



# **Ursa Operating Company, LLC**

**Rockies Region**

**B&V**

**B&V 13C-07-07-95**

**Wellbore #1**

**Plan: Design #1**

## **Ursa Operating Company LLC Planning Report**

**05 August, 2014**



|                  |                             |                                     |  |
|------------------|-----------------------------|-------------------------------------|--|
| <b>Company:</b>  | Ursa Operating Company, LLC | <b>Local Co-ordinate Reference:</b> | Well B&V 13C-07-07-95                      |
| <b>Project:</b>  | Rockies Region              | <b>TVD Reference:</b>               | B&V 13C-07-07-95 @ 5097.0usft (PAD Est KB) |
| <b>Site:</b>     | B&V                         | <b>MD Reference:</b>                | B&V 13C-07-07-95 @ 5097.0usft (PAD Est KB) |
| <b>Well:</b>     | B&V 13C-07-07-95            | <b>North Reference:</b>             | True                                       |
| <b>Wellbore:</b> | Wellbore #1                 | <b>Survey Calculation Method:</b>   | Minimum Curvature                          |
| <b>Design:</b>   | Design #1                   | <b>Database:</b>                    | MasterDB                                   |

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

| Site                  |          | B&V               |  |                   |  |
|-----------------------|----------|-------------------|--|-------------------|--|
| Site Position:        |          | Northing:         |  | Latitude:         |  |
| From:                 | Lat/Long | Easting:          |  | Longitude:        |  |
| Position Uncertainty: | 0.0 usft | Slot Radius:      |  | Grid Convergence: |  |
|                       |          | 1,598,935.06 usft |  | 39° 27' 0.591 N   |  |
|                       |          | 2,280,801.73 usft |  | 108° 2' 49.963 W  |  |
|                       |          | 13-3/16 "         |  | -1.61 °           |  |

|                      |  |          |                     |                   |               |                  |
|----------------------|--|----------|---------------------|-------------------|---------------|------------------|
| Well                 | B&V 13C-07-07-95, SHL LAT: 39.450340930 LONG: -108.047054416 |          |                     |                   |               |                  |
| Well Position        | +N/-S  | 0.0 usft | Northing:           | 1,598,998.17 usft | Latitude:     | 39° 27' 1.227 N  |
|                      | +E/-W  | 0.0 usft | Easting:            | 2,280,847.99 usft | Longitude:    | 108° 2' 49.396 W |
| Position Uncertainty |  | 0.0 usft | Wellhead Elevation: | 5,097.0 usft      | Ground Level: | 5,084.0 usft     |

|           |             |             |                 |               |                     |
|-----------|-------------|-------------|-----------------|---------------|---------------------|
| Wellbore  | Wellbore #1 |             |                 |               |                     |
| Magnetics | Model Name  | Sample Date | Declination (°) | Dip Angle (°) | Field Strength (nT) |
|           | IGRF2010    | 8/4/2014    | 9.97            | 65.61         | 51,909              |

|                   |                            |                |                 |                  |
|-------------------|----------------------------|----------------|-----------------|------------------|
| Design            | Design #1                  |                |                 |                  |
| Audit Notes:      |                            |                |                 |                  |
| Version:          | Phase:                     | PROTOTYPE      | Tie On Depth:   | 0.0              |
| Vertical Section: | Depth From (TVD)<br>(usft) | +N-S<br>(usft) | +E/-W<br>(usft) | Direction<br>(°) |
|                   | 0.0                        | 0.0            | 0.0             | 157.32           |

|                     |              |                         |           |                |  |
|---------------------|--------------|-------------------------|-----------|----------------|--|
| Survey Tool Program |              | Date                    | 8/4/2014  |                |  |
| From<br>(usft)      | To<br>(usft) | Survey (Wellbore)       | Tool Name | Description    |  |
| 0.0                 | 6,338.2      | Design #1 (Wellbore #1) | MWD       | MWD - Standard |  |

