling Services  
10000 West County Rd. 116  
P.O. Box 61028  
Midland, TX USA 79711  
Tel: (432) 561-8892 Fax (432) 561-8895

Mewbourne Oil Company  
PO Box 5270  
Hobbs, NM 88241

Date: January 2, 2019

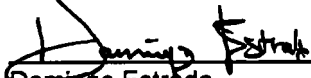
Attention: Kyle Freidenbloom

Re: Mewbourne Oil Company  
Well: Red Hills West 21 W1AP Fed Com #2H  
Lea County, New Mexico

Enclosed, please find the original survey performed on the referenced well by Precision Energy Services, Inc. (P-5 No. 676004), a Weatherford company. Other information required by your office is as follows:

| <u>Name &amp; Title<br/>Of Surveyor</u> | <u>Well<br/>Number</u> | <u>Surveyed<br/>Depths</u> | <u>Dates<br/>Performed</u> | <u>Type of<br/>Survey</u>     |
|-----------------------------------------|------------------------|----------------------------|----------------------------|-------------------------------|
| Domingo Estrada<br>MWD Ops. Coordinator | 2H                     | 762 MD<br>16,969 MD        | 12/9/2018<br>12/29/2018    | Measurement<br>While Drilling |

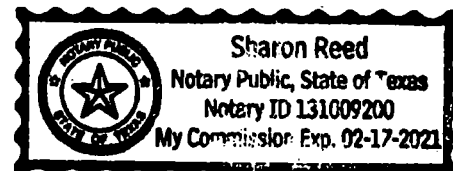
A notarized plan vs. actual is attached to the survey report. If any other information is required, please contact the undersigned at the letterhead address and phone number.

  
Domingo Estrada  
MWD Ops. Coordinator

On this, the 2<sup>nd</sup> day of January, 2019, before me a notary public, the undersigned officer, personally appeared Domingo Estrada, known to me (or satisfactorily proven) to be the person whose name is subscribed to the within instrument, and acknowledged that he executed the same for the purposes therein contained.

In witness hereof, I hereunto set my hand and official seal.

  
Notary Public



01/01/2019



**MEWBOURNE**  
**OIL COMPANY**

**5D Survey Report**

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**Mewbourne Oil Company**

**Field Name:** *Mewbourne Oil Company (Nad 83 NMEZ)*  
**Site Name:** *Red Hills West 21 Pad 1*  
**Well Name:** *Red Hills West 21 W1AP Fed Com #2H*  
**File number:** *13490219*  
**Survey:** *Definitive survey*

