

US ROCKIES WATTENBERG PLANNING

WELD-NAD83-UTMFT13N

Skim 35-21HZ Pad

Skim State 29N-21HZ

Plan A

Plan: Rev A0 Permit

Sperry Drilling Services

Proposal Report

11 October, 2014

Well Coordinates: 14,601,714.98 N, 1,731,638.23 E (40° 12' 19.62" N, 104° 40' 23.83" W)

Ground Level: 4,846.00 usft

| | |
|--------------------------|--------------------------------------|
| Local Coordinate Origin: | Centered on Well Skim State 29N-21HZ |
| Viewing Datum: | RKB = 17' @ 4863.00usft (D Rig) |
| TVDs to System: | N |
| North Reference: | True |
| Unit System: | API - Planning Rockies |

Version: 5000.1 Build: 70

HALLIBURTON

Project: WELD-NAD83-UTMFT13N
 Site: Skim 35-21HZ Pad
 Well: Skim State 29N-21HZ
 Wellbore: Plan A
 Design: Rev A0 Permit

US ROCKIES WATTENBERG PLANNING

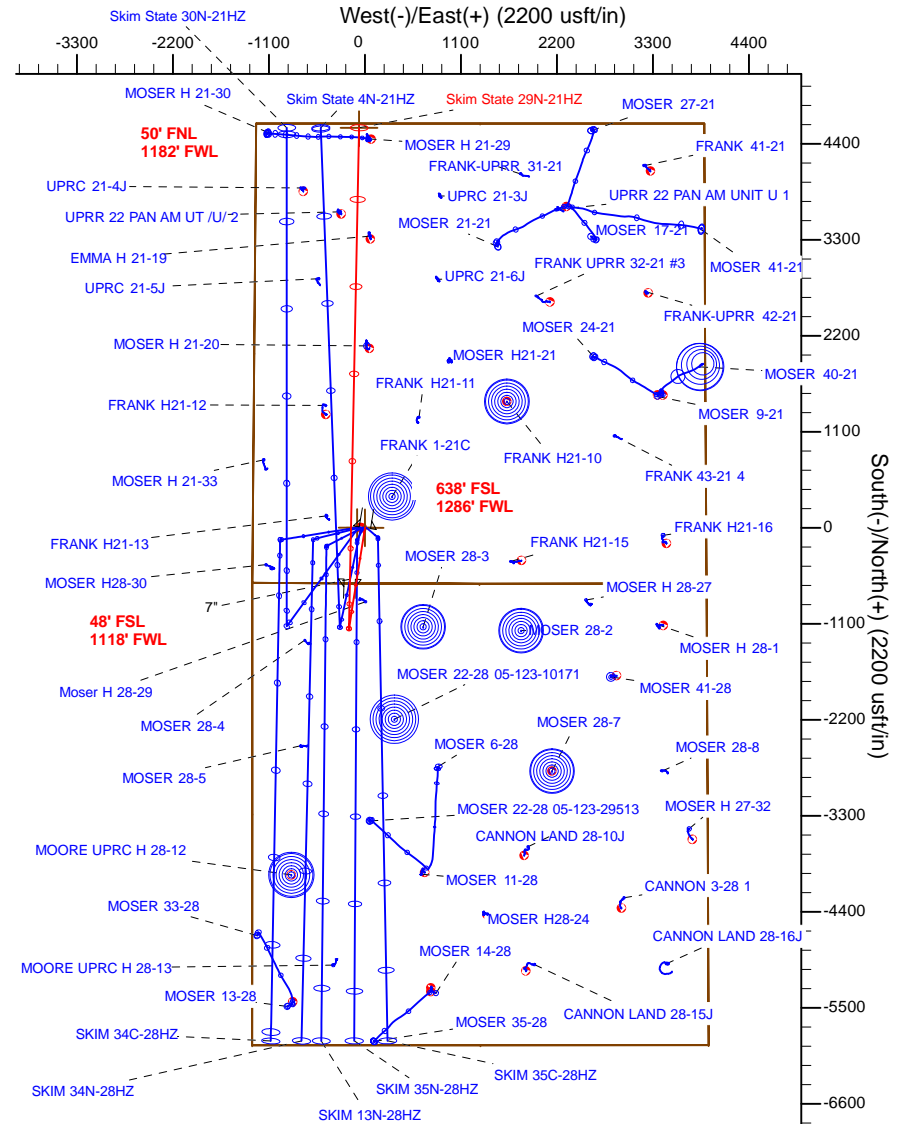
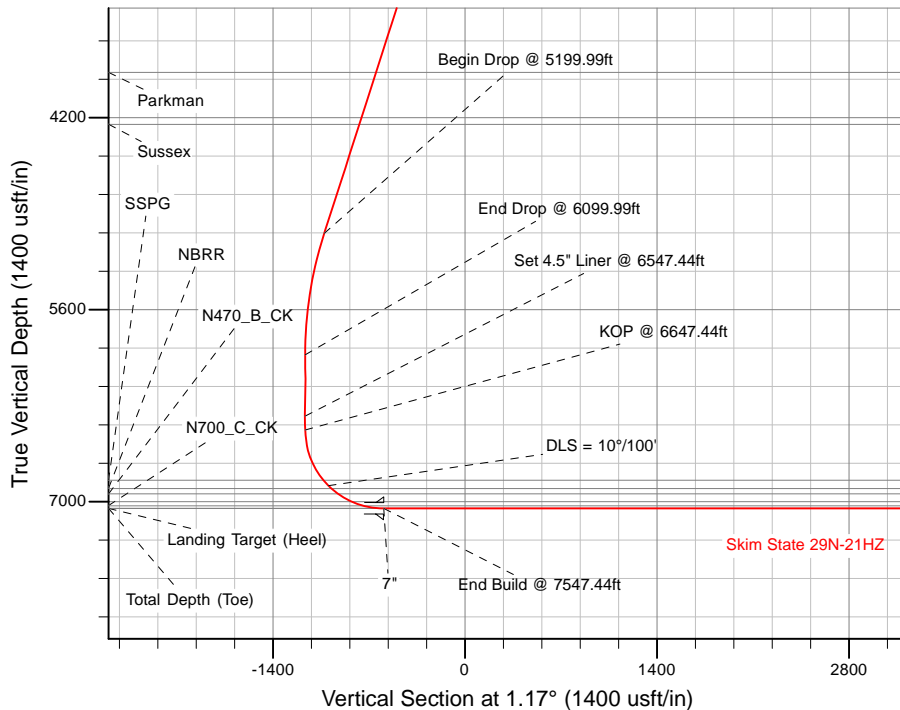


