



PICEANCE VLY NAD 83

PA 21-06S-095W

PA 22-21 Pad

PA 432-21 - Slot 2B9

Wellbore #1

Plan: Design #2 07Nov12 kjs

Standard Planning Report - Geographic

12 March, 2013



WPX Energy
Planning Report - Geographic

| | | | |
|------------------|-----------------------|-------------------------------------|--|
| Database: | COMPASS-PICEANCE | Local Co-ordinate Reference: | Well PA 432-21 - Slot 2B9 |
| Company: | PICEANCE VLY NAD 83 | TVD Reference: | KELLY BUSHING @ 6056.00usft (Nabors 26') |
| Project: | PA 21-06S-095W | MD Reference: | KELLY BUSHING @ 6056.00usft (Nabors 26') |
| Site: | PA 22-21 Pad | North Reference: | True |
| Well: | PA 432-21 | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Wellbore #1 | | |
| Design: | Design #2 07Nov12 kjs | | |

| | | | |
|--------------------|--|----------------------|-----------------------------|
| Project | PA 21-06S-095W, Garfield County, CO, 21-06S-095W | | |
| Map System: | US State Plane 1983 | System Datum: | Mean Sea Level |
| Geo Datum: | North American Datum 1983 | | |
| Map Zone: | Colorado Central Zone | | Using geodetic scale factor |

| | | | |
|------------------------------|--------------|--------------------------|-------------------|
| Site | PA 22-21 Pad | | |
| Site Position: | | Northing: | 1,620,701.00 usft |
| From: | Map | Easting: | 2,292,437.50 usft |
| Position Uncertainty: | 0.00 usft | Slot Radius: | 13.200 in |
| | | Latitude: | 39.51079 |
| | | Longitude: | -108.00815 |
| | | Grid Convergence: | -1.58 ° |

| | | | |
|-----------------------------|----------------------|-----------|----------------------------|
| Well | PA 432-21 - Slot 2B9 | | |
| Well Position | +N/-S | 0.00 usft | Northing: |
| | +E/-W | 0.00 usft | Easting: |
| Position Uncertainty | 0.00 usft | | Wellhead Elevation: |
| | | | Latitude: |
| | | | Longitude: |
| | | | Ground Level: |

| | | | | | |
|------------------|-------------------|--------------------|------------------------|----------------------|----------------------------|
| Wellbore | Wellbore #1 | | | | |
| Magnetics | Model Name | Sample Date | Declination (°) | Dip Angle (°) | Field Strength (nT) |
| | IGRF2010 | 6/6/2012 | 10.23 | 65.72 | 52,157 |

| | | | | |
|--------------------------|--------------------------------|---------------------|----------------------|----------------------|
| Design | Design #2 07Nov12 kjs | | | |
| Audit Notes: | | | | |
| Version: | Phase: | PLAN | Tie On Depth: | 0.00 |
| Vertical Section: | Depth From (TVD) (usft) | +N/-S (usft) | +E/-W (usft) | Direction (°) |
| | 0.00 | 0.00 | 0.00 | 72.58 |

| | | | | | | | | | | |
|------------------------------|------------------------|--------------------|------------------------------|---------------------|---------------------|--------------------------------|-------------------------------|------------------------------|----------------|----------------------|
| Plan Sections | | | | | | | | | | |
| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) | TFO (°) | Target |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 350.00 | 0.00 | 0.00 | 350.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 1,350.00 | 20.00 | 76.00 | 1,329.82 | 41.80 | 167.64 | 2.00 | 2.00 | 0.00 | 76.00 | |
| 1,663.87 | 26.10 | 72.23 | 1,618.50 | 75.89 | 285.59 | 2.00 | 1.94 | -1.20 | -15.35 | |
| 5,839.82 | 26.10 | 72.23 | 5,368.49 | 636.74 | 2,035.34 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 7,145.02 | 0.00 | 26.37 | 6,629.00 | 725.93 | 2,313.61 | 2.00 | -2.00 | -3.51 | -180.00 | Top Gas (25' Radius) |
| 9,245.02 | 0.00 | 26.37 | 8,729.00 | 725.94 | 2,313.61 | 0.00 | 0.00 | 0.00 | 0.00 | |



