



# **Laramie Energy, LLC**

**Garfield County, CO  
CC 603-23-32 Pad  
CC 0697-03-23W - Slot B-4**

**Wellbore #1**

**Plan: Design #2**

## **QES Well Planning Report**

**09 November, 2020**





# Well Planning Report



|                  |                           |                                     |                                |
|------------------|---------------------------|-------------------------------------|--------------------------------|
| <b>Database:</b> | EDM 5000.1 Single User Db | <b>Local Co-ordinate Reference:</b> | Well CC 0697-03-23W - Slot B-4 |
| <b>Company:</b>  | Laramie Energy, LLC       | <b>TVD Reference:</b>               | RKB @ 8643.0usft (H&P #522)    |
| <b>Project:</b>  | Garfield County, CO       | <b>MD Reference:</b>                | RKB @ 8643.0usft (H&P #522)    |
| <b>Site:</b>     | CC 603-23-32 Pad          | <b>North Reference:</b>             | True                           |
| <b>Well:</b>     | CC 0697-03-23W            | <b>Survey Calculation Method:</b>   | Minimum Curvature              |
| <b>Wellbore:</b> | Wellbore #1               |                                     |                                |
| <b>Design:</b>   | Design #2                 |                                     |                                |

|                    |                           |                      |                |
|--------------------|---------------------------|----------------------|----------------|
| <b>Project</b>     | Garfield County, CO       |                      |                |
| <b>Map System:</b> | US State Plane 1983       | <b>System Datum:</b> | Mean Sea Level |
| <b>Geo Datum:</b>  | North American Datum 1983 |                      |                |
| <b>Map Zone:</b>   | Colorado Central Zone     |                      |                |

|                              |                  |                     |                   |                          |             |
|------------------------------|------------------|---------------------|-------------------|--------------------------|-------------|
| <b>Site</b>                  | CC 603-23-32 Pad |                     |                   |                          |             |
| <b>Site Position:</b>        |                  | <b>Northing:</b>    | 1,636,290.15 usft | <b>Latitude:</b>         | 39.549111   |
| <b>From:</b>                 | Lat/Long         | <b>Easting:</b>     | 2,235,900.36 usft | <b>Longitude:</b>        | -108.210095 |
| <b>Position Uncertainty:</b> | 0.0 usft         | <b>Slot Radius:</b> | 13-3/16 "         | <b>Grid Convergence:</b> | -1.71 °     |

|                             |                           |            |                            |                   |                      |              |
|-----------------------------|---------------------------|------------|----------------------------|-------------------|----------------------|--------------|
| <b>Well</b>                 | CC 0697-03-23W - Slot B-4 |            |                            |                   |                      |              |
| <b>Well Position</b>        | <b>+N/-S</b>              | -60.3 usft | <b>Northing:</b>           | 1,636,231.44 usft | <b>Latitude:</b>     | 39.548945    |
|                             | <b>+E/-W</b>              | -53.5 usft | <b>Easting:</b>            | 2,235,845.09 usft | <b>Longitude:</b>    | -108.210285  |
| <b>Position Uncertainty</b> |                           | 0.0 usft   | <b>Wellhead Elevation:</b> |                   | <b>Ground Level:</b> | 8,613.0 usft |

|                  |                   |                    |                        |                      |                            |
|------------------|-------------------|--------------------|------------------------|----------------------|----------------------------|
| <b>Wellbore</b>  | Wellbore #1       |                    |                        |                      |                            |
| <b>Magnetics</b> | <b>Model Name</b> | <b>Sample Date</b> | <b>Declination (°)</b> | <b>Dip Angle (°)</b> | <b>Field Strength (nT)</b> |
|                  | HDGM2020          | 10/30/2020         | 9.43                   | 65.75                | 51,296.70000000            |

|                          |                                |                     |                      |                      |
|--------------------------|--------------------------------|---------------------|----------------------|----------------------|
| <b>Design</b>            | Design #2                      |                     |                      |                      |
| <b>Audit Notes:</b>      |                                |                     |                      |                      |
| <b>Version:</b>          | <b>Phase:</b>                  | PLAN                | <b>Tie On Depth:</b> | 0.0                  |
| <b>Vertical Section:</b> | <b>Depth From (TVD) (usft)</b> | <b>+N/-S (usft)</b> | <b>+E/-W (usft)</b>  | <b>Direction (°)</b> |
|                          | 0.0                            | 0.0                 | 0.0                  | 131.29               |

