



END OF WELL REPORT

Prepared For:

**Extraction Oil & Gas
Winder South 3
Patterson 346
Weld County, CO**

Prepared By:

***Seth Burstad
Rockies Region Well Planner
Scientific Drilling***

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TABLE OF CONTENTS

- 1. Directional Plot and Surveys**
- 2. Daily Drilling Reports**
- 3. BHA Summary Reports and Slide Sheets**
- 4. Graphical Job History**
- 5. Support Staff**



Project: Weld County, CO NAD 83
 Site: Winder South Pad
 Well: Winder South 3
 Wellbore: OH
 Design: OH



WELL DETAILS: Winder South 3

GL 4854' & KB 25' @ 4879.00ft (Patterson 346) 4854.00
 Northing 1426546.89 Easting 3169458.32 Latitude 40° 30' 9.626 N Longitude 104° 53' 26.257 W

Design: OH (Winder South 3/OH)

Created By: Seth Burstad Date: 9-02-2016

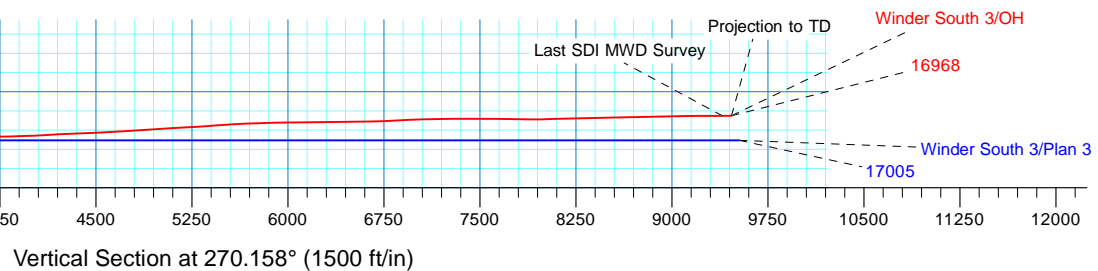
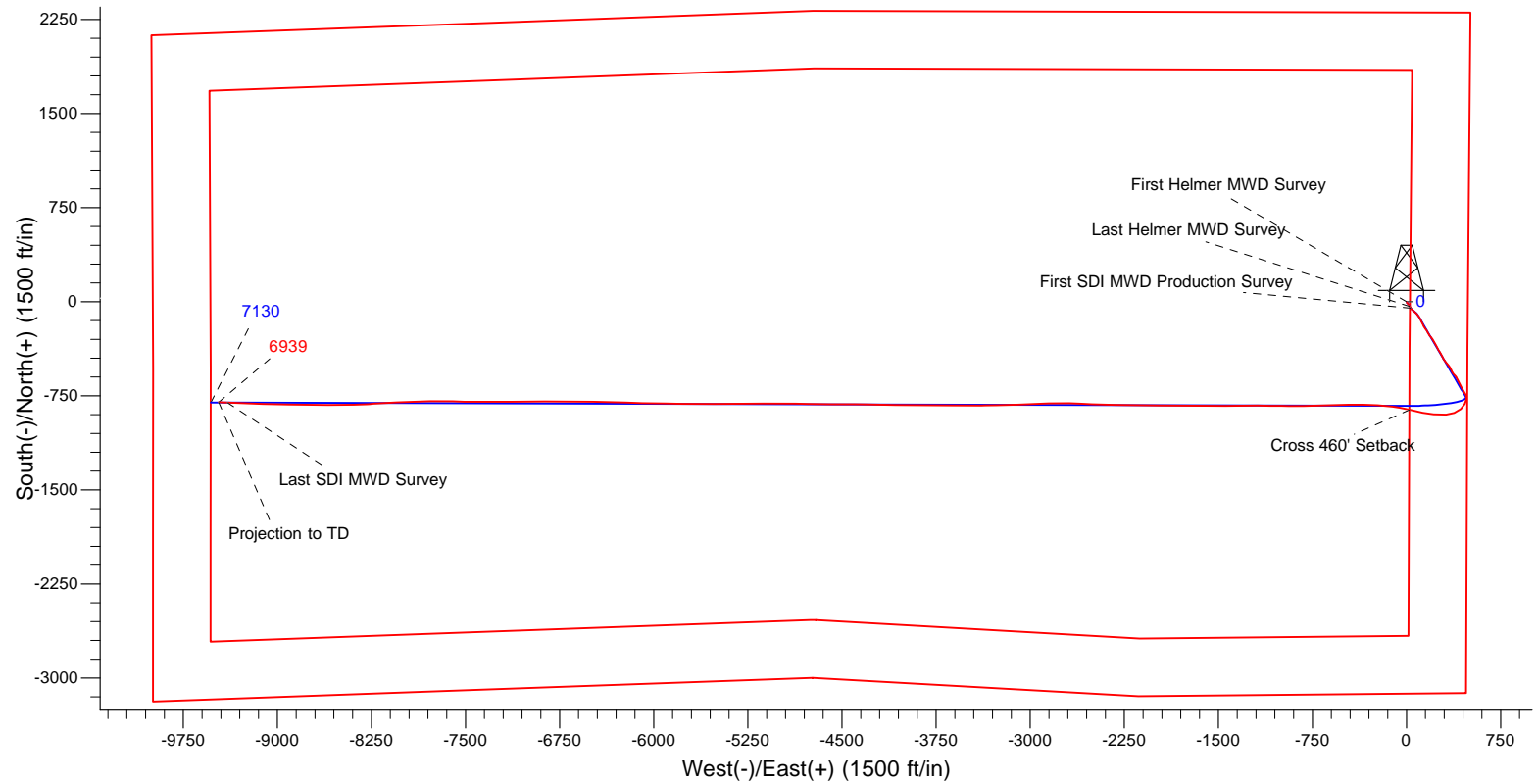
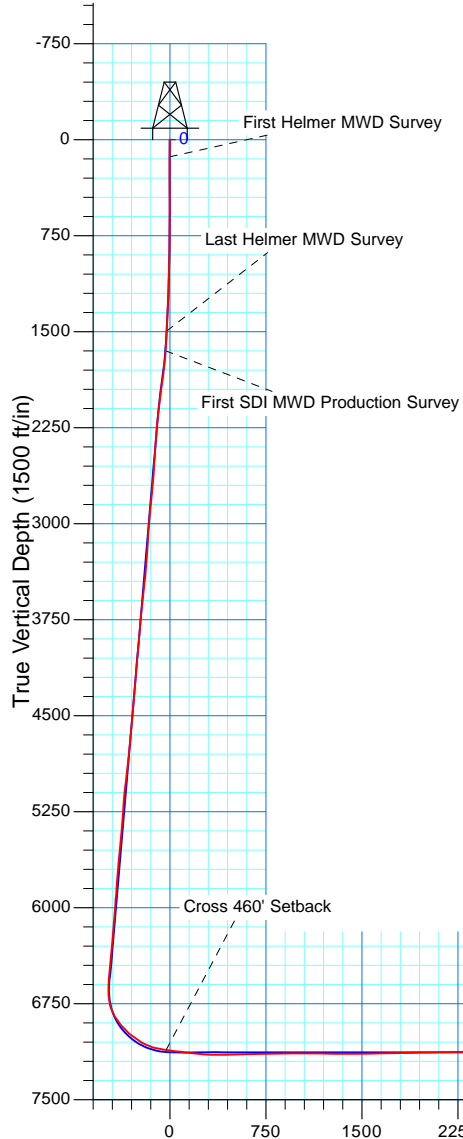
PROJECT DETAILS: Weld County, CO NAD 83

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

System Datum: Mean Sea Level
 Local North: True

ANNOTATIONS

| TVD | MD | Inc | Azi | +N/-S | +E/-W | Vsect | Annotation |
|---------|----------|-------|---------|---------|----------|---------|---------------------------------|
| 134.00 | 134.00 | 0.30 | 113.800 | -0.14 | 0.32 | -0.32 | First Helmer MWD Survey |
| 1496.50 | 1498.00 | 6.60 | 148.300 | -37.81 | 24.51 | -24.61 | Last Helmer MWD Survey |
| 1649.65 | 1652.00 | 5.48 | 149.030 | -51.64 | 32.94 | -33.09 | First SDI MWD Production Survey |
| 7112.50 | 7462.13 | 82.34 | 284.279 | -860.86 | 26.13 | -28.50 | Cross 460' Setback |
| 6939.17 | 16899.00 | 90.34 | 272.450 | -804.39 | -9398.60 | 9396.35 | Last SDI MWD Survey |
| 6938.76 | 16968.00 | 90.34 | 272.450 | -801.44 | -9467.54 | 9465.29 | Projection to TD |





Extraction Oil & Gas

Weld County, CO NAD 83

Winder South Pad

Winder South 3

OH

Design: OH

Standard Survey Report

02 September, 2016



| | | | |
|------------------|------------------------|-------------------------------------|---|
| Company: | Extraction Oil & Gas | Local Co-ordinate Reference: | Well Winder South 3 |
| Project: | Weld County, CO NAD 83 | TVD Reference: | GL 4854' & KB 25' @ 4879.00ft (Patterson 346) |
| Site: | Winder South Pad | MD Reference: | GL 4854' & KB 25' @ 4879.00ft (Patterson 346) |
| Well: | Winder South 3 | North Reference: | True |
| Wellbore: | OH | Survey Calculation Method: | Minimum Curvature |
| Design: | OH | Database: | Casper District |

| | | | |
|--------------------|---------------------------|----------------------|----------------|
| Project | Weld County, CO NAD 83 | | |
| Map System: | US State Plane 1983 | System Datum: | Mean Sea Level |
| Geo Datum: | North American Datum 1983 | | |
| Map Zone: | Colorado Northern Zone | | |

| Site | | | | | | Winder South Pad, Site Center: Winder South 2 | | | | | |
|-----------------------|--|----------|--|--------------|--|---|--|-------------------|--|-------------------|--|
| Site Position: | | | | Northing: | | 1,426,547.14 usft | | Latitude: | | 40° 30' 9.630 N | |
| From: | | Lat/Long | | Easting: | | 3,169,438.29 usft | | Longitude: | | 104° 53' 26.516 W | |
| Position Uncertainty: | | 0.00 ft | | Slot Radius: | | 13.200 in | | Grid Convergence: | | 0.39 ° | |

| | | | | | | |
|----------------------|---|---------|---------------------|-------------------|---------------|-------------------|
| Well | Winder South 3, 2306' FNL 488' FEL Sec 9 T6N R67W | | | | | |
| Well Position | +N/-S | 0.00 ft | Northing: | 1,426,546.89 usft | Latitude: | 40° 30' 9.626 N |
| | +E/-W | 0.00 ft | Easting: | 3,169,458.32 usft | Longitude: | 104° 53' 26.257 W |
| Position Uncertainty | | 0.00 ft | Wellhead Elevation: | 0.00 ft | Ground Level: | 4,854.00 ft |

| | | | | | |
|------------------|-------------------|--------------------|------------------------|----------------------|----------------------------|
| Wellbore | OH | | | | |
| Magnetics | Model Name | Sample Date | Declination (°) | Dip Angle (°) | Field Strength (nT) |
| | BGGM2016 | 8/26/2016 | 8.52 | 66.95 | 52,521 |

| | | | | | |
|--------------------------|------------------------------|-------------------|-------------------|----------------------|------|
| Design | OH | | | | |
| Audit Notes: | | | | | |
| Version: | 1.0 | Phase: | ACTUAL | Tie On Depth: | 0.00 |
| Vertical Section: | Depth From (TVD) (ft) | +N/-S (ft) | +E/-W (ft) | Direction (°) | |
| | 0.00 | 0.00 | 0.00 | 270.158 | |

| | | | | | |
|-----------------------|----------------|-----------------------------|------------------|------------------------------|--|
| Survey Program | Date | 9/2/2016 | | | |
| From (ft) | To (ft) | Survey (Wellbore) | Tool Name | Description | |
| 134.00 | 1,498.00 | Survey #1 - Surface (OH) | MWD | MWD - Standard | |
| 1,652.00 | 16,968.00 | Survey #2 - Production (OH) | SDI MWD | SDI MWD - Standard ver 1.0.1 | |

| | | | | | | | | | | |
|--|------------------------|--------------------|----------------------------|-------------------|-------------------|------------------------------|------------------------------|-----------------------------|----------------------------|--|
| Survey | | | | | | | | | | |
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) | |
| 1,498.00 | 6.60 | 148.300 | 1,496.50 | -37.81 | 24.51 | -24.61 | 0.83 | -0.71 | 3.57 | |
| Last Helmer MWD Survey | | | | | | | | | | |
| 1,652.00 | 5.48 | 149.030 | 1,649.65 | -51.64 | 32.94 | -33.09 | 0.73 | -0.73 | 0.47 | |
| First SDI MWD Production Survey | | | | | | | | | | |
| 1,747.00 | 9.43 | 132.080 | 1,743.83 | -60.75 | 41.06 | -41.23 | 4.72 | 4.16 | -17.84 | |
| 1,841.00 | 8.94 | 132.170 | 1,836.63 | -70.82 | 52.19 | -52.38 | 0.52 | -0.52 | 0.10 | |
| 1,935.00 | 9.87 | 129.460 | 1,929.37 | -80.84 | 63.82 | -64.04 | 1.10 | 0.99 | -2.88 | |
| 2,030.00 | 11.03 | 136.480 | 2,022.79 | -92.61 | 76.37 | -76.62 | 1.81 | 1.22 | 7.39 | |
| 2,124.00 | 10.14 | 143.760 | 2,115.20 | -105.80 | 87.45 | -87.74 | 1.71 | -0.95 | 7.74 | |

| | | | |
|------------------|------------------------|-------------------------------------|---|
| Company: | Extraction Oil & Gas | Local Co-ordinate Reference: | Well Winder South 3 |
| Project: | Weld County, CO NAD 83 | TVD Reference: | GL 4854' & KB 25' @ 4879.00ft (Patterson 346) |
| Site: | Winder South Pad | MD Reference: | GL 4854' & KB 25' @ 4879.00ft (Patterson 346) |
| Well: | Winder South 3 | North Reference: | True |
| Wellbore: | OH | Survey Calculation Method: | Minimum Curvature |
| Design: | OH | Database: | Casper District |

| Survey | | | | | | | | | |
|---------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|-----------------------|----------------------|---------------------|
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
| 2,219.00 | 9.38 | 141.890 | 2,208.82 | -118.64 | 97.17 | -97.50 | 0.87 | -0.80 | -1.97 |
| 2,314.00 | 9.06 | 153.750 | 2,302.60 | -131.44 | 105.26 | -105.62 | 2.02 | -0.34 | 12.48 |
| 2,408.00 | 8.78 | 153.580 | 2,395.46 | -144.50 | 111.73 | -112.12 | 0.30 | -0.30 | -0.18 |
| 2,502.00 | 8.28 | 154.280 | 2,488.42 | -157.03 | 117.86 | -118.29 | 0.54 | -0.53 | 0.74 |
| 2,597.00 | 10.35 | 155.830 | 2,582.17 | -170.98 | 124.32 | -124.79 | 2.19 | 2.18 | 1.63 |
| 2,692.00 | 10.30 | 154.010 | 2,675.63 | -186.40 | 131.53 | -132.05 | 0.35 | -0.05 | -1.92 |
| 2,786.00 | 10.26 | 145.350 | 2,768.13 | -200.84 | 139.98 | -140.53 | 1.64 | -0.04 | -9.21 |
| 2,881.00 | 9.52 | 147.200 | 2,861.71 | -214.40 | 149.04 | -149.63 | 0.85 | -0.78 | 1.95 |
| 2,975.00 | 9.23 | 145.673 | 2,954.46 | -227.16 | 157.51 | -158.13 | 0.41 | -0.31 | -1.62 |
| 3,069.00 | 7.94 | 149.410 | 3,047.40 | -238.98 | 165.06 | -165.72 | 1.49 | -1.37 | 3.98 |
| 3,164.00 | 6.89 | 152.340 | 3,141.61 | -249.67 | 171.05 | -171.73 | 1.17 | -1.11 | 3.08 |
| 3,258.00 | 7.30 | 148.930 | 3,234.89 | -259.78 | 176.75 | -177.46 | 0.63 | 0.44 | -3.63 |
| 3,352.00 | 8.03 | 142.350 | 3,328.05 | -270.09 | 183.84 | -184.58 | 1.21 | 0.78 | -7.00 |
| 3,447.00 | 8.85 | 140.070 | 3,422.02 | -280.95 | 192.58 | -193.36 | 0.93 | 0.86 | -2.40 |
| 3,542.00 | 10.23 | 141.040 | 3,515.70 | -293.12 | 202.58 | -203.38 | 1.46 | 1.45 | 1.02 |
| 3,637.00 | 10.97 | 150.370 | 3,609.09 | -307.53 | 212.35 | -213.20 | 1.96 | 0.78 | 9.82 |
| 3,731.00 | 11.23 | 150.170 | 3,701.33 | -323.25 | 221.33 | -222.22 | 0.28 | 0.28 | -0.21 |
| 3,826.00 | 11.03 | 152.050 | 3,794.54 | -339.30 | 230.19 | -231.12 | 0.44 | -0.21 | 1.98 |
| 3,921.00 | 11.03 | 151.520 | 3,887.79 | -355.32 | 238.78 | -239.76 | 0.11 | 0.00 | -0.56 |
| 4,016.00 | 10.20 | 154.870 | 3,981.16 | -370.92 | 246.69 | -247.71 | 1.09 | -0.87 | 3.53 |
| 4,111.00 | 9.50 | 150.120 | 4,074.76 | -385.33 | 254.16 | -255.23 | 1.13 | -0.74 | -5.00 |
| 4,205.00 | 8.69 | 145.560 | 4,167.58 | -397.92 | 262.04 | -263.14 | 1.15 | -0.86 | -4.85 |
| 4,299.00 | 8.93 | 148.300 | 4,260.47 | -409.98 | 269.89 | -271.02 | 0.51 | 0.26 | 2.91 |
| 4,394.00 | 10.62 | 150.590 | 4,354.09 | -423.88 | 278.07 | -279.24 | 1.83 | 1.78 | 2.41 |
| 4,488.00 | 10.52 | 152.470 | 4,446.50 | -439.04 | 286.29 | -287.50 | 0.38 | -0.11 | 2.00 |
| 4,582.00 | 8.56 | 155.190 | 4,539.19 | -453.00 | 293.19 | -294.44 | 2.14 | -2.09 | 2.89 |
| 4,677.00 | 8.83 | 145.460 | 4,633.11 | -465.42 | 300.29 | -301.57 | 1.57 | 0.28 | -10.24 |
| 4,772.00 | 9.39 | 140.730 | 4,726.91 | -477.43 | 309.33 | -310.65 | 0.98 | 0.59 | -4.98 |
| 4,866.00 | 11.19 | 141.280 | 4,819.39 | -490.48 | 319.89 | -321.24 | 1.92 | 1.91 | 0.59 |
| 4,961.00 | 10.95 | 142.270 | 4,912.63 | -504.81 | 331.18 | -332.57 | 0.32 | -0.25 | 1.04 |
| 5,056.00 | 11.30 | 142.660 | 5,005.84 | -519.35 | 342.35 | -343.78 | 0.38 | 0.37 | 0.41 |
| 5,151.00 | 11.20 | 154.370 | 5,099.03 | -535.07 | 351.98 | -353.46 | 2.40 | -0.11 | 12.33 |
| 5,245.00 | 9.74 | 156.110 | 5,191.46 | -550.57 | 359.15 | -360.67 | 1.59 | -1.55 | 1.85 |
| 5,340.00 | 8.49 | 149.640 | 5,285.26 | -563.97 | 365.95 | -367.51 | 1.70 | -1.32 | -6.81 |
| 5,435.00 | 7.80 | 143.150 | 5,379.30 | -575.18 | 373.36 | -374.95 | 1.21 | -0.73 | -6.83 |
| 5,530.00 | 8.56 | 137.300 | 5,473.34 | -585.53 | 382.02 | -383.64 | 1.19 | 0.80 | -6.16 |
| 5,625.00 | 8.49 | 140.470 | 5,567.29 | -596.14 | 391.28 | -392.92 | 0.50 | -0.07 | 3.34 |
| 5,719.00 | 9.76 | 149.210 | 5,660.10 | -608.34 | 399.78 | -401.45 | 2.00 | 1.35 | 9.30 |
| 5,814.00 | 9.18 | 152.780 | 5,753.81 | -621.99 | 407.37 | -409.08 | 0.87 | -0.61 | 3.76 |
| 5,909.00 | 9.48 | 154.890 | 5,847.55 | -635.81 | 414.15 | -415.90 | 0.48 | 0.32 | 2.22 |
| 6,003.00 | 11.23 | 154.440 | 5,940.02 | -651.08 | 421.39 | -423.18 | 1.86 | 1.86 | -0.48 |
| 6,098.00 | 9.48 | 153.480 | 6,033.47 | -666.43 | 428.87 | -430.71 | 1.85 | -1.84 | -1.01 |
| 6,192.00 | 8.89 | 150.960 | 6,126.26 | -679.71 | 435.85 | -437.73 | 0.76 | -0.63 | -2.68 |

| | | | |
|------------------|------------------------|-------------------------------------|---|
| Company: | Extraction Oil & Gas | Local Co-ordinate Reference: | Well Winder South 3 |
| Project: | Weld County, CO NAD 83 | TVD Reference: | GL 4854' & KB 25' @ 4879.00ft (Patterson 346) |
| Site: | Winder South Pad | MD Reference: | GL 4854' & KB 25' @ 4879.00ft (Patterson 346) |
| Well: | Winder South 3 | North Reference: | True |
| Wellbore: | OH | Survey Calculation Method: | Minimum Curvature |
| Design: | OH | Database: | Casper District |

| Survey | | | | | | | | | |
|---------------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|-----------------------|----------------------|---------------------|
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
| 6,287.00 | 9.54 | 148.510 | 6,220.03 | -692.84 | 443.53 | -445.44 | 0.80 | 0.68 | -2.58 |
| 6,381.00 | 9.62 | 149.480 | 6,312.72 | -706.25 | 451.59 | -453.53 | 0.19 | 0.09 | 1.03 |
| 6,476.00 | 9.95 | 149.070 | 6,406.34 | -720.12 | 459.84 | -461.82 | 0.36 | 0.35 | -0.43 |
| 6,570.00 | 11.28 | 149.200 | 6,498.73 | -734.99 | 468.72 | -470.74 | 1.42 | 1.41 | 0.14 |
| 6,665.00 | 9.84 | 159.470 | 6,592.13 | -750.57 | 476.32 | -478.39 | 2.49 | -1.52 | 10.81 |
| 6,759.00 | 21.24 | 187.740 | 6,682.66 | -775.08 | 476.85 | -478.99 | 14.23 | 12.13 | 30.07 |
| 6,854.00 | 31.07 | 205.160 | 6,767.95 | -814.47 | 464.06 | -466.31 | 13.03 | 10.35 | 18.34 |
| 6,948.00 | 37.75 | 228.140 | 6,845.78 | -855.85 | 432.15 | -434.51 | 15.43 | 7.11 | 24.45 |
| 7,043.00 | 43.05 | 248.700 | 6,918.43 | -887.19 | 380.01 | -382.45 | 15.03 | 5.58 | 21.64 |
| 7,137.00 | 47.87 | 268.820 | 6,984.68 | -899.64 | 314.89 | -317.37 | 16.04 | 5.13 | 21.40 |
| 7,261.00 | 61.05 | 273.780 | 7,056.63 | -897.00 | 214.30 | -216.77 | 11.11 | 10.63 | 4.00 |
| 7,356.00 | 74.95 | 281.430 | 7,092.18 | -885.09 | 127.33 | -129.77 | 16.41 | 14.63 | 8.05 |
| 7,450.00 | 82.12 | 285.130 | 7,110.86 | -863.91 | 37.75 | -40.13 | 8.55 | 7.63 | 3.94 |
| 7,462.13 | 82.34 | 284.279 | 7,112.50 | -860.86 | 26.13 | -28.50 | 7.18 | 1.81 | -7.01 |
| Cross 460' Setback | | | | | | | | | |
| 7,545.00 | 83.88 | 278.490 | 7,122.45 | -844.64 | -54.49 | 52.16 | 7.18 | 1.86 | -6.99 |
| 7,639.00 | 82.81 | 276.330 | 7,133.34 | -832.59 | -147.07 | 144.77 | 2.55 | -1.14 | -2.30 |
| 7,734.00 | 84.28 | 274.300 | 7,144.02 | -823.85 | -241.05 | 238.78 | 2.63 | 1.55 | -2.14 |
| 7,828.00 | 88.96 | 269.800 | 7,149.57 | -820.51 | -334.78 | 332.52 | 6.90 | 4.98 | -4.79 |
| 7,923.00 | 91.14 | 268.990 | 7,149.48 | -821.51 | -429.77 | 427.50 | 2.45 | 2.29 | -0.85 |
| 8,018.00 | 91.58 | 268.540 | 7,147.23 | -823.56 | -524.72 | 522.45 | 0.66 | 0.46 | -0.47 |
| 8,112.00 | 91.21 | 268.600 | 7,144.94 | -825.90 | -618.66 | 616.38 | 0.40 | -0.39 | 0.06 |
| 8,207.00 | 91.51 | 268.390 | 7,142.68 | -828.40 | -713.60 | 711.32 | 0.39 | 0.32 | -0.22 |
| 8,301.00 | 91.51 | 268.970 | 7,140.21 | -830.56 | -807.54 | 805.25 | 0.62 | 0.00 | 0.62 |
| 8,396.00 | 90.00 | 270.070 | 7,138.96 | -831.36 | -902.53 | 900.23 | 1.97 | -1.59 | 1.16 |
| 8,490.00 | 90.77 | 271.100 | 7,138.32 | -830.40 | -996.52 | 994.23 | 1.37 | 0.82 | 1.10 |
| 8,585.00 | 88.86 | 270.250 | 7,138.63 | -829.28 | -1,091.51 | 1,089.22 | 2.20 | -2.01 | -0.89 |
| 8,679.00 | 88.79 | 270.260 | 7,140.56 | -828.86 | -1,185.49 | 1,183.20 | 0.08 | -0.07 | 0.01 |
| 8,774.00 | 89.26 | 269.380 | 7,142.17 | -829.16 | -1,280.47 | 1,278.18 | 1.05 | 0.49 | -0.93 |
| 8,868.00 | 90.17 | 269.980 | 7,142.64 | -829.68 | -1,374.47 | 1,372.17 | 1.16 | 0.97 | 0.64 |
| 8,963.00 | 90.77 | 270.200 | 7,141.86 | -829.53 | -1,469.46 | 1,467.17 | 0.67 | 0.63 | 0.23 |
| 9,057.00 | 91.34 | 269.610 | 7,140.13 | -829.69 | -1,563.45 | 1,561.15 | 0.87 | 0.61 | -0.63 |
| 9,152.00 | 90.64 | 270.760 | 7,138.49 | -829.38 | -1,658.43 | 1,656.14 | 1.42 | -0.74 | 1.21 |
| 9,246.00 | 90.97 | 270.770 | 7,137.17 | -828.13 | -1,752.41 | 1,750.12 | 0.35 | 0.35 | 0.01 |
| 9,341.00 | 91.95 | 269.830 | 7,134.75 | -827.63 | -1,847.38 | 1,845.09 | 1.43 | 1.03 | -0.99 |
| 9,435.00 | 90.40 | 269.370 | 7,132.82 | -828.29 | -1,941.35 | 1,939.06 | 1.72 | -1.65 | -0.49 |
| 9,530.00 | 91.64 | 270.970 | 7,131.13 | -828.00 | -2,036.33 | 2,034.04 | 2.13 | 1.31 | 1.68 |
| 9,624.00 | 90.40 | 271.350 | 7,129.46 | -826.10 | -2,130.30 | 2,128.01 | 1.38 | -1.32 | 0.40 |
| 9,719.00 | 90.54 | 270.890 | 7,128.68 | -824.24 | -2,225.27 | 2,222.99 | 0.51 | 0.15 | -0.48 |
| 9,813.00 | 90.67 | 270.820 | 7,127.69 | -822.84 | -2,319.26 | 2,316.98 | 0.16 | 0.14 | -0.07 |
| 9,908.00 | 90.10 | 271.220 | 7,127.05 | -821.15 | -2,414.24 | 2,411.97 | 0.73 | -0.60 | 0.42 |
| 10,002.00 | 89.97 | 272.620 | 7,126.99 | -818.00 | -2,508.19 | 2,505.92 | 1.50 | -0.14 | 1.49 |
| 10,097.00 | 88.59 | 272.370 | 7,128.18 | -813.87 | -2,603.09 | 2,600.83 | 1.48 | -1.45 | -0.26 |
| 10,191.00 | 88.05 | 271.280 | 7,130.94 | -810.87 | -2,697.00 | 2,694.75 | 1.29 | -0.57 | -1.16 |

| | | | |
|------------------|------------------------|-------------------------------------|---|
| Company: | Extraction Oil & Gas | Local Co-ordinate Reference: | Well Winder South 3 |
| Project: | Weld County, CO NAD 83 | TVD Reference: | GL 4854' & KB 25' @ 4879.00ft (Patterson 346) |
| Site: | Winder South Pad | MD Reference: | GL 4854' & KB 25' @ 4879.00ft (Patterson 346) |
| Well: | Winder South 3 | North Reference: | True |
| Wellbore: | OH | Survey Calculation Method: | Minimum Curvature |
| Design: | OH | Database: | Casper District |

