



# **US ROCKIES REGION PLANNING**

**COLORADO NORTHERN ZONE - 83**

**WELD\_WINTERS 12-3 PAD**

**P\_WINTERS 35-3**

**P\_WINTERS 35-3**

**Plan: PLAN #1 3-10-10 RHS**

## **Standard Planning Report**

**10 March, 2010**





Project: COLORADO NORTHERN ZONE - 83  
 Site: WELD\_WINTERS 12-3 PAD  
 Well: P\_WINTERS 35-3  
 Wellbore: P\_WINTERS 35-3  
 Section: SECTION 3 T5N R65W  
 SHL: 1679 FSL 499 FWL  
 Design: PLAN #1 3-10-10 RHS  
 Latitude: 40° 25' 32.333 N  
 Longitude: 104° 39' 25.549 W  
 GL: 4632.00  
 KB: WELL @ 4647.00ft (Original Well Elev)



**Weatherford®**



Azimuths to True North  
 Magnetic North: 8.98°  
 Magnetic Field  
 Strength: 53291.9snT  
 Dip Angle: 67.13°  
 Date: 3/10/2010  
 Model: IGRF2010

#### FORMATION TOP DETAILS

| TVDPath | MDPath  | Formation |
|---------|---------|-----------|
| 3555.00 | 3787.50 | PARKMAN   |
| 4265.00 | 4564.68 | SUSSEX    |
| 6633.00 | 6986.65 | NIO A     |
| 6941.00 | 7294.65 | CODELL    |
| 7016.00 | 7369.65 | GREENHORN |

#### CASING DETAILS

| TVD    | MD     | Name   | Size |
|--------|--------|--------|------|
| 530.00 | 530.25 | 8 5/8" | 8.62 |

#### SECTION DETAILS

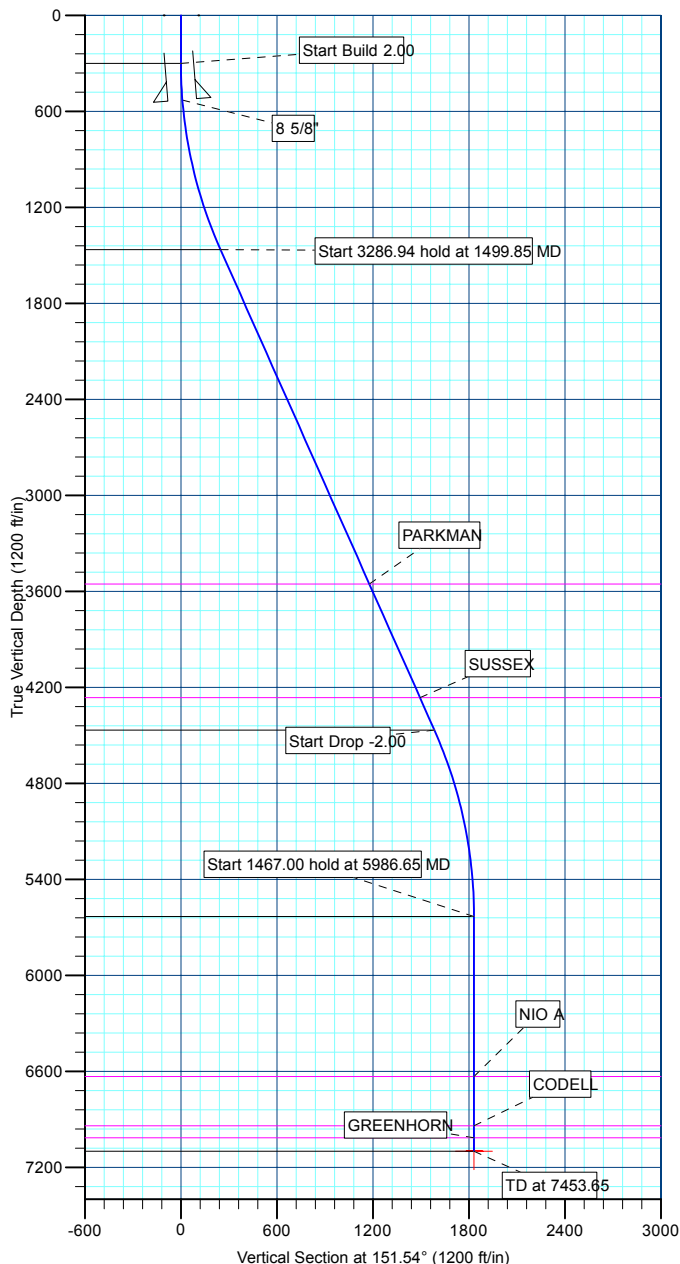
| MD      | Inc   | Azi    | TVD     | +N/-S    | +E/-W  | DLeg | TFace  | VSec    | Annotation                       |
|---------|-------|--------|---------|----------|--------|------|--------|---------|----------------------------------|
| 0.00    | 0.00  | 0.00   | 0.00    | 0.00     | 0.00   | 0.00 | 0.00   | 0.00    |                                  |
| 300.00  | 0.00  | 0.00   | 300.00  | 0.00     | 0.00   | 0.00 | 0.00   | 0.00    | Start Build 2.00                 |
| 1499.85 | 24.00 | 151.54 | 1465.08 | -217.68  | 118.01 | 2.00 | 151.54 | 247.61  | Start 3286.94 hold at 1499.85 MD |
| 4786.80 | 24.00 | 151.54 | 4467.92 | -1392.85 | 755.12 | 0.00 | 0.00   | 1584.38 | Start Drop -2.00                 |
| 5986.65 | 0.00  | 0.00   | 5633.00 | -1610.54 | 873.14 | 2.00 | 180.00 | 1831.99 | Start 1467.00 hold at 5986.65 MD |
| 7453.65 | 0.00  | 0.00   | 7100.00 | -1610.54 | 873.14 | 0.00 | 0.00   | 1831.99 | TD at 7453.65                    |

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

| Name | TVD     | +N/-S    | +E/-W  | Latitude         | Longitude         | Shape                  |
|------|---------|----------|--------|------------------|-------------------|------------------------|
| PBHL | 7100.00 | -1610.54 | 873.14 | 40° 25' 16.417 N | 104° 39' 14.260 W | Circle (Radius: 50.00) |

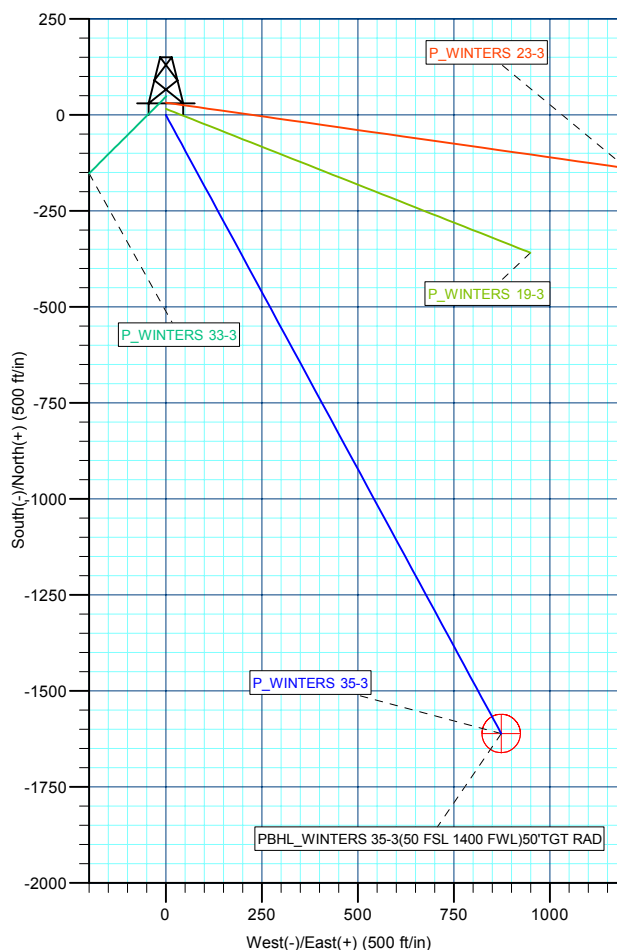
#### WELL DETAILS: P\_WINTERS 35-3

| +N/-S | +E/-W | Northing   | Ground Level:<br>Easting | 4632.00<br>Latitude | Longitude         | Slot |
|-------|-------|------------|--------------------------|---------------------|-------------------|------|
| 0.00  | 0.00  | 1399019.21 | 3234664.87               | 40° 25' 32.333 N    | 104° 39' 25.549 W |      |



#### LEGEND

- P\_WINTERS 19-3, P\_WINTERS 19-3, PLAN #1 3-10-10 RHS V0
- P\_WINTERS 23-3, P\_WINTERS 23-3, PLAN #1 3-10-10 RHS V0
- P\_WINTERS 33-3, P\_WINTERS 33-3, PLAN #1 3-10-10 RHS V0
- PLAN #1 3-10-10 RHS



Plan: PLAN #1 3-10-10 RHS (P\_WINTERS 35-3/P\_WINTERS 35-3)

Created By: Robert H. Scott Date: 9:31, March 10 2010

|                  |                             |                                     |                                       |
|------------------|-----------------------------|-------------------------------------|---------------------------------------|
| <b>Database:</b> | EDM 2003.21 Single User Db  | <b>Local Co-ordinate Reference:</b> | Well P_WINTERS 35-3                   |
| <b>Company:</b>  | US ROCKIES REGION PLANNING  | <b>TVD Reference:</b>               | WELL @ 4647.00ft (Original Well Elev) |
| <b>Project:</b>  | COLORADO NORTHERN ZONE - 83 | <b>MD Reference:</b>                | WELL @ 4647.00ft (Original Well Elev) |
| <b>Site:</b>     | WELD_WINTERS 12-3 PAD       | <b>North Reference:</b>             | True                                  |
| <b>Well:</b>     | P_WINTERS 35-3              | <b>Survey Calculation Method:</b>   | Minimum Curvature                     |
| <b>Wellbore:</b> | P_WINTERS 35-3              |                                     |                                       |
| <b>Design:</b>   | PLAN #1 3-10-10 RHS         |                                     |                                       |

|                    |  |                      |                |
|--------------------|--|----------------------|----------------|
| <b>Project</b>     | COLORADO NORTHERN ZONE - 83, KERR MCGEE OIL & GAS ONSHORE LP |                      |                |
| <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 Northern Zone                                       |                      |                |

|                       |          |   |                 |                   |                   |
|-----------------------|----------|---|-----------------|-------------------|-------------------|
| Site                  |          | WELD_WINTERS 12-3 PAD, SECTION 3 T5N R65W |                 |                   |                   |
| Site Position:        |          | Northing:                                 | 1,399,035.25 ft | Latitude:         | 40° 25' 32.491 N  |
| From:                 | Lat/Long | Easting:                                  | 3,234,664.71 ft | Longitude:        | 104° 39' 25.549 W |
| Position Uncertainty: | 0.00 ft  | Slot Radius:                              | in              | Grid Convergence: | 0.54 °            |

|                      |                |           |                     |                 |               |                   |
|----------------------|----------------|-----------|---------------------|-----------------|---------------|-------------------|
| Well                 | P_WINTERS 35-3 |           |                     |                 |               |                   |
| Well Position        | +N/-S          | -16.05 ft | Northing:           | 1,399,019.21 ft | Latitude:     | 40° 25' 32.333 N  |
|                      | +E/-W          | 0.00 ft   | Easting:            | 3,234,664.87 ft | Longitude:    | 104° 39' 25.549 W |
| Position Uncertainty |                | 0.00 ft   | Wellhead Elevation: | ft              | Ground Level: | 4,632.00 ft       |

|                  |                   |                    |                        |                      |                            |
|------------------|-------------------|--------------------|------------------------|----------------------|----------------------------|
| <b>Wellbore</b>  | P_WINTERS 35-3    |                    |                        |                      |                            |
| <b>Magnetics</b> | <b>Model Name</b> | <b>Sample Date</b> | <b>Declination (°)</b> | <b>Dip Angle (°)</b> | <b>Field Strength (nT)</b> |
|                  | IGRF2010          | 3/10/2010          | 8.98                   | 67.13                | 53,292                     |

|                          |                              |                   |                      |                      |  |
|--------------------------|------------------------------|-------------------|----------------------|----------------------|--|
| <b>Design</b>            | PLAN #1 3-10-10 RHS          |                   |                      |                      |  |
| <b>Audit Notes:</b>      |                              |                   |                      |                      |  |
| <b>Version:</b>          | <b>Phase:</b>                | PLAN              | <b>Tie On Depth:</b> | 0.00                 |  |
| <b>Vertical Section:</b> | <b>Depth From (TVD) (ft)</b> | <b>+N/-S (ft)</b> | <b>+E/-W (ft)</b>    | <b>Direction (°)</b> |  |
|                          | 0.00                         | 0.00              | 0.00                 | 151.54               |  |