| <b>Plan Sections</b>  |                 |             |                       |              |              |                         |                        |                       |         |               |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|------------------------|-----------------------|---------|---------------|
| 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        |
| 0.0                   | 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    |               |
| 440.1                 | 6.00            | 131.29      | 439.6                 | -8.3         | 9.4          | 2.50                    | 2.50                   | 0.00                  | 131.29  |               |
| 6,024.4               | 6.00            | 131.29      | 5,993.4               | -393.6       | 448.2        | 0.00                    | 0.00                   | 0.00                  | 0.00    |               |
| 6,264.5               | 0.00            | 0.00        | 6,233.0               | -401.9       | 457.6        | 2.50                    | -2.50                  | 0.00                  | 180.00  |               |
| 10,114.5              | 0.00            | 0.00        | 10,083.0              | -401.9       | 457.6        | 0.00                    | 0.00                   | 0.00                  | 0.00    | 03-23W - PBHL |



# Well Planning Report



|                  |                           |                                     |                                |
|------------------|---------------------------|-------------------------------------|--------------------------------|
| <b>Database:</b> | EDM 5000.1 Single User Db | <b>Local Co-ordinate Reference:</b> | Well CC 0697-03-23W - Slot B-4 |
| <b>Company:</b>  | Laramie Energy, LLC       | <b>TVD Reference:</b>               | RKB @ 8643.0usft (H&P #522)    |
| <b>Project:</b>  | Garfield County, CO       | <b>MD Reference:</b>                | RKB @ 8643.0usft (H&P #522)    |
| <b>Site:</b>     | CC 603-23-32 Pad          | <b>North Reference:</b>             | True                           |
| <b>Well:</b>     | CC 0697-03-23W            | <b>Survey Calculation Method:</b>   | Minimum Curvature              |
| <b>Wellbore:</b> | Wellbore #1               |                                     |                                |
| <b>Design:</b>   | Design #2                 |                                     |                                |