SECTION DETAILS

| Sec | MD | Inc | Azi | TVD | +N/-S | +E/-W | Dleg | TFace | VSec | Target |
|-----|----------|-------|--------|---------|----------|---------|-------|--------|----------|-------------------------|
| 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 2 | 1400.00 | 0.00 | 0.00 | 1400.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 3 | 2300.00 | 18.00 | 189.00 | 2285.27 | -138.49 | -21.93 | 2.00 | 189.00 | -138.91 | |
| 4 | 5199.99 | 18.00 | 189.00 | 5043.32 | -1023.60 | -162.12 | 0.00 | 0.00 | -1026.70 | |
| 5 | 6099.99 | 0.00 | 0.00 | 5928.59 | -1162.09 | -184.06 | 2.00 | 180.00 | -1165.60 | |
| 6 | 6647.44 | 0.00 | 0.00 | 6476.04 | -1162.09 | -184.06 | 0.00 | 0.00 | -1165.60 | |
| 7 | 7547.44 | 90.00 | 1.17 | 7049.00 | -589.25 | -172.33 | 10.00 | 1.17 | -592.65 | |
| 8 | 12720.33 | 90.00 | 1.17 | 7049.00 | 4582.55 | -66.44 | 0.00 | 0.00 | 4580.24 | Skim State 29N-21HZ_BHL |

WELLBORE TARGET DETAILS (LAT/LONG)

| Name | TVD | +N/-S | +E/-W | Latitude | Longitude | Polygon |
|-------------------------|---------|---------|--------|-----------|-------------|---------|
| Sec. 28 and 21-T3N-R65W | -1.00 | - 1.09 | -89.91 | 40.205452 | -104.673609 | |
| Skim State 29N-21HZ_SHL | 0.00 | 0.00 | 0.00 | 40.205449 | -104.673287 | |
| Skim State 29N-21HZ_BHL | 7049.00 | 4582.55 | -66.44 | 40.218033 | -104.673525 | |



| | | | | | | | |
|---------|---------|---------|---------|----------------------------|---------|-----------------------------------|---|
| TVD | | MD | | Set 4.5" Liner @ 6547.44ft | | WELL DETAILS: Skim State 29N-21HZ | |
| 6376.04 | 6547.44 | 6376.04 | 6547.44 | 6376.04 | 6547.44 | 6376.04 | Ground Level: 4846.00 RKB = 17 @ 4863.00usft (D Rig) |
| 6476.04 | 6647.44 | 6476.04 | 6647.44 | 6476.04 | 6647.44 | 6476.04 | Plan: Rev A0 Permit (Skim State 29N-21HZ/Plan A) |
| | | | | Created By: Clint Eshelman | | Date: 10/11/2014 | |
| | | | | Reviewed: _____ | | Date: _____ | |

