

US ROCKIES WATTENBERG PLANNING

WELD-NAD83-UTMFT13N

5N-67W-22 BLUE CHIP 6-22HZ PAD

BLUE CHIP 22-8HZ

Plan A

Plan: Permit Rev-1

Standard Planning Report

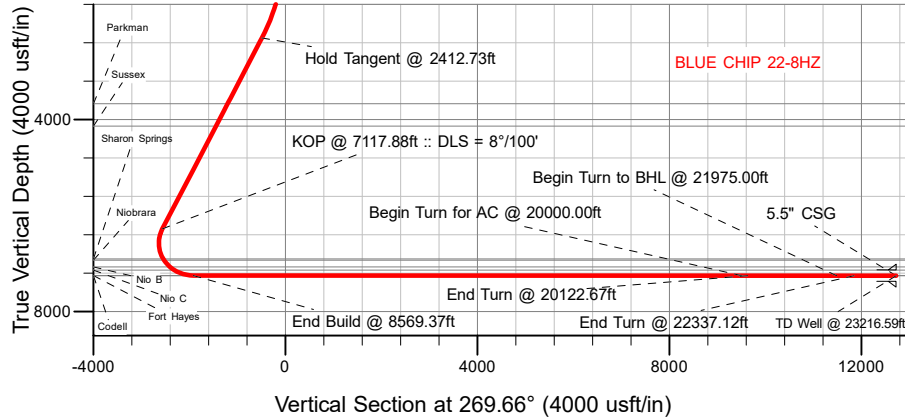
08 September, 2022

Project: WELD-NAD83-UTMFT13N
Site: 5N-67W-22 BLUE CHIP 6-22HZ PAD
Well: BLUE CHIP 22-8HZ
Wellbore: Plan A
Design: Permit Rev-1

US ROCKIES WATTENBERG PLANNING

CASING DETAILS

| TVD | MD | Name | Size |
|---------|----------|----------|-------|
| 1500.00 | 1522.92 | 9 5/8" | 9-5/8 |
| 7255.00 | 23216.59 | 5.5" CSG | 5-1/2 |



SECTION DETAILS

| MD | Inc | Azi | TVD | +N/-S | +E/-W | Dleg | TFace | Vsect | Target |
|----------|-------|--------|---------|----------|-----------|------|--------|----------|----------------------|
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 259.40 | 0.00 | 0.00 | 259.40 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 2412.73 | 32.30 | 124.13 | 2300.48 | -331.63 | 489.26 | 1.50 | 124.13 | -487.28 | |
| 7117.88 | 32.30 | 124.13 | 6277.56 | -1742.28 | 2570.43 | 0.00 | 0.00 | -2560.05 | |
| 8569.37 | 89.98 | 269.66 | 7249.00 | -2093.52 | 1929.78 | 8.00 | 140.92 | -1917.33 | |
| 20000.00 | 89.98 | 269.66 | 7252.99 | -2161.35 | -9500.65 | 0.00 | 0.00 | 9513.30 | |
| 20122.67 | 89.98 | 271.50 | 7253.03 | -2160.11 | -9623.30 | 1.50 | 90.00 | 9635.95 | |
| 21975.00 | 89.98 | 271.50 | 7253.68 | -2111.62 | -11475.00 | 0.00 | 0.00 | 11487.33 | |
| 22337.12 | 89.93 | 266.07 | 7253.96 | -2119.30 | -11836.90 | 1.50 | -90.51 | 11849.27 | |
| 23216.59 | 89.93 | 266.07 | 7255.00 | -2179.60 | -12714.30 | 0.00 | 0.00 | 12727.01 | BLUE CHIP 22-8HZ_BHL |

WELLBORE TARGET DETAILS (LAT/LONG)

| Name | TVD | Northing | Easting | Latitude | Longitude |
|----------------------|---------|-------------|------------|-----------|-------------|
| BLUE CHIP 22-8HZ_SHL | 0.00 | 14668074.81 | 1673746.34 | 40.388076 | -104.880307 |
| BLUE CHIP 22-8HZ_LP | 7249.00 | 14665983.90 | 1675678.95 | 40.382327 | -104.873377 |
| BLUE CHIP 22-8HZ_BHL | 7255.00 | 14665878.00 | 1661035.00 | 40.382081 | -104.925962 |

WELL DETAILS: BLUE CHIP 22-8HZ

GL = 5036'

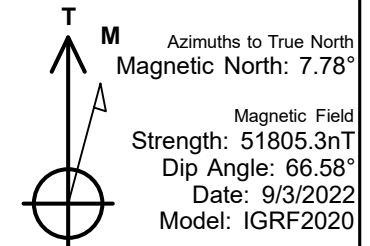
RKB = 17' @ 5053.00usft (RIG)

Plan: Permit Rev-1 (BLUE CHIP 22-8HZ/Plan A)

Date: 9/8/2022

FORMATION TOP DETAILS

| TVDPath | MDPath | Formation |
|---------|----------|----------------|
| 919.00 | 922.32 | Fox Hills |
| 3670.00 | 4032.97 | Parkman |
| 4137.00 | 4585.46 | Sussex |
| 6907.00 | 7813.73 | Sharon Springs |
| 6930.00 | 7842.13 | Niobrara |
| 7071.00 | 8037.07 | Nio B |
| 7138.00 | 8152.84 | Nio C |
| 7249.00 | 8568.14 | Fort Hayes |
| 7253.96 | 22337.12 | Codell |



Planning Report

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|------------------|--------------------------------|-------------------------------------|-------------------------------|
| Database: | EDM 5000.16 Single User Db | Local Co-ordinate Reference: | Well BLUE CHIP 22-8HZ |
| Company: | US ROCKIES WATTENBERG PLANNING | TVD Reference: | RKB = 17' @ 5053.00usft (RIG) |
| Project: | WELD-NAD83-UTMFT13N | MD Reference: | RKB = 17' @ 5053.00usft (RIG) |
| Site: | 5N-67W-22 BLUE CHIP 6-22HZ PAD | North Reference: | True |
| Well: | BLUE CHIP 22-8HZ | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Plan A | | |
| Design: | Permit Rev-1 | | |

| | | | |
|--------------------|--|----------------------|----------------|
| Project | WELD-NAD83-UTMFT13N | | |
| Map System: | Universal Transverse Mercator (US Survey Feet) | System Datum: | Mean Sea Level |
| Geo Datum: | North American Datum 1983 | | |
| Map Zone: | Zone 13N (108 W to 102 W) | | |

| | | | | | | |
|-----------------------|-----|--------------------------------|---------------|--------------|------------|-------------|
| Site | | 5N-67W-22 BLUE CHIP 6-22HZ PAD | | | | |
| Site Position: | | Northing: | 14,668,179.77 | usft | Latitude: | 40.388364 |
| From: | Map | Easting: | 1,673,746.93 | usft | Longitude: | -104.880304 |
| Position Uncertainty: | | 0.00 | usft | Slot Radius: | 13-3/16 | " |

| Well | | BLUE CHIP 22-8HZ | | | | |
|----------------------|-------|------------------|---------------------|--------------------|---------------|---------------|
| Well Position | +N/-S | 0.00 usft | Northing: | 14,668,074.81 usft | Latitude: | 40.388076 |
| | +E/-W | 0.00 usft | Easting: | 1,673,746.34 usft | Longitude: | -104.880307 |
| Position Uncertainty | | 3.28 usft | Wellhead Elevation: | usft | Ground Level: | 5,036.00 usft |
| Grid Convergence: | | 0.08 ° | | | | |

| | | | | | |
|------------------|-------------------|--------------------|------------------------|----------------------|----------------------------|
| Wellbore | Plan A | | | | |
| Magnetics | Model Name | Sample Date | Declination (°) | Dip Angle (°) | Field Strength (nT) |
| | IGRF202013 | 9/3/2022 | 7.78 | 66.58 | 51,805.34153665 |

| | | | | | |
|--------------------------|--------------------------------|---------------------|---------------------|----------------------|------|
| Design | Permit Rev-1 | | | | |
| 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 | 269.66 | |

| | | | | | |
|---------------------------------|------------------------|--------------------------|-----------------------|---|--|
| Plan Survey Tool Program | Date | 9/5/2022 | | | |
| Depth From (usft) | Depth To (usft) | Survey (Wellbore) | Tool Name | Remarks | |
| 1 | 0.00 | 1,500.00 | Permit Rev-1 (Plan A) | APC_ISCWSA REV 2 MWD+I Fixed:v2:crustal field declinatio | |
| 2 | 1,500.00 | 23,216.59 | Permit Rev-1 (Plan A) | APC_ISCWSA REV 2 MWD+I Fixed:v2:Rockies, crustal dec + | |