## 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) |
|---------------------------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| 0.0                                   | 0.00            | 0.00        | 0.0                   | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 100.0                                 | 0.00            | 0.00        | 100.0                 | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| <b>KOP @ (Build 2.5° / 100)</b>       |                 |             |                       |              |              |                         |                         |                        |                       |
| 200.0                                 | 0.00            | 0.00        | 200.0                 | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 300.0                                 | 2.50            | 131.29      | 300.0                 | -1.4         | 1.6          | 2.2                     | 2.50                    | 2.50                   | 0.00                  |
| 400.0                                 | 5.00            | 131.29      | 399.7                 | -5.8         | 6.6          | 8.7                     | 2.50                    | 2.50                   | 0.00                  |
| <b>EOB @ 6.00° Inc. / 131.29° Azm</b> |                 |             |                       |              |              |                         |                         |                        |                       |
| 440.1                                 | 6.00            | 131.29      | 439.6                 | -8.3         | 9.4          | 12.6                    | 2.50                    | 2.50                   | 0.00                  |
| 500.0                                 | 6.00            | 131.29      | 499.2                 | -12.4        | 14.1         | 18.8                    | 0.00                    | 0.00                   | 0.00                  |
| 600.0                                 | 6.00            | 131.29      | 598.7                 | -19.3        | 22.0         | 29.3                    | 0.00                    | 0.00                   | 0.00                  |
| 700.0                                 | 6.00            | 131.29      | 698.1                 | -26.2        | 29.9         | 39.7                    | 0.00                    | 0.00                   | 0.00                  |
| 800.0                                 | 6.00            | 131.29      | 797.6                 | -33.1        | 37.7         | 50.2                    | 0.00                    | 0.00                   | 0.00                  |
| 900.0                                 | 6.00            | 131.29      | 897.0                 | -40.0        | 45.6         | 60.7                    | 0.00                    | 0.00                   | 0.00                  |
| <b>Mahogany</b>                       |                 |             |                       |              |              |                         |                         |                        |                       |
| 986.4                                 | 6.00            | 131.29      | 983.0                 | -46.0        | 52.4         | 69.7                    | 0.00                    | 0.00                   | 0.00                  |
| 1,000.0                               | 6.00            | 131.29      | 996.5                 | -46.9        | 53.4         | 71.1                    | 0.00                    | 0.00                   | 0.00                  |
| 1,100.0                               | 6.00            | 131.29      | 1,095.9               | -53.8        | 61.3         | 81.6                    | 0.00                    | 0.00                   | 0.00                  |
| 1,200.0                               | 6.00            | 131.29      | 1,195.4               | -60.7        | 69.1         | 92.0                    | 0.00                    | 0.00                   | 0.00                  |
| 1,300.0                               | 6.00            | 131.29      | 1,294.8               | -67.6        | 77.0         | 102.5                   | 0.00                    | 0.00                   | 0.00                  |
| 1,400.0                               | 6.00            | 131.29      | 1,394.3               | -74.5        | 84.9         | 112.9                   | 0.00                    | 0.00                   | 0.00                  |
| 1,500.0                               | 6.00            | 131.29      | 1,493.8               | -81.4        | 92.7         | 123.4                   | 0.00                    | 0.00                   | 0.00                  |
| 1,600.0                               | 6.00            | 131.29      | 1,593.2               | -88.3        | 100.6        | 133.8                   | 0.00                    | 0.00                   | 0.00                  |
| 1,700.0                               | 6.00            | 131.29      | 1,692.7               | -95.2        | 108.4        | 144.3                   | 0.00                    | 0.00                   | 0.00                  |
| 1,800.0                               | 6.00            | 131.29      | 1,792.1               | -102.1       | 116.3        | 154.8                   | 0.00                    | 0.00                   | 0.00                  |
| 1,900.0                               | 6.00            | 131.29      | 1,891.6               | -109.0       | 124.1        | 165.2                   | 0.00                    | 0.00                   | 0.00                  |
| 2,000.0                               | 6.00            | 131.29      | 1,991.0               | -115.9       | 132.0        | 175.7                   | 0.00                    | 0.00                   | 0.00                  |
| 2,100.0                               | 6.00            | 131.29      | 2,090.5               | -122.8       | 139.8        | 186.1                   | 0.00                    | 0.00                   | 0.00                  |