|                  |                             |                                     |  |
|------------------|-----------------------------|-------------------------------------|--|
| <b>Company:</b>  | Ursa Operating Company, LLC | <b>Local Co-ordinate Reference:</b> | Well B&V 13C-07-07-95                      |
| <b>Project:</b>  | Rockies Region              | <b>TVD Reference:</b>               | B&V 13C-07-07-95 @ 5097.0usft (PAD Est KB) |
| <b>Site:</b>     | B&V                         | <b>MD Reference:</b>                | B&V 13C-07-07-95 @ 5097.0usft (PAD Est KB) |
| <b>Well:</b>     | B&V 13C-07-07-95            | <b>North Reference:</b>             | True                                       |
| <b>Wellbore:</b> | Wellbore #1                 | <b>Survey Calculation Method:</b>   | Minimum Curvature                          |
| <b>Design:</b>   | Design #1                   | <b>Database:</b>                    | MasterDB                                   |

## Planned Survey

| MD<br>(usft)                         | Inc<br>(°) | Azi (azimuth)<br>(°) | TVD<br>(usft) | TVDSS<br>(usft) | N/S<br>(usft) | E/W<br>(usft) | V. Sec<br>(usft) | DLeg<br>(°/100usft) | Northing<br>(usft) | Easting<br>(usft) |
|--------------------------------------|------------|----------------------|---------------|-----------------|---------------|---------------|------------------|---------------------|--------------------|-------------------|
| 0.0                                  | 0.00       | 0.00                 | 0.0           | -5,097.0        | 0.0           | 0.0           | 0.0              | 0.00                | 1,598,998.17       | 2,280,847.99      |
| 100.0                                | 0.00       | 0.00                 | 100.0         | -4,997.0        | 0.0           | 0.0           | 0.0              | 0.00                | 1,598,998.17       | 2,280,847.99      |
| 200.0                                | 0.00       | 0.00                 | 200.0         | -4,897.0        | 0.0           | 0.0           | 0.0              | 0.00                | 1,598,998.17       | 2,280,847.99      |
| 300.0                                | 0.00       | 0.00                 | 300.0         | -4,797.0        | 0.0           | 0.0           | 0.0              | 0.00                | 1,598,998.17       | 2,280,847.99      |
| 400.0                                | 0.00       | 0.00                 | 400.0         | -4,697.0        | 0.0           | 0.0           | 0.0              | 0.00                | 1,598,998.17       | 2,280,847.99      |
| 500.0                                | 0.00       | 0.00                 | 500.0         | -4,597.0        | 0.0           | 0.0           | 0.0              | 0.00                | 1,598,998.17       | 2,280,847.99      |
| 600.0                                | 0.00       | 0.00                 | 600.0         | -4,497.0        | 0.0           | 0.0           | 0.0              | 0.00                | 1,598,998.17       | 2,280,847.99      |
| 700.0                                | 0.00       | 0.00                 | 700.0         | -4,397.0        | 0.0           | 0.0           | 0.0              | 0.00                | 1,598,998.17       | 2,280,847.99      |
| 800.0                                | 0.00       | 0.00                 | 800.0         | -4,297.0        | 0.0           | 0.0           | 0.0              | 0.00                | 1,598,998.17       | 2,280,847.99      |
| <b>Start Build 1.00</b>              |            |                      |               |                 |               |               |                  |                     |                    |                   |
| 858.9                                | 0.59       | 157.32               | 858.9         | -4,238.1        | -0.3          | 0.1           | 0.3              | 1.00                | 1,598,997.89       | 2,280,848.10      |
| <b>Start 3191.3 hold at 858.9 MD</b> |            |                      |               |                 |               |               |                  |                     |                    |                   |
| 900.0                                | 0.59       | 157.32               | 900.0         | -4,197.0        | -0.7          | 0.3           | 0.7              | 0.00                | 1,598,997.50       | 2,280,848.26      |
| 1,000.0                              | 0.59       | 157.32               | 1,000.0       | -4,097.0        | -1.6          | 0.7           | 1.8              | 0.00                | 1,598,996.54       | 2,280,848.63      |
| 1,100.0                              | 0.59       | 157.32               | 1,100.0       | -3,997.0        | -2.6          | 1.1           | 2.8              | 0.00                | 1,598,995.58       | 2,280,848.99      |
| 1,200.0                              | 0.59       | 157.32               | 1,200.0       | -3,897.0        | -3.5          | 1.5           | 3.8              | 0.00                | 1,598,994.62       | 2,280,849.36      |
| 1,300.0                              | 0.59       | 157.32               | 1,300.0       | -3,797.0        | -4.5          | 1.9           | 4.8              | 0.00                | 1,598,993.66       | 2,280,849.73      |
| 1,400.0                              | 0.59       | 157.32               | 1,400.0       | -3,697.0        | -5.4          | 2.3           | 5.9              | 0.00                | 1,598,992.70       | 2,280,850.10      |
| 1,500.0                              | 0.59       | 157.32               | 1,500.0       | -3,597.0        | -6.4          | 2.7           | 6.9              | 0.00                | 1,598,991.74       | 2,280,850.47      |
| 1,600.0                              | 0.59       | 157.32               | 1,600.0       | -3,497.0        | -7.3          | 3.1           | 7.9              | 0.00                | 1,598,990.78       | 2,280,850.84      |
| 1,700.0                              | 0.59       | 157.32               | 1,700.0       | -3,397.0        | -8.3          | 3.5           | 9.0              | 0.00                | 1,598,989.82       | 2,280,851.21      |
| 1,800.0                              | 0.59       | 157.32               | 1,799.9       | -3,297.1        | -9.2          | 3.8           | 10.0             | 0.00                | 1,598,988.86       | 2,280,851.58      |
| 1,900.0                              | 0.59       | 157.32               | 1,899.9       | -3,197.1        | -10.2         | 4.2           | 11.0             | 0.00                | 1,598,987.90       | 2,280,851.95      |
| 2,000.0                              | 0.59       | 157.32               | 1,999.9       | -3,097.1        | -11.1         | 4.6           | 12.0             | 0.00                | 1,598,986.94       | 2,280,852.32      |
| 2,100.0                              | 0.59       | 157.32               | 2,099.9       | -2,997.1        | -12.1         | 5.0           | 13.1             | 0.00                | 1,598,985.98       | 2,280,852.69      |
| 2,200.0                              | 0.59       | 157.32               | 2,199.9       | -2,897.1        | -13.0         | 5.4           | 14.1             | 0.00                | 1,598,985.02       | 2,280,853.06      |
| 2,300.0                              | 0.59       | 157.32               | 2,299.9       | -2,797.1        | -14.0         | 5.8           | 15.1             | 0.00                | 1,598,984.06       | 2,280,853.43      |