| Survey | | | | | | | | | |
|---------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|-----------------------|----------------------|---------------------|
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
| 10,286.00 | 88.59 | 269.840 | 7,133.73 | -809.95 | -2,791.95 | 2,789.70 | 1.62 | 0.57 | -1.52 |
| 10,380.00 | 90.91 | 268.070 | 7,134.14 | -811.66 | -2,885.92 | 2,883.67 | 3.10 | 2.47 | -1.88 |
| 10,475.00 | 91.58 | 267.470 | 7,132.07 | -815.36 | -2,980.83 | 2,978.57 | 0.95 | 0.71 | -0.63 |
| 10,569.00 | 91.34 | 267.250 | 7,129.68 | -819.68 | -3,074.69 | 3,072.42 | 0.35 | -0.26 | -0.23 |
| 10,664.00 | 92.89 | 268.670 | 7,126.17 | -823.06 | -3,169.56 | 3,167.28 | 2.21 | 1.63 | 1.49 |
| 10,758.00 | 93.66 | 268.810 | 7,120.80 | -825.13 | -3,263.39 | 3,261.10 | 0.83 | 0.82 | 0.15 |
| 10,853.00 | 93.66 | 268.640 | 7,114.74 | -827.24 | -3,358.17 | 3,355.88 | 0.18 | 0.00 | -0.18 |
| 10,947.00 | 91.78 | 270.260 | 7,110.27 | -828.14 | -3,452.05 | 3,449.76 | 2.64 | -2.00 | 1.72 |
| 11,041.00 | 91.81 | 270.770 | 7,107.33 | -827.29 | -3,546.00 | 3,543.71 | 0.54 | 0.03 | 0.54 |
| 11,136.00 | 91.27 | 270.200 | 7,104.78 | -826.49 | -3,640.96 | 3,638.67 | 0.83 | -0.57 | -0.60 |
| 11,230.00 | 91.14 | 269.990 | 7,102.80 | -826.33 | -3,734.94 | 3,732.65 | 0.26 | -0.14 | -0.22 |
| 11,325.00 | 91.85 | 270.620 | 7,100.32 | -825.83 | -3,829.91 | 3,827.62 | 1.00 | 0.75 | 0.66 |
| 11,420.00 | 92.22 | 270.580 | 7,096.95 | -824.83 | -3,924.84 | 3,922.55 | 0.39 | 0.39 | -0.04 |
| 11,514.00 | 91.71 | 270.370 | 7,093.73 | -824.05 | -4,018.78 | 4,016.50 | 0.59 | -0.54 | -0.22 |
| 11,609.00 | 93.22 | 271.010 | 7,089.64 | -822.91 | -4,113.69 | 4,111.40 | 1.73 | 1.59 | 0.67 |
| 11,703.00 | 93.59 | 271.800 | 7,084.06 | -820.61 | -4,207.49 | 4,205.21 | 0.93 | 0.39 | 0.84 |
| 11,797.00 | 91.85 | 270.140 | 7,079.60 | -819.02 | -4,301.36 | 4,299.09 | 2.56 | -1.85 | -1.77 |
| 11,891.00 | 91.68 | 270.690 | 7,076.70 | -818.34 | -4,395.32 | 4,393.04 | 0.61 | -0.18 | 0.59 |
| 11,986.00 | 93.36 | 270.060 | 7,072.52 | -817.72 | -4,490.22 | 4,487.95 | 1.89 | 1.77 | -0.66 |
| 12,081.00 | 93.29 | 270.230 | 7,067.01 | -817.48 | -4,585.06 | 4,582.79 | 0.19 | -0.07 | 0.18 |
| 12,175.00 | 93.62 | 270.640 | 7,061.35 | -816.77 | -4,678.89 | 4,676.62 | 0.56 | 0.35 | 0.44 |
| 12,269.00 | 92.75 | 271.300 | 7,056.13 | -815.18 | -4,772.73 | 4,770.46 | 1.16 | -0.93 | 0.70 |
| 12,364.00 | 93.93 | 270.210 | 7,050.59 | -813.93 | -4,867.55 | 4,865.29 | 1.69 | 1.24 | -1.15 |
| 12,458.00 | 93.82 | 270.490 | 7,044.24 | -813.36 | -4,961.34 | 4,959.07 | 0.32 | -0.12 | 0.30 |
| 12,553.00 | 93.83 | 270.100 | 7,037.90 | -812.87 | -5,056.12 | 5,053.86 | 0.41 | 0.01 | -0.41 |
| 12,647.00 | 93.15 | 270.180 | 7,032.18 | -812.64 | -5,149.95 | 5,147.69 | 0.73 | -0.72 | 0.09 |
| 12,742.00 | 93.02 | 269.550 | 7,027.07 | -812.86 | -5,244.81 | 5,242.55 | 0.68 | -0.14 | -0.66 |
| 12,836.00 | 93.46 | 269.350 | 7,021.75 | -813.76 | -5,338.65 | 5,336.39 | 0.51 | 0.47 | -0.21 |
| 12,931.00 | 94.13 | 269.820 | 7,015.47 | -814.45 | -5,433.44 | 5,431.18 | 0.86 | 0.71 | 0.49 |
| 13,025.00 | 93.42 | 269.870 | 7,009.28 | -814.70 | -5,527.24 | 5,524.97 | 0.76 | -0.76 | 0.05 |
| 13,119.00 | 92.35 | 269.990 | 7,004.55 | -814.82 | -5,621.12 | 5,618.85 | 1.15 | -1.14 | 0.13 |
| 13,214.00 | 92.78 | 270.760 | 7,000.29 | -814.20 | -5,716.02 | 5,713.75 | 0.93 | 0.45 | 0.81 |
| 13,309.00 | 92.77 | 270.790 | 6,995.69 | -812.91 | -5,810.90 | 5,808.64 | 0.03 | -0.01 | 0.03 |
| 13,403.00 | 91.34 | 270.130 | 6,992.32 | -812.16 | -5,904.83 | 5,902.57 | 1.68 | -1.52 | -0.70 |
| 13,497.00 | 91.68 | 271.310 | 6,989.85 | -810.98 | -5,998.79 | 5,996.53 | 1.31 | 0.36 | 1.26 |
| 13,591.00 | 90.17 | 271.370 | 6,988.33 | -808.78 | -6,092.75 | 6,090.50 | 1.61 | -1.61 | 0.06 |
| 13,686.00 | 89.26 | 271.940 | 6,988.80 | -806.04 | -6,187.71 | 6,185.46 | 1.13 | -0.96 | 0.60 |
| 13,780.00 | 90.47 | 271.450 | 6,989.02 | -803.26 | -6,281.66 | 6,279.43 | 1.39 | 1.29 | -0.52 |
| 13,874.00 | 91.54 | 271.830 | 6,987.37 | -800.57 | -6,375.61 | 6,373.38 | 1.21 | 1.14 | 0.40 |
| 13,969.00 | 90.20 | 271.010 | 6,985.93 | -798.21 | -6,470.57 | 6,468.34 | 1.65 | -1.41 | -0.86 |
| 14,063.00 | 90.90 | 271.150 | 6,985.03 | -796.44 | -6,564.55 | 6,562.32 | 0.76 | 0.74 | 0.15 |
| 14,157.00 | 91.51 | 271.520 | 6,983.05 | -794.25 | -6,658.50 | 6,656.28 | 0.76 | 0.65 | 0.39 |
| 14,252.00 | 92.05 | 268.610 | 6,980.10 | -794.15 | -6,753.44 | 6,751.23 | 3.11 | 0.57 | -3.06 |

| | | | |
|------------------|------------------------|-------------------------------------|---|
| Company: | Extraction Oil & Gas | Local Co-ordinate Reference: | Well Winder South 3 |
| Project: | Weld County, CO NAD 83 | TVD Reference: | GL 4854' & KB 25' @ 4879.00ft (Patterson 346) |
| Site: | Winder South Pad | MD Reference: | GL 4854' & KB 25' @ 4879.00ft (Patterson 346) |
| Well: | Winder South 3 | North Reference: | True |
| Wellbore: | OH | Survey Calculation Method: | Minimum Curvature |
| Design: | OH | Database: | Casper District |

| Survey | | | | | | | | | |
|---------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|-----------------------|----------------------|---------------------|
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
| 14,346.00 | 93.25 | 268.690 | 6,975.76 | -796.36 | -6,847.31 | 6,845.09 | 1.28 | 1.28 | 0.09 |
| 14,440.00 | 92.72 | 269.160 | 6,970.86 | -798.12 | -6,941.17 | 6,938.94 | 0.75 | -0.56 | 0.50 |
| 14,535.00 | 91.58 | 269.820 | 6,967.30 | -798.96 | -7,036.10 | 7,033.87 | 1.39 | -1.20 | 0.69 |
| 14,630.00 | 91.14 | 270.560 | 6,965.04 | -798.65 | -7,131.07 | 7,128.84 | 0.91 | -0.46 | 0.78 |
| 14,724.00 | 90.60 | 269.560 | 6,963.61 | -798.55 | -7,225.06 | 7,222.83 | 1.21 | -0.57 | -1.06 |
| 14,819.00 | 91.48 | 270.630 | 6,961.89 | -798.39 | -7,320.04 | 7,317.81 | 1.46 | 0.93 | 1.13 |
| 14,913.00 | 89.36 | 269.340 | 6,961.20 | -798.42 | -7,414.03 | 7,411.80 | 2.64 | -2.26 | -1.37 |
| 15,007.00 | 88.56 | 271.640 | 6,962.91 | -797.61 | -7,508.00 | 7,505.77 | 2.59 | -0.85 | 2.45 |
| 15,102.00 | 90.67 | 271.140 | 6,963.55 | -795.31 | -7,602.97 | 7,600.74 | 2.28 | 2.22 | -0.53 |
| 15,197.00 | 89.33 | 270.110 | 6,963.55 | -794.27 | -7,697.96 | 7,695.74 | 1.78 | -1.41 | -1.08 |
| 15,292.00 | 88.49 | 270.360 | 6,965.35 | -793.88 | -7,792.94 | 7,790.72 | 0.92 | -0.88 | 0.26 |
| 15,386.00 | 89.20 | 267.620 | 6,967.25 | -795.54 | -7,886.89 | 7,884.67 | 3.01 | 0.76 | -2.91 |
| 15,481.00 | 91.71 | 266.770 | 6,966.49 | -800.19 | -7,981.77 | 7,979.53 | 2.79 | 2.64 | -0.89 |
| 15,574.00 | 91.68 | 266.930 | 6,963.74 | -805.30 | -8,074.59 | 8,072.34 | 0.17 | -0.03 | 0.17 |
| 15,670.00 | 91.84 | 267.620 | 6,960.79 | -809.86 | -8,170.43 | 8,168.17 | 0.74 | 0.17 | 0.72 |
| 15,764.00 | 90.57 | 265.370 | 6,958.82 | -815.60 | -8,264.23 | 8,261.95 | 2.75 | -1.35 | -2.39 |
| 15,859.00 | 91.74 | 268.740 | 6,956.90 | -820.48 | -8,359.07 | 8,356.77 | 3.75 | 1.23 | 3.55 |
| 15,953.00 | 91.58 | 269.560 | 6,954.18 | -821.88 | -8,453.02 | 8,450.72 | 0.89 | -0.17 | 0.87 |
| 16,048.00 | 90.80 | 269.720 | 6,952.21 | -822.47 | -8,548.00 | 8,545.69 | 0.84 | -0.82 | 0.17 |
| 16,143.00 | 91.07 | 269.960 | 6,950.66 | -822.74 | -8,642.98 | 8,640.68 | 0.38 | 0.28 | 0.25 |
| 16,237.00 | 91.34 | 270.410 | 6,948.68 | -822.44 | -8,736.96 | 8,734.66 | 0.56 | 0.29 | 0.48 |
| 16,332.00 | 90.80 | 270.790 | 6,946.91 | -821.44 | -8,831.94 | 8,829.64 | 0.70 | -0.57 | 0.40 |
| 16,426.00 | 91.24 | 271.130 | 6,945.23 | -819.87 | -8,925.91 | 8,923.62 | 0.59 | 0.47 | 0.36 |
| 16,521.00 | 91.14 | 271.610 | 6,943.26 | -817.60 | -9,020.86 | 9,018.57 | 0.52 | -0.11 | 0.51 |
| 16,616.00 | 90.80 | 272.200 | 6,941.65 | -814.44 | -9,115.80 | 9,113.51 | 0.72 | -0.36 | 0.62 |
| 16,710.00 | 90.67 | 271.910 | 6,940.44 | -811.07 | -9,209.73 | 9,207.46 | 0.34 | -0.14 | -0.31 |
| 16,805.00 | 90.27 | 271.870 | 6,939.67 | -807.93 | -9,304.67 | 9,302.41 | 0.42 | -0.42 | -0.04 |
| 16,899.00 | 90.34 | 272.450 | 6,939.17 | -804.39 | -9,398.60 | 9,396.35 | 0.62 | 0.07 | 0.62 |
| Last SDI MWD Survey | | | | | | | | | |
| 16,968.00 | 90.34 | 272.450 | 6,938.76 | -801.44 | -9,467.54 | 9,465.29 | 0.00 | 0.00 | 0.00 |
| Projection to TD | | | | | | | | | |

| Design Annotations | | | | |
|---------------------|---------------------|-------------------|------------|---------------------------------|
| Measured Depth (ft) | Vertical Depth (ft) | Local Coordinates | | Comment |
| | | +N/-S (ft) | +E/-W (ft) | |
| 134.00 | 134.00 | -0.14 | 0.32 | First Helmer MWD Survey |
| 1,498.00 | 1,496.50 | -37.81 | 24.51 | Last Helmer MWD Survey |
| 1,652.00 | 1,649.65 | -51.64 | 32.94 | First SDI MWD Production Survey |
| 7,462.13 | 7,112.50 | -860.86 | 26.13 | Cross 460' Setback |
| 16,899.00 | 6,939.17 | -804.39 | -9,398.60 | Last SDI MWD Survey |
| 16,968.00 | 6,938.76 | -801.44 | -9,467.54 | Projection to TD |



| | | | |
|------------------|------------------------|-------------------------------------|---|
| Company: | Extraction Oil & Gas | Local Co-ordinate Reference: | Well Winder South 3 |
| Project: | Weld County, CO NAD 83 | TVD Reference: | GL 4854' & KB 25' @ 4879.00ft (Patterson 346) |
| Site: | Winder South Pad | MD Reference: | GL 4854' & KB 25' @ 4879.00ft (Patterson 346) |
| Well: | Winder South 3 | North Reference: | True |
| Wellbore: | OH | Survey Calculation Method: | Minimum Curvature |
| Design: | OH | Database: | Casper District |

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



JOB NO.: 381335
Company: Extraction Oil & Gas
LOCATION: Winder South Pad
RIG NAME: Patterson 346
STATE: Colorado
COUNTY: Weld
WELL NAME: Winder South 3
Lead Directional : Scott Sandford

Report Time: 2400 1 of 6
API JOB # 05-123-43408
WORK ORDER#
FIELD: Wattenburg
Township: 6N
Range/Section 67W 9
Company Man Jose Torres
2nd Dir Hand : Chris Apodaca

From Sunday, August 28, 2016 at 0000 to Sunday, August 28, 2016 at 2400

| DAILY TOTALS | | ASSEMBLY TOTALS | | | | | | | | | |
|-------------------------|------|---------------------|--------------------|------------|-----------|--------------|------------|-----------------|-----------|---------|---------|
| Start Depth | 0.00 | BHA # | Motor SN / R.S. SN | Slide Ftg | Slide Hrs | Rotate Ftg | Rotate Hrs | Circ Hrs | D & C Hrs | BHA Ftg | Avg ROP |
| End Depth | 0.00 | | | | | | | | | | |
| Below Rot Hrs. | 0.00 | | | | | | | | | | |
| Total Drilled: | 0.00 | Drilling Parameters | | Mud Record | | Bit Record | | Current BHA # 0 | | | |
| Avg. Total ROP: | NA | | | | | | | | | | |
| Slide Footage: | 0.00 | WOB: | 0 | Weight: | 0 | Bit No: | | | | | |
| Slide Hours | 0.00 | Rot Wt: | 0 | Visc: | 0 | Model | | | | | |
| Avg. Slide ROP: | NA | Pick UP: | 0 | Chlorides: | 0 | SN.: | | | | | |
| Rotate Footage: | 0.00 | Slack Off: | 0 | YP: | 0 | MFG. | | | | | |
| Rotary Hours | 0.00 | SPP: | 0 | PV: | 0 | Type | | | | | |
| Avg. Rot ROP: | NA | Flow: | 0 - 0 | PH: | 0 | IADC | | | | | |
| Circ Hours | 0.00 | SPM: | 0 | GAS: | 0 | JETS | | | | | |
| Ream Hours | 0.00 | Rot. RPM | - | SAND: | 0 | TFA: | | | | | |
| Rotary Hrs%: | NA | Mot RPM: | - | WL: | 0 | Hole ID: N/A | | | | | |
| Slide Hrs%: | NA | Incl. In: | 0 | SOLID: | 0 | Bit Hrs: | | | | | |
| Rotary Ftg%: | NA | Azm. In: | 0 | BHT°: | 0 | Bit Ftg: | | | | | |
| Slide Ftg%: | NA | Incl. Out: | 0 | Flow T°: | 0 | PUMPS | | | | | |
| Casing | | Azm. Out: | 0 | Oil %: | 0 | Liner | 0 | 0 | | | |
| Size Lb/Ft MD | | COST BREAKDOWN | | | | | Stroke | 0 | 0 | | |
| | | | | | | | Effic. | 95.00% | 95.00% | | |
| | | | | | | | Gal/Stk | 0.00 | 0.00 | | |
| | | | | | | | BBL/Stk | 0.000 | 0.000 | | |

GENERAL COMMENT

| Start Time | End Time | Hours | Start Depth | End Depth | Delta Depth | ROP | Activity Code | COMMENT |
|------------|----------|-------|-------------|-----------|-------------|-----|---------------|---------|
| 00:00 | 24:00 | 24.00 | 0 | 0 | 0 | .00 | Standby | Standby |



JOB NO.: 381335
Company: Extraction Oil & Gas
LOCATION: Winder South Pad
RIG NAME: Patterson 346
STATE: Colorado
COUNTY: Weld
WELL NAME: Winder South 3
Lead Directional : Scott Sandford

Report Time: 2400 2 of 6
API JOB # 05-123-43408
WORK ORDER#
FIELD: Wattenburg
Township: 6N
Range/Section 67W 9
Company Man Jose Torres
2nd Dir Hand : Chris Apodaca

From Monday, August 29, 2016 at 0000 to Monday, August 29, 2016 at 2400

| DAILY TOTALS | | ASSEMBLY TOTALS | | | | | | | | | |
|-----------------|---------|---------------------|--------------------|----------------|-----------|----------------------|------------|---|-----------|----------|---------|
| Start Depth | 1556.00 | BHA # | Motor SN / R.S. SN | Slide Ftg | Slide Hrs | Rotate Ftg | Rotate Hrs | Circ Hrs | D & C Hrs | BHA Ftg | Avg ROP |
| End Depth | 3225.00 | 1 | G540 | 69.00 | 0.45 | 1,600.00 | 3.02 | .57 | 4.03 | 1,669.00 | 451.08 |
| Below Rot Hrs. | 19.25 | 2 | G540 | 0.00 | 0.00 | 0.00 | 0.00 | .00 | 0.00 | 0.00 | 0.00 |
| Total Drilled: | 1669.00 | Drilling Parameters | | Mud Record | | Bit Record | | Current BHA # 2 | | | |
| Avg. Total ROP: | 481.44 | WOB: 30 | | Weight: 0 | | Bit No: Model Bit | | Bit 2.12FBH NMDC NMPDC Hang Off Sub NMPDC NMDC Filter Sub 3 Stands HWDP | | | |
| Slide Footage: | 69.00 | Rot Wt: 0 | | Visc: 0 | | SN.: 1234 | | | | | |
| Slide Hours | 0.45 | Pick UP: 0 | | Chlorides: 0 | | MFG. | | | | | |
| Avg. Slide ROP: | 153.33 | Slack Off: 0 | | YP: 0 | | Type | | | | | |
| Rotate Footage: | 1600.00 | SPP: 2400 | | PV: 0 | | IADC | | | | | |
| Rotary Hours | 3.02 | Flow: 0 - 640 | | PH: 0 | | JETS N/A | | | | | |
| Avg. Rot ROP: | 530.39 | SPM: 220 | | GAS: 0 | | TFA: 0 | | | | | |
| Circ Hours | 0.57 | Rot. RPM 60 - 60 | | SAND: 0 | | Hole ID: | | | | | |
| Ream Hours | 0.33 | Mot RPM: 60 - 60 | | WL: 0 | | Bit Hrs: 3.47 | | | | | |
| Rotary Hrs%: | 87.02 | Incl. In: 0 | | SOLID: 0 | | Bit Ftg: 1669.00 | | | | | |
| Slide Hrs%: | 12.98 | Azm. In: 0 | | BHT°: 0 | | PUMPS | | | | | |
| Rotary Ftg%: | 95.87 | Incl. Out: 0 | | Flow T°: 0 | | Liner 0 0 | | | | | |
| Slide Ftg%: | 4.13 | Azm. Out: 0 | | Oil %: 0 | | Stroke 0 0 | | | | | |
| Casing | | Size Lb/Ft MD | | COST BREAKDOWN | | Effic. 95.00% 95.00% | | | | | |
| | | | | | | Gal/Stk 0.00 0.00 | | | | | |
| | | | | | | BBL/Stk 0.000 0.000 | | | | | |

GENERAL COMMENT

| Start Time | End Time | Hours | Start Depth | End Depth | Delta Depth | ROP | Activity Code | COMMENT |
|------------|----------|-------|-------------|-----------|-------------|--------|----------------|-------------------------------------|
| 00:00 | 04:45 | 4.75 | 0 | 0 | 0 | .00 | Standby | Standby |
| 04:45 | 05:30 | 0.75 | 1556 | 1556 | 0 | .00 | Change BHA | Change BHA |
| 05:30 | 06:20 | 0.83 | 1556 | 1556 | 0 | .00 | TIH | TIH |
| 06:20 | 06:34 | 0.23 | 1556 | 1556 | 0 | .00 | Circulating | Displace with OBM |
| 06:34 | 07:43 | 1.15 | 1556 | 1556 | 0 | .00 | Rig repair | |
| 07:43 | 08:03 | 0.33 | 1556 | 1556 | 0 | .00 | Reaming | Drill out float equip |
| 08:03 | 08:26 | 0.38 | 1556 | 1659 | 103 | 268.70 | Drilling | |
| 08:26 | 08:48 | 0.37 | 1659 | 1659 | 0 | .00 | Survey & Conn. | @ |
| 08:48 | 08:52 | 0.07 | 1659 | 1669 | 10 | 150.00 | Sliding | |
| 08:52 | 08:55 | 0.05 | 1669 | 1713 | 44 | 880.00 | Drilling | Drilling - (WOB:30;GPM :640;RPM:60) |
| 08:55 | 09:13 | 0.30 | 1713 | 1713 | 0 | .00 | Survey & Conn. | Toubleshoot MWD |
| 09:13 | 09:19 | 0.10 | 1713 | 1725 | 12 | 120.00 | Sliding | Sliding - (WOB:30;GPM :640;TFO:45L) |
| 09:19 | 09:24 | 0.08 | 1725 | 1808 | 83 | 996.00 | Drilling | Drilling - (WOB:30;GPM :640;RPM:60) |
| 09:24 | 09:44 | 0.33 | 1808 | 1808 | 0 | .00 | Other | Conference call collision issues |

| Start Time | End Time | Hours | Start Depth | End Depth | Delta Depth | ROP | Activity Code | COMMENT |
|------------|----------|-------|-------------|-----------|-------------|---------|----------------|--|
| 09:44 | 09:49 | 0.08 | 1808 | 1902 | 94 | 1128.00 | Drilling | Drilling - (WOB:30;GPM :640;RPM:60) |
| 09:49 | 10:14 | 0.42 | 1902 | 1902 | 0 | .00 | Survey & Conn. | @ |
| 10:14 | 10:16 | 0.03 | 1902 | 1907 | 5 | 150.00 | Sliding | Sliding - (WOB:30;GPM :640;TFO:45L)) |
| 10:16 | 10:21 | 0.08 | 1907 | 1996 | 89 | 1068.00 | Drilling | Drilling - (WOB:30;GPM :640;RPM:60) |
| 10:21 | 10:38 | 0.28 | 1996 | 1996 | 0 | .00 | Survey & Conn. | @ |
| 10:38 | 10:42 | 0.07 | 1996 | 2003 | 7 | 105.00 | Sliding | Sliding - (WOB:30;GPM :640;TFO:20L) |
| 10:42 | 10:47 | 0.08 | 2003 | 2091 | 88 | 1056.00 | Drilling | Drilling - (WOB:30;GPM :640;RPM:60) |
| 10:47 | 10:55 | 0.13 | 2091 | 2091 | 0 | .00 | Survey & Conn. | @ |
| 10:55 | 10:57 | 0.03 | 2091 | 2096 | 5 | 150.00 | Sliding | Sliding - (WOB:30;GPM :640;TFO:20L)) |
| 10:57 | 11:02 | 0.08 | 2096 | 2185 | 89 | 1068.00 | Drilling | Drilling - (WOB:30;GPM :640;RPM:60) |
| 11:02 | 11:08 | 0.10 | 2185 | 2185 | 0 | .00 | Survey & Conn. | @ |
| 11:08 | 11:19 | 0.18 | 2185 | 2280 | 95 | 518.18 | Drilling | Drilling - (WOB:30;GPM :640;RPM:60) |
| 11:19 | 11:25 | 0.10 | 2280 | 2280 | 0 | .00 | Survey & Conn. | @ |
| 11:25 | 11:28 | 0.05 | 2280 | 2286 | 6 | 120.00 | Sliding | Sliding - (WOB:30;GPM :640;TFO:120R)) |
| 11:28 | 11:37 | 0.15 | 2286 | 2375 | 89 | 593.33 | Drilling | Drilling - (WOB:30;GPM :640;RPM:60) |
| 11:37 | 11:48 | 0.18 | 2375 | 2375 | 0 | .00 | Survey & Conn. | @ |
| 11:48 | 12:01 | 0.22 | 2375 | 2469 | 94 | 433.85 | Drilling | Drilling - (WOB:30;GPM :640;RPM:60) |
| 12:01 | 12:15 | 0.23 | 2469 | 2469 | 0 | .00 | Survey & Conn. | @ |
| 12:15 | 12:28 | 0.22 | 2469 | 2563 | 94 | 433.85 | Drilling | Drilling - (WOB:30;GPM :640;RPM:60) |
| 12:28 | 14:13 | 1.75 | 2563 | 2563 | 0 | .00 | POOH | POOH |
| 14:13 | 15:08 | 0.92 | 2563 | 2563 | 0 | .00 | Other | Change out MWD |
| 15:08 | 16:22 | 1.23 | 2563 | 2563 | 0 | .00 | TIH | TIH |
| 16:22 | 16:26 | 0.07 | 2563 | 2563 | 0 | .00 | Survey & Conn. | @ |
| 16:26 | 16:28 | 0.03 | 2563 | 2570 | 7 | 210.00 | Sliding | Sliding - (WOB:30;GPM :640;TFO:30L) |
| 16:28 | 16:37 | 0.15 | 2570 | 2658 | 88 | 586.67 | Drilling | Drilling - (WOB:30;GPM :640;RPM:60) |
| 16:37 | 16:41 | 0.07 | 2658 | 2658 | 0 | .00 | Survey & Conn. | @ |
| 16:41 | 16:43 | 0.03 | 2658 | 2665 | 7 | 210.00 | Sliding | Sliding - (WOB:30;GPM :640;TFO:70L) |
| 16:43 | 16:55 | 0.20 | 2665 | 2753 | 88 | 440.00 | Drilling | Drilling - (WOB:30;GPM :640;RPM:60) |
| 16:55 | 17:00 | 0.08 | 2753 | 2753 | 0 | .00 | Survey & Conn. | @ |
| 17:00 | 17:02 | 0.03 | 2753 | 2763 | 10 | 300.00 | Sliding | Sliding - (WOB:30;GPM :640;TFO:70L) |
| 17:02 | 17:12 | 0.17 | 2763 | 2847 | 84 | 504.00 | Drilling | Drilling - (WOB:30;GPM :640;RPM:60) |
| 17:12 | 17:17 | 0.08 | 2847 | 2847 | 0 | .00 | Survey & Conn. | @ |
| 17:17 | 17:27 | 0.17 | 2847 | 2942 | 95 | 570.00 | Drilling | Drilling - (WOB:30;GPM :640;RPM:60) |
| 17:27 | 17:31 | 0.07 | 2942 | 2942 | 0 | .00 | Survey & Conn. | @ |
| 17:31 | 17:41 | 0.17 | 2942 | 3036 | 94 | 564.00 | Drilling | Drilling - (WOB:30;GPM :640;RPM:60) |
| 17:41 | 17:45 | 0.07 | 3036 | 3036 | 0 | .00 | Survey & Conn. | @ |
| 17:45 | 17:59 | 0.23 | 3036 | 3131 | 95 | 407.14 | Drilling | Drilling - (WOB:30;GPM :640;RPM:60) |
| 17:59 | 18:04 | 0.08 | 3131 | 3131 | 0 | .00 | Connection | Connection |
| 18:04 | 18:23 | 0.32 | 3131 | 3225 | 94 | 296.84 | Drilling | Drilling - (WOB:30;GPM :640;RPM:60) |
| 18:23 | 18:28 | 0.08 | 3225 | 3225 | 0 | .00 | Connection | Connection |
| 18:28 | 18:38 | 0.17 | 3225 | 3225 | 0 | .00 | Other | Troubleshoot MWD |
| 18:38 | 18:53 | 0.25 | 3225 | 3225 | 0 | .00 | Short Trip | Pull 3 Stands |
| 18:53 | 19:30 | 0.62 | 3225 | 3225 | 0 | .00 | Other | Troubleshoot MWD |
| 19:30 | 20:30 | 1.00 | 3225 | 3225 | 0 | .00 | POOH | POOH |
| 20:30 | 21:30 | 1.00 | 3225 | 3225 | 0 | .00 | Other | Pull MWD, Trouble Shoot & Run Surface Test |
| 21:30 | 22:30 | 1.00 | 3225 | 3225 | 0 | .00 | Other | L/D Gap Sub, P/U New Hang Off, Scribe |
| 22:30 | 23:00 | 0.50 | 3225 | 3225 | 0 | .00 | Change BHA | Change BHA |
| 23:00 | 23:48 | 0.80 | 3225 | 3225 | 0 | .00 | TIH | TIH |

| Start Time | End Time | Hours | Start Depth | End Depth | Delta Depth | ROP | Activity Code | COMMENT |
|------------|----------|-------|-------------|-----------|-------------|-----|---------------|------------------|
| 23:48 | 23:55 | 0.12 | 3225 | 3225 | 0 | .00 | Other | Shallow Test MWD |
| 23:55 | 24:00 | 0.08 | 3225 | 3225 | 0 | .00 | TIH | TIH |
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JOB NO.: 381335
Company: Extraction Oil & Gas
LOCATION: Winder South Pad
RIG NAME: Patterson 346
STATE: Colorado
COUNTY: Weld
WELL NAME: Winder South 3
Lead Directional : Scott Sandford

Report Time: 2400 **3 of 6**
API JOB # 05-123-43408
WORK ORDER#
FIELD: Wattenburg
Township: 6N
Range/Section 67W 9
Company Man Jose Torres
2nd Dir Hand : Chris Apodaca

From Tuesday, August 30, 2016 at 0000 to Tuesday, August 30, 2016 at 2400

| DAILY TOTALS | | ASSEMBLY TOTALS | | | | | | | | | | |
|-----------------|---------|---------------------|--------------------|--------------|-----------|-------------------|----------------------|---|-----------|----------|---------|--|
| Start Depth | 3225.00 | BHA # | Motor SN / R.S. SN | Slide Ftg | Slide Hrs | Rotate Ftg | Rotate Hrs | Circ Hrs | D & C Hrs | BHA Ftg | Avg ROP | |
| End Depth | 7105.00 | 2 | G540 | 707.00 | 5.03 | 2,982.00 | 6.37 | .55 | 11.95 | 3,689.00 | 310.43 | |
| Below Rot Hrs. | 24.02 | 3 | 650-36B-012 | 191.00 | 1.20 | 0.00 | 0.00 | .00 | 1.20 | 191.00 | 0.00 | |
| Total Drilled: | 3880.00 | Drilling Parameters | | Mud Record | | Bit Record | | Current BHA # 3 | | | | |
| Avg. Total ROP: | 307.94 | WOB: 20 | | Weight: 0 | | Bit No: Model Bit | | Bit MOTOR NMDC NMPDC Hang Off Sub NMPDC NMDC Filter Sub 3 Stands HWDP | | | | |
| Slide Footage: | 898.00 | Rot Wt: 0 | | Visc: 0 | | SN.: 1234 | | | | | | |
| Slide Hours | 6.23 | Pick UP: 0 | | Chlorides: 0 | | MFG. | | | | | | |
| Avg. Slide ROP: | 144.06 | Slack Off: 0 | | YP: 0 | | Type | | | | | | |
| Rotate Footage: | 2982.00 | SPP: 3150 | | PV: 0 | | IADC | | | | | | |
| Rotary Hours | 6.37 | Flow: 640 - 640 | | PH: 0 | | JETS N/A | | | | | | |
| Avg. Rot ROP: | 468.38 | SPM: 220 | | GAS: 0 | | TFA: 0 | | | | | | |
| Circ Hours | 1.20 | Rot. RPM 60 - 60 | | SAND: 0 | | Hole ID: | | | | | | |
| Ream Hours | 0.00 | Mot RPM: 60 - 60 | | WL: 0 | | Bit Hrs: 3.47 | | | | | | |
| Rotary Hrs%: | 50.53 | Incl. In: 0 | | SOLID: 0 | | Bit Ftg: 1669.00 | | | | | | |
| Slide Hrs%: | 49.47 | Azm. In: 0 | | BHT°: 0 | | PUMPS | | | | | | |
| Rotary Ftg%: | 76.86 | Incl. Out: 0 | | Flow T°: 0 | | Liner 0 0 | | | | | | |
| Slide Ftg%: | 23.14 | Azm. Out: 0 | | Oil %: 0 | | Stroke 0 0 | | | | | | |
| CASING | | COST BREAKDOWN | | | | | Effic. 95.00% 95.00% | | | | | |
| Size | Lb/Ft | MD | | | | | | Gal/Stk 0.00 0.00 | | | | |
| | | | | | | | | BBL/Stk 0.000 0.000 | | | | |