| 2,200.0                               | 6.00            | 131.29      | 2,189.9               | -129.7       | 147.7        | 196.6                   | 0.00                    | 0.00                   | 0.00                  |
| 2,300.0                               | 6.00            | 131.29      | 2,289.4               | -136.6       | 155.6        | 207.0                   | 0.00                    | 0.00                   | 0.00                  |
| 2,400.0                               | 6.00            | 131.29      | 2,388.8               | -143.5       | 163.4        | 217.5                   | 0.00                    | 0.00                   | 0.00                  |
| 2,500.0                               | 6.00            | 131.29      | 2,488.3               | -150.4       | 171.3        | 227.9                   | 0.00                    | 0.00                   | 0.00                  |
| <b>9 5/8"</b>                         |                 |             |                       |              |              |                         |                         |                        |                       |
| 2,530.0                               | 6.00            | 131.29      | 2,518.1               | -152.5       | 173.6        | 231.1                   | 0.00                    | 0.00                   | 0.00                  |
| 2,600.0                               | 6.00            | 131.29      | 2,587.7               | -157.3       | 179.1        | 238.4                   | 0.00                    | 0.00                   | 0.00                  |
| 2,700.0                               | 6.00            | 131.29      | 2,687.2               | -164.2       | 187.0        | 248.9                   | 0.00                    | 0.00                   | 0.00                  |
| 2,800.0                               | 6.00            | 131.29      | 2,786.6               | -171.1       | 194.8        | 259.3                   | 0.00                    | 0.00                   | 0.00                  |
| 2,900.0                               | 6.00            | 131.29      | 2,886.1               | -178.0       | 202.7        | 269.8                   | 0.00                    | 0.00                   | 0.00                  |
| <b>Wasatch</b>                        |                 |             |                       |              |              |                         |                         |                        |                       |
| 2,947.2                               | 6.00            | 131.29      | 2,933.0               | -181.3       | 206.4        | 274.7                   | 0.00                    | 0.00                   | 0.00                  |
| 3,000.0                               | 6.00            | 131.29      | 2,985.5               | -184.9       | 210.5        | 280.2                   | 0.00                    | 0.00                   | 0.00                  |
| 3,100.0                               | 6.00            | 131.29      | 3,085.0               | -191.8       | 218.4        | 290.7                   | 0.00                    | 0.00                   | 0.00                  |
| 3,200.0                               | 6.00            | 131.29      | 3,184.4               | -198.7       | 226.3        | 301.1                   | 0.00                    | 0.00                   | 0.00                  |
| 3,300.0                               | 6.00            | 131.29      | 3,283.9               | -205.6       | 234.1        | 311.6                   | 0.00                    | 0.00                   | 0.00                  |
| 3,400.0                               | 6.00            | 131.29      | 3,383.3               | -212.5       | 242.0        | 322.0                   | 0.00                    | 0.00                   | 0.00                  |
| 3,500.0                               | 6.00            | 131.29      | 3,482.8               | -219.4       | 249.8        | 332.5                   | 0.00                    | 0.00                   | 0.00                  |
| 3,600.0                               | 6.00            | 131.29      | 3,582.2               | -226.3       | 257.7        | 343.0                   | 0.00                    | 0.00                   | 0.00                  |
| 3,700.0                               | 6.00            | 131.29      | 3,681.7               | -233.2       | 265.5        | 353.4                   | 0.00                    | 0.00                   | 0.00                  |
| 3,800.0                               | 6.00            | 131.29      | 3,781.1               | -240.1       | 273.4        | 363.9                   | 0.00                    | 0.00                   | 0.00                  |
| 3,900.0                               | 6.00            | 131.29      | 3,880.6               | -247.0       | 281.3        | 374.3                   | 0.00                    | 0.00                   | 0.00                  |
| 4,000.0                               | 6.00            | 131.29      | 3,980.0               | -253.9       | 289.1        | 384.8                   | 0.00                    | 0.00                   | 0.00                  |
| 4,100.0                               | 6.00            | 131.29      | 4,079.5               | -260.8       | 297.0        | 395.2                   | 0.00                    | 0.00                   | 0.00                  |
| 4,200.0                               | 6.00            | 131.29      | 4,179.0               | -267.7       | 304.8        | 405.7                   | 0.00                    | 0.00                   | 0.00                  |
| 4,300.0                               | 6.00            | 131.29      | 4,278.4               | -274.6       | 312.7        | 416.2                   | 0.00                    | 0.00                   | 0.00                  |
| 4,400.0                               | 6.00            | 131.29      | 4,377.9               | -281.5       | 320.5        | 426.6                   | 0.00                    | 0.00                   | 0.00                  |