Plan Report for Skim State 29N-21HZ - Rev A0 Permit

| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) | Toolface Azimuth (°) |
|--|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|----------------------|
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Sec. 28 and 21-T3N-R65W - Skim State 29N-21HZ_SHL | | | | | | | | | | |
| 100.00 | 0.00 | 0.00 | 100.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 200.00 | 0.00 | 0.00 | 200.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 300.00 | 0.00 | 0.00 | 300.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 400.00 | 0.00 | 0.00 | 400.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 500.00 | 0.00 | 0.00 | 500.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 600.00 | 0.00 | 0.00 | 600.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 622.00 | 0.00 | 0.00 | 622.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Base Fox Hills | | | | | | | | | | |
| 700.00 | 0.00 | 0.00 | 700.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 800.00 | 0.00 | 0.00 | 800.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 900.00 | 0.00 | 0.00 | 900.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1,000.00 | 0.00 | 0.00 | 1,000.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1,100.00 | 0.00 | 0.00 | 1,100.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1,135.00 | 0.00 | 0.00 | 1,135.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Surface Csg Setting Depth - 9 5/8" | | | | | | | | | | |
| 1,200.00 | 0.00 | 0.00 | 1,200.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1,300.00 | 0.00 | 0.00 | 1,300.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1,400.00 | 0.00 | 0.00 | 1,400.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Begin Nudge @ 1400.00ft | | | | | | | | | | |
| 1,500.00 | 2.00 | 189.00 | 1,499.98 | -1.72 | -0.27 | -1.73 | 2.00 | 2.00 | 0.00 | 189.00 |
| 1,600.00 | 4.00 | 189.00 | 1,599.84 | -6.89 | -1.09 | -6.91 | 2.00 | 2.00 | 0.00 | 0.00 |
| 1,700.00 | 6.00 | 189.00 | 1,699.45 | -15.50 | -2.46 | -15.55 | 2.00 | 2.00 | 0.00 | 0.00 |
| 1,800.00 | 8.00 | 189.00 | 1,798.70 | -27.54 | -4.36 | -27.62 | 2.00 | 2.00 | 0.00 | 0.00 |
| 1,900.00 | 10.00 | 189.00 | 1,897.47 | -42.99 | -6.81 | -43.12 | 2.00 | 2.00 | 0.00 | 0.00 |
| 2,000.00 | 12.00 | 189.00 | 1,995.62 | -61.83 | -9.79 | -62.02 | 2.00 | 2.00 | 0.00 | 0.00 |
| 2,100.00 | 14.00 | 189.00 | 2,093.06 | -84.05 | -13.31 | -84.30 | 2.00 | 2.00 | 0.00 | 0.00 |
| 2,200.00 | 16.00 | 189.00 | 2,189.64 | -109.61 | -17.36 | -109.94 | 2.00 | 2.00 | 0.00 | 0.00 |
| 2,300.00 | 18.00 | 189.00 | 2,285.27 | -138.49 | -21.93 | -138.91 | 2.00 | 2.00 | 0.00 | 0.00 |
| End Nudge @ 2300.00ft | | | | | | | | | | |
| 2,400.00 | 18.00 | 189.00 | 2,380.37 | -169.01 | -26.77 | -169.52 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2,500.00 | 18.00 | 189.00 | 2,475.48 | -199.53 | -31.60 | -200.13 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2,600.00 | 18.00 | 189.00 | 2,570.59 | -230.05 | -36.44 | -230.75 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2,700.00 | 18.00 | 189.00 | 2,665.69 | -260.57 | -41.27 | -261.36 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2,800.00 | 18.00 | 189.00 | 2,760.80 | -291.09 | -46.10 | -291.97 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2,900.00 | 18.00 | 189.00 | 2,855.90 | -321.61 | -50.94 | -322.59 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3,000.00 | 18.00 | 189.00 | 2,951.01 | -352.14 | -55.77 | -353.20 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3,100.00 | 18.00 | 189.00 | 3,046.11 | -382.66 | -60.61 | -383.82 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3,200.00 | 18.00 | 189.00 | 3,141.22 | -413.18 | -65.44 | -414.43 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3,300.00 | 18.00 | 189.00 | 3,236.32 | -443.70 | -70.28 | -445.04 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3,400.00 | 18.00 | 189.00 | 3,331.43 | -474.22 | -75.11 | -475.66 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3,500.00 | 18.00 | 189.00 | 3,426.54 | -504.74 | -79.94 | -506.27 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3,600.00 | 18.00 | 189.00 | 3,521.64 | -535.26 | -84.78 | -536.88 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3,700.00 | 18.00 | 189.00 | 3,616.75 | -565.78 | -89.61 | -567.50 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3,800.00 | 18.00 | 189.00 | 3,711.85 | -596.31 | -94.45 | -598.11 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3,900.00 | 18.00 | 189.00 | 3,806.96 | -626.83 | -99.28 | -628.72 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3,965.23 | 18.00 | 189.00 | 3,869.00 | -646.74 | -102.43 | -648.69 | 0.00 | 0.00 | 0.00 | 0.00 |
| Parkman | | | | | | | | | | |
| 4,000.00 | 18.00 | 189.00 | 3,902.06 | -657.35 | -104.11 | -659.34 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4,100.00 | 18.00 | 189.00 | 3,997.17 | -687.87 | -108.95 | -689.95 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4,200.00 | 18.00 | 189.00 | 4,092.28 | -718.39 | -113.78 | -720.56 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4,300.00 | 18.00 | 189.00 | 4,187.38 | -748.91 | -118.62 | -751.18 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4,364.79 | 18.00 | 189.00 | 4,249.00 | -768.69 | -121.75 | -771.01 | 0.00 | 0.00 | 0.00 | 0.00 |
| Sussex | | | | | | | | | | |
| 4,400.00 | 18.00 | 189.00 | 4,282.49 | -779.43 | -123.45 | -781.79 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4,500.00 | 18.00 | 189.00 | 4,377.59 | -809.95 | -128.28 | -812.41 | 0.00 | 0.00 | 0.00 | 0.00 |