GENERAL COMMENT

| Start Time | End Time | Hours | Start Depth | End Depth | Delta Depth | ROP | Activity Code | COMMENT |
|------------|----------|-------|-------------|-----------|-------------|--------|----------------|--------------------------------------|
| 00:00 | 00:20 | 0.33 | 3225 | 3225 | 0 | .00 | TIH | TIH to 3035' |
| 00:20 | 00:23 | 0.05 | 3225 | 3225 | 0 | .00 | Circulating | Wash 95' |
| 00:23 | 00:27 | 0.07 | 3225 | 3225 | 0 | .00 | MWD Survey | @ |
| 00:27 | 00:30 | 0.05 | 3225 | 3225 | 0 | .00 | Circulating | Wash 95' |
| 00:30 | 00:37 | 0.12 | 3225 | 3225 | 0 | .00 | Survey & Conn. | @ |
| 00:37 | 00:48 | 0.18 | 3225 | 3234 | 9 | 49.09 | Sliding | Sliding - (WOB:30;GPM :640;TFO:20L)) |
| 00:48 | 00:59 | 0.18 | 3234 | 3318 | 84 | 458.18 | Drilling | Drilling - (WOB:25;GPM :640;RPM:60) |
| 00:59 | 01:03 | 0.07 | 3318 | 3318 | 0 | .00 | Survey & Conn. | @ |
| 01:03 | 01:06 | 0.05 | 3318 | 3334 | 16 | 320.00 | Drilling | Drilling - (WOB:25;GPM :640;RPM:60) |
| 01:06 | 01:10 | 0.07 | 3334 | 3344 | 10 | 150.00 | Sliding | Sliding - (WOB:30;GPM :640;TFO:20R)) |
| 01:10 | 01:16 | 0.10 | 3344 | 3412 | 68 | 680.00 | Drilling | Drilling - (WOB:25;GPM :640;RPM:60) |
| 01:16 | 01:20 | 0.07 | 3412 | 3412 | 0 | .00 | Survey & Conn. | @ |
| 01:20 | 01:24 | 0.07 | 3412 | 3430 | 18 | 270.00 | Drilling | Drilling - (WOB:25;GPM :640;RPM:60) |
| 01:24 | 01:30 | 0.10 | 3430 | 3445 | 15 | 150.00 | Sliding | Sliding - (WOB:30;GPM :640;TFO:20R)) |

| Start Time | End Time | Hours | Start Depth | End Depth | Delta Depth | ROP | Activity Code | COMMENT |
|------------|----------|-------|-------------|-----------|-------------|--------|----------------|--------------------------------------|
| 01:30 | 01:36 | 0.10 | 3445 | 3507 | 62 | 620.00 | Drilling | Drilling - (WOB:25;GPM :640;RPM:60) |
| 01:36 | 01:40 | 0.07 | 3507 | 3507 | 0 | .00 | Survey & Conn. | @ |
| 01:40 | 01:43 | 0.05 | 3507 | 3524 | 17 | 340.00 | Drilling | Drilling - (WOB:25;GPM :640;RPM:60) |
| 01:43 | 01:50 | 0.12 | 3524 | 3541 | 17 | 145.71 | Sliding | Sliding - (WOB:20;GPM :640;TFO:50R) |
| 01:50 | 01:56 | 0.10 | 3541 | 3602 | 61 | 610.00 | Drilling | Drilling - (WOB:25;GPM :640;RPM:60) |
| 01:56 | 02:00 | 0.07 | 3602 | 3602 | 0 | .00 | Survey & Conn. | @ |
| 02:00 | 02:03 | 0.05 | 3602 | 3618 | 16 | 320.00 | Drilling | Drilling - (WOB:25;GPM :640;RPM:60) |
| 02:03 | 02:08 | 0.08 | 3618 | 3630 | 12 | 144.00 | Sliding | Sliding - (WOB:20;GPM :640;TFO:80R) |
| 02:08 | 02:18 | 0.17 | 3630 | 3697 | 67 | 402.00 | Drilling | Drilling - (WOB:25;GPM :640;RPM:60) |
| 02:18 | 02:22 | 0.07 | 3697 | 3697 | 0 | .00 | Survey & Conn. | @ |
| 02:22 | 02:33 | 0.18 | 3697 | 3791 | 94 | 512.73 | Drilling | Drilling - (WOB:25;GPM :640;RPM:60) |
| 02:33 | 02:37 | 0.07 | 3791 | 3791 | 0 | .00 | Survey & Conn. | @ |
| 02:37 | 02:47 | 0.17 | 3791 | 3886 | 95 | 570.00 | Drilling | Drilling - (WOB:25;GPM :640;RPM:60) |
| 02:47 | 02:51 | 0.07 | 3886 | 3886 | 0 | .00 | Survey & Conn. | @ |
| 02:51 | 03:01 | 0.17 | 3886 | 3981 | 95 | 570.00 | Drilling | Drilling - (WOB:25;GPM :640;RPM:60) |
| 03:01 | 03:05 | 0.07 | 3981 | 3981 | 0 | .00 | Survey & Conn. | @ |
| 03:05 | 03:15 | 0.17 | 3981 | 4076 | 95 | 570.00 | Drilling | Drilling - (WOB:25;GPM :640;RPM:60) |
| 03:15 | 03:19 | 0.07 | 4076 | 4076 | 0 | .00 | Survey & Conn. | @ |
| 03:19 | 03:23 | 0.07 | 4076 | 4094 | 18 | 270.00 | Drilling | Drilling - (WOB:25;GPM :640;RPM:60) |
| 03:23 | 03:27 | 0.07 | 4094 | 4101 | 7 | 105.00 | Sliding | Sliding - (WOB:20;GPM :640;TFO:40L) |
| 03:27 | 03:35 | 0.13 | 4101 | 4171 | 70 | 525.00 | Drilling | Drilling - (WOB:25;GPM :640;RPM:60) |
| 03:35 | 03:39 | 0.07 | 4171 | 4171 | 0 | .00 | Survey & Conn. | @ |
| 03:39 | 03:41 | 0.03 | 4171 | 4190 | 19 | 570.00 | Drilling | Drilling - (WOB:25;GPM :640;RPM:60) |
| 03:41 | 03:50 | 0.15 | 4190 | 4203 | 13 | 86.67 | Sliding | Sliding - (WOB:20;GPM :640;TFO:0) |
| 03:50 | 03:56 | 0.10 | 4203 | 4265 | 62 | 620.00 | Drilling | Drilling - (WOB:25;GPM :640;RPM:60) |
| 03:56 | 04:00 | 0.07 | 4265 | 4265 | 0 | .00 | Survey & Conn. | @ |
| 04:00 | 04:03 | 0.05 | 4265 | 4284 | 19 | 380.00 | Drilling | Drilling - (WOB:25;GPM :640;RPM:60) |
| 04:03 | 04:10 | 0.12 | 4284 | 4298 | 14 | 120.00 | Sliding | Sliding - (WOB:20;GPM :640;TFO:40R) |
| 04:10 | 04:17 | 0.12 | 4298 | 4359 | 61 | 522.86 | Drilling | Drilling - (WOB:25;GPM :640;RPM:60) |
| 04:17 | 04:22 | 0.08 | 4359 | 4359 | 0 | .00 | Survey & Conn. | @ |
| 04:22 | 04:25 | 0.05 | 4359 | 4375 | 16 | 320.00 | Drilling | Drilling - (WOB:25;GPM :640;RPM:60) |
| 04:25 | 04:31 | 0.10 | 4375 | 4390 | 15 | 150.00 | Sliding | Sliding - (WOB:20;GPM :640;TFO:20R) |
| 04:31 | 04:37 | 0.10 | 4390 | 4454 | 64 | 640.00 | Drilling | Drilling - (WOB:25;GPM :640;RPM:60) |
| 04:37 | 04:40 | 0.05 | 4454 | 4454 | 0 | .00 | Survey & Conn. | @ |
| 04:40 | 04:50 | 0.17 | 4454 | 4548 | 94 | 564.00 | Drilling | Drilling - (WOB:25;GPM :640;RPM:60) |
| 04:50 | 04:53 | 0.05 | 4548 | 4548 | 0 | .00 | Survey & Conn. | @ |
| 04:53 | 05:04 | 0.18 | 4548 | 4642 | 94 | 512.73 | Drilling | Drilling - (WOB:25;GPM :640;RPM:60) |
| 05:03 | 05:09 | 0.10 | 4642 | 4642 | 0 | .00 | Survey & Conn. | @ |
| 05:09 | 05:13 | 0.07 | 4642 | 4659 | 17 | 255.00 | Drilling | Drilling - (WOB:25;GPM :640;RPM:60) |
| 05:13 | 05:20 | 0.12 | 4659 | 4676 | 17 | 145.71 | Sliding | Sliding - (WOB:20;GPM :640;TFO:35L) |
| 05:20 | 05:26 | 0.10 | 4676 | 4737 | 61 | 610.00 | Drilling | Drilling - (WOB:25;GPM :640;RPM:60) |
| 05:26 | 05:29 | 0.05 | 4737 | 4737 | 0 | .00 | Survey & Conn. | @ |
| 05:29 | 05:33 | 0.07 | 4737 | 4756 | 19 | 285.00 | Drilling | Drilling - (WOB:25;GPM :640;RPM:60) |
| 05:33 | 05:45 | 0.20 | 4756 | 4771 | 15 | 75.00 | Sliding | Sliding - (WOB:20;GPM :640;TFO:30R) |
| 05:45 | 05:52 | 0.12 | 4771 | 4832 | 61 | 522.86 | Drilling | Drilling - (WOB:25;GPM :640;RPM:60) |
| 05:52 | 05:56 | 0.07 | 4832 | 4832 | 0 | .00 | Survey & Conn. | @ |
| 05:56 | 06:00 | 0.07 | 4832 | 4852 | 20 | 300.00 | Drilling | Drilling - (WOB:25;GPM :640;RPM:60) |
| 06:00 | 06:07 | 0.12 | 4852 | 4870 | 18 | 154.29 | Sliding | Sliding - (WOB:20;GPM :640;TFO:30R)) |

| Start Time | End Time | Hours | Start Depth | End Depth | Delta Depth | ROP | Activity Code | COMMENT |
|------------|----------|-------|-------------|-----------|-------------|---------|----------------|--------------------------------------|
| 06:07 | 06:19 | 0.20 | 4870 | 4926 | 56 | 280.00 | Drilling | Drilling - (WOB:25;GPM :640;RPM:60) |
| 06:19 | 06:25 | 0.10 | 4926 | 4926 | 0 | .00 | Survey & Conn. | @ |
| 06:25 | 06:29 | 0.07 | 4926 | 5021 | 95 | 1425.00 | Drilling | Drilling - (WOB:25;GPM :640;RPM:60) |
| 06:29 | 06:35 | 0.10 | 5021 | 5021 | 0 | .00 | Survey & Conn. | @ |
| 06:35 | 06:37 | 0.03 | 5021 | 5044 | 23 | 690.00 | Drilling | Drilling - (WOB:25;GPM :640;RPM:60) |
| 06:37 | 06:45 | 0.13 | 5044 | 5064 | 20 | 150.00 | Sliding | Sliding - (WOB:20;GPM :640;TFO:60)) |
| 06:45 | 06:50 | 0.08 | 5064 | 5064 | 0 | .00 | Survey & Conn. | @ |
| 06:50 | 06:52 | 0.03 | 5064 | 5116 | 52 | 1560.00 | Drilling | Drilling - (WOB:25;GPM :640;RPM:60) |
| 06:52 | 07:00 | 0.13 | 5116 | 5139 | 23 | 172.50 | Drilling | Drilling - (WOB:25;GPM :640;RPM:60) |
| 07:00 | 07:08 | 0.13 | 5139 | 5159 | 20 | 150.00 | Sliding | Sliding - (WOB:20;GPM :640;TFO:60) |
| 07:08 | 07:27 | 0.32 | 5159 | 5305 | 146 | 461.05 | Drilling | Drilling - (WOB:25;GPM :640;RPM:60) |
| 07:27 | 07:31 | 0.07 | 5305 | 5305 | 0 | .00 | Survey & Conn. | @ |
| 07:31 | 07:37 | 0.10 | 5305 | 5330 | 25 | 250.00 | Drilling | Drilling - (WOB:25;GPM :640;RPM:60) |
| 07:37 | 07:44 | 0.12 | 5330 | 5342 | 12 | 102.86 | Sliding | Sliding - (WOB:20;GPM :640;TFO:60R) |
| 07:44 | 07:53 | 0.15 | 5342 | 5400 | 58 | 386.67 | Drilling | Drilling - (WOB:25;GPM :640;RPM:60) |
| 07:53 | 07:57 | 0.07 | 5400 | 5400 | 0 | .00 | Survey & Conn. | @ |
| 07:57 | 07:59 | 0.03 | 5400 | 5436 | 36 | 1080.00 | Drilling | Drilling - (WOB:25;GPM :640;RPM:60) |
| 07:59 | 08:04 | 0.08 | 5436 | 5456 | 20 | 240.00 | Sliding | Sliding - (WOB:20;GPM :640;TFO:60R) |
| 08:04 | 08:20 | 0.27 | 5456 | 5590 | 134 | 502.50 | Drilling | Drilling - (WOB:25;GPM :640;RPM:60) |
| 08:20 | 08:23 | 0.05 | 5590 | 5590 | 0 | .00 | Survey & Conn. | @ |
| 08:23 | 08:31 | 0.13 | 5590 | 5614 | 24 | 180.00 | Drilling | Drilling - (WOB:25;GPM :640;RPM:60) |
| 08:31 | 08:38 | 0.12 | 5614 | 5624 | 10 | 85.71 | Sliding | Sliding - (WOB:20;GPM :640;TFO:60R) |
| 08:38 | 08:40 | 0.03 | 5624 | 5685 | 61 | 1830.00 | Drilling | Drilling - (WOB:25;GPM :640;RPM:60) |
| 08:40 | 08:43 | 0.05 | 5685 | 5685 | 0 | .00 | Survey & Conn. | @ |
| 08:43 | 08:52 | 0.15 | 5685 | 5708 | 23 | 153.33 | Drilling | Drilling - (WOB:25;GPM :640;RPM:60) |
| 08:52 | 09:08 | 0.27 | 5708 | 5728 | 20 | 75.00 | Sliding | Sliding - (WOB:20;GPM :640;TFO:60R) |
| 09:08 | 09:14 | 0.10 | 5728 | 5779 | 51 | 510.00 | Drilling | Drilling - (WOB:25;GPM :640;RPM:60) |
| 09:14 | 09:18 | 0.07 | 5779 | 5779 | 0 | .00 | Survey & Conn. | @ |
| 09:18 | 09:22 | 0.07 | 5779 | 5825 | 46 | 690.00 | Drilling | Drilling - (WOB:25;GPM :640;RPM:60) |
| 09:22 | 09:30 | 0.13 | 5825 | 5825 | 0 | .00 | Other | Cycle pumps |
| 09:30 | 09:33 | 0.05 | 5825 | 5833 | 8 | 160.00 | Sliding | Sliding - (WOB:20;GPM :640;TFO:60R) |
| 09:33 | 09:39 | 0.10 | 5833 | 5874 | 41 | 410.00 | Drilling | Drilling - (WOB:25;GPM :640;RPM:60) |
| 09:39 | 09:42 | 0.05 | 5874 | 5874 | 0 | .00 | Survey & Conn. | @ |
| 09:42 | 09:49 | 0.12 | 5874 | 5907 | 33 | 282.86 | Drilling | Drilling - (WOB:25;GPM :640;RPM:60) |
| 09:49 | 09:57 | 0.13 | 5907 | 5927 | 20 | 150.00 | Sliding | Sliding - (WOB:20;GPM :640;TFO:60R) |
| 09:57 | 10:03 | 0.10 | 5927 | 5969 | 42 | 420.00 | Drilling | Drilling - (WOB:25;GPM :640;RPM:60) |
| 10:03 | 10:06 | 0.05 | 5969 | 5969 | 0 | .00 | Survey & Conn. | @ |
| 10:06 | 10:10 | 0.07 | 5969 | 5992 | 23 | 345.00 | Drilling | Drilling - (WOB:25;GPM :640;RPM:60) |
| 10:10 | 10:18 | 0.13 | 5992 | 6012 | 20 | 150.00 | Sliding | Sliding - (WOB:20;GPM :640;TFO:60R)) |
| 10:18 | 10:24 | 0.10 | 6012 | 6063 | 51 | 510.00 | Drilling | Drilling - (WOB:25;GPM :640;RPM:60) |
| 10:24 | 10:28 | 0.07 | 6063 | 6063 | 0 | .00 | Survey & Conn. | @ |
| 10:28 | 10:36 | 0.13 | 6063 | 6158 | 95 | 712.50 | Drilling | Drilling - (WOB:25;GPM :640;RPM:60) |
| 10:36 | 10:39 | 0.05 | 6158 | 6158 | 0 | .00 | Survey & Conn. | @ |
| 10:39 | 10:43 | 0.07 | 6158 | 6148 | -10 | -150.00 | Drilling | Drilling - (WOB:25;GPM :640;RPM:60) |
| 10:43 | 10:49 | 0.10 | 6148 | 6199 | 51 | 510.00 | Sliding | Sliding - (WOB:20;GPM :640;TFO:60R) |
| 10:49 | 10:56 | 0.12 | 6199 | 6252 | 53 | 454.29 | Drilling | Drilling - (WOB:25;GPM :640;RPM:60) |
| 10:56 | 11:04 | 0.13 | 6252 | 6273 | 21 | 157.50 | Drilling | Drilling - (WOB:25;GPM :640;RPM:60) |
| 11:04 | 11:12 | 0.13 | 6273 | 6293 | 20 | 150.00 | Sliding | Sliding - (WOB:20;GPM :640;TFO:60R) |

| Start Time | End Time | Hours | Start Depth | End Depth | Delta Depth | ROP | Activity Code | COMMENT |
|------------|----------|-------|-------------|-----------|-------------|--------|--------------------|---------------------------------------|
| 11:12 | 11:17 | 0.08 | 6293 | 6347 | 54 | 648.00 | Drilling | Drilling - (WOB:25;GPM :640;RPM:60) |
| 11:17 | 11:21 | 0.07 | 6347 | 6347 | 0 | .00 | Survey & Conn. | @ |
| 11:21 | 11:24 | 0.05 | 6347 | 6368 | 21 | 420.00 | Drilling | Drilling - (WOB:25;GPM :640;RPM:60) |
| 11:24 | 11:35 | 0.18 | 6368 | 6388 | 20 | 109.09 | Sliding | Sliding - (WOB:20;GPM :640;TFO:60R) |
| 11:35 | 11:44 | 0.15 | 6388 | 6441 | 53 | 353.33 | Drilling | Drilling - (WOB:25;GPM :640;RPM:60) |
| 11:44 | 11:49 | 0.08 | 6441 | 6441 | 0 | .00 | Survey & Conn. | @ |
| 11:49 | 11:52 | 0.05 | 6441 | 6460 | 19 | 380.00 | Drilling | Drilling - (WOB:25;GPM :640;RPM:60) |
| 11:52 | 12:03 | 0.18 | 6460 | 6480 | 20 | 109.09 | Sliding | Sliding - (WOB:20;GPM :640;TFO:60R) |
| 12:03 | 12:11 | 0.13 | 6480 | 6536 | 56 | 420.00 | Drilling | Drilling - (WOB:25;GPM :640;RPM:60) |
| 12:11 | 12:50 | 0.65 | 6536 | 6536 | 0 | .00 | Rig Service-Inhole | Rig Service-Inhole |
| 12:50 | 13:02 | 0.20 | 6536 | 6556 | 20 | 100.00 | Sliding | Sliding - (WOB:20;GPM :640;TFO:60R) |
| 13:02 | 13:10 | 0.13 | 6556 | 6630 | 74 | 555.00 | Drilling | Drilling - (WOB:25;GPM :640;RPM:60) |
| 13:10 | 13:14 | 0.07 | 6630 | 6630 | 0 | .00 | Survey & Conn. | @ |
| 13:14 | 13:17 | 0.05 | 6630 | 6650 | 20 | 400.00 | Drilling | Drilling - (WOB:25;GPM :640;RPM:60) |
| 13:17 | 13:55 | 0.63 | 6650 | 6725 | 75 | 118.42 | Sliding | Sliding - (WOB:20;GPM :640;TFO:60R) |
| 13:55 | 13:59 | 0.07 | 6725 | 6725 | 0 | .00 | Survey & Conn. | @ |
| 13:59 | 14:30 | 0.52 | 6725 | 6819 | 94 | 181.94 | Sliding | Sliding - (WOB:20;GPM :640;TFO:60R) |
| 14:30 | 14:40 | 0.17 | 6819 | 6819 | 0 | .00 | Survey & Conn. | @ |
| 14:40 | 15:10 | 0.50 | 6819 | 6914 | 95 | 190.00 | Sliding | Sliding - (WOB:20;GPM :640;TFO:60R) |
| 15:10 | 15:23 | 0.22 | 6914 | 6914 | 0 | .00 | Survey & Conn. | @ |
| 15:23 | 15:46 | 0.38 | 6914 | 6914 | 0 | .00 | Circulating | Circulating |
| 15:46 | 18:00 | 2.23 | 6914 | 6914 | 0 | .00 | POOH | POOH |
| 18:00 | 19:00 | 1.00 | 6914 | 6914 | 0 | .00 | Change BHA | Change BHA |
| 19:00 | 22:35 | 3.58 | 6914 | 6914 | 0 | .00 | TIH | TIH |
| 22:35 | 23:12 | 0.62 | 6914 | 7010 | 96 | 155.68 | Sliding | Sliding - (WOB:20;GPM :640;TFO:60R)) |
| 23:12 | 23:25 | 0.22 | 7010 | 7010 | 0 | .00 | Survey & Conn. | @ |
| 23:25 | 24:00 | 0.58 | 7010 | 7105 | 95 | 162.86 | Sliding | Sliding - (WOB:20;GPM :640;TFO:100R)) |



JOB NO.: 381335
Company: Extraction Oil & Gas
LOCATION: Winder South Pad
RIG NAME: Patterson 346
STATE: Colorado
COUNTY: Weld
WELL NAME: Winder South 3
Lead Directional : Scott Sandford

Report Time: 2400 4 of 6
API JOB # 05-123-43408
WORK ORDER#
FIELD: Wattenburg
Township: 6N
Range/Section 67W 9
Company Man Jose Torres
2nd Dir Hand : Colby Hansen

From Wednesday, August 31, 2016 at 0000 to Wednesday, August 31, 2016 at 2400

| DAILY TOTALS | | ASSEMBLY TOTALS | | | | | | | | | |
|-----------------|----------|---------------------|--------------------|--------------|-----------|----------------------|---------------------|---|-----------|----------|---------|
| Start Depth | 7105.00 | BHA # | Motor SN / R.S. SN | Slide Ftg | Slide Hrs | Rotate Ftg | Rotate Hrs | Circ Hrs | D & C Hrs | BHA Ftg | Avg ROP |
| End Depth | 12086.00 | 3 | 650-36B-012 | 285.00 | 1.63 | | | .18 | 1.82 | 285.00 | 156.88 |
| Below Rot Hrs. | 24.00 | 4 | G540 | 2,297.00 | 4.47 | 1,322.00 | 8.43 | .00 | 12.90 | 3,619.00 | 0.00 |
| Total Drilled: | 3713.00 | Drilling Parameters | | Mud Record | | Bit Record | | Current BHA # 4 | | | |
| Avg. Total ROP: | 278.48 | WOB: 40 | | Weight: 0 | | Bit No: Model Bit | | Bit 2.12FBH NMDC NMPDC Hang Off Sub NMPDC NMDC Filter Sub 3 Stands HWDP | | | |
| Slide Footage: | 2391.00 | Rot Wt: 0 | | Visc: 0 | | SN.: 1234 | | | | | |
| Slide Hours | 4.90 | Pick UP: 0 | | Chlorides: 0 | | MFG. REED | | | | | |
| Avg. Slide ROP: | 487.96 | Slack Off: 0 | | YP: 0 | | Type PDC | | | | | |
| Rotate Footage: | 1322.00 | SPP: 5300 | | PV: 0 | | IADC | | | | | |
| Rotary Hours | 8.43 | Flow: 640 - 640 | | PH: 0 | | JETS 7-12 | | | | | |
| Avg. Rot ROP: | 156.76 | SPM: 220 | | GAS: 0 | | TFA: 0.773 | | | | | |
| Circ Hours | 0.52 | Rot. RPM 60 - 65 | | SAND: 0 | | Hole ID: | | | | | |
| Ream Hours | 0.00 | Mot RPM: 60 - 65 | | WL: 0 | | Bit Hrs: 3.47 | | | | | |
| Rotary Hrs%: | 63.25 | Incl. In: 0 | | SOLID: 0 | | Bit Ftg: 1669.00 | | | | | |
| Slide Hrs%: | 36.75 | Azm. In: 0 | | BHT°: 0 | | PUMPS | | | | | |
| Rotary Ftg%: | 35.60 | Incl. Out: 0 | | Flow T°: 0 | | Liner 0 0 | | | | | |
| Slide Ftg%: | 64.40 | Azm. Out: 0 | | Oil %: 0 | | Stroke 0 0 | | | | | |
| Casing | | COST BREAKDOWN | | | | Effic. 95.00% 95.00% | | | | | |
| Size | Lb/Ft | MD | | | | | Gal/Stk 0.00 0.00 | | | | |
| | | | | | | | BBL/Stk 0.000 0.000 | | | | |

GENERAL COMMENT

| Start Time | End Time | Hours | Start Depth | End Depth | Delta Depth | ROP | Activity Code | COMMENT |
|------------|----------|-------|-------------|-----------|-------------|--------|----------------|---|
| 00:00 | 00:08 | 0.13 | 7105 | 7105 | 0 | .00 | Survey & Conn. | @ |
| 00:08 | 00:34 | 0.43 | 7105 | 7199 | 94 | 216.92 | Sliding | Sliding - (WOB:20;GPM :640;TFO:120R) |
| 00:34 | 00:45 | 0.18 | 7199 | 7199 | 0 | .00 | Circulating | Circulating |
| 00:45 | 03:30 | 2.75 | 7199 | 7199 | 0 | .00 | POOH | POOH |
| 03:30 | 04:30 | 1.00 | 7199 | 7199 | 0 | .00 | Change BHA | Change BHA |
| 04:30 | 07:37 | 3.12 | 7199 | 7199 | 0 | .00 | TIH | TIH |
| 07:37 | 08:03 | 0.43 | 7199 | 7227 | 28 | 64.62 | Sliding | Sliding - (WOB:20;GPM :640;TFO:120R) |
| 08:03 | 08:10 | 0.12 | 7227 | 7227 | 0 | .00 | Survey & Conn. | Survey & Conn.@7137' Inc 47.87° Azm 268.82° |
| 08:10 | 08:58 | 0.80 | 7227 | 7321 | 94 | 117.50 | Sliding | Sliding - (WOB:20;GPM :640;TFO:120R)) |
| 08:58 | 09:08 | 0.17 | 7321 | 7321 | 0 | .00 | Survey & Conn. | Survey & Conn.@7261' Inc 61.05° Azm 273.78° |
| 09:08 | 09:52 | 0.73 | 7321 | 7406 | 85 | 115.91 | Sliding | Sliding - (WOB:20;GPM :640;TFO:60R) |
| 09:52 | 10:15 | 0.38 | 7406 | 7481 | 75 | 195.65 | Drilling | Drilling - (WOB:25;GPM :640;RPM:60) |
| 10:15 | 10:30 | 0.25 | 7481 | 7510 | 29 | 116.00 | Sliding | Sliding - (WOB:20;GPM :640;TFO:60R) |
| 10:30 | 10:35 | 0.08 | 7510 | 7510 | 0 | .00 | Survey & Conn. | Survey & Conn.@7450' Inc 82.12° Azm 285.13° |