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| Project: | PA 21-06S-095W | MD Reference: | KELLY BUSHING @ 6056.00usft (Nabors 26') |
| Site: | PA 22-21 Pad | North Reference: | True |
| Well: | PA 432-21 | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Wellbore #1 | | |
| Design: | Design #2 07Nov12 kjs | | |

| Planned Survey | | | | | | | | | | |
|-----------------------------|--------------------|----------------|-----------------------------|-----------------|-----------------|---------------------------|--------------------------|----------|------------|--|
| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Map Northing (usft) | Map Easting (usft) | Latitude | Longitude | |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1,620,591.00 | 2,292,449.20 | 39.51049 | -108.00810 | |
| 350.00 | 0.00 | 0.00 | 350.00 | 0.00 | 0.00 | 1,620,591.00 | 2,292,449.20 | 39.51049 | -108.00810 | |
| Start Build 2.00 | | | | | | | | | | |
| 500.00 | 3.00 | 76.00 | 499.93 | 0.95 | 3.81 | 1,620,591.84 | 2,292,453.04 | 39.51049 | -108.00809 | |
| 1,000.00 | 13.00 | 76.00 | 994.44 | 17.76 | 71.24 | 1,620,606.79 | 2,292,520.91 | 39.51054 | -108.00785 | |
| 1,350.00 | 20.00 | 76.00 | 1,329.82 | 41.80 | 167.64 | 1,620,628.15 | 2,292,617.92 | 39.51060 | -108.00751 | |
| Begin 2°/100 Build & Turn | | | | | | | | | | |
| 1,450.00 | 21.93 | 74.58 | 1,423.19 | 50.90 | 202.24 | 1,620,636.29 | 2,292,652.76 | 39.51063 | -108.00738 | |
| 9 5/8" | | | | | | | | | | |
| 1,500.00 | 22.91 | 73.96 | 1,469.41 | 56.07 | 220.59 | 1,620,640.95 | 2,292,671.25 | 39.51064 | -108.00732 | |
| 1,663.87 | 26.10 | 72.23 | 1,618.50 | 75.89 | 285.59 | 1,620,658.97 | 2,292,736.77 | 39.51070 | -108.00709 | |
| Hold 26.10 Inc, 72.23° azi | | | | | | | | | | |
| 2,000.00 | 26.10 | 72.23 | 1,920.35 | 121.04 | 426.43 | 1,620,700.21 | 2,292,878.79 | 39.51082 | -108.00659 | |
| 2,500.00 | 26.10 | 72.23 | 2,369.34 | 188.19 | 635.93 | 1,620,761.55 | 2,293,090.06 | 39.51100 | -108.00585 | |
| 3,000.00 | 26.10 | 72.23 | 2,818.34 | 255.34 | 845.44 | 1,620,822.89 | 2,293,301.33 | 39.51119 | -108.00510 | |
| 3,034.14 | 26.10 | 72.23 | 2,849.00 | 259.92 | 859.74 | 1,620,827.08 | 2,293,315.76 | 39.51120 | -108.00505 | |
| Top of "G" Sand | | | | | | | | | | |
| 3,145.50 | 26.10 | 72.23 | 2,949.00 | 274.88 | 906.40 | 1,620,840.74 | 2,293,362.81 | 39.51124 | -108.00489 | |
| Base of "G" Sand | | | | | | | | | | |
| 3,500.00 | 26.10 | 72.23 | 3,267.34 | 322.49 | 1,054.94 | 1,620,884.23 | 2,293,512.60 | 39.51137 | -108.00436 | |
| 4,000.00 | 26.10 | 72.23 | 3,716.34 | 389.64 | 1,264.44 | 1,620,945.57 | 2,293,723.87 | 39.51156 | -108.00362 | |
| 4,500.00 | 26.10 | 72.23 | 4,165.34 | 456.79 | 1,473.94 | 1,621,006.91 | 2,293,935.14 | 39.51174 | -108.00288 | |
| 5,000.00 | 26.10 | 72.23 | 4,614.33 | 523.95 | 1,683.45 | 1,621,068.25 | 2,294,146.40 | 39.51193 | -108.00213 | |
| 5,500.00 | 26.10 | 72.23 | 5,063.33 | 591.10 | 1,892.95 | 1,621,129.59 | 2,294,357.67 | 39.51211 | -108.00139 | |
| 5,567.56 | 26.10 | 72.23 | 5,124.00 | 600.17 | 1,921.26 | 1,621,137.88 | 2,294,386.22 | 39.51213 | -108.00129 | |
| Mesaverde | | | | | | | | | | |
| 5,839.82 | 26.10 | 72.23 | 5,368.49 | 636.74 | 2,035.34 | 1,621,171.28 | 2,294,501.26 | 39.51224 | -108.00089 | |
| Begin 2°/100 Drop | | | | | | | | | | |
| 6,000.00 | 22.90 | 72.23 | 5,514.23 | 657.01 | 2,098.59 | 1,621,189.80 | 2,294,565.05 | 39.51229 | -108.00066 | |
| 6,500.00 | 12.90 | 72.23 | 5,989.42 | 703.86 | 2,244.75 | 1,621,232.60 | 2,294,712.44 | 39.51242 | -108.00014 | |
| 7,000.00 | 2.90 | 72.23 | 6,484.04 | 724.81 | 2,310.12 | 1,621,251.74 | 2,294,778.35 | 39.51248 | -107.99991 | |
| 7,145.02 | 0.00 | 26.37 | 6,629.00 | 725.93 | 2,313.61 | 1,621,252.76 | 2,294,781.88 | 39.51248 | -107.99990 | |
| Top Gas - Approx. Top Gas | | | | | | | | | | |
| 7,500.00 | 0.00 | 26.37 | 6,983.98 | 725.94 | 2,313.61 | 1,621,252.76 | 2,294,781.88 | 39.51248 | -107.99990 | |
| 8,000.00 | 0.00 | 26.37 | 7,483.98 | 725.94 | 2,313.61 | 1,621,252.76 | 2,294,781.88 | 39.51248 | -107.99990 | |
| 8,365.02 | 0.00 | 26.37 | 7,849.00 | 725.94 | 2,313.61 | 1,621,252.77 | 2,294,781.88 | 39.51248 | -107.99990 | |
| Cameo Coals | | | | | | | | | | |
| 8,500.00 | 0.00 | 26.37 | 7,983.98 | 725.94 | 2,313.61 | 1,621,252.77 | 2,294,781.88 | 39.51248 | -107.99990 | |
| 9,000.00 | 0.00 | 26.37 | 8,483.98 | 725.94 | 2,313.61 | 1,621,252.77 | 2,294,781.88 | 39.51248 | -107.99990 | |
| 9,145.02 | 0.00 | 26.37 | 8,629.00 | 725.94 | 2,313.61 | 1,621,252.77 | 2,294,781.88 | 39.51248 | -107.99990 | |
| Rollins SS | | | | | | | | | | |
| 9,245.02 | 0.00 | 26.37 | 8,729.00 | 725.94 | 2,313.61 | 1,621,252.77 | 2,294,781.88 | 39.51248 | -107.99990 | |
| TD at 9245.02 - TD | | | | | | | | | | |



