

Edge Energy LLC

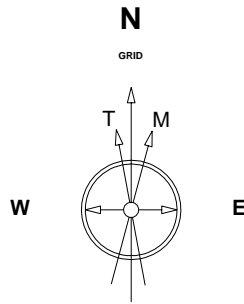
| | | | |
|--------------|---------------|----------|---------------------------|
| Location | DJ Basin | Slot | FLAHERTY 18-7-10NBH |
| Field | Wattenberg | Well | FLAHERTY 18-7-10NBH |
| Installation | Flaherty 18-I | Wellbore | FLAHERTY 18-7-10NBH (PWB) |



Scale 1 cm = 400 ft

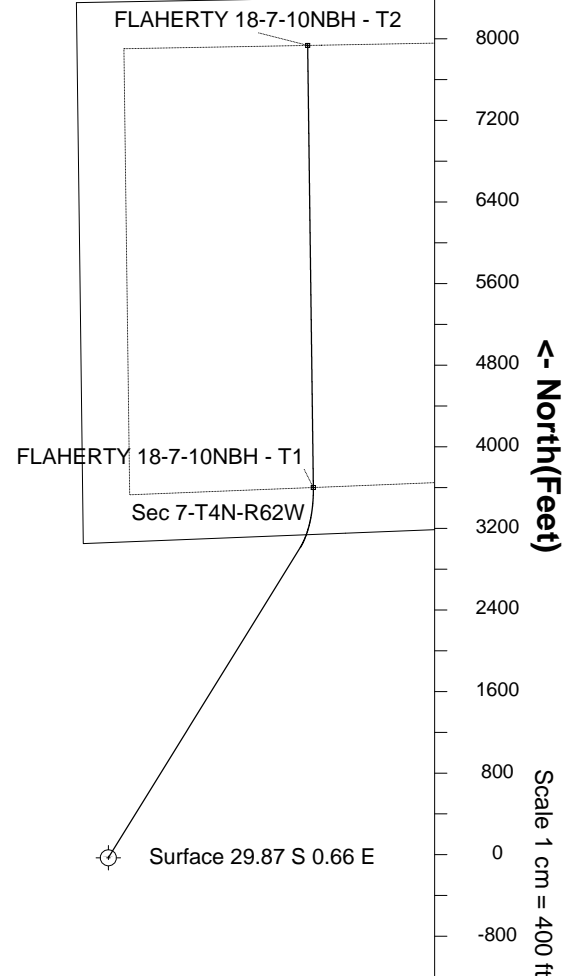
East (Feet) ->

-800 0 800 1600 2400 3200



24-Sep-2015
IGRF Model [1900.0-2020.0] Dip: 66.89 deg Field: 52587.9 nT
Lat: N40 18 40.7484 Long: W104 22 33.7512 Elev: 4546.00 ft
Magnetic North is 8.18 deg East of True North
GRID North is 0.73 deg East of True North
To correct azimuth from True to GRID subtract 0.73 deg
To correct azimuth from Magnetic to GRID add 7.45 deg