# Well Planning Report



|                  |                           |                                     |                                |
|------------------|---------------------------|-------------------------------------|--------------------------------|
| <b>Database:</b> | EDM 5000.1 Single User Db | <b>Local Co-ordinate Reference:</b> | Well CC 0697-03-23W - Slot B-4 |
| <b>Company:</b>  | Laramie Energy, LLC       | <b>TVD Reference:</b>               | RKB @ 8643.0usft (H&P #522)    |
| <b>Project:</b>  | Garfield County, CO       | <b>MD Reference:</b>                | RKB @ 8643.0usft (H&P #522)    |
| <b>Site:</b>     | CC 603-23-32 Pad          | <b>North Reference:</b>             | True                           |
| <b>Well:</b>     | CC 0697-03-23W            | <b>Survey Calculation Method:</b>   | Minimum Curvature              |
| <b>Wellbore:</b> | Wellbore #1               |                                     |                                |
| <b>Design:</b>   | Design #2                 |                                     |                                |

| 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) |
| 4,500.0                 | 6.00            | 131.29      | 4,477.3               | -288.4       | 328.4        | 437.1                   | 0.00                    | 0.00                   | 0.00                  |
| 4,600.0                 | 6.00            | 131.29      | 4,576.8               | -295.3       | 336.2        | 447.5                   | 0.00                    | 0.00                   | 0.00                  |
| 4,700.0                 | 6.00            | 131.29      | 4,676.2               | -302.2       | 344.1        | 458.0                   | 0.00                    | 0.00                   | 0.00                  |
| <b>Wasatch 'G' Sand</b> |                 |             |                       |              |              |                         |                         |                        |                       |
| 4,706.8                 | 6.00            | 131.29      | 4,683.0               | -302.7       | 344.6        | 458.7                   | 0.00                    | 0.00                   | 0.00                  |
| 4,800.0                 | 6.00            | 131.29      | 4,775.7               | -309.1       | 352.0        | 468.4                   | 0.00                    | 0.00                   | 0.00                  |
| 4,900.0                 | 6.00            | 131.29      | 4,875.1               | -316.0       | 359.8        | 478.9                   | 0.00                    | 0.00                   | 0.00                  |
| <b>Fort Union</b>       |                 |             |                       |              |              |                         |                         |                        |                       |
| 4,918.0                 | 6.00            | 131.29      | 4,893.0               | -317.3       | 361.2        | 480.8                   | 0.00                    | 0.00                   | 0.00                  |
| 5,000.0                 | 6.00            | 131.29      | 4,974.6               | -322.9       | 367.7        | 489.3                   | 0.00                    | 0.00                   | 0.00                  |
| 5,100.0                 | 6.00            | 131.29      | 5,074.0               | -329.8       | 375.5        | 499.8                   | 0.00                    | 0.00                   | 0.00                  |
| 5,200.0                 | 6.00            | 131.29      | 5,173.5               | -336.7       | 383.4        | 510.3                   | 0.00                    | 0.00                   | 0.00                  |
| 5,300.0                 | 6.00            | 131.29      | 5,272.9               | -343.6       | 391.2        | 520.7                   | 0.00                    | 0.00                   | 0.00                  |
| 5,400.0                 | 6.00            | 131.29      | 5,372.4               | -350.5       | 399.1        | 531.2                   | 0.00                    | 0.00                   | 0.00                  |
| 5,500.0                 | 6.00            | 131.29      | 5,471.8               | -357.4       | 407.0        | 541.6                   | 0.00                    | 0.00                   | 0.00                  |
| 5,600.0                 | 6.00            | 131.29      | 5,571.3               | -364.3       | 414.8        | 552.1                   | 0.00                    | 0.00                   | 0.00                  |
| 5,700.0                 | 6.00            | 131.29      | 5,670.7               | -371.2       | 422.7        | 562.5                   | 0.00                    | 0.00                   | 0.00                  |
| 5,800.0                 | 6.00            | 131.29      | 5,770.2               | -378.1       | 430.5        | 573.0                   | 0.00                    | 0.00                   | 0.00                  |
| 5,900.0                 | 6.00            | 131.29      | 5,869.6               | -385.0       | 438.4        | 583.4                   | 0.00                    | 0.00                   | 0.00                  |
| 6,000.0                 | 6.00            | 131.29      | 5,969.1               | -391.9       | 446.2        | 593.9                   | 0.00                    | 0.00                   | 0.00                  |
| <b>Drop 2.5° /100'</b>  |                 |             |                       |              |              |                         |                         |                        |                       |
| 6,024.4                 | 6.00            | 131.29      | 5,993.4               | -393.6       | 448.2        | 596.5                   | 0.00                    | 0.00                   | 0.00                  |
| 6,100.0                 | 4.11            | 131.29      | 6,068.7               | -398.0       | 453.2        | 603.1                   | 2.50                    | -2.50                  | 0.00                  |
| 6,200.0                 | 1.61            | 131.29      | 6,168.5               | -401.3       | 456.9        | 608.1                   | 2.50                    | -2.50                  | 0.00                  |