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| Project: | PA 21-06S-095W | MD Reference: | KELLY BUSHING @ 6056.00usft (Nabors 26') |
| Site: | PA 22-21 Pad | North Reference: | True |
| Well: | PA 432-21 | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Wellbore #1 | | |
| Design: | Design #2 07Nov12 kjs | | |

| Design Targets | | | | | | | | | |
|---------------------------|-----------|----------|----------|--------|----------|--------------|--------------|----------|------------|
| Target Name | | | | | | | | | |
| - hit/miss target | Dip Angle | Dip Dir. | TVD | +N/-S | +E/-W | Northing | Easting | Latitude | Longitude |
| - Shape | (°) | (°) | (usft) | (usft) | (usft) | (usft) | (usft) | | |
| Top Gas (25' Radius) P/ | 0.00 | 0.00 | 6,629.00 | 725.93 | 2,313.61 | 1,621,252.76 | 2,294,781.88 | 39.51248 | -107.99990 |
| - plan hits target center | | | | | | | | | |
| - Circle (radius 25.00) | | | | | | | | | |

| Casing Points | | | | | |
|---------------|----------------|----------------|--------|-----------------|---------------|
| | Measured Depth | Vertical Depth | | Casing Diameter | Hole Diameter |
| | (usft) | (usft) | Name | (in) | (in) |
| | 1,450.00 | 1,423.19 | 9 5/8" | 9.625 | 13.500 |

| Formations | | | | | | |
|------------|----------------|----------------|------------------|-----------|-----|---------------|
| | Measured Depth | Vertical Depth | | | Dip | Dip Direction |
| | (usft) | (usft) | Name | Lithology | (°) | (°) |
| | 3,034.14 | 2,849.00 | Top of "G" Sand | | | |
| | 3,145.50 | 2,949.00 | Base of "G" Sand | | | |
| | 5,567.56 | 5,124.00 | Mesaverde | | | |
| | 7,145.02 | 6,629.00 | Approx. Top Gas | | | |
| | 8,365.02 | 7,849.00 | Cameo Coals | | | |
| | 9,145.02 | 8,629.00 | Rollins SS | | | |
| | 9,245.02 | 8,729.00 | TD | | | |

| Plan Annotations | | | | | |
|------------------|----------------|----------------|-------------------|--------------|----------------------------|
| | Measured Depth | Vertical Depth | Local Coordinates | | |
| | (usft) | (usft) | +N/-S (usft) | +E/-W (usft) | Comment |
| | 350.00 | 350.00 | 0.00 | 0.00 | Start Build 2.00 |
| | 1,350.00 | 1,329.82 | 41.80 | 167.64 | Begin 2°/100 Build & Turn |
| | 1,663.87 | 1,618.50 | 75.89 | 285.59 | Hold 26.10 Inc, 72.23° azi |
| | 5,839.82 | 5,368.49 | 636.74 | 2,035.34 | Begin 2°/100 Drop |
| | 7,145.02 | 6,629.00 | 725.93 | 2,313.61 | Top Gas |
| | 9,245.02 | 8,729.00 | 725.94 | 2,313.61 | TD at 9245.02 |