

Actual Wellpath Report

Caddell #2

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REFERENCE WELLPATH IDENTIFICATION

| | | | |
|----------|--------------------|----------|--|
| Operator | TABULA RASA ENERGY | Slot | SLOT#01 CADDELL #2(1349'FSL & 1306'FEL,SEC.04) |
| Area | COLORADO | Well | CADDELL #2 |
| Field | HUERFANO COUNTY | Wellbore | Caddell #2 |
| Facility | SEC.04-T29S-R69W | | |

REPORT SETUP INFORMATION

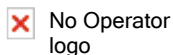
| | | | |
|---------------------|---|----------------------|--------------------------------|
| Projection System | NAD83 / Lambert Colorado SP, Southern Zone (503), US feet | Software System | WellArchitect® 4.0.0 |
| North Reference | True | User | Bolgjoe |
| Scale | 0.999957 | Report Generated | 14/Dec/2013 at 18:23 |
| Convergence at slot | n/a | Database/Source file | WellArchitectDB/Caddell_#2.xml |

WELLPATH LOCATION

| | Local coordinates | | Grid coordinates | | Geographic coordinates | |
|-----------------------|-------------------|----------|------------------|-----------------|------------------------|-----------------|
| | North[ft] | East[ft] | Easting[US ft] | Northing[US ft] | Latitude | Longitude |
| Slot Location | 0.00 | 0.00 | 3112455.88 | 1322536.44 | 37°33'06.574"N | 105°06'43.492"W |
| Facility Reference Pt | | | 3112455.88 | 1322536.44 | 37°33'06.574"N | 105°06'43.492"W |
| Field Reference Pt | | | 3112455.88 | 1322536.44 | 37°33'06.574"N | 105°06'43.492"W |

WELLPATH DATUM

| | | | |
|--------------------------|-------------------|--|-------------------|
| Calculation method | Minimum curvature | RIG (RKB) to Facility Vertical Datum | 7847.00ft |
| Horizontal Reference Pt | Slot | RIG (RKB) to Mean Sea Level | 7847.00ft |
| Vertical Reference Pt | RIG (RKB) | RIG (RKB) to Mud Line at Slot (SLOT#01 CADDELL #2(1349'FSL & 1306'FEL,SEC.04)) | 7847.00ft |
| MD Reference Pt | RIG (RKB) | Section Origin | N 0.00, E 0.00 ft |
| Field Vertical Reference | Mean Sea Level | Section Azimuth | 19.18° |



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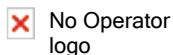
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| Area | COLORADO | Well | CADDELL #2 |
| Field | HUERFANO COUNTY | Wellbore | Caddell #2 |
| Facility | SEC.04-T29S-R69W | | |