---

2 January 2019



**Weatherford®**



### Red Hills West 21 W1AP Fed Com #2H

|                                                           |                                                                       |                                  |                                            |  |
|-----------------------------------------------------------|-----------------------------------------------------------------------|----------------------------------|--------------------------------------------|--|
| <b>Field Name:</b><br>Mewbourne Oil Company (Nad 83 NMEZ) | <b>Map Units:</b> US ft                                               |                                  | <b>Company Name:</b> Mewbourne Oil Company |  |
|                                                           | <b>Vertical Reference Datum (VRD):</b> Mean Sea Level                 |                                  |                                            |  |
|                                                           | <b>Projected Coordinate System:</b> NAD83 / New Mexico East (ftUS)    |                                  |                                            |  |
|                                                           | <b>Comment:</b>                                                       |                                  |                                            |  |
| <b>Site:</b><br>Red Hills West 21 Pad 1                   | <b>Units:</b> US ft                                                   | <b>North Reference:</b> Grid     | <b>Convergence Angle:</b> 0.35             |  |
|                                                           | <b>Position:</b>                                                      | <b>Northing:</b> 377117.80 US ft | <b>Latitude:</b> 32.035059459              |  |
|                                                           |                                                                       | <b>Easting:</b> 745835.00 US ft  | <b>Longitude:</b> -103.673393776           |  |
|                                                           | <b>Elevation above MSL:</b> 3161.00 US ft                             |                                  | <b>Comment:</b> Lea County, New Mexico     |  |
| <b>Slot:</b><br>Red Hills West 21 W1AP Fed Com #2H        | <b>Position (Relative to Site Centre)</b>                             |                                  |                                            |  |
|                                                           | <b>+N/-S:</b> 0.00 US ft                                              | <b>Northing:</b> 377117.80 US ft | <b>Latitude:</b> 32.035059459              |  |
|                                                           | <b>+E/-W:</b> 0.00 US ft                                              | <b>Easting:</b> 745835.00 US ft  | <b>Longitude:</b> -103.673393776           |  |
|                                                           | <b>Slot TVD Reference:</b> Ground Elevation                           |                                  |                                            |  |
|                                                           | <b>Elevation above MSL:</b> 3161.00 US ft                             |                                  |                                            |  |
|                                                           | <b>Comment:</b>                                                       |                                  |                                            |  |
| <b>Well:</b><br>Red Hills West 21 W1AP Fed Com #2H        | <b>Type:</b> Main well                                                |                                  | <b>UWI:</b>                                |  |
|                                                           | <b>File Number:</b> 13490219                                          | <b>Comment:</b> Patterson 217    |                                            |  |
|                                                           | <b>Closure Distance:</b> 5063.54 US ft                                | <b>Closure Azimuth:</b> 176.53°  |                                            |  |
|                                                           | <b>Vertical Section: Position of Origin (Relative to Slot centre)</b> |                                  |                                            |  |
|                                                           | <b>+N/-S:</b> 0.00 US ft                                              | <b>+E/-W:</b> 0.00 US ft         | <b>Az:</b> 176.26°                         |  |
|                                                           |                                                                       |                                  |                                            |  |

**Drill floor:** Survey Name: Definitive Survey

**Rig Height (Drill Floor):** 27.00 US ft **Elevation above MSL:** 3188.00 US ft **Inclination:** 0.00° **Azimuth:** 0.00°

#### Survey Name: Definitive Survey

**Date:** 15/Oct/2018 **Survey Tool:** See Survey **Comment:** **Company:**  
Tool Ranges below.

#### Magnetic Model:

**Model Name:** bggm2018 **Date:** 15/Nov/2018 **Field Strength:** 47703.0nT **Declination:** 6.92° **Dip:** 59.80°

#### Tie Point:

**MD:** 0.00 US ft **Inclination:** 0.00° **Azimuth:** 0.00° **TVD:** 0.00 US ft **North Offset:** 0.00 US ft **East Offset:** 0.00 US ft

#### Survey Tool Ranges:

| Name       | Start MD(USFt) | End MD(USFt) | Source Survey |
|------------|----------------|--------------|---------------|
| GYRO-NS_OW | 0.00           | 648.50       | Phoenix Gyro  |
| MWD        | 648.50         | 4334.00      | MWD 1         |
| MWD        | 4334.00        | 8825.00      | MWD 2         |

Survey Tool Ranges:

| Name | Start MD(US Ft) | End MD(US Ft) | Source Survey |
|------|-----------------|---------------|---------------|
| MWD  | 8825.00         | 11445.00      | MWD 3         |
| MWD  | 11445.00        | 12224.00      | MWD 5         |
| MWD  | 12224.00        | 15337.00      | MWD 6         |
| MWD  | 15337.00        | 17035.00      | MWD 7         |

Wellpath created using minimum curvature.

Survey Points: (Relative to Slot centre)(TVD relative to Drill Floor)