| Start Time | End Time | Hours | Start Depth | End Depth | Delta Depth | ROP | Activity Code | COMMENT |
|------------|----------|-------|-------------|-----------|-------------|--------|--------------------|---|
| 10:35 | 10:40 | 0.08 | 7510 | 7526 | 16 | 192.00 | Drilling | Drilling - (WOB:25;GPM :640;RPM:60) |
| 10:40 | 10:51 | 0.18 | 7526 | 7537 | 11 | 60.00 | Sliding | Sliding - (WOB:20;GPM :640;TFO:60R) |
| 10:51 | 10:58 | 0.12 | 7537 | 7566 | 29 | 248.57 | Drilling | Drilling - (WOB:25;GPM :640;RPM:60) |
| 10:58 | 11:05 | 0.12 | 7566 | 7605 | 39 | 334.29 | Drilling | Drilling - (WOB:25;GPM :640;RPM:60) |
| 11:05 | 11:12 | 0.12 | 7605 | 7605 | 0 | .00 | Survey & Conn. | Survey & Conn.@7545' Inc 83.88° Azm 278.49° |
| 11:12 | 11:18 | 0.10 | 7605 | 7622 | 17 | 170.00 | Sliding | Sliding - (WOB:20;GPM :640;TFO:60R) |
| 11:18 | 11:42 | 0.40 | 7622 | 7699 | 77 | 192.50 | Drilling | Drilling - (WOB:25;GPM :640;RPM:60) |
| 11:42 | 11:48 | 0.10 | 7699 | 7699 | 0 | .00 | Survey & Conn. | Survey & Conn.@7639' Inc 82.81° Azm 276.33° |
| 11:48 | 11:57 | 0.15 | 7699 | 7724 | 25 | 166.67 | Drilling | Drilling - (WOB:25;GPM :640;RPM:60) |
| 11:57 | 12:00 | 0.05 | 7724 | 7749 | 25 | 500.00 | Sliding | Sliding - (WOB:20;GPM :640;TFO:60R) |
| 12:00 | 12:18 | 0.30 | 7749 | 7794 | 45 | 150.00 | Drilling | Drilling - (WOB:25;GPM :640;RPM:60) |
| 12:18 | 12:21 | 0.05 | 7794 | 7794 | 0 | .00 | Survey & Conn. | Survey & Conn.@7734' Inc 84.28° Azm 274.3° |
| 12:21 | 12:23 | 0.03 | 7794 | 7804 | 10 | 300.00 | Drilling | Drilling - (WOB:35;GPM :640;RPM:65) |
| 12:23 | 12:39 | 0.27 | 7804 | 7835 | 31 | 116.25 | Sliding | Sliding - (WOB:50;GPM :640;TFO:60R)) |
| 12:39 | 12:47 | 0.13 | 7835 | 7888 | 53 | 397.50 | Drilling | Drilling - (WOB:35;GPM :640;RPM:65) |
| 12:47 | 12:58 | 0.18 | 7888 | 7888 | 0 | .00 | Survey & Conn. | Survey & Conn.@7828' Inc 88.96° Azm 269.8° |
| 12:58 | 13:00 | 0.03 | 7888 | 7908 | 20 | 600.00 | Drilling | Drilling - (WOB:35;GPM :640;RPM:65) |
| 13:00 | 13:02 | 0.03 | 7908 | 7916 | 8 | 240.00 | Sliding | Sliding - (WOB:50;GPM :640;TFO:60R)) |
| 13:02 | 13:10 | 0.13 | 7916 | 7983 | 67 | 502.50 | Drilling | Drilling - (WOB:35;GPM :640;RPM:65) |
| 13:10 | 13:16 | 0.10 | 7983 | 7983 | 0 | .00 | Survey & Conn. | Survey & Conn.@7923' Inc 91.14° Azm 268.99° |
| 13:16 | 13:29 | 0.22 | 7983 | 8078 | 95 | 438.46 | Drilling | Drilling - (WOB:35;GPM :640;RPM:65) |
| 13:29 | 13:37 | 0.13 | 8078 | 8102 | 24 | 180.00 | Drilling | Drilling - (WOB:35;GPM :640;RPM:65) |
| 13:37 | 13:42 | 0.08 | 8102 | 8108 | 6 | 72.00 | Sliding | Sliding - (WOB:50;GPM :640;TFO:60R) |
| 13:42 | 13:50 | 0.13 | 8108 | 8172 | 64 | 480.00 | Drilling | Drilling - (WOB:35;GPM :640;RPM:65) |
| 13:50 | 13:55 | 0.08 | 8172 | 8172 | 0 | .00 | Connection | Connection |
| 13:55 | 14:07 | 0.20 | 8172 | 8267 | 95 | 475.00 | Drilling | Drilling - (WOB:35;GPM :640;RPM:65) |
| 14:07 | 14:11 | 0.07 | 8267 | 8267 | 0 | .00 | Connection | Connection |
| 14:11 | 14:20 | 0.15 | 8267 | 8286 | 19 | 126.67 | Drilling | Drilling - (WOB:40;GPM :640;RPM:65) |
| 14:20 | 14:25 | 0.08 | 8286 | 8304 | 18 | 216.00 | Sliding | Sliding - (WOB:50;GPM :640;TFO:60R) |
| 14:25 | 14:35 | 0.17 | 8304 | 8361 | 57 | 342.00 | Drilling | Drilling - (WOB:40;GPM :640;RPM:65) |
| 14:35 | 14:40 | 0.08 | 8361 | 8361 | 0 | .00 | Connection | Connection |
| 14:40 | 14:43 | 0.05 | 8361 | 8385 | 24 | 480.00 | Drilling | Drilling - (WOB:40;GPM :640;RPM:65) |
| 14:43 | 14:50 | 0.12 | 8385 | 8402 | 17 | 145.71 | Sliding | Sliding - (WOB:50;GPM :640;TFO:60R) |
| 14:50 | 14:58 | 0.13 | 8402 | 8456 | 54 | 405.00 | Drilling | Drilling - (WOB:40;GPM :640;RPM:65) |
| 14:58 | 15:18 | 0.33 | 8456 | 8456 | 0 | .00 | Rig Service-Inhole | Rig Service-Inhole |
| 15:18 | 15:32 | 0.23 | 8456 | 8550 | 94 | 402.86 | Drilling | Drilling - (WOB:40;GPM :640;RPM:65) |
| 15:32 | 15:40 | 0.13 | 8550 | 8550 | 0 | .00 | Connection | Connection |
| 15:40 | 15:47 | 0.12 | 8550 | 8560 | 10 | 85.71 | Drilling | Drilling - (WOB:40;GPM :640;RPM:65) |
| 15:47 | 15:54 | 0.12 | 8560 | 8572 | 12 | 102.86 | Sliding | Sliding - (WOB:50;GPM :640;TFO:60R) |
| 15:54 | 16:05 | 0.18 | 8572 | 8645 | 73 | 398.18 | Drilling | Drilling - (WOB:40;GPM :640;RPM:65) |
| 16:05 | 16:09 | 0.07 | 8645 | 8645 | 0 | .00 | Connection | Connection |
| 16:09 | 16:23 | 0.23 | 8645 | 8739 | 94 | 402.86 | Drilling | Drilling - (WOB:40;GPM :640;RPM:65) |
| 16:23 | 16:27 | 0.07 | 8739 | 8739 | 0 | .00 | Connection | Connection |
| 16:27 | 16:40 | 0.22 | 8739 | 8834 | 95 | 438.46 | Drilling | Drilling - (WOB:40;GPM :640;RPM:65) |
| 16:40 | 16:44 | 0.07 | 8834 | 8834 | 0 | .00 | Connection | Connection |
| 16:44 | 16:57 | 0.22 | 8834 | 8928 | 94 | 433.85 | Drilling | Drilling - (WOB:40;GPM :640;RPM:65) |
| 16:57 | 17:00 | 0.05 | 8928 | 8928 | 0 | .00 | Connection | Connection |
| 17:00 | 17:12 | 0.20 | 8928 | 9023 | 95 | 475.00 | Drilling | Drilling - (WOB:40;GPM :640;RPM:65) |

| Start Time | End Time | Hours | Start Depth | End Depth | Delta Depth | ROP | Activity Code | COMMENT |
|------------|----------|-------|-------------|-----------|-------------|-----------|----------------|--|
| 17:12 | 17:15 | 0.05 | 9023 | 9023 | 0 | .00 | Connection | Connection |
| 17:15 | 17:28 | 0.22 | 9023 | 9117 | 94 | 433.85 | Drilling | Drilling - (WOB:40;GPM :640;RPM:65) |
| 17:28 | 17:32 | 0.07 | 9117 | 9117 | 0 | .00 | Survey & Conn. | Survey & Conn.@9057' Inc 91.34° Azm 269.61° |
| 17:32 | 17:38 | 0.10 | 9117 | 9148 | 31 | 310.00 | Drilling | Drilling - (WOB:40;GPM :640;RPM:65) |
| 17:38 | 17:41 | 0.05 | 9148 | 9156 | 8 | 160.00 | Sliding | Sliding - (WOB:50;GPM :640;TFO:60R) |
| 17:41 | 17:51 | 0.17 | 9156 | 9212 | 56 | 336.00 | Drilling | Drilling - (WOB:40;GPM :640;RPM:65) |
| 17:51 | 17:55 | 0.07 | 9212 | 9212 | 0 | .00 | Survey & Conn. | Survey & Conn.@9152' Inc 90.64° Azm 270.76° |
| 17:55 | 18:09 | 0.23 | 9212 | 9306 | 94 | 402.86 | Drilling | Drilling - (WOB:40;GPM :640;RPM:65) |
| 18:09 | 18:14 | 0.08 | 9306 | 9306 | 0 | .00 | Survey & Conn. | Survey & Conn.@9246' Inc 90.97° Azm 270.77° |
| 18:14 | 18:29 | 0.25 | 9306 | 9401 | 95 | 380.00 | Drilling | Drilling - (WOB:40;GPM :640;RPM:65) |
| 18:29 | 18:45 | 0.27 | 9401 | 9401 | 0 | .00 | Rig repair | Rig repair |
| 18:45 | 18:50 | 0.08 | 9401 | 9401 | 0 | .00 | Survey & Conn. | Survey & Conn.@9341' Inc 91.95° Azm 269.83° |
| 18:50 | 18:53 | 0.05 | 9401 | 9419 | 18 | 360.00 | Drilling | Drilling - (WOB:40;GPM :640;RPM:65) |
| 18:53 | 19:03 | 0.17 | 9419 | 9434 | 15 | 90.00 | Sliding | Sliding - (WOB:50;GPM :640;TFO:60R)) |
| 19:03 | 19:13 | 0.17 | 9434 | 9495 | 61 | 366.00 | Drilling | Drilling - (WOB:40;GPM :640;RPM:65) |
| 19:13 | 19:18 | 0.08 | 9495 | 9495 | 0 | .00 | Survey & Conn. | Survey & Conn.@9435' Inc 90.4° Azm 269.37° |
| 19:18 | 19:30 | 0.20 | 9495 | 9590 | 95 | 475.00 | Drilling | Drilling - (WOB:40;GPM :640;RPM:65) |
| 19:30 | 19:34 | 0.07 | 9590 | 9590 | 0 | .00 | Survey & Conn. | Survey & Conn.@9530' Inc 91.64° Azm 270.97° |
| 19:34 | 19:37 | 0.05 | 9590 | 9606 | 16 | 320.00 | Drilling | Drilling - (WOB:40;GPM :640;RPM:65) |
| 19:37 | 19:47 | 0.17 | 9606 | 9621 | 15 | 90.00 | Sliding | Sliding - (WOB:50;GPM :640;TFO:160R)) |
| 19:47 | 19:56 | 0.15 | 9621 | 9684 | 63 | 420.00 | Drilling | Drilling - (WOB:40;GPM :640;RPM:65) |
| 19:56 | 20:00 | 0.07 | 9684 | 9684 | 0 | .00 | Survey & Conn. | Survey & Conn.@9624' Inc 90.4° Azm 271.35° |
| 20:00 | 20:13 | 0.22 | 9684 | 9779 | 95 | 438.46 | Drilling | Drilling - (WOB:40;GPM :640;RPM:65) |
| 20:13 | 20:17 | 0.07 | 9779 | 9779 | 0 | .00 | Survey & Conn. | Survey & Conn.@9719' Inc 90.54° Azm 270.89° |
| 20:17 | 20:29 | 0.20 | 9779 | 9873 | 94 | 470.00 | Drilling | Drilling - (WOB:40;GPM :640;RPM:65) |
| 20:29 | 20:33 | 0.07 | 9873 | 9873 | 0 | .00 | Survey & Conn. | Survey & Conn.@9813' Inc 90.67° Azm 270.82° |
| 20:33 | 20:45 | 0.20 | 9873 | 9968 | 95 | 475.00 | Drilling | Drilling - (WOB:40;GPM :640;RPM:65) |
| 20:45 | 20:48 | 0.05 | 9968 | 9968 | 0 | .00 | Survey & Conn. | Survey & Conn.@9908' Inc 90.1° Azm 271.22° |
| 20:48 | 21:02 | 0.23 | 9968 | 10062 | 94 | 402.86 | Drilling | Drilling - (WOB:40;GPM :640;RPM:65) |
| 21:02 | 21:06 | 0.07 | 10062 | 10062 | 0 | .00 | Survey & Conn. | Survey & Conn.@10002' Inc 89.97° Azm 272.62° |
| 21:06 | 21:18 | 0.20 | 10062 | 10157 | 95 | 475.00 | Drilling | Drilling - (WOB:40;GPM :640;RPM:65) |
| 21:18 | 21:22 | 0.07 | 10157 | 10157 | 0 | .00 | Survey & Conn. | Survey & Conn.@10097' Inc 88.59° Azm 272.37° |
| 21:22 | 21:25 | 0.05 | 10157 | 10175 | 18 | 360.00 | Drilling | Drilling - (WOB:40;GPM :640;RPM:65) |
| 21:25 | 21:35 | 0.17 | 10175 | 10190 | 15 | 90.00 | Sliding | Sliding - (WOB:50;GPM :640;TFO:180)) |
| 21:35 | 21:43 | 0.13 | 10190 | 10251 | 61 | 457.50 | Drilling | Drilling - (WOB:40;GPM :640;RPM:65) |
| 21:43 | 21:47 | 0.07 | 10251 | 10251 | 0 | .00 | Survey & Conn. | Survey & Conn.@10191' Inc 88.05° Azm 271.28° |
| 21:47 | 21:50 | 0.05 | 10251 | 10266 | 15 | 300.00 | Drilling | Drilling - (WOB:40;GPM :640;RPM:65) |
| 21:50 | 22:03 | 0.22 | 10266 | 12086 | 1820 | 8400.00 | Sliding | Sliding - (WOB:50;GPM :640;TFO:50L)) |
| 22:03 | 22:11 | 0.13 | 12086 | 10346 | -1740 | -13050.00 | Drilling | Drilling - (WOB:40;GPM :640;RPM:65) |
| 22:11 | 22:15 | 0.07 | 10346 | 10346 | 0 | .00 | Survey & Conn. | Survey & Conn.@10286' Inc 88.59° Azm 269.84° |
| 22:15 | 22:18 | 0.05 | 10346 | 10365 | 19 | 380.00 | Drilling | Drilling - (WOB:40;GPM :640;RPM:65) |
| 22:18 | 22:34 | 0.27 | 10365 | 10390 | 25 | 93.75 | Sliding | Sliding - (WOB:40;GPM :640;TFO:0)) |
| 22:34 | 22:41 | 0.12 | 10390 | 10440 | 50 | 428.57 | Drilling | Drilling - (WOB:40;GPM :640;RPM:65) |
| 22:41 | 22:45 | 0.07 | 10440 | 10440 | 0 | .00 | Survey & Conn. | Survey & Conn.@10380' Inc 90.91° Azm 268.07° |
| 22:45 | 22:58 | 0.22 | 10440 | 10535 | 95 | 438.46 | Drilling | Drilling - (WOB:40;GPM :640;RPM:65) |
| 22:58 | 23:02 | 0.07 | 10535 | 10535 | 0 | .00 | Survey & Conn. | Survey & Conn.@10475' Inc 91.58° Azm 267.47° |
| 23:02 | 23:14 | 0.20 | 10535 | 10629 | 94 | 470.00 | Drilling | Drilling - (WOB:40;GPM :640;RPM:65) |

| Start Time | End Time | Hours | Start Depth | End Depth | Delta Depth | ROP | Activity Code | COMMENT |
|------------|----------|-------|-------------|-----------|-------------|--------|----------------|--|
| 23:14 | 23:18 | 0.07 | 10629 | 10629 | 0 | .00 | Survey & Conn. | Survey & Conn.@10569' Inc 91.34° Azm 267.25° |
| 23:18 | 23:20 | 0.03 | 10629 | 10648 | 19 | 570.00 | Drilling | Drilling - (WOB:40;GPM :640;RPM:65) |
| 23:20 | 23:31 | 0.18 | 10648 | 10666 | 18 | 98.18 | Sliding | Sliding - (WOB:40;GPM :640;TFO:0G)) |
| 23:31 | 23:40 | 0.15 | 10666 | 10724 | 58 | 386.67 | Drilling | Drilling - (WOB:40;GPM :640;RPM:65) |
| 23:40 | 23:44 | 0.07 | 10724 | 10724 | 0 | .00 | Survey & Conn. | Survey & Conn.@10664' Inc 92.89° Azm 268.67° |
| 23:44 | 23:56 | 0.20 | 10724 | 10818 | 94 | 470.00 | Drilling | Drilling - (WOB:40;GPM :640;RPM:65) |
| 23:56 | 24:00 | 0.07 | 10818 | 10818 | 0 | .00 | Survey & Conn. | Survey & Conn.@10758' Inc 93.66° Azm 268.81° |



Daily Report for JOB#: 381335 - Page 1 of 4

| Start Time | End Time | Hours | Start Depth | End Depth | Delta Depth | ROP | Activity Code | COMMENT |
|------------|----------|-------|-------------|-----------|-------------|----------|----------------|--|
| 02:39 | 02:46 | 0.12 | 11310 | 11317 | 7 | 60.00 | Sliding | Sliding - (WOB:40;GPM :640;TFO:140R)) |
| 02:46 | 02:54 | 0.13 | 11317 | 11385 | 68 | 510.00 | Drilling | Drilling - (WOB:40;GPM :640;RPM:65) |
| 02:54 | 02:58 | 0.07 | 11385 | 11385 | 0 | .00 | Survey & Conn. | Survey & Conn.@11325' Inc 91.85° Azm 270.62° |
| 02:58 | 03:10 | 0.20 | 13385 | 11480 | -1905 | -9525.00 | Drilling | Drilling - (WOB:40;GPM :640;RPM:65) |
| 03:10 | 03:14 | 0.07 | 11480 | 11480 | 0 | .00 | Survey & Conn. | Survey & Conn.@11420' Inc 92.22° Azm 270.58° |
| 03:14 | 03:27 | 0.22 | 11480 | 11574 | 94 | 433.85 | Drilling | Drilling - (WOB:40;GPM :640;RPM:65) |
| 03:27 | 03:31 | 0.07 | 11574 | 11574 | 0 | .00 | Survey & Conn. | Survey & Conn.@11514' Inc 91.71° Azm 270.37° |
| 03:31 | 03:34 | 0.05 | 11574 | 11593 | 19 | 380.00 | Drilling | Drilling - (WOB:40;GPM :640;RPM:65) |
| 03:34 | 03:44 | 0.17 | 11593 | 11605 | 12 | 72.00 | Sliding | Sliding - (WOB:40;GPM :640;TFO:40R)) |
| 03:44 | 03:53 | 0.15 | 11605 | 11669 | 64 | 426.67 | Drilling | Drilling - (WOB:40;GPM :640;RPM:65) |
| 03:53 | 03:57 | 0.07 | 11669 | 11669 | 0 | .00 | Survey & Conn. | Survey & Conn.@11609' Inc 93.22° Azm 271.01° |
| 03:57 | 04:09 | 0.20 | 11669 | 11763 | 94 | 470.00 | Drilling | Drilling - (WOB:40;GPM :640;RPM:65) |
| 04:09 | 04:13 | 0.07 | 11763 | 11763 | 0 | .00 | Survey & Conn. | Survey & Conn.@11703' Inc 93.59° Azm 271.8° |
| 04:13 | 04:27 | 0.23 | 11763 | 11857 | 94 | 402.86 | Drilling | Drilling - (WOB:40;GPM :640;RPM:65) |
| 04:27 | 04:31 | 0.07 | 11857 | 11857 | 0 | .00 | Survey & Conn. | Survey & Conn.@11797' Inc 91.85° Azm 270.14° |
| 04:31 | 04:44 | 0.22 | 11857 | 11951 | 94 | 433.85 | Drilling | Drilling - (WOB:40;GPM :640;RPM:65) |
| 04:44 | 04:55 | 0.18 | 11951 | 11951 | 0 | .00 | Survey & Conn. | Survey & Conn.@11891' Inc 91.68° Azm 270.69° |
| 04:55 | 04:58 | 0.05 | 11951 | 11971 | 20 | 400.00 | Drilling | Drilling - (WOB:40;GPM :640;RPM:65) |
| 04:58 | 05:09 | 0.18 | 11971 | 11986 | 15 | 81.82 | Sliding | Sliding - (WOB:40;GPM :640;TFO:40R)) |
| 05:09 | 05:17 | 0.13 | 11986 | 12046 | 60 | 450.00 | Drilling | Drilling - (WOB:40;GPM :640;RPM:65) |
| 05:17 | 05:21 | 0.07 | 12046 | 12046 | 0 | .00 | Survey & Conn. | Survey & Conn.@11986' Inc 93.36° Azm 270.06° |
| 05:21 | 05:33 | 0.20 | 12046 | 12141 | 95 | 475.00 | Drilling | Drilling - (WOB:40;GPM :640;RPM:65) |
| 05:33 | 05:37 | 0.07 | 12141 | 12141 | 0 | .00 | Survey & Conn. | Survey & Conn.@12081' Inc 93.29° Azm 270.23° |
| 05:37 | 05:51 | 0.23 | 12141 | 12235 | 94 | 402.86 | Drilling | Drilling - (WOB:40;GPM :640;RPM:65) |
| 05:51 | 05:55 | 0.07 | 12235 | 12235 | 0 | .00 | Survey & Conn. | Survey & Conn.@12175' Inc 93.62° Azm 270.64° |
| 05:55 | 06:07 | 0.20 | 12235 | 12329 | 94 | 470.00 | Drilling | Drilling - (WOB:40;GPM :640;RPM:65) |
| 06:07 | 06:11 | 0.07 | 12329 | 12329 | 0 | .00 | Survey & Conn. | Survey & Conn.@12269' Inc 92.75° Azm 271.3° |
| 06:11 | 06:20 | 0.15 | 12329 | 12351 | 22 | 146.67 | Drilling | Drilling - (WOB:40;GPM :640;RPM:65) |
| 06:20 | 06:30 | 0.17 | 12351 | 12360 | 9 | 54.00 | Sliding | Drilling - (WOB:40;GPM :640;RPM:65) |
| 06:30 | 06:37 | 0.12 | 12360 | 12464 | 104 | 891.43 | Drilling | Drilling - (WOB:40;GPM :640;RPM:65) |
| 06:37 | 06:40 | 0.05 | 12464 | 12464 | 0 | .00 | Survey & Conn. | Survey & Conn.@12458' Inc 93.82° Azm 270.49° |
| 06:40 | 06:53 | 0.22 | 12464 | 12518 | 54 | 249.23 | Drilling | Drilling - (WOB:40;GPM :640;RPM:65) |
| 06:53 | 06:56 | 0.05 | 12518 | 12518 | 0 | .00 | Survey & Conn. | Survey & Conn.@12458' Inc 93.82° Azm 270.49° |
| 06:56 | 08:20 | 1.40 | 12518 | 13009 | 491 | 350.71 | Drilling | Drilling - (WOB:40;GPM :640;RPM:65) |
| 08:20 | 08:30 | 0.17 | 13009 | 13009 | 0 | .00 | Survey & Conn. | Survey & Conn.@12931' Inc 94.13° Azm 269.82° |
| 08:30 | 08:42 | 0.20 | 13009 | 13022 | 13 | 65.00 | Sliding | Sliding - (WOB:40;GPM :640;TFO:0) |
| 08:42 | 08:53 | 0.18 | 13022 | 13085 | 63 | 343.64 | Drilling | Drilling - (WOB:40;GPM :640;RPM:65) |
| 08:53 | 09:02 | 0.15 | 13085 | 13085 | 0 | .00 | Survey & Conn. | Survey & Conn.@13025' Inc 93.42° Azm 269.87° |
| 09:02 | 09:04 | 0.03 | 13085 | 13112 | 27 | 810.00 | Drilling | Drilling - (WOB:40;GPM :640;RPM:65) |
| 09:04 | 09:14 | 0.17 | 13112 | 13124 | 12 | 72.00 | Sliding | Sliding - (WOB:40;GPM :640;TFO:0)) |
| 09:14 | 09:25 | 0.18 | 13124 | 13179 | 55 | 300.00 | Drilling | Drilling - (WOB:40;GPM :611;RPM:65) |
| 09:25 | 09:29 | 0.07 | 13179 | 13179 | 0 | .00 | Survey & Conn. | Survey & Conn.@13119' Inc 92.35° Azm 269.99° |
| 09:29 | 09:41 | 0.20 | 13179 | 13274 | 95 | 475.00 | Drilling | Drilling - (WOB:40;GPM :611;RPM:65) |
| 09:41 | 09:45 | 0.07 | 13274 | 13274 | 0 | .00 | Survey & Conn. | Survey & Conn.@13214' Inc 92.78° Azm 270.76° |
| 09:45 | 09:52 | 0.12 | 13274 | 13294 | 20 | 171.43 | Drilling | Drilling - (WOB:40;GPM :611;RPM:65) |
| 09:52 | 10:04 | 0.20 | 13294 | 13302 | 8 | 40.00 | Sliding | Sliding - (WOB:40;GPM :640;TFO:0) |
| 10:04 | 10:14 | 0.17 | 13302 | 13376 | 74 | 444.00 | Drilling | Drilling - (WOB:40;GPM :611;RPM:65) |
| 10:14 | 10:30 | 0.27 | 13376 | 13376 | 0 | .00 | Survey & Conn. | Survey & Conn.@13309' Inc 92.77° Azm 270.79° |

| Start Time | End Time | Hours | Start Depth | End Depth | Delta Depth | ROP | Activity Code | COMMENT |
|------------|----------|-------|-------------|-----------|-------------|--------|----------------|--|
| 10:30 | 10:43 | 0.22 | 13376 | 13386 | 10 | 46.15 | Sliding | Sliding - (WOB:40;GPM :640;TFO:0) |
| 10:43 | 10:56 | 0.22 | 13386 | 13403 | 17 | 78.46 | Drilling | Drilling - (WOB:40;GPM :611;RPM:65) |
| 10:56 | 11:04 | 0.13 | 13403 | 13403 | 0 | .00 | Survey & Conn. | Survey & Conn.@13309' Inc 92.77° Azm 270.79° |
| 11:04 | 11:17 | 0.22 | 13403 | 13557 | 154 | 710.77 | Drilling | Drilling - (WOB:40;GPM :611;RPM:65) |
| 11:17 | 11:21 | 0.07 | 13557 | 13557 | 0 | .00 | Survey & Conn. | Survey & Conn.@13497' Inc 91.68° Azm 271.31° |
| 11:21 | 11:26 | 0.08 | 13557 | 13581 | 24 | 288.00 | Drilling | Drilling - (WOB:40;GPM :611;RPM:65) |
| 11:26 | 11:45 | 0.32 | 13581 | 13589 | 8 | 25.26 | Sliding | Sliding - (WOB:40;GPM :640;TFO:0) |
| 11:45 | 11:55 | 0.17 | 13589 | 13651 | 62 | 372.00 | Drilling | Drilling - (WOB:40;GPM :611;RPM:65) |
| 11:55 | 11:58 | 0.05 | 13651 | 13651 | 0 | .00 | Connection | Connection |
| 11:58 | 12:12 | 0.23 | 13651 | 13746 | 95 | 407.14 | Drilling | Drilling - (WOB:40;GPM :611;RPM:65) |
| 12:12 | 12:16 | 0.07 | 13746 | 13746 | 0 | .00 | Connection | Connection |
| 12:16 | 12:22 | 0.10 | 13746 | 13757 | 11 | 110.00 | Drilling | Drilling - (WOB:40;GPM :611;RPM:65) |
| 12:22 | 13:31 | 1.15 | 13757 | 13781 | 24 | 20.87 | Sliding | Sliding - (WOB:40;GPM :640;TFO:0) |
| 13:31 | 13:44 | 0.22 | 13781 | 13840 | 59 | 272.31 | Drilling | Drilling - (WOB:40;GPM :611;RPM:65) |
| 13:44 | 13:48 | 0.07 | 13840 | 13840 | 0 | .00 | Connection | @ |
| 13:48 | 14:06 | 0.30 | 13840 | 13934 | 94 | 313.33 | Drilling | Drilling - (WOB:40;GPM :611;RPM:65) |
| 14:06 | 14:13 | 0.12 | 13934 | 13957 | 23 | 197.14 | Drilling | Drilling - (WOB:40;GPM :611;RPM:65) |
| 14:13 | 14:33 | 0.33 | 13957 | 13970 | 13 | 39.00 | Sliding | Sliding - (WOB:40;GPM :640;TFO:0)) |
| 14:33 | 14:47 | 0.23 | 13970 | 14029 | 59 | 252.86 | Drilling | Drilling - (WOB:40;GPM :611;RPM:65) |
| 14:47 | 14:50 | 0.05 | 14029 | 14029 | 0 | .00 | Connection | Connection |
| 14:50 | 14:57 | 0.12 | 14029 | 14047 | 18 | 154.29 | Drilling | Drilling - (WOB:40;GPM :611;RPM:65) |
| 14:57 | 15:30 | 0.55 | 14047 | 14067 | 20 | 36.36 | Sliding | Sliding - (WOB:40;GPM :640;TFO:0) |
| 15:30 | 16:05 | 0.58 | 14067 | 14217 | 150 | 257.14 | Drilling | Drilling - (WOB:40;GPM :611;RPM:65) |
| 16:05 | 16:16 | 0.18 | 14217 | 14217 | 0 | .00 | Survey & Conn. | Survey & Conn.@14157' Inc 91.51° Azm 271.52° |
| 16:16 | 16:18 | 0.03 | 14217 | 14227 | 10 | 300.00 | Drilling | Drilling - (WOB:40;GPM :611;RPM:65) |
| 16:18 | 16:46 | 0.47 | 14227 | 14247 | 20 | 42.86 | Sliding | Sliding - (WOB:40;GPM :640;TFO:0) |
| 16:46 | 17:03 | 0.28 | 14247 | 14312 | 65 | 229.41 | Drilling | Drilling - (WOB:40;GPM :611;RPM:65) |
| 17:03 | 17:12 | 0.15 | 14312 | 14312 | 0 | .00 | Survey & Conn. | Survey & Conn.@14252' Inc 92.05° Azm 268.61° |
| 17:12 | 17:27 | 0.25 | 14312 | 14406 | 94 | 376.00 | Drilling | Drilling - (WOB:40;GPM :611;RPM:65) |
| 17:27 | 17:31 | 0.07 | 14406 | 14406 | 0 | .00 | Survey & Conn. | Survey & Conn.@14346' Inc 93.25° Azm 268.69° |
| 17:31 | 17:34 | 0.05 | 14406 | 14425 | 19 | 380.00 | Drilling | Drilling - (WOB:40;GPM :611;RPM:65) |
| 17:34 | 17:50 | 0.27 | 14425 | 14434 | 9 | 33.75 | Sliding | Sliding - (WOB:40;GPM :640;TFO:0)) |
| 17:50 | 18:02 | 0.20 | 14434 | 14500 | 66 | 330.00 | Drilling | Drilling - (WOB:40;GPM :611;RPM:65) |
| 18:02 | 18:12 | 0.17 | 14500 | 14500 | 0 | .00 | Survey & Conn. | Survey & Conn.@14440' Inc 92.72° Azm 269.16° |
| 18:12 | 18:16 | 0.07 | 14500 | 14518 | 18 | 270.00 | Drilling | Drilling - (WOB:40;GPM :611;RPM:65) |
| 18:16 | 18:42 | 0.43 | 14518 | 14536 | 18 | 41.54 | Sliding | Sliding - (WOB:40;GPM :640;TFO:180)) |
| 18:42 | 18:53 | 0.18 | 14536 | 14595 | 59 | 321.82 | Drilling | Drilling - (WOB:40;GPM :611;RPM:65) |
| 18:53 | 19:03 | 0.17 | 14595 | 14595 | 0 | .00 | Survey & Conn. | Survey & Conn.@14535' Inc 91.58° Azm 269.82° |
| 19:03 | 19:24 | 0.35 | 14595 | 14690 | 95 | 271.43 | Drilling | Drilling - (WOB:40;GPM :6000;RPM:65) |
| 19:24 | 19:34 | 0.17 | 14690 | 14690 | 0 | .00 | Survey & Conn. | Survey & Conn.@14630' Inc 91.14° Azm 270.56° |
| 19:34 | 19:48 | 0.23 | 14690 | 14784 | 94 | 402.86 | Drilling | Drilling - (WOB:40;GPM :6000;RPM:65) |
| 19:48 | 19:55 | 0.12 | 14784 | 14784 | 0 | .00 | Survey & Conn. | Survey & Conn.@14724' Inc 90.6° Azm 269.56° |
| 19:55 | 20:10 | 0.25 | 14784 | 14879 | 95 | 380.00 | Drilling | Drilling - (WOB:40;GPM :6000;RPM:65) |
| 20:10 | 20:17 | 0.12 | 14879 | 14879 | 0 | .00 | Survey & Conn. | Survey & Conn.@14819' Inc 91.48° Azm 270.63° |
| 20:17 | 20:30 | 0.22 | 14879 | 14973 | 94 | 433.85 | Drilling | Drilling - (WOB:40;GPM :6000;RPM:65) |
| 20:30 | 20:38 | 0.13 | 14973 | 14973 | 0 | .00 | Survey & Conn. | Survey & Conn.@14913' Inc 89.36° Azm 269.34° |
| 20:38 | 20:52 | 0.23 | 14973 | 15067 | 94 | 402.86 | Drilling | Drilling - (WOB:40;GPM :6000;RPM:65) |
| 20:52 | 21:00 | 0.13 | 15067 | 15067 | 0 | .00 | Survey & Conn. | Survey & Conn.@15007' Inc 88.56° Azm 271.64° |

| Start Time | End Time | Hours | Start Depth | End Depth | Delta Depth | ROP | Activity Code | COMMENT |
|------------|----------|-------|-------------|-----------|-------------|--------|--------------------|--|
| 21:00 | 21:03 | 0.05 | 15067 | 15082 | 15 | 300.00 | Drilling | Drilling - (WOB:40;GPM :6000;RPM:65) |
| 21:03 | 21:29 | 0.43 | 15082 | 15102 | 20 | 46.15 | Sliding | Sliding - (WOB:40;GPM :640;TFO:180)) |
| 21:29 | 21:40 | 0.18 | 15102 | 15162 | 60 | 327.27 | Drilling | Drilling - (WOB:40;GPM :6000;RPM:65) |
| 21:40 | 21:48 | 0.13 | 15162 | 15162 | 0 | .00 | Survey & Conn. | Survey & Conn.@15102' Inc 90.67° Azm 271.14° |
| 21:48 | 22:02 | 0.23 | 15162 | 15257 | 95 | 407.14 | Drilling | Drilling - (WOB:40;GPM :6000;RPM:65) |
| 22:02 | 22:53 | 0.85 | 15257 | 15257 | 0 | .00 | Rig Service-Inhole | Rig Service-Inhole |
| 22:53 | 23:12 | 0.32 | 15257 | 15352 | 95 | 300.00 | Drilling | Drilling - (WOB:40;GPM :6000;RPM:65) |
| 23:12 | 23:22 | 0.17 | 15352 | 15352 | 0 | .00 | Survey & Conn. | Survey & Conn.@15292' Inc 88.49° Azm 270.36° |
| 23:22 | 23:25 | 0.05 | 15352 | 15368 | 16 | 320.00 | Drilling | Drilling - (WOB:40;GPM :6000;RPM:65) |
| 23:25 | 23:53 | 0.47 | 15368 | 15393 | 25 | 53.57 | Sliding | Sliding - (WOB:40;GPM :640;TFO:45L)) |
| 23:53 | 24:00 | 0.12 | 15393 | 15446 | 53 | 454.29 | Drilling | Drilling - (WOB:40;GPM :6000;RPM:65) |