| <b>EOD @ Vertical</b>   |                 |             |                       |              |              |                         |                         |                        |                       |
| 6,264.5                 | 0.00            | 0.00        | 6,233.0               | -401.9       | 457.6        | 609.0                   | 2.50                    | -2.50                  | 0.00                  |
| 6,300.0                 | 0.00            | 0.00        | 6,268.5               | -401.9       | 457.6        | 609.0                   | 0.00                    | 0.00                   | 0.00                  |
| 6,400.0                 | 0.00            | 0.00        | 6,368.5               | -401.9       | 457.6        | 609.0                   | 0.00                    | 0.00                   | 0.00                  |
| <b>Ohio Creek</b>       |                 |             |                       |              |              |                         |                         |                        |                       |
| 6,464.5                 | 0.00            | 0.00        | 6,433.0               | -401.9       | 457.6        | 609.0                   | 0.00                    | 0.00                   | 0.00                  |
| 6,500.0                 | 0.00            | 0.00        | 6,468.5               | -401.9       | 457.6        | 609.0                   | 0.00                    | 0.00                   | 0.00                  |
| 6,600.0                 | 0.00            | 0.00        | 6,568.5               | -401.9       | 457.6        | 609.0                   | 0.00                    | 0.00                   | 0.00                  |
| 6,700.0                 | 0.00            | 0.00        | 6,668.5               | -401.9       | 457.6        | 609.0                   | 0.00                    | 0.00                   | 0.00                  |
| <b>Williams Fork</b>    |                 |             |                       |              |              |                         |                         |                        |                       |
| 6,764.5                 | 0.00            | 0.00        | 6,733.0               | -401.9       | 457.6        | 609.0                   | 0.00                    | 0.00                   | 0.00                  |
| 6,800.0                 | 0.00            | 0.00        | 6,768.5               | -401.9       | 457.6        | 609.0                   | 0.00                    | 0.00                   | 0.00                  |
| 6,900.0                 | 0.00            | 0.00        | 6,868.5               | -401.9       | 457.6        | 609.0                   | 0.00                    | 0.00                   | 0.00                  |
| 7,000.0                 | 0.00            | 0.00        | 6,968.5               | -401.9       | 457.6        | 609.0                   | 0.00                    | 0.00                   | 0.00                  |
| 7,100.0                 | 0.00            | 0.00        | 7,068.5               | -401.9       | 457.6        | 609.0                   | 0.00                    | 0.00                   | 0.00                  |
| <b>TOG</b>              |                 |             |                       |              |              |                         |                         |                        |                       |
| 7,164.5                 | 0.00            | 0.00        | 7,133.0               | -401.9       | 457.6        | 609.0                   | 0.00                    | 0.00                   | 0.00                  |
| 7,200.0                 | 0.00            | 0.00        | 7,168.5               | -401.9       | 457.6        | 609.0                   | 0.00                    | 0.00                   | 0.00                  |
| 7,300.0                 | 0.00            | 0.00        | 7,268.5               | -401.9       | 457.6        | 609.0                   | 0.00                    | 0.00                   | 0.00                  |
| 7,400.0                 | 0.00            | 0.00        | 7,368.5               | -401.9       | 457.6        | 609.0                   | 0.00                    | 0.00                   | 0.00                  |
| 7,500.0                 | 0.00            | 0.00        | 7,468.5               | -401.9       | 457.6        | 609.0                   | 0.00                    | 0.00                   | 0.00                  |
| 7,600.0                 | 0.00            | 0.00        | 7,568.5               | -401.9       | 457.6        | 609.0                   | 0.00                    | 0.00                   | 0.00                  |
| 7,700.0                 | 0.00            | 0.00        | 7,668.5               | -401.9       | 457.6        | 609.0                   | 0.00                    | 0.00                   | 0.00                  |
| 7,800.0                 | 0.00            | 0.00        | 7,768.5               | -401.9       | 457.6        | 609.0                   | 0.00                    | 0.00                   | 0.00                  |
| 7,900.0                 | 0.00            | 0.00        | 7,868.5               | -401.9       | 457.6        | 609.0                   | 0.00                    | 0.00                   | 0.00                  |
| 8,000.0                 | 0.00            | 0.00        | 7,968.5               | -401.9       | 457.6        | 609.0                   | 0.00                    | 0.00                   | 0.00                  |
| 8,100.0                 | 0.00            | 0.00        | 8,068.5               | -401.9       | 457.6        | 609.0                   | 0.00                    | 0.00                   | 0.00                  |
| 8,200.0                 | 0.00            | 0.00        | 8,168.5               | -401.9       | 457.6        | 609.0                   | 0.00                    | 0.00                   | 0.00                  |
| 8,300.0                 | 0.00            | 0.00        | 8,268.5               | -401.9       | 457.6        | 609.0                   | 0.00                    | 0.00                   | 0.00                  |