| MD<br>(US Ft) | Inc<br>(°) | Az<br>(°) | TVD<br>(US Ft) | VS<br>(US Ft) | N.Offset<br>(US Ft) | E.Offset<br>(US Ft) | DLS<br>(%/100US Ft) | Northing<br>(US Ft) | Easting<br>(US Ft) | Comment                |
|---------------|------------|-----------|----------------|---------------|---------------------|---------------------|---------------------|---------------------|--------------------|------------------------|
| 648.50        | 0.71       | 145.80    | 648.49         | 1.90          | -1.89               | 0.25                | 0.27                | 377115.91           | 745835.25          | Tie on<br>Phoenix Gyro |
| 762.00        | 1.86       | 127.24    | 761.96         | 3.71          | -3.58               | 2.12                | 1.06                | 377114.22           | 745837.12          | First WFT<br>MWD Svy   |
| 862.00        | 2.30       | 136.13    | 861.90         | 6.31          | -6.01               | 4.80                | 0.54                | 377111.79           | 745839.80          |                        |
| 1052.00       | 2.32       | 141.41    | 1051.74        | 12.38         | -11.77              | 9.84                | 0.11                | 377106.03           | 745844.84          |                        |
| 1241.00       | 1.83       | 145.03    | 1240.62        | 18.10         | -17.23              | 13.95               | 0.27                | 377100.57           | 745848.95          |                        |
| 1430.00       | 1.50       | 146.54    | 1429.54        | 22.83         | -21.77              | 17.05               | 0.18                | 377096.03           | 745852.05          |                        |
| 1620.00       | 1.44       | 64.67     | 1619.49        | 24.11         | -22.82              | 20.58               | 1.01                | 377094.98           | 745855.58          |                        |
| 1810.00       | 1.49       | 44.19     | 1809.43        | 21.58         | -20.03              | 24.46               | 0.28                | 377097.77           | 745859.46          |                        |
| 1999.00       | 0.63       | 45.57     | 1998.40        | 19.26         | -17.54              | 26.91               | 0.46                | 377100.26           | 745861.91          |                        |
| 2190.00       | 0.16       | 3.87      | 2189.39        | 18.31         | -16.54              | 27.68               | 0.27                | 377101.26           | 745862.68          |                        |
| 2379.00       | 0.22       | 346.38    | 2378.39        | 17.69         | -15.92              | 27.61               | 0.04                | 377101.88           | 745862.61          |                        |
| 2569.00       | 0.41       | 287.33    | 2568.39        | 17.08         | -15.36              | 26.88               | 0.19                | 377102.44           | 745861.88          |                        |
| 2759.00       | 0.64       | 240.15    | 2758.38        | 17.31         | -15.69              | 25.31               | 0.25                | 377102.11           | 745860.31          |                        |
| 2948.00       | 0.66       | 225.38    | 2947.37        | 18.48         | -16.98              | 23.62               | 0.09                | 377100.82           | 745858.62          |                        |
| 3138.00       | 0.56       | 88.76     | 3137.37        | 19.24         | -17.73              | 23.77               | 0.60                | 377100.07           | 745858.77          |                        |
| 3328.00       | 1.21       | 72.93     | 3327.34        | 18.82         | -17.12              | 26.61               | 0.36                | 377100.68           | 745861.61          |                        |
| 3518.00       | 2.92       | 37.60     | 3517.22        | 14.72         | -12.70              | 31.48               | 1.08                | 377105.10           | 745866.48          |                        |
| 3708.00       | 1.89       | 42.74     | 3707.05        | 8.93          | -6.56               | 36.56               | 0.55                | 377111.24           | 745871.56          |                        |
| 3898.00       | 1.60       | 63.26     | 3896.96        | 5.74          | -3.07               | 41.06               | 0.36                | 377114.73           | 745876.06          |                        |
| 4088.00       | 1.75       | 84.95     | 4086.88        | 4.63          | -1.62               | 46.32               | 0.34                | 377116.18           | 745881.32          |                        |
| 4277.00       | 2.55       | 71.59     | 4275.75        | 3.50          | -0.03               | 53.18               | 0.50                | 377117.77           | 745888.18          |                        |
| 4334.00       | 2.10       | 67.96     | 4332.70        | 2.85          | 0.76                | 55.35               | 0.83                | 377118.56           | 745890.35          |                        |
| 4469.00       | 1.44       | 93.41     | 4467.64        | 2.29          | 1.58                | 59.34               | 0.75                | 377119.38           | 745894.34          |                        |