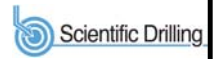
ASSEMBLY TOTALS

GENERAL COMMENT

Daily Report for JOB#: 381335 - Page 1 of 2

| Start Time | End Time | Hours | Start Depth | End Depth | Delta Depth | ROP | Activity Code | COMMENT |
|------------|----------|-------|-------------|-----------|-------------|--------|----------------|--|
| 02:48 | 02:56 | 0.13 | 15919 | 15919 | 0 | .00 | Survey & Conn. | Survey & Conn.@15859' Inc 91.74° Azm 268.74° |
| 02:56 | 03:13 | 0.28 | 15919 | 16013 | 94 | 331.76 | Drilling | Drilling - (WOB:40;GPM :6000;RPM:65) |
| 03:13 | 03:20 | 0.12 | 16013 | 16013 | 0 | .00 | Survey & Conn. | Survey & Conn.@15953' Inc 91.58° Azm 269.56° |
| 03:20 | 03:34 | 0.23 | 16013 | 16108 | 95 | 407.14 | Drilling | Drilling - (WOB:40;GPM :6000;RPM:65) |
| 03:34 | 03:50 | 0.27 | 16108 | 16108 | 0 | .00 | Survey & Conn. | Survey & Conn.@16048' Inc 90.8° Azm 269.72° |
| 03:50 | 04:04 | 0.23 | 16108 | 16203 | 95 | 407.14 | Drilling | Drilling - (WOB:40;GPM :6000;RPM:65) |
| 04:04 | 04:12 | 0.13 | 16203 | 16203 | 0 | .00 | Survey & Conn. | Survey & Conn.@16143' Inc 91.07° Azm 269.96° |
| 04:12 | 04:34 | 0.37 | 16203 | 16297 | 94 | 256.36 | Drilling | Drilling - (WOB:40;GPM :6000;RPM:65) |
| 04:34 | 04:42 | 0.13 | 16297 | 16297 | 0 | .00 | Survey & Conn. | Survey & Conn.@16237' Inc 91.34° Azm 270.41° |
| 04:42 | 04:55 | 0.22 | 16297 | 16392 | 95 | 438.46 | Drilling | Drilling - (WOB:40;GPM :6000;RPM:65) |
| 04:55 | 05:03 | 0.13 | 16392 | 16392 | 0 | .00 | Survey & Conn. | Survey & Conn.@16332' Inc 90.8° Azm 270.79° |
| 05:03 | 05:17 | 0.23 | 16392 | 16486 | 94 | 402.86 | Drilling | Drilling - (WOB:40;GPM :6000;RPM:65) |
| 05:17 | 05:25 | 0.13 | 16486 | 16486 | 0 | .00 | Survey & Conn. | Survey & Conn.@16426' Inc 91.24° Azm 271.13° |
| 05:25 | 05:44 | 0.32 | 16486 | 16581 | 95 | 300.00 | Drilling | Drilling - (WOB:40;GPM :6000;RPM:65) |
| 05:44 | 05:50 | 0.10 | 16581 | 16581 | 0 | .00 | Survey & Conn. | Survey & Conn.@16521' Inc 91.14° Azm 271.61° |
| 05:50 | 06:07 | 0.28 | 16581 | 16676 | 95 | 335.29 | Drilling | Drilling - (WOB:40;GPM :6000;RPM:65) |
| 06:07 | 06:16 | 0.15 | 16676 | 16676 | 0 | .00 | Survey & Conn. | Survey & Conn.@16616' Inc 90.8° Azm 272.2° |
| 06:16 | 06:30 | 0.23 | 16676 | 16770 | 94 | 402.86 | Drilling | Drilling - (WOB:40;GPM :6000;RPM:65) |
| 06:30 | 06:37 | 0.12 | 16770 | 16770 | 0 | .00 | Survey & Conn. | Survey & Conn.@16710' Inc 90.67° Azm 271.91° |
| 06:37 | 06:59 | 0.37 | 16770 | 16865 | 95 | 259.09 | Drilling | Drilling - (WOB:40;GPM :6000;RPM:65) |
| 06:59 | 07:30 | 0.52 | 16865 | 16959 | 94 | 181.94 | Drilling | Drilling - (WOB:40;GPM :6000;RPM:65) |
| 07:30 | 07:37 | 0.12 | 16959 | 16959 | 0 | .00 | Survey & Conn. | Survey & Conn.@16899' Inc 90.34° Azm 272.45° |
| 07:37 | 07:42 | 0.08 | 16959 | 16968 | 9 | 108.00 | Drilling | Drilling - (WOB:40;GPM :6000;RPM:65) |
| 07:42 | 08:17 | 0.58 | 16968 | 16968 | 0 | .00 | Circulating | Circulating |
| 08:17 | 10:26 | 2.15 | 16968 | 16968 | 0 | .00 | Short Trip | Short Trip |
| 10:26 | 11:30 | 1.07 | 16968 | 16968 | 0 | .00 | Circulating | Circulating` |
| 11:30 | 17:09 | 5.65 | 16968 | 16968 | 0 | .00 | POOH | POOH |
| 17:09 | 17:45 | 0.60 | 16968 | 16968 | 0 | .00 | Other | L/D Dir. Tools |
| 17:45 | 24:00 | 6.25 | 16968 | 16968 | 0 | .00 | Standby | RUN AND CEMENT CASING |

BHA # 1



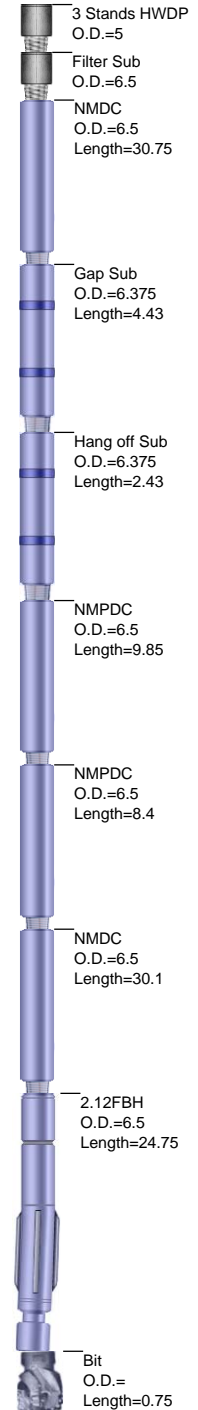
JOB NO.: 381335 Work Order: FIELD: Wattenburg
 Company: Extraction Oil & Gas Township: 6N
 LOCATION: Winder South Pad SECT. RANGE: 9 67W
 RIG NAME: Patterson 346 Lead DD: Scott Sandford
 STATE: Colorado Co. Man: Jose Torres
 COUNTY: Weld BHA TYPE: Steerable Assembly
 WELL NAME: Winder South 3 BHA WT: 17595 Wt @ Jars: N/A

| Time and Depths | MOTOR DATA | Drilling Parameters |
|-------------------------------|-----------------------|-----------------------------|
| Date In: 29-Aug-16 @ 04:45 | 2.12 FBH | SO/PU: 0 - 0 / 0-0 |
| Date Out: 29-Aug-16 @ 22:30 | MFG.: | Rot Strg Wt: 0-0 |
| Hrs In Hole: 17.75 | Pad OD: | WOB: 0 - 30 |
| Start Depth: 1556.00 | NB Stab: 0 | TORQ: 6000 - 6000 |
| End Depth: 3225.00 | Bit to Bend: 0 | SPP: 0 - 2400 |
| Total Drilled: 1669.00 | Bent Hsg/Sub°: 2.12 / | Motor RPM: No Rev/Gal Input |
| Avg. Total ROP: 481.44 | Lobe/Stage: / | Rotary RPM: 60 - 60 |
| Circ Hrs: Tot/Only 4.03 / .57 | Rev/GAL: 0 | Flow Rate: 0 - 640 |
| Percent Slide: 4.13 | Rotor Jet: 0 | Avg Diff: |
| Percent Hrs: 12.98 | Prop BUR: | Stall Pres.: |
| Slide Hours: .45 | Act BUR: | Off Bot Pres.: |
| Total Sliding: 69.00 | | |
| Avg. Slide ROP: 153.33 | | |
| Percent Rotary: 95.87 | | |
| Percent Hrs: 87.02 | | |
| Rotary Hours: 3.02 | | |
| Total Rotary: 1600.00 | | |
| Avg. Rotary ROP: 530.39 | | |
| Reason POOH: | | |

| MWD Spacing | Gamma: 0 | Restiv: 0 | Sensor: 0 | Last Casing | O.D. |
|-------------|----------|-----------|-----------|-------------|-----------|
| | GYRO: 0 | DNSC: 0 | Sonic: 0 | Shoe @: | Hanger @: |

INC IN: .0 INC OUT: .0 AZM IN: .00 AZM OUT: .00

| BHA Detail | | | | | | | |
|---------------|----------|--------|-------|--------|--------|------------|-------|
| Description | Serial # | I.D. | O.D. | Length | Sum | Top Conn | MFG. |
| Bit | 1234 | | | 0.75 | 0.75 | 4 1/2 REGP | OTHER |
| 2.12FBH | G540 | | 6.5 | 24.75 | 25.50 | 4 1/2 IFB | OTHER |
| NMDC | 122-978 | 3.25 | 6.5 | 30.10 | 55.60 | 4 1/2 IFB | SDI |
| NMPDC | 125-218 | 3.25 | 6.5 | 8.40 | 64.00 | 4 1/2 IFB | SDI |
| NMPDC | 125-297 | 3.25 | 6.5 | 9.85 | 73.85 | 4 1/2 IFB | SDI |
| Hang off Sub | 8-1057 | 3.25 | 6.375 | 2.43 | 76.28 | 4 1/2 IFB | SDI |
| Gap Sub | 69-1172 | 2.8125 | 6.375 | 4.43 | 80.71 | 4 1/2 IFB | SDI |
| NMDC | 189-012 | 3.25 | 6.5 | 30.75 | 111.46 | 4 1/2 IFB | SDI |
| Filter Sub | DR16287 | 3.25 | 6.5 | 2.61 | 114.07 | 4 1/2 IFB | Other |
| 3 Stands HWDP | N/A | 3.76 | 5 | 275.51 | 389.58 | 4 1/2 IFB | Other |





JOB NO.: 381335
Company: Extraction Oil & Gas
LOCATION: Winder South Pad
RIG NAME: Patterson 346
STATE: Colorado
COUNTY: Country
WELL NAME: Winder South 3

FIELD: Wattenburg
Township: 6N
Range 67W

MOTOR INFORMATION

Desc: 2.12 FBH
 Bent Hsg/Sub: $\frac{2.1}{2}$ / 0 Bit to Bend: 0
 Pad OD: NB Stab:

Slide Report for BHA # 1

Note: Surveys listed are interpolated from the actual surveys

| # | Date | Drill Mode | Start Time | End Time | Hours | Start MD | End MD | Depth Drilled | WOB | ROP | RPM | Surf. Torque | Flow Rate | SPP | TFO | INC | AZM | DLS | Note |
|---|--------|------------|------------|----------|-------|----------|--------|---------------|-----|--------|-----|--------------|-----------|------|------|------|------|------|------|
| 1 | 29-Aug | Drilling | 08:03 | 08:26 | 0.38 | 1556 | 1659 | 103 | 30 | 268.7 | 60 | 6000 | 640 | 2400 | | 0.00 | 0.00 | 0.00 | |
| 1 | 29-Aug | Sliding | 08:48 | 08:52 | 0.07 | 1659 | 1669 | 10 | 30 | 150.0 | 60 | 6000 | 640 | 2400 | 45L | 0.00 | 0.00 | 0.00 | |
| 1 | 29-Aug | Drilling | 08:52 | 08:55 | 0.05 | 1669 | 1713 | 44 | 30 | 880.0 | 60 | 6000 | 640 | 2400 | | 0.00 | 0.00 | 0.00 | |
| 1 | 29-Aug | Sliding | 09:13 | 09:19 | 0.10 | 1713 | 1725 | 12 | 30 | 120.0 | 60 | 6000 | 640 | 2400 | 45L | 0.00 | 0.00 | 0.00 | |
| 1 | 29-Aug | Drilling | 09:19 | 09:24 | 0.08 | 1725 | 1808 | 83 | 30 | 996.0 | 60 | 6000 | 640 | 2400 | | 0.00 | 0.00 | 0.00 | |
| 1 | 29-Aug | Drilling | 09:44 | 09:49 | 0.08 | 1808 | 1902 | 94 | 30 | 1128.0 | 60 | 6000 | 640 | 2400 | | 0.00 | 0.00 | 0.00 | |
| 1 | 29-Aug | Sliding | 10:14 | 10:16 | 0.03 | 1902 | 1907 | 5 | 30 | 150.0 | 60 | 6000 | 640 | 2400 | 20L | 0.00 | 0.00 | 0.00 | |
| 1 | 29-Aug | Drilling | 10:16 | 10:21 | 0.08 | 1907 | 1996 | 89 | 30 | 1068.0 | 60 | 6000 | 640 | 2400 | | 0.00 | 0.00 | 0.00 | |
| 1 | 29-Aug | Sliding | 10:38 | 10:42 | 0.07 | 1996 | 2003 | 7 | 30 | 105.0 | 60 | 6000 | 640 | 2400 | 20L | 0.00 | 0.00 | 0.00 | |
| 1 | 29-Aug | Drilling | 10:42 | 10:47 | 0.08 | 2003 | 2091 | 88 | 30 | 1056.0 | 60 | 6000 | 640 | 2400 | | 0.00 | 0.00 | 0.00 | |
| 1 | 29-Aug | Sliding | 10:55 | 10:57 | 0.03 | 2091 | 2096 | 5 | 30 | 150.0 | 60 | 6000 | 640 | 2400 | 120R | 0.00 | 0.00 | 0.00 | |
| 1 | 29-Aug | Drilling | 10:57 | 11:02 | 0.08 | 2096 | 2185 | 89 | 30 | 1068.0 | 60 | 6000 | 640 | 2400 | | 0.00 | 0.00 | 0.00 | |
| 1 | 29-Aug | Drilling | 11:08 | 11:19 | 0.18 | 2185 | 2280 | 95 | 30 | 518.2 | 60 | 6000 | 640 | 2400 | | 0.00 | 0.00 | 0.00 | |
| 1 | 29-Aug | Sliding | 11:25 | 11:28 | 0.05 | 2280 | 2286 | 6 | 30 | 120.0 | 60 | 6000 | 640 | 2400 | 80R | 0.00 | 0.00 | 0.00 | |
| 1 | 29-Aug | Drilling | 11:28 | 11:37 | 0.15 | 2286 | 2375 | 89 | 30 | 593.3 | 60 | 6000 | 640 | 2400 | | 0.00 | 0.00 | 0.00 | |
| 1 | 29-Aug | Drilling | 11:48 | 12:01 | 0.22 | 2375 | 2469 | 94 | 30 | 433.8 | 60 | 6000 | 640 | 2400 | | 0.00 | 0.00 | 0.00 | |
| 1 | 29-Aug | Drilling | 12:15 | 12:28 | 0.22 | 2469 | 2563 | 94 | 30 | 433.8 | 60 | 6000 | 640 | 2400 | | 0.00 | 0.00 | 0.00 | |
| 1 | 29-Aug | Sliding | 16:26 | 16:28 | 0.03 | 2563 | 2570 | 7 | 30 | 210.0 | 60 | 6000 | 640 | 2400 | 30L | 0.00 | 0.00 | 0.00 | |
| 1 | 29-Aug | Drilling | 16:28 | 16:37 | 0.15 | 2570 | 2658 | 88 | 30 | 586.7 | 60 | 6000 | 640 | 2400 | | 0.00 | 0.00 | 0.00 | |
| 1 | 29-Aug | Sliding | 16:41 | 16:43 | 0.03 | 2658 | 2665 | 7 | 30 | 210.0 | 60 | 6000 | 640 | 2400 | 70L | 0.00 | 0.00 | 0.00 | |
| 1 | 29-Aug | Drilling | 16:43 | 16:55 | 0.20 | 2665 | 2753 | 88 | 30 | 440.0 | 60 | 6000 | 640 | 2400 | | 0.00 | 0.00 | 0.00 | |
| 1 | 29-Aug | Sliding | 17:00 | 17:02 | 0.03 | 2753 | 2763 | 10 | 30 | 300.0 | 60 | 6000 | 640 | 2400 | 70L | 0.00 | 0.00 | 0.00 | |
| 1 | 29-Aug | Drilling | 17:02 | 17:12 | 0.17 | 2763 | 2847 | 84 | 30 | 504.0 | 60 | 6000 | 640 | 2400 | | 0.00 | 0.00 | 0.00 | |
| 1 | 29-Aug | Drilling | 17:17 | 17:27 | 0.17 | 2847 | 2942 | 95 | 30 | 570.0 | 60 | 6000 | 640 | 2400 | | 0.00 | 0.00 | 0.00 | |
| 1 | 29-Aug | Drilling | 17:31 | 17:41 | 0.17 | 2942 | 3036 | 94 | 30 | 564.0 | 60 | 6000 | 640 | 2400 | | 0.00 | 0.00 | 0.00 | |
| 1 | 29-Aug | Drilling | 17:45 | 17:59 | 0.23 | 3036 | 3131 | 95 | 30 | 407.1 | 60 | 6000 | 640 | 2400 | | 0.00 | 0.00 | 0.00 | |

Slide Report for BHA # 1

Note: Surveys listed are interpolated from the actual surveys

| # | Date | Drill Mode | Start Time | End Time | Hours | Start MD | End MD | Depth Drilled | WOB | ROP | RPM | Surf. Torque | Flow Rate | SPP | TFO | INC | AZM | DLS | Note |
|---|--------|------------|------------|----------|-------|----------|--------|---------------|-----|-------|-----|--------------|-----------|------|-----|------|------|------|------|
| 1 | 29-Aug | Drilling | 18:04 | 18:23 | 0.32 | 3131 | 3225 | 94 | 30 | 296.8 | 60 | 6000 | 640 | 2400 | | 0.00 | 0.00 | 0.00 | |

Total Drilled: 1669 **Avg. Total ROP:** 481.44 **DEPTH% - TIME %**

Total Rotary Drilled: 1600 **Avg. Rotary ROP:** 530.39 **Percent Rotary:** 95.87 - 87.02

Total Drilled Sliding: 69 **Avg. Slide ROP:** 153.33 **Percent Slide:** 4.13 - 12.98

BHA # 2

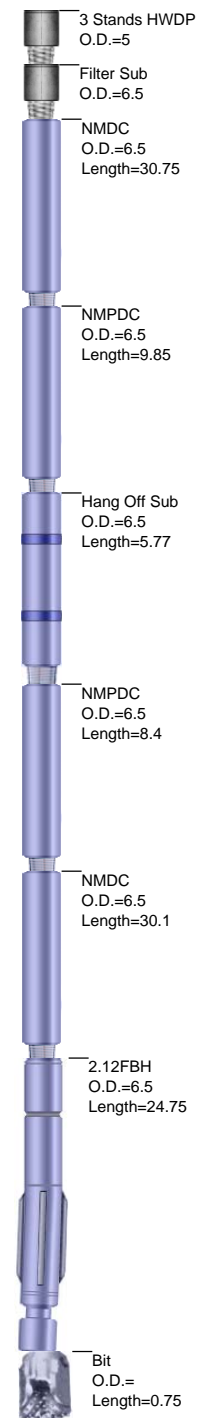


JOB NO.: 381335 Work Order: FIELD: Wattenburg
 Company: Extraction Oil & Gas Township: 6N
 LOCATION: Winder South Pad SECT. RANGE: 9 67W
 RIG NAME: Patterson 346 Lead DD: Scott Sandford
 STATE: Colorado Co. Man: Jose Torres
 COUNTY: Weld BHA TYPE:
 WELL NAME: Winder South 3 BHA WT: 17501 Wt @ Jars: N/A

| Time and Depths | | MOTOR DATA | | Drilling Parameters | |
|--------------------|-------------------|--|-----------|---------------------|------------------------|
| Date In: | 29-Aug-16 @ 22:30 | MFG.: Pad OD: NB Stab: 0 Bit to Bend: 0 Bent Hsg/Sub°: 0 / Lobe/Stage: / Rev/GAL: 0 Rotor Jet: 0 Prop BUR: Act BUR: | | SO/PU: | 0 - 0 / 0-0 |
| Date Out: | 30-Aug-16 @ 18:00 | | | Rot Strg Wt: | 0-0 |
| Hrs In Hole: | 19.52 | | | WOB: | 20 - 30 |
| Start Depth: | 3225.00 | | | TORQ: | 6500 - 9000 |
| End Depth: | 6914.00 | | | SPP: | 2400 - 3150 |
| Total Drilled: | 3689.00 | | | Motor RPM: | No Rev/Gal Input |
| Avg. Total ROP: | 323.60 | | | Rotary RPM: | 60 - 60 |
| Circ Hrs: Tot/Only | 12.60 / 1.20 | | | Flow Rate: | 640 - 640 |
| Percent Slide: | 19.17 | | | Avg Diff: | |
| Percent Hrs: | 44.15 | | | Stall Pres.: | |
| Slide Hours: | 5.03 | | | Off Bot Pres.: | |
| Total Sliding: | 707.00 | Mud Data | | Bit Record | |
| Avg. Slide ROP: | 140.46 | Type | | / Bit | |
| Percent Rotary: | 80.83 | WT: | 0 | GAS: | 0 |
| Percent Hrs: | 55.85 | Vis: | 0 | PV: | 0 |
| Rotary Hours: | 6.37 | WL: | 0 | PH: | 0 |
| Total Rotary: | 2982.00 | SOL: | 0 | SAND: | 0 |
| Avg. Rotary ROP: | 468.38 | Oil %: | 0 | T °: | 0 |
| Reason POOH: | | Chlor: | 0 | YP: | 0 |
| MWD Spacing | | Gamma: 0 | Restiv: 0 | Sensor: 0 | Last Casing O.D. |
| | | GYRO: 0 | DNSC: 0 | Sonic: 0 | Shoe @: Hanger @: |
| INC IN: | .0 | INC OUT: | .0 | AZM IN: | .00 |
| | | | | AZM OUT: | .00 |

BHA Detail

| Description | Serial # | I.D. | O.D. | Length | Sum | Top Conn | MFG. |
|---------------|----------|------|------|--------|--------|------------|-------|
| Bit | 1234 | | | 0.75 | 0.75 | 4 1/2 REGP | OTHER |
| 2.12FBH | G540 | | 6.5 | 24.75 | 25.50 | 4 1/2 IFB | OTHER |
| NMDC | 122-978 | 3.25 | 6.5 | 30.10 | 55.60 | 4 1/2 IFB | SDI |
| NMPDC | 125-218 | 3.25 | 6.5 | 8.40 | 64.00 | 4 1/2 IFB | SDI |
| Hang Off Sub | 129-284 | 3.25 | 6.5 | 5.77 | 69.77 | 4 1/2 IFB | SDI |
| NMPDC | 125-297 | 3.25 | 6.5 | 9.85 | 79.62 | 4 1/2 IFB | SDI |
| NMDC | 189-012 | 3.25 | 6.5 | 30.75 | 110.37 | 4 1/2 IFB | SDI |
| Filter Sub | DR16287 | 3.25 | 6.5 | 2.61 | 112.98 | 4 1/2 IFB | Other |
| 3 Stands HWDP | N/A | 3.76 | 5 | 275.51 | 388.49 | 4 1/2 IFB | Other |





JOB NO.: 381335
Company: Extraction Oil & Gas
LOCATION: Winder South Pad
RIG NAME: Patterson 346
STATE: Colorado
COUNTY: Country
WELL NAME: Winder South 3

FIELD: Wattenburg
Township: 6N
Range 67W

MOTOR INFORMATION

Desc:
Bent Hsg/Sub: 0 / 0 Bit to Bend: 0
Pad OD: NB Stab:

Slide Report for BHA # 2

Note: Surveys listed are interpolated from the actual surveys

| # | Date | Drill Mode | Start Time | End Time | Hours | Start MD | End MD | Depth Drilled | WOB | ROP | RPM | Surf. Torque | Flow Rate | SPP | TFO | INC | AZM | DLS | Note |
|---|--------|------------|------------|----------|-------|----------|--------|---------------|-----|-------|-----|--------------|-----------|------|-----|------|------|------|------|
| 2 | 30-Aug | Sliding | 00:37 | 00:48 | 0.18 | 3225 | 3234 | 9 | 20 | 49.1 | 60 | 6000 | 640 | 2400 | 20L | 0.00 | 0.00 | 0.00 | |
| 2 | 30-Aug | Drilling | 00:48 | 00:59 | 0.18 | 3234 | 3318 | 84 | 25 | 458.2 | 60 | 6500 | 640 | 2850 | | 0.00 | 0.00 | 0.00 | |
| 2 | 30-Aug | Drilling | 01:03 | 01:06 | 0.05 | 3318 | 3334 | 16 | 25 | 320.0 | 60 | 6500 | 640 | 2850 | | 0.00 | 0.00 | 0.00 | |
| 2 | 30-Aug | Sliding | 01:06 | 01:10 | 0.07 | 3334 | 3344 | 10 | 20 | 150.0 | 60 | 6500 | 640 | 2850 | 20R | 0.00 | 0.00 | 0.00 | |
| 2 | 30-Aug | Drilling | 01:10 | 01:16 | 0.10 | 3344 | 3412 | 68 | 25 | 680.0 | 60 | 6500 | 640 | 2850 | | 0.00 | 0.00 | 0.00 | |
| 2 | 30-Aug | Drilling | 01:20 | 01:24 | 0.07 | 3412 | 3430 | 18 | 25 | 270.0 | 60 | 6500 | 640 | 2850 | | 0.00 | 0.00 | 0.00 | |
| 2 | 30-Aug | Sliding | 01:24 | 01:30 | 0.10 | 3430 | 3445 | 15 | 20 | 150.0 | 60 | 6500 | 640 | 2850 | 20R | 0.00 | 0.00 | 0.00 | |
| 2 | 30-Aug | Drilling | 01:30 | 01:36 | 0.10 | 3445 | 3507 | 62 | 25 | 620.0 | 60 | 6500 | 640 | 2850 | | 0.00 | 0.00 | 0.00 | |
| 2 | 30-Aug | Drilling | 01:40 | 01:43 | 0.05 | 3507 | 3524 | 17 | 25 | 340.0 | 60 | 6500 | 640 | 2850 | | 0.00 | 0.00 | 0.00 | |
| 2 | 30-Aug | Sliding | 01:43 | 01:50 | 0.12 | 3524 | 3541 | 17 | 20 | 145.7 | 60 | 6500 | 640 | 2850 | 50R | 0.00 | 0.00 | 0.00 | |
| 2 | 30-Aug | Drilling | 01:50 | 01:56 | 0.10 | 3541 | 3602 | 61 | 25 | 610.0 | 60 | 6500 | 640 | 2850 | | 0.00 | 0.00 | 0.00 | |
| 2 | 30-Aug | Drilling | 02:00 | 02:03 | 0.05 | 3602 | 3618 | 16 | 25 | 320.0 | 60 | 6500 | 640 | 2850 | | 0.00 | 0.00 | 0.00 | |
| 2 | 30-Aug | Sliding | 02:03 | 02:08 | 0.08 | 3618 | 3630 | 12 | 20 | 144.0 | 60 | 6500 | 640 | 2850 | 80R | 0.00 | 0.00 | 0.00 | |
| 2 | 30-Aug | Drilling | 02:08 | 02:18 | 0.17 | 3630 | 3697 | 67 | 25 | 402.0 | 60 | 6500 | 640 | 2850 | | 0.00 | 0.00 | 0.00 | |
| 2 | 30-Aug | Drilling | 02:22 | 02:33 | 0.18 | 3697 | 3791 | 94 | 25 | 512.7 | 60 | 6500 | 640 | 2850 | | 0.00 | 0.00 | 0.00 | |
| 2 | 30-Aug | Drilling | 02:37 | 02:47 | 0.17 | 3791 | 3886 | 95 | 25 | 570.0 | 60 | 6500 | 640 | 2850 | | 0.00 | 0.00 | 0.00 | |
| 2 | 30-Aug | Drilling | 02:51 | 03:01 | 0.17 | 3886 | 3981 | 95 | 25 | 570.0 | 60 | 6500 | 640 | 2850 | | 0.00 | 0.00 | 0.00 | |
| 2 | 30-Aug | Drilling | 03:05 | 03:15 | 0.17 | 3981 | 4076 | 95 | 25 | 570.0 | 60 | 6500 | 640 | 2850 | | 0.00 | 0.00 | 0.00 | |
| 2 | 30-Aug | Drilling | 03:19 | 03:23 | 0.07 | 4076 | 4094 | 18 | 25 | 270.0 | 60 | 6500 | 640 | 2850 | | 0.00 | 0.00 | 0.00 | |
| 2 | 30-Aug | Sliding | 03:23 | 03:27 | 0.07 | 4094 | 4101 | 7 | 20 | 105.0 | 60 | 6500 | 640 | 2850 | 40L | 0.00 | 0.00 | 0.00 | |
| 2 | 30-Aug | Drilling | 03:27 | 03:35 | 0.13 | 4101 | 4171 | 70 | 25 | 525.0 | 60 | 6500 | 640 | 2850 | | 0.00 | 0.00 | 0.00 | |
| 2 | 30-Aug | Drilling | 03:39 | 03:41 | 0.03 | 4171 | 4190 | 19 | 25 | 570.0 | 60 | 6500 | 640 | 2850 | | 0.00 | 0.00 | 0.00 | |
| 2 | 30-Aug | Sliding | 03:41 | 03:50 | 0.15 | 4190 | 4203 | 13 | 20 | 86.7 | 60 | 6500 | 640 | 2850 | | 0.00 | 0.00 | 0.00 | |
| 2 | 30-Aug | Drilling | 03:50 | 03:56 | 0.10 | 4203 | 4265 | 62 | 25 | 620.0 | 60 | 9000 | 640 | 3150 | | 0.00 | 0.00 | 0.00 | |
| 2 | 30-Aug | Drilling | 04:00 | 04:03 | 0.05 | 4265 | 4284 | 19 | 25 | 380.0 | 60 | 9000 | 640 | 3150 | | 0.00 | 0.00 | 0.00 | |
| 2 | 30-Aug | Sliding | 04:03 | 04:10 | 0.12 | 4284 | 4298 | 14 | 20 | 120.0 | 60 | 9000 | 640 | 3150 | 40R | 0.00 | 0.00 | 0.00 | |

