

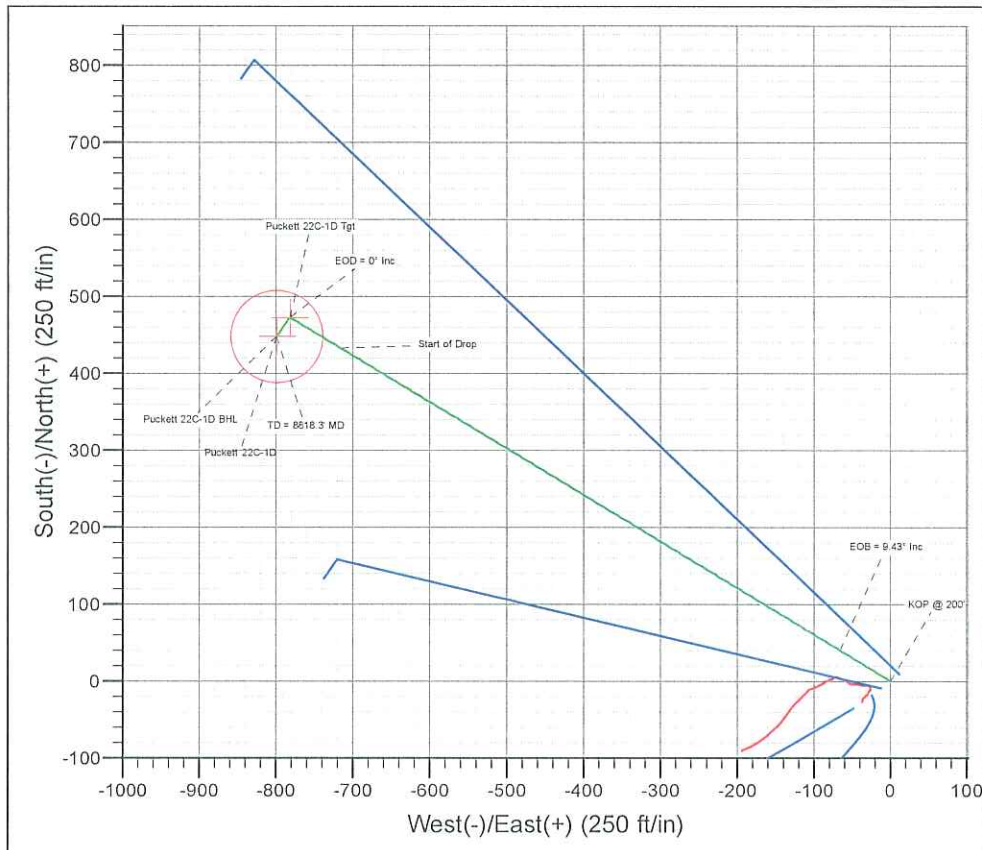
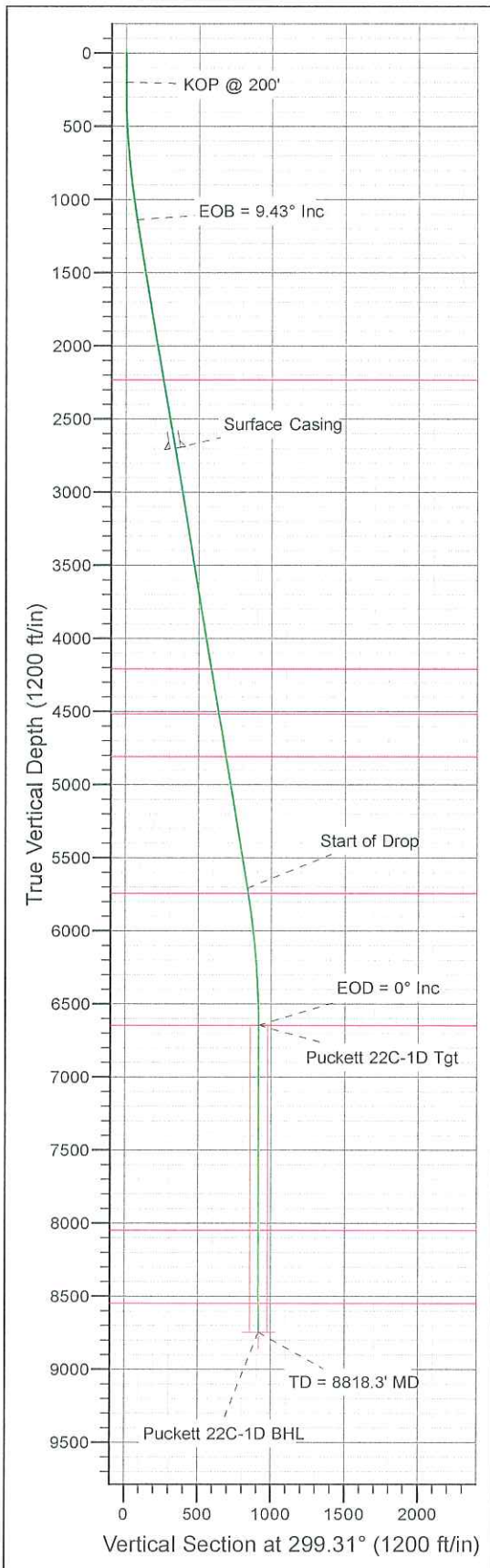
Project: Mesa
 Site: SENW Sec 1-T7S-R97W
 Well: Puckett 22C-1D
 Wellbore: DD
 Design: Plan #2