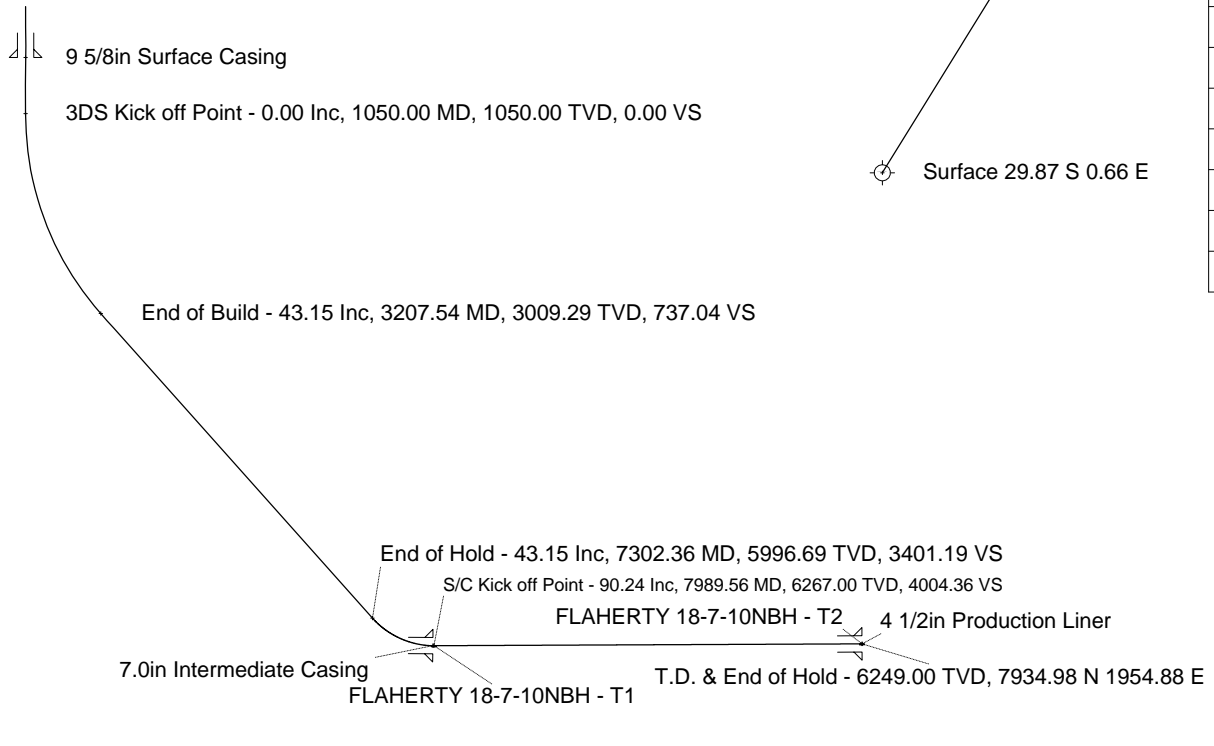
| | |
|--|-------------|
| Created by | admin |
| Date plotted | 29-Sep-2015 |
| Plot reference is FLAHERTY 18-7-10NBH (PWB). | |
| Ref wellpath is FLAHERTY 18-7-10NBH (PWP#1). | |
| Coordinates are in Feet reference Installation Centre. | |
| True Vertical Depths are reference Rig Datum. | |
| Measured Depths are reference Rig Datum. | |
| Rig Datum: Planned Datum #1 | |
| Rig Datum to Mean Sea Level: 4571.00 ft. | |
| Plot North is aligned to GRID North. | |



Scale 1 cm = 400 ft

<- True Vertical Depth (Feet)

-800
0
800
1600
2400
3200
4000
4800
5600
6400
7200



Scale 1 cm = 400 ft

Vertical Section (Feet) ->

Azimuth 13.79 with reference 29.87 S, 0.66 E from Installation Centre



SYSDRILL
Well Design Combined Report
Wellbore: FLAHERTY 18-7-10NBH (PWB)

| Wellhead Details | | | | | | | |
|---------------------|-------------|---------------|--------------|--------------|--------|-------|-----------------------------|
| Name | Latitude | Longitude | Northing | Easting | North | East | Slot Elevation Above Ground |
| FLAHERTY 18-7-10NBH | 40.31123700 | -104.37604100 | 1358211.0417 | 3313435.6867 | 29.87S | 0.66E | 0.00 |

| Declination | | |
|-------------|----------------------------|-------|
| Date | Source | Time |
| 24-Sep-2015 | IGRF Model [1900.0-2020.0] | 15:38 |

| Installation Details | | | | | | |
|----------------------|----------------------------------|-----------------------------------|--------------|--------------|--|-----------------|
| Name | Installation Position (Latitude) | Installation Position (Longitude) | Northing | Easting | Coord System Name | North Alignment |
| Flaherty 18-I | 40.31131900 | -104.37604200 | 1358240.9076 | 3313435.0292 | CO83-NF on NORTH AMERICAN DATUM 1983 datum | Grid |