Slide Report for BHA # 2

Note: Surveys listed are interpolated from the actual surveys

| # | Date | Drill Mode | Start Time | End Time | Hours | Start MD | End MD | Depth Drilled | WOB | ROP | RPM | Surf. Torque | Flow Rate | SPP | TFO | INC | AZM | DLS | Note |
|---|--------|------------|------------|----------|-------|----------|--------|---------------|-----|--------|-----|--------------|-----------|------|-----|------|------|------|------|
| 2 | 30-Aug | Drilling | 04:10 | 04:17 | 0.12 | 4298 | 4359 | 61 | 25 | 522.9 | 60 | 9000 | 640 | 3150 | | 0.00 | 0.00 | 0.00 | |
| 2 | 30-Aug | Drilling | 04:22 | 04:25 | 0.05 | 4359 | 4375 | 16 | 25 | 320.0 | 60 | 9000 | 640 | 3150 | | 0.00 | 0.00 | 0.00 | |
| 2 | 30-Aug | Sliding | 04:25 | 04:31 | 0.10 | 4375 | 4390 | 15 | 20 | 150.0 | 60 | 9000 | 640 | 3150 | 20R | 0.00 | 0.00 | 0.00 | |
| 2 | 30-Aug | Drilling | 04:31 | 04:37 | 0.10 | 4390 | 4454 | 64 | 25 | 640.0 | 60 | 9000 | 640 | 3150 | | 0.00 | 0.00 | 0.00 | |
| 2 | 30-Aug | Drilling | 04:40 | 04:50 | 0.17 | 4454 | 4548 | 94 | 25 | 564.0 | 60 | 9000 | 640 | 3150 | | 0.00 | 0.00 | 0.00 | |
| 2 | 30-Aug | Drilling | 04:53 | 05:04 | 0.18 | 4548 | 4642 | 94 | 25 | 512.7 | 60 | 9000 | 640 | 3150 | | 0.00 | 0.00 | 0.00 | |
| 2 | 30-Aug | Drilling | 05:09 | 05:13 | 0.07 | 4642 | 4659 | 17 | 25 | 255.0 | 60 | 9000 | 640 | 3150 | | 0.00 | 0.00 | 0.00 | |
| 2 | 30-Aug | Sliding | 05:13 | 05:20 | 0.12 | 4659 | 4676 | 17 | 20 | 145.7 | 60 | 9000 | 640 | 3150 | 35L | 0.00 | 0.00 | 0.00 | |
| 2 | 30-Aug | Drilling | 05:20 | 05:26 | 0.10 | 4676 | 4737 | 61 | 25 | 610.0 | 60 | 9000 | 640 | 3150 | | 0.00 | 0.00 | 0.00 | |
| 2 | 30-Aug | Drilling | 05:29 | 05:33 | 0.07 | 4737 | 4756 | 19 | 25 | 285.0 | 60 | 9000 | 640 | 3150 | | 0.00 | 0.00 | 0.00 | |
| 2 | 30-Aug | Sliding | 05:33 | 05:45 | 0.20 | 4756 | 4771 | 15 | 20 | 75.0 | 60 | 9000 | 640 | 3150 | 30R | 0.00 | 0.00 | 0.00 | |
| 2 | 30-Aug | Drilling | 05:45 | 05:52 | 0.12 | 4771 | 4832 | 61 | 25 | 522.9 | 60 | 9000 | 640 | 3150 | | 0.00 | 0.00 | 0.00 | |
| 2 | 30-Aug | Drilling | 05:56 | 06:00 | 0.07 | 4832 | 4852 | 20 | 25 | 300.0 | 60 | 9000 | 640 | 3150 | | 0.00 | 0.00 | 0.00 | |
| 2 | 30-Aug | Sliding | 06:00 | 06:07 | 0.12 | 4852 | 4870 | 18 | 20 | 154.3 | 60 | 9000 | 640 | 3150 | 45R | 0.00 | 0.00 | 0.00 | |
| 2 | 30-Aug | Drilling | 06:07 | 06:19 | 0.20 | 4870 | 4926 | 56 | 25 | 280.0 | 60 | 9000 | 640 | 3150 | | 0.00 | 0.00 | 0.00 | |
| 2 | 30-Aug | Drilling | 06:25 | 06:29 | 0.07 | 4926 | 5021 | 95 | 25 | 1425.0 | 60 | 9000 | 640 | 3150 | | 0.00 | 0.00 | 0.00 | |
| 2 | 30-Aug | Drilling | 06:35 | 06:37 | 0.03 | 5021 | 5044 | 23 | 25 | 690.0 | 60 | 9000 | 640 | 3150 | | 0.00 | 0.00 | 0.00 | |
| 2 | 30-Aug | Sliding | 06:37 | 06:45 | 0.13 | 5044 | 5064 | 20 | 20 | 150.0 | 60 | 9000 | 640 | 3150 | 60 | 0.00 | 0.00 | 0.00 | |
| 2 | 30-Aug | Drilling | 06:50 | 06:52 | 0.03 | 5064 | 5116 | 52 | 25 | 1560.0 | 60 | 9000 | 640 | 3150 | | 0.00 | 0.00 | 0.00 | |
| 2 | 30-Aug | Drilling | 06:52 | 07:00 | 0.13 | 5116 | 5139 | 23 | 25 | 172.5 | 60 | 9000 | 640 | 3150 | | 0.00 | 0.00 | 0.00 | |
| 2 | 30-Aug | Sliding | 07:00 | 07:08 | 0.13 | 5139 | 5159 | 20 | 20 | 150.0 | 60 | 9000 | 640 | 3150 | 60R | 0.00 | 0.00 | 0.00 | |
| 2 | 30-Aug | Drilling | 07:08 | 07:27 | 0.32 | 5159 | 5305 | 146 | 25 | 461.1 | 60 | 9000 | 640 | 3150 | | 0.00 | 0.00 | 0.00 | |
| 2 | 30-Aug | Drilling | 07:31 | 07:37 | 0.10 | 5305 | 5330 | 25 | 25 | 250.0 | 60 | 9000 | 640 | 3150 | | 0.00 | 0.00 | 0.00 | |
| 2 | 30-Aug | Sliding | 07:37 | 07:44 | 0.12 | 5330 | 5342 | 12 | 20 | 102.9 | 60 | 9000 | 640 | 3150 | 60R | 0.00 | 0.00 | 0.00 | |
| 2 | 30-Aug | Drilling | 07:44 | 07:53 | 0.15 | 5342 | 5400 | 58 | 25 | 386.7 | 60 | 9000 | 640 | 3150 | | 0.00 | 0.00 | 0.00 | |
| 2 | 30-Aug | Drilling | 07:57 | 07:59 | 0.03 | 5400 | 5436 | 36 | 25 | 1080.0 | 60 | 9000 | 640 | 3150 | | 0.00 | 0.00 | 0.00 | |
| 2 | 30-Aug | Sliding | 07:59 | 08:04 | 0.08 | 5436 | 5456 | 20 | 20 | 240.0 | 60 | 9000 | 640 | 3150 | 60R | 0.00 | 0.00 | 0.00 | |
| 2 | 30-Aug | Drilling | 08:04 | 08:20 | 0.27 | 5456 | 5590 | 134 | 25 | 502.5 | 60 | 9000 | 640 | 3150 | | 0.00 | 0.00 | 0.00 | |
| 2 | 30-Aug | Drilling | 08:23 | 08:31 | 0.13 | 5590 | 5614 | 24 | 25 | 180.0 | 60 | 9000 | 640 | 3150 | | 0.00 | 0.00 | 0.00 | |
| 2 | 30-Aug | Sliding | 08:31 | 08:38 | 0.12 | 5614 | 5624 | 10 | 20 | 85.7 | 60 | 9000 | 640 | 3150 | 60R | 0.00 | 0.00 | 0.00 | |
| 2 | 30-Aug | Drilling | 08:38 | 08:40 | 0.03 | 5624 | 5685 | 61 | 25 | 1830.0 | 60 | 9000 | 640 | 3150 | | 0.00 | 0.00 | 0.00 | |
| 2 | 30-Aug | Drilling | 08:43 | 08:52 | 0.15 | 5685 | 5708 | 23 | 25 | 153.3 | 60 | 9000 | 640 | 3150 | | 0.00 | 0.00 | 0.00 | |
| 2 | 30-Aug | Sliding | 08:52 | 09:08 | 0.27 | 5708 | 5728 | 20 | 20 | 75.0 | 60 | 9000 | 640 | 3150 | 60R | 0.00 | 0.00 | 0.00 | |
| 2 | 30-Aug | Drilling | 09:08 | 09:14 | 0.10 | 5728 | 5779 | 51 | 25 | 510.0 | 60 | 9000 | 640 | 3150 | | 0.00 | 0.00 | 0.00 | |
| 2 | 30-Aug | Drilling | 09:18 | 09:22 | 0.07 | 5779 | 5825 | 46 | 25 | 690.0 | 60 | 9000 | 640 | 3150 | | 0.00 | 0.00 | 0.00 | |

Slide Report for BHA # 2

Note: Surveys listed are interpolated from the actual surveys

| # | Date | Drill Mode | Start Time | End Time | Hours | Start MD | End MD | Depth Drilled | WOB | ROP | RPM | Surf. Torque | Flow Rate | SPP | TFO | INC | AZM | DLS | Note |
|---|--------|------------|------------|----------|-------|----------|--------|---------------|-----|--------|-----|--------------|-----------|------|-----|------|------|------|------|
| 2 | 30-Aug | Sliding | 09:30 | 09:33 | 0.05 | 5825 | 5833 | 8 | 20 | 160.0 | 60 | 9000 | 640 | 3150 | 60R | 0.00 | 0.00 | 0.00 | |
| 2 | 30-Aug | Drilling | 09:33 | 09:39 | 0.10 | 5833 | 5874 | 41 | 25 | 410.0 | 60 | 9000 | 640 | 3150 | | 0.00 | 0.00 | 0.00 | |
| 2 | 30-Aug | Drilling | 09:42 | 09:49 | 0.12 | 5874 | 5907 | 33 | 25 | 282.9 | 60 | 9000 | 640 | 3150 | | 0.00 | 0.00 | 0.00 | |
| 2 | 30-Aug | Sliding | 09:49 | 09:57 | 0.13 | 5907 | 5927 | 20 | 20 | 150.0 | 60 | 9000 | 640 | 3150 | 60R | 0.00 | 0.00 | 0.00 | |
| 2 | 30-Aug | Drilling | 09:57 | 10:03 | 0.10 | 5927 | 5969 | 42 | 25 | 420.0 | 60 | 9000 | 640 | 3150 | | 0.00 | 0.00 | 0.00 | |
| 2 | 30-Aug | Drilling | 10:06 | 10:10 | 0.07 | 5969 | 5992 | 23 | 25 | 345.0 | 60 | 9000 | 640 | 3150 | | 0.00 | 0.00 | 0.00 | |
| 2 | 30-Aug | Sliding | 10:10 | 10:18 | 0.13 | 5992 | 6012 | 20 | 20 | 150.0 | 60 | 9000 | 640 | 3150 | 60R | 0.00 | 0.00 | 0.00 | |
| 2 | 30-Aug | Drilling | 10:18 | 10:24 | 0.10 | 6012 | 6063 | 51 | 25 | 510.0 | 60 | 9000 | 640 | 3150 | | 0.00 | 0.00 | 0.00 | |
| 2 | 30-Aug | Drilling | 10:28 | 10:36 | 0.13 | 6063 | 6158 | 95 | 25 | 712.5 | 60 | 9000 | 640 | 3150 | | 0.00 | 0.00 | 0.00 | |
| 2 | 30-Aug | Drilling | 10:39 | 10:43 | 0.07 | 6158 | 6148 | -10 | 25 | -150.0 | 60 | 9000 | 640 | 3150 | | 0.00 | 0.00 | 0.00 | |
| 2 | 30-Aug | Sliding | 10:43 | 10:49 | 0.10 | 6148 | 6199 | 51 | 20 | 510.0 | 60 | 9000 | 640 | 3150 | 60R | 0.00 | 0.00 | 0.00 | |
| 2 | 30-Aug | Drilling | 10:49 | 10:56 | 0.12 | 6199 | 6252 | 53 | 25 | 454.3 | 60 | 9000 | 640 | 3150 | | 0.00 | 0.00 | 0.00 | |
| 2 | 30-Aug | Drilling | 10:56 | 11:04 | 0.13 | 6252 | 6273 | 21 | 25 | 157.5 | 60 | 9000 | 640 | 3150 | | 0.00 | 0.00 | 0.00 | |
| 2 | 30-Aug | Sliding | 11:04 | 11:12 | 0.13 | 6273 | 6293 | 20 | 20 | 150.0 | 60 | 9000 | 640 | 3150 | 60R | 0.00 | 0.00 | 0.00 | |
| 2 | 30-Aug | Drilling | 11:12 | 11:17 | 0.08 | 6293 | 6347 | 54 | 25 | 648.0 | 60 | 9000 | 640 | 3150 | | 0.00 | 0.00 | 0.00 | |
| 2 | 30-Aug | Drilling | 11:21 | 11:24 | 0.05 | 6347 | 6368 | 21 | 25 | 420.0 | 60 | 9000 | 640 | 3150 | | 0.00 | 0.00 | 0.00 | |
| 2 | 30-Aug | Sliding | 11:24 | 11:35 | 0.18 | 6368 | 6388 | 20 | 20 | 109.1 | 60 | 9000 | 640 | 3150 | 60R | 0.00 | 0.00 | 0.00 | |
| 2 | 30-Aug | Drilling | 11:35 | 11:44 | 0.15 | 6388 | 6441 | 53 | 25 | 353.3 | 60 | 9000 | 640 | 3150 | | 0.00 | 0.00 | 0.00 | |
| 2 | 30-Aug | Drilling | 11:49 | 11:52 | 0.05 | 6441 | 6460 | 19 | 25 | 380.0 | 60 | 9000 | 640 | 3150 | | 0.00 | 0.00 | 0.00 | |
| 2 | 30-Aug | Sliding | 11:52 | 12:03 | 0.18 | 6460 | 6480 | 20 | 20 | 109.1 | 60 | 9000 | 640 | 3150 | 60R | 0.00 | 0.00 | 0.00 | |
| 2 | 30-Aug | Drilling | 12:03 | 12:11 | 0.13 | 6480 | 6536 | 56 | 25 | 420.0 | 60 | 9000 | 640 | 3150 | | 0.00 | 0.00 | 0.00 | |
| 2 | 30-Aug | Sliding | 12:50 | 13:02 | 0.20 | 6536 | 6556 | 20 | 20 | 100.0 | 60 | 9000 | 640 | 3150 | 60R | 0.00 | 0.00 | 0.00 | |
| 2 | 30-Aug | Drilling | 13:02 | 13:10 | 0.13 | 6556 | 6630 | 74 | 25 | 555.0 | 60 | 9000 | 640 | 3150 | | 0.00 | 0.00 | 0.00 | |
| 2 | 30-Aug | Drilling | 13:14 | 13:17 | 0.05 | 6630 | 6650 | 20 | 25 | 400.0 | 60 | 9000 | 640 | 3150 | | 0.00 | 0.00 | 0.00 | |
| 2 | 30-Aug | Sliding | 13:17 | 13:55 | 0.63 | 6650 | 6725 | 75 | 20 | 118.4 | 60 | 9000 | 640 | 3150 | 60R | 0.00 | 0.00 | 0.00 | |
| 2 | 30-Aug | Sliding | 13:59 | 14:30 | 0.52 | 6725 | 6819 | 94 | 20 | 181.9 | 60 | 9000 | 640 | 3150 | 60R | 0.00 | 0.00 | 0.00 | |
| 2 | 30-Aug | Sliding | 14:40 | 15:10 | 0.50 | 6819 | 6914 | 95 | 20 | 190.0 | 60 | 9000 | 640 | 3150 | 60R | 0.00 | 0.00 | 0.00 | |

Total Drilled: 3689 **Avg. Total ROP:** 323.60

DEPTH% - TIME %

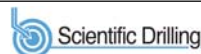
Total Rotary Drilled: 2982 **Avg. Rotary ROP:** 468.38

Percent Rotary: 80.83 - 55.85

Total Drilled Sliding: 707 **Avg. Slide ROP:** 140.46

Percent Slide: 19.17 - 44.15

BHA # 3



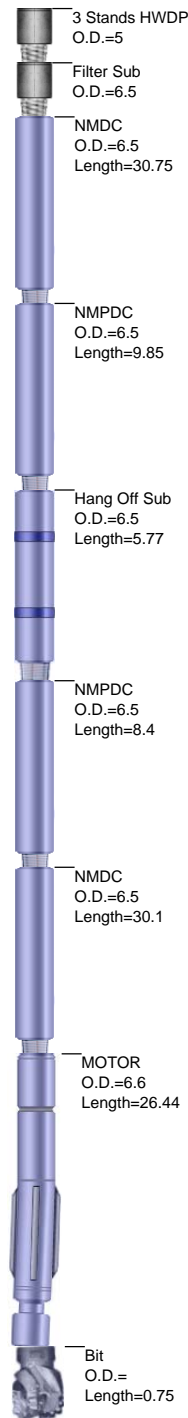
JOB NO.: 381335 Work Order: FIELD: Wattenburg
 Company: Extraction Oil & Gas Township: 6N
 LOCATION: Winder South Pad SECT. RANGE: 9 67W
 RIG NAME: Patterson 346 Lead DD: Scott Sandford
 STATE: Colorado Co. Man: Jose Torres
 COUNTY: Weld BHA TYPE:
 WELL NAME: Winder South 3 BHA WT: 17714 Wt @ Jars: N/A

| Time and Depths | MOTOR DATA | Drilling Parameters |
|-------------------------------|--------------------|-----------------------------|
| Date In: 30-Aug-16 @ 18:00 | MFG.: | SO/PU: 0 - 0 / 0-0 |
| Date Out: 31-Aug-16 @ 03:30 | Pad OD: | Rot Strg Wt: 0-0 |
| Hrs In Hole: 9.50 | NB Stab: 0 | WOB: 20 - 20 |
| Start Depth: 6914.00 | Bit to Bend: 0 | TORQ: - |
| End Depth: 7199.00 | Bent Hsg/Sub°: 0 / | SPP: 3150 - 3150 |
| Total Drilled: 285.00 | Lobe/Stage: / | Motor RPM: No Rev/Gal Input |
| Avg. Total ROP: 174.49 | Rev/GAL: 0 | Rotary RPM: - |
| Circ Hrs: Tot/Only 1.82 / .18 | Rotor Jet: 0 | Flow Rate: 640 - 640 |
| Percent Slide: 100.00 | Prop BUR: 0 | Avg Diff: |
| Percent Hrs: 100.00 | Act BUR: | Stall Pres.: |
| Slide Hours: 1.63 | | Off Bot Pres.: |
| Total Sliding: 285.00 | | |
| Avg. Slide ROP: 174.49 | | |
| Percent Rotary: .00 | | |
| Percent Hrs: .00 | | |
| Rotary Hours: .00 | | |
| Total Rotary: .00 | | |
| Avg. Rotary ROP: NA | | |
| Reason POOH: | | |

| MWD Spacing | Gamma: 0 | Restiv: 0 | Sensor: 0 | Last Casing | O.D. |
|-------------|----------|-----------|-----------|-------------|-----------|
| | GYRO: 0 | DNSC: 0 | Sonic: 0 | Shoe @: | Hanger @: |

INC IN: .0 INC OUT: .0 AZM IN: .00 AZM OUT: .00

| BHA Detail | | | | | | | |
|---------------|-------------|------|------|--------|--------|------------|-------|
| Description | Serial # | I.D. | O.D. | Length | Sum | Top Conn | MFG. |
| Bit | 1234 | | | 0.75 | 0.75 | 4 1/2 REGP | OTHER |
| MOTOR | 650-36B-012 | | 6.6 | 26.44 | 27.19 | 4 1/2 IFB | OTHER |
| NMDC | 122-978 | 3.25 | 6.5 | 30.10 | 57.29 | 4 1/2 IFB | SDI |
| NMPDC | 125-218 | 3.25 | 6.5 | 8.40 | 65.69 | 4 1/2 IFB | SDI |
| Hang Off Sub | 129-284 | 3.25 | 6.5 | 5.77 | 71.46 | 4 1/2 IFB | SDI |
| NMPDC | 125-297 | 3.25 | 6.5 | 9.85 | 81.31 | 4 1/2 IFB | SDI |
| NMDC | 189-012 | 3.25 | 6.5 | 30.75 | 112.06 | 4 1/2 IFB | SDI |
| Filter Sub | DR16287 | 3.25 | 6.5 | 2.61 | 114.67 | 4 1/2 IFB | Other |
| 3 Stands HWDP | N/A | 3.76 | 5 | 275.51 | 390.18 | 4 1/2 IFB | Other |





JOB NO.: 381335
Company: Extraction Oil & Gas
LOCATION: Winder South Pad
RIG NAME: Patterson 346
STATE: Colorado
COUNTY: Country
WELL NAME: Winder South 3

FIELD: Wattenburg
Township: 6N
Range 67W

MOTOR INFORMATION

Desc:
Bent Hsg/Sub: 0 / 0 Bit to Bend: 0
Pad OD: NB Stab:

Slide Report for BHA # 3

Note: Surveys listed are interpolated from the actual surveys

| # | Date | Drill Mode | Start Time | End Time | Hours | Start MD | End MD | Depth Drilled | WOB | ROP | RPM | Surf. Torque | Flow Rate | SPP | TFO | INC | AZM | DLS | Note |
|---|--------|------------|------------|----------|-------|----------|--------|---------------|-----|-------|-----|--------------|-----------|------|------|------|------|------|------|
| 3 | 30-Aug | Sliding | 22:35 | 23:12 | 0.62 | 6914 | 7010 | 96 | 20 | 155.7 | 60 | 9000 | 640 | 3150 | 100R | 0.00 | 0.00 | 0.00 | |
| 3 | 30-Aug | Sliding | 23:25 | 24:00 | 0.58 | 7010 | 7105 | 95 | 20 | 162.9 | 60 | 9000 | 640 | 3150 | 120R | 0.00 | 0.00 | 0.00 | |
| 3 | 31-Aug | Sliding | 00:08 | 00:34 | 0.43 | 7105 | 7199 | 94 | 20 | 216.9 | 60 | 9000 | 640 | 3150 | 120R | 0.00 | 0.00 | 0.00 | |

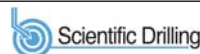
Total Drilled: 285 Avg. Total ROP: 174.49

DEPTH% - TIME %

Total Rotary Drilled: 0 Avg. Rotary ROP: NA Percent Rotary: .00 - .00

Total Drilled Sliding: 285 Avg. Slide ROP: 174.49 Percent Slide: 100.00 - 100.00

BHA # 4



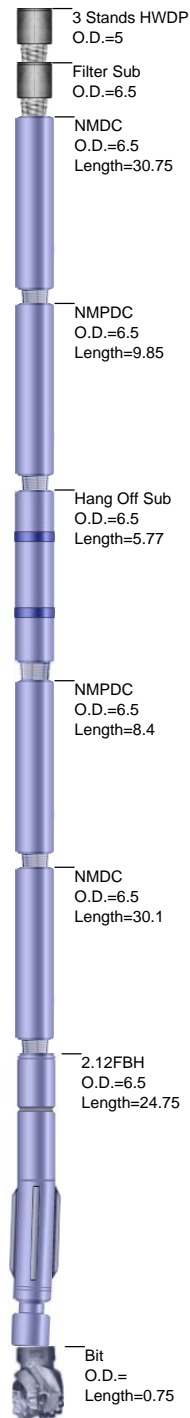
JOB NO.: 381335 Work Order: FIELD: Wattenburg
 Company: Extraction Oil & Gas Township: 6N
 LOCATION: Winder South Pad SECT. RANGE: 9 67W
 RIG NAME: Patterson 346 Lead DD: Scott Sandford
 STATE: Colorado Co. Man: Jose Torres
 COUNTY: Weld BHA TYPE:
 WELL NAME: Winder South 3 BHA WT: 17501 Wt @ Jars: N/A

| Time and Depths | MOTOR DATA | Drilling Parameters |
|---------------------------------|--------------------|-----------------------------|
| Date In: 31-Aug-16 @ 03:30 | 2.12 Deg | SO/PU: 0 - 0 / 0-0 |
| Date Out: 02-Sep-16 @ 17:45 | MFG.: Motor | Rot Strg Wt: 0-0 |
| Hrs In Hole: 62.25 | Pad OD: | WOB: 20 - 50 |
| Start Depth: 7199.00 | NB Stab: 0 | TORQ: 9000 - 23000 |
| End Depth: 16968.00 | Bit to Bend: 0 | SPP: 3150 - 5800 |
| Total Drilled: 7769.00 | Bent Hsg/Sub°: 0 / | Motor RPM: No Rev/Gal Input |
| Avg. Total ROP: 214.02 | Lobe/Stage: / | Rotary RPM: 60 - 65 |
| Circ Hrs: Tot/Only 39.13 / 2.83 | Rev/GAL: 0 | Flow Rate: 611 - 6000 |
| Percent Slide: 33.27 | Rotor Jet: 0 | Avg Diff: |
| Percent Hrs: 31.13 | Prop BUR: | Stall Pres.: |
| Slide Hours: 11.30 | Act BUR: | Off Bot Pres.: |
| Total Sliding: 2585.00 | | |
| Avg. Slide ROP: 228.76 | | |
| Percent Rotary: 66.73 | | |
| Percent Hrs: 68.87 | | |
| Rotary Hours: 25.00 | | |
| Total Rotary: 5184.00 | | |
| Avg. Rotary ROP: 207.36 | | |
| Reason POOH: | | |

| MWD Spacing | Gamma: 0 | Restiv: 0 | Sensor: 0 | Last Casing | O.D. |
|-------------|----------|-----------|-----------|-------------|-----------|
| | GYRO: 0 | DNCS: 0 | Sonic: 0 | Shoe @: | Hanger @: |

INC IN: .0 INC OUT: .0 AZM IN: .00 AZM OUT: .00

| BHA Detail | | | | | | | |
|---------------|----------|------|------|--------|--------|------------|-------|
| Description | Serial # | I.D. | O.D. | Length | Sum | Top Conn | MFG. |
| Bit | 1234 | | | 0.75 | 0.75 | 4 1/2 REGP | OTHER |
| 2.12FBH | G540 | | 6.5 | 24.75 | 25.50 | 4 1/2 IFB | OTHER |
| NMDC | 122-978 | 3.25 | 6.5 | 30.10 | 55.60 | 4 1/2 IFB | SDI |
| NMPDC | 125-218 | 3.25 | 6.5 | 8.40 | 64.00 | 4 1/2 IFB | SDI |
| Hang Off Sub | 129-284 | 3.25 | 6.5 | 5.77 | 69.77 | 4 1/2 IFB | SDI |
| NMPDC | 125-297 | 3.25 | 6.5 | 9.85 | 79.62 | 4 1/2 IFB | SDI |
| NMDC | 189-012 | 3.25 | 6.5 | 30.75 | 110.37 | 4 1/2 IFB | SDI |
| Filter Sub | DR16287 | 3.25 | 6.5 | 2.61 | 112.98 | 4 1/2 IFB | Other |
| 3 Stands HWDP | N/A | 3.76 | 5 | 275.51 | 388.49 | 4 1/2 IFB | Other |





JOB NO.: 381335
Company: Extraction Oil & Gas
LOCATION: Winder South Pad
RIG NAME: Patterson 346
STATE: Colorado
COUNTY: Country
WELL NAME: Winder South 3

FIELD: Wattenburg
Township: 6N
Range 67W

MOTOR INFORMATION

Desc: 2.12 Deg
Bent Hsg/Sub: 0 / 0 **Bit to Bend:** 0
Pad OD: **NB Stab:**

Slide Report for BHA # 4

Note: Surveys listed are interpolated from the actual surveys

| # | Date | Drill Mode | Start Time | End Time | Hours | Start MD | End MD | Depth Drilled | WOB | ROP | RPM | Surf. Torque | Flow Rate | SPP | TFO | INC | AZM | DLS | Note |
|---|--------|------------|------------|----------|-------|----------|--------|---------------|-----|-------|-----|--------------|-----------|------|------|-------|--------|------|------|
| 4 | 31-Aug | Sliding | 07:37 | 08:03 | 0.43 | 7199 | 7227 | 28 | 20 | 64.6 | 60 | 9000 | 640 | 3150 | 120R | 47.87 | 268.82 | 0.00 | |
| 4 | 31-Aug | Sliding | 08:10 | 08:58 | 0.80 | 7227 | 7321 | 94 | 20 | 117.5 | 60 | 9000 | 640 | 3150 | 60R | 61.05 | 273.78 | 0.00 | |
| 4 | 31-Aug | Sliding | 09:08 | 09:52 | 0.73 | 7321 | 7406 | 85 | 20 | 115.9 | 60 | 9000 | 640 | 3150 | 60R | 74.95 | 281.43 | 0.00 | |
| 4 | 31-Aug | Drilling | 09:52 | 10:15 | 0.38 | 7406 | 7481 | 75 | 25 | 195.7 | 60 | 9000 | 640 | 3150 | | 82.12 | 285.13 | 0.00 | |
| 4 | 31-Aug | Sliding | 10:15 | 10:30 | 0.25 | 7481 | 7510 | 29 | 20 | 116.0 | 60 | 9000 | 640 | 3150 | 60R | 82.12 | 285.13 | 0.00 | |
| 4 | 31-Aug | Drilling | 10:35 | 10:40 | 0.08 | 7510 | 7526 | 16 | 25 | 192.0 | 60 | 9000 | 640 | 3150 | | 82.12 | 285.13 | 0.00 | |
| 4 | 31-Aug | Sliding | 10:40 | 10:51 | 0.18 | 7526 | 7537 | 11 | 20 | 60.0 | 60 | 9000 | 640 | 3150 | 60R | 82.12 | 285.13 | 0.00 | |
| 4 | 31-Aug | Drilling | 10:51 | 10:58 | 0.12 | 7537 | 7566 | 29 | 25 | 248.6 | 60 | 9000 | 640 | 3150 | | 83.88 | 278.49 | 0.00 | |
| 4 | 31-Aug | Drilling | 10:58 | 11:05 | 0.12 | 7566 | 7605 | 39 | 25 | 334.3 | 60 | 9000 | 640 | 3150 | | 83.88 | 278.49 | 0.00 | |
| 4 | 31-Aug | Sliding | 11:12 | 11:18 | 0.10 | 7605 | 7622 | 17 | 20 | 170.0 | 60 | 9000 | 640 | 3150 | 60R | 83.88 | 278.49 | 0.00 | |
| 4 | 31-Aug | Drilling | 11:18 | 11:42 | 0.40 | 7622 | 7699 | 77 | 25 | 192.5 | 60 | 9000 | 640 | 3150 | | 82.81 | 276.33 | 0.00 | |
| 4 | 31-Aug | Drilling | 11:48 | 11:57 | 0.15 | 7699 | 7724 | 25 | 25 | 166.7 | 60 | 9000 | 640 | 3150 | | 82.81 | 276.33 | 0.00 | |
| 4 | 31-Aug | Sliding | 11:57 | 12:00 | 0.05 | 7724 | 7749 | 25 | 20 | 500.0 | 60 | 9000 | 640 | 3150 | 60R | 84.28 | 274.30 | 0.00 | |
| 4 | 31-Aug | Drilling | 12:00 | 12:18 | 0.30 | 7749 | 7794 | 45 | 25 | 150.0 | 60 | 9000 | 640 | 3150 | | 84.28 | 274.30 | 0.00 | |
| 4 | 31-Aug | Drilling | 12:21 | 12:23 | 0.03 | 7794 | 7804 | 10 | 35 | 300.0 | 65 | 13000 | 640 | 4748 | | 84.28 | 274.30 | 0.00 | |
| 4 | 31-Aug | Sliding | 12:23 | 12:39 | 0.27 | 7804 | 7835 | 31 | 50 | 116.3 | 65 | 13000 | 640 | 4748 | 60R | 88.96 | 269.80 | 0.00 | |
| 4 | 31-Aug | Drilling | 12:39 | 12:47 | 0.13 | 7835 | 7888 | 53 | 35 | 397.5 | 65 | 13000 | 640 | 4748 | | 88.96 | 269.80 | 0.00 | |
| 4 | 31-Aug | Drilling | 12:58 | 13:00 | 0.03 | 7888 | 7908 | 20 | 35 | 600.0 | 65 | 13000 | 640 | 4748 | | 88.96 | 269.80 | 0.00 | |
| 4 | 31-Aug | Sliding | 13:00 | 13:02 | 0.03 | 7908 | 7916 | 8 | 50 | 240.0 | 65 | 13000 | 640 | 4748 | 60R | 88.96 | 269.80 | 0.00 | |
| 4 | 31-Aug | Drilling | 13:02 | 13:10 | 0.13 | 7916 | 7983 | 67 | 35 | 502.5 | 65 | 13000 | 640 | 4748 | | 91.14 | 268.99 | 0.00 | |
| 4 | 31-Aug | Drilling | 13:16 | 13:29 | 0.22 | 7983 | 8078 | 95 | 35 | 438.5 | 65 | 13000 | 640 | 4748 | | 91.58 | 268.54 | 0.00 | |
| 4 | 31-Aug | Drilling | 13:29 | 13:37 | 0.13 | 8078 | 8102 | 24 | 35 | 180.0 | 65 | 13000 | 640 | 4748 | | 91.58 | 268.54 | 0.00 | |
| 4 | 31-Aug | Sliding | 13:37 | 13:42 | 0.08 | 8102 | 8108 | 6 | 50 | 72.0 | 65 | 13000 | 640 | 4748 | 60R | 91.58 | 268.54 | 0.00 | |
| 4 | 31-Aug | Drilling | 13:42 | 13:50 | 0.13 | 8108 | 8172 | 64 | 35 | 480.0 | 65 | 13000 | 640 | 4748 | | 91.21 | 268.60 | 0.00 | |
| 4 | 31-Aug | Drilling | 13:55 | 14:07 | 0.20 | 8172 | 8267 | 95 | 35 | 475.0 | 65 | 13000 | 640 | 4748 | | 91.51 | 268.39 | 0.00 | |
| 4 | 31-Aug | Drilling | 14:11 | 14:20 | 0.15 | 8267 | 8286 | 19 | 40 | 126.7 | 65 | 13000 | 640 | 4748 | | 91.51 | 268.39 | 0.00 | |