| 4658.00       | 3.58       | 47.77     | 4656.46        | -1.09         | 5.41                | 66.08               | 1.47                | 377123.21           | 745901.08          |                        |
| 4849.00       | 3.57       | 48.59     | 4847.09        | -8.43         | 13.35               | 74.96               | 0.03                | 377131.15           | 745909.96          |                        |
| 5038.00       | 3.56       | 44.45     | 5035.72        | -15.94        | 21.43               | 83.48               | 0.14                | 377139.23           | 745918.48          |                        |
| 5227.00       | 3.54       | 42.66     | 5224.36        | -23.88        | 29.91               | 91.54               | 0.06                | 377147.71           | 745926.54          |                        |
| 5418.00       | 2.28       | 46.24     | 5415.11        | -30.39        | 36.88               | 98.28               | 0.67                | 377154.68           | 745933.28          |                        |
| 5608.00       | 2.04       | 44.54     | 5604.98        | -35.07        | 41.90               | 103.38              | 0.13                | 377159.70           | 745938.38          |                        |
| 5797.00       | 1.73       | 56.01     | 5793.87        | -38.74        | 45.89               | 108.11              | 0.26                | 377163.69           | 745943.11          |                        |
| 5986.00       | 3.15       | 60.09     | 5982.70        | -42.47        | 50.08               | 114.98              | 0.76                | 377167.88           | 745949.98          |                        |
| 6176.00       | 3.75       | 61.26     | 6172.35        | -47.40        | 55.67               | 124.95              | 0.32                | 377173.47           | 745959.95          |                        |
| 6365.00       | 3.48       | 59.79     | 6360.98        | -52.57        | 61.53               | 135.32              | 0.15                | 377179.33           | 745970.32          |                        |
| 6555.00       | 2.92       | 57.40     | 6550.68        | -57.48        | 67.04               | 144.38              | 0.30                | 377184.84           | 745979.38          |                        |
| 6744.00       | 2.72       | 55.43     | 6739.45        | -62.10        | 72.17               | 152.13              | 0.12                | 377189.97           | 745987.13          |                        |
| 6934.00       | 2.02       | 59.47     | 6929.29        | -65.92        | 76.43               | 158.73              | 0.38                | 377194.23           | 745993.73          |                        |
| 7123.00       | 1.51       | 57.96     | 7118.20        | -68.60        | 79.45               | 163.71              | 0.27                | 377197.25           | 745998.71          |                        |
| 7313.00       | 2.32       | 49.24     | 7308.09        | -72.10        | 83.29               | 168.74              | 0.45                | 377201.09           | 746003.74          |                        |
| 7501.00       | 1.75       | 45.10     | 7495.97        | -76.28        | 87.80               | 173.66              | 0.31                | 377205.60           | 746008.66          |                        |
| 7691.00       | 1.63       | 47.78     | 7685.89        | -79.87        | 91.66               | 177.72              | 0.08                | 377209.46           | 746012.72          |                        |
| 7880.00       | 1.73       | 56.19     | 7874.81        | -82.97        | 95.05               | 182.08              | 0.14                | 377212.85           | 746017.08          |                        |
| 8068.00       | 1.44       | 57.08     | 8062.74        | -85.55        | 97.92               | 186.42              | 0.15                | 377215.72           | 746021.42          |                        |
| 8257.00       | 0.63       | 61.50     | 8251.70        | -87.14        | 99.70               | 189.33              | 0.43                | 377217.50           | 746024.33          |                        |
| 8446.00       | 0.99       | 44.51     | 8440.68        | -88.66        | 101.36              | 191.38              | 0.23                | 377219.16           | 746026.38          |                        |
| 8635.00       | 0.88       | 38.96     | 8629.66        | -90.82        | 103.66              | 193.44              | 0.08                | 377221.46           | 746028.44          |                        |
| 8825.00       | 1.36       | 68.25     | 8819.62        | -92.59        | 105.63              | 196.45              | 0.39                | 377223.43           | 746031.45          |                        |
| 9014.00       | 1.84       | 67.32     | 9008.55        | -94.27        | 107.63              | 201.34              | 0.25                | 377225.43           | 746036.34          |                        |
| 9203.00       | 2.11       | 44.44     | 9197.44        | -97.57        | 111.28              | 206.57              | 0.44                | 377229.08           | 746041.57          |                        |