| Summary Wellpath | | | | | | | | | |
|------------------|----------|----------|---------|-----------|----------|--------------------|----------------------|------------|------------|
| MD[ft] | Inc[deg] | Azi[deg] | TVD[ft] | North[ft] | East[ft] | Dogleg [deg/100ft] | Vertical Section[ft] | Northing | Easting |
| 25.00 | 0.00 | 0.000 | 25.00 | 0.00N | 0.00E | | 0.00 | 1358211.04 | 3313435.69 |
| 12324.85 | 90.24 | 359.260 | 6249.00 | 7964.84N | 1954.22E | ==> | 8201.08 | 1366175.53 | 3315389.82 |

| Interpolated Wellpath | | | | | | | | |
|-----------------------|----------|----------|---------|-----------|----------|--------------------|----------------------|-------------------------|
| MD[ft] | Inc[deg] | Azi[deg] | TVD[ft] | North[ft] | East[ft] | Dogleg [deg/100ft] | Vertical Section[ft] | All Station Comments |
| 0.00 | 0.00 | 0.000 | 0.00 | 0.00N | 0.00E | | 0.00 | Rig Datum Slot Datum |
| 25.00 | 0.00 | 0.000 | 25.00 | 0.00N | 0.00E | ==> | 0.00 | |
| 100.00 | 0.00 | 0.000 | 100.00 | 0.00N | 0.00E | ==> | 0.00 | |
| 200.00 | 0.00 | 0.000 | 200.00 | 0.00N | 0.00E | ==> | 0.00 | |
| 300.00 | 0.00 | 0.000 | 300.00 | 0.00N | 0.00E | ==> | 0.00 | |
| 400.00 | 0.00 | 0.000 | 400.00 | 0.00N | 0.00E | ==> | 0.00 | 9 5/8in Surface Casing |
| 500.00 | 0.00 | 0.000 | 500.00 | 0.00N | 0.00E | ==> | 0.00 | |
| 600.00 | 0.00 | 0.000 | 600.00 | 0.00N | 0.00E | ==> | 0.00 | |
| 700.00 | 0.00 | 0.000 | 700.00 | 0.00N | 0.00E | ==> | 0.00 | |
| 800.00 | 0.00 | 0.000 | 800.00 | 0.00N | 0.00E | ==> | 0.00 | |
| 900.00 | 0.00 | 0.000 | 900.00 | 0.00N | 0.00E | ==> | 0.00 | |
| 1000.00 | 0.00 | 0.000 | 1000.00 | 0.00N | 0.00E | ==> | 0.00 | |
| 1100.00 | 1.00 | 31.740 | 1100.00 | 0.37N | 0.23E | 2.00 | 0.42 | |
| 1200.00 | 3.00 | 31.740 | 1199.93 | 3.34N | 2.07E | 2.00 | 3.73 | |
| 1300.00 | 5.00 | 31.740 | 1299.68 | 9.27N | 5.73E | 2.00 | 10.37 | |