Plan Report for Skim State 29N-21HZ - Rev A0 Permit

| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) | Toolface Azimuth (°) |
|---|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|----------------------|
| 4,600.00 | 18.00 | 189.00 | 4,472.70 | -840.48 | -133.12 | -843.02 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4,700.00 | 18.00 | 189.00 | 4,567.80 | -871.00 | -137.95 | -873.63 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4,800.00 | 18.00 | 189.00 | 4,662.91 | -901.52 | -142.79 | -904.25 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4,900.00 | 18.00 | 189.00 | 4,758.02 | -932.04 | -147.62 | -934.86 | 0.00 | 0.00 | 0.00 | 0.00 |
| 5,000.00 | 18.00 | 189.00 | 4,853.12 | -962.56 | -152.45 | -965.47 | 0.00 | 0.00 | 0.00 | 0.00 |
| 5,100.00 | 18.00 | 189.00 | 4,948.23 | -993.08 | -157.29 | -996.09 | 0.00 | 0.00 | 0.00 | 0.00 |
| 5,199.99 | 18.00 | 189.00 | 5,043.32 | -1,023.60 | -162.12 | -1,026.70 | 0.00 | 0.00 | 0.00 | 0.00 |
| Begin Drop @ 5199.99ft | | | | | | | | | | |
| 5,200.00 | 18.00 | 189.00 | 5,043.33 | -1,023.60 | -162.12 | -1,026.70 | 0.00 | 0.00 | 0.00 | 0.00 |
| 5,300.00 | 16.00 | 189.00 | 5,138.96 | -1,052.48 | -166.70 | -1,055.66 | 2.00 | -2.00 | 0.00 | 180.00 |
| 5,400.00 | 14.00 | 189.00 | 5,235.55 | -1,078.04 | -170.74 | -1,081.30 | 2.00 | -2.00 | 0.00 | 180.00 |
| 5,500.00 | 12.00 | 189.00 | 5,332.98 | -1,100.26 | -174.26 | -1,103.59 | 2.00 | -2.00 | 0.00 | 180.00 |
| 5,600.00 | 10.00 | 189.00 | 5,431.14 | -1,119.10 | -177.25 | -1,122.49 | 2.00 | -2.00 | 0.00 | 180.00 |
| 5,700.00 | 8.00 | 189.00 | 5,529.90 | -1,134.55 | -179.70 | -1,137.98 | 2.00 | -2.00 | 0.00 | 180.00 |
| 5,800.00 | 6.00 | 189.00 | 5,629.15 | -1,146.59 | -181.60 | -1,150.06 | 2.00 | -2.00 | 0.00 | 180.00 |
| 5,900.00 | 4.00 | 189.00 | 5,728.76 | -1,155.20 | -182.96 | -1,158.69 | 2.00 | -2.00 | 0.00 | 180.00 |
| 6,000.00 | 2.00 | 189.00 | 5,828.62 | -1,160.36 | -183.78 | -1,163.87 | 2.00 | -2.00 | 0.00 | 180.00 |
| 6,099.99 | 0.00 | 0.00 | 5,928.59 | -1,162.09 | -184.06 | -1,165.60 | 2.00 | -2.00 | 171.02 | 180.00 |
| End Drop @ 6099.99ft | | | | | | | | | | |
| 6,100.00 | 0.00 | 0.00 | 5,928.60 | -1,162.09 | -184.06 | -1,165.60 | 0.29 | -0.29 | 0.00 | 180.00 |
| 6,200.00 | 0.00 | 0.00 | 6,028.60 | -1,162.09 | -184.06 | -1,165.60 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6,300.00 | 0.00 | 0.00 | 6,128.60 | -1,162.09 | -184.06 | -1,165.60 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6,400.00 | 0.00 | 0.00 | 6,228.60 | -1,162.09 | -184.06 | -1,165.60 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6,500.00 | 0.00 | 0.00 | 6,328.60 | -1,162.09 | -184.06 | -1,165.60 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6,547.44 | 0.00 | 0.00 | 6,376.04 | -1,162.09 | -184.06 | -1,165.60 | 0.00 | 0.00 | 0.00 | 0.00 |
| Set 4.5" Liner @ 6547.44ft | | | | | | | | | | |