Survey Points: (Relative to Slot centre)(TVD relative to Drill Floor)

Survey Points: (Relative to Slot centre)(TVD relative to Drill Floor)

| Survey Points: (Relative to Slot centre)(TVD relative to Drill Floor) |            |           |                |               |                      |                      |                      |                     |                    |         |
|-----------------------------------------------------------------------|------------|-----------|----------------|---------------|----------------------|----------------------|----------------------|---------------------|--------------------|---------|
| ID<br>(US ft)                                                         | Inc<br>(°) | As<br>(°) | TVD<br>(US ft) | VS<br>(US ft) | N. Offset<br>(US ft) | E. Offset<br>(US ft) | CLS<br>(°/1000US ft) | Northing<br>(US ft) | Easting<br>(US ft) | Comment |
| 9392.00                                                               | 1.71       | 39.54     | 9386.33        | -101.94       | 115.94               | 210.80               | 0.23                 | 377233.74           | 746045.80          |         |
| 9581.00                                                               | 2.02       | 47.25     | 9575.23        | -106.09       | 120.38               | 215.04               | 0.21                 | 377238.18           | 746050.04          |         |
| 9771.00                                                               | 2.28       | 57.00     | 9765.10        | -110.05       | 124.71               | 220.67               | 0.24                 | 377242.51           | 746055.67          |         |
| 9960.00                                                               | 0.84       | 71.52     | 9954.03        | -112.24       | 127.19               | 225.14               | 0.78                 | 377244.99           | 746060.14          |         |
| 10151.00                                                              | 1.73       | 53.98     | 10144.98       | -114.13       | 129.33               | 228.80               | 0.50                 | 377247.13           | 746063.80          |         |
| 10340.00                                                              | 2.03       | 21.17     | 10333.88       | -118.69       | 134.13               | 232.32               | 0.58                 | 377251.93           | 746067.32          |         |
| 10529.00                                                              | 1.83       | 36.88     | 10522.77       | -124.02       | 139.67               | 235.34               | 0.30                 | 377257.47           | 746070.34          |         |
| 10719.00                                                              | 1.07       | 52.45     | 10712.71       | -127.31       | 143.18               | 238.56               | 0.45                 | 377260.98           | 746073.56          |         |
| 10909.00                                                              | 0.63       | 92.20     | 10902.69       | -128.19       | 144.22               | 241.01               | 0.37                 | 377262.02           | 746076.01          |         |
| 11098.00                                                              | 0.29       | 317.07    | 11091.69       | -128.45       | 144.53               | 241.73               | 0.46                 | 377262.33           | 746076.73          |         |
| 11288.00                                                              | 0.99       | 263.20    | 11281.68       | -128.74       | 144.69               | 239.77               | 0.45                 | 377262.49           | 746074.77          |         |
| 11445.00                                                              | 0.80       | 242.19    | 11438.66       | -128.22       | 144.01               | 237.45               | 0.24                 | 377261.81           | 746072.45          |         |
| 11545.00                                                              | 4.65       | 166.54    | 11538.54       | -123.94       | 139.74               | 237.78               | 4.52                 | 377257.54           | 746072.78          |         |
| 11576.00                                                              | 8.70       | 170.10    | 11569.32       | -120.37       | 136.21               | 238.47               | 13.13                | 377254.01           | 746073.47          |         |
| 11607.00                                                              | 12.29      | 178.45    | 11599.80       | -114.73       | 130.60               | 238.97               | 12.55                | 377248.40           | 746073.97          |         |
| 11654.00                                                              | 18.71      | 185.36    | 11645.07       | -102.28       | 118.08               | 238.40               | 14.19                | 377235.88           | 746073.40          |         |
| 11702.00                                                              | 23.27      | 186.62    | 11689.88       | -85.34        | 100.99               | 236.58               | 9.55                 | 377218.79           | 746071.58          |         |