Planning Report

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|------------------|--------------------------------|-------------------------------------|-------------------------------|
| Database: | EDM 5000.16 Single User Db | Local Co-ordinate Reference: | Well BLUE CHIP 22-8HZ |
| Company: | US ROCKIES WATTENBERG PLANNING | TVD Reference: | RKB = 17' @ 5053.00usft (RIG) |
| Project: | WELD-NAD83-UTMFT13N | MD Reference: | RKB = 17' @ 5053.00usft (RIG) |
| Site: | 5N-67W-22 BLUE CHIP 6-22HZ PAD | North Reference: | True |
| Well: | BLUE CHIP 22-8HZ | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Plan A | | |
| Design: | Permit Rev-1 | | |

| 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 | |
| 259.40 | 0.00 | 0.00 | 259.40 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 2,412.73 | 32.30 | 124.13 | 2,300.48 | -331.63 | 489.26 | 1.50 | 1.50 | 0.00 | 124.13 | |
| 7,117.88 | 32.30 | 124.13 | 6,277.56 | -1,742.28 | 2,570.43 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 8,569.37 | 89.98 | 269.66 | 7,249.00 | -2,093.52 | 1,929.78 | 8.00 | 3.97 | 10.03 | 140.92 | |
| 20,000.00 | 89.98 | 269.66 | 7,252.99 | -2,161.35 | -9,500.65 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 20,122.67 | 89.98 | 271.50 | 7,253.03 | -2,160.11 | -9,623.30 | 1.50 | 0.00 | 1.50 | 90.00 | |
| 21,975.00 | 89.98 | 271.50 | 7,253.68 | -2,111.62 | -11,475.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 22,337.12 | 89.93 | 266.07 | 7,253.96 | -2,119.30 | -11,836.90 | 1.50 | -0.01 | -1.50 | -90.51 | |
| 23,216.59 | 89.93 | 266.07 | 7,255.00 | -2,179.60 | -12,714.30 | 0.00 | 0.00 | 0.00 | 0.00 | BLUE CHIP 22-8HZ_I |

Planning Report

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|------------------|--------------------------------|-------------------------------------|-------------------------------|
| Database: | EDM 5000.16 Single User Db | Local Co-ordinate Reference: | Well BLUE CHIP 22-8HZ |
| Company: | US ROCKIES WATTENBERG PLANNING | TVD Reference: | RKB = 17' @ 5053.00usft (RIG) |
| Project: | WELD-NAD83-UTMFT13N | MD Reference: | RKB = 17' @ 5053.00usft (RIG) |
| Site: | 5N-67W-22 BLUE CHIP 6-22HZ PAD | North Reference: | True |
| Well: | BLUE CHIP 22-8HZ | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Plan A | | |
| Design: | Permit Rev-1 | | |

| Planned Survey | | | | | | | | | |
|--------------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| 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) |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 100.00 | 0.00 | 0.00 | 100.00 | 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 |
| 259.40 | 0.00 | 0.00 | 259.40 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Begin Nudge @ 259.40ft | | | | | | | | | |
| 300.00 | 0.61 | 124.13 | 300.00 | -0.12 | 0.18 | -0.18 | 1.50 | 1.50 | 0.00 |
| 400.00 | 2.11 | 124.13 | 399.97 | -1.45 | 2.14 | -2.13 | 1.50 | 1.50 | 0.00 |
| 500.00 | 3.61 | 124.13 | 499.84 | -4.25 | 6.27 | -6.25 | 1.50 | 1.50 | 0.00 |
| 600.00 | 5.11 | 124.13 | 599.55 | -8.51 | 12.56 | -12.51 | 1.50 | 1.50 | 0.00 |
| 700.00 | 6.61 | 124.13 | 699.02 | -14.24 | 21.01 | -20.93 | 1.50 | 1.50 | 0.00 |
| 800.00 | 8.11 | 124.13 | 798.20 | -21.43 | 31.61 | -31.49 | 1.50 | 1.50 | 0.00 |
| 900.00 | 9.61 | 124.13 | 897.00 | -30.07 | 44.36 | -44.18 | 1.50 | 1.50 | 0.00 |
| 922.32 | 9.94 | 124.13 | 919.00 | -32.20 | 47.50 | -47.31 | 1.50 | 1.50 | 0.00 |
| Fox Hills | | | | | | | | | |