| <b>Plan Sections</b> |                 |             |                     |            |            |                       |                      |                     |         |                |
|----------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|----------------------|---------------------|---------|----------------|
| Measured Depth (ft)  | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) | TFO (°) | Target         |
| 0.00                 | 0.00            | 0.00        | 0.00                | 0.00       | 0.00       | 0.00                  | 0.00                 | 0.00                | 0.00    |                |
| 300.00               | 0.00            | 0.00        | 300.00              | 0.00       | 0.00       | 0.00                  | 0.00                 | 0.00                | 0.00    |                |
| 1,499.85             | 24.00           | 151.54      | 1,465.08            | -217.68    | 118.01     | 2.00                  | 2.00                 | 0.00                | 151.54  |                |
| 4,786.80             | 24.00           | 151.54      | 4,467.92            | -1,392.85  | 755.12     | 0.00                  | 0.00                 | 0.00                | 0.00    |                |
| 5,986.65             | 0.00            | 0.00        | 5,633.00            | -1,610.54  | 873.14     | 2.00                  | -2.00                | 0.00                | 180.00  |                |
| 7,453.65             | 0.00            | 0.00        | 7,100.00            | -1,610.54  | 873.14     | 0.00                  | 0.00                 | 0.00                | 0.00    | PBHL_WINTERS 3 |

|                  |                             |                                     |                                       |
|------------------|-----------------------------|-------------------------------------|---------------------------------------|
| <b>Database:</b> | EDM 2003.21 Single User Db  | <b>Local Co-ordinate Reference:</b> | Well P_WINTERS 35-3                   |
| <b>Company:</b>  | US ROCKIES REGION PLANNING  | <b>TVD Reference:</b>               | WELL @ 4647.00ft (Original Well Elev) |
| <b>Project:</b>  | COLORADO NORTHERN ZONE - 83 | <b>MD Reference:</b>                | WELL @ 4647.00ft (Original Well Elev) |
| <b>Site:</b>     | WELD_WINTERS 12-3 PAD       | <b>North Reference:</b>             | True                                  |
| <b>Well:</b>     | P_WINTERS 35-3              | <b>Survey Calculation Method:</b>   | Minimum Curvature                     |
| <b>Wellbore:</b> | P_WINTERS 35-3              |                                     |                                       |
| <b>Design:</b>   | PLAN #1 3-10-10 RHS         |                                     |                                       |

| Planned Survey                          |                 |             |                     |            |            |                       |                       |                      |                     |
|---|-----------------|-------------|---------------------|------------|------------|-----------------------|-----------------------|----------------------|---------------------|
| Measured Depth (ft)                     | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
| <b>Start Build 2.00</b>                 |                 |             |                     |            |            |                       |                       |                      |                     |
| 300.00                                  | 0.00            | 0.00        | 300.00              | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 400.00                                  | 2.00            | 151.54      | 399.98              | -1.53      | 0.83       | 1.75                  | 2.00                  | 2.00                 | 0.00                |
| 500.00                                  | 4.00            | 151.54      | 499.84              | -6.13      | 3.33       | 6.98                  | 2.00                  | 2.00                 | 0.00                |
| <b>8 5/8"</b>                           |                 |             |                     |            |            |                       |                       |                      |                     |
| 530.25                                  | 4.60            | 151.54      | 530.00              | -8.13      | 4.41       | 9.25                  | 2.00                  | 2.00                 | 0.00                |
| 600.00                                  | 6.00            | 151.54      | 599.45              | -13.80     | 7.48       | 15.69                 | 2.00                  | 2.00                 | 0.00                |
| 700.00                                  | 8.00            | 151.54      | 698.70              | -24.51     | 13.29      | 27.88                 | 2.00                  | 2.00                 | 0.00                |
| 800.00                                  | 10.00           | 151.54      | 797.47              | -38.26     | 20.74      | 43.52                 | 2.00                  | 2.00                 | 0.00                |
| 900.00                                  | 12.00           | 151.54      | 895.62              | -55.03     | 29.84      | 62.60                 | 2.00                  | 2.00                 | 0.00                |
| 1,000.00                                | 14.00           | 151.54      | 993.06              | -74.81     | 40.56      | 85.10                 | 2.00                  | 2.00                 | 0.00                |
| 1,100.00                                | 16.00           | 151.54      | 1,089.64            | -97.56     | 52.89      | 110.98                | 2.00                  | 2.00                 | 0.00                |
| 1,200.00                                | 18.00           | 151.54      | 1,185.27            | -123.26    | 66.83      | 140.21                | 2.00                  | 2.00                 | 0.00                |
| 1,300.00                                | 20.00           | 151.54      | 1,279.82            | -151.88    | 82.34      | 172.77                | 2.00                  | 2.00                 | 0.00                |
| 1,400.00                                | 22.00           | 151.54      | 1,373.17            | -183.39    | 99.42      | 208.60                | 2.00                  | 2.00                 | 0.00                |
| <b>Start 3286.94 hold at 1499.85 MD</b> |                 |             |                     |            |            |                       |                       |                      |                     |
| 1,499.85                                | 24.00           | 151.54      | 1,465.08            | -217.68    | 118.01     | 247.61                | 2.00                  | 2.00                 | 0.00                |
| 1,500.00                                | 24.00           | 151.54      | 1,465.21            | -217.73    | 118.04     | 247.67                | 0.00                  | 0.00                 | 0.00                |
| 1,600.00                                | 24.00           | 151.54      | 1,556.57            | -253.49    | 137.43     | 288.34                | 0.00                  | 0.00                 | 0.00                |
| 1,700.00                                | 24.00           | 151.54      | 1,647.93            | -289.24    | 156.81     | 329.01                | 0.00                  | 0.00                 | 0.00                |
| 1,800.00                                | 24.00           | 151.54      | 1,739.28            | -324.99    | 176.19     | 369.68                | 0.00                  | 0.00                 | 0.00                |
| 1,900.00                                | 24.00           | 151.54      | 1,830.64            | -360.75    | 195.57     | 410.35                | 0.00                  | 0.00                 | 0.00                |
| 2,000.00                                | 24.00           | 151.54      | 1,922.00            | -396.50    | 214.96     | 451.02                | 0.00                  | 0.00                 | 0.00                |
| 2,100.00                                | 24.00           | 151.54      | 2,013.35            | -432.25    | 234.34     | 491.69                | 0.00                  | 0.00                 | 0.00                |
| 2,200.00                                | 24.00           | 151.54      | 2,104.71            | -468.00    | 253.72     | 532.36                | 0.00                  | 0.00                 | 0.00                |
| 2,300.00                                | 24.00           | 151.54      | 2,196.07            | -503.76    | 273.11     | 573.03                | 0.00                  | 0.00                 | 0.00                |
| 2,400.00                                | 24.00           | 151.54      | 2,287.42            | -539.51    | 292.49     | 613.69                | 0.00                  | 0.00                 | 0.00                |
| 2,500.00                                | 24.00           | 151.54      | 2,378.78            | -575.26    | 311.87     | 654.36                | 0.00                  | 0.00                 | 0.00                |
| 2,600.00                                | 24.00           | 151.54      | 2,470.14            | -611.02    | 331.26     | 695.03                | 0.00                  | 0.00                 | 0.00                |
| 2,700.00                                | 24.00           | 151.54      | 2,561.49            | -646.77    | 350.64     | 735.70                | 0.00                  | 0.00                 | 0.00                |
| 2,800.00                                | 24.00           | 151.54      | 2,652.85            | -682.52    | 370.02     | 776.37                | 0.00                  | 0.00                 | 0.00                |
| 2,900.00                                | 24.00           | 151.54      | 2,744.21            | -718.27    | 389.40     | 817.04                | 0.00                  | 0.00                 | 0.00                |
| 3,000.00                                | 24.00           | 151.54      | 2,835.56            | -754.03    | 408.79     | 857.71                | 0.00                  | 0.00                 | 0.00                |
| 3,100.00                                | 24.00           | 151.54      | 2,926.92            | -789.78    | 428.17     | 898.38                | 0.00                  | 0.00                 | 0.00                |
| 3,200.00                                | 24.00           | 151.54      | 3,018.28            | -825.53    | 447.55     | 939.05                | 0.00                  | 0.00                 | 0.00                |
| 3,300.00                                | 24.00           | 151.54      | 3,109.63            | -861.28    | 466.94     | 979.71                | 0.00                  | 0.00                 | 0.00                |
| 3,400.00                                | 24.00           | 151.54      | 3,200.99            | -897.04    | 486.32     | 1,020.38              | 0.00                  | 0.00                 | 0.00                |
| 3,500.00                                | 24.00           | 151.54      | 3,292.35            | -932.79    | 505.70     | 1,061.05              | 0.00                  | 0.00                 | 0.00                |
| 3,600.00                                | 24.00           | 151.54      | 3,383.70            | -968.54    | 525.09     | 1,101.72              | 0.00                  | 0.00                 | 0.00                |
| 3,700.00                                | 24.00           | 151.54      | 3,475.06            | -1,004.30  | 544.47     | 1,142.39              | 0.00                  | 0.00                 | 0.00                |
| <b>PARKMAN</b>                          |                 |             |                     |            |            |                       |                       |                      |                     |
| 3,787.50                                | 24.00           | 151.54      | 3,555.00            | -1,035.58  | 561.43     | 1,177.98              | 0.00                  | 0.00                 | 0.00                |
| 3,800.00                                | 24.00           | 151.54      | 3,566.42            | -1,040.05  | 563.85     | 1,183.06              | 0.00                  | 0.00                 | 0.00                |
| 3,900.00                                | 24.00           | 151.54      | 3,657.77            | -1,075.80  | 583.24     | 1,223.73              | 0.00                  | 0.00                 | 0.00                |
| 4,000.00                                | 24.00           | 151.54      | 3,749.13            | -1,111.55  | 602.62     | 1,264.40              | 0.00                  | 0.00                 | 0.00                |
| 4,100.00                                | 24.00           | 151.54      | 3,840.49            | -1,147.31  | 622.00     | 1,305.07              | 0.00                  | 0.00                 | 0.00                |
| 4,200.00                                | 24.00           | 151.54      | 3,931.84            | -1,183.06  | 641.38     | 1,345.74              | 0.00                  | 0.00                 | 0.00                |
| 4,300.00                                | 24.00           | 151.54      | 4,023.20            | -1,218.81  | 660.77     | 1,386.40              | 0.00                  | 0.00                 | 0.00                |
| 4,400.00                                | 24.00           | 151.54      | 4,114.56            | -1,254.56  | 680.15     | 1,427.07              | 0.00                  | 0.00                 | 0.00                |
| 4,500.00                                | 24.00           | 151.54      | 4,205.91            | -1,290.32  | 699.53     | 1,467.74              | 0.00                  | 0.00                 | 0.00                |
| <b>SUSSEX</b>                           |                 |             |                     |            |            |                       |                       |                      |                     |
| 4,564.68                                | 24.00           | 151.54      | 4,265.00            | -1,313.44  | 712.07     | 1,494.04              | 0.00                  | 0.00                 | 0.00                |
| 4,600.00                                | 24.00           | 151.54      | 4,297.27            | -1,326.07  | 718.92     | 1,508.41              | 0.00                  | 0.00                 | 0.00                |

|                  |                             |                                     |                                       |
|------------------|-----------------------------|-------------------------------------|---------------------------------------|
| <b>Database:</b> | EDM 2003.21 Single User Db  | <b>Local Co-ordinate Reference:</b> | Well P_WINTERS 35-3                   |
| <b>Company:</b>  | US ROCKIES REGION PLANNING  | <b>TVD Reference:</b>               | WELL @ 4647.00ft (Original Well Elev) |
| <b>Project:</b>  | COLORADO NORTHERN ZONE - 83 | <b>MD Reference:</b>                | WELL @ 4647.00ft (Original Well Elev) |
| <b>Site:</b>     | WELD_WINTERS 12-3 PAD       | <b>North Reference:</b>             | True                                  |
| <b>Well:</b>     | P_WINTERS 35-3              | <b>Survey Calculation Method:</b>   | Minimum Curvature                     |
| <b>Wellbore:</b> | P_WINTERS 35-3              |                                     |                                       |
| <b>Design:</b>   | PLAN #1 3-10-10 RHS         |                                     |                                       |