| 11749.00                                                              | 27.15      | 184.93    | 11732.39       | -65.60        | 81.07                | 234.59               | 8.40                 | 377198.87           | 746069.59          |         |
| 11797.00                                                              | 30.69      | 182.81    | 11774.40       | -42.60        | 57.92                | 233.05               | 7.68                 | 377175.72           | 746068.05          |         |
| 11844.00                                                              | 33.73      | 178.64    | 11814.17       | -17.63        | 32.89                | 232.77               | 8.01                 | 377150.69           | 746067.77          |         |
| 11892.00                                                              | 38.22      | 177.24    | 11853.00       | 10.54         | 4.72                 | 233.80               | 9.51                 | 377122.52           | 746068.80          |         |
| 11939.00                                                              | 43.09      | 175.90    | 11888.65       | 41.15         | -25.84               | 235.65               | 10.53                | 377091.96           | 746070.65          |         |
| 11987.00                                                              | 47.60      | 180.14    | 11922.39       | 75.26         | -59.94               | 236.78               | 11.30                | 377057.86           | 746071.78          |         |
| 12034.00                                                              | 52.17      | 180.90    | 11952.66       | 111.09        | -95.87               | 236.45               | 9.80                 | 377021.93           | 746071.45          |         |
| 12082.00                                                              | 56.93      | 180.37    | 11980.49       | 150.07        | -134.96              | 236.02               | 9.96                 | 376982.84           | 746071.02          |         |
| 12129.00                                                              | 61.11      | 180.30    | 12004.68       | 190.25        | -175.24              | 235.78               | 8.89                 | 376942.56           | 746070.78          |         |
| 12177.00                                                              | 65.36      | 181.84    | 12026.29       | 232.94        | -218.08              | 234.97               | 9.31                 | 376899.72           | 746069.97          |         |
| 12224.00                                                              | 70.59      | 178.57    | 12043.92       | 276.39        | -261.63              | 234.84               | 12.86                | 376856.17           | 746069.84          |         |
| 12308.00                                                              | 75.87      | 179.03    | 12068.14       | 356.71        | -342.01              | 236.52               | 6.31                 | 376775.79           | 746071.52          |         |
| 12355.00                                                              | 75.68      | 178.94    | 12079.69       | 402.22        | -387.56              | 237.33               | 0.44                 | 376730.24           | 746072.33          |         |
| 12403.00                                                              | 78.54      | 177.05    | 12090.40       | 448.98        | -434.32              | 238.97               | 7.09                 | 376683.48           | 746073.97          |         |
| 12450.00                                                              | 81.38      | 175.73    | 12098.59       | 495.25        | -480.50              | 241.88               | 6.65                 | 376637.30           | 746076.88          |         |
| 12498.00                                                              | 82.48      | 175.18    | 12105.33       | 542.77        | -527.87              | 245.65               | 2.56                 | 376589.93           | 746080.65          |         |
| 12545.00                                                              | 84.24      | 175.25    | 12110.77       | 589.45        | -574.39              | 249.54               | 3.75                 | 376543.41           | 746084.54          |         |
| 12593.00                                                              | 85.95      | 175.98    | 12114.87       | 637.27        | -622.08              | 253.20               | 3.87                 | 376495.72           | 746088.20          |         |
| 12640.00                                                              | 85.87      | 175.37    | 12118.22       | 684.14        | -668.82              | 256.74               | 1.31                 | 376448.98           | 746091.74          |         |
| 12687.00                                                              | 90.49      | 175.64    | 12119.72       | 731.10        | -715.64              | 260.42               | 9.85                 | 376402.16           | 746095.42          |         |
| 12782.00                                                              | 92.09      | 176.77    | 12117.58       | 826.08        | -810.40              | 266.70               | 2.06                 | 376307.40           | 746101.70          |         |