Azimuths to True North
 Magnetic North: 10.55°
 Magnetic Field
 Strength: 52296.6snT
 Dip Angle: 65.72°
 Date: 2010/05/21
 Model: IGRF2010-14

WELL DETAILS: Puckett 22C-1D

+N/-S 0.0 +E/-W 0.0 Northing 1608863.45 Ground Level: 8218.0
 Easting 2246544.73 Latitude 39.474711 Longitude -108.169506 Slot



ANNOTATIONS

| TVD | MD | Annotation |
|--------|--------|-----------------|
| 200.0 | 200.0 | KOP @ 200' |
| 1138.6 | 1142.9 | EOB = 9.43° Inc |
| 5708.4 | 5775.2 | Start of Drop |
| 6647.0 | 6718.1 | EOD = 0° Inc |
| 8747.0 | 8818.3 | TD = 8818.3' MD |

FORMATION TOP DETAILS

| TVDPATH | MDPATH | FORMATION |
|---------|--------|-----------------------|
| 2232.0 | 2251.2 | Wasatch |
| 4207.0 | 4253.3 | Wasatch "G" Sand |
| 4517.0 | 4567.5 | Fort Union |
| 4807.0 | 4861.5 | Base Fort Union |
| 5742.0 | 5809.3 | Mesaverde/Williams Fk |
| 6647.0 | 6718.1 | Top Gas Cell |
| 8047.0 | 8118.2 | Cameo |
| 8547.0 | 8618.3 | Rollins |

ON DETAILS

| Sec | MD | Inc | Azi | TVD | +N/-S | +E/-W | DLeg | TFace | VSec | Target |
|-----|--------|------|--------|--------|-------|--------|------|--------|-------|--------------------|
| 1 | 0.0 | 0.00 | 0.00 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.0 | |
| 2 | 200.0 | 0.00 | 0.00 | 200.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.0 | |
| 3 | 1142.9 | 9.43 | 301.18 | 1138.6 | 40.1 | -66.2 | 1.00 | 301.18 | 77.4 | |
| 4 | 5775.2 | 9.43 | 301.18 | 5708.4 | 432.9 | -715.5 | 0.00 | 0.00 | 835.8 | |
| 5 | 6718.1 | 0.00 | 0.00 | 6647.0 | 473.0 | -781.7 | 1.00 | 180.00 | 913.2 | Puckett 22C-1D Tgt |
| 6 | 7075.9 | 0.89 | 214.89 | 7004.8 | 470.7 | -783.3 | 0.25 | 214.89 | 913.4 | |
| 7 | 8818.3 | 0.89 | 214.89 | 8747.0 | 448.4 | -798.9 | 0.00 | 0.00 | 916.1 | Puckett 22C-1D BHL |

WELLBORE TARGET DETAILS (LAT/LONG)

| Name | TVD | +N/-S | +E/-W | Latitude | Longitude | Shape |
|--------------------|--------|-------|--------|-----------|-------------|-----------------------|
| Puckett 22C-1D Tgt | 6647.0 | 473.0 | -781.7 | 39.476010 | -108.172275 | Point |
| Puckett 22C-1D BHL | 8747.0 | 448.4 | -798.9 | 39.475942 | -108.172336 | Circle (Radius: 60.0) |

CASING DETAILS

| TVD | MD | Name | Size |
|--------|--------|----------------|------|
| 2700.0 | 2725.6 | Surface Casing | |

Plan: Plan #2 (Puckett 22C-1D/DD)