#### Planned Survey

| Measured Depth (ft)                                 | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
|---|-----------------|-------------|---------------------|------------|------------|-----------------------|-----------------------|----------------------|---------------------|
| 4,700.00  | 24.00           | 151.54      | 4,388.63            | -1,361.82  | 738.30     | 1,549.08              | 0.00                  | 0.00                 | 0.00                |
| <b>Start Drop -2.00</b>                             |                 |             |                     |            |            |                       |                       |                      |                     |
| 4,786.80  | 24.00           | 151.54      | 4,467.92            | -1,392.85  | 755.12     | 1,584.38              | 0.00                  | 0.00                 | 0.00                |
| 4,800.00  | 23.73           | 151.54      | 4,480.00            | -1,397.55  | 757.67     | 1,589.72              | 2.00                  | -2.00                | 0.00                |
| 4,900.00  | 21.73           | 151.54      | 4,572.22            | -1,431.52  | 776.09     | 1,628.36              | 2.00                  | -2.00                | 0.00                |
| 5,000.00  | 19.73           | 151.54      | 4,665.74            | -1,462.64  | 792.96     | 1,663.76              | 2.00                  | -2.00                | 0.00                |
| 5,100.00  | 17.73           | 151.54      | 4,760.44            | -1,490.87  | 808.26     | 1,695.88              | 2.00                  | -2.00                | 0.00                |
| 5,200.00  | 15.73           | 151.54      | 4,856.20            | -1,516.18  | 821.98     | 1,724.67              | 2.00                  | -2.00                | 0.00                |
| 5,300.00  | 13.73           | 151.54      | 4,952.91            | -1,538.54  | 834.10     | 1,750.10              | 2.00                  | -2.00                | 0.00                |
| 5,400.00  | 11.73           | 151.54      | 5,050.44            | -1,557.92  | 844.61     | 1,772.14              | 2.00                  | -2.00                | 0.00                |
| 5,500.00  | 9.73            | 151.54      | 5,148.69            | -1,574.29  | 853.48     | 1,790.76              | 2.00                  | -2.00                | 0.00                |
| 5,600.00  | 7.73            | 151.54      | 5,247.53            | -1,587.63  | 860.72     | 1,805.94              | 2.00                  | -2.00                | 0.00                |
| 5,700.00  | 5.73            | 151.54      | 5,346.83            | -1,597.94  | 866.31     | 1,817.66              | 2.00                  | -2.00                | 0.00                |
| 5,800.00  | 3.73            | 151.54      | 5,446.49            | -1,605.19  | 870.24     | 1,825.91              | 2.00                  | -2.00                | 0.00                |
| 5,900.00  | 1.73            | 151.54      | 5,546.37            | -1,609.38  | 872.51     | 1,830.68              | 2.00                  | -2.00                | 0.00                |
| <b>Start 1467.00 hold at 5986.65 MD</b>             |                 |             |                     |            |            |                       |                       |                      |                     |
| 5,986.65  | 0.00            | 0.00        | 5,633.00            | -1,610.54  | 873.14     | 1,831.99              | 2.00                  | -2.00                | 0.00                |
| 6,000.00  | 0.00            | 0.00        | 5,646.35            | -1,610.54  | 873.14     | 1,831.99              | 0.00                  | 0.00                 | 0.00                |
| 6,100.00  | 0.00            | 0.00        | 5,746.35            | -1,610.54  | 873.14     | 1,831.99              | 0.00                  | 0.00                 | 0.00                |
| 6,200.00  | 0.00            | 0.00        | 5,846.35            | -1,610.54  | 873.14     | 1,831.99              | 0.00                  | 0.00                 | 0.00                |
| 6,300.00  | 0.00            | 0.00        | 5,946.35            | -1,610.54  | 873.14     | 1,831.99              | 0.00                  | 0.00                 | 0.00                |
| 6,400.00  | 0.00            | 0.00        | 6,046.35            | -1,610.54  | 873.14     | 1,831.99              | 0.00                  | 0.00                 | 0.00                |
| 6,500.00  | 0.00            | 0.00        | 6,146.35            | -1,610.54  | 873.14     | 1,831.99              | 0.00                  | 0.00                 | 0.00                |
| 6,600.00  | 0.00            | 0.00        | 6,246.35            | -1,610.54  | 873.14     | 1,831.99              | 0.00                  | 0.00                 | 0.00                |
| 6,700.00  | 0.00            | 0.00        | 6,346.35            | -1,610.54  | 873.14     | 1,831.99              | 0.00                  | 0.00                 | 0.00                |
| 6,800.00  | 0.00            | 0.00        | 6,446.35            | -1,610.54  | 873.14     | 1,831.99              | 0.00                  | 0.00                 | 0.00                |
| 6,900.00  | 0.00            | 0.00        | 6,546.35            | -1,610.54  | 873.14     | 1,831.99              | 0.00                  | 0.00                 | 0.00                |
| <b>NIO A</b>  |                 |             |                     |            |            |                       |                       |                      |                     |
| 6,986.65  | 0.00            | 0.00        | 6,633.00            | -1,610.54  | 873.14     | 1,831.99              | 0.00                  | 0.00                 | 0.00                |
| 7,000.00  | 0.00            | 0.00        | 6,646.35            | -1,610.54  | 873.14     | 1,831.99              | 0.00                  | 0.00                 | 0.00                |
| 7,100.00  | 0.00            | 0.00        | 6,746.35            | -1,610.54  | 873.14     | 1,831.99              | 0.00                  | 0.00                 | 0.00                |
| 7,200.00  | 0.00            | 0.00        | 6,846.35            | -1,610.54  | 873.14     | 1,831.99              | 0.00                  | 0.00                 | 0.00                |
| <b>CODELL</b>                                       |                 |             |                     |            |            |                       |                       |                      |                     |
| 7,294.65  | 0.00            | 0.00        | 6,941.00            | -1,610.54  | 873.14     | 1,831.99              | 0.00                  | 0.00                 | 0.00                |
| 7,300.00  | 0.00            | 0.00        | 6,946.35            | -1,610.54  | 873.14     | 1,831.99              | 0.00                  | 0.00                 | 0.00                |
| <b>GREENHORN</b>                                    |                 |             |                     |            |            |                       |                       |                      |                     |
| 7,369.65  | 0.00            | 0.00        | 7,016.00            | -1,610.54  | 873.14     | 1,831.99              | 0.00                  | 0.00                 | 0.00                |
| 7,400.00  | 0.00            | 0.00        | 7,046.35            | -1,610.54  | 873.14     | 1,831.99              | 0.00                  | 0.00                 | 0.00                |
| <b>PBHL_WINTERS 35-3(50 FSL 1400 FWL)50'TGT RAD</b> |                 |             |                     |            |            |                       |                       |                      |                     |
| 7,453.65  | 0.00            | 0.00        | 7,100.00            | -1,610.54  | 873.14     | 1,831.99              | 0.00                  | 0.00                 | 0.00                |

#### Design Targets

| Target Name               | Dip Angle (°) | Dip Dir. (°) | TVD (ft) | +N/-S (ft) | +E/-W (ft) | Northing (ft) | Easting (ft) | Latitude         | Longitude         |
|---------------------------|---------------|--------------|----------|------------|------------|---------------|--------------|------------------|-------------------|
| - hit/miss target         |               |              |          |            |            |               |              |                  |                   |
| - Shape                   |               |              |          |            |            |               |              |                  |                   |
| PBHL_WINTERS 35-3         | 0.00          | 0.00         | 7,100.00 | -1,610.54  | 873.14     | 1,397,417.04  | 3,235,553.27 | 40° 25' 16.417 N | 104° 39' 14.260 W |
| - plan hits target center |               |              |          |            |            |               |              |                  |                   |
| - Circle (radius 50.00)   |               |              |          |            |            |               |              |                  |                   |

|                  |                             |                                     |                                       |
|------------------|-----------------------------|-------------------------------------|---------------------------------------|
| <b>Database:</b> | EDM 2003.21 Single User Db  | <b>Local Co-ordinate Reference:</b> | Well P_WINTERS 35-3                   |
| <b>Company:</b>  | US ROCKIES REGION PLANNING  | <b>TVD Reference:</b>               | WELL @ 4647.00ft (Original Well Elev) |
| <b>Project:</b>  | COLORADO NORTHERN ZONE - 83 | <b>MD Reference:</b>                | WELL @ 4647.00ft (Original Well Elev) |
| <b>Site:</b>     | WELD_WINTERS 12-3 PAD       | <b>North Reference:</b>             | True                                  |
| <b>Well:</b>     | P_WINTERS 35-3              | <b>Survey Calculation Method:</b>   | Minimum Curvature                     |
| <b>Wellbore:</b> | P_WINTERS 35-3              |                                     |                                       |
| <b>Design:</b>   | PLAN #1 3-10-10 RHS         |                                     |                                       |

| Casing Points       |                     |        |                      |                    |  |
|---------------------|---------------------|--------|----------------------|--------------------|--|
| Measured Depth (ft) | Vertical Depth (ft) | Name   | Casing Diameter (in) | Hole Diameter (in) |  |
| 530.25              | 530.00              | 8 5/8" | 8.62                 | 11.00              |  |

| Formations          |                     |           |           |         |                   |  |
|---------------------|---------------------|-----------|-----------|---------|-------------------|--|
| Measured Depth (ft) | Vertical Depth (ft) | Name      | Lithology | Dip (°) | Dip Direction (°) |  |
| 3,787.50            | 3,555.00            | PARKMAN   |           |         |                   |  |
| 4,564.68            | 4,265.00            | SUSSEX    |           |         |                   |  |
| 6,986.65            | 6,633.00            | NIO A     |           |         |                   |  |
| 7,294.65            | 6,941.00            | CODELL    |           |         |                   |  |
| 7,369.65            | 7,016.00            | GREENHORN |           |         |                   |  |

| Plan Annotations    |                     |                   |            |                                  |  |
|---------------------|---------------------|-------------------|------------|----------------------------------|--|
| Measured Depth (ft) | Vertical Depth (ft) | Local Coordinates |            |                                  |  |
|                     |                     | +N/-S (ft)        | +E/-W (ft) | Comment                          |  |
| 300.00              | 300.00              | 0.00              | 0.00       | Start Build 2.00                 |  |
| 1,499.85            | 1,465.08            | -217.68           | 118.01     | Start 3286.94 hold at 1499.85 MD |  |
| 4,786.80            | 4,467.92            | -1,392.85         | 755.12     | Start Drop -2.00                 |  |
| 5,986.65            | 5,633.00            | -1,610.54         | 873.14     | Start 1467.00 hold at 5986.65 MD |  |
| 7,453.65            | 7,100.00            | -1,610.54         | 873.14     | TD at 7453.65                    |  |



# **US ROCKIES REGION PLANNING**

**COLORADO NORTHERN ZONE - 83  
WELD\_WINTERS 12-3 PAD  
P\_WINTERS 35-3**

**P\_WINTERS 35-3  
PLAN #1 3-10-10 RHS**

## **Anticollision Report**

**10 March, 2010**



|                           |                             |                                     |                                       |
|---------------------------|-----------------------------|-------------------------------------|---------------------------------------|
| <b>Company:</b>           | US ROCKIES REGION PLANNING  | <b>Local Co-ordinate Reference:</b> | Well P_WINTERS 35-3                   |
| <b>Project:</b>           | COLORADO NORTHERN ZONE - 83 | <b>TVD Reference:</b>               | WELL @ 4647.00ft (Original Well Elev) |
| <b>Reference Site:</b>    | WELD_WINTERS 12-3 PAD       | <b>MD Reference:</b>                | WELL @ 4647.00ft (Original Well Elev) |
| <b>Site Error:</b>        | 0.00ft                      | <b>North Reference:</b>             | True                                  |
| <b>Reference Well:</b>    | P_WINTERS 35-3              | <b>Survey Calculation Method:</b>   | Minimum Curvature                     |
| <b>Well Error:</b>        | 0.00ft                      | <b>Output errors are at</b>         | 2.00 sigma                            |
| <b>Reference Wellbore</b> | P_WINTERS 35-3              | <b>Database:</b>                    | EDM 2003.21 Single User Db            |
| <b>Reference Design:</b>  | PLAN #1 3-10-10 RHS         | <b>Offset TVD Reference:</b>        | Offset Datum                          |

|                                     |   |                       |                     |
|-------------------------------------|---|-----------------------|---------------------|
| <b>Reference</b>                    | PLAN #1 3-10-10 RHS   |                       |                     |
| <b>Filter type:</b>                 | NO GLOBAL FILTER: Using user defined selection & filtering criteria |                       |                     |
| <b>Interpolation Method:</b>        | Stations  | <b>Error Model:</b>   | ISCWSA              |
| <b>Depth Range:</b>                 | 0.00 to 20,000.00ft   | <b>Scan Method:</b>   | Closest Approach 3D |
| <b>Results Limited by:</b>          | Maximum center-center distance of 10,000.00ft                       | <b>Error Surface:</b> | Elliptical Conic    |
| <b>Warning Levels Evaluated at:</b> | 2.00 Sigma  |                       |                     |

|                            |                       |                                     |                  |                    |
|----------------------------|-----------------------|-------------------------------------|------------------|--------------------|
| <b>Survey Tool Program</b> | <b>Date</b> 3/10/2010 |                                     |                  |                    |
| <b>From (ft)</b>           | <b>To (ft)</b>        | <b>Survey (Wellbore)</b>            | <b>Tool Name</b> | <b>Description</b> |
| 0.00                       | 7,453.65              | PLAN #1 3-10-10 RHS (P_WINTERS 35-3 | MWD              | MWD - Standard     |

| <b>Summary</b>                                   |                               |                            |                               |                                |                   |         |
|--|-------------------------------|----------------------------|-------------------------------|--------------------------------|-------------------|---------|
| Site Name  | Reference Measured Depth (ft) | Offset Measured Depth (ft) | Distance Between Centres (ft) | Distance Between Ellipses (ft) | Separation Factor | Warning |
| <b>Offset Well - Wellbore - Design</b>           |                               |                            |                               |                                |                   |         |
| WELD_WINTERS 12-3 PAD                            |                               |                            |                               |                                |                   |         |
| P_WINTERS 19-3 - P_WINTERS 19-3 - PLAN #1 3-10-1 | 300.00                        | 300.00                     | 16.05                         | 14.96                          | 14.719            | CC, ES  |
| P_WINTERS 19-3 - P_WINTERS 19-3 - PLAN #1 3-10-1 | 500.00                        | 499.84                     | 22.43                         | 20.50                          | 11.613            | SF      |
| P_WINTERS 23-3 - P_WINTERS 23-3 - PLAN #1 3-10-1 | 300.00                        | 300.00                     | 32.06                         | 30.97                          | 29.413            | CC, ES  |
| P_WINTERS 23-3 - P_WINTERS 23-3 - PLAN #1 3-10-1 | 600.00                        | 599.78                     | 44.44                         | 42.06                          | 18.731            | SF      |
| P_WINTERS 33-3 - P_WINTERS 33-3 - PLAN #1 3-10-1 | 300.00                        | 300.00                     | 48.08                         | 46.99                          | 44.108            | CC, ES  |
| P_WINTERS 33-3 - P_WINTERS 33-3 - PLAN #1 3-10-1 | 700.00                        | 699.72                     | 73.22                         | 70.44                          | 26.303            | SF      |