| WELLPATH DATA (85 stations) | | | | | | | | |
|-----------------------------|--------------------|----------------|-------------|-------------------|---------------|--------------|------------------|----------|
| MD [ft] | Inclination [°] | Azimuth [°] | TVD [ft] | Vert Sect [ft] | North [ft] | East [ft] | DLS [°/100ft] | Comments |
| 0.00 | 0.000 | 35.180 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 599.00 | 4.330 | 35.180 | 598.43 | 21.75 | 18.49 | 13.03 | 0.72 | |
| 661.00 | 4.940 | 38.300 | 660.23 | 26.52 | 22.50 | 16.04 | 1.06 | |
| 722.00 | 5.570 | 38.070 | 720.97 | 31.80 | 26.89 | 19.49 | 1.03 | |
| 785.00 | 5.840 | 42.850 | 783.66 | 37.63 | 31.65 | 23.56 | 0.87 | |
| 848.00 | 6.520 | 38.840 | 846.29 | 43.93 | 36.78 | 27.98 | 1.28 | |
| 911.00 | 7.010 | 31.880 | 908.85 | 51.05 | 42.83 | 32.25 | 1.51 | |
| 974.00 | 7.490 | 31.890 | 971.35 | 58.81 | 49.59 | 36.45 | 0.76 | |
| 1037.00 | 7.110 | 30.040 | 1033.84 | 66.64 | 56.45 | 40.57 | 0.71 | |
| 1100.00 | 5.880 | 12.860 | 1096.44 | 73.68 | 62.97 | 43.24 | 3.63 | |
| 1163.00 | 5.650 | 0.070 | 1159.12 | 79.82 | 69.22 | 43.97 | 2.07 | |
| 1226.00 | 5.750 | 359.980 | 1221.81 | 85.73 | 75.47 | 43.97 | 0.16 | |
| 1290.00 | 6.120 | 6.060 | 1285.47 | 92.08 | 82.07 | 44.33 | 1.14 | |
| 1352.00 | 6.250 | 12.000 | 1347.11 | 98.65 | 88.66 | 45.38 | 1.05 | |
| 1415.00 | 6.200 | 11.630 | 1409.74 | 105.42 | 95.35 | 46.78 | 0.10 | |
| 1478.00 | 6.510 | 21.330 | 1472.35 | 112.36 | 102.01 | 48.76 | 1.77 | |
| 1604.00 | 7.580 | 33.180 | 1597.41 | 127.57 | 115.62 | 55.91 | 1.43 | |
| 1667.00 | 7.950 | 34.730 | 1659.83 | 135.79 | 122.67 | 60.66 | 0.67 | |
| 1730.00 | 7.730 | 35.370 | 1722.24 | 144.06 | 129.71 | 65.60 | 0.38 | |
| 1792.00 | 8.290 | 35.100 | 1783.64 | 152.36 | 136.77 | 70.58 | 0.91 | |
| 1855.00 | 8.300 | 28.320 | 1845.98 | 161.22 | 144.49 | 75.35 | 1.55 | |
| 1917.00 | 6.750 | 20.030 | 1907.44 | 169.28 | 151.85 | 78.72 | 3.05 | |
| 1979.00 | 6.660 | 15.800 | 1969.02 | 176.51 | 158.73 | 80.95 | 0.81 | |
| 2041.00 | 6.970 | 15.500 | 2030.58 | 183.86 | 165.82 | 82.93 | 0.50 | |
| 2104.00 | 7.340 | 19.240 | 2093.09 | 191.70 | 173.30 | 85.28 | 0.94 | |
| 2164.00 | 6.980 | 21.110 | 2152.62 | 199.17 | 180.32 | 87.86 | 0.71 | |
| 2227.00 | 7.570 | 21.100 | 2215.12 | 207.15 | 187.76 | 90.73 | 0.94 | |
| 2290.00 | 8.020 | 23.470 | 2277.53 | 215.68 | 195.66 | 93.97 | 0.88 | |
| 2353.00 | 6.710 | 22.410 | 2340.01 | 223.73 | 203.10 | 97.13 | 2.09 | |
| 2416.00 | 6.180 | 13.990 | 2402.62 | 230.79 | 209.79 | 99.35 | 1.72 | |
| 2478.00 | 7.260 | 15.230 | 2464.19 | 238.02 | 216.81 | 101.19 | 1.76 | |
| 2540.00 | 8.090 | 17.320 | 2525.63 | 246.29 | 224.75 | 103.52 | 1.41 | |
| 2603.00 | 8.250 | 20.770 | 2587.99 | 255.24 | 233.21 | 106.44 | 0.82 | |
| 2665.00 | 8.010 | 23.910 | 2649.37 | 263.99 | 241.32 | 109.77 | 0.81 | |
| 2728.00 | 6.270 | 21.140 | 2711.88 | 271.80 | 248.54 | 112.79 | 2.81 | |
| 2790.00 | 6.120 | 25.400 | 2773.52 | 278.47 | 254.69 | 115.42 | 0.78 | |
| 2853.00 | 7.170 | 32.890 | 2836.10 | 285.63 | 261.02 | 119.00 | 2.16 | |
| 2916.00 | 8.930 | 39.410 | 2898.47 | 294.04 | 268.10 | 124.24 | 3.14 | |
| 2977.00 | 10.400 | 39.440 | 2958.61 | 303.64 | 276.01 | 130.74 | 2.41 | |
| 3040.00 | 10.670 | 39.390 | 3020.54 | 314.45 | 284.91 | 138.06 | 0.43 | |
| 3102.00 | 11.220 | 36.340 | 3081.42 | 325.60 | 294.21 | 145.27 | 1.29 | |
| 3165.00 | 10.720 | 33.400 | 3143.27 | 337.14 | 304.04 | 152.13 | 1.19 | |
| 3227.00 | 8.650 | 25.570 | 3204.38 | 347.36 | 313.06 | 157.32 | 3.95 | |
| 3289.00 | 8.740 | 25.070 | 3265.67 | 356.68 | 321.53 | 161.33 | 0.19 | |
| 3352.00 | 7.590 | 18.130 | 3328.03 | 365.60 | 329.82 | 164.65 | 2.40 | |