Created By: Jon Schweigert Date: 9:29, June 22 2010
 Checked: _____ Date: _____
 Reviewed: _____ Date: _____
 Approved: _____ Date: _____





| | | | |
|-----------|-----------------------------|------------------------------|---|
| Database: | RMR1 Database | Local Co-ordinate Reference: | Well Puckett 22C-1D |
| Company: | Petroleum Development Corp. | TVD Reference: | Puckett 22C-1D KBE @ 8242.0ft (H&P 318) |
| Project: | Mesa | MD Reference: | Puckett 22C-1D KBE @ 8242.0ft (H&P 318) |
| Site: | SENW Sec 1-T7S-R97W | North Reference: | True |
| Well: | Puckett 22C-1D | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | DD | | |
| Design: | Plan #2 | | |

| | | | |
|-------------|---------------------------|---------------|----------------|
| Project | Mesa | | |
| Map System: | US State Plane 1983 | System Datum: | Mean Sea Level |
| Geo Datum: | North American Datum 1983 | | |
| Map Zone: | Colorado Central Zone | | |

| | | | | | |
|-----------------------|---------------------|--------------|-----------------|-------------------|-------------|
| Site | SENW Sec 1-T7S-R97W | | | | |
| Site Position: | | Northing: | 1,608,829.52 ft | Latitude: | 39.474614 |
| From: | Lat/Long | Easting: | 2,246,495.22 ft | Longitude: | -108.169678 |
| Position Uncertainty: | 0.0 ft | Slot Radius: | | Grid Convergence: | -1.68 ° |

| | | | | | | |
|----------------------|----------------|---------|---------------------|-----------------|---------------|-------------|
| Well | Puckett 22C-1D | | | | | |
| Well Position | +N/-S | 35.4 ft | Northing: | 1,608,863.44 ft | Latitude: | 39.474711 |
| | +E/-W | 48.5 ft | Easting: | 2,246,544.73 ft | Longitude: | -108.169506 |
| Position Uncertainty | | 0.0 ft | Wellhead Elevation: | | Ground Level: | 8,218.0 ft |

| | | | | | |
|-----------|-------------|-------------|-----------------|---------------|---------------------|
| Wellbore | DD | | | | |
| Magnetics | Model Name | Sample Date | Declination (°) | Dip Angle (°) | Field Strength (nT) |
| | IGRF2010-14 | 2010/06/21 | 10.55 | 65.72 | 52,297 |

| | | | | |
|-------------------|-----------------------|------------|---------------|---------------|
| Design | Plan #2 | | | |
| Audit Notes: | | | | |
| Version: | Phase: | PROTOTYPE | Tie On Depth: | 0.0 |
| Vertical Section: | Depth From (TVD) (ft) | +N/-S (ft) | +E/-W (ft) | Direction (°) |
| | 0.0 | 0.0 | 0.0 | 299.31 |

| Plan Sections | | | | | | | | | | |
|---------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|----------------------|---------------------|---------|--------------------|
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) | TFO (°) | Target |
| 0.0 | 0.00 | 0.00 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 200.0 | 0.00 | 0.00 | 200.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 1,142.9 | 9.43 | 301.18 | 1,138.6 | 40.1 | -66.2 | 1.00 | 1.00 | 0.00 | 301.18 | |
| 5,775.2 | 9.43 | 301.18 | 5,708.4 | 432.9 | -715.5 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 6,718.1 | 0.00 | 0.00 | 6,647.0 | 473.0 | -781.7 | 1.00 | -1.00 | 0.00 | 180.00 | Puckett 22C-1D Tgt |
| 7,075.9 | 0.89 | 214.89 | 7,004.8 | 470.7 | -783.3 | 0.25 | 0.25 | -40.56 | 214.89 | |
| 8,818.3 | 0.89 | 214.89 | 8,747.0 | 448.4 | -798.9 | 0.00 | 0.00 | 0.00 | 0.00 | Puckett 22C-1D BHL |

| | | | |
|-----------|-----------------------------|------------------------------|---|
| Database: | RMR1 Database | Local Co-ordinate Reference: | Well Puckett 22C-1D |
| Company: | Petroleum Development Corp. | TVD Reference: | Puckett 22C-1D KBE @ 8242.0ft (H&P 318) |
| Project: | Mesa | MD Reference: | Puckett 22C-1D KBE @ 8242.0ft (H&P 318) |
| Site: | SENW Sec 1-T7S-R97W | North Reference: | True |
| Well: | Puckett 22C-1D | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | DD | | |
| Design: | Plan #2 | | |