| Offset Design         |                     |                     |                     |                 |             |                       |                        |            |                      | WELD_WINTERS 12-3 PAD - P_WINTERS 19-3 - P_WINTERS 19-3 - PLAN #1 3-10-10 RHS |                         |                   |         | Offset Site Error: |  | 0.00 ft |  |
|-----------------------|---------------------|---------------------|---------------------|-----------------|-------------|-----------------------|------------------------|------------|----------------------|---|-------------------------|-------------------|---------|--------------------|--|---------|--|
| Survey Program: 0-MWD |                     |                     |                     |                 |             |                       |                        |            |                      |   |                         |                   |         | Offset Well Error: |  | 0.00 ft |  |
| Reference             |                     | Offset              |                     | Semi Major Axis |             |                       | Distance               |            |                      |   |                         |                   |         |                    |  |         |  |
| Measured Depth (ft)   | Vertical Depth (ft) | Measured Depth (ft) | Vertical Depth (ft) | Reference (ft)  | Offset (ft) | Highside Toolface (°) | Offset Wellbore Centre |            | Between Centres (ft) | Between Ellipses (ft)   | Minimum Separation (ft) | Separation Factor | Warning |                    |  |         |  |
|                       |                     |                     |                     |                 |             |                       | +N/-S (ft)             | +E/-W (ft) |                      |   |                         |                   |         |                    |  |         |  |
| 0.00                  | 0.00                | 0.00                | 0.00                | 0.00            | 0.00        | 0.00                  | 16.05                  | 0.00       | 16.05                |   |                         |                   |         |                    |  |         |  |
| 100.00                | 100.00              | 100.00              | 100.00              | 0.10            | 0.10        | 0.00                  | 16.05                  | 0.00       | 16.05                | 15.85   | 0.19                    | 83.985            |         |                    |  |         |  |
| 200.00                | 200.00              | 200.00              | 200.00              | 0.32            | 0.32        | 0.00                  | 16.05                  | 0.00       | 16.05                | 15.40   | 0.64                    | 25.048            |         |                    |  |         |  |
| 300.00                | 300.00              | 300.00              | 300.00              | 0.55            | 0.55        | 0.00                  | 16.05                  | 0.00       | 16.05                | 14.96   | 1.09                    | 14.719            | CC, ES  |                    |  |         |  |
| 400.00                | 399.98              | 399.98              | 399.98              | 0.75            | 0.77        | -154.23               | 16.05                  | 0.00       | 17.60                | 16.08   | 1.52                    | 11.615            |         |                    |  |         |  |
| 500.00                | 499.84              | 499.84              | 499.84              | 0.95            | 0.99        | -160.02               | 16.05                  | 0.00       | 22.43                | 20.50   | 1.93                    | 11.613            | SF      |                    |  |         |  |
| 600.00                | 599.45              | 599.45              | 599.45              | 1.18            | 1.22        | -165.53               | 16.05                  | 0.00       | 30.77                | 28.41   | 2.36                    | 13.047            |         |                    |  |         |  |
| 700.00                | 698.70              | 699.35              | 699.34              | 1.46            | 1.43        | -168.72               | 15.74                  | 0.78       | 42.15                | 39.37   | 2.78                    | 15.163            |         |                    |  |         |  |
| 800.00                | 797.47              | 799.59              | 799.49              | 1.78            | 1.63        | -168.47               | 14.20                  | 4.67       | 54.91                | 51.71   | 3.20                    | 17.181            |         |                    |  |         |  |
| 900.00                | 895.62              | 899.91              | 899.51              | 2.16            | 1.84        | -166.59               | 11.38                  | 11.82      | 68.93                | 65.29   | 3.64                    | 18.936            |         |                    |  |         |  |
| 1,000.00              | 993.06              | 1,000.22            | 999.19              | 2.59            | 2.09        | -163.96               | 7.27                   | 22.22      | 84.33                | 80.20   | 4.13                    | 20.441            |         |                    |  |         |  |
| 1,100.00              | 1,089.64            | 1,100.43            | 1,098.32            | 3.09            | 2.37        | -161.02               | 1.89                   | 35.85      | 101.28               | 96.61   | 4.67                    | 21.680            |         |                    |  |         |  |
| 1,200.00              | 1,185.27            | 1,200.47            | 1,196.71            | 3.66            | 2.69        | -158.01               | -4.75                  | 52.66      | 119.91               | 114.61  | 5.30                    | 22.627            |         |                    |  |         |  |
| 1,300.00              | 1,279.82            | 1,300.08            | 1,293.99            | 4.29            | 3.07        | -155.07               | -12.60                 | 72.55      | 140.35               | 134.32  | 6.03                    | 23.282            |         |                    |  |         |  |
| 1,400.00              | 1,373.17            | 1,397.24            | 1,388.57            | 4.98            | 3.48        | -152.93               | -20.77                 | 93.25      | 163.46               | 156.64  | 6.82                    | 23.959            |         |                    |  |         |  |
| 1,499.85              | 1,465.08            | 1,493.56            | 1,482.32            | 5.74            | 3.90        | -151.75               | -28.87                 | 113.77     | 189.64               | 182.00  | 7.65                    | 24.800            |         |                    |  |         |  |
| 1,600.00              | 1,556.57            | 1,589.76            | 1,575.97            | 6.54            | 4.34        | -151.27               | -36.97                 | 134.26     | 217.41               | 208.88  | 8.53                    | 25.477            |         |                    |  |         |  |
| 1,700.00              | 1,647.93            | 1,685.83            | 1,669.48            | 7.35            | 4.78        | -150.90               | -45.05                 | 154.73     | 245.15               | 235.72  | 9.44                    | 25.978            |         |                    |  |         |  |
| 1,800.00              | 1,739.28            | 1,781.89            | 1,763.00            | 8.16            | 5.23        | -150.60               | -53.13                 | 175.19     | 272.90               | 262.55  | 10.35                   | 26.358            |         |                    |  |         |  |
| 1,900.00              | 1,830.64            | 1,877.96            | 1,856.51            | 8.98            | 5.68        | -150.36               | -61.21                 | 195.66     | 300.65               | 289.37  | 11.28                   | 26.654            |         |                    |  |         |  |
| 2,000.00              | 1,922.00            | 1,974.02            | 1,950.02            | 9.80            | 6.14        | -150.16               | -69.29                 | 216.12     | 328.41               | 316.20  | 12.21                   | 26.888            |         |                    |  |         |  |

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



|                           |                             |                                     |                                       |
|---------------------------|-----------------------------|-------------------------------------|---------------------------------------|
| <b>Company:</b>           | US ROCKIES REGION PLANNING  | <b>Local Co-ordinate Reference:</b> | Well P_WINTERS 35-3                   |
| <b>Project:</b>           | COLORADO NORTHERN ZONE - 83 | <b>TVD Reference:</b>               | WELL @ 4647.00ft (Original Well Elev) |
| <b>Reference Site:</b>    | WELD_WINTERS 12-3 PAD       | <b>MD Reference:</b>                | WELL @ 4647.00ft (Original Well Elev) |
| <b>Site Error:</b>        | 0.00ft                      | <b>North Reference:</b>             | True                                  |
| <b>Reference Well:</b>    | P_WINTERS 35-3              | <b>Survey Calculation Method:</b>   | Minimum Curvature                     |
| <b>Well Error:</b>        | 0.00ft                      | <b>Output errors are at</b>         | 2.00 sigma                            |
| <b>Reference Wellbore</b> | P_WINTERS 35-3              | <b>Database:</b>                    | EDM 2003.21 Single User Db            |
| <b>Reference Design:</b>  | PLAN #1 3-10-10 RHS         | <b>Offset TVD Reference:</b>        | Offset Datum                          |