| 1,000.00 | 11.11 | 124.13 | 995.37 | -40.16 | 59.25 | -59.01 | 1.50 | 1.50 | 0.00 |
| 1,100.00 | 12.61 | 124.13 | 1,093.23 | -51.69 | 76.26 | -75.95 | 1.50 | 1.50 | 0.00 |
| 1,200.00 | 14.11 | 124.13 | 1,190.52 | -64.65 | 95.38 | -95.00 | 1.50 | 1.50 | 0.00 |
| 1,300.00 | 15.61 | 124.13 | 1,287.18 | -79.04 | 116.61 | -116.14 | 1.50 | 1.50 | 0.00 |
| 1,400.00 | 17.11 | 124.13 | 1,383.12 | -94.84 | 139.92 | -139.36 | 1.50 | 1.50 | 0.00 |
| 1,500.00 | 18.61 | 124.13 | 1,478.30 | -112.05 | 165.31 | -164.64 | 1.50 | 1.50 | 0.00 |
| 1,522.92 | 18.95 | 124.13 | 1,500.00 | -116.19 | 171.41 | -170.72 | 1.50 | 1.50 | 0.00 |
| 9 5/8" | | | | | | | | | |
| 1,600.00 | 20.11 | 124.13 | 1,572.65 | -130.65 | 192.74 | -191.97 | 1.50 | 1.50 | 0.00 |
| 1,700.00 | 21.61 | 124.13 | 1,666.09 | -150.62 | 222.22 | -221.32 | 1.50 | 1.50 | 0.00 |
| 1,800.00 | 23.11 | 124.13 | 1,758.57 | -171.97 | 253.71 | -252.68 | 1.50 | 1.50 | 0.00 |
| 1,900.00 | 24.61 | 124.13 | 1,850.02 | -194.66 | 287.19 | -286.03 | 1.50 | 1.50 | 0.00 |
| 2,000.00 | 26.11 | 124.13 | 1,940.38 | -218.69 | 322.64 | -321.34 | 1.50 | 1.50 | 0.00 |
| 2,100.00 | 27.61 | 124.13 | 2,029.59 | -244.04 | 360.04 | -358.58 | 1.50 | 1.50 | 0.00 |
| 2,200.00 | 29.11 | 124.13 | 2,117.59 | -270.69 | 399.35 | -397.74 | 1.50 | 1.50 | 0.00 |
| 2,300.00 | 30.61 | 124.13 | 2,204.31 | -298.62 | 440.56 | -438.78 | 1.50 | 1.50 | 0.00 |
| 2,400.00 | 32.11 | 124.13 | 2,289.70 | -327.82 | 483.64 | -481.69 | 1.50 | 1.50 | 0.00 |
| 2,412.73 | 32.30 | 124.13 | 2,300.48 | -331.63 | 489.26 | -487.28 | 1.50 | 1.50 | 0.00 |
| Hold Tangent @ 2412.73ft | | | | | | | | | |
| 2,500.00 | 32.30 | 124.13 | 2,374.24 | -357.79 | 527.86 | -525.72 | 0.00 | 0.00 | 0.00 |
| 2,600.00 | 32.30 | 124.13 | 2,458.77 | -387.77 | 572.09 | -569.78 | 0.00 | 0.00 | 0.00 |
| 2,700.00 | 32.30 | 124.13 | 2,543.29 | -417.75 | 616.32 | -613.83 | 0.00 | 0.00 | 0.00 |
| 2,800.00 | 32.30 | 124.13 | 2,627.82 | -447.73 | 660.55 | -657.88 | 0.00 | 0.00 | 0.00 |
| 2,900.00 | 32.30 | 124.13 | 2,712.34 | -477.71 | 704.78 | -701.94 | 0.00 | 0.00 | 0.00 |
| 3,000.00 | 32.30 | 124.13 | 2,796.87 | -507.69 | 749.02 | -745.99 | 0.00 | 0.00 | 0.00 |
| 3,100.00 | 32.30 | 124.13 | 2,881.40 | -537.68 | 793.25 | -790.04 | 0.00 | 0.00 | 0.00 |
| 3,200.00 | 32.30 | 124.13 | 2,965.92 | -567.66 | 837.48 | -834.10 | 0.00 | 0.00 | 0.00 |
| 3,300.00 | 32.30 | 124.13 | 3,050.45 | -597.64 | 881.71 | -878.15 | 0.00 | 0.00 | 0.00 |
| 3,400.00 | 32.30 | 124.13 | 3,134.97 | -627.62 | 925.94 | -922.20 | 0.00 | 0.00 | 0.00 |
| 3,500.00 | 32.30 | 124.13 | 3,219.50 | -657.60 | 970.18 | -966.26 | 0.00 | 0.00 | 0.00 |
| 3,600.00 | 32.30 | 124.13 | 3,304.03 | -687.58 | 1,014.41 | -1,010.31 | 0.00 | 0.00 | 0.00 |
| 3,700.00 | 32.30 | 124.13 | 3,388.55 | -717.56 | 1,058.64 | -1,054.36 | 0.00 | 0.00 | 0.00 |
| 3,800.00 | 32.30 | 124.13 | 3,473.08 | -747.54 | 1,102.87 | -1,098.42 | 0.00 | 0.00 | 0.00 |
| 3,900.00 | 32.30 | 124.13 | 3,557.61 | -777.52 | 1,147.10 | -1,142.47 | 0.00 | 0.00 | 0.00 |
| 4,000.00 | 32.30 | 124.13 | 3,642.13 | -807.50 | 1,191.34 | -1,186.52 | 0.00 | 0.00 | 0.00 |
| 4,032.97 | 32.30 | 124.13 | 3,670.00 | -817.39 | 1,205.92 | -1,201.05 | 0.00 | 0.00 | 0.00 |
| Parkman | | | | | | | | | |
| 4,100.00 | 32.30 | 124.13 | 3,726.66 | -837.49 | 1,235.57 | -1,230.58 | 0.00 | 0.00 | 0.00 |
| 4,200.00 | 32.30 | 124.13 | 3,811.18 | -867.47 | 1,279.80 | -1,274.63 | 0.00 | 0.00 | 0.00 |
| 4,300.00 | 32.30 | 124.13 | 3,895.71 | -897.45 | 1,324.03 | -1,318.68 | 0.00 | 0.00 | 0.00 |