| Planned Survey | | | | | | | | | | | |
|-------------------------|-----------------|-------------|---------------------|-------------------|------------|------------|-----------------------|-----------------------|----------------------|---------------------|--|
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | Subsea Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) | |
| 0.0 | 0.00 | 0.00 | 0.0 | -8,242.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | |
| 100.0 | 0.00 | 0.00 | 100.0 | -8,142.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | |
| KOP @ 200' | | | | | | | | | | | |
| 200.0 | 0.00 | 0.00 | 200.0 | -8,042.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | |
| 300.0 | 1.00 | 301.18 | 300.0 | -7,942.0 | 0.5 | -0.7 | 0.9 | 1.00 | 1.00 | 0.00 | |
| 400.0 | 2.00 | 301.18 | 400.0 | -7,842.0 | 1.8 | -3.0 | 3.5 | 1.00 | 1.00 | 0.00 | |
| 500.0 | 3.00 | 301.18 | 499.9 | -7,742.1 | 4.1 | -6.7 | 7.8 | 1.00 | 1.00 | 0.00 | |
| 600.0 | 4.00 | 301.18 | 599.7 | -7,642.3 | 7.2 | -11.9 | 13.9 | 1.00 | 1.00 | 0.00 | |
| 700.0 | 5.00 | 301.18 | 699.4 | -7,542.6 | 11.3 | -18.7 | 21.8 | 1.00 | 1.00 | 0.00 | |
| 800.0 | 6.00 | 301.18 | 798.9 | -7,443.1 | 16.2 | -26.9 | 31.4 | 1.00 | 1.00 | 0.00 | |
| 900.0 | 7.00 | 301.18 | 898.3 | -7,343.7 | 22.1 | -36.5 | 42.7 | 1.00 | 1.00 | 0.00 | |
| 1,000.0 | 8.00 | 301.18 | 997.4 | -7,244.6 | 28.9 | -47.7 | 55.7 | 1.00 | 1.00 | 0.00 | |
| 1,100.0 | 9.00 | 301.18 | 1,096.3 | -7,145.7 | 36.5 | -60.4 | 70.5 | 1.00 | 1.00 | 0.00 | |
| EOB = 9.43° Inc | | | | | | | | | | | |
| 1,142.9 | 9.43 | 301.18 | 1,138.6 | -7,103.4 | 40.1 | -66.2 | 77.4 | 1.00 | 1.00 | 0.00 | |
| 1,200.0 | 9.43 | 301.18 | 1,195.0 | -7,047.0 | 44.9 | -74.2 | 86.7 | 0.00 | 0.00 | 0.00 | |
| 1,300.0 | 9.43 | 301.18 | 1,293.6 | -6,948.4 | 53.4 | -88.2 | 103.1 | 0.00 | 0.00 | 0.00 | |
| 1,400.0 | 9.43 | 301.18 | 1,392.3 | -6,849.7 | 61.9 | -102.3 | 119.5 | 0.00 | 0.00 | 0.00 | |
| 1,500.0 | 9.43 | 301.18 | 1,490.9 | -6,751.1 | 70.4 | -116.3 | 135.8 | 0.00 | 0.00 | 0.00 | |
| 1,600.0 | 9.43 | 301.18 | 1,589.6 | -6,652.4 | 78.8 | -130.3 | 152.2 | 0.00 | 0.00 | 0.00 | |
| 1,700.0 | 9.43 | 301.18 | 1,688.2 | -6,553.8 | 87.3 | -144.3 | 168.6 | 0.00 | 0.00 | 0.00 | |
| 1,800.0 | 9.43 | 301.18 | 1,786.9 | -6,455.1 | 95.8 | -158.3 | 185.0 | 0.00 | 0.00 | 0.00 | |
| 1,900.0 | 9.43 | 301.18 | 1,885.5 | -6,356.5 | 104.3 | -172.3 | 201.3 | 0.00 | 0.00 | 0.00 | |
| 2,000.0 | 9.43 | 301.18 | 1,984.2 | -6,257.8 | 112.8 | -186.4 | 217.7 | 0.00 | 0.00 | 0.00 | |
| 2,100.0 | 9.43 | 301.18 | 2,082.8 | -6,159.2 | 121.2 | -200.4 | 234.1 | 0.00 | 0.00 | 0.00 | |