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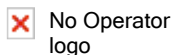


REFERENCE WELLPATH IDENTIFICATION

| | | | |
|----------|--------------------|----------|--|
| Operator | TABULA RASA ENERGY | Slot | SLOT#01 CADDELL #2(1349'FSL & 1306'FEL,SEC.04) |
| Area | COLORADO | Well | CADDELL #2 |
| Field | HUERFANO COUNTY | Wellbore | Caddell #2 |
| Facility | SEC.04-T29S-R69W | | |

WELLPATH DATA (85 stations)

| MD [ft] | Inclination [°] | Azimuth [°] | TVD [ft] | Vert Sect [ft] | North [ft] | East [ft] | DLS [°/100ft] | Comments |
|------------|--------------------|----------------|-------------|-------------------|---------------|--------------|------------------|----------------------------------|
| 3414.00 | 8.050 | 0.740 | 3389.46 | 373.82 | 338.05 | 165.98 | 3.87 | |
| 3478.00 | 7.770 | 351.030 | 3452.86 | 381.88 | 346.81 | 165.36 | 2.13 | |
| 3541.00 | 6.030 | 7.010 | 3515.40 | 388.87 | 354.30 | 165.10 | 4.09 | |
| 3604.00 | 5.750 | 18.830 | 3578.07 | 395.26 | 360.57 | 166.53 | 1.97 | |
| 3667.00 | 6.280 | 13.710 | 3640.73 | 401.85 | 366.91 | 168.36 | 1.20 | |
| 3730.00 | 5.450 | 6.920 | 3703.40 | 408.20 | 373.22 | 169.54 | 1.71 | |
| 3793.00 | 6.110 | 356.080 | 3766.08 | 414.21 | 379.54 | 169.67 | 2.02 | |
| 3856.00 | 6.950 | 0.550 | 3828.67 | 420.91 | 386.69 | 169.48 | 1.56 | |
| 3919.00 | 7.290 | 351.370 | 3891.19 | 428.06 | 394.46 | 168.91 | 1.88 | |
| 3982.00 | 5.950 | 352.400 | 3953.76 | 434.51 | 401.65 | 167.88 | 2.14 | |
| 4044.00 | 4.460 | 347.880 | 4015.51 | 439.44 | 407.19 | 166.95 | 2.49 | |
| 4107.00 | 4.520 | 358.050 | 4078.31 | 443.84 | 412.07 | 166.35 | 1.27 | |
| 4169.00 | 5.230 | 8.410 | 4140.09 | 448.90 | 417.30 | 166.68 | 1.82 | |
| 4294.00 | 5.440 | 14.550 | 4264.55 | 460.40 | 428.67 | 169.00 | 0.49 | |
| 4357.00 | 5.650 | 16.560 | 4327.26 | 466.48 | 434.54 | 170.64 | 0.45 | |
| 4420.00 | 5.960 | 19.630 | 4389.93 | 472.85 | 440.59 | 172.62 | 0.70 | |
| 4483.00 | 6.030 | 26.430 | 4452.59 | 479.40 | 446.63 | 175.19 | 1.13 | |
| 4545.00 | 5.520 | 29.640 | 4514.27 | 485.56 | 452.14 | 178.12 | 0.97 | |
| 4608.00 | 4.340 | 21.700 | 4577.04 | 490.92 | 456.99 | 180.50 | 2.16 | |
| 4671.00 | 4.070 | 3.960 | 4639.87 | 495.46 | 461.44 | 181.53 | 2.10 | |
| 4734.00 | 3.750 | 357.600 | 4702.73 | 499.54 | 465.72 | 181.60 | 0.85 | |
| 4796.00 | 4.080 | 358.930 | 4764.58 | 503.49 | 469.96 | 181.48 | 0.55 | |
| 4859.00 | 4.180 | 357.310 | 4827.42 | 507.72 | 474.49 | 181.33 | 0.24 | |
| 4985.00 | 4.340 | 359.900 | 4953.07 | 516.49 | 483.84 | 181.10 | 0.20 | |
| 5048.00 | 4.800 | 14.840 | 5015.87 | 521.36 | 488.78 | 181.77 | 2.02 | |
| 5110.00 | 5.690 | 25.370 | 5077.61 | 527.01 | 494.06 | 183.75 | 2.11 | |
| 5173.00 | 5.780 | 31.250 | 5140.30 | 533.21 | 499.60 | 186.74 | 0.94 | |
| 5236.00 | 4.990 | 34.880 | 5203.02 | 538.95 | 504.56 | 189.95 | 1.36 | |
| 5298.00 | 4.260 | 27.880 | 5264.82 | 543.83 | 508.80 | 192.57 | 1.49 | |
| 5360.00 | 4.090 | 24.870 | 5326.65 | 548.30 | 512.84 | 194.58 | 0.45 | |
| 5423.00 | 4.360 | 21.810 | 5389.48 | 552.93 | 517.11 | 196.41 | 0.56 | |
| 5485.00 | 4.310 | 11.040 | 5451.31 | 557.59 | 521.58 | 197.73 | 1.31 | |
| 5559.00 | 4.440 | 23.010 | 5525.09 | 563.20 | 526.95 | 199.38 | 1.24 | |
| 5621.00 | 4.490 | 24.750 | 5586.91 | 568.01 | 531.36 | 201.34 | 0.23 | |
| 5684.00 | 5.100 | 26.230 | 5649.68 | 573.24 | 536.11 | 203.61 | 0.99 | |
| 5748.00 | 5.210 | 29.320 | 5713.43 | 578.93 | 541.20 | 206.29 | 0.47 | |
| 5811.00 | 5.480 | 31.690 | 5776.15 | 584.68 | 546.25 | 209.27 | 0.55 | |
| 5874.00 | 5.620 | 34.350 | 5838.86 | 590.59 | 551.36 | 212.59 | 0.46 | |
| 5933.00 | 5.800 | 37.680 | 5897.56 | 596.21 | 556.10 | 216.04 | 0.64 | |
| 5955.00 | 5.800 | 37.680 | 5919.45 | 598.32 | 557.86 | 217.40 | 0.00 | Data @ 5955' is projection to TD |