Planning Report

| | | | |
|------------------|--------------------------------|-------------------------------------|-------------------------------|
| Database: | EDM 5000.16 Single User Db | Local Co-ordinate Reference: | Well BLUE CHIP 22-8HZ |
| Company: | US ROCKIES WATTENBERG PLANNING | TVD Reference: | RKB = 17' @ 5053.00usft (RIG) |
| Project: | WELD-NAD83-UTMFT13N | MD Reference: | RKB = 17' @ 5053.00usft (RIG) |
| Site: | 5N-67W-22 BLUE CHIP 6-22HZ PAD | North Reference: | True |
| Well: | BLUE CHIP 22-8HZ | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Plan A | | |
| Design: | Permit Rev-1 | | |

| Planned Survey | | | | | | | | | |
|---|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| 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) |
| 4,400.00 | 32.30 | 124.13 | 3,980.24 | -927.43 | 1,368.26 | -1,362.74 | 0.00 | 0.00 | 0.00 |
| 4,500.00 | 32.30 | 124.13 | 4,064.76 | -957.41 | 1,412.49 | -1,406.79 | 0.00 | 0.00 | 0.00 |
| 4,585.46 | 32.30 | 124.13 | 4,137.00 | -983.03 | 1,450.30 | -1,444.44 | 0.00 | 0.00 | 0.00 |
| Sussex | | | | | | | | | |
| 4,600.00 | 32.30 | 124.13 | 4,149.29 | -987.39 | 1,456.73 | -1,450.84 | 0.00 | 0.00 | 0.00 |
| 4,700.00 | 32.30 | 124.13 | 4,233.81 | -1,017.37 | 1,500.96 | -1,494.89 | 0.00 | 0.00 | 0.00 |
| 4,800.00 | 32.30 | 124.13 | 4,318.34 | -1,047.35 | 1,545.19 | -1,538.95 | 0.00 | 0.00 | 0.00 |
| 4,900.00 | 32.30 | 124.13 | 4,402.87 | -1,077.33 | 1,589.42 | -1,583.00 | 0.00 | 0.00 | 0.00 |
| 5,000.00 | 32.30 | 124.13 | 4,487.39 | -1,107.31 | 1,633.65 | -1,627.05 | 0.00 | 0.00 | 0.00 |
| 5,100.00 | 32.30 | 124.13 | 4,571.92 | -1,137.30 | 1,677.89 | -1,671.11 | 0.00 | 0.00 | 0.00 |
| 5,200.00 | 32.30 | 124.13 | 4,656.45 | -1,167.28 | 1,722.12 | -1,715.16 | 0.00 | 0.00 | 0.00 |
| 5,300.00 | 32.30 | 124.13 | 4,740.97 | -1,197.26 | 1,766.35 | -1,759.21 | 0.00 | 0.00 | 0.00 |
| 5,400.00 | 32.30 | 124.13 | 4,825.50 | -1,227.24 | 1,810.58 | -1,803.27 | 0.00 | 0.00 | 0.00 |
| 5,500.00 | 32.30 | 124.13 | 4,910.02 | -1,257.22 | 1,854.81 | -1,847.32 | 0.00 | 0.00 | 0.00 |
| 5,600.00 | 32.30 | 124.13 | 4,994.55 | -1,287.20 | 1,899.05 | -1,891.37 | 0.00 | 0.00 | 0.00 |
| 5,700.00 | 32.30 | 124.13 | 5,079.08 | -1,317.18 | 1,943.28 | -1,935.43 | 0.00 | 0.00 | 0.00 |
| 5,800.00 | 32.30 | 124.13 | 5,163.60 | -1,347.16 | 1,987.51 | -1,979.48 | 0.00 | 0.00 | 0.00 |
| 5,900.00 | 32.30 | 124.13 | 5,248.13 | -1,377.14 | 2,031.74 | -2,023.53 | 0.00 | 0.00 | 0.00 |
| 6,000.00 | 32.30 | 124.13 | 5,332.66 | -1,407.13 | 2,075.97 | -2,067.59 | 0.00 | 0.00 | 0.00 |
| 6,100.00 | 32.30 | 124.13 | 5,417.18 | -1,437.11 | 2,120.21 | -2,111.64 | 0.00 | 0.00 | 0.00 |
| 6,200.00 | 32.30 | 124.13 | 5,501.71 | -1,467.09 | 2,164.44 | -2,155.69 | 0.00 | 0.00 | 0.00 |
| 6,300.00 | 32.30 | 124.13 | 5,586.23 | -1,497.07 | 2,208.67 | -2,199.75 | 0.00 | 0.00 | 0.00 |
| 6,400.00 | 32.30 | 124.13 | 5,670.76 | -1,527.05 | 2,252.90 | -2,243.80 | 0.00 | 0.00 | 0.00 |
| 6,500.00 | 32.30 | 124.13 | 5,755.29 | -1,557.03 | 2,297.13 | -2,287.85 | 0.00 | 0.00 | 0.00 |
| 6,600.00 | 32.30 | 124.13 | 5,839.81 | -1,587.01 | 2,341.36 | -2,331.91 | 0.00 | 0.00 | 0.00 |
| 6,700.00 | 32.30 | 124.13 | 5,924.34 | -1,616.99 | 2,385.60 | -2,375.96 | 0.00 | 0.00 | 0.00 |
| 6,800.00 | 32.30 | 124.13 | 6,008.86 | -1,646.97 | 2,429.83 | -2,420.01 | 0.00 | 0.00 | 0.00 |
| 6,900.00 | 32.30 | 124.13 | 6,093.39 | -1,676.95 | 2,474.06 | -2,464.07 | 0.00 | 0.00 | 0.00 |
| 7,000.00 | 32.30 | 124.13 | 6,177.92 | -1,706.94 | 2,518.29 | -2,508.12 | 0.00 | 0.00 | 0.00 |
| 7,100.00 | 32.30 | 124.13 | 6,262.44 | -1,736.92 | 2,562.52 | -2,552.17 | 0.00 | 0.00 | 0.00 |
| 7,117.88 | 32.30 | 124.13 | 6,277.56 | -1,742.28 | 2,570.43 | -2,560.05 | 0.00 | 0.00 | 0.00 |
| KOP @ 7117.88ft :: DLS = 8°/100' | | | | | | | | | |
| 7,150.00 | 30.34 | 127.34 | 6,305.00 | -1,752.01 | 2,583.99 | -2,573.55 | 8.00 | -6.09 | 9.98 |
| 7,200.00 | 27.48 | 133.12 | 6,348.77 | -1,767.57 | 2,602.46 | -2,591.92 | 8.00 | -5.73 | 11.57 |
| 7,250.00 | 24.90 | 140.07 | 6,393.64 | -1,783.53 | 2,617.64 | -2,607.01 | 8.00 | -5.15 | 13.89 |
| 7,300.00 | 22.72 | 148.37 | 6,439.40 | -1,799.83 | 2,629.47 | -2,618.74 | 8.00 | -4.38 | 16.62 |
| 7,350.00 | 21.04 | 158.13 | 6,485.81 | -1,816.38 | 2,637.88 | -2,627.05 | 8.00 | -3.36 | 19.52 |
| 7,400.00 | 19.99 | 169.17 | 6,532.66 | -1,833.11 | 2,642.83 | -2,631.90 | 8.00 | -2.09 | 22.08 |
| 7,450.00 | 19.69 | 180.94 | 6,579.71 | -1,849.94 | 2,644.29 | -2,633.27 | 8.00 | -0.61 | 23.54 |
| 7,500.00 | 20.16 | 192.62 | 6,626.73 | -1,866.77 | 2,642.27 | -2,631.15 | 8.00 | 0.94 | 23.35 |
| 7,550.00 | 21.35 | 203.41 | 6,673.51 | -1,883.54 | 2,636.77 | -2,625.55 | 8.00 | 2.38 | 21.59 |
| 7,600.00 | 23.15 | 212.87 | 6,719.80 | -1,900.15 | 2,627.82 | -2,616.50 | 8.00 | 3.60 | 18.90 |
| 7,650.00 | 25.43 | 220.87 | 6,765.38 | -1,916.53 | 2,615.46 | -2,604.04 | 8.00 | 4.56 | 16.00 |
| 7,700.00 | 28.07 | 227.54 | 6,810.04 | -1,932.59 | 2,599.75 | -2,588.23 | 8.00 | 5.29 | 13.35 |
| 7,750.00 | 30.99 | 233.11 | 6,853.54 | -1,948.27 | 2,580.76 | -2,569.16 | 8.00 | 5.83 | 11.13 |
| 7,800.00 | 34.10 | 237.78 | 6,895.69 | -1,963.48 | 2,558.60 | -2,546.91 | 8.00 | 6.23 | 9.34 |
| 7,813.73 | 34.99 | 238.93 | 6,907.00 | -1,967.56 | 2,551.97 | -2,540.25 | 8.00 | 6.44 | 8.38 |
| Sharon Springs | | | | | | | | | |
| 7,842.13 | 36.85 | 241.15 | 6,930.00 | -1,975.87 | 2,537.54 | -2,525.77 | 8.00 | 6.55 | 7.84 |
| Niobrara | | | | | | | | | |
| 7,850.00 | 37.37 | 241.74 | 6,936.28 | -1,978.14 | 2,533.37 | -2,521.58 | 8.00 | 6.64 | 7.40 |
| 7,900.00 | 40.75 | 245.14 | 6,975.10 | -1,992.19 | 2,505.19 | -2,493.32 | 8.00 | 6.76 | 6.80 |
| 7,950.00 | 44.22 | 248.10 | 7,011.98 | -2,005.56 | 2,474.19 | -2,462.25 | 8.00 | 6.93 | 5.92 |