|                  |                             |                                     |  |
|------------------|-----------------------------|-------------------------------------|--|
| <b>Company:</b>  | Ursa Operating Company, LLC | <b>Local Co-ordinate Reference:</b> | Well B&V 13C-07-07-95                      |
| <b>Project:</b>  | Rockies Region              | <b>TVD Reference:</b>               | B&V 13C-07-07-95 @ 5097.0usft (PAD Est KB) |
| <b>Site:</b>     | B&V                         | <b>MD Reference:</b>                | B&V 13C-07-07-95 @ 5097.0usft (PAD Est KB) |
| <b>Well:</b>     | B&V 13C-07-07-95            | <b>North Reference:</b>             | True                                       |
| <b>Wellbore:</b> | Wellbore #1                 | <b>Survey Calculation Method:</b>   | Minimum Curvature                          |
| <b>Design:</b>   | Design #1                   | <b>Database:</b>                    | MasterDB                                   |

## Planned Survey

| MD<br>(usft)   | Inc<br>(°) | Azi (azimuth)<br>(°) | TVD<br>(usft) | TVDSS<br>(usft) | N/S<br>(usft) | E/W<br>(usft) | V. Sec<br>(usft) | DLeg<br>(°/100usft) | Northing<br>(usft) | Easting<br>(usft) |
|--|------------|----------------------|---------------|-----------------|---------------|---------------|------------------|---------------------|--------------------|-------------------|
| 2,400.0  | 0.59       | 157.32               | 2,399.9       | -2,697.1        | -14.9         | 6.2           | 16.2             | 0.00                | 1,598,983.10       | 2,280,853.80      |
| 2,500.0  | 0.59       | 157.32               | 2,499.9       | -2,597.1        | -15.9         | 6.6           | 17.2             | 0.00                | 1,598,982.14       | 2,280,854.17      |
| 2,600.0  | 0.59       | 157.32               | 2,599.9       | -2,497.1        | -16.8         | 7.0           | 18.2             | 0.00                | 1,598,981.18       | 2,280,854.54      |
| 2,700.0  | 0.59       | 157.32               | 2,699.9       | -2,397.1        | -17.8         | 7.4           | 19.2             | 0.00                | 1,598,980.22       | 2,280,854.91      |
| 2,800.0  | 0.59       | 157.32               | 2,799.9       | -2,297.1        | -18.7         | 7.8           | 20.3             | 0.00                | 1,598,979.26       | 2,280,855.28      |
| 2,900.0  | 0.59       | 157.32               | 2,899.9       | -2,197.1        | -19.7         | 8.2           | 21.3             | 0.00                | 1,598,978.30       | 2,280,855.65      |
| 3,000.0  | 0.59       | 157.32               | 2,999.9       | -2,097.1        | -20.6         | 8.6           | 22.3             | 0.00                | 1,598,977.34       | 2,280,856.02      |
| 3,047.1  | 0.59       | 157.32               | 3,047.0       | -2,050.0        | -21.1         | 8.8           | 22.8             | 0.00                | 1,598,976.88       | 2,280,856.20      |
| <b>Williams Fork</b>   |            |                      |               |                 |               |               |                  |                     |                    |                   |
| 3,100.0  | 0.59       | 157.32               | 3,099.9       | -1,997.1        | -21.6         | 9.0           | 23.4             | 0.00                | 1,598,976.38       | 2,280,856.39      |
| 3,200.0  | 0.59       | 157.32               | 3,199.9       | -1,897.1        | -22.5         | 9.4           | 24.4             | 0.00                | 1,598,975.42       | 2,280,856.76      |