Slide Report for BHA # 4

Note: Surveys listed are interpolated from the actual surveys

| # | Date | Drill Mode | Start Time | End Time | Hours | Start MD | End MD | Depth Drilled | WOB | ROP | RPM | Surf. Torque | Flow Rate | SPP | TFO | INC | AZM | DLS | Note |
|---|--------|------------|------------|----------|-------|----------|--------|---------------|-----|-------|-----|--------------|-----------|------|------|-------|--------|------|------|
| 4 | 31-Aug | Sliding | 14:20 | 14:25 | 0.08 | 8286 | 8304 | 18 | 50 | 216.0 | 65 | 13000 | 640 | 4748 | 60R | 91.51 | 268.97 | 0.00 | |
| 4 | 31-Aug | Drilling | 14:25 | 14:35 | 0.17 | 8304 | 8361 | 57 | 40 | 342.0 | 65 | 13000 | 640 | 4748 | | 91.51 | 268.97 | 0.00 | |
| 4 | 31-Aug | Drilling | 14:40 | 14:43 | 0.05 | 8361 | 8385 | 24 | 40 | 480.0 | 65 | 13000 | 640 | 4748 | | 91.51 | 268.97 | 0.00 | |
| 4 | 31-Aug | Sliding | 14:43 | 14:50 | 0.12 | 8385 | 8402 | 17 | 50 | 145.7 | 65 | 13000 | 640 | 4748 | 60R | 90.00 | 270.07 | 0.00 | |
| 4 | 31-Aug | Drilling | 14:50 | 14:58 | 0.13 | 8402 | 8456 | 54 | 40 | 405.0 | 65 | 13000 | 640 | 4748 | | 90.00 | 270.07 | 0.00 | |
| 4 | 31-Aug | Drilling | 15:18 | 15:32 | 0.23 | 8456 | 8550 | 94 | 40 | 402.9 | 65 | 13000 | 640 | 4748 | | 90.77 | 271.10 | 0.00 | |
| 4 | 31-Aug | Drilling | 15:40 | 15:47 | 0.12 | 8550 | 8560 | 10 | 40 | 85.7 | 65 | 13000 | 640 | 4748 | | 90.77 | 271.10 | 0.00 | |
| 4 | 31-Aug | Sliding | 15:47 | 15:54 | 0.12 | 8560 | 8572 | 12 | 50 | 102.9 | 65 | 13000 | 640 | 4748 | 60R | 90.77 | 271.10 | 0.00 | |
| 4 | 31-Aug | Drilling | 15:54 | 16:05 | 0.18 | 8572 | 8645 | 73 | 40 | 398.2 | 65 | 13000 | 640 | 4748 | | 88.86 | 270.25 | 0.00 | |
| 4 | 31-Aug | Drilling | 16:09 | 16:23 | 0.23 | 8645 | 8739 | 94 | 40 | 402.9 | 65 | 13000 | 640 | 4748 | | 88.79 | 270.26 | 0.00 | |
| 4 | 31-Aug | Drilling | 16:27 | 16:40 | 0.22 | 8739 | 8834 | 95 | 40 | 438.5 | 65 | 13000 | 640 | 4748 | | 89.26 | 269.38 | 0.00 | |
| 4 | 31-Aug | Drilling | 16:44 | 16:57 | 0.22 | 8834 | 8928 | 94 | 40 | 433.8 | 65 | 13000 | 640 | 4748 | | 90.17 | 269.98 | 0.00 | |
| 4 | 31-Aug | Drilling | 17:00 | 17:12 | 0.20 | 8928 | 9023 | 95 | 40 | 475.0 | 65 | 13000 | 640 | 4748 | | 90.77 | 270.20 | 0.00 | |
| 4 | 31-Aug | Drilling | 17:15 | 17:28 | 0.22 | 9023 | 9117 | 94 | 40 | 433.8 | 65 | 13000 | 640 | 4748 | | 91.34 | 269.61 | 0.00 | |
| 4 | 31-Aug | Drilling | 17:32 | 17:38 | 0.10 | 9117 | 9148 | 31 | 40 | 310.0 | 65 | 13000 | 640 | 4748 | | 91.34 | 269.61 | 0.00 | |
| 4 | 31-Aug | Sliding | 17:38 | 17:41 | 0.05 | 9148 | 9156 | 8 | 50 | 160.0 | 65 | 13000 | 640 | 4748 | 60R | 90.64 | 270.76 | 0.00 | |
| 4 | 31-Aug | Drilling | 17:41 | 17:51 | 0.17 | 9156 | 9212 | 56 | 40 | 336.0 | 65 | 16900 | 640 | 5321 | | 90.64 | 270.76 | 0.00 | |
| 4 | 31-Aug | Drilling | 17:55 | 18:09 | 0.23 | 9212 | 9306 | 94 | 40 | 402.9 | 65 | 16900 | 640 | 5321 | | 90.97 | 270.77 | 0.00 | |
| 4 | 31-Aug | Drilling | 18:14 | 18:29 | 0.25 | 9306 | 9401 | 95 | 40 | 380.0 | 65 | 16900 | 640 | 5321 | | 91.95 | 269.83 | 0.00 | |
| 4 | 31-Aug | Drilling | 18:50 | 18:53 | 0.05 | 9401 | 9419 | 18 | 40 | 360.0 | 65 | 16900 | 640 | 5321 | | 91.95 | 269.83 | 0.00 | |
| 4 | 31-Aug | Sliding | 18:53 | 19:03 | 0.17 | 9419 | 9434 | 15 | 50 | 90.0 | 65 | 16900 | 640 | 5321 | 160R | 91.95 | 269.83 | 0.00 | |
| 4 | 31-Aug | Drilling | 19:03 | 19:13 | 0.17 | 9434 | 9495 | 61 | 40 | 366.0 | 65 | 16900 | 640 | 5321 | | 90.40 | 269.37 | 0.00 | |
| 4 | 31-Aug | Drilling | 19:18 | 19:30 | 0.20 | 9495 | 9590 | 95 | 40 | 475.0 | 65 | 17500 | 640 | 5300 | | 91.64 | 270.97 | 0.00 | |
| 4 | 31-Aug | Drilling | 19:34 | 19:37 | 0.05 | 9590 | 9606 | 16 | 40 | 320.0 | 65 | 17500 | 640 | 5300 | | 91.64 | 270.97 | 0.00 | |
| 4 | 31-Aug | Sliding | 19:37 | 19:47 | 0.17 | 9606 | 9621 | 15 | 50 | 90.0 | 65 | 17500 | 640 | 5300 | 180 | 91.64 | 270.97 | 0.00 | |
| 4 | 31-Aug | Drilling | 19:47 | 19:56 | 0.15 | 9621 | 9684 | 63 | 40 | 420.0 | 65 | 17500 | 640 | 5300 | | 90.40 | 271.35 | 0.00 | |
| 4 | 31-Aug | Drilling | 20:00 | 20:13 | 0.22 | 9684 | 9779 | 95 | 40 | 438.5 | 65 | 17500 | 640 | 5300 | | 90.54 | 270.89 | 0.00 | |
| 4 | 31-Aug | Drilling | 20:17 | 20:29 | 0.20 | 9779 | 9873 | 94 | 40 | 470.0 | 65 | 17500 | 640 | 5300 | | 90.67 | 270.82 | 0.00 | |
| 4 | 31-Aug | Drilling | 20:33 | 20:45 | 0.20 | 9873 | 9968 | 95 | 40 | 475.0 | 65 | 17500 | 640 | 5300 | | 90.10 | 271.22 | 0.00 | |
| 4 | 31-Aug | Drilling | 20:48 | 21:02 | 0.23 | 9968 | 10062 | 94 | 40 | 402.9 | 65 | 17500 | 640 | 5300 | | 89.97 | 272.62 | 0.00 | |
| 4 | 31-Aug | Drilling | 21:06 | 21:18 | 0.20 | 10062 | 10157 | 95 | 40 | 475.0 | 65 | 17500 | 640 | 5300 | | 88.59 | 272.37 | 0.00 | |
| 4 | 31-Aug | Drilling | 21:22 | 21:25 | 0.05 | 10157 | 10175 | 18 | 40 | 360.0 | 65 | 17500 | 640 | 5300 | | 88.59 | 272.37 | 0.00 | |
| 4 | 31-Aug | Sliding | 21:25 | 21:35 | 0.17 | 10175 | 10190 | 15 | 50 | 90.0 | 65 | 17500 | 640 | 5300 | 50L | 88.59 | 272.37 | 0.00 | |
| 4 | 31-Aug | Drilling | 21:35 | 21:43 | 0.13 | 10190 | 10251 | 61 | 40 | 457.5 | 65 | 17500 | 640 | 5300 | | 88.05 | 271.28 | 0.00 | |
| 4 | 31-Aug | Drilling | 21:47 | 21:50 | 0.05 | 10251 | 10266 | 15 | 40 | 300.0 | 65 | 17500 | 640 | 5300 | | 88.05 | 271.28 | 0.00 | |

Slide Report for BHA # 4

Note: Surveys listed are interpolated from the actual surveys

| # | Date | Drill Mode | Start Time | End Time | Hours | Start MD | End MD | Depth Drilled | WOB | ROP | RPM | Surf. Torque | Flow Rate | SPP | TFO | INC | AZM | DLS | Note |
|---|--------|------------|------------|----------|-------|----------|--------|---------------|-----|---------|-----|--------------|-----------|------|------|-------|--------|------|------|
| 4 | 31-Aug | Sliding | 21:50 | 22:03 | 0.22 | 10266 | 12086 | 1820 | 50 | 8400.0 | 65 | 17500 | 640 | 5300 | 30L | 93.29 | 270.23 | 0.00 | |
| 4 | 31-Aug | Drilling | 22:03 | 22:11 | 0.13 | 12086 | 10346 | -1740 | 40 | 13050.0 | 65 | 17500 | 640 | 5300 | | 88.59 | 269.84 | 0.00 | |
| 4 | 31-Aug | Drilling | 22:15 | 22:18 | 0.05 | 10346 | 10365 | 19 | 40 | 380.0 | 65 | 17500 | 640 | 5300 | | 88.59 | 269.84 | 0.00 | |
| 4 | 31-Aug | Sliding | 22:18 | 22:34 | 0.27 | 10365 | 10390 | 25 | 40 | 93.7 | 65 | 17500 | 640 | 5300 | 0G | 90.91 | 268.07 | 0.00 | |
| 4 | 31-Aug | Drilling | 22:34 | 22:41 | 0.12 | 10390 | 10440 | 50 | 40 | 428.6 | 65 | 17500 | 640 | 5300 | | 90.91 | 268.07 | 0.00 | |
| 4 | 31-Aug | Drilling | 22:45 | 22:58 | 0.22 | 10440 | 10535 | 95 | 40 | 438.5 | 65 | 17500 | 640 | 5300 | | 91.58 | 267.47 | 0.00 | |
| 4 | 31-Aug | Drilling | 23:02 | 23:14 | 0.20 | 10535 | 10629 | 94 | 40 | 470.0 | 65 | 17500 | 640 | 5300 | | 91.34 | 267.25 | 0.00 | |
| 4 | 31-Aug | Drilling | 23:18 | 23:20 | 0.03 | 10629 | 10648 | 19 | 40 | 570.0 | 65 | 17500 | 640 | 5300 | | 91.34 | 267.25 | 0.00 | |
| 4 | 31-Aug | Sliding | 23:20 | 23:31 | 0.18 | 10648 | 10666 | 18 | 40 | 98.2 | 65 | 17500 | 640 | 5300 | 60R | 92.89 | 268.67 | 0.00 | |
| 4 | 31-Aug | Drilling | 23:31 | 23:40 | 0.15 | 10666 | 10724 | 58 | 40 | 386.7 | 65 | 17500 | 640 | 5300 | | 92.89 | 268.67 | 0.00 | |
| 4 | 31-Aug | Drilling | 23:44 | 23:56 | 0.20 | 10724 | 10818 | 94 | 40 | 470.0 | 65 | 17500 | 640 | 5300 | | 93.66 | 268.81 | 0.00 | |
| 4 | 1-Sep | Drilling | 00:00 | 00:14 | 0.23 | 10818 | 10913 | 95 | 40 | 407.1 | 65 | 17500 | 640 | 5300 | | 93.66 | 268.64 | 0.00 | |
| 4 | 1-Sep | Drilling | 00:18 | 00:22 | 0.07 | 10913 | 10934 | 21 | 40 | 315.0 | 65 | 17500 | 640 | 5300 | | 93.66 | 268.64 | 0.00 | |
| 4 | 1-Sep | Sliding | 00:22 | 00:33 | 0.18 | 10934 | 10947 | 13 | 40 | 70.9 | 65 | 17500 | 640 | 5300 | 140R | 93.66 | 268.64 | 0.00 | |
| 4 | 1-Sep | Drilling | 01:33 | 01:40 | 0.12 | 10947 | 11007 | 60 | 40 | 514.3 | 65 | 17500 | 640 | 5300 | | 91.78 | 270.26 | 0.00 | |
| 4 | 1-Sep | Drilling | 01:44 | 01:56 | 0.20 | 11007 | 11101 | 94 | 40 | 470.0 | 65 | 17500 | 640 | 5300 | | 91.81 | 270.77 | 0.00 | |
| 4 | 1-Sep | Drilling | 02:00 | 02:15 | 0.25 | 11101 | 11196 | 95 | 40 | 380.0 | 65 | 17500 | 640 | 5300 | | 91.27 | 270.20 | 0.00 | |
| 4 | 1-Sep | Drilling | 02:19 | 02:33 | 0.23 | 11196 | 11290 | 94 | 40 | 402.9 | 65 | 17500 | 640 | 5300 | | 91.14 | 269.99 | 0.00 | |
| 4 | 1-Sep | Drilling | 02:37 | 02:39 | 0.03 | 11290 | 11310 | 20 | 40 | 600.0 | 65 | 17500 | 640 | 5300 | | 91.14 | 269.99 | 0.00 | |
| 4 | 1-Sep | Sliding | 02:39 | 02:46 | 0.12 | 11310 | 11317 | 7 | 40 | 60.0 | 65 | 17500 | 640 | 5300 | 40R | 91.14 | 269.99 | 0.00 | |
| 4 | 1-Sep | Drilling | 02:46 | 02:54 | 0.13 | 11317 | 11385 | 68 | 40 | 510.0 | 65 | 21000 | 640 | 5800 | | 91.85 | 270.62 | 0.00 | |
| 4 | 1-Sep | Drilling | 02:58 | 03:10 | 0.20 | 11385 | 11480 | -1905 | 40 | 9525.0 | 65 | 21000 | 640 | 5800 | | 92.22 | 270.58 | 0.00 | |
| 4 | 1-Sep | Drilling | 03:14 | 03:27 | 0.22 | 11480 | 11574 | 94 | 40 | 433.8 | 65 | 21000 | 640 | 5800 | | 91.71 | 270.37 | 0.00 | |
| 4 | 1-Sep | Drilling | 03:31 | 03:34 | 0.05 | 11574 | 11593 | 19 | 40 | 380.0 | 65 | 21000 | 640 | 5800 | | 91.71 | 270.37 | 0.00 | |
| 4 | 1-Sep | Sliding | 03:34 | 03:44 | 0.17 | 11593 | 11605 | 12 | 40 | 72.0 | 65 | 21000 | 640 | 5800 | 40R | 91.71 | 270.37 | 0.00 | |
| 4 | 1-Sep | Drilling | 03:44 | 03:53 | 0.15 | 11605 | 11669 | 64 | 40 | 426.7 | 65 | 21000 | 640 | 5800 | | 93.22 | 271.01 | 0.00 | |
| 4 | 1-Sep | Drilling | 03:57 | 04:09 | 0.20 | 11669 | 11763 | 94 | 40 | 470.0 | 65 | 21000 | 640 | 5800 | | 93.59 | 271.80 | 0.00 | |
| 4 | 1-Sep | Drilling | 04:13 | 04:27 | 0.23 | 11763 | 11857 | 94 | 40 | 402.9 | 65 | 21000 | 640 | 5800 | | 91.85 | 270.14 | 0.00 | |
| 4 | 1-Sep | Drilling | 04:31 | 04:44 | 0.22 | 11857 | 11951 | 94 | 40 | 433.8 | 65 | 21000 | 640 | 5800 | | 91.68 | 270.69 | 0.00 | |
| 4 | 1-Sep | Drilling | 04:55 | 04:58 | 0.05 | 11951 | 11971 | 20 | 40 | 400.0 | 65 | 21000 | 640 | 5800 | | 91.68 | 270.69 | 0.00 | |
| 4 | 1-Sep | Sliding | 04:58 | 05:09 | 0.18 | 11971 | 11986 | 15 | 40 | 81.8 | 65 | 21000 | 640 | 5800 | 10L | 91.68 | 270.69 | 0.00 | |
| 4 | 1-Sep | Drilling | 05:09 | 05:17 | 0.13 | 11986 | 12046 | 60 | 40 | 450.0 | 65 | 21000 | 640 | 5800 | | 93.36 | 270.06 | 0.00 | |
| 4 | 1-Sep | Drilling | 05:21 | 05:33 | 0.20 | 12046 | 12141 | 95 | 40 | 475.0 | 65 | 21000 | 640 | 5800 | | 93.29 | 270.23 | 0.00 | |
| 4 | 1-Sep | Drilling | 05:37 | 05:51 | 0.23 | 12141 | 12235 | 94 | 40 | 402.9 | 65 | 21000 | 640 | 5800 | | 93.62 | 270.64 | 0.00 | |

Slide Report for BHA # 4

Note: Surveys listed are interpolated from the actual surveys

| # | Date | Drill Mode | Start Time | End Time | Hours | Start MD | End MD | Depth Drilled | WOB | ROP | RPM | Surf. Torque | Flow Rate | SPP | TFO | INC | AZM | DLS | Note |
|---|-------|------------|------------|----------|-------|----------|--------|---------------|-----|-------|-----|--------------|-----------|------|-----|-------|--------|------|------|
| 4 | 1-Sep | Drilling | 05:55 | 06:07 | 0.20 | 12235 | 12329 | 94 | 40 | 470.0 | 65 | 21000 | 640 | 5800 | | 92.75 | 271.30 | 0.00 | |
| 4 | 1-Sep | Drilling | 06:11 | 06:20 | 0.15 | 12329 | 12351 | 22 | 40 | 146.7 | 65 | 21000 | 640 | 5800 | | 92.75 | 271.30 | 0.00 | |
| 4 | 1-Sep | Sliding | 06:20 | 06:30 | 0.17 | 12351 | 12360 | 9 | 40 | 54.0 | 65 | 21000 | 640 | 5800 | | 92.75 | 271.30 | 0.00 | |
| 4 | 1-Sep | Drilling | 06:30 | 06:37 | 0.12 | 12360 | 12464 | 104 | 40 | 891.4 | 65 | 21000 | 640 | 5800 | | 93.82 | 270.49 | 0.00 | |
| 4 | 1-Sep | Drilling | 06:40 | 06:53 | 0.22 | 12464 | 12518 | 54 | 40 | 249.2 | 65 | 21000 | 640 | 5800 | | 93.82 | 270.49 | 0.00 | |
| 4 | 1-Sep | Drilling | 06:56 | 08:20 | 1.40 | 12518 | 13009 | 491 | 40 | 350.7 | 65 | 21000 | 640 | 5800 | | 94.13 | 269.82 | 0.00 | |
| 4 | 1-Sep | Sliding | 08:30 | 08:42 | 0.20 | 13009 | 13022 | 13 | 40 | 65.0 | 65 | 21000 | 640 | 5800 | | 94.13 | 269.82 | 0.00 | |
| 4 | 1-Sep | Drilling | 08:42 | 08:53 | 0.18 | 13022 | 13085 | 63 | 40 | 343.6 | 65 | 21000 | 640 | 5800 | | 93.42 | 269.87 | 0.00 | |
| 4 | 1-Sep | Drilling | 09:02 | 09:04 | 0.03 | 13085 | 13112 | 27 | 40 | 810.0 | 65 | 21000 | 640 | 5800 | | 93.42 | 269.87 | 0.00 | |
| 4 | 1-Sep | Sliding | 09:04 | 09:14 | 0.17 | 13112 | 13124 | 12 | 40 | 72.0 | 65 | 21000 | 640 | 5800 | | 92.35 | 269.99 | 0.00 | |
| 4 | 1-Sep | Drilling | 09:14 | 09:25 | 0.18 | 13124 | 13179 | 55 | 40 | 300.0 | 65 | 22600 | 611 | 5800 | | 92.35 | 269.99 | 0.00 | |
| 4 | 1-Sep | Drilling | 09:29 | 09:41 | 0.20 | 13179 | 13274 | 95 | 40 | 475.0 | 65 | 22600 | 611 | 5800 | | 92.78 | 270.76 | 0.00 | |
| 4 | 1-Sep | Drilling | 09:45 | 09:52 | 0.12 | 13274 | 13294 | 20 | 40 | 171.4 | 65 | 22600 | 611 | 5800 | | 92.78 | 270.76 | 0.00 | |
| 4 | 1-Sep | Sliding | 09:52 | 10:04 | 0.20 | 13294 | 13302 | 8 | 40 | 40.0 | 65 | 22600 | 640 | 5800 | | 92.78 | 270.76 | 0.00 | |
| 4 | 1-Sep | Drilling | 10:04 | 10:14 | 0.17 | 13302 | 13376 | 74 | 40 | 444.0 | 65 | 22600 | 611 | 5800 | | 92.77 | 270.79 | 0.00 | |
| 4 | 1-Sep | Sliding | 10:30 | 10:43 | 0.22 | 13376 | 13386 | 10 | 40 | 46.2 | 65 | 22600 | 640 | 5800 | | 92.77 | 270.79 | 0.00 | |
| 4 | 1-Sep | Drilling | 10:43 | 10:56 | 0.22 | 13386 | 13403 | 17 | 40 | 78.5 | 65 | 22600 | 611 | 5800 | | 92.77 | 270.79 | 0.00 | |
| 4 | 1-Sep | Drilling | 11:04 | 11:17 | 0.22 | 13403 | 13557 | 154 | 40 | 710.8 | 65 | 22600 | 611 | 5800 | | 91.68 | 271.31 | 0.00 | |
| 4 | 1-Sep | Drilling | 11:21 | 11:26 | 0.08 | 13557 | 13581 | 24 | 40 | 288.0 | 65 | 22600 | 611 | 5800 | | 91.68 | 271.31 | 0.00 | |
| 4 | 1-Sep | Sliding | 11:26 | 11:45 | 0.32 | 13581 | 13589 | 8 | 40 | 25.3 | 65 | 22600 | 640 | 5800 | | 91.68 | 271.31 | 0.00 | |
| 4 | 1-Sep | Drilling | 11:45 | 11:55 | 0.17 | 13589 | 13651 | 62 | 40 | 372.0 | 65 | 22600 | 611 | 5800 | | 90.17 | 271.37 | 0.00 | |
| 4 | 1-Sep | Drilling | 11:58 | 12:12 | 0.23 | 13651 | 13746 | 95 | 40 | 407.1 | 65 | 22600 | 611 | 5800 | | 89.26 | 271.94 | 0.00 | |
| 4 | 1-Sep | Drilling | 12:16 | 12:22 | 0.10 | 13746 | 13757 | 11 | 40 | 110.0 | 65 | 22600 | 611 | 5800 | | 89.26 | 271.94 | 0.00 | |
| 4 | 1-Sep | Sliding | 12:22 | 13:31 | 1.15 | 13757 | 13781 | 24 | 40 | 20.9 | 65 | 22600 | 640 | 5800 | | 90.47 | 271.45 | 0.00 | |
| 4 | 1-Sep | Drilling | 13:31 | 13:44 | 0.22 | 13781 | 13840 | 59 | 40 | 272.3 | 65 | 22600 | 611 | 5800 | | 90.47 | 271.45 | 0.00 | |
| 4 | 1-Sep | Drilling | 13:48 | 14:06 | 0.30 | 13840 | 13934 | 94 | 40 | 313.3 | 65 | 22600 | 611 | 5800 | | 91.54 | 271.83 | 0.00 | |
| 4 | 1-Sep | Drilling | 14:06 | 14:13 | 0.12 | 13934 | 13957 | 23 | 40 | 197.1 | 65 | 22600 | 611 | 5800 | | 91.54 | 271.83 | 0.00 | |
| 4 | 1-Sep | Sliding | 14:13 | 14:33 | 0.33 | 13957 | 13970 | 13 | 40 | 39.0 | 65 | 22600 | 640 | 5800 | | 90.20 | 271.01 | 0.00 | |
| 4 | 1-Sep | Drilling | 14:33 | 14:47 | 0.23 | 13970 | 14029 | 59 | 40 | 252.9 | 65 | 22600 | 611 | 5800 | | 90.20 | 271.01 | 0.00 | |
| 4 | 1-Sep | Drilling | 14:50 | 14:57 | 0.12 | 14029 | 14047 | 18 | 40 | 154.3 | 65 | 22600 | 611 | 5800 | | 90.20 | 271.01 | 0.00 | |
| 4 | 1-Sep | Sliding | 14:57 | 15:30 | 0.55 | 14047 | 14067 | 20 | 40 | 36.4 | 65 | 22600 | 640 | 5800 | | 90.90 | 271.15 | 0.00 | |
| 4 | 1-Sep | Drilling | 15:30 | 16:05 | 0.58 | 14067 | 14217 | 150 | 40 | 257.1 | 65 | 22600 | 611 | 5800 | | 91.51 | 271.52 | 0.00 | |
| 4 | 1-Sep | Drilling | 16:16 | 16:18 | 0.03 | 14217 | 14227 | 10 | 40 | 300.0 | 65 | 22600 | 611 | 5800 | | 91.51 | 271.52 | 0.00 | |
| 4 | 1-Sep | Sliding | 16:18 | 16:46 | 0.47 | 14227 | 14247 | 20 | 40 | 42.9 | 65 | 22600 | 640 | 5800 | | 91.51 | 271.52 | 0.00 | |
| 4 | 1-Sep | Drilling | 16:46 | 17:03 | 0.28 | 14247 | 14312 | 65 | 40 | 229.4 | 65 | 22600 | 611 | 5800 | | 92.05 | 268.61 | 0.00 | |