Planning Report

| | | | |
|------------------|--------------------------------|-------------------------------------|-------------------------------|
| Database: | EDM 5000.16 Single User Db | Local Co-ordinate Reference: | Well BLUE CHIP 22-8HZ |
| Company: | US ROCKIES WATTENBERG PLANNING | TVD Reference: | RKB = 17' @ 5053.00usft (RIG) |
| Project: | WELD-NAD83-UTMFT13N | MD Reference: | RKB = 17' @ 5053.00usft (RIG) |
| Site: | 5N-67W-22 BLUE CHIP 6-22HZ PAD | North Reference: | True |
| Well: | BLUE CHIP 22-8HZ | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Plan A | | |
| Design: | Permit Rev-1 | | |

| Planned Survey | | | | | | | | | | |
|-----------------------------|--------------------|----------------|-----------------------------|-----------------|-----------------|-------------------------------|-------------------------------|------------------------------|-----------------------------|--|
| 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) | |
| 8,000.00 | 47.75 | 250.70 | 7,046.72 | -2,018.19 | 2,440.54 | -2,428.52 | 8.00 | 7.07 | 5.22 | |
| 8,037.07 | 50.40 | 252.46 | 7,071.00 | -2,027.03 | 2,413.96 | -2,401.89 | 8.00 | 7.16 | 4.72 | |
| Nio B | | | | | | | | | | |
| 8,050.00 | 51.33 | 253.03 | 7,079.16 | -2,030.00 | 2,404.39 | -2,392.30 | 8.00 | 7.21 | 4.48 | |
| 8,100.00 | 54.96 | 255.14 | 7,109.14 | -2,040.95 | 2,365.91 | -2,353.76 | 8.00 | 7.26 | 4.21 | |
| 8,150.00 | 58.62 | 257.07 | 7,136.52 | -2,050.98 | 2,325.31 | -2,313.10 | 8.00 | 7.32 | 3.85 | |
| 8,152.84 | 58.83 | 257.17 | 7,138.00 | -2,051.53 | 2,322.94 | -2,310.73 | 8.00 | 7.35 | 3.69 | |
| Nio C | | | | | | | | | | |
| 8,200.00 | 62.31 | 258.85 | 7,161.17 | -2,060.05 | 2,282.77 | -2,270.51 | 8.00 | 7.38 | 3.55 | |
| 8,250.00 | 66.02 | 260.51 | 7,182.95 | -2,068.10 | 2,238.50 | -2,226.19 | 8.00 | 7.42 | 3.33 | |
| 8,300.00 | 69.75 | 262.08 | 7,201.77 | -2,075.10 | 2,192.73 | -2,180.37 | 8.00 | 7.45 | 3.14 | |
| 8,350.00 | 73.49 | 263.58 | 7,217.54 | -2,081.01 | 2,145.66 | -2,133.27 | 8.00 | 7.48 | 2.99 | |
| 8,400.00 | 77.24 | 265.02 | 7,230.17 | -2,085.81 | 2,097.53 | -2,085.11 | 8.00 | 7.50 | 2.88 | |
| 8,450.00 | 80.99 | 266.42 | 7,239.62 | -2,089.47 | 2,048.58 | -2,036.14 | 8.00 | 7.51 | 2.80 | |
| 8,500.00 | 84.76 | 267.79 | 7,245.82 | -2,091.98 | 1,999.03 | -1,986.59 | 8.00 | 7.52 | 2.74 | |
| 8,550.00 | 88.52 | 269.14 | 7,248.75 | -2,093.32 | 1,949.15 | -1,936.69 | 8.00 | 7.53 | 2.70 | |
| 8,568.14 | 89.89 | 269.63 | 7,249.00 | -2,093.51 | 1,931.01 | -1,918.55 | 8.00 | 7.53 | 2.70 | |
| Fort Hayes | | | | | | | | | | |
| 8,569.37 | 89.98 | 269.66 | 7,249.00 | -2,093.52 | 1,929.78 | -1,917.33 | 8.00 | 7.53 | 2.69 | |
| End Build @ 8569.37ft | | | | | | | | | | |
| 8,600.00 | 89.98 | 269.66 | 7,249.01 | -2,093.70 | 1,899.15 | -1,886.70 | 0.00 | 0.00 | 0.00 | |
| 8,700.00 | 89.98 | 269.66 | 7,249.05 | -2,094.29 | 1,799.15 | -1,786.70 | 0.00 | 0.00 | 0.00 | |
| 8,800.00 | 89.98 | 269.66 | 7,249.08 | -2,094.89 | 1,699.16 | -1,686.70 | 0.00 | 0.00 | 0.00 | |
| 8,900.00 | 89.98 | 269.66 | 7,249.12 | -2,095.48 | 1,599.16 | -1,586.70 | 0.00 | 0.00 | 0.00 | |
| 9,000.00 | 89.98 | 269.66 | 7,249.15 | -2,096.07 | 1,499.16 | -1,486.70 | 0.00 | 0.00 | 0.00 | |
| 9,100.00 | 89.98 | 269.66 | 7,249.19 | -2,096.67 | 1,399.16 | -1,386.70 | 0.00 | 0.00 | 0.00 | |
| 9,200.00 | 89.98 | 269.66 | 7,249.22 | -2,097.26 | 1,299.16 | -1,286.70 | 0.00 | 0.00 | 0.00 | |
| 9,300.00 | 89.98 | 269.66 | 7,249.26 | -2,097.85 | 1,199.17 | -1,186.70 | 0.00 | 0.00 | 0.00 | |
| 9,400.00 | 89.98 | 269.66 | 7,249.29 | -2,098.45 | 1,099.17 | -1,086.70 | 0.00 | 0.00 | 0.00 | |
| 9,500.00 | 89.98 | 269.66 | 7,249.33 | -2,099.04 | 999.17 | -986.70 | 0.00 | 0.00 | 0.00 | |
| 9,600.00 | 89.98 | 269.66 | 7,249.36 | -2,099.64 | 899.17 | -886.70 | 0.00 | 0.00 | 0.00 | |
| 9,700.00 | 89.98 | 269.66 | 7,249.40 | -2,100.23 | 799.17 | -786.70 | 0.00 | 0.00 | 0.00 | |
| 9,800.00 | 89.98 | 269.66 | 7,249.43 | -2,100.82 | 699.17 | -686.70 | 0.00 | 0.00 | 0.00 | |
| 9,900.00 | 89.98 | 269.66 | 7,249.47 | -2,101.42 | 599.18 | -586.70 | 0.00 | 0.00 | 0.00 | |
| 10,000.00 | 89.98 | 269.66 | 7,249.50 | -2,102.01 | 499.18 | -486.70 | 0.00 | 0.00 | 0.00 | |
| 10,100.00 | 89.98 | 269.66 | 7,249.54 | -2,102.60 | 399.18 | -386.70 | 0.00 | 0.00 | 0.00 | |
| 10,200.00 | 89.98 | 269.66 | 7,249.57 | -2,103.20 | 299.18 | -286.70 | 0.00 | 0.00 | 0.00 | |
| 10,300.00 | 89.98 | 269.66 | 7,249.61 | -2,103.79 | 199.18 | -186.70 | 0.00 | 0.00 | 0.00 | |
| 10,400.00 | 89.98 | 269.66 | 7,249.64 | -2,104.38 | 99.18 | -86.70 | 0.00 | 0.00 | 0.00 | |
| 10,500.00 | 89.98 | 269.66 | 7,249.68 | -2,104.98 | -0.81 | 13.30 | 0.00 | 0.00 | 0.00 | |
| 10,600.00 | 89.98 | 269.66 | 7,249.71 | -2,105.57 | -100.81 | 113.30 | 0.00 | 0.00 | 0.00 | |
| 10,700.00 | 89.98 | 269.66 | 7,249.75 | -2,106.16 | -200.81 | 213.30 | 0.00 | 0.00 | 0.00 | |
| 10,800.00 | 89.98 | 269.66 | 7,249.78 | -2,106.76 | -300.81 | 313.30 | 0.00 | 0.00 | 0.00 | |
| 10,900.00 | 89.98 | 269.66 | 7,249.82 | -2,107.35 | -400.81 | 413.30 | 0.00 | 0.00 | 0.00 | |
| 11,000.00 | 89.98 | 269.66 | 7,249.85 | -2,107.94 | -500.80 | 513.30 | 0.00 | 0.00 | 0.00 | |
| 11,100.00 | 89.98 | 269.66 | 7,249.88 | -2,108.54 | -600.80 | 613.30 | 0.00 | 0.00 | 0.00 | |
| 11,200.00 | 89.98 | 269.66 | 7,249.92 | -2,109.13 | -700.80 | 713.30 | 0.00 | 0.00 | 0.00 | |
| 11,300.00 | 89.98 | 269.66 | 7,249.95 | -2,109.72 | -800.80 | 813.30 | 0.00 | 0.00 | 0.00 | |
| 11,400.00 | 89.98 | 269.66 | 7,249.99 | -2,110.32 | -900.80 | 913.30 | 0.00 | 0.00 | 0.00 | |
| 11,500.00 | 89.98 | 269.66 | 7,250.02 | -2,110.91 | -1,000.80 | 1,013.30 | 0.00 | 0.00 | 0.00 | |
| 11,600.00 | 89.98 | 269.66 | 7,250.06 | -2,111.50 | -1,100.79 | 1,113.30 | 0.00 | 0.00 | 0.00 | |
| 11,700.00 | 89.98 | 269.66 | 7,250.09 | -2,112.10 | -1,200.79 | 1,213.30 | 0.00 | 0.00 | 0.00 | |
| 11,800.00 | 89.98 | 269.66 | 7,250.13 | -2,112.69 | -1,300.79 | 1,313.30 | 0.00 | 0.00 | 0.00 | |

Planning Report

| | | | |
|------------------|--------------------------------|-------------------------------------|-------------------------------|
| Database: | EDM 5000.16 Single User Db | Local Co-ordinate Reference: | Well BLUE CHIP 22-8HZ |
| Company: | US ROCKIES WATTENBERG PLANNING | TVD Reference: | RKB = 17' @ 5053.00usft (RIG) |
| Project: | WELD-NAD83-UTMFT13N | MD Reference: | RKB = 17' @ 5053.00usft (RIG) |
| Site: | 5N-67W-22 BLUE CHIP 6-22HZ PAD | North Reference: | True |
| Well: | BLUE CHIP 22-8HZ | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Plan A | | |
| Design: | Permit Rev-1 | | |