| 6,600.00 | 0.00 | 0.00 | 6,428.60 | -1,162.09 | -184.06 | -1,165.60 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6,647.44 | 0.00 | 0.00 | 6,476.04 | -1,162.09 | -184.06 | -1,165.60 | 0.00 | 0.00 | 0.00 | 0.00 |
| KOP @ 6647.44ft | | | | | | | | | | |
| 6,700.00 | 5.26 | 1.17 | 6,528.53 | -1,159.68 | -184.01 | -1,163.19 | 10.00 | 10.00 | 0.00 | 1.17 |
| 6,800.00 | 15.26 | 1.17 | 6,626.80 | -1,141.90 | -183.64 | -1,145.41 | 10.00 | 10.00 | 0.00 | 0.00 |
| 6,900.00 | 25.26 | 1.17 | 6,720.50 | -1,107.33 | -182.94 | -1,110.84 | 10.00 | 10.00 | 0.00 | 0.00 |
| 7,000.00 | 35.26 | 1.17 | 6,806.77 | -1,057.02 | -181.91 | -1,060.51 | 10.00 | 10.00 | 0.00 | 0.00 |
| 7,045.70 | 39.83 | 1.17 | 6,843.00 | -1,029.18 | -181.34 | -1,032.67 | 10.00 | 10.00 | 0.00 | 0.00 |
| SSPG | | | | | | | | | | |
| 7,100.00 | 45.26 | 1.17 | 6,882.99 | -992.49 | -180.58 | -995.97 | 10.00 | 10.00 | 0.00 | 0.00 |
| DLS = 10°/100' | | | | | | | | | | |
| 7,129.19 | 48.17 | 1.17 | 6,903.00 | -971.25 | -180.15 | -974.73 | 10.00 | 10.00 | 0.00 | 0.00 |
| NBRR | | | | | | | | | | |
| 7,193.31 | 54.59 | 1.17 | 6,943.00 | -921.19 | -179.12 | -924.66 | 10.00 | 10.00 | 0.00 | 0.00 |
| N470_B_CK | | | | | | | | | | |
| 7,200.00 | 55.26 | 1.17 | 6,946.84 | -915.72 | -179.01 | -919.18 | 10.00 | 10.00 | 0.00 | 0.00 |
| 7,300.00 | 65.26 | 1.17 | 6,996.39 | -829.02 | -177.24 | -832.47 | 10.00 | 10.00 | 0.00 | 0.00 |
| 7,395.61 | 74.82 | 1.17 | 7,029.00 | -739.28 | -175.40 | -742.71 | 10.00 | 10.00 | 0.00 | 0.00 |
| N700_C_CK | | | | | | | | | | |
| 7,400.00 | 75.26 | 1.17 | 7,030.13 | -735.04 | -175.31 | -738.47 | 10.00 | 10.00 | 0.00 | 0.00 |
| 7,500.00 | 85.26 | 1.17 | 7,047.04 | -636.63 | -173.30 | -640.03 | 10.00 | 10.00 | 0.00 | 0.00 |
| 7,547.44 | 90.00 | 1.17 | 7,049.00 | -589.25 | -172.33 | -592.65 | 10.00 | 10.00 | 0.00 | 0.00 |
| End Build @ 7547.44ft - Landing Target (Heel) - 7" | | | | | | | | | | |
| 7,600.00 | 90.00 | 1.17 | 7,049.00 | -536.70 | -171.25 | -540.09 | 0.00 | 0.00 | 0.00 | 0.00 |
| 7,700.00 | 90.00 | 1.17 | 7,049.00 | -436.72 | -169.21 | -440.09 | 0.00 | 0.00 | 0.00 | 0.00 |
| 7,800.00 | 90.00 | 1.17 | 7,049.00 | -336.74 | -167.16 | -340.09 | 0.00 | 0.00 | 0.00 | 0.00 |
| 7,900.00 | 90.00 | 1.17 | 7,049.00 | -236.77 | -165.11 | -240.09 | 0.00 | 0.00 | 0.00 | 0.00 |
| 8,000.00 | 90.00 | 1.17 | 7,049.00 | -136.79 | -163.06 | -140.09 | 0.00 | 0.00 | 0.00 | 0.00 |
| 8,100.00 | 90.00 | 1.17 | 7,049.00 | -36.81 | -161.02 | -40.09 | 0.00 | 0.00 | 0.00 | 0.00 |
| 8,200.00 | 90.00 | 1.17 | 7,049.00 | 63.17 | -158.97 | 59.91 | 0.00 | 0.00 | 0.00 | 0.00 |
| 8,300.00 | 90.00 | 1.17 | 7,049.00 | 163.15 | -156.92 | 159.91 | 0.00 | 0.00 | 0.00 | 0.00 |
| 8,400.00 | 90.00 | 1.17 | 7,049.00 | 263.13 | -154.88 | 259.91 | 0.00 | 0.00 | 0.00 | 0.00 |
| 8,500.00 | 90.00 | 1.17 | 7,049.00 | 363.11 | -152.83 | 359.91 | 0.00 | 0.00 | 0.00 | 0.00 |