| Offset Design WELD_WINTERS 12-3 PAD - P_WINTERS 19-3 - P_WINTERS 19-3 - PLAN #1 3-10-10 RHS |                     |                     |                     |                |             |                       |                                   |            |                      |                       |                         | Offset Site Error: | 0.00 ft |
|---|---------------------|---------------------|---------------------|----------------|-------------|-----------------------|-----------------------------------|------------|----------------------|-----------------------|-------------------------|--------------------|---------|
| Survey Program: 0-MWD   |                     |                     |                     |                |             |                       |                                   |            |                      |                       |                         | Offset Well Error: | 0.00 ft |
| Measured Depth (ft)   | Vertical Depth (ft) | Measured Depth (ft) | Vertical Depth (ft) | Reference (ft) | Offset (ft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (ft) | +E/-W (ft) | Between Centres (ft) | Between Ellipses (ft) | Minimum Separation (ft) | Separation Factor  | Warning |
| 2,100.00  | 2,013.35            | 2,070.09            | 2,043.53            | 10.62          | 6.60        | -149.99               | -77.37                            | 236.59     | 356.17               | 343.02                | 13.15                   | 27.076             |         |
| 2,200.00  | 2,104.71            | 2,166.15            | 2,137.04            | 11.45          | 7.06        | -149.85               | -85.45                            | 257.05     | 383.94               | 369.84                | 14.10                   | 27.229             |         |
| 2,300.00  | 2,196.07            | 2,262.22            | 2,230.55            | 12.27          | 7.53        | -149.73               | -93.53                            | 277.52     | 411.70               | 396.65                | 15.05                   | 27.356             |         |
| 2,400.00  | 2,287.42            | 2,358.28            | 2,324.06            | 13.10          | 8.00        | -149.62               | -101.61                           | 297.98     | 439.47               | 423.46                | 16.00                   | 27.463             |         |
| 2,500.00  | 2,378.78            | 2,454.35            | 2,417.57            | 13.93          | 8.47        | -149.52               | -109.69                           | 318.45     | 467.23               | 450.28                | 16.96                   | 27.553             |         |
| 2,600.00  | 2,470.14            | 2,550.41            | 2,511.08            | 14.76          | 8.94        | -149.44               | -117.77                           | 338.91     | 495.00               | 477.09                | 17.92                   | 27.630             |         |
| 2,700.00  | 2,561.49            | 2,646.48            | 2,604.60            | 15.59          | 9.41        | -149.36               | -125.85                           | 359.38     | 522.77               | 503.90                | 18.88                   | 27.696             |         |
| 2,800.00  | 2,652.85            | 2,742.54            | 2,698.11            | 16.42          | 9.88        | -149.29               | -133.93                           | 379.84     | 550.54               | 530.71                | 19.84                   | 27.754             |         |
| 2,900.00  | 2,744.21            | 2,838.61            | 2,791.62            | 17.25          | 10.35       | -149.23               | -142.01                           | 400.30     | 578.31               | 557.52                | 20.80                   | 27.804             |         |
| 3,000.00  | 2,835.56            | 2,934.67            | 2,885.13            | 18.08          | 10.83       | -149.17               | -150.09                           | 420.77     | 606.09               | 584.32                | 21.76                   | 27.849             |         |
| 3,100.00  | 2,926.92            | 3,030.73            | 2,978.64            | 18.91          | 11.30       | -149.12               | -158.17                           | 441.23     | 633.86               | 611.13                | 22.73                   | 27.888             |         |
| 3,200.00  | 3,018.28            | 3,126.80            | 3,072.15            | 19.75          | 11.78       | -149.07               | -166.25                           | 461.70     | 661.63               | 637.94                | 23.69                   | 27.923             |         |
| 3,300.00  | 3,109.63            | 3,222.86            | 3,165.66            | 20.58          | 12.25       | -149.03               | -174.33                           | 482.16     | 689.40               | 664.74                | 24.66                   | 27.954             |         |
| 3,400.00  | 3,200.99            | 3,318.93            | 3,259.17            | 21.41          | 12.73       | -148.99               | -182.41                           | 502.63     | 717.18               | 691.55                | 25.63                   | 27.982             |         |
| 3,500.00  | 3,292.35            | 3,414.99            | 3,352.68            | 22.25          | 13.20       | -148.95               | -190.49                           | 523.09     | 744.95               | 718.35                | 26.60                   | 28.007             |         |
| 3,600.00  | 3,383.70            | 3,511.06            | 3,446.19            | 23.08          | 13.68       | -148.92               | -198.57                           | 543.56     | 772.73               | 745.16                | 27.57                   | 28.030             |         |
| 3,700.00  | 3,475.06            | 3,607.12            | 3,539.71            | 23.91          | 14.16       | -148.89               | -206.65                           | 564.02     | 800.50               | 771.96                | 28.54                   | 28.051             |         |
| 3,800.00  | 3,566.42            | 3,703.19            | 3,633.22            | 24.75          | 14.64       | -148.86               | -214.73                           | 584.49     | 828.27               | 798.77                | 29.51                   | 28.070             |         |
| 3,900.00  | 3,657.77            | 3,799.25            | 3,726.73            | 25.58          | 15.11       | -148.83               | -222.81                           | 604.95     | 856.05               | 825.57                | 30.48                   | 28.088             |         |
| 4,000.00  | 3,749.13            | 3,895.32            | 3,820.24            | 26.42          | 15.59       | -148.80               | -230.89                           | 625.42     | 883.82               | 852.37                | 31.45                   | 28.104             |         |
| 4,100.00  | 3,840.49            | 3,991.38            | 3,913.75            | 27.25          | 16.07       | -148.78               | -238.97                           | 645.88     | 911.60               | 879.18                | 32.42                   | 28.118             |         |
| 4,200.00  | 3,931.84            | 4,087.45            | 4,007.26            | 28.08          | 16.55       | -148.76               | -247.05                           | 666.35     | 939.37               | 905.98                | 33.39                   | 28.132             |         |
| 4,300.00  | 4,023.20            | 4,183.51            | 4,100.77            | 28.92          | 17.02       | -148.74               | -255.13                           | 686.81     | 967.15               | 932.78                | 34.36                   | 28.145             |         |
| 4,400.00  | 4,114.56            | 4,279.58            | 4,194.28            | 29.75          | 17.50       | -148.71               | -263.21                           | 707.28     | 994.92               | 959.59                | 35.34                   | 28.156             |         |
| 4,500.00  | 4,205.91            | 4,375.64            | 4,287.79            | 30.59          | 17.98       | -148.70               | -271.29                           | 727.74     | 1,022.70             | 986.39                | 36.31                   | 28.167             |         |
| 4,600.00  | 4,297.27            | 4,471.70            | 4,381.30            | 31.42          | 18.46       | -148.68               | -279.37                           | 748.21     | 1,050.47             | 1,013.19              | 37.28                   | 28.177             |         |
| 4,700.00  | 4,388.63            | 4,567.77            | 4,474.82            | 32.26          | 18.94       | -148.66               | -287.45                           | 768.67     | 1,078.25             | 1,040.00              | 38.25                   | 28.186             |         |
| 4,786.80  | 4,467.92            | 4,651.15            | 4,555.98            | 32.98          | 19.35       | -148.65               | -294.47                           | 786.44     | 1,102.36             | 1,063.26              | 39.10                   | 28.194             |         |
| 4,800.00  | 4,480.00            | 4,663.84            | 4,568.33            | 33.08          | 19.42       | -148.68               | -295.53                           | 789.14     | 1,106.00             | 1,066.77              | 39.23                   | 28.195             |         |
| 4,900.00  | 4,572.22            | 4,760.40            | 4,662.32            | 33.67          | 19.90       | -148.88               | -303.66                           | 809.71     | 1,131.96             | 1,091.80              | 40.16                   | 28.187             |         |
| 5,000.00  | 4,665.74            | 4,857.64            | 4,756.98            | 34.22          | 20.38       | -148.96               | -311.83                           | 830.43     | 1,155.03             | 1,113.93              | 41.10                   | 28.103             |         |
| 5,100.00  | 4,760.44            | 4,955.46            | 4,852.20            | 34.72          | 20.87       | -148.93               | -320.06                           | 851.26     | 1,175.19             | 1,133.15              | 42.04                   | 27.952             |         |
| 5,200.00  | 4,856.20            | 5,053.73            | 4,947.85            | 35.18          | 21.36       | -148.78               | -328.33                           | 872.20     | 1,192.44             | 1,149.46              | 42.99                   | 27.739             |         |
| 5,300.00  | 4,952.91            | 5,143.94            | 5,035.81            | 35.59          | 21.73       | -148.59               | -335.69                           | 890.84     | 1,207.04             | 1,163.24              | 43.80                   | 27.561             |         |
| 5,400.00  | 5,050.44            | 5,230.87            | 5,121.10            | 35.95          | 22.02       | -148.44               | -341.87                           | 906.49     | 1,219.67             | 1,175.21              | 44.46                   | 27.433             |         |
| 5,500.00  | 5,148.69            | 5,318.12            | 5,207.16            | 36.27          | 22.27       | -148.32               | -347.11                           | 919.77     | 1,230.35             | 1,185.32              | 45.03                   | 27.322             |         |
| 5,600.00  | 5,247.53            | 5,400.00            | 5,288.30            | 36.54          | 22.48       | -148.23               | -351.16                           | 930.02     | 1,239.09             | 1,193.60              | 45.49                   | 27.237             |         |
| 5,700.00  | 5,346.83            | 5,493.37            | 5,381.15            | 36.76          | 22.69       | -148.14               | -354.73                           | 939.06     | 1,245.81             | 1,199.92              | 45.89                   | 27.148             |         |
| 5,800.00  | 5,446.49            | 5,581.26            | 5,468.81            | 36.92          | 22.84       | -148.09               | -357.07                           | 945.00     | 1,250.56             | 1,204.38              | 46.17                   | 27.084             |         |
| 5,900.00  | 5,546.37            | 5,669.25            | 5,556.72            | 37.05          | 22.97       | -148.06               | -358.43                           | 948.43     | 1,253.30             | 1,206.94              | 46.36                   | 27.033             |         |
| 5,986.65  | 5,633.00            | 5,745.54            | 5,633.00            | 37.12          | 23.06       | 3.49                  | -358.80                           | 949.38     | 1,254.06             | 1,207.59              | 46.46                   | 26.992             |         |
| 6,000.00  | 5,646.35            | 5,758.89            | 5,646.35            | 37.13          | 23.07       | 3.49                  | -358.80                           | 949.38     | 1,254.06             | 1,207.57              | 46.49                   | 26.976             |         |
| 6,100.00  | 5,746.35            | 5,858.89            | 5,746.35            | 37.19          | 23.18       | 3.49                  | -358.80                           | 949.38     | 1,254.06             | 1,207.36              | 46.70                   | 26.856             |         |
| 6,200.00  | 5,846.35            | 5,958.89            | 5,846.35            | 37.25          | 23.29       | 3.49                  | -358.80                           | 949.38     | 1,254.06             | 1,207.15              | 46.91                   | 26.735             |         |
| 6,300.00  | 5,946.35            | 6,058.89            | 5,946.35            | 37.31          | 23.40       | 3.49                  | -358.80                           | 949.38     | 1,254.06             | 1,206.93              | 47.12                   | 26.613             |         |
| 6,400.00  | 6,046.35            | 6,158.89            | 6,046.35            | 37.38          | 23.52       | 3.49                  | -358.80                           | 949.38     | 1,254.06             | 1,206.72              | 47.34                   | 26.491             |         |
| 6,500.00  | 6,146.35            | 6,258.89            | 6,146.35            | 37.44          | 23.63       | 3.49                  | -358.80                           | 949.38     | 1,254.06             | 1,206.49              | 47.56                   | 26.368             |         |
| 6,600.00  | 6,246.35            | 6,358.89            | 6,246.35            | 37.51          | 23.75       | 3.49                  | -358.80                           | 949.38     | 1,254.06             | 1,206.27              | 47.79                   | 26.244             |         |
| 6,700.00  | 6,346.35            | 6,458.89            | 6,346.35            | 37.57          | 23.87       | 3.49                  | -358.80                           | 949.38     | 1,254.06             | 1,206.04              | 48.01                   | 26.119             |         |
| 6,800.00  | 6,446.35            | 6,558.89            | 6,446.35            | 37.64          | 23.99       | 3.49                  | -358.80                           | 949.38     | 1,254.06             | 1,205.81              | 48.24                   | 25.994             |         |
| 6,900.00  | 6,546.35            | 6,658.89            | 6,546.35            | 37.71          | 24.11       | 3.49                  | -358.80                           | 949.38     | 1,254.06             | 1,205.58              | 48.48                   | 25.869             |         |
| 7,000.00  | 6,646.35            | 6,758.89            | 6,646.35            | 37.78          | 24.24       | 3.49                  | -358.80                           | 949.38     | 1,254.06             | 1,205.34              | 48.71                   | 25.743             |         |

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

|                           |                             |                                     |                                       |
|---------------------------|-----------------------------|-------------------------------------|---------------------------------------|
| <b>Company:</b>           | US ROCKIES REGION PLANNING  | <b>Local Co-ordinate Reference:</b> | Well P_WINTERS 35-3                   |
| <b>Project:</b>           | COLORADO NORTHERN ZONE - 83 | <b>TVD Reference:</b>               | WELL @ 4647.00ft (Original Well Elev) |
| <b>Reference Site:</b>    | WELD_WINTERS 12-3 PAD       | <b>MD Reference:</b>                | WELL @ 4647.00ft (Original Well Elev) |
| <b>Site Error:</b>        | 0.00ft                      | <b>North Reference:</b>             | True                                  |
| <b>Reference Well:</b>    | P_WINTERS 35-3              | <b>Survey Calculation Method:</b>   | Minimum Curvature                     |
| <b>Well Error:</b>        | 0.00ft                      | <b>Output errors are at</b>         | 2.00 sigma                            |
| <b>Reference Wellbore</b> | P_WINTERS 35-3              | <b>Database:</b>                    | EDM 2003.21 Single User Db            |
| <b>Reference Design:</b>  | PLAN #1 3-10-10 RHS         | <b>Offset TVD Reference:</b>        | Offset Datum                          |

| <b>Offset Design</b> WELD_WINTERS 12-3 PAD - P_WINTERS 19-3 - P_WINTERS 19-3 - PLAN #1 3-10-10 RHS |                        |                        |                        |                   |                |                             |   |               |                            |                             |                               | <b>Offset Site Error:</b> | 0.00 ft |
|--|------------------------|------------------------|------------------------|-------------------|----------------|-----------------------------|---|---------------|----------------------------|-----------------------------|-------------------------------|---------------------------|---------|
| Survey Program: 0-MWD  |                        |                        |                        |                   |                |                             |   |               |                            |                             |                               | <b>Offset Well Error:</b> | 0.00 ft |
| Reference  | Offset                 | Semi Major Axis        |                        | Distance          |                |                             |   |               |                            |                             |                               |                           |         |
| Measured Depth<br>(ft)   | Vertical Depth<br>(ft) | Measured Depth<br>(ft) | Vertical Depth<br>(ft) | Reference<br>(ft) | Offset<br>(ft) | Highside<br>Toolface<br>(°) | Offset Wellbore Centre<br>+N/-S<br>(ft) | +E/-W<br>(ft) | Between<br>Centres<br>(ft) | Between<br>Ellipses<br>(ft) | Minimum<br>Separation<br>(ft) | Separation<br>Factor      | Warning |
| 7,100.00   | 6,746.35               | 6,858.89               | 6,746.35               | 37.86             | 24.36          | 3.49                        | -358.80                                 | 949.38        | 1,254.06                   | 1,205.10                    | 48.95                         | 25.617                    |         |
| 7,200.00   | 6,846.35               | 6,958.89               | 6,846.35               | 37.93             | 24.49          | 3.49                        | -358.80                                 | 949.38        | 1,254.06                   | 1,204.86                    | 49.20                         | 25.491                    |         |
| 7,300.00   | 6,946.35               | 7,058.89               | 6,946.35               | 38.00             | 24.62          | 3.49                        | -358.80                                 | 949.38        | 1,254.06                   | 1,204.61                    | 49.44                         | 25.364                    |         |
| 7,400.00   | 7,046.35               | 7,158.89               | 7,046.35               | 38.08             | 24.75          | 3.49                        | -358.80                                 | 949.38        | 1,254.06                   | 1,204.36                    | 49.69                         | 25.237                    |         |
| 7,453.65   | 7,100.00               | 7,212.54               | 7,100.00               | 38.12             | 24.82          | 3.49                        | -358.80                                 | 949.38        | 1,254.06                   | 1,204.23                    | 49.82                         | 25.169                    |         |

|                           |                             |                                     |                                       |
|---------------------------|-----------------------------|-------------------------------------|---------------------------------------|
| <b>Company:</b>           | US ROCKIES REGION PLANNING  | <b>Local Co-ordinate Reference:</b> | Well P_WINTERS 35-3                   |
| <b>Project:</b>           | COLORADO NORTHERN ZONE - 83 | <b>TVD Reference:</b>               | WELL @ 4647.00ft (Original Well Elev) |
| <b>Reference Site:</b>    | WELD_WINTERS 12-3 PAD       | <b>MD Reference:</b>                | WELL @ 4647.00ft (Original Well Elev) |
| <b>Site Error:</b>        | 0.00ft                      | <b>North Reference:</b>             | True                                  |
| <b>Reference Well:</b>    | P_WINTERS 35-3              | <b>Survey Calculation Method:</b>   | Minimum Curvature                     |
| <b>Well Error:</b>        | 0.00ft                      | <b>Output errors are at</b>         | 2.00 sigma                            |
| <b>Reference Wellbore</b> | P_WINTERS 35-3              | <b>Database:</b>                    | EDM 2003.21 Single User Db            |
| <b>Reference Design:</b>  | PLAN #1 3-10-10 RHS         | <b>Offset TVD Reference:</b>        | Offset Datum                          |