| 3,300.0  | 0.59       | 157.32               | 3,299.9       | -1,797.1        | -23.5         | 9.8           | 25.4             | 0.00                | 1,598,974.46       | 2,280,857.13      |
| 3,400.0  | 0.59       | 157.32               | 3,399.9       | -1,697.1        | -24.4         | 10.2          | 26.4             | 0.00                | 1,598,973.50       | 2,280,857.50      |
| 3,500.0  | 0.59       | 157.32               | 3,499.9       | -1,597.1        | -25.4         | 10.6          | 27.5             | 0.00                | 1,598,972.54       | 2,280,857.87      |
| 3,600.0  | 0.59       | 157.32               | 3,599.9       | -1,497.1        | -26.3         | 11.0          | 28.5             | 0.00                | 1,598,971.58       | 2,280,858.24      |
| 3,700.0  | 0.59       | 157.32               | 3,699.8       | -1,397.2        | -27.2         | 11.4          | 29.5             | 0.00                | 1,598,970.62       | 2,280,858.61      |
| 3,800.0  | 0.59       | 157.32               | 3,799.8       | -1,297.2        | -28.2         | 11.8          | 30.6             | 0.00                | 1,598,969.66       | 2,280,858.98      |
| 3,900.0  | 0.59       | 157.32               | 3,899.8       | -1,197.2        | -29.1         | 12.2          | 31.6             | 0.00                | 1,598,968.70       | 2,280,859.35      |
| 4,000.0  | 0.59       | 157.32               | 3,999.8       | -1,097.2        | -30.1         | 12.6          | 32.6             | 0.00                | 1,598,967.73       | 2,280,859.72      |
| 4,050.2  | 0.59       | 157.32               | 4,050.1       | -1,046.9        | -30.6         | 12.8          | 33.1             | 0.00                | 1,598,967.25       | 2,280,859.91      |
| <b>Start Drop -1.00</b>  |            |                      |               |                 |               |               |                  |                     |                    |                   |
| 4,109.2  | 0.00       | 0.00                 | 4,109.0       | -988.0          | -30.9         | 12.9          | 33.4             | 1.00                | 1,598,966.97       | 2,280,860.02      |
| <b>Start 2229.0 hold at 4109.2 MD - Back to Vertical - Top of Gas - B&amp;V 13C-07-07-95 TGT</b> |            |                      |               |                 |               |               |                  |                     |                    |                   |
| 4,200.0  | 0.00       | 0.00                 | 4,199.8       | -897.2          | -30.9         | 12.9          | 33.4             | 0.00                | 1,598,966.97       | 2,280,860.02      |
| 4,300.0  | 0.00       | 0.00                 | 4,299.8       | -797.2          | -30.9         | 12.9          | 33.4             | 0.00                | 1,598,966.97       | 2,280,860.02      |
| 4,400.0  | 0.00       | 0.00                 | 4,399.8       | -697.2          | -30.9         | 12.9          | 33.4             | 0.00                | 1,598,966.97       | 2,280,860.02      |
| 4,500.0  | 0.00       | 0.00                 | 4,499.8       | -597.2          | -30.9         | 12.9          | 33.4             | 0.00                | 1,598,966.97       | 2,280,860.02      |
| 4,600.0  | 0.00       | 0.00                 | 4,599.8       | -497.2          | -30.9         | 12.9          | 33.4             | 0.00                | 1,598,966.97       | 2,280,860.02      |