Plan Report for Skim State 29N-21HZ - Rev A0 Permit

| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) | Toolface Azimuth (°) |
|---|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|----------------------|
| 8,600.00 | 90.00 | 1.17 | 7,049.00 | 463.09 | -150.78 | 459.91 | 0.00 | 0.00 | 0.00 | 0.00 |
| 8,700.00 | 90.00 | 1.17 | 7,049.00 | 563.07 | -148.74 | 559.91 | 0.00 | 0.00 | 0.00 | 0.00 |
| 8,800.00 | 90.00 | 1.17 | 7,049.00 | 663.05 | -146.69 | 659.91 | 0.00 | 0.00 | 0.00 | 0.00 |
| 8,900.00 | 90.00 | 1.17 | 7,049.00 | 763.03 | -144.64 | 759.91 | 0.00 | 0.00 | 0.00 | 0.00 |
| 9,000.00 | 90.00 | 1.17 | 7,049.00 | 863.00 | -142.60 | 859.91 | 0.00 | 0.00 | 0.00 | 0.00 |
| 9,100.00 | 90.00 | 1.17 | 7,049.00 | 962.98 | -140.55 | 959.91 | 0.00 | 0.00 | 0.00 | 0.00 |
| 9,200.00 | 90.00 | 1.17 | 7,049.00 | 1,062.96 | -138.50 | 1,059.91 | 0.00 | 0.00 | 0.00 | 0.00 |
| 9,300.00 | 90.00 | 1.17 | 7,049.00 | 1,162.94 | -136.45 | 1,159.91 | 0.00 | 0.00 | 0.00 | 0.00 |
| 9,400.00 | 90.00 | 1.17 | 7,049.00 | 1,262.92 | -134.41 | 1,259.91 | 0.00 | 0.00 | 0.00 | 0.00 |
| 9,500.00 | 90.00 | 1.17 | 7,049.00 | 1,362.90 | -132.36 | 1,359.91 | 0.00 | 0.00 | 0.00 | 0.00 |
| 9,600.00 | 90.00 | 1.17 | 7,049.00 | 1,462.88 | -130.31 | 1,459.91 | 0.00 | 0.00 | 0.00 | 0.00 |
| 9,700.00 | 90.00 | 1.17 | 7,049.00 | 1,562.86 | -128.27 | 1,559.91 | 0.00 | 0.00 | 0.00 | 0.00 |
| 9,800.00 | 90.00 | 1.17 | 7,049.00 | 1,662.84 | -126.22 | 1,659.91 | 0.00 | 0.00 | 0.00 | 0.00 |
| 9,900.00 | 90.00 | 1.17 | 7,049.00 | 1,762.82 | -124.17 | 1,759.91 | 0.00 | 0.00 | 0.00 | 0.00 |
| 10,000.00 | 90.00 | 1.17 | 7,049.00 | 1,862.79 | -122.13 | 1,859.91 | 0.00 | 0.00 | 0.00 | 0.00 |
| 10,100.00 | 90.00 | 1.17 | 7,049.00 | 1,962.77 | -120.08 | 1,959.91 | 0.00 | 0.00 | 0.00 | 0.00 |
| 10,200.00 | 90.00 | 1.17 | 7,049.00 | 2,062.75 | -118.03 | 2,059.91 | 0.00 | 0.00 | 0.00 | 0.00 |
| 10,300.00 | 90.00 | 1.17 | 7,049.00 | 2,162.73 | -115.98 | 2,159.91 | 0.00 | 0.00 | 0.00 | 0.00 |
| 10,400.00 | 90.00 | 1.17 | 7,049.00 | 2,262.71 | -113.94 | 2,259.91 | 0.00 | 0.00 | 0.00 | 0.00 |
| 10,500.00 | 90.00 | 1.17 | 7,049.00 | 2,362.69 | -111.89 | 2,359.91 | 0.00 | 0.00 | 0.00 | 0.00 |
| 10,600.00 | 90.00 | 1.17 | 7,049.00 | 2,462.67 | -109.84 | 2,459.91 | 0.00 | 0.00 | 0.00 | 0.00 |
| 10,700.00 | 90.00 | 1.17 | 7,049.00 | 2,562.65 | -107.80 | 2,559.91 | 0.00 | 0.00 | 0.00 | 0.00 |