Actual Wellpath Report

Caddell #2

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| REFERENCE WELLPATH IDENTIFICATION | | | |
|-----------------------------------|--------------------|----------|--|
| Operator | TABULA RASA ENERGY | Slot | SLOT#01 CADDELL #2(1349'FSL & 1306'FEL,SEC.04) |
| Area | COLORADO | Well | CADDELL #2 |
| Field | HUERFANO COUNTY | Wellbore | Caddell #2 |
| Facility | SEC.04-T29S-R69W | | |

| TARGETS | | | | | | | | | |
|--|------------|-------------|---------------|--------------|----------------------|-----------------------|----------------|-----------------|---------|
| Name | MD [ft] | TVD [ft] | North [ft] | East [ft] | Grid East [US ft] | Grid North [US ft] | Latitude | Longitude | Shape |
| CADDELL #2 SECTION 04 | | 0.00 | 0.00 | 0.00 | 3112455.88 | 1322536.44 | 37°33'06.574"N | 105°06'43.492"W | polygon |
| CADDELL BOUNDARY | | 0.00 | 0.00 | 0.00 | 3112455.88 | 1322536.44 | 37°33'06.574"N | 105°06'43.492"W | polygon |
| EX.CADDELL #1 | | 0.00 | -55.02 | 60.64 | 3112516.75 | 1322481.67 | 37°33'06.030"N | 105°06'42.739"W | circle |
| EX.STAUDER #1 | | 0.00 | 1258.08 | -319.69 | 3112130.99 | 1323793.13 | 37°33'19.012"N | 105°06'47.462"W | circle |
| EX.STAUDER #2 | | 0.00 | 1193.55 | -251.57 | 3112199.38 | 1323728.88 | 37°33'18.374"N | 105°06'46.616"W | circle |
| CADDELL #2 BHL REV-1 (1924'FSL & 1106'FEL,SEC.04) | | 5920.00 | 575.00 | 200.00 | 3112653.49 | 1323112.24 | 37°33'12.259"N | 105°06'41.008"W | circle |

| WELLPATH COMPOSITION - Ref Wellbore: Caddell #2 Ref Wellpath: Caddell #2 | | | | |
|---|----------------|------------------------------|------------------|------------|
| Start MD [ft] | End MD [ft] | Positional Uncertainty Model | Log Name/Comment | Wellbore |
| 0.00 | 5955.00 | NaviTrak (Standard) | Caddell #2 BHI | Caddell #2 |

| SURVEY LOG COMMENTS | | | | |
|---------------------|--------------------|----------------|-------------|----------------------------------|
| MD [ft] | Inclination [°] | Azimuth [°] | TVD [ft] | Comment |
| 5955.00 | 5.800 | 37.680 | 5919.45 | Data @ 5955' is projection to TD |