| 1400.00 | 7.00 | 31.740 | 1399.13 | 18.16N | 11.23E | 2.00 | 20.31 | |
| 1500.00 | 9.00 | 31.740 | 1498.15 | 30.00N | 18.55E | 2.00 | 33.55 | |
| 1600.00 | 11.00 | 31.740 | 1596.63 | 44.76N | 27.69E | 2.00 | 50.07 | |
| 1700.00 | 13.00 | 31.740 | 1694.44 | 62.44N | 38.63E | 2.00 | 69.85 | |
| 1800.00 | 15.00 | 31.740 | 1791.46 | 83.02N | 51.35E | 2.00 | 92.86 | |
| 1900.00 | 17.00 | 31.740 | 1887.58 | 106.46N | 65.85E | 2.00 | 119.08 | |
| 2000.00 | 19.00 | 31.740 | 1982.68 | 132.74N | 82.11E | 2.00 | 148.48 | |
| 2100.00 | 21.00 | 31.740 | 2076.65 | 161.82N | 100.10E | 2.00 | 181.01 | |
| 2200.00 | 23.00 | 31.740 | 2169.36 | 193.68N | 119.80E | 2.00 | 216.65 | |
| 2300.00 | 25.00 | 31.740 | 2260.71 | 228.27N | 141.20E | 2.00 | 255.34 | |
| 2400.00 | 27.00 | 31.740 | 2350.59 | 265.55N | 164.26E | 2.00 | 297.04 | |
| 2500.00 | 29.00 | 31.740 | 2438.88 | 305.47N | 188.95E | 2.00 | 341.70 | |
| 2600.00 | 31.00 | 31.740 | 2525.48 | 347.99N | 215.26E | 2.00 | 389.26 | |
| 2700.00 | 33.00 | 31.740 | 2610.28 | 393.06N | 243.13E | 2.00 | 439.67 | |
| 2800.00 | 35.00 | 31.740 | 2693.18 | 440.61N | 272.55E | 2.00 | 492.86 | |
| 2900.00 | 37.00 | 31.740 | 2774.07 | 490.59N | 303.47E | 2.00 | 548.78 | |
| 3000.00 | 39.00 | 31.740 | 2852.87 | 542.95N | 335.85E | 2.00 | 607.34 | |
| 3100.00 | 41.00 | 31.740 | 2929.47 | 597.61N | 369.67E | 2.00 | 668.49 | |
| 3200.00 | 43.00 | 31.740 | 3003.78 | 654.52N | 404.86E | 2.00 | 732.14 | |
| 3300.00 | 43.15 | 31.740 | 3076.74 | 712.67N | 440.84E | ==> | 797.19 | |
| 3400.00 | 43.15 | 31.740 | 3149.70 | 770.84N | 476.82E | ==> | 862.25 | |
| 3500.00 | 43.15 | 31.740 | 3222.66 | 829.00N | 512.80E | ==> | 927.32 | |
| 3600.00 | 43.15 | 31.740 | 3295.61 | 887.17N | 548.77E | ==> | 992.38 | |
| 3700.00 | 43.15 | 31.740 | 3368.57 | 945.33N | 584.75E | ==> | 1057.44 | |