| 10,800.00 | 90.00 | 1.17 | 7,049.00 | 2,662.63 | -105.75 | 2,659.91 | 0.00 | 0.00 | 0.00 | 0.00 |
| 10,900.00 | 90.00 | 1.17 | 7,049.00 | 2,762.61 | -103.70 | 2,759.91 | 0.00 | 0.00 | 0.00 | 0.00 |
| 11,000.00 | 90.00 | 1.17 | 7,049.00 | 2,862.59 | -101.66 | 2,859.91 | 0.00 | 0.00 | 0.00 | 0.00 |
| 11,100.00 | 90.00 | 1.17 | 7,049.00 | 2,962.56 | -99.61 | 2,959.91 | 0.00 | 0.00 | 0.00 | 0.00 |
| 11,200.00 | 90.00 | 1.17 | 7,049.00 | 3,062.54 | -97.56 | 3,059.91 | 0.00 | 0.00 | 0.00 | 0.00 |
| 11,300.00 | 90.00 | 1.17 | 7,049.00 | 3,162.52 | -95.52 | 3,159.91 | 0.00 | 0.00 | 0.00 | 0.00 |
| 11,400.00 | 90.00 | 1.17 | 7,049.00 | 3,262.50 | -93.47 | 3,259.91 | 0.00 | 0.00 | 0.00 | 0.00 |
| 11,500.00 | 90.00 | 1.17 | 7,049.00 | 3,362.48 | -91.42 | 3,359.91 | 0.00 | 0.00 | 0.00 | 0.00 |
| 11,600.00 | 90.00 | 1.17 | 7,049.00 | 3,462.46 | -89.37 | 3,459.91 | 0.00 | 0.00 | 0.00 | 0.00 |
| 11,700.00 | 90.00 | 1.17 | 7,049.00 | 3,562.44 | -87.33 | 3,559.91 | 0.00 | 0.00 | 0.00 | 0.00 |
| 11,800.00 | 90.00 | 1.17 | 7,049.00 | 3,662.42 | -85.28 | 3,659.91 | 0.00 | 0.00 | 0.00 | 0.00 |
| 11,900.00 | 90.00 | 1.17 | 7,049.00 | 3,762.40 | -83.23 | 3,759.91 | 0.00 | 0.00 | 0.00 | 0.00 |
| 12,000.00 | 90.00 | 1.17 | 7,049.00 | 3,862.38 | -81.19 | 3,859.91 | 0.00 | 0.00 | 0.00 | 0.00 |
| 12,100.00 | 90.00 | 1.17 | 7,049.00 | 3,962.35 | -79.14 | 3,959.91 | 0.00 | 0.00 | 0.00 | 0.00 |
| 12,200.00 | 90.00 | 1.17 | 7,049.00 | 4,062.33 | -77.09 | 4,059.91 | 0.00 | 0.00 | 0.00 | 0.00 |
| 12,300.00 | 90.00 | 1.17 | 7,049.00 | 4,162.31 | -75.05 | 4,159.91 | 0.00 | 0.00 | 0.00 | 0.00 |
| 12,400.00 | 90.00 | 1.17 | 7,049.00 | 4,262.29 | -73.00 | 4,259.91 | 0.00 | 0.00 | 0.00 | 0.00 |
| 12,500.00 | 90.00 | 1.17 | 7,049.00 | 4,362.27 | -70.95 | 4,359.91 | 0.00 | 0.00 | 0.00 | 0.00 |
| 12,600.00 | 90.00 | 1.17 | 7,049.00 | 4,462.25 | -68.90 | 4,459.91 | 0.00 | 0.00 | 0.00 | 0.00 |
| 12,700.00 | 90.00 | 1.17 | 7,049.00 | 4,562.23 | -66.86 | 4,559.91 | 0.00 | 0.00 | 0.00 | 0.00 |
| 12,720.32 | 90.00 | 1.17 | 7,049.00 | 4,582.55 | -66.44 | 4,580.23 | 0.00 | 0.00 | 0.00 | 0.00 |
| Total Depth (Toe) | | | | | | | | | | |
| 12,720.33 | 90.00 | 1.17 | 7,049.00 | 4,582.55 | -66.44 | 4,580.24 | 0.01 | 0.00 | 0.00 | 0.00 |
| TD Well @ 12720.33ft - Skim State 29N-21HZ_BHL | | | | | | | | | | |