| 12877.00                                                              | 87.62      | 176.31    | 12117.82       | 921.05        | -905.21              | 272.43               | 4.73                 | 376212.59           | 746107.43          |         |
| 12971.00                                                              | 88.18      | 176.68    | 12121.26       | 1014.98       | -998.97              | 278.18               | 0.71                 | 376118.83           | 746113.18          |         |
| 13066.00                                                              | 87.62      | 177.13    | 12124.74       | 1109.91       | -1093.76             | 283.30               | 0.76                 | 376024.04           | 746118.30          |         |
| 13160.00                                                              | 90.98      | 178.23    | 12125.89       | 1203.86       | -1187.67             | 287.11               | 3.76                 | 375930.13           | 746122.11          |         |
| 13254.00                                                              | 91.96      | 178.65    | 12123.48       | 1297.76       | -1281.60             | 289.67               | 1.13                 | 375836.20           | 746124.67          |         |
| 13349.00                                                              | 88.95      | 176.95    | 12122.73       | 1392.71       | -1376.51             | 293.31               | 3.64                 | 375741.29           | 746128.31          |         |
| 13444.00                                                              | 89.79      | 177.39    | 12123.77       | 1487.69       | -1471.39             | 298.00               | 1.00                 | 375646.41           | 746133.00          |         |
| 13538.00                                                              | 88.53      | 176.25    | 12125.15       | 1581.67       | -1565.23             | 303.22               | 1.81                 | 375552.57           | 746138.22          |         |
| 13633.00                                                              | 91.82      | 177.47    | 12124.86       | 1676.65       | -1660.07             | 308.42               | 3.69                 | 375457.73           | 746143.42          |         |
| 13727.00                                                              | 91.88      | 177.90    | 12121.82       | 1770.58       | -1753.95             | 312.21               | 0.46                 | 375363.85           | 746147.21          |         |
| 13822.00                                                              | 91.68      | 178.09    | 12118.87       | 1865.49       | -1848.84             | 315.54               | 0.29                 | 375268.96           | 746150.54          |         |
| 13917.00                                                              | 85.73      | 177.88    | 12121.02       | 1960.38       | -1943.72             | 318.87               | 6.27                 | 375174.08           | 746153.87          |         |
| 14012.00                                                              | 85.02      | 178.73    | 12128.68       | 2055.01       | -2038.36             | 321.67               | 1.16                 | 375079.44           | 746156.67          |         |
| 14106.00                                                              | 85.38      | 178.86    | 12136.54       | 2148.58       | -2132.01             | 323.64               | 0.41                 | 374985.79           | 746158.64          |         |
| 14201.00                                                              | 87.06      | 180.43    | 12142.81       | 2243.21       | -2226.80             | 324.23               | 2.42                 | 374891.00           | 746159.23          |         |
| 14296.00                                                              | 89.09      | 180.21    | 12146.00       | 2337.91       | -2321.74             | 323.70               | 2.15                 | 374796.06           | 746158.70          |         |
| 14390.00                                                              | 90.77      | 179.58    | 12146.11       | 2431.72       | -2415.73             | 323.87               | 1.91                 | 374702.07           | 746158.87          |         |
| 14485.00                                                              | 91.47      | 178.99    | 12144.26       | 2526.56       | -2510.71             | 325.06               | 0.96                 | 374607.09           | 746160.06          |         |
| 14580.00                                                              | 90.70      | 178.08    | 12142.46       | 2621.47       | -2605.66             | 327.49               | 1.25                 | 374512.14           | 746162.49          |         |
| 14675.00                                                              | 90.49      | 179.76    | 12141.47       | 2716.36       | -2700.63             | 329.28               | 1.78                 | 374417.17           | 746164.28          |         |
| 14769.00                                                              | 92.10      | 179.18    | 12139.35       | 2810.18       | -2794.60             | 330.15               | 1.82                 | 374323.20           | 746165.15          |         |