| Planned Survey | | | | | | | | | | |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|--|
| 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) | |
| 11,900.00 | 89.98 | 269.66 | 7,250.16 | -2,113.28 | -1,400.79 | 1,413.30 | 0.00 | 0.00 | 0.00 | |
| 12,000.00 | 89.98 | 269.66 | 7,250.20 | -2,113.88 | -1,500.79 | 1,513.30 | 0.00 | 0.00 | 0.00 | |
| 12,100.00 | 89.98 | 269.66 | 7,250.23 | -2,114.47 | -1,600.79 | 1,613.30 | 0.00 | 0.00 | 0.00 | |
| 12,200.00 | 89.98 | 269.66 | 7,250.27 | -2,115.06 | -1,700.78 | 1,713.30 | 0.00 | 0.00 | 0.00 | |
| 12,300.00 | 89.98 | 269.66 | 7,250.30 | -2,115.66 | -1,800.78 | 1,813.30 | 0.00 | 0.00 | 0.00 | |
| 12,400.00 | 89.98 | 269.66 | 7,250.34 | -2,116.25 | -1,900.78 | 1,913.30 | 0.00 | 0.00 | 0.00 | |
| 12,500.00 | 89.98 | 269.66 | 7,250.37 | -2,116.84 | -2,000.78 | 2,013.30 | 0.00 | 0.00 | 0.00 | |
| 12,600.00 | 89.98 | 269.66 | 7,250.41 | -2,117.44 | -2,100.78 | 2,113.30 | 0.00 | 0.00 | 0.00 | |
| 12,700.00 | 89.98 | 269.66 | 7,250.44 | -2,118.03 | -2,200.77 | 2,213.30 | 0.00 | 0.00 | 0.00 | |
| 12,800.00 | 89.98 | 269.66 | 7,250.48 | -2,118.62 | -2,300.77 | 2,313.30 | 0.00 | 0.00 | 0.00 | |
| 12,900.00 | 89.98 | 269.66 | 7,250.51 | -2,119.22 | -2,400.77 | 2,413.30 | 0.00 | 0.00 | 0.00 | |
| 13,000.00 | 89.98 | 269.66 | 7,250.55 | -2,119.81 | -2,500.77 | 2,513.30 | 0.00 | 0.00 | 0.00 | |
| 13,100.00 | 89.98 | 269.66 | 7,250.58 | -2,120.40 | -2,600.77 | 2,613.30 | 0.00 | 0.00 | 0.00 | |
| 13,200.00 | 89.98 | 269.66 | 7,250.62 | -2,121.00 | -2,700.77 | 2,713.30 | 0.00 | 0.00 | 0.00 | |
| 13,300.00 | 89.98 | 269.66 | 7,250.65 | -2,121.59 | -2,800.76 | 2,813.30 | 0.00 | 0.00 | 0.00 | |
| 13,400.00 | 89.98 | 269.66 | 7,250.69 | -2,122.18 | -2,900.76 | 2,913.30 | 0.00 | 0.00 | 0.00 | |
| 13,500.00 | 89.98 | 269.66 | 7,250.72 | -2,122.78 | -3,000.76 | 3,013.30 | 0.00 | 0.00 | 0.00 | |
| 13,600.00 | 89.98 | 269.66 | 7,250.76 | -2,123.37 | -3,100.76 | 3,113.30 | 0.00 | 0.00 | 0.00 | |
| 13,700.00 | 89.98 | 269.66 | 7,250.79 | -2,123.96 | -3,200.76 | 3,213.30 | 0.00 | 0.00 | 0.00 | |
| 13,800.00 | 89.98 | 269.66 | 7,250.83 | -2,124.56 | -3,300.76 | 3,313.30 | 0.00 | 0.00 | 0.00 | |
| 13,900.00 | 89.98 | 269.66 | 7,250.86 | -2,125.15 | -3,400.75 | 3,413.30 | 0.00 | 0.00 | 0.00 | |
| 14,000.00 | 89.98 | 269.66 | 7,250.90 | -2,125.75 | -3,500.75 | 3,513.30 | 0.00 | 0.00 | 0.00 | |
| 14,100.00 | 89.98 | 269.66 | 7,250.93 | -2,126.34 | -3,600.75 | 3,613.30 | 0.00 | 0.00 | 0.00 | |
| 14,200.00 | 89.98 | 269.66 | 7,250.97 | -2,126.93 | -3,700.75 | 3,713.30 | 0.00 | 0.00 | 0.00 | |
| 14,300.00 | 89.98 | 269.66 | 7,251.00 | -2,127.53 | -3,800.75 | 3,813.30 | 0.00 | 0.00 | 0.00 | |
| 14,400.00 | 89.98 | 269.66 | 7,251.04 | -2,128.12 | -3,900.74 | 3,913.30 | 0.00 | 0.00 | 0.00 | |
| 14,500.00 | 89.98 | 269.66 | 7,251.07 | -2,128.71 | -4,000.74 | 4,013.30 | 0.00 | 0.00 | 0.00 | |
| 14,600.00 | 89.98 | 269.66 | 7,251.11 | -2,129.31 | -4,100.74 | 4,113.30 | 0.00 | 0.00 | 0.00 | |
| 14,700.00 | 89.98 | 269.66 | 7,251.14 | -2,129.90 | -4,200.74 | 4,213.30 | 0.00 | 0.00 | 0.00 | |
| 14,800.00 | 89.98 | 269.66 | 7,251.18 | -2,130.49 | -4,300.74 | 4,313.30 | 0.00 | 0.00 | 0.00 | |
| 14,900.00 | 89.98 | 269.66 | 7,251.21 | -2,131.09 | -4,400.74 | 4,413.30 | 0.00 | 0.00 | 0.00 | |
| 15,000.00 | 89.98 | 269.66 | 7,251.25 | -2,131.68 | -4,500.73 | 4,513.30 | 0.00 | 0.00 | 0.00 | |
| 15,100.00 | 89.98 | 269.66 | 7,251.28 | -2,132.27 | -4,600.73 | 4,613.30 | 0.00 | 0.00 | 0.00 | |
| 15,200.00 | 89.98 | 269.66 | 7,251.32 | -2,132.87 | -4,700.73 | 4,713.30 | 0.00 | 0.00 | 0.00 | |
| 15,300.00 | 89.98 | 269.66 | 7,251.35 | -2,133.46 | -4,800.73 | 4,813.30 | 0.00 | 0.00 | 0.00 | |
| 15,400.00 | 89.98 | 269.66 | 7,251.39 | -2,134.05 | -4,900.73 | 4,913.30 | 0.00 | 0.00 | 0.00 | |
| 15,500.00 | 89.98 | 269.66 | 7,251.42 | -2,134.65 | -5,000.73 | 5,013.30 | 0.00 | 0.00 | 0.00 | |
| 15,600.00 | 89.98 | 269.66 | 7,251.46 | -2,135.24 | -5,100.72 | 5,113.30 | 0.00 | 0.00 | 0.00 | |
| 15,700.00 | 89.98 | 269.66 | 7,251.49 | -2,135.83 | -5,200.72 | 5,213.30 | 0.00 | 0.00 | 0.00 | |
| 15,800.00 | 89.98 | 269.66 | 7,251.53 | -2,136.43 | -5,300.72 | 5,313.30 | 0.00 | 0.00 | 0.00 | |
| 15,900.00 | 89.98 | 269.66 | 7,251.56 | -2,137.02 | -5,400.72 | 5,413.30 | 0.00 | 0.00 | 0.00 | |
| 16,000.00 | 89.98 | 269.66 | 7,251.60 | -2,137.61 | -5,500.72 | 5,513.30 | 0.00 | 0.00 | 0.00 | |
| 16,100.00 | 89.98 | 269.66 | 7,251.63 | -2,138.21 | -5,600.71 | 5,613.30 | 0.00 | 0.00 | 0.00 | |
| 16,200.00 | 89.98 | 269.66 | 7,251.67 | -2,138.80 | -5,700.71 | 5,713.30 | 0.00 | 0.00 | 0.00 | |
| 16,300.00 | 89.98 | 269.66 | 7,251.70 | -2,139.39 | -5,800.71 | 5,813.30 | 0.00 | 0.00 | 0.00 | |
| 16,400.00 | 89.98 | 269.66 | 7,251.73 | -2,139.99 | -5,900.71 | 5,913.30 | 0.00 | 0.00 | 0.00 | |
| 16,500.00 | 89.98 | 269.66 | 7,251.77 | -2,140.58 | -6,000.71 | 6,013.30 | 0.00 | 0.00 | 0.00 | |
| 16,600.00 | 89.98 | 269.66 | 7,251.80 | -2,141.17 | -6,100.71 | 6,113.30 | 0.00 | 0.00 | 0.00 | |
| 16,700.00 | 89.98 | 269.66 | 7,251.84 | -2,141.77 | -6,200.70 | 6,213.30 | 0.00 | 0.00 | 0.00 | |
| 16,800.00 | 89.98 | 269.66 | 7,251.87 | -2,142.36 | -6,300.70 | 6,313.30 | 0.00 | 0.00 | 0.00 | |
| 16,900.00 | 89.98 | 269.66 | 7,251.91 | -2,142.95 | -6,400.70 | 6,413.30 | 0.00 | 0.00 | 0.00 | |
| 17,000.00 | 89.98 | 269.66 | 7,251.94 | -2,143.55 | -6,500.70 | 6,513.30 | 0.00 | 0.00 | 0.00 | |
| 17,100.00 | 89.98 | 269.66 | 7,251.98 | -2,144.14 | -6,600.70 | 6,613.30 | 0.00 | 0.00 | 0.00 | |
| 17,200.00 | 89.98 | 269.66 | 7,252.01 | -2,144.73 | -6,700.70 | 6,713.30 | 0.00 | 0.00 | 0.00 | |