| 2,200.0 | 9.43 | 301.18 | 2,181.5 | -6,060.5 | 129.7 | -214.4 | 250.4 | 0.00 | 0.00 | 0.00 | |
| Wasatch | | | | | | | | | | | |
| 2,251.2 | 9.43 | 301.18 | 2,232.0 | -6,010.0 | 134.1 | -221.6 | 258.8 | 0.00 | 0.00 | 0.00 | |
| 2,300.0 | 9.43 | 301.18 | 2,280.1 | -5,961.9 | 138.2 | -228.4 | 266.8 | 0.00 | 0.00 | 0.00 | |
| 2,400.0 | 9.43 | 301.18 | 2,378.8 | -5,863.2 | 146.7 | -242.4 | 283.2 | 0.00 | 0.00 | 0.00 | |
| 2,500.0 | 9.43 | 301.18 | 2,477.4 | -5,764.6 | 155.2 | -256.4 | 299.6 | 0.00 | 0.00 | 0.00 | |
| 2,600.0 | 9.43 | 301.18 | 2,576.1 | -5,665.9 | 163.6 | -270.5 | 315.9 | 0.00 | 0.00 | 0.00 | |
| 2,700.0 | 9.43 | 301.18 | 2,674.7 | -5,567.3 | 172.1 | -284.5 | 332.3 | 0.00 | 0.00 | 0.00 | |
| Surface Casing | | | | | | | | | | | |
| 2,725.6 | 9.43 | 301.18 | 2,700.0 | -5,542.0 | 174.3 | -288.1 | 336.5 | 0.00 | 0.00 | 0.00 | |
| 2,800.0 | 9.43 | 301.18 | 2,773.4 | -5,468.6 | 180.6 | -298.5 | 348.7 | 0.00 | 0.00 | 0.00 | |
| 2,900.0 | 9.43 | 301.18 | 2,872.0 | -5,370.0 | 189.1 | -312.5 | 365.1 | 0.00 | 0.00 | 0.00 | |
| 3,000.0 | 9.43 | 301.18 | 2,970.7 | -5,271.3 | 197.6 | -326.5 | 381.4 | 0.00 | 0.00 | 0.00 | |
| 3,100.0 | 9.43 | 301.18 | 3,069.3 | -5,172.7 | 206.1 | -340.5 | 397.8 | 0.00 | 0.00 | 0.00 | |
| 3,200.0 | 9.43 | 301.18 | 3,168.0 | -5,074.0 | 214.5 | -354.5 | 414.2 | 0.00 | 0.00 | 0.00 | |
| 3,300.0 | 9.43 | 301.18 | 3,266.6 | -4,975.4 | 223.0 | -368.6 | 430.5 | 0.00 | 0.00 | 0.00 | |
| 3,400.0 | 9.43 | 301.18 | 3,365.3 | -4,876.7 | 231.5 | -382.6 | 446.9 | 0.00 | 0.00 | 0.00 | |
| 3,500.0 | 9.43 | 301.18 | 3,463.9 | -4,778.1 | 240.0 | -396.6 | 463.3 | 0.00 | 0.00 | 0.00 | |
| 3,600.0 | 9.43 | 301.18 | 3,562.6 | -4,679.4 | 248.5 | -410.6 | 479.7 | 0.00 | 0.00 | 0.00 | |
| 3,700.0 | 9.43 | 301.18 | 3,661.2 | -4,580.8 | 256.9 | -424.6 | 496.0 | 0.00 | 0.00 | 0.00 | |
| 3,800.0 | 9.43 | 301.18 | 3,759.9 | -4,482.1 | 265.4 | -438.6 | 512.4 | 0.00 | 0.00 | 0.00 | |
| 3,900.0 | 9.43 | 301.18 | 3,858.5 | -4,383.5 | 273.9 | -452.7 | 528.8 | 0.00 | 0.00 | 0.00 | |
| 4,000.0 | 9.43 | 301.18 | 3,957.2 | -4,284.8 | 282.4 | -466.7 | 545.2 | 0.00 | 0.00 | 0.00 | |
| 4,100.0 | 9.43 | 301.18 | 4,055.8 | -4,186.2 | 290.9 | -480.7 | 561.5 | 0.00 | 0.00 | 0.00 | |
| 4,200.0 | 9.43 | 301.18 | 4,154.5 | -4,087.5 | 299.3 | -494.7 | 577.9 | 0.00 | 0.00 | 0.00 | |
| Wasatch "G" Sand | | | | | | | | | | | |
| 4,253.3 | 9.43 | 301.18 | 4,207.0 | -4,035.0 | 303.9 | -502.2 | 586.6 | 0.00 | 0.00 | 0.00 | |
| 4,300.0 | 9.43 | 301.18 | 4,253.1 | -3,988.9 | 307.8 | -508.7 | 594.3 | 0.00 | 0.00 | 0.00 | |
| 4,400.0 | 9.43 | 301.18 | 4,351.7 | -3,890.3 | 316.3 | -522.7 | 610.7 | 0.00 | 0.00 | 0.00 | |