|                  |                             |                                     |  |
|------------------|-----------------------------|-------------------------------------|--|
| <b>Company:</b>  | Ursa Operating Company, LLC | <b>Local Co-ordinate Reference:</b> | Well B&V 13C-07-07-95                      |
| <b>Project:</b>  | Rockies Region              | <b>TVD Reference:</b>               | B&V 13C-07-07-95 @ 5097.0usft (PAD Est KB) |
| <b>Site:</b>     | B&V                         | <b>MD Reference:</b>                | B&V 13C-07-07-95 @ 5097.0usft (PAD Est KB) |
| <b>Well:</b>     | B&V 13C-07-07-95            | <b>North Reference:</b>             | True                                       |
| <b>Wellbore:</b> | Wellbore #1                 | <b>Survey Calculation Method:</b>   | Minimum Curvature                          |
| <b>Design:</b>   | Design #1                   | <b>Database:</b>                    | MasterDB                                   |

| Planned Survey |            |                      |               |                 |               |               |                  |                     |                    |                   |
|----------------|------------|----------------------|---------------|-----------------|---------------|---------------|------------------|---------------------|--------------------|-------------------|
| MD<br>(usft)   | Inc<br>(°) | Azi (azimuth)<br>(°) | TVD<br>(usft) | TVDSS<br>(usft) | N/S<br>(usft) | E/W<br>(usft) | V. Sec<br>(usft) | DLeg<br>(°/100usft) | Northing<br>(usft) | Easting<br>(usft) |
| 4,700.0        | 0.00       | 0.00                 | 4,699.8       | -397.2          | -30.9         | 12.9          | 33.4             | 0.00                | 1,598,966.97       | 2,280,860.02      |
| 4,800.0        | 0.00       | 0.00                 | 4,799.8       | -297.2          | -30.9         | 12.9          | 33.4             | 0.00                | 1,598,966.97       | 2,280,860.02      |
| 4,900.0        | 0.00       | 0.00                 | 4,899.8       | -197.2          | -30.9         | 12.9          | 33.4             | 0.00                | 1,598,966.97       | 2,280,860.02      |
| 5,000.0        | 0.00       | 0.00                 | 4,999.8       | -97.2           | -30.9         | 12.9          | 33.4             | 0.00                | 1,598,966.97       | 2,280,860.02      |
| 5,100.0        | 0.00       | 0.00                 | 5,099.8       | 2.8             | -30.9         | 12.9          | 33.4             | 0.00                | 1,598,966.97       | 2,280,860.02      |
| 5,200.0        | 0.00       | 0.00                 | 5,199.8       | 102.8           | -30.9         | 12.9          | 33.4             | 0.00                | 1,598,966.97       | 2,280,860.02      |
| 5,300.0        | 0.00       | 0.00                 | 5,299.8       | 202.8           | -30.9         | 12.9          | 33.4             | 0.00                | 1,598,966.97       | 2,280,860.02      |
| 5,400.0        | 0.00       | 0.00                 | 5,399.8       | 302.8           | -30.9         | 12.9          | 33.4             | 0.00                | 1,598,966.97       | 2,280,860.02      |
| 5,500.0        | 0.00       | 0.00                 | 5,499.8       | 402.8           | -30.9         | 12.9          | 33.4             | 0.00                | 1,598,966.97       | 2,280,860.02      |
| 5,514.2        | 0.00       | 0.00                 | 5,514.0       | 417.0           | -30.9         | 12.9          | 33.4             | 0.00                | 1,598,966.97       | 2,280,860.02      |
| Cameo          |            |                      |               |                 |               |               |                  |                     |                    |                   |
| 5,600.0        | 0.00       | 0.00                 | 5,599.8       | 502.8           | -30.9         | 12.9          | 33.4             | 0.00                | 1,598,966.97       | 2,280,860.02      |