Planning Report

| | | | |
|------------------|--------------------------------|-------------------------------------|-------------------------------|
| Database: | EDM 5000.16 Single User Db | Local Co-ordinate Reference: | Well BLUE CHIP 22-8HZ |
| Company: | US ROCKIES WATTENBERG PLANNING | TVD Reference: | RKB = 17' @ 5053.00usft (RIG) |
| Project: | WELD-NAD83-UTMFT13N | MD Reference: | RKB = 17' @ 5053.00usft (RIG) |
| Site: | 5N-67W-22 BLUE CHIP 6-22HZ PAD | North Reference: | True |
| Well: | BLUE CHIP 22-8HZ | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Plan A | | |
| Design: | Permit Rev-1 | | |

| Planned Survey | | | | | | | | | |
|--------------------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| 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) |
| 17,300.00 | 89.98 | 269.66 | 7,252.05 | -2,145.33 | -6,800.69 | 6,813.30 | 0.00 | 0.00 | 0.00 |
| 17,400.00 | 89.98 | 269.66 | 7,252.08 | -2,145.92 | -6,900.69 | 6,913.30 | 0.00 | 0.00 | 0.00 |
| 17,500.00 | 89.98 | 269.66 | 7,252.12 | -2,146.51 | -7,000.69 | 7,013.30 | 0.00 | 0.00 | 0.00 |
| 17,600.00 | 89.98 | 269.66 | 7,252.15 | -2,147.11 | -7,100.69 | 7,113.30 | 0.00 | 0.00 | 0.00 |
| 17,700.00 | 89.98 | 269.66 | 7,252.19 | -2,147.70 | -7,200.69 | 7,213.30 | 0.00 | 0.00 | 0.00 |
| 17,800.00 | 89.98 | 269.66 | 7,252.22 | -2,148.29 | -7,300.68 | 7,313.30 | 0.00 | 0.00 | 0.00 |
| 17,900.00 | 89.98 | 269.66 | 7,252.26 | -2,148.89 | -7,400.68 | 7,413.30 | 0.00 | 0.00 | 0.00 |
| 18,000.00 | 89.98 | 269.66 | 7,252.29 | -2,149.48 | -7,500.68 | 7,513.30 | 0.00 | 0.00 | 0.00 |
| 18,100.00 | 89.98 | 269.66 | 7,252.33 | -2,150.07 | -7,600.68 | 7,613.30 | 0.00 | 0.00 | 0.00 |
| 18,200.00 | 89.98 | 269.66 | 7,252.36 | -2,150.67 | -7,700.68 | 7,713.30 | 0.00 | 0.00 | 0.00 |
| 18,300.00 | 89.98 | 269.66 | 7,252.40 | -2,151.26 | -7,800.68 | 7,813.30 | 0.00 | 0.00 | 0.00 |
| 18,400.00 | 89.98 | 269.66 | 7,252.43 | -2,151.86 | -7,900.67 | 7,913.30 | 0.00 | 0.00 | 0.00 |
| 18,500.00 | 89.98 | 269.66 | 7,252.47 | -2,152.45 | -8,000.67 | 8,013.30 | 0.00 | 0.00 | 0.00 |
| 18,600.00 | 89.98 | 269.66 | 7,252.50 | -2,153.04 | -8,100.67 | 8,113.30 | 0.00 | 0.00 | 0.00 |
| 18,700.00 | 89.98 | 269.66 | 7,252.54 | -2,153.64 | -8,200.67 | 8,213.30 | 0.00 | 0.00 | 0.00 |
| 18,800.00 | 89.98 | 269.66 | 7,252.57 | -2,154.23 | -8,300.67 | 8,313.30 | 0.00 | 0.00 | 0.00 |
| 18,900.00 | 89.98 | 269.66 | 7,252.61 | -2,154.82 | -8,400.67 | 8,413.30 | 0.00 | 0.00 | 0.00 |
| 19,000.00 | 89.98 | 269.66 | 7,252.64 | -2,155.42 | -8,500.66 | 8,513.30 | 0.00 | 0.00 | 0.00 |
| 19,100.00 | 89.98 | 269.66 | 7,252.68 | -2,156.01 | -8,600.66 | 8,613.30 | 0.00 | 0.00 | 0.00 |
| 19,200.00 | 89.98 | 269.66 | 7,252.71 | -2,156.60 | -8,700.66 | 8,713.30 | 0.00 | 0.00 | 0.00 |
| 19,300.00 | 89.98 | 269.66 | 7,252.75 | -2,157.20 | -8,800.66 | 8,813.30 | 0.00 | 0.00 | 0.00 |
| 19,400.00 | 89.98 | 269.66 | 7,252.78 | -2,157.79 | -8,900.66 | 8,913.30 | 0.00 | 0.00 | 0.00 |
| 19,500.00 | 89.98 | 269.66 | 7,252.82 | -2,158.38 | -9,000.65 | 9,013.30 | 0.00 | 0.00 | 0.00 |
| 19,600.00 | 89.98 | 269.66 | 7,252.85 | -2,158.98 | -9,100.65 | 9,113.30 | 0.00 | 0.00 | 0.00 |
| 19,700.00 | 89.98 | 269.66 | 7,252.89 | -2,159.57 | -9,200.65 | 9,213.30 | 0.00 | 0.00 | 0.00 |
| 19,800.00 | 89.98 | 269.66 | 7,252.92 | -2,160.16 | -9,300.65 | 9,313.30 | 0.00 | 0.00 | 0.00 |
| 19,900.00 | 89.98 | 269.66 | 7,252.96 | -2,160.76 | -9,400.65 | 9,413.30 | 0.00 | 0.00 | 0.00 |
| 20,000.00 | 89.98 | 269.66 | 7,252.99 | -2,161.35 | -9,500.65 | 9,513.30 | 0.00 | 0.00 | 0.00 |
| Begin Turn for AC @ 20000.00ft | | | | | | | | | |
| 20,100.00 | 89.98 | 271.16 | 7,253.03 | -2,160.63 | -9,600.64 | 9,613.29 | 1.50 | 0.00 | 1.50 |
| 20,122.67 | 89.98 | 271.50 | 7,253.03 | -2,160.11 | -9,623.30 | 9,635.95 | 1.50 | 0.00 | 1.50 |
| End Turn @ 20122.67ft | | | | | | | | | |
| 20,200.00 | 89.98 | 271.50 | 7,253.06 | -2,158.08 | -9,700.61 | 9,713.24 | 0.00 | 0.00 | 0.00 |
| 20,300.00 | 89.98 | 271.50 | 7,253.10 | -2,155.47 | -9,800.57 | 9,813.19 | 0.00 | 0.00 | 0.00 |
| 20,400.00 | 89.98 | 271.50 | 7,253.13 | -2,152.85 | -9,900.54 | 9,913.14 | 0.00 | 0.00 | 0.00 |
| 20,500.00 | 89.98 | 271.50 | 7,253.17 | -2,150.23 | -10,000.51 | 10,013.09 | 0.00 | 0.00 | 0.00 |
| 20,600.00 | 89.98 | 271.50 | 7,253.20 | -2,147.61 | -10,100.47 | 10,113.04 | 0.00 | 0.00 | 0.00 |
| 20,700.00 | 89.98 | 271.50 | 7,253.24 | -2,145.00 | -10,200.44 | 10,212.99 | 0.00 | 0.00 | 0.00 |
| 20,800.00 | 89.98 | 271.50 | 7,253.27 | -2,142.38 | -10,300.40 | 10,312.93 | 0.00 | 0.00 | 0.00 |
| 20,900.00 | 89.98 | 271.50 | 7,253.31 | -2,139.76 | -10,400.37 | 10,412.88 | 0.00 | 0.00 | 0.00 |
| 21,000.00 | 89.98 | 271.50 | 7,253.34 | -2,137.14 | -10,500.33 | 10,512.83 | 0.00 | 0.00 | 0.00 |
| 21,100.00 | 89.98 | 271.50 | 7,253.38 | -2,134.52 | -10,600.30 | 10,612.78 | 0.00 | 0.00 | 0.00 |
| 21,200.00 | 89.98 | 271.50 | 7,253.41 | -2,131.91 | -10,700.27 | 10,712.73 | 0.00 | 0.00 | 0.00 |
| 21,300.00 | 89.98 | 271.50 | 7,253.45 | -2,129.29 | -10,800.23 | 10,812.68 | 0.00 | 0.00 | 0.00 |
| 21,400.00 | 89.98 | 271.50 | 7,253.48 | -2,126.67 | -10,900.20 | 10,912.62 | 0.00 | 0.00 | 0.00 |
| 21,500.00 | 89.98 | 271.50 | 7,253.52 | -2,124.05 | -11,000.16 | 11,012.57 | 0.00 | 0.00 | 0.00 |
| 21,600.00 | 89.98 | 271.50 | 7,253.55 | -2,121.44 | -11,100.13 | 11,112.52 | 0.00 | 0.00 | 0.00 |
| 21,700.00 | 89.98 | 271.50 | 7,253.59 | -2,118.82 | -11,200.09 | 11,212.47 | 0.00 | 0.00 | 0.00 |
| 21,800.00 | 89.98 | 271.50 | 7,253.62 | -2,116.20 | -11,300.06 | 11,312.42 | 0.00 | 0.00 | 0.00 |
| 21,900.00 | 89.98 | 271.50 | 7,253.65 | -2,113.58 | -11,400.03 | 11,412.37 | 0.00 | 0.00 | 0.00 |
| 21,975.00 | 89.98 | 271.50 | 7,253.68 | -2,111.62 | -11,475.00 | 11,487.33 | 0.00 | 0.00 | 0.00 |
| Begin Turn to BHL @ 21975.00ft | | | | | | | | | |
| 22,000.00 | 89.98 | 271.13 | 7,253.69 | -2,111.05 | -11,499.99 | 11,512.32 | 1.50 | -0.01 | -1.50 |