All data is in Feet unless otherwise stated
Coordinates are from Slot MD's are from Rig and TVD's are from Rig (Planned Datum #1 4571.0ft above Mean Sea Level)
Vertical Section is from 0.00N 0.00E on azimuth 13.790 degrees
Bottom hole distance is 8201.08 Feet on azimuth 13.79 degrees from Wellhead
Calculation method uses Minimum Curvature method
Prepared by Integrated Petroleum Technologies, Inc.
Date Printed: 29-Sep-2015



SYSDRILL
Well Design Combined Report
Wellbore: FLAHERTY 18-7-10NBH (PWB)

| Interpolated Wellpath | | | | | | | | |
|-----------------------|----------|----------|---------|-----------|----------|-----------------------|-------------------------|---------------------------|
| MD[ft] | Inc[deg] | Azi[deg] | TVD[ft] | North[ft] | East[ft] | Dogleg [deg/100ft] | Vertical Section[ft] | All Station Comments |
| 3800.00 | 43.15 | 31.740 | 3441.52 | 1003.49N | 620.73E | ==> | 1122.50 | |
| 3900.00 | 43.15 | 31.740 | 3514.48 | 1061.66N | 656.71E | ==> | 1187.56 | |
| 4000.00 | 43.15 | 31.740 | 3587.43 | 1119.82N | 692.69E | ==> | 1252.62 | |
| 4100.00 | 43.15 | 31.740 | 3660.39 | 1177.98N | 728.67E | ==> | 1317.69 | |
| 4200.00 | 43.15 | 31.740 | 3733.34 | 1236.15N | 764.64E | ==> | 1382.75 | |
| 4300.00 | 43.15 | 31.740 | 3806.30 | 1294.31N | 800.62E | ==> | 1447.81 | |
| 4400.00 | 43.15 | 31.740 | 3879.26 | 1352.48N | 836.60E | ==> | 1512.87 | |
| 4500.00 | 43.15 | 31.740 | 3952.21 | 1410.64N | 872.58E | ==> | 1577.93 | |
| 4600.00 | 43.15 | 31.740 | 4025.17 | 1468.80N | 908.56E | ==> | 1642.99 | |
| 4700.00 | 43.15 | 31.740 | 4098.12 | 1526.97N | 944.54E | ==> | 1708.06 | |
| 4800.00 | 43.15 | 31.740 | 4171.08 | 1585.13N | 980.52E | ==> | 1773.12 | |
| 4900.00 | 43.15 | 31.740 | 4244.03 | 1643.30N | 1016.49E | ==> | 1838.18 | |
| 5000.00 | 43.15 | 31.740 | 4316.99 | 1701.46N | 1052.47E | ==> | 1903.24 | |
| 5100.00 | 43.15 | 31.740 | 4389.94 | 1759.62N | 1088.45E | ==> | 1968.30 | |
| 5200.00 | 43.15 | 31.740 | 4462.90 | 1817.79N | 1124.43E | ==> | 2033.36 | |
| 5300.00 | 43.15 | 31.740 | 4535.86 | 1875.95N | 1160.41E | ==> | 2098.42 | |
| 5400.00 | 43.15 | 31.740 | 4608.81 | 1934.11N | 1196.39E | ==> | 2163.49 | |
| 5500.00 | 43.15 | 31.740 | 4681.77 | 1992.28N | 1232.36E | ==> | 2228.55 | |
| 5600.00 | 43.15 | 31.740 | 4754.72 | 2050.44N | 1268.34E | ==> | 2293.61 | |
| 5700.00 | 43.15 | 31.740 | 4827.68 | 2108.61N | 1304.32E | ==> | 2358.67 | |
| 5800.00 | 43.15 | 31.740 | 4900.63 | 2166.77N | 1340.30E | ==> | 2423.73 | |
| 5900.00 | 43.15 | 31.740 | 4973.59 | 2224.93N | 1376.28E | ==> | 2488.79 | |
| 6000.00 | 43.15 | 31.740 | 5046.55 | 2283.10N | 1412.26E | ==> | 2553.86 | |
| 6100.00 | 43.15 | 31.740 | 5119.50 | 2341.26N | 1448.23E | ==> | 2618.92 | |
| 6200.00 | 43.15 | 31.740 | 5192.46 | 2399.43N | 1484.21E | ==> | 2683.98 | |
| 6300.00 | 43.15 | 31.740 | 5265.41 | 2457.59N | 1520.19E | ==> | 2749.04 | |