| Offset Design WELD_WINTERS 12-3 PAD - P_WINTERS 23-3 - P_WINTERS 23-3 - PLAN #1 3-10-10 RHS |                     |                     |                     |                |             |                       |                                   |            |                      |                       |                         | Offset Site Error: | 0.00 ft |
|---|---------------------|---------------------|---------------------|----------------|-------------|-----------------------|-----------------------------------|------------|----------------------|-----------------------|-------------------------|--------------------|---------|
| Survey Program: 0-MWD   |                     |                     |                     |                |             |                       |                                   |            |                      |                       |                         | Offset Well Error: | 0.00 ft |
| Measured Depth (ft)   | Vertical Depth (ft) | Measured Depth (ft) | Vertical Depth (ft) | Reference (ft) | Offset (ft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (ft) | +E/-W (ft) | Between Centres (ft) | Between Ellipses (ft) | Minimum Separation (ft) | Separation Factor  | Warning |
| 0.00  | 0.00                | 0.00                | 0.00                | 0.00           | 0.00        | 0.50                  | 32.06                             | 0.28       | 32.06                |                       |                         |                    |         |
| 100.00  | 100.00              | 100.00              | 100.00              | 0.10           | 0.10        | 0.50                  | 32.06                             | 0.28       | 32.06                | 31.87                 | 0.19                    | 167.827            |         |
| 200.00  | 200.00              | 200.00              | 200.00              | 0.32           | 0.32        | 0.50                  | 32.06                             | 0.28       | 32.06                | 31.42                 | 0.64                    | 50.054             |         |
| 300.00  | 300.00              | 300.00              | 300.00              | 0.55           | 0.55        | 0.50                  | 32.06                             | 0.28       | 32.06                | 30.97                 | 1.09                    | 29.413 CC, ES      |         |
| 400.00  | 399.98              | 400.12              | 400.10              | 0.75           | 0.76        | -149.50               | 31.82                             | 2.01       | 33.37                | 31.87                 | 1.50                    | 22.204             |         |
| 500.00  | 499.84              | 500.10              | 499.94              | 0.95           | 0.97        | -145.54               | 31.08                             | 7.19       | 37.41                | 35.50                 | 1.91                    | 19.556             |         |
| 600.00  | 599.45              | 599.78              | 599.23              | 1.18           | 1.21        | -140.58               | 29.85                             | 15.79      | 44.44                | 42.06                 | 2.37                    | 18.731 SF          |         |
| 700.00  | 698.70              | 699.02              | 697.73              | 1.46           | 1.49        | -135.81               | 28.15                             | 27.75      | 54.62                | 51.73                 | 2.89                    | 18.875             |         |
| 800.00  | 797.47              | 797.69              | 795.19              | 1.78           | 1.81        | -131.77               | 25.99                             | 42.97      | 68.02                | 64.53                 | 3.49                    | 19.476             |         |
| 900.00  | 895.62              | 895.65              | 891.37              | 2.16           | 2.17        | -128.54               | 23.37                             | 61.36      | 84.61                | 80.43                 | 4.18                    | 20.243             |         |
| 1,000.00  | 993.06              | 992.78              | 986.04              | 2.59           | 2.59        | -125.99               | 20.32                             | 82.80      | 104.32               | 99.36                 | 4.96                    | 21.021             |         |
| 1,100.00  | 1,089.64            | 1,088.95            | 1,079.02            | 3.09           | 3.07        | -123.98               | 16.85                             | 107.15     | 127.08               | 121.23                | 5.85                    | 21.741             |         |
| 1,200.00  | 1,185.27            | 1,184.07            | 1,170.11            | 3.66           | 3.60        | -122.35               | 13.00                             | 134.26     | 152.79               | 145.96                | 6.83                    | 22.377             |         |
| 1,300.00  | 1,279.82            | 1,278.03            | 1,259.15            | 4.29           | 4.18        | -120.99               | 8.77                              | 163.96     | 181.38               | 173.47                | 7.91                    | 22.927             |         |
| 1,400.00  | 1,373.17            | 1,370.75            | 1,346.00            | 4.98           | 4.82        | -119.83               | 4.20                              | 196.09     | 212.77               | 203.68                | 9.09                    | 23.402             |         |
| 1,499.85  | 1,465.08            | 1,462.02            | 1,430.42            | 5.74           | 5.50        | -118.81               | -0.69                             | 230.42     | 246.83               | 236.46                | 10.37                   | 23.811             |         |
| 1,600.00  | 1,556.57            | 1,553.03            | 1,513.48            | 6.54           | 6.24        | -118.26               | -5.92                             | 267.23     | 282.83               | 271.09                | 11.75                   | 24.077             |         |
| 1,700.00  | 1,647.93            | 1,646.15            | 1,598.07            | 7.35           | 7.03        | -117.65               | -11.41                            | 305.77     | 319.17               | 305.98                | 13.19                   | 24.200             |         |
| 1,800.00  | 1,739.28            | 1,739.26            | 1,682.66            | 8.16           | 7.83        | -117.17               | -16.89                            | 344.32     | 355.53               | 340.88                | 14.64                   | 24.283             |         |
| 1,900.00  | 1,830.64            | 1,832.38            | 1,767.25            | 8.98           | 8.63        | -116.77               | -22.38                            | 382.86     | 391.90               | 375.80                | 16.10                   | 24.339             |         |
| 2,000.00  | 1,922.00            | 1,925.50            | 1,851.84            | 9.80           | 9.44        | -116.44               | -27.86                            | 421.40     | 428.29               | 410.72                | 17.57                   | 24.378             |         |
| 2,100.00  | 2,013.35            | 2,018.62            | 1,936.42            | 10.62          | 10.25       | -116.17               | -33.35                            | 459.94     | 464.69               | 445.65                | 19.04                   | 24.406             |         |
| 2,200.00  | 2,104.71            | 2,111.74            | 2,021.01            | 11.45          | 11.07       | -115.93               | -38.83                            | 498.49     | 501.10               | 480.59                | 20.52                   | 24.426             |         |
| 2,300.00  | 2,196.07            | 2,204.85            | 2,105.60            | 12.27          | 11.88       | -115.72               | -44.31                            | 537.03     | 537.52               | 515.53                | 21.99                   | 24.441             |         |
| 2,400.00  | 2,287.42            | 2,297.97            | 2,190.19            | 13.10          | 12.70       | -115.55               | -49.80                            | 575.57     | 573.94               | 550.47                | 23.47                   | 24.452             |         |
| 2,500.00  | 2,378.78            | 2,391.09            | 2,274.78            | 13.93          | 13.52       | -115.39               | -55.28                            | 614.11     | 610.36               | 585.41                | 24.95                   | 24.461             |         |
| 2,600.00  | 2,470.14            | 2,484.21            | 2,359.37            | 14.76          | 14.34       | -115.25               | -60.77                            | 652.65     | 646.79               | 620.36                | 26.43                   | 24.468             |         |
| 2,700.00  | 2,561.49            | 2,577.32            | 2,443.96            | 15.59          | 15.16       | -115.12               | -66.25                            | 691.20     | 683.22               | 655.31                | 27.92                   | 24.473             |         |
| 2,800.00  | 2,652.85            | 2,670.44            | 2,528.55            | 16.42          | 15.98       | -115.01               | -71.74                            | 729.74     | 719.66               | 690.26                | 29.40                   | 24.478             |         |
| 2,900.00  | 2,744.21            | 2,763.56            | 2,613.14            | 17.25          | 16.81       | -114.91               | -77.22                            | 768.28     | 756.09               | 725.21                | 30.88                   | 24.482             |         |
| 3,000.00  | 2,835.56            | 2,856.68            | 2,697.73            | 18.08          | 17.63       | -114.82               | -82.70                            | 806.86     | 792.53               | 760.16                | 32.37                   | 24.486             |         |
| 3,100.00  | 2,926.92            | 2,949.80            | 2,782.32            | 18.91          | 18.46       | -114.74               | -88.19                            | 845.37     | 828.97               | 795.12                | 33.85                   | 24.489             |         |
| 3,200.00  | 3,018.28            | 3,042.91            | 2,866.91            | 19.75          | 19.28       | -114.66               | -93.67                            | 883.91     | 865.41               | 830.08                | 35.33                   | 24.492             |         |
| 3,300.00  | 3,109.63            | 3,136.03            | 2,951.50            | 20.58          | 20.11       | -114.59               | -99.16                            | 922.45     | 901.85               | 865.03                | 36.82                   | 24.495             |         |
| 3,400.00  | 3,200.99            | 3,229.15            | 3,036.09            | 21.41          | 20.93       | -114.52               | -104.64                           | 960.99     | 938.30               | 899.99                | 38.30                   | 24.498             |         |
| 3,500.00  | 3,292.35            | 3,322.27            | 3,120.68            | 22.25          | 21.76       | -114.46               | -110.13                           | 999.54     | 974.74               | 934.96                | 39.78                   | 24.501             |         |
| 3,600.00  | 3,383.70            | 3,415.39            | 3,205.26            | 23.08          | 22.58       | -114.41               | -115.61                           | 1,038.08   | 1,011.18             | 969.92                | 41.27                   | 24.504             |         |
| 3,700.00  | 3,475.06            | 3,508.50            | 3,289.85            | 23.91          | 23.41       | -114.35               | -121.10                           | 1,076.62   | 1,047.63             | 1,004.88              | 42.75                   | 24.507             |         |
| 3,800.00  | 3,566.42            | 3,601.62            | 3,374.44            | 24.75          | 24.24       | -114.31               | -126.58                           | 1,115.16   | 1,084.08             | 1,039.85              | 44.23                   | 24.510             |         |
| 3,900.00  | 3,657.77            | 3,694.74            | 3,459.03            | 25.58          | 25.06       | -114.26               | -132.06                           | 1,153.70   | 1,120.52             | 1,074.81              | 45.71                   | 24.513             |         |
| 4,000.00  | 3,749.13            | 3,787.86            | 3,543.62            | 26.42          | 25.89       | -114.22               | -137.55                           | 1,192.25   | 1,156.97             | 1,109.78              | 47.19                   | 24.516             |         |
| 4,100.00  | 3,840.49            | 3,880.98            | 3,628.21            | 27.25          | 26.72       | -114.18               | -143.03                           | 1,230.79   | 1,193.42             | 1,144.75              | 48.67                   | 24.519             |         |
| 4,200.00  | 3,931.84            | 3,974.09            | 3,712.80            | 28.08          | 27.54       | -114.14               | -148.52                           | 1,269.33   | 1,229.87             | 1,179.71              | 50.15                   | 24.522             |         |
| 4,300.00  | 4,023.20            | 4,067.21            | 3,797.39            | 28.92          | 28.37       | -114.10               | -154.00                           | 1,307.87   | 1,266.32             | 1,214.68              | 51.63                   | 24.526             |         |
| 4,400.00  | 4,114.56            | 4,160.33            | 3,881.98            | 29.75          | 29.20       | -114.07               | -159.49                           | 1,346.42   | 1,302.77             | 1,249.66              | 53.11                   | 24.529             |         |
| 4,500.00  | 4,205.91            | 4,253.45            | 3,966.57            | 30.59          | 30.03       | -114.04               | -164.97                           | 1,384.96   | 1,339.22             | 1,284.63              | 54.59                   | 24.533             |         |
| 4,600.00  | 4,297.27            | 4,346.57            | 4,051.16            | 31.42          | 30.85       | -114.01               | -170.45                           | 1,423.50   | 1,375.67             | 1,319.60              | 56.07                   | 24.536             |         |
| 4,700.00  | 4,388.63            | 4,439.68            | 4,135.75            | 32.26          | 31.68       | -113.98               | -175.94                           | 1,462.04   | 1,412.12             | 1,354.57              | 57.54                   | 24.540             |         |
| 4,786.80  | 4,467.92            | 4,520.51            | 4,209.17            | 32.98          | 32.40       | -113.96               | -180.70                           | 1,495.50   | 1,443.75             | 1,384.93              | 58.83                   | 24.543             |         |
| 4,800.00  | 4,480.00            | 4,532.81            | 4,220.34            | 33.08          | 32.51       | -114.05               | -181.42                           | 1,500.59   | 1,448.56             | 1,389.52              | 59.03                   | 24.538             |         |
| 4,900.00  | 4,572.22            | 4,626.21            | 4,305.19            | 33.67          | 33.34       | -114.63               | -186.93                           | 1,539.25   | 1,484.16             | 1,423.68              | 60.49                   | 24.537             |         |
| 5,000.00  | 4,665.74            | 4,719.98            | 4,390.37            | 34.22          | 34.17       | -115.06               | -192.45                           | 1,578.06   | 1,518.42             | 1,456.52              | 61.91                   | 24.527             |         |

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

|                           |                             |                                     |                                       |
|---------------------------|-----------------------------|-------------------------------------|---------------------------------------|
| <b>Company:</b>           | US ROCKIES REGION PLANNING  | <b>Local Co-ordinate Reference:</b> | Well P_WINTERS 35-3                   |
| <b>Project:</b>           | COLORADO NORTHERN ZONE - 83 | <b>TVD Reference:</b>               | WELL @ 4647.00ft (Original Well Elev) |
| <b>Reference Site:</b>    | WELD_WINTERS 12-3 PAD       | <b>MD Reference:</b>                | WELL @ 4647.00ft (Original Well Elev) |
| <b>Site Error:</b>        | 0.00ft                      | <b>North Reference:</b>             | True                                  |
| <b>Reference Well:</b>    | P_WINTERS 35-3              | <b>Survey Calculation Method:</b>   | Minimum Curvature                     |
| <b>Well Error:</b>        | 0.00ft                      | <b>Output errors are at</b>         | 2.00 sigma                            |
| <b>Reference Wellbore</b> | P_WINTERS 35-3              | <b>Database:</b>                    | EDM 2003.21 Single User Db            |
| <b>Reference Design:</b>  | PLAN #1 3-10-10 RHS         | <b>Offset TVD Reference:</b>        | Offset Datum                          |