10. Survey Data

| Survey Points: (Relative to Slot centre)(TVD relative to Drill Floor) |            |           |                 |               |                      |                      |                     |                    |                   |                       |
|-----------------------------------------------------------------------|------------|-----------|-----------------|---------------|----------------------|----------------------|---------------------|--------------------|-------------------|-----------------------|
| MD<br>(US ft)                                                         | Inc<br>(°) | Az<br>(°) | TVD<br>(US ft)  | VS<br>(US ft) | N. Offset<br>(US ft) | E. Offset<br>(US ft) | DLS<br>(°/100US ft) | Northng<br>(US ft) | Eastng<br>(US ft) | Comment               |
| 14864.00                                                              | 91.19      | 179.47    | 12136.62        | 2905.01       | -2889.55             | 331.26               | 1.01                | 374228.25          | 746166.26         |                       |
| 14959.00                                                              | 88.32      | 177.72    | 12137.03        | 2999.92       | -2984.51             | 333.59               | 3.54                | 374133.29          | 746168.59         |                       |
| 15054.00                                                              | 90.28      | 179.28    | 12138.19        | 3094.83       | -3079.46             | 336.08               | 2.64                | 374038.34          | 746171.08         |                       |
| 15149.00                                                              | 91.95      | 181.32    | 12136.34        | 3189.57       | -3174.44             | 335.58               | 2.77                | 373943.36          | 746170.58         |                       |
| 15243.00                                                              | 89.44      | 177.77    | 12135.20        | 3283.38       | -3268.40             | 336.33               | 4.62                | 373849.40          | 746171.33         |                       |
| 15337.00                                                              | 85.17      | 174.98    | 12139.62        | 3377.25       | -3362.08             | 342.26               | 5.42                | 373755.72          | 746177.26         |                       |
| 15422.00                                                              | 86.15      | 174.73    | 12146.05        | 3461.98       | -3446.50             | 349.86               | 1.19                | 373671.30          | 746184.86         |                       |
| 15516.00                                                              | 90.28      | 176.88    | 12148.98        | 3555.90       | -3540.17             | 356.73               | 4.95                | 373577.63          | 746191.73         |                       |
| 15611.00                                                              | 92.52      | 180.63    | 12146.66        | 3650.76       | -3635.10             | 358.79               | 4.60                | 373482.70          | 746193.79         |                       |
| 15705.00                                                              | 90.49      | 186.15    | 12144.18        | 3743.96       | -3728.86             | 353.24               | 6.25                | 373388.94          | 746188.24         |                       |
| 15800.00                                                              | 89.23      | 190.15    | 12144.42        | 3836.90       | -3822.88             | 339.77               | 4.41                | 373294.92          | 746174.77         |                       |
| 15894.00                                                              | 91.12      | 191.20    | 12144.13        | 3927.94       | -3915.25             | 322.36               | 2.30                | 373202.55          | 746157.36         |                       |
| 15989.00                                                              | 88.11      | 184.38    | 12144.77        | 4020.95       | -4009.30             | 309.49               | 7.85                | 373108.50          | 746144.49         |                       |
| 16083.00                                                              | 89.02      | 179.83    | 12147.12        | 4114.41       | -4103.18             | 306.04               | 4.93                | 373014.62          | 746141.04         |                       |
| 16178.00                                                              | 91.05      | 180.80    | 12147.07        | 4209.16       | -4198.18             | 305.52               | 2.37                | 372919.62          | 746140.52         |                       |
| 16272.00                                                              | 88.32      | 177.09    | 12147.58        | 4303.03       | -4292.13             | 307.25               | 4.90                | 372825.67          | 746142.25         |                       |
| 16367.00                                                              | 92.03      | 177.21    | 12147.29        | 4398.00       | -4387.00             | 311.97               | 3.91                | 372730.80          | 746146.97         |                       |
| 16461.00                                                              | 92.10      | 178.31    | 12143.91        | 4491.91       | -4480.86             | 315.65               | 1.17                | 372636.94          | 746150.65         |                       |
| 16555.00                                                              | 91.75      | 177.46    | 12140.75        | 4585.82       | -4574.75             | 319.11               | 0.98                | 372543.05          | 746154.11         |                       |
| 16650.00                                                              | 90.28      | 179.75    | 12139.06        | 4680.71       | -4669.69             | 321.42               | 2.86                | 372448.11          | 746156.42         |                       |
| 16744.00                                                              | 91.61      | 183.19    | 12137.51        | 4774.30       | -4763.63             | 319.01               | 3.92                | 372354.17          | 746154.01         |                       |
| 16839.00                                                              | 90.91      | 183.31    | 12135.43        | 4868.57       | -4858.46             | 313.63               | 0.75                | 372259.34          | 746148.63         |                       |
| 16933.00                                                              | 87.83      | 180.88    | 12136.46        | 4962.06       | -4952.37             | 310.19               | 4.17                | 372165.43          | 746145.19         |                       |
| 16969.00                                                              | 89.09      | 182.51    | <u>12137.43</u> | 4997.88       | -4988.34             | 309.13               | 5.72                | 372129.46          | 746144.13         | Last WFT<br>MWD Svy   |
| 17035.00                                                              | 89.09      | 182.51    | 12138.47        | 5063.48       | -5054.27             | 306.24               | 0.00                | 372063.53          | 746141.24         | TD@17035'<br>MD / PTB |