| 6400.00 | 43.15 | 31.740 | 5338.37 | 2515.75N | 1556.17E | ==> | 2814.10 | |
| 6500.00 | 43.15 | 31.740 | 5411.32 | 2573.92N | 1592.15E | ==> | 2879.16 | |
| 6600.00 | 43.15 | 31.740 | 5484.28 | 2632.08N | 1628.13E | ==> | 2944.23 | |
| 6700.00 | 43.15 | 31.740 | 5557.23 | 2690.24N | 1664.11E | ==> | 3009.29 | |
| 6800.00 | 43.15 | 31.740 | 5630.19 | 2748.41N | 1700.08E | ==> | 3074.35 | |
| 6900.00 | 43.15 | 31.740 | 5703.15 | 2806.57N | 1736.06E | ==> | 3139.41 | |
| 7000.00 | 43.15 | 31.740 | 5776.10 | 2864.74N | 1772.04E | ==> | 3204.47 | |
| 7100.00 | 43.15 | 31.740 | 5849.06 | 2922.90N | 1808.02E | ==> | 3269.53 | |
| 7200.00 | 43.15 | 31.740 | 5922.01 | 2981.06N | 1844.00E | ==> | 3334.60 | |
| 7300.00 | 43.15 | 31.740 | 5994.97 | 3039.23N | 1879.98E | ==> | 3399.66 | |
| 7400.00 | 49.26 | 24.980 | 6064.27 | 3102.62N | 1914.07E | 8.00 | 3469.35 | |
| 7500.00 | 55.86 | 19.270 | 6125.06 | 3176.14N | 1943.77E | 8.00 | 3547.83 | |
| 7600.00 | 62.68 | 14.400 | 6176.16 | 3258.37N | 1968.52E | 8.00 | 3633.58 | |
| 7700.00 | 69.65 | 10.110 | 6216.56 | 3347.69N | 1987.83E | 8.00 | 3724.93 | |
| 7800.00 | 76.71 | 6.180 | 6245.49 | 3442.37N | 2001.32E | 8.00 | 3820.11 | |
| 7900.00 | 83.84 | 2.490 | 6262.37 | 3540.57N | 2008.73E | 8.00 | 3917.25 | 7.0in Intermediate Casing |
| 7978.00 | 89.41 | 359.680 | 6266.96 | 3618.39N | 2010.20E | 8.00 | 3993.16 | |
| 8000.00 | 90.24 | 359.260 | 6266.96 | 3640.39N | 2009.96E | ==> | 4014.47 | |
| 8100.00 | 90.24 | 359.260 | 6266.54 | 3740.38N | 2008.67E | ==> | 4111.28 | |
| 8200.00 | 90.24 | 359.260 | 6266.13 | 3840.37N | 2007.38E | ==> | 4208.08 | |
| 8300.00 | 90.24 | 359.260 | 6265.71 | 3940.36N | 2006.09E | ==> | 4304.88 | |
| 8400.00 | 90.24 | 359.260 | 6265.30 | 4040.35N | 2004.80E | ==> | 4401.69 | |
| 8500.00 | 90.24 | 359.260 | 6264.88 | 4140.34N | 2003.51E | ==> | 4498.49 | |
| 8600.00 | 90.24 | 359.260 | 6264.47 | 4240.33N | 2002.22E | ==> | 4595.29 | |
| 8700.00 | 90.24 | 359.260 | 6264.05 | 4340.32N | 2000.94E | ==> | 4692.10 | |
| 8800.00 | 90.24 | 359.260 | 6263.64 | 4440.31N | 1999.65E | ==> | 4788.90 | |
| 8900.00 | 90.24 | 359.260 | 6263.22 | 4540.30N | 1998.36E | ==> | 4885.70 | |
| 9000.00 | 90.24 | 359.260 | 6262.80 | 4640.29N | 1997.07E | ==> | 4982.51 | |
| 9100.00 | 90.24 | 359.260 | 6262.39 | 4740.28N | 1995.78E | ==> | 5079.31 | |
| 9200.00 | 90.24 | 359.260 | 6261.97 | 4840.28N | 1994.49E | ==> | 5176.11 | |
| 9300.00 | 90.24 | 359.260 | 6261.56 | 4940.27N | 1993.20E | ==> | 5272.92 | |
| 9400.00 | 90.24 | 359.260 | 6261.14 | 5040.26N | 1991.91E | ==> | 5369.72 | |
| 9500.00 | 90.24 | 359.260 | 6260.73 | 5140.25N | 1990.63E | ==> | 5466.52 | |
| 9600.00 | 90.24 | 359.260 | 6260.31 | 5240.24N | 1989.34E | ==> | 5563.33 | |
| 9700.00 | 90.24 | 359.260 | 6259.90 | 5340.23N | 1988.05E | ==> | 5660.13 | |