# Well Planning Report



|                  |                           |                                     |                                |
|------------------|---------------------------|-------------------------------------|--------------------------------|
| <b>Database:</b> | EDM 5000.1 Single User Db | <b>Local Co-ordinate Reference:</b> | Well CC 0697-03-23W - Slot B-4 |
| <b>Company:</b>  | Laramie Energy, LLC       | <b>TVD Reference:</b>               | RKB @ 8643.0usft (H&P #522)    |
| <b>Project:</b>  | Garfield County, CO       | <b>MD Reference:</b>                | RKB @ 8643.0usft (H&P #522)    |
| <b>Site:</b>     | CC 603-23-32 Pad          | <b>North Reference:</b>             | True                           |
| <b>Well:</b>     | CC 0697-03-23W            | <b>Survey Calculation Method:</b>   | Minimum Curvature              |
| <b>Wellbore:</b> | Wellbore #1               |                                     |                                |
| <b>Design:</b>   | Design #2                 |                                     |                                |

| 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) |  |
| 8,400.0                                | 0.00            | 0.00        | 8,368.5               | -401.9       | 457.6        | 609.0                   | 0.00                    | 0.00                   | 0.00                  |  |
| 8,500.0                                | 0.00            | 0.00        | 8,468.5               | -401.9       | 457.6        | 609.0                   | 0.00                    | 0.00                   | 0.00                  |  |
| 8,600.0                                | 0.00            | 0.00        | 8,568.5               | -401.9       | 457.6        | 609.0                   | 0.00                    | 0.00                   | 0.00                  |  |
| 8,700.0                                | 0.00            | 0.00        | 8,668.5               | -401.9       | 457.6        | 609.0                   | 0.00                    | 0.00                   | 0.00                  |  |
| 8,800.0                                | 0.00            | 0.00        | 8,768.5               | -401.9       | 457.6        | 609.0                   | 0.00                    | 0.00                   | 0.00                  |  |
| 8,900.0                                | 0.00            | 0.00        | 8,868.5               | -401.9       | 457.6        | 609.0                   | 0.00                    | 0.00                   | 0.00                  |  |
| <b>Cameo</b>                           |                 |             |                       |              |              |                         |                         |                        |                       |  |
| 8,954.5                                | 0.00            | 0.00        | 8,923.0               | -401.9       | 457.6        | 609.0                   | 0.00                    | 0.00                   | 0.00                  |  |
| 9,000.0                                | 0.00            | 0.00        | 8,968.5               | -401.9       | 457.6        | 609.0                   | 0.00                    | 0.00                   | 0.00                  |  |
| 9,100.0                                | 0.00            | 0.00        | 9,068.5               | -401.9       | 457.6        | 609.0                   | 0.00                    | 0.00                   | 0.00                  |  |
| 9,200.0                                | 0.00            | 0.00        | 9,168.5               | -401.9       | 457.6        | 609.0                   | 0.00                    | 0.00                   | 0.00                  |  |
| 9,300.0                                | 0.00            | 0.00        | 9,268.5               | -401.9       | 457.6        | 609.0                   | 0.00                    | 0.00                   | 0.00                  |  |
| <b>Base Cameo Coal</b>                 |                 |             |                       |              |              |                         |                         |                        |                       |  |
| 9,349.5                                | 0.00            | 0.00        | 9,318.0               | -401.9       | 457.6        | 609.0                   | 0.00                    | 0.00                   | 0.00                  |  |
| <b>Rollins</b>                         |                 |             |                       |              |              |                         |                         |                        |                       |  |
| 9,364.5                                | 0.00            | 0.00        | 9,333.0               | -401.9       | 457.6        | 609.0                   | 0.00                    | 0.00                   | 0.00                  |  |
| 9,400.0                                | 0.00            | 0.00        | 9,368.5               | -401.9       | 457.6        | 609.0                   | 0.00                    | 0.00                   | 0.00                  |  |
| 9,500.0                                | 0.00            | 0.00        | 9,468.5               | -401.9       | 457.6        | 609.0                   | 0.00                    | 0.00                   | 0.00                  |  |
| <b>Cozette</b>                         |                 |             |                       |              |              |                         |                         |                        |                       |  |
| 9,564.5                                | 0.00            | 0.00        | 9,533.0               | -401.9       | 457.6        | 609.0                   | 0.00                    | 0.00                   | 0.00                  |  |
| 9,600.0                                | 0.00            | 0.00        | 9,568.5               | -401.9       | 457.6        | 609.0                   | 0.00                    | 0.00                   | 0.00                  |  |
| 9,700.0                                | 0.00            | 0.00        | 9,668.5               | -401.9       | 457.6        | 609.0                   | 0.00                    | 0.00                   | 0.00                  |  |
| 9,800.0                                | 0.00            | 0.00        | 9,768.5               | -401.9       | 457.6        | 609.0                   | 0.00                    | 0.00                   | 0.00                  |  |
| <b>Corcoran</b>                        |                 |             |                       |              |              |                         |                         |                        |                       |  |
| 9,839.5                                | 0.00            | 0.00        | 9,808.0               | -401.9       | 457.6        | 609.0                   | 0.00                    | 0.00                   | 0.00                  |  |
| 9,900.0                                | 0.00            | 0.00        | 9,868.5               | -401.9       | 457.6        | 609.0                   | 0.00                    | 0.00                   | 0.00                  |  |
| 10,000.0                               | 0.00            | 0.00        | 9,968.5               | -401.9       | 457.6        | 609.0                   | 0.00                    | 0.00                   | 0.00                  |  |
| 10,100.0                               | 0.00            | 0.00        | 10,068.5              | -401.9       | 457.6        | 609.0                   | 0.00                    | 0.00                   | 0.00                  |  |
| <b>TD @ 10114.5' MD / 10083.0' TVD</b> |                 |             |                       |              |              |                         |                         |                        |                       |  |
| 10,114.5                               | 0.00            | 0.00        | 10,083.0              | -401.9       | 457.6        | 609.0                   | 0.00                    | 0.00                   | 0.00                  |  |