| <b>Offset Design</b> WELD_WINTERS 12-3 PAD - P_WINTERS 23-3 - P_WINTERS 23-3 - PLAN #1 3-10-10 RHS |                     |                     |                     |                |             |                       |                                   |            |                      |                       |                         | <b>Offset Site Error:</b> | 0.00 ft |
|--|---------------------|---------------------|---------------------|----------------|-------------|-----------------------|-----------------------------------|------------|----------------------|-----------------------|-------------------------|---------------------------|---------|
| Survey Program: 0-MWD  |                     |                     |                     |                |             |                       |                                   |            |                      |                       |                         | <b>Offset Well Error:</b> | 0.00 ft |
| Reference  | Offset              | Semi Major Axis     |                     | Distance       |             |                       |                                   |            |                      |                       |                         |                           |         |
| Measured Depth (ft)  | Vertical Depth (ft) | Measured Depth (ft) | Vertical Depth (ft) | Reference (ft) | Offset (ft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (ft) | +E/-W (ft) | Between Centres (ft) | Between Ellipses (ft) | Minimum Separation (ft) | Separation Factor         | Warning |
| 5,100.00   | 4,760.44            | 4,814.00            | 4,475.78            | 34.72          | 35.01       | -115.35               | -197.99                           | 1,616.98   | 1,551.33             | 1,488.04              | 63.29                   | 24.512                    |         |
| 5,200.00   | 4,856.20            | 4,908.16            | 4,561.32            | 35.18          | 35.85       | -115.50               | -203.53                           | 1,655.95   | 1,582.88             | 1,518.26              | 64.62                   | 24.493                    |         |
| 5,300.00   | 4,952.91            | 5,002.35            | 4,646.88            | 35.59          | 36.68       | -115.53               | -209.08                           | 1,694.93   | 1,613.12             | 1,547.21              | 65.91                   | 24.475                    |         |
| 5,400.00   | 5,050.44            | 5,096.44            | 4,732.35            | 35.95          | 37.52       | -115.44               | -214.62                           | 1,733.88   | 1,642.08             | 1,574.94              | 67.14                   | 24.459                    |         |
| 5,500.00   | 5,148.69            | 5,190.32            | 4,817.64            | 36.27          | 38.36       | -115.25               | -220.15                           | 1,772.74   | 1,669.82             | 1,601.52              | 68.30                   | 24.448                    |         |
| 5,600.00   | 5,247.53            | 5,283.89            | 4,902.63            | 36.54          | 39.19       | -114.96               | -225.66                           | 1,811.47   | 1,696.42             | 1,627.03              | 69.39                   | 24.446                    |         |
| 5,700.00   | 5,346.83            | 5,401.53            | 5,009.97            | 36.76          | 40.14       | -114.36               | -232.44                           | 1,859.11   | 1,721.54             | 1,651.03              | 70.51                   | 24.415                    |         |
| 5,800.00   | 5,446.49            | 5,537.48            | 5,136.26            | 36.92          | 40.99       | -113.62               | -239.53                           | 1,908.91   | 1,743.60             | 1,672.16              | 71.43                   | 24.409                    |         |
| 5,900.00   | 5,546.37            | 5,677.03            | 5,268.22            | 37.05          | 41.76       | -112.86               | -245.91                           | 1,953.81   | 1,762.28             | 1,690.08              | 72.19                   | 24.410                    |         |
| 5,986.65   | 5,633.00            | 5,800.67            | 5,386.87            | 37.12          | 42.35       | 39.35                 | -250.81                           | 1,988.23   | 1,775.63             | 1,702.91              | 72.72                   | 24.416                    |         |
| 6,000.00   | 5,646.35            | 5,819.94            | 5,405.49            | 37.13          | 42.43       | 39.49                 | -251.51                           | 1,993.14   | 1,777.46             | 1,704.68              | 72.78                   | 24.422                    |         |
| 6,100.00   | 5,746.35            | 5,966.35            | 5,547.99            | 37.19          | 43.00       | 40.42                 | -256.24                           | 2,026.35   | 1,789.80             | 1,716.60              | 73.20                   | 24.451                    |         |
| 6,200.00   | 5,846.35            | 6,115.95            | 5,695.16            | 37.25          | 43.47       | 41.14                 | -260.00                           | 2,052.79   | 1,799.56             | 1,726.01              | 73.54                   | 24.470                    |         |
| 6,300.00   | 5,946.35            | 6,267.99            | 5,845.97            | 37.31          | 43.82       | 41.65                 | -262.71                           | 2,071.84   | 1,806.55             | 1,732.73              | 73.81                   | 24.475                    |         |
| 6,400.00   | 6,046.35            | 6,421.68            | 5,999.22            | 37.38          | 44.06       | 41.95                 | -264.30                           | 2,083.02   | 1,810.63             | 1,736.60              | 74.03                   | 24.457                    |         |
| 6,500.00   | 6,146.35            | 6,568.86            | 6,146.35            | 37.44          | 44.19       | 42.03                 | -264.74                           | 2,086.12   | 1,811.76             | 1,737.55              | 74.21                   | 24.414                    |         |
| 6,600.00   | 6,246.35            | 6,668.86            | 6,246.35            | 37.51          | 44.25       | 42.03                 | -264.74                           | 2,086.12   | 1,811.76             | 1,737.41              | 74.35                   | 24.367                    |         |
| 6,700.00   | 6,346.35            | 6,768.86            | 6,346.35            | 37.57          | 44.32       | 42.03                 | -264.74                           | 2,086.12   | 1,811.76             | 1,737.26              | 74.50                   | 24.320                    |         |
| 6,800.00   | 6,446.35            | 6,868.86            | 6,446.35            | 37.64          | 44.38       | 42.03                 | -264.74                           | 2,086.12   | 1,811.76             | 1,737.12              | 74.65                   | 24.272                    |         |
| 6,900.00   | 6,546.35            | 6,968.86            | 6,546.35            | 37.71          | 44.45       | 42.03                 | -264.74                           | 2,086.12   | 1,811.76             | 1,736.97              | 74.80                   | 24.223                    |         |
| 7,000.00   | 6,646.35            | 7,068.86            | 6,646.35            | 37.78          | 44.52       | 42.03                 | -264.74                           | 2,086.12   | 1,811.76             | 1,736.81              | 74.95                   | 24.174                    |         |
| 7,100.00   | 6,746.35            | 7,168.86            | 6,746.35            | 37.86          | 44.59       | 42.03                 | -264.74                           | 2,086.12   | 1,811.76             | 1,736.66              | 75.10                   | 24.124                    |         |
| 7,200.00   | 6,846.35            | 7,268.86            | 6,846.35            | 37.93          | 44.67       | 42.03                 | -264.74                           | 2,086.12   | 1,811.76             | 1,736.50              | 75.26                   | 24.073                    |         |
| 7,300.00   | 6,946.35            | 7,368.86            | 6,946.35            | 38.00          | 44.74       | 42.03                 | -264.74                           | 2,086.12   | 1,811.76             | 1,736.34              | 75.42                   | 24.022                    |         |
| 7,400.00   | 7,046.35            | 7,468.86            | 7,046.35            | 38.08          | 44.81       | 42.03                 | -264.74                           | 2,086.12   | 1,811.76             | 1,736.18              | 75.58                   | 23.971                    |         |
| 7,453.65   | 7,100.00            | 7,522.51            | 7,100.00            | 38.12          | 44.85       | 42.03                 | -264.74                           | 2,086.12   | 1,811.76             | 1,736.09              | 75.67                   | 23.943                    |         |

|                           |                             |                                     |                                       |
|---------------------------|-----------------------------|-------------------------------------|---------------------------------------|
| <b>Company:</b>           | US ROCKIES REGION PLANNING  | <b>Local Co-ordinate Reference:</b> | Well P_WINTERS 35-3                   |
| <b>Project:</b>           | COLORADO NORTHERN ZONE - 83 | <b>TVD Reference:</b>               | WELL @ 4647.00ft (Original Well Elev) |
| <b>Reference Site:</b>    | WELD_WINTERS 12-3 PAD       | <b>MD Reference:</b>                | WELL @ 4647.00ft (Original Well Elev) |
| <b>Site Error:</b>        | 0.00ft                      | <b>North Reference:</b>             | True                                  |
| <b>Reference Well:</b>    | P_WINTERS 35-3              | <b>Survey Calculation Method:</b>   | Minimum Curvature                     |
| <b>Well Error:</b>        | 0.00ft                      | <b>Output errors are at</b>         | 2.00 sigma                            |
| <b>Reference Wellbore</b> | P_WINTERS 35-3              | <b>Database:</b>                    | EDM 2003.21 Single User Db            |
| <b>Reference Design:</b>  | PLAN #1 3-10-10 RHS         | <b>Offset TVD Reference:</b>        | Offset Datum                          |