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Coordinates are from Slot MD's are from Rig and TVD's are from Rig (Planned Datum #1 4571.0ft above Mean Sea Level)
Vertical Section is from 0.00N 0.00E on azimuth 13.790 degrees
Bottom hole distance is 8201.08 Feet on azimuth 13.79 degrees from Wellhead
Calculation method uses Minimum Curvature method
Prepared by Integrated Petroleum Technologies, Inc.
Date Printed: 29-Sep-2015



SYSDRILL
Well Design Combined Report
Wellbore: FLAHERTY 18-7-10NBH (PWB)

| Interpolated Wellpath | | | | | | | | |
|-----------------------|----------|----------|---------|-----------|----------|-----------------------|-------------------------|--------------------------|
| MD[ft] | Inc[deg] | Azi[deg] | TVD[ft] | North[ft] | East[ft] | Dogleg [deg/100ft] | Vertical Section[ft] | All Station Comments |
| 9800.00 | 90.24 | 359.260 | 6259.48 | 5440.22N | 1986.76E | ==> | 5756.93 | |
| 9900.00 | 90.24 | 359.260 | 6259.07 | 5540.21N | 1985.47E | ==> | 5853.74 | |
| 10000.00 | 90.24 | 359.260 | 6258.65 | 5640.20N | 1984.18E | ==> | 5950.54 | |
| 10100.00 | 90.24 | 359.260 | 6258.24 | 5740.19N | 1982.89E | ==> | 6047.34 | |
| 10200.00 | 90.24 | 359.260 | 6257.82 | 5840.18N | 1981.61E | ==> | 6144.15 | |
| 10300.00 | 90.24 | 359.260 | 6257.41 | 5940.17N | 1980.32E | ==> | 6240.95 | |
| 10400.00 | 90.24 | 359.260 | 6256.99 | 6040.17N | 1979.03E | ==> | 6337.76 | |
| 10500.00 | 90.24 | 359.260 | 6256.58 | 6140.16N | 1977.74E | ==> | 6434.56 | |
| 10600.00 | 90.24 | 359.260 | 6256.16 | 6240.15N | 1976.45E | ==> | 6531.36 | |
| 10700.00 | 90.24 | 359.260 | 6255.75 | 6340.14N | 1975.16E | ==> | 6628.17 | |
| 10800.00 | 90.24 | 359.260 | 6255.33 | 6440.13N | 1973.87E | ==> | 6724.97 | |
| 10900.00 | 90.24 | 359.260 | 6254.92 | 6540.12N | 1972.59E | ==> | 6821.77 | |
| 11000.00 | 90.24 | 359.260 | 6254.50 | 6640.11N | 1971.30E | ==> | 6918.58 | |
| 11100.00 | 90.24 | 359.260 | 6254.09 | 6740.10N | 1970.01E | ==> | 7015.38 | |
| 11200.00 | 90.24 | 359.260 | 6253.67 | 6840.09N | 1968.72E | ==> | 7112.18 | |
| 11300.00 | 90.24 | 359.260 | 6253.26 | 6940.08N | 1967.43E | ==> | 7208.99 | |
| 11400.00 | 90.24 | 359.260 | 6252.84 | 7040.07N | 1966.14E | ==> | 7305.79 | |
| 11500.00 | 90.24 | 359.260 | 6252.42 | 7140.06N | 1964.85E | ==> | 7402.59 | |
| 11600.00 | 90.24 | 359.260 | 6252.01 | 7240.06N | 1963.56E | ==> | 7499.40 | |
| 11700.00 | 90.24 | 359.260 | 6251.59 | 7340.05N | 1962.28E | ==> | 7596.20 | |
| 11800.00 | 90.24 | 359.260 | 6251.18 | 7440.04N | 1960.99E | ==> | 7693.00 | |
| 11900.00 | 90.24 | 359.260 | 6250.76 | 7540.03N | 1959.70E | ==> | 7789.81 | |
| 12000.00 | 90.24 | 359.260 | 6250.35 | 7640.02N | 1958.41E | ==> | 7886.61 | |
| 12100.00 | 90.24 | 359.260 | 6249.93 | 7740.01N | 1957.12E | ==> | 7983.41 | |
| 12200.00 | 90.24 | 359.260 | 6249.52 | 7840.00N | 1955.83E | ==> | 8080.22 | |
| 12300.00 | 90.24 | 359.260 | 6249.10 | 7939.99N | 1954.54E | ==> | 8177.02 | |
| 12324.85 | 90.24 | 359.260 | 6249.00 | 7964.84N | 1954.22E | ==> | 8201.08 | 4 1/2in Production Liner |

All data is in Feet unless otherwise stated
Coordinates are from Slot MD's are from Rig and TVD's are from Rig (Planned Datum #1 4571.0ft above Mean Sea Level)
Vertical Section is from 0.00N 0.00E on azimuth 13.790 degrees
Bottom hole distance is 8201.08 Feet on azimuth 13.79 degrees from Wellhead
Calculation method uses Minimum Curvature method
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