| 5,700.0        | 0.00       | 0.00                 | 5,699.8       | 602.8           | -30.9         | 12.9          | 33.4             | 0.00                | 1,598,966.97       | 2,280,860.02      |
| 5,800.0        | 0.00       | 0.00                 | 5,799.8       | 702.8           | -30.9         | 12.9          | 33.4             | 0.00                | 1,598,966.97       | 2,280,860.02      |
| 5,900.0        | 0.00       | 0.00                 | 5,899.8       | 802.8           | -30.9         | 12.9          | 33.4             | 0.00                | 1,598,966.97       | 2,280,860.02      |
| 6,000.0        | 0.00       | 0.00                 | 5,999.8       | 902.8           | -30.9         | 12.9          | 33.4             | 0.00                | 1,598,966.97       | 2,280,860.02      |
| 6,038.2        | 0.00       | 0.00                 | 6,038.0       | 941.0           | -30.9         | 12.9          | 33.4             | 0.00                | 1,598,966.97       | 2,280,860.02      |
| Rollins        |            |                      |               |                 |               |               |                  |                     |                    |                   |
| 6,100.0        | 0.00       | 0.00                 | 6,099.8       | 1,002.8         | -30.9         | 12.9          | 33.4             | 0.00                | 1,598,966.97       | 2,280,860.02      |
| 6,200.0        | 0.00       | 0.00                 | 6,199.8       | 1,102.8         | -30.9         | 12.9          | 33.4             | 0.00                | 1,598,966.97       | 2,280,860.02      |
| 6,300.0        | 0.00       | 0.00                 | 6,299.8       | 1,202.8         | -30.9         | 12.9          | 33.4             | 0.00                | 1,598,966.97       | 2,280,860.02      |
| 6,338.2        | 0.00       | 0.00                 | 6,338.0       | 1,241.0         | -30.9         | 12.9          | 33.4             | 0.00                | 1,598,966.97       | 2,280,860.02      |
| TD at 6338.2   |            |                      |               |                 |               |               |                  |                     |                    |                   |

|                  |                             |                                     |  |
|------------------|-----------------------------|-------------------------------------|--|
| <b>Company:</b>  | Ursa Operating Company, LLC | <b>Local Co-ordinate Reference:</b> | Well B&V 13C-07-07-95                      |
| <b>Project:</b>  | Rockies Region              | <b>TVD Reference:</b>               | B&V 13C-07-07-95 @ 5097.0usft (PAD Est KB) |
| <b>Site:</b>     | B&V                         | <b>MD Reference:</b>                | B&V 13C-07-07-95 @ 5097.0usft (PAD Est KB) |
| <b>Well:</b>     | B&V 13C-07-07-95            | <b>North Reference:</b>             | True                                       |
| <b>Wellbore:</b> | Wellbore #1                 | <b>Survey Calculation Method:</b>   | Minimum Curvature                          |
| <b>Design:</b>   | Design #1                   | <b>Database:</b>                    | MasterDB                                   |

| Formations            |                       |               |           |         |                   |  |
|-----------------------|-----------------------|---------------|-----------|---------|-------------------|--|
| Measured Depth (usft) | Vertical Depth (usft) | Name          | Lithology | Dip (°) | Dip Direction (°) |  |
| 4,109.2               | 4,109.0               | Top of Gas    |           | 0.00    |                   |  |
| 6,038.2               | 6,038.0               | Rollins       |           | 0.00    |                   |  |
| 5,514.2               | 5,514.0               | Cameo         |           | 0.00    |                   |  |
| 3,047.1               | 3,047.0               | Williams Fork |           | 0.00    |                   |  |