| | | | |
|-----------|-----------------------------|------------------------------|---|
| Database: | RMR1 Database | Local Co-ordinate Reference: | Well Puckett 22C-1D |
| Company: | Petroleum Development Corp. | TVD Reference: | Puckett 22C-1D KBE @ 8242.0ft (H&P 318) |
| Project: | Mesa | MD Reference: | Puckett 22C-1D KBE @ 8242.0ft (H&P 318) |
| Site: | SENW Sec 1-T7S-R97W | North Reference: | True |
| Well: | Puckett 22C-1D | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | DD | | |
| Design: | Plan #2 | | |

| Planned Survey | | | | | | | | | | | |
|---|-----------------|-------------|---------------------|-------------------|------------|------------|-----------------------|-----------------------|----------------------|---------------------|--|
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | Subsea Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) | |
| 4,500.0 | 9.43 | 301.18 | 4,450.4 | -3,791.6 | 324.8 | -536.7 | 627.0 | 0.00 | 0.00 | 0.00 | |
| Fort Union | | | | | | | | | | | |
| 4,567.5 | 9.43 | 301.18 | 4,517.0 | -3,725.0 | 330.5 | -546.2 | 638.1 | 0.00 | 0.00 | 0.00 | |
| 4,600.0 | 9.43 | 301.18 | 4,549.0 | -3,693.0 | 333.3 | -550.8 | 643.4 | 0.00 | 0.00 | 0.00 | |
| 4,700.0 | 9.43 | 301.18 | 4,647.7 | -3,594.3 | 341.7 | -564.8 | 659.8 | 0.00 | 0.00 | 0.00 | |
| 4,800.0 | 9.43 | 301.18 | 4,746.3 | -3,495.7 | 350.2 | -578.8 | 676.1 | 0.00 | 0.00 | 0.00 | |
| Base Fort Union | | | | | | | | | | | |
| 4,861.5 | 9.43 | 301.18 | 4,807.0 | -3,435.0 | 355.4 | -587.4 | 686.2 | 0.00 | 0.00 | 0.00 | |
| 4,900.0 | 9.43 | 301.18 | 4,845.0 | -3,397.0 | 358.7 | -592.8 | 692.5 | 0.00 | 0.00 | 0.00 | |
| 5,000.0 | 9.43 | 301.18 | 4,943.6 | -3,298.4 | 367.2 | -606.8 | 708.9 | 0.00 | 0.00 | 0.00 | |
| 5,100.0 | 9.43 | 301.18 | 5,042.3 | -3,199.7 | 375.7 | -620.8 | 725.3 | 0.00 | 0.00 | 0.00 | |
| 5,200.0 | 9.43 | 301.18 | 5,140.9 | -3,101.1 | 384.1 | -634.9 | 741.6 | 0.00 | 0.00 | 0.00 | |
| 5,300.0 | 9.43 | 301.18 | 5,239.6 | -3,002.4 | 392.6 | -648.9 | 758.0 | 0.00 | 0.00 | 0.00 | |
| 5,400.0 | 9.43 | 301.18 | 5,338.2 | -2,903.8 | 401.1 | -662.9 | 774.4 | 0.00 | 0.00 | 0.00 | |
| 5,500.0 | 9.43 | 301.18 | 5,436.9 | -2,805.1 | 409.6 | -676.9 | 790.8 | 0.00 | 0.00 | 0.00 | |
| 5,600.0 | 9.43 | 301.18 | 5,535.5 | -2,706.5 | 418.1 | -690.9 | 807.1 | 0.00 | 0.00 | 0.00 | |
| 5,700.0 | 9.43 | 301.18 | 5,634.2 | -2,607.8 | 426.5 | -704.9 | 823.5 | 0.00 | 0.00 | 0.00 | |
| Start of Drop | | | | | | | | | | | |
| 5,775.2 | 9.43 | 301.18 | 5,708.4 | -2,533.6 | 432.9 | -715.5 | 835.8 | 0.00 | 0.00 | 0.00 | |
| 5,800.0 | 9.18 | 301.18 | 5,732.8 | -2,509.2 | 435.0 | -718.9 | 839.8 | 1.00 | -1.00 | 0.00 | |
| Mesaverde/Williams Fk * | | | | | | | | | | | |
| 5,809.3 | 9.09 | 301.18 | 5,742.0 | -2,500.0 | 435.8 | -720.2 | 841.3 | 1.00 | -1.00 | 0.00 | |