Plan Report for Skim State 29N-21HZ - Rev A0 Permit

Plan Annotations

| Measured Depth (usft) | Vertical Depth (usft) | Local Coordinates | | Comment |
|-----------------------|-----------------------|-------------------|--------------|----------------------------|
| | | +N/-S (usft) | +E/-W (usft) | |
| 1,400.00 | 1,400.00 | 0.00 | 0.00 | Begin Nudge @ 1400.00ft |
| 2,300.00 | 2,285.27 | -138.49 | -21.93 | End Nudge @ 2300.00ft |
| 5,199.99 | 5,043.32 | -1,023.60 | -162.12 | Begin Drop @ 5199.99ft |
| 6,099.99 | 5,928.59 | -1,162.09 | -184.06 | End Drop @ 6099.99ft |
| 6,547.44 | 6,376.04 | -1,162.09 | -184.06 | Set 4.5" Liner @ 6547.44ft |
| 6,647.44 | 6,476.04 | -1,162.09 | -184.06 | KOP @ 6647.44ft |
| 7,100.00 | 6,882.99 | -992.49 | -180.58 | DLS = 10°/100' |
| 7,547.44 | 7,049.00 | -589.25 | -172.33 | End Build @ 7547.44ft |
| 12,720.33 | 7,049.00 | 4,582.55 | -66.44 | TD Well @ 12720.33ft |

Vertical Section Information

| Angle Type | Target | Azimuth (°) | Origin Type | Origin | | Start TVD (usft) |
|------------|----------------------|-------------|-------------|--------------|--------------|------------------|
| | | | | +N/_S (usft) | +E/-W (usft) | |
| User | No Target (Freehand) | 1.17 | Slot | 0.00 | 0.00 | 0.00 |

Survey tool program

| From (usft) | To (usft) | Survey/Plan | Survey Tool |
|-------------|-----------|---------------|-------------|
| 0.00 | 7,547.44 | Rev A0 Permit | MWD+IFR1 |
| 7,547.44 | 12,720.33 | Rev A0 Permit | MWD+IFR1 |

Casing Details

| Measured Depth (usft) | Vertical Depth (usft) | Name | Casing Diameter (") | Hole Diameter (") |
|-----------------------|-----------------------|--------|---------------------|-------------------|
| 1,135.00 | 1,135.00 | 9 5/8" | 9-5/8 | 13-1/2 |
| 7,547.44 | 7,049.00 | 7" | 7 | 8-3/4 |

Formation Details

| Measured Depth (usft) | Vertical Depth (usft) | Name | Lithology | Dip (°) | Dip Direction (°) |
|-----------------------|-----------------------|---------------------------|-----------|---------|-------------------|
| 622.00 | 622.00 | Base Fox Hills | | 0.00 | |
| 1,135.00 | 1,135.00 | Surface Csg Setting Depth | | 0.00 | |
| 3,965.23 | 3,869.00 | Parkman | | 0.00 | |
| 4,364.79 | 4,249.00 | Sussex | | 0.00 | |
| 7,045.70 | 6,843.00 | SSPG | | 0.00 | |
| 7,129.19 | 6,903.00 | NBRR | | 0.00 | |
| 7,193.31 | 6,943.00 | N470_B_CK | | 0.00 | |
| 7,395.61 | 7,029.00 | N700_C_CK | | 0.00 | |
| 7,547.44 | 7,049.00 | Landing Target (Heel) | | 0.00 | |
| 12,720.32 | 7,049.00 | Total Depth (Toe) | | 0.00 | |

Targets associated with this wellbore

| Target Name | TVD (usft) | +N/-S (usft) | +E/-W (usft) | Shape |
|-------------------------|------------|--------------|--------------|---------|
| Sec. 28 and 21-T3N-R65W | -1.00 | 1.09 | -89.91 | Polygon |
| Skim State 29N-21HZ_SHL | 0.00 | 0.00 | 0.00 | Point |
| Skim State 29N-21HZ_BHL | 7,049.00 | 4,582.55 | -66.44 | Point |

North Reference Sheet for Skim 35-21HZ Pad - Skim State 29N-21HZ - Plan A

All data is in US Feet unless otherwise stated. Directions and Coordinates are relative to True North Reference .
 Vertical Depths are relative to RKB = 17' @ 4863.00usft (D Rig). Northing and Easting are relative to Skim State 29N-21HZ
 Coordinate System is Universal Transverse Mercator (US Survey Feet), Zone 13N (108 W to 102 W) using datum North American Datum 1983, ellipsoid
 Projection method is Transverse Mercator (Gauss-Kruger)
 Central Meridian is -105.00°, Longitude Origin:0.000000°, Latitude Origin:0.000000°
 False Easting: 1,640,416.67usft, False Northing: 0.00usft, Scale Reduction: 0.99960952

Grid Coordinates of Well: 14,601,714.98 usft N, 1,731,638.23 usft E
 Geographical Coordinates of Well: 40° 12' 19.62" N, 104° 40' 23.83" W
 Grid Convergence at Surface is: 0.21°

Based upon Minimum Curvature type calculations, at a Measured Depth of 12,720.33usft
 the Bottom Hole Displacement is 4,583.04usft in the Direction of 359.17° (True).

Magnetic Convergence at surface is: -8.14° (10 October 2014, , IGRF2010)