| Design Targets                              |               |              |            |              |              |                 |                |           |             |  |
|---|---------------|--------------|------------|--------------|--------------|-----------------|----------------|-----------|-------------|--|
| Target Name                                 | Dip Angle (°) | Dip Dir. (°) | TVD (usft) | +N/-S (usft) | +E/-W (usft) | Northing (usft) | Easting (usft) | Latitude  | Longitude   |  |
| 03-23W - PBHL                               | 0.00          | 0.00         | 10,083.0   | -401.9       | 457.6        | 1,635,816.08    | 2,236,290.49   | 39.547842 | -108.208662 |  |
| - hit/miss target                           |               |              |            |              |              |                 |                |           |             |  |
| - plan hits target center                   |               |              |            |              |              |                 |                |           |             |  |
| - Ellipse (radii L50.0 W75.0 on 150.00 azi) |               |              |            |              |              |                 |                |           |             |  |

| Casing Points         |                       |        |                     |                   |  |  |
|-----------------------|-----------------------|--------|---------------------|-------------------|--|--|
| Measured Depth (usft) | Vertical Depth (usft) | Name   | Casing Diameter (") | Hole Diameter (") |  |  |
| 2,530.0               | 2,518.1               | 9 5/8" | 9-5/8               | 14-1/2            |  |  |



|                  |                           |                                     |                                |
|------------------|---------------------------|-------------------------------------|--------------------------------|
| <b>Database:</b> | EDM 5000.1 Single User Db | <b>Local Co-ordinate Reference:</b> | Well CC 0697-03-23W - Slot B-4 |
| <b>Company:</b>  | Laramie Energy, LLC       | <b>TVD Reference:</b>               | RKB @ 8643.0usft (H&P #522)    |
| <b>Project:</b>  | Garfield County, CO       | <b>MD Reference:</b>                | RKB @ 8643.0usft (H&P #522)    |
| <b>Site:</b>     | CC 603-23-32 Pad          | <b>North Reference:</b>             | True                           |
| <b>Well:</b>     | CC 0697-03-23W            | <b>Survey Calculation Method:</b>   | Minimum Curvature              |
| <b>Wellbore:</b> | Wellbore #1               |                                     |                                |
| <b>Design:</b>   | Design #2                 |                                     |                                |

| Formations            |                       |                  |           |         |                   |
|-----------------------|-----------------------|------------------|-----------|---------|-------------------|
| Measured Depth (usft) | Vertical Depth (usft) | Name             | Lithology | Dip (°) | Dip Direction (°) |
| 986.4                 | 983.0                 | Mahogany         |           |         |                   |
| 2,947.2               | 2,933.0               | Wasatch          |           |         |                   |
| 4,706.8               | 4,683.0               | Wasatch 'G' Sand |           |         |                   |
| 4,918.0               | 4,893.0               | Fort Union       |           |         |                   |
| 6,464.5               | 6,433.0               | Ohio Creek       |           |         |                   |
| 6,764.5               | 6,733.0               | Williams Fork    |           |         |                   |
| 7,164.5               | 7,133.0               | TOG              |           |         |                   |
| 8,954.5               | 8,923.0               | Cameo            |           |         |                   |
| 9,349.5               | 9,318.0               | Base Cameo Coal  |           |         |                   |
| 9,364.5               | 9,333.0               | Rollins          |           |         |                   |
| 9,564.5               | 9,533.0               | Cozzette         |           |         |                   |
| 9,839.5               | 9,808.0               | Corcoran         |           |         |                   |

| Plan Annotations      |                       |                   |              |                                 |
|-----------------------|-----------------------|-------------------|--------------|---------------------------------|
| Measured Depth (usft) | Vertical Depth (usft) | Local Coordinates |              | Comment                         |
|                       |                       | +N/-S (usft)      | +E/-W (usft) |                                 |
| 200.0                 | 200.0                 | 0.0               | 0.0          | KOP @ (Build 2.5° / 100)        |
| 440.1                 | 439.6                 | -8.3              | 9.4          | EOB @ 6.00° Inc. / 131.29° Azm  |
| 6,024.4               | 5,993.4               | -393.6            | 448.2        | Drop 2.5° /100'                 |
| 6,264.5               | 6,233.0               | -401.9            | 457.6        | EOD @ Vertical                  |
| 10,114.5              | 10,083.0              | -401.9            | 457.6        | TD @ 10114.5' MD / 10083.0' TVD |