| 5,900.0 | 8.18 | 301.18 | 5,831.7 | -2,410.3 | 442.8 | -731.8 | 854.9 | 1.00 | -1.00 | 0.00 | |
| 6,000.0 | 7.18 | 301.18 | 5,930.8 | -2,311.2 | 449.7 | -743.3 | 868.3 | 1.00 | -1.00 | 0.00 | |
| 6,100.0 | 6.18 | 301.18 | 6,030.1 | -2,211.9 | 455.8 | -753.2 | 879.9 | 1.00 | -1.00 | 0.00 | |
| 6,200.0 | 5.18 | 301.18 | 6,129.6 | -2,112.4 | 460.9 | -761.7 | 889.8 | 1.00 | -1.00 | 0.00 | |
| 6,300.0 | 4.18 | 301.18 | 6,229.3 | -2,012.7 | 465.1 | -768.7 | 897.9 | 1.00 | -1.00 | 0.00 | |
| 6,400.0 | 3.18 | 301.18 | 6,329.1 | -1,912.9 | 468.4 | -774.1 | 904.4 | 1.00 | -1.00 | 0.00 | |
| 6,500.0 | 2.18 | 301.18 | 6,429.0 | -1,813.0 | 470.9 | -778.1 | 909.0 | 1.00 | -1.00 | 0.00 | |
| 6,600.0 | 1.18 | 301.18 | 6,528.9 | -1,713.1 | 472.4 | -780.7 | 912.0 | 1.00 | -1.00 | 0.00 | |
| 6,700.0 | 0.18 | 301.18 | 6,628.9 | -1,613.1 | 473.0 | -781.7 | 913.1 | 1.00 | -1.00 | 0.00 | |
| EOD = 0° Inc - Top Gas Cell - Puckett 22C-1D Tgt | | | | | | | | | | | |
| 6,718.1 | 0.00 | 0.00 | 6,647.0 | -1,595.0 | 473.0 | -781.7 | 913.2 | 1.00 | -1.00 | 0.00 | |
| 6,800.0 | 0.20 | 214.89 | 6,728.9 | -1,513.1 | 472.9 | -781.8 | 913.2 | 0.25 | 0.25 | 0.00 | |
| 6,900.0 | 0.45 | 214.89 | 6,828.9 | -1,413.1 | 472.4 | -782.1 | 913.2 | 0.25 | 0.25 | 0.00 | |
| 7,000.0 | 0.70 | 214.89 | 6,928.9 | -1,313.1 | 471.6 | -782.7 | 913.3 | 0.25 | 0.25 | 0.00 | |
| 7,075.9 | 0.89 | 214.89 | 7,004.8 | -1,237.2 | 470.7 | -783.3 | 913.4 | 0.25 | 0.25 | 0.00 | |
| 7,100.0 | 0.89 | 214.89 | 7,028.9 | -1,213.1 | 470.4 | -783.5 | 913.5 | 0.00 | 0.00 | 0.00 | |
| 7,200.0 | 0.89 | 214.89 | 7,128.9 | -1,113.1 | 469.1 | -784.4 | 913.6 | 0.00 | 0.00 | 0.00 | |
| 7,300.0 | 0.89 | 214.89 | 7,228.9 | -1,013.1 | 467.8 | -785.3 | 913.8 | 0.00 | 0.00 | 0.00 | |
| 7,400.0 | 0.89 | 214.89 | 7,328.9 | -913.1 | 466.6 | -786.2 | 913.9 | 0.00 | 0.00 | 0.00 | |
| 7,500.0 | 0.89 | 214.89 | 7,428.9 | -813.1 | 465.3 | -787.1 | 914.1 | 0.00 | 0.00 | 0.00 | |
| 7,600.0 | 0.89 | 214.89 | 7,528.8 | -713.2 | 464.0 | -788.0 | 914.2 | 0.00 | 0.00 | 0.00 | |
| 7,700.0 | 0.89 | 214.89 | 7,628.8 | -613.2 | 462.7 | -788.9 | 914.4 | 0.00 | 0.00 | 0.00 | |
| 7,800.0 | 0.89 | 214.89 | 7,728.8 | -513.2 | 461.4 | -789.8 | 914.5 | 0.00 | 0.00 | 0.00 | |
| 7,900.0 | 0.89 | 214.89 | 7,828.8 | -413.2 | 460.2 | -790.7 | 914.7 | 0.00 | 0.00 | 0.00 | |
| 8,000.0 | 0.89 | 214.89 | 7,928.8 | -313.2 | 458.9 | -791.5 | 914.9 | 0.00 | 0.00 | 0.00 | |
| 8,100.0 | 0.89 | 214.89 | 8,028.8 | -213.2 | 457.6 | -792.4 | 915.0 | 0.00 | 0.00 | 0.00 | |
| Cameo | | | | | | | | | | | |
| 8,118.2 | 0.89 | 214.89 | 8,047.0 | -195.0 | 457.4 | -792.6 | 915.0 | 0.00 | 0.00 | 0.00 | |
| 8,200.0 | 0.89 | 214.89 | 8,128.8 | -113.2 | 456.3 | -793.3 | 915.2 | 0.00 | 0.00 | 0.00 | |
| 8,300.0 | 0.89 | 214.89 | 8,228.8 | -13.2 | 455.0 | -794.2 | 915.3 | 0.00 | 0.00 | 0.00 | |
| 8,400.0 | 0.89 | 214.89 | 8,328.7 | 86.7 | 453.8 | -795.1 | 915.5 | 0.00 | 0.00 | 0.00 | |