| Plan Annotations      |                       |                   |              |                                |  |
|-----------------------|-----------------------|-------------------|--------------|--------------------------------|--|
| Measured Depth (usft) | Vertical Depth (usft) | Local Coordinates |              |                                |  |
|                       |                       | +N/-S (usft)      | +E/-W (usft) | Comment                        |  |
| 800.0                 | 800.0                 | 0.0               | 0.0          | Start Build 1.00               |  |
| 858.9                 | 858.9                 | -0.3              | 0.1          | Start 3191.3 hold at 858.9 MD  |  |
| 4,050.2               | 4,050.1               | -30.6             | 12.8         | Start Drop -1.00               |  |
| 4,109.2               | 4,109.0               | -30.9             | 12.9         | Start 2229.0 hold at 4109.2 MD |  |
| 4,109.2               | 4,109.0               | -30.9             | 12.9         | Back to Vertical               |  |
| 6,338.2               | 6,338.0               | -30.9             | 12.9         | TD at 6338.2                   |  |

|                   |                    |             |
|-------------------|--------------------|-------------|
| Checked By: _____ | Approved By: _____ | Date: _____ |
|-------------------|--------------------|-------------|



Well Name: B&V 13C-07-07-95  
Surface Location: B&V  
North American Datum 1983, US State Plane 1983, Colorado Central Zone  
Ground Elevation: 5084.0  
+N/-S +E/-W Northing Easting Latitude Longitude Slot  
0.0 0.0 1598998.17 2280847.99 39° 27' 1.227 N 108° 2' 49.396 W  
PAD Est KB B&V 13C-07-07-95 @ 5097.0usft (PAD Est KB)



Azimuths to True North  
Magnetic North: 9.97°  
Magnetic Field  
Strength: 51909.5snT  
Dip Angle: 65.61°  
Date: 8/4/2014  
Model: IGRF2010

B&V  
B&V 13C-07-07-95  
Design #1  
12:34, August 05 2014

#### WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)

| Name             | TVD   | +N/-S | +E/-W | Northing   | Easting    | Latitude        | Longitude        | Shape                           |
|------------------|-------|-------|-------|------------|------------|-----------------|------------------|---------------------------------|
| B&V 13C-07-07-95 | 800.0 | -30.9 | 12.9  | 1598966.97 | 2280860.02 | 39° 27' 0.922 N | 108° 2' 49.232 W | Rectangle (Sides: L40.0 W100.0) |

#### ANNOTATIONS

| TVD    | MD     | Annotation                     |
|--------|--------|--------------------------------|
| 800.0  | 800.0  | Start Build 1.00               |
| 858.9  | 858.9  | Start 3191.3 hold at 858.9 MD  |
| 4050.1 | 4050.2 | Start Drop -1.00               |
| 4109.0 | 4109.2 | Start 2229.0 hold at 4109.2 MD |
| 4109.0 | 4109.2 | Back to Vertical               |
| 6338.0 | 6338.2 | TD at 6338.2                   |

#### SECTION 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   | 800.0  | 0.00 | 0.00   | 800.0  | 0.0   | 0.0   | 0.00 | 0.00   | 0.0  |                      |
| 3   | 858.9  | 0.59 | 157.32 | 858.9  | -0.3  | 0.1   | 1.00 | 157.32 | 0.3  |                      |
| 4   | 4050.2 | 0.59 | 157.32 | 4050.1 | -30.6 | 12.8  | 0.00 | 0.00   | 33.1 |                      |
| 5   | 4109.2 | 0.00 | 0.00   | 4109.0 | -30.9 | 12.9  | 1.00 | 180.00 | 33.4 | B&V 13C-07-07-95 TGT |
| 6   | 6338.2 | 0.00 | 0.00   | 6338.0 | -30.9 | 12.9  | 0.00 | 0.00   | 33.4 |                      |

#### FORMATION TOP DETAILS

| TVDPath | MDPath | Formation     | DipAngle | DipDir |
|---------|--------|---------------|----------|--------|
| 3047.0  | 3047.1 | Williams Fork | 0.00     |        |
| 4109.0  | 4109.2 | Top of Gas    | 0.00     |        |
| 5514.0  | 5514.2 | Cameo         | 0.00     |        |
| 6038.0  | 6038.2 | Rollins       | 0.00     |        |