Slide Report for BHA # 4

Note: Surveys listed are interpolated from the actual surveys

| # | Date | Drill Mode | Start Time | End Time | Hours | Start MD | End MD | Depth Drilled | WOB | ROP | RPM | Surf. Torque | Flow Rate | SPP | TFO | INC | AZM | DLS | Note |
|---|-------|------------|------------|----------|-------|----------|--------|---------------|-----|-------|-----|--------------|-----------|------|-----|-------|--------|------|------|
| 4 | 1-Sep | Drilling | 17:12 | 17:27 | 0.25 | 14312 | 14406 | 94 | 40 | 376.0 | 65 | 22600 | 611 | 5800 | | 93.25 | 268.69 | 0.00 | |
| 4 | 1-Sep | Drilling | 17:31 | 17:34 | 0.05 | 14406 | 14425 | 19 | 40 | 380.0 | 65 | 22600 | 611 | 5800 | | 93.25 | 268.69 | 0.00 | |
| 4 | 1-Sep | Sliding | 17:34 | 17:50 | 0.27 | 14425 | 14434 | 9 | 40 | 33.8 | 65 | 22600 | 640 | 5800 | 180 | 93.25 | 268.69 | 0.00 | |
| 4 | 1-Sep | Drilling | 17:50 | 18:02 | 0.20 | 14434 | 14500 | 66 | 40 | 330.0 | 65 | 22600 | 611 | 5800 | | 92.72 | 269.16 | 0.00 | |
| 4 | 1-Sep | Drilling | 18:12 | 18:16 | 0.07 | 14500 | 14518 | 18 | 40 | 270.0 | 65 | 22600 | 611 | 5800 | | 92.72 | 269.16 | 0.00 | |
| 4 | 1-Sep | Sliding | 18:16 | 18:42 | 0.43 | 14518 | 14536 | 18 | 40 | 41.5 | 65 | 22600 | 640 | 5800 | 180 | 91.58 | 269.82 | 0.00 | |
| 4 | 1-Sep | Drilling | 18:42 | 18:53 | 0.18 | 14536 | 14595 | 59 | 40 | 321.8 | 65 | 22600 | 611 | 5800 | | 91.58 | 269.82 | 0.00 | |
| 4 | 1-Sep | Drilling | 19:03 | 19:24 | 0.35 | 14595 | 14690 | 95 | 40 | 271.4 | 65 | 23000 | 6000 | 5800 | | 91.14 | 270.56 | 0.00 | |
| 4 | 1-Sep | Drilling | 19:34 | 19:48 | 0.23 | 14690 | 14784 | 94 | 40 | 402.9 | 65 | 23000 | 6000 | 5800 | | 90.60 | 269.56 | 0.00 | |
| 4 | 1-Sep | Drilling | 19:55 | 20:10 | 0.25 | 14784 | 14879 | 95 | 40 | 380.0 | 65 | 23000 | 6000 | 5800 | | 91.48 | 270.63 | 0.00 | |
| 4 | 1-Sep | Drilling | 20:17 | 20:30 | 0.22 | 14879 | 14973 | 94 | 40 | 433.8 | 65 | 23000 | 6000 | 5800 | | 89.36 | 269.34 | 0.00 | |
| 4 | 1-Sep | Drilling | 20:38 | 20:52 | 0.23 | 14973 | 15067 | 94 | 40 | 402.9 | 65 | 23000 | 6000 | 5800 | | 88.56 | 271.64 | 0.00 | |
| 4 | 1-Sep | Drilling | 21:00 | 21:03 | 0.05 | 15067 | 15082 | 15 | 40 | 300.0 | 65 | 23000 | 6000 | 5800 | | 88.56 | 271.64 | 0.00 | |
| 4 | 1-Sep | Sliding | 21:03 | 21:29 | 0.43 | 15082 | 15102 | 20 | 40 | 46.2 | 65 | 23000 | 640 | 5800 | 45L | 88.56 | 271.64 | 0.00 | |
| 4 | 1-Sep | Drilling | 21:29 | 21:40 | 0.18 | 15102 | 15162 | 60 | 40 | 327.3 | 65 | 23000 | 6000 | 5800 | | 90.67 | 271.14 | 0.00 | |
| 4 | 1-Sep | Drilling | 21:48 | 22:02 | 0.23 | 15162 | 15257 | 95 | 40 | 407.1 | 65 | 23000 | 6000 | 5800 | | 89.33 | 270.11 | 0.00 | |
| 4 | 1-Sep | Drilling | 22:53 | 23:12 | 0.32 | 15257 | 15352 | 95 | 40 | 300.0 | 65 | 23000 | 6000 | 5800 | | 88.49 | 270.36 | 0.00 | |
| 4 | 1-Sep | Drilling | 23:22 | 23:25 | 0.05 | 15352 | 15368 | 16 | 40 | 320.0 | 65 | 23000 | 6000 | 5800 | | 88.49 | 270.36 | 0.00 | |
| 4 | 1-Sep | Sliding | 23:25 | 23:53 | 0.47 | 15368 | 15393 | 25 | 40 | 53.6 | 65 | 23000 | 640 | 5800 | 45L | 89.20 | 267.62 | 0.00 | |
| 4 | 1-Sep | Drilling | 23:53 | 24:00 | 0.12 | 15393 | 15446 | 53 | 40 | 454.3 | 65 | 23000 | 6000 | 5800 | | 89.20 | 267.62 | 0.00 | |
| 4 | 2-Sep | Drilling | 00:10 | 00:13 | 0.05 | 15446 | 15463 | 17 | 40 | 340.0 | 65 | 23000 | 6000 | 5800 | | 89.20 | 267.62 | 0.00 | |
| 4 | 2-Sep | Sliding | 00:13 | 00:31 | 0.30 | 15463 | 15475 | 12 | 40 | 40.0 | 65 | 23000 | 640 | 5800 | 20R | 89.20 | 267.62 | 0.00 | |
| 4 | 2-Sep | Drilling | 00:31 | 00:42 | 0.18 | 15475 | 15541 | 66 | 40 | 360.0 | 65 | 23000 | 6000 | 5800 | | 91.71 | 266.77 | 0.00 | |
| 4 | 2-Sep | Drilling | 00:54 | 01:08 | 0.23 | 15541 | 15635 | 94 | 40 | 402.9 | 65 | 23000 | 6000 | 5800 | | 91.68 | 266.93 | 0.00 | |
| 4 | 2-Sep | Drilling | 01:16 | 01:31 | 0.25 | 15635 | 15730 | 95 | 40 | 380.0 | 65 | 23000 | 6000 | 5800 | | 91.84 | 267.62 | 0.00 | |
| 4 | 2-Sep | Drilling | 01:39 | 01:55 | 0.27 | 15730 | 15824 | 94 | 40 | 352.5 | 65 | 23000 | 6000 | 5800 | | 90.57 | 265.37 | 0.00 | |
| 4 | 2-Sep | Drilling | 02:04 | 02:07 | 0.05 | 15824 | 15842 | 18 | 40 | 360.0 | 65 | 23000 | 6000 | 5800 | | 90.57 | 265.37 | 0.00 | |
| 4 | 2-Sep | Sliding | 02:07 | 02:38 | 0.52 | 15842 | 15862 | 20 | 40 | 38.7 | 65 | 23000 | 640 | 5800 | 90R | 91.74 | 268.74 | 0.00 | |
| 4 | 2-Sep | Drilling | 02:38 | 02:48 | 0.17 | 15862 | 15919 | 57 | 40 | 342.0 | 65 | 23000 | 6000 | 5800 | | 91.74 | 268.74 | 0.00 | |
| 4 | 2-Sep | Drilling | 02:56 | 03:13 | 0.28 | 15919 | 16013 | 94 | 40 | 331.8 | 65 | 23000 | 6000 | 5800 | | 91.58 | 269.56 | 0.00 | |
| 4 | 2-Sep | Drilling | 03:20 | 03:34 | 0.23 | 16013 | 16108 | 95 | 40 | 407.1 | 65 | 23000 | 6000 | 5800 | | 90.80 | 269.72 | 0.00 | |
| 4 | 2-Sep | Drilling | 03:50 | 04:04 | 0.23 | 16108 | 16203 | 95 | 40 | 407.1 | 65 | 23000 | 6000 | 5800 | | 91.07 | 269.96 | 0.00 | |
| 4 | 2-Sep | Drilling | 04:12 | 04:34 | 0.37 | 16203 | 16297 | 94 | 40 | 256.4 | 65 | 23000 | 6000 | 5800 | | 91.34 | 270.41 | 0.00 | |
| 4 | 2-Sep | Drilling | 04:42 | 04:55 | 0.22 | 16297 | 16392 | 95 | 40 | 438.5 | 65 | 23000 | 6000 | 5800 | | 90.80 | 270.79 | 0.00 | |
| 4 | 2-Sep | Drilling | 05:03 | 05:17 | 0.23 | 16392 | 16486 | 94 | 40 | 402.9 | 65 | 23000 | 6000 | 5800 | | 91.24 | 271.13 | 0.00 | |

Slide Report for BHA # 4

Note: Surveys listed are interpolated from the actual surveys

| # | Date | Drill Mode | Start Time | End Time | Hours | Start MD | End MD | Depth Drilled | WOB | ROP | RPM | Surf. Torque | Flow Rate | SPP | TFO | INC | AZM | DLS | Note |
|---|-------|------------|------------|----------|-------|----------|--------|---------------|-----|-------|-----|--------------|-----------|------|-----|-------|--------|------|------|
| 4 | 2-Sep | Drilling | 05:25 | 05:44 | 0.32 | 16486 | 16581 | 95 | 40 | 300.0 | 65 | 23000 | 6000 | 5800 | | 91.14 | 271.61 | 0.00 | |
| 4 | 2-Sep | Drilling | 05:50 | 06:07 | 0.28 | 16581 | 16676 | 95 | 40 | 335.3 | 65 | 23000 | 6000 | 5800 | | 90.80 | 272.20 | 0.00 | |
| 4 | 2-Sep | Drilling | 06:16 | 06:30 | 0.23 | 16676 | 16770 | 94 | 40 | 402.9 | 65 | 23000 | 6000 | 5800 | | 90.67 | 271.91 | 0.00 | |
| 4 | 2-Sep | Drilling | 06:37 | 06:59 | 0.37 | 16770 | 16865 | 95 | 40 | 259.1 | 65 | 23000 | 6000 | 5800 | | 90.27 | 271.87 | 0.00 | |
| 4 | 2-Sep | Drilling | 06:59 | 07:30 | 0.52 | 16865 | 16959 | 94 | 40 | 181.9 | 65 | 23000 | 6000 | 5800 | | 90.34 | 272.45 | 0.00 | |
| 4 | 2-Sep | Drilling | 07:37 | 07:42 | 0.08 | 16959 | 16968 | 9 | 40 | 108.0 | 65 | 23000 | 6000 | 5800 | | 90.34 | 272.45 | 0.00 | |

Total Drilled: 7769 **Avg. Total ROP:** 214.02 **DEPTH% - TIME %**

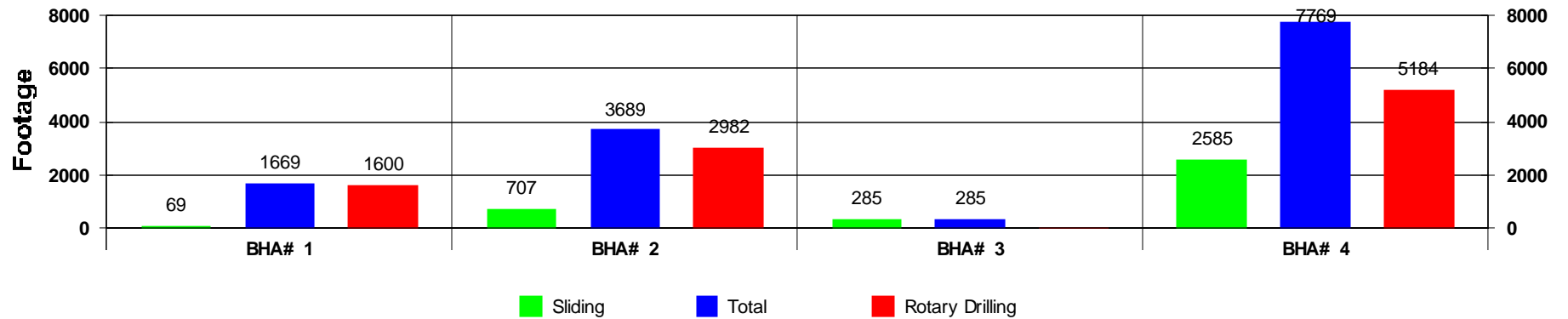
Total Rotary Drilled: 5184 **Avg. Rotary ROP:** 207.36 **Percent Rotary:** 66.73 - 68.87

Total Drilled Sliding: 2585 **Avg. Slide ROP:** 228.76 **Percent Slide:** 33.27 - 31.13

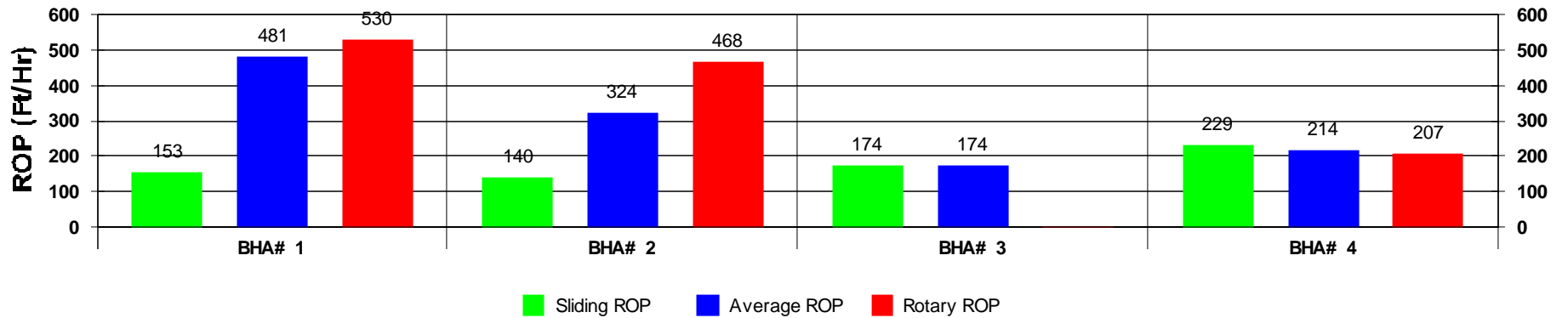


| | | | | |
|------------|----------------------|-------------|------------|-----|
| JOB NO.: | 381335 | FIELD: | Wattenburg | |
| Company: | Extraction Oil & Gas | Township: | 6N | |
| LOCATION: | Winder South Pad | SECTORANGE: | 9 | 67W |
| RIG NAME: | Patterson 346 | COMMENT | | |
| STATE: | Colorado | | | |
| COUNTY: | Weld | | | |
| WELL NAME: | Winder South 3 | | | |

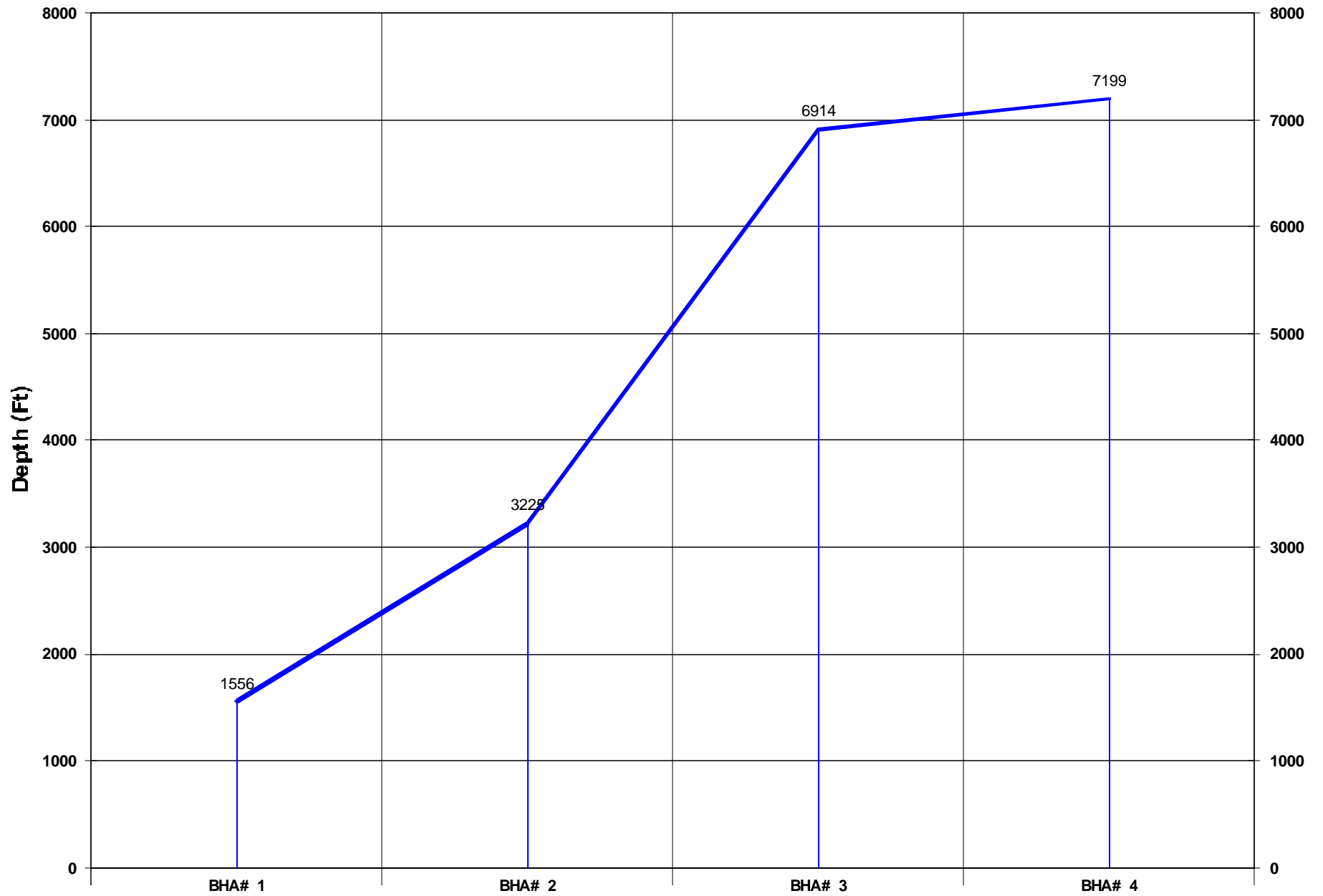
Footage Drilled with BHA



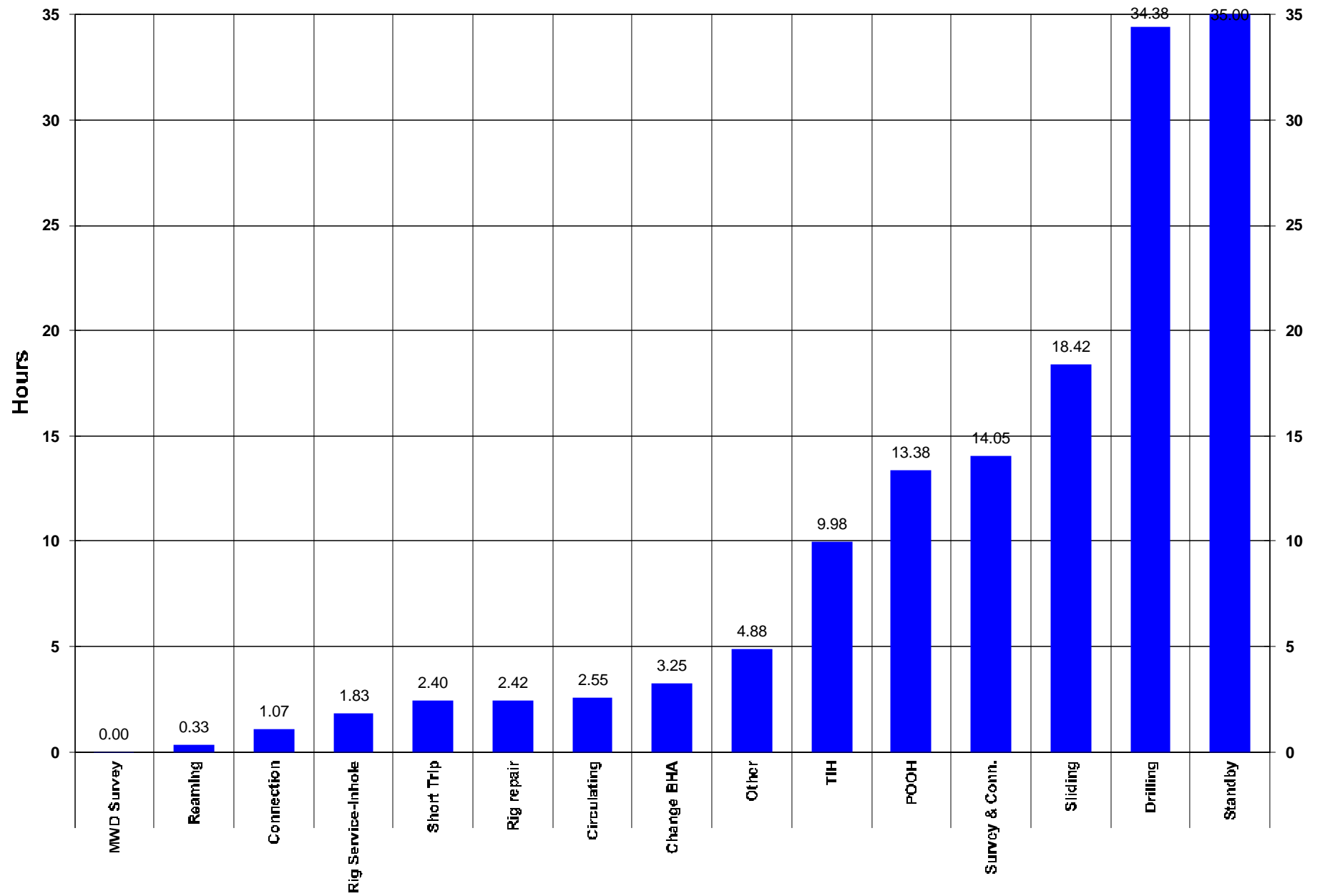
ROP vs BHA



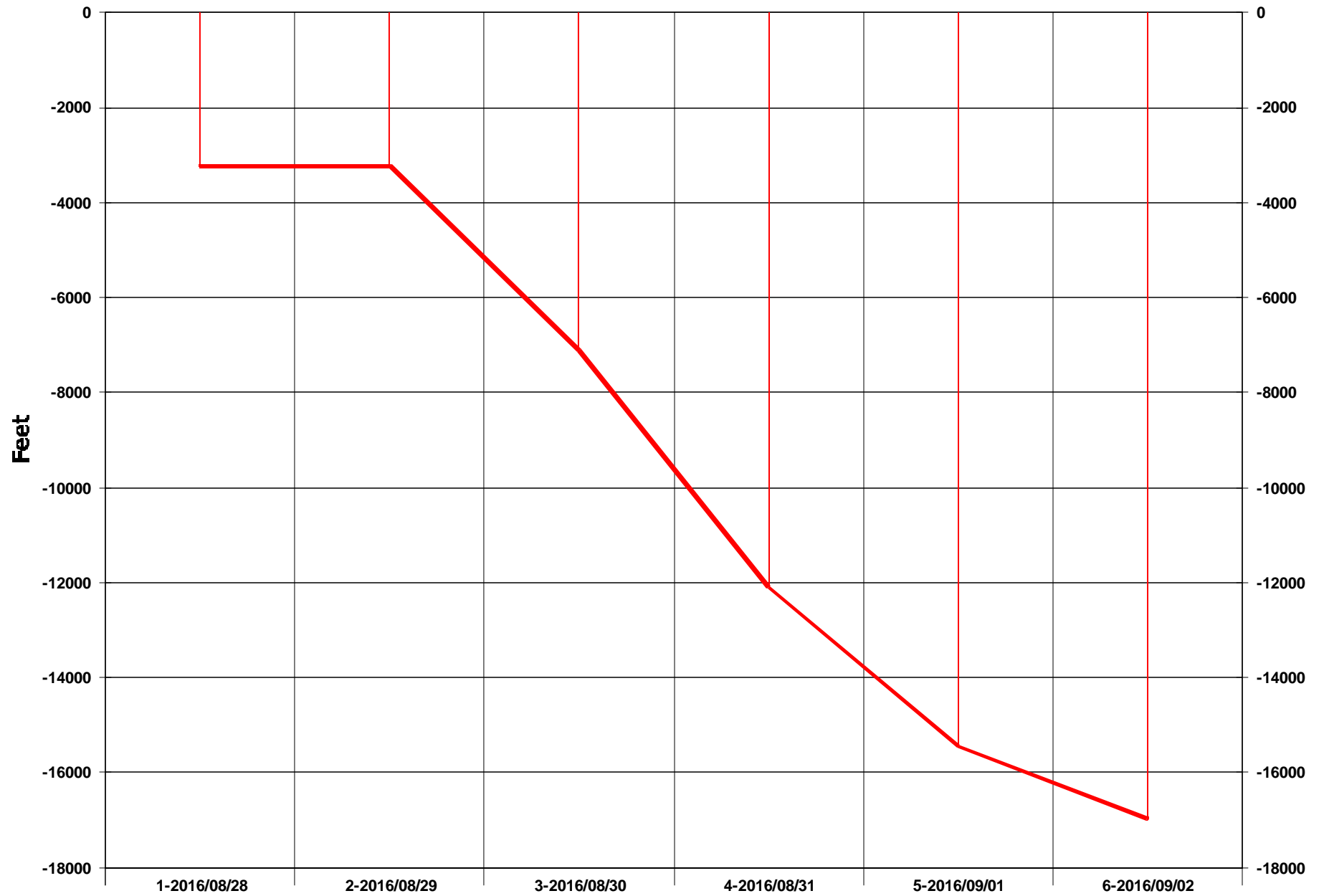
Depth vs BHA



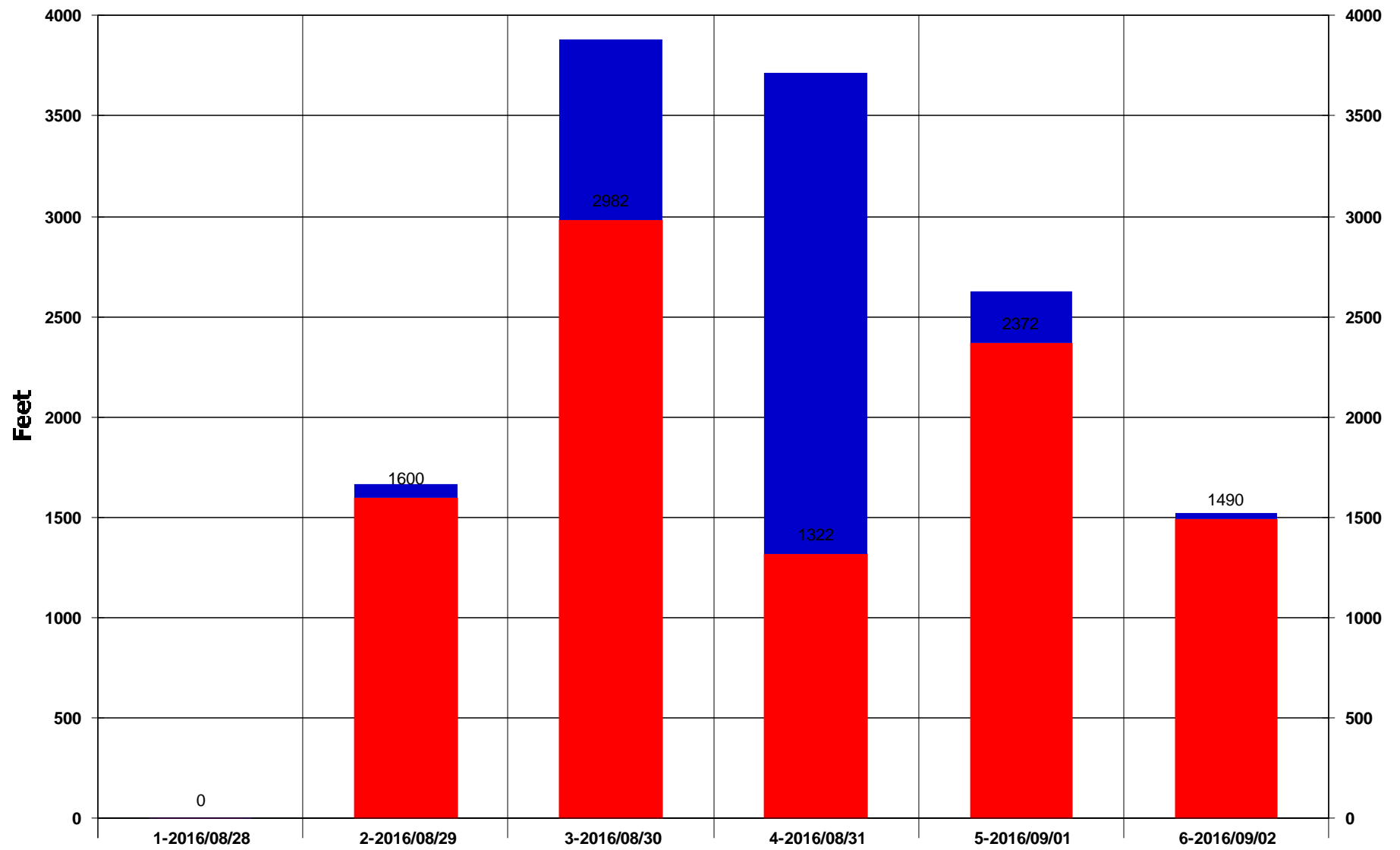
Activity Histogram



Measured Depth vs Days

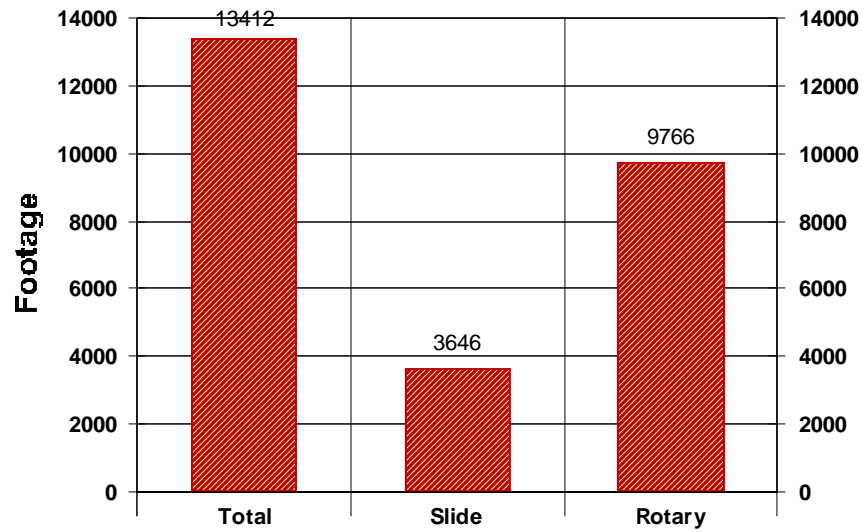


Daily Footage

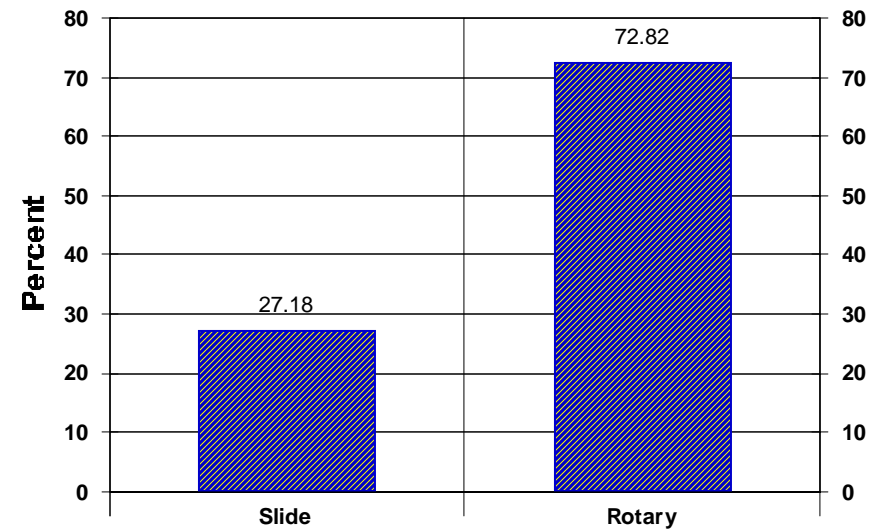


Rotary Drilling Sliding

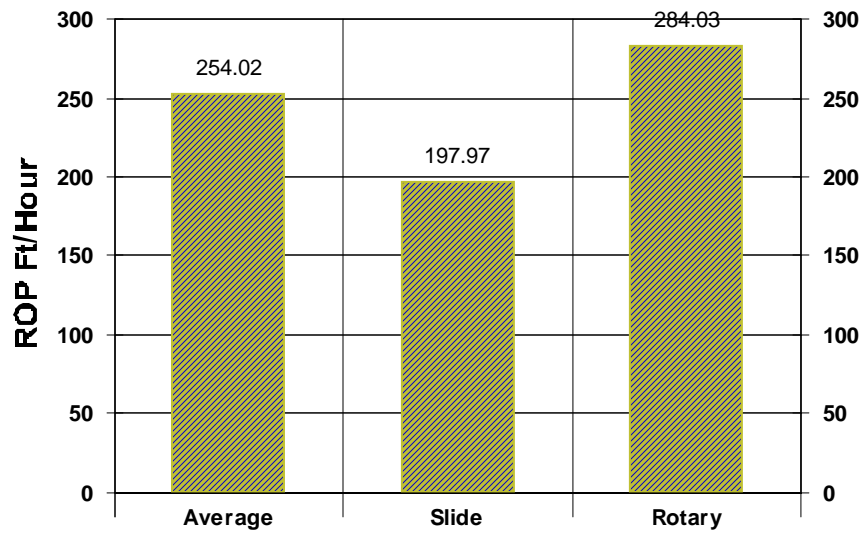
Footage Drilled Totals



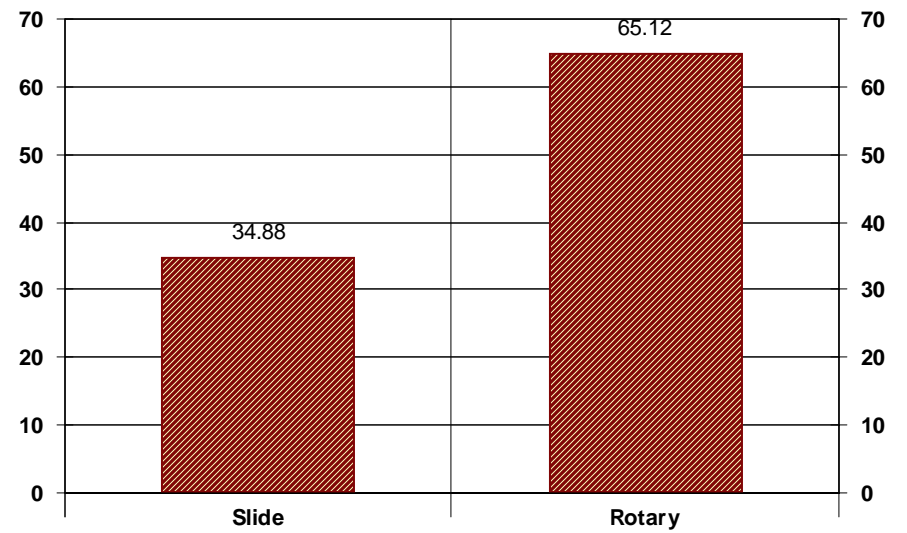
Footage Percent



Rate of Penetration Totals



Time Percent





SUPPORT STAFF

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