| | | | |
|-----------|-----------------------------|------------------------------|---|
| Database: | RMR1 Database | Local Co-ordinate Reference: | Well Puckett 22C-1D |
| Company: | Petroleum Development Corp. | TVD Reference: | Puckett 22C-1D KBE @ 8242.0ft (H&P 318) |
| Project: | Mesa | MD Reference: | Puckett 22C-1D KBE @ 8242.0ft (H&P 318) |
| Site: | SENW Sec 1-T7S-R97W | North Reference: | True |
| Well: | Puckett 22C-1D | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | DD | | |
| Design: | Plan #2 | | |

| Planned Survey | | | | | | | | | | | |
|---|-----------------|-------------|---------------------|-------------------|------------|------------|-----------------------|-----------------------|----------------------|---------------------|--|
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | Subsea Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) | |
| 8,500.0 | 0.89 | 214.89 | 8,428.7 | 186.7 | 452.5 | -796.0 | 915.6 | 0.00 | 0.00 | 0.00 | |
| 8,600.0 | 0.89 | 214.89 | 8,528.7 | 286.7 | 451.2 | -796.9 | 915.8 | 0.00 | 0.00 | 0.00 | |
| Rollins | | | | | | | | | | | |
| 8,618.3 | 0.89 | 214.89 | 8,547.0 | 305.0 | 451.0 | -797.1 | 915.8 | 0.00 | 0.00 | 0.00 | |
| 8,700.0 | 0.89 | 214.89 | 8,628.7 | 386.7 | 449.9 | -797.8 | 915.9 | 0.00 | 0.00 | 0.00 | |
| 8,800.0 | 0.89 | 214.89 | 8,728.7 | 486.7 | 448.6 | -798.7 | 916.1 | 0.00 | 0.00 | 0.00 | |
| TD = 8818.3' MD - Puckett 22C-1D BHL | | | | | | | | | | | |
| 8,818.3 | 0.89 | 214.89 | 8,747.0 | 505.0 | 448.4 | -798.9 | 916.1 | 0.00 | 0.00 | 0.00 | |

| Design Targets | | | | | | | | | | |
|---|---------------|--------------|----------|------------|------------|---------------|--------------|-----------|-------------|--|
| Target Name | Dip Angle (°) | Dip Dir. (°) | TVD (ft) | +N/-S (ft) | +E/-W (ft) | Northing (ft) | Easting (ft) | Latitude | Longitude | |
| Puckett 22C-1D Tgt - hit/miss target - Shape - Point | 0.00 | 0.00 | 6,647.0 | 473.0 | -781.7 | 1,609,359.20 | 2,245,777.27 | 39.476010 | -108.172275 | |
| Puckett 22C-1D BHL - plan hits target center - Circle (radius 60.0) | 0.00 | 0.00 | 8,747.0 | 448.4 | -798.9 | 1,609,335.12 | 2,245,759.40 | 39.475942 | -108.172336 | |

| Casing Points | | | | | |
|---------------------|---------------------|----------------|---------------------|-------------------|--|
| Measured Depth (ft) | Vertical Depth (ft) | Name | Casing Diameter (") | Hole Diameter (") | |
| 2,725.6 | 2,700.0 | Surface Casing | | | |

| Formations | | | | | | |
|---------------------|---------------------|-------------------------|-----------|---------|-------------------|--|
| Measured Depth (ft) | Vertical Depth (ft) | Name | Lithology | Dip (°) | Dip Direction (°) | |
| 2,251.2 | 2,232.0 | Wasatch | | | | |
| 4,253.3 | 4,207.0 | Wasatch "G" Sand | | | | |
| 4,567.5 | 4,517.0 | Fort Union | | | | |
| 4,861.5 | 4,807.0 | Base Fort Union | | | | |
| 5,809.3 | 5,742.0 | Mesaverde/Williams Fk * | | | | |
| 6,718.1 | 6,647.0 | Top Gas Cell | | | | |
| 8,118.2 | 8,047.0 | Cameo | | | | |
| 8,618.3 | 8,547.0 | Rollins | | | | |

| | | | |
|------------------|-----------------------------|-------------------------------------|---|
| Database: | RMR1 Database | Local Co-ordinate Reference: | Well Puckett 22C-1D |
| Company: | Petroleum Development Corp. | TVD Reference: | Puckett 22C-1D KBE @ 8242.0ft (H&P 318) |
| Project: | Mesa | MD Reference: | Puckett 22C-1D KBE @ 8242.0ft (H&P 318) |
| Site: | SENW Sec 1-T7S-R97W | North Reference: | True |
| Well: | Puckett 22C-1D | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | DD | | |
| Design: | Plan #2 | | |

| Plan Annotations | | | | | |
|---------------------------|---------------------------|-------------------|---------------|-----------------|--|
| Measured Depth (ft) | Vertical Depth (ft) | Local Coordinates | | Comment | |
| | | +N/-S (ft) | +E/-W (ft) | | |
| 200.0 | 200.0 | 0.0 | 0.0 | KOP @ 200' | |
| 1,142.9 | 1,138.6 | 40.1 | -66.2 | EOB = 9.43° Inc | |
| 5,775.2 | 5,708.4 | 432.9 | -715.5 | Start of Drop | |
| 6,718.1 | 6,647.0 | 473.0 | -781.7 | EOD = 0° Inc | |
| 8,818.3 | 8,747.0 | 448.4 | -798.9 | TD = 8818.3' MD | |