Planning Report

| | | | |
|------------------|--------------------------------|-------------------------------------|-------------------------------|
| Database: | EDM 5000.16 Single User Db | Local Co-ordinate Reference: | Well BLUE CHIP 22-8HZ |
| Company: | US ROCKIES WATTENBERG PLANNING | TVD Reference: | RKB = 17' @ 5053.00usft (RIG) |
| Project: | WELD-NAD83-UTMFT13N | MD Reference: | RKB = 17' @ 5053.00usft (RIG) |
| Site: | 5N-67W-22 BLUE CHIP 6-22HZ PAD | North Reference: | True |
| Well: | BLUE CHIP 22-8HZ | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Plan A | | |
| Design: | Permit Rev-1 | | |

| Planned Survey | | | | | | | | | |
|---------------------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| 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) |
| 22,100.00 | 89.96 | 269.63 | 7,253.74 | -2,110.39 | -11,599.99 | 11,612.31 | 1.50 | -0.01 | -1.50 |
| 22,200.00 | 89.95 | 268.13 | 7,253.82 | -2,112.36 | -11,699.97 | 11,712.29 | 1.50 | -0.01 | -1.50 |
| 22,300.00 | 89.94 | 266.63 | 7,253.92 | -2,116.93 | -11,799.86 | 11,812.21 | 1.50 | -0.01 | -1.50 |
| 22,337.12 | 89.93 | 266.07 | 7,253.96 | -2,119.30 | -11,836.90 | 11,849.27 | 1.50 | -0.01 | -1.50 |
| End Turn @ 22337.12ft - Codell | | | | | | | | | |
| 22,400.00 | 89.93 | 266.07 | 7,254.03 | -2,123.61 | -11,899.63 | 11,912.03 | 0.00 | 0.00 | 0.00 |
| 22,500.00 | 89.93 | 266.07 | 7,254.15 | -2,130.47 | -11,999.40 | 12,011.83 | 0.00 | 0.00 | 0.00 |
| 22,600.00 | 89.93 | 266.07 | 7,254.27 | -2,137.32 | -12,099.16 | 12,111.63 | 0.00 | 0.00 | 0.00 |
| 22,700.00 | 89.93 | 266.07 | 7,254.39 | -2,144.18 | -12,198.93 | 12,211.44 | 0.00 | 0.00 | 0.00 |
| 22,800.00 | 89.93 | 266.07 | 7,254.51 | -2,151.04 | -12,298.69 | 12,311.24 | 0.00 | 0.00 | 0.00 |
| 22,900.00 | 89.93 | 266.07 | 7,254.63 | -2,157.89 | -12,398.46 | 12,411.04 | 0.00 | 0.00 | 0.00 |
| 23,000.00 | 89.93 | 266.07 | 7,254.74 | -2,164.75 | -12,498.22 | 12,510.85 | 0.00 | 0.00 | 0.00 |
| 23,100.00 | 89.93 | 266.07 | 7,254.86 | -2,171.61 | -12,597.99 | 12,610.65 | 0.00 | 0.00 | 0.00 |
| 23,200.00 | 89.93 | 266.07 | 7,254.98 | -2,178.46 | -12,697.75 | 12,710.45 | 0.00 | 0.00 | 0.00 |
| 23,216.59 | 89.93 | 266.07 | 7,255.00 | -2,179.60 | -12,714.30 | 12,727.01 | 0.00 | 0.00 | 0.00 |
| TD Well @ 23216.59ft - 5.5" CSG | | | | | | | | | |

| Casing Points | | | | | |
|-----------------------|-----------------------|----------|---------------------|-------------------|--|
| Measured Depth (usft) | Vertical Depth (usft) | Name | Casing Diameter (") | Hole Diameter (") | |
| 1,522.92 | 1,500.00 | 9 5/8" | 9-5/8 | 13-1/2 | |
| 23,216.59 | 7,255.00 | 5.5" CSG | 5-1/2 | 7-7/8 | |

| Formations | | | | | |
|-----------------------|-----------------------|----------------|-----------|---------|-------------------|
| Measured Depth (usft) | Vertical Depth (usft) | Name | Lithology | Dip (°) | Dip Direction (°) |
| 922.32 | 919.00 | Fox Hills | | | |
| 4,032.97 | 3,670.00 | Parkman | | | |
| 4,585.46 | 4,137.00 | Sussex | | | |
| 7,813.73 | 6,907.00 | Sharon Springs | | | |
| 7,842.13 | 6,930.00 | Niobrara | | | |
| 8,037.07 | 7,071.00 | Nio B | | | |
| 8,152.84 | 7,138.00 | Nio C | | | |
| 8,568.14 | 7,249.00 | Fort Hayes | | | |
| 22,337.12 | 7,253.96 | Codell | | 0.00 | |

Planning Report

| | | | |
|------------------|--------------------------------|-------------------------------------|-------------------------------|
| Database: | EDM 5000.16 Single User Db | Local Co-ordinate Reference: | Well BLUE CHIP 22-8HZ |
| Company: | US ROCKIES WATTENBERG PLANNING | TVD Reference: | RKB = 17' @ 5053.00usft (RIG) |
| Project: | WELD-NAD83-UTMFT13N | MD Reference: | RKB = 17' @ 5053.00usft (RIG) |
| Site: | 5N-67W-22 BLUE CHIP 6-22HZ PAD | North Reference: | True |
| Well: | BLUE CHIP 22-8HZ | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Plan A | | |
| Design: | Permit Rev-1 | | |

| Plan Annotations | | | | |
|-----------------------------|-----------------------------|-------------------|-----------------|----------------------------------|
| Measured Depth (usft) | Vertical Depth (usft) | Local Coordinates | | Comment |
| | | +N/-S (usft) | +E/-W (usft) | |
| 259.40 | 259.40 | 0.00 | 0.00 | Begin Nudge @ 259.40ft |
| 2,412.73 | 2,300.48 | -331.63 | 489.26 | Hold Tangent @ 2412.73ft |
| 7,117.88 | 6,277.56 | -1,742.28 | 2,570.43 | KOP @ 7117.88ft :: DLS = 8°/100' |
| 8,569.37 | 7,249.00 | -2,093.52 | 1,929.78 | End Build @ 8569.37ft |
| 20,000.00 | 7,252.99 | -2,161.35 | -9,500.65 | Begin Turn for AC @ 20000.00ft |
| 20,122.67 | 7,253.03 | -2,160.11 | -9,623.30 | End Turn @ 20122.67ft |
| 21,975.00 | 7,253.68 | -2,111.62 | -11,475.00 | Begin Turn to BHL @ 21975.00ft |
| 22,337.12 | 7,253.96 | -2,119.30 | -11,836.90 | End Turn @ 22337.12ft |
| 23,216.59 | 7,255.00 | -2,179.60 | -12,714.30 | TD Well @ 23216.59ft |