| Offset Design WELD_WINTERS 12-3 PAD - P_WINTERS 33-3 - P_WINTERS 33-3 - PLAN #1 3-10-10 RHS |                     |                     |                     |                |             |                       |                                   |            |                      |                       |                         | Offset Site Error: | 0.00 ft |
|---|---------------------|---------------------|---------------------|----------------|-------------|-----------------------|-----------------------------------|------------|----------------------|-----------------------|-------------------------|--------------------|---------|
| Survey Program: 0-MWD   |                     |                     |                     |                |             |                       |                                   |            |                      |                       |                         | Offset Well Error: | 0.00 ft |
| Reference   | Offset              | Semi Major Axis     |                     | Distance       |             | Warning               |                                   |            |                      |                       |                         |                    |         |
| Measured Depth (ft)   | Vertical Depth (ft) | Measured Depth (ft) | Vertical Depth (ft) | Reference (ft) | Offset (ft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (ft) | +E/-W (ft) | Between Centres (ft) | Between Ellipses (ft) | Minimum Separation (ft) | Separation Factor  |         |
| 0.00  | 0.00                | 0.00                | 0.00                | 0.00           | 0.00        | 0.66                  | 48.08                             | 0.56       | 48.08                |                       |                         |                    |         |
| 100.00  | 100.00              | 100.00              | 100.00              | 0.10           | 0.10        | 0.66                  | 48.08                             | 0.56       | 48.08                | 47.89                 | 0.19                    | 251.674            |         |
| 200.00  | 200.00              | 200.00              | 200.00              | 0.32           | 0.32        | 0.66                  | 48.08                             | 0.56       | 48.08                | 47.44                 | 0.64                    | 75.061             |         |
| 300.00  | 300.00              | 300.00              | 300.00              | 0.55           | 0.55        | 0.66                  | 48.08                             | 0.56       | 48.08                | 46.99                 | 1.09                    | 44.108 CC, ES      |         |
| 400.00  | 399.98              | 399.98              | 399.98              | 0.75           | 0.77        | -151.84               | 48.08                             | 0.56       | 49.61                | 48.10                 | 1.52                    | 32.742             |         |
| 500.00  | 499.84              | 499.84              | 499.84              | 0.95           | 0.99        | -154.41               | 48.08                             | 0.56       | 54.28                | 52.35                 | 1.93                    | 28.094             |         |
| 600.00  | 599.45              | 599.45              | 599.45              | 1.18           | 1.22        | -157.81               | 48.08                             | 0.56       | 62.26                | 59.90                 | 2.36                    | 26.360             |         |
| 700.00  | 698.70              | 699.72              | 699.71              | 1.46           | 1.43        | -161.90               | 47.48                             | -0.04      | 73.22                | 70.44                 | 2.78                    | 26.303 SF          |         |
| 800.00  | 797.47              | 800.04              | 799.94              | 1.78           | 1.62        | -167.43               | 44.51                             | -3.01      | 86.15                | 82.97                 | 3.19                    | 27.038             |         |
| 900.00  | 895.62              | 899.75              | 899.35              | 2.16           | 1.82        | -173.56               | 39.11                             | -8.42      | 101.69               | 98.09                 | 3.61                    | 28.199             |         |
| 1,000.00  | 993.06              | 998.58              | 997.56              | 2.59           | 2.06        | -179.66               | 31.35                             | -16.20     | 120.46               | 116.41                | 4.06                    | 29.690             |         |
| 1,100.00  | 1,089.64            | 1,095.59            | 1,093.67            | 3.09           | 2.32        | 175.04                | 22.00                             | -25.56     | 143.06               | 138.51                | 4.55                    | 31.424             |         |
| 1,200.00  | 1,185.27            | 1,191.45            | 1,188.61            | 3.66           | 2.59        | 171.29                | 12.68                             | -34.90     | 169.82               | 164.73                | 5.09                    | 33.372             |         |
| 1,300.00  | 1,279.82            | 1,286.37            | 1,282.63            | 4.29           | 2.88        | 168.70                | 3.45                              | -44.14     | 200.34               | 194.68                | 5.66                    | 35.404             |         |
| 1,400.00  | 1,373.17            | 1,380.23            | 1,375.60            | 4.98           | 3.17        | 166.92                | -5.68                             | -53.28     | 234.32               | 228.07                | 6.25                    | 37.482             |         |
| 1,499.85  | 1,465.08            | 1,472.79            | 1,467.28            | 5.74           | 3.46        | 165.71                | -14.68                            | -62.30     | 271.53               | 264.67                | 6.86                    | 39.575             |         |
| 1,600.00  | 1,556.57            | 1,565.00            | 1,558.61            | 6.54           | 3.76        | 165.02                | -23.65                            | -71.28     | 310.47               | 302.92                | 7.55                    | 41.139             |         |
| 1,700.00  | 1,647.93            | 1,657.08            | 1,649.81            | 7.35           | 4.06        | 164.49                | -32.60                            | -80.25     | 349.38               | 341.13                | 8.24                    | 42.382             |         |
| 1,800.00  | 1,739.28            | 1,749.16            | 1,741.01            | 8.16           | 4.37        | 164.06                | -41.56                            | -89.22     | 388.31               | 379.36                | 8.95                    | 43.391             |         |
| 1,900.00  | 1,830.64            | 1,841.23            | 1,832.21            | 8.98           | 4.67        | 163.71                | -50.51                            | -98.19     | 427.25               | 417.59                | 9.66                    | 44.223             |         |
| 2,000.00  | 1,922.00            | 1,933.31            | 1,923.41            | 9.80           | 4.98        | 163.42                | -59.46                            | -107.15    | 466.21               | 455.83                | 10.38                   | 44.920             |         |
| 2,100.00  | 2,013.35            | 2,025.39            | 2,014.61            | 10.62          | 5.29        | 163.17                | -68.42                            | -116.12    | 505.17               | 494.07                | 11.10                   | 45.510             |         |
| 2,200.00  | 2,104.71            | 2,117.46            | 2,105.81            | 11.45          | 5.60        | 162.96                | -77.37                            | -125.09    | 544.14               | 532.32                | 11.82                   | 46.017             |         |
| 2,300.00  | 2,196.07            | 2,209.54            | 2,197.01            | 12.27          | 5.92        | 162.78                | -86.33                            | -134.06    | 583.12               | 570.57                | 12.55                   | 46.457             |         |
| 2,400.00  | 2,287.42            | 2,301.61            | 2,288.21            | 13.10          | 6.23        | 162.62                | -95.28                            | -143.03    | 622.10               | 608.82                | 13.28                   | 46.843             |         |
| 2,500.00  | 2,378.78            | 2,393.69            | 2,379.41            | 13.93          | 6.55        | 162.48                | -104.24                           | -151.99    | 661.09               | 647.08                | 14.01                   | 47.184             |         |
| 2,600.00  | 2,470.14            | 2,485.77            | 2,470.61            | 14.76          | 6.86        | 162.35                | -113.19                           | -160.96    | 700.08               | 685.34                | 14.74                   | 47.488             |         |
| 2,700.00  | 2,561.49            | 2,577.84            | 2,561.81            | 15.59          | 7.18        | 162.24                | -122.15                           | -169.93    | 739.07               | 723.59                | 15.47                   | 47.761             |         |
| 2,800.00  | 2,652.85            | 2,669.92            | 2,653.01            | 16.42          | 7.49        | 162.14                | -131.10                           | -178.90    | 778.06               | 761.85                | 16.21                   | 48.008             |         |
| 2,900.00  | 2,744.21            | 2,762.00            | 2,744.21            | 17.25          | 7.81        | 162.05                | -140.05                           | -187.87    | 817.06               | 800.12                | 16.94                   | 48.232             |         |
| 3,000.00  | 2,835.56            | 2,854.07            | 2,835.41            | 18.08          | 8.13        | 161.96                | -149.01                           | -196.84    | 856.05               | 838.38                | 17.67                   | 48.437             |         |
| 3,100.00  | 2,926.92            | 2,946.15            | 2,926.61            | 18.91          | 8.45        | 161.89                | -157.96                           | -205.80    | 895.05               | 876.64                | 18.41                   | 48.626             |         |
| 3,200.00  | 3,018.28            | 3,038.22            | 3,017.81            | 19.75          | 8.77        | 161.82                | -166.92                           | -214.77    | 934.05               | 914.91                | 19.14                   | 48.800             |         |
| 3,300.00  | 3,109.63            | 3,130.30            | 3,109.01            | 20.58          | 9.08        | 161.76                | -175.87                           | -223.74    | 973.05               | 953.18                | 19.87                   | 48.962             |         |
| 3,400.00  | 3,200.99            | 3,222.38            | 3,200.21            | 21.41          | 9.40        | 161.70                | -184.83                           | -232.71    | 1,012.05             | 991.44                | 20.61                   | 49.113             |         |
| 3,500.00  | 3,292.35            | 3,314.45            | 3,291.41            | 22.25          | 9.72        | 161.64                | -193.78                           | -241.68    | 1,051.05             | 1,029.71              | 21.34                   | 49.254             |         |
| 3,600.00  | 3,383.70            | 3,406.53            | 3,382.61            | 23.08          | 10.04       | 161.59                | -202.74                           | -250.65    | 1,090.06             | 1,067.98              | 22.07                   | 49.386             |         |
| 3,700.00  | 3,475.06            | 3,498.60            | 3,473.81            | 23.91          | 10.36       | 161.54                | -211.69                           | -259.61    | 1,129.06             | 1,106.26              | 22.80                   | 49.511             |         |
| 3,800.00  | 3,566.42            | 3,590.68            | 3,565.01            | 24.75          | 10.68       | 161.50                | -220.64                           | -268.58    | 1,168.06             | 1,144.53              | 23.54                   | 49.629             |         |
| 3,900.00  | 3,657.77            | 3,682.76            | 3,656.21            | 25.58          | 11.00       | 161.46                | -229.60                           | -277.55    | 1,207.07             | 1,182.80              | 24.27                   | 49.741             |         |
| 4,000.00  | 3,749.13            | 3,774.83            | 3,747.41            | 26.42          | 11.32       | 161.42                | -238.55                           | -286.52    | 1,246.07             | 1,221.08              | 25.00                   | 49.848             |         |
| 4,100.00  | 3,840.49            | 3,866.91            | 3,838.61            | 27.25          | 11.64       | 161.38                | -247.51                           | -295.49    | 1,285.08             | 1,259.35              | 25.73                   | 49.949             |         |
| 4,200.00  | 3,931.84            | 3,958.99            | 3,929.81            | 28.08          | 11.96       | 161.35                | -256.46                           | -304.46    | 1,324.08             | 1,297.62              | 26.46                   | 50.032             |         |
| 4,300.00  | 4,023.20            | 4,051.06            | 4,021.01            | 28.92          | 12.28       | 161.32                | -265.42                           | -313.42    | 1,363.09             | 1,335.88              | 27.21                   | 50.100             |         |
| 4,400.00  | 4,114.56            | 4,143.14            | 4,112.21            | 29.75          | 12.60       | 161.29                | -274.37                           | -322.39    | 1,402.10             | 1,374.15              | 27.95                   | 50.165             |         |
| 4,500.00  | 4,205.91            | 4,235.21            | 4,203.41            | 30.59          | 12.92       | 161.26                | -283.33                           | -331.36    | 1,441.10             | 1,412.41              | 28.69                   | 50.226             |         |
| 4,600.00  | 4,297.27            | 4,327.29            | 4,294.61            | 31.42          | 13.24       | 161.23                | -292.28                           | -340.33    | 1,480.11             | 1,450.68              | 29.44                   | 50.283             |         |
| 4,700.00  | 4,388.63            | 4,419.37            | 4,385.81            | 32.26          | 13.56       | 161.21                | -301.23                           | -349.30    | 1,519.12             | 1,488.94              | 30.18                   | 50.337             |         |
| 4,786.80  | 4,467.92            | 4,499.28            | 4,464.97            | 32.98          | 13.84       | 161.18                | -309.01                           | -357.08    | 1,552.98             | 1,522.15              | 30.82                   | 50.382             |         |
| 4,800.00  | 4,480.00            | 4,511.45            | 4,477.02            | 33.08          | 13.89       | 161.22                | -310.19                           | -358.27    | 1,558.10             | 1,527.17              | 30.93                   | 50.370             |         |
| 4,900.00  | 4,572.22            | 4,604.31            | 4,569.00            | 33.67          | 14.21       | 161.42                | -319.22                           | -367.31    | 1,595.17             | 1,563.46              | 31.71                   | 50.304             |         |
| 5,000.00  | 4,665.74            | 4,698.33            | 4,662.11            | 34.22          | 14.54       | 161.56                | -328.36                           | -376.47    | 1,629.16             | 1,596.69              | 32.47                   | 50.176             |         |

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

|                           |                             |                                     |                                       |
|---------------------------|-----------------------------|-------------------------------------|---------------------------------------|
| <b>Company:</b>           | US ROCKIES REGION PLANNING  | <b>Local Co-ordinate Reference:</b> | Well P_WINTERS 35-3                   |
| <b>Project:</b>           | COLORADO NORTHERN ZONE - 83 | <b>TVD Reference:</b>               | WELL @ 4647.00ft (Original Well Elev) |
| <b>Reference Site:</b>    | WELD_WINTERS 12-3 PAD       | <b>MD Reference:</b>                | WELL @ 4647.00ft (Original Well Elev) |
| <b>Site Error:</b>        | 0.00ft                      | <b>North Reference:</b>             | True                                  |
| <b>Reference Well:</b>    | P_WINTERS 35-3              | <b>Survey Calculation Method:</b>   | Minimum Curvature                     |
| <b>Well Error:</b>        | 0.00ft                      | <b>Output errors are at</b>         | 2.00 sigma                            |
| <b>Reference Wellbore</b> | P_WINTERS 35-3              | <b>Database:</b>                    | EDM 2003.21 Single User Db            |
| <b>Reference Design:</b>  | PLAN #1 3-10-10 RHS         | <b>Offset TVD Reference:</b>        | Offset Datum                          |

| Offset Design WELD_WINTERS 12-3 PAD - P_WINTERS 33-3 - P_WINTERS 33-3 - PLAN #1 3-10-10 RHS |                     |                     |                     |                |             |                       |                                   |            |                      |                       |                         | Offset Site Error: | 0.00 ft |
|---|---------------------|---------------------|---------------------|----------------|-------------|-----------------------|-----------------------------------|------------|----------------------|-----------------------|-------------------------|--------------------|---------|
| Survey Program: 0-MWD   |                     |                     |                     |                |             |                       |                                   |            |                      |                       |                         | Offset Well Error: | 0.00 ft |
| Reference   | Offset              | Semi Major Axis     |                     | Distance       |             |                       |                                   |            |                      |                       |                         |                    |         |
| Measured Depth (ft)   | Vertical Depth (ft) | Measured Depth (ft) | Vertical Depth (ft) | Reference (ft) | Offset (ft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (ft) | +E/-W (ft) | Between Centres (ft) | Between Ellipses (ft) | Minimum Separation (ft) | Separation Factor  | Warning |
| 5,100.00  | 4,760.44            | 4,793.38            | 4,756.26            | 34.72          | 14.87       | 161.64                | -337.61                           | -385.73    | 1,660.02             | 1,626.81              | 33.20                   | 49.996             |         |
| 5,200.00  | 4,856.20            | 4,889.35            | 4,851.32            | 35.18          | 15.20       | 161.66                | -346.94                           | -395.07    | 1,687.72             | 1,653.81              | 33.91                   | 49.770             |         |
| 5,300.00  | 4,952.91            | 4,986.13            | 4,947.18            | 35.59          | 15.54       | 161.62                | -356.35                           | -404.50    | 1,712.23             | 1,677.64              | 34.59                   | 49.502             |         |
| 5,400.00  | 5,050.44            | 5,083.60            | 5,043.72            | 35.95          | 15.88       | 161.53                | -365.83                           | -413.99    | 1,733.55             | 1,698.31              | 35.24                   | 49.199             |         |
| 5,500.00  | 5,148.69            | 5,181.64            | 5,140.83            | 36.27          | 16.22       | 161.39                | -375.37                           | -423.54    | 1,751.65             | 1,715.80              | 35.85                   | 48.861             |         |
| 5,600.00  | 5,247.53            | 5,280.13            | 5,238.38            | 36.54          | 16.57       | 161.20                | -384.94                           | -433.14    | 1,766.53             | 1,730.10              | 36.43                   | 48.493             |         |
| 5,700.00  | 5,346.83            | 5,380.48            | 5,337.86            | 36.76          | 16.88       | 160.97                | -394.30                           | -442.50    | 1,778.15             | 1,741.21              | 36.94                   | 48.139             |         |
| 5,800.00  | 5,446.49            | 5,482.74            | 5,439.59            | 36.92          | 17.11       | 160.78                | -401.52                           | -449.74    | 1,786.40             | 1,749.10              | 37.29                   | 47.900             |         |
| 5,900.00  | 5,546.37            | 5,585.61            | 5,542.24            | 37.05          | 17.29       | 160.65                | -406.19                           | -454.41    | 1,791.21             | 1,753.67              | 37.54                   | 47.715             |         |
| 5,986.65  | 5,633.00            | 5,675.03            | 5,631.62            | 37.12          | 17.43       | -47.87                | -408.13                           | -456.36    | 1,792.58             | 1,754.90              | 37.68                   | 47.579             |         |
| 6,000.00  | 5,646.35            | 5,688.82            | 5,645.41            | 37.13          | 17.45       | -47.88                | -408.26                           | -456.48    | 1,792.59             | 1,754.88              | 37.71                   | 47.533             |         |
| 6,100.00  | 5,746.35            | 5,789.76            | 5,746.35            | 37.19          | 17.59       | -47.88                | -408.36                           | -456.59    | 1,792.60             | 1,754.63              | 37.96                   | 47.221             |         |
| 6,200.00  | 5,846.35            | 5,889.76            | 5,846.35            | 37.25          | 17.72       | -47.88                | -408.36                           | -456.59    | 1,792.60             | 1,754.39              | 38.20                   | 46.924             |         |
| 6,300.00  | 5,946.35            | 5,989.76            | 5,946.35            | 37.31          | 17.86       | -47.88                | -408.36                           | -456.59    | 1,792.60             | 1,754.15              | 38.45                   | 46.627             |         |
| 6,400.00  | 6,046.35            | 6,089.76            | 6,046.35            | 37.38          | 17.99       | -47.88                | -408.36                           | -456.59    | 1,792.60             | 1,753.90              | 38.69                   | 46.330             |         |
| 6,500.00  | 6,146.35            | 6,189.76            | 6,146.35            | 37.44          | 18.13       | -47.88                | -408.36                           | -456.59    | 1,792.60             | 1,753.65              | 38.94                   | 46.032             |         |
| 6,600.00  | 6,246.35            | 6,289.76            | 6,246.35            | 37.51          | 18.27       | -47.88                | -408.36                           | -456.59    | 1,792.60             | 1,753.40              | 39.20                   | 45.734             |         |
| 6,700.00  | 6,346.35            | 6,389.76            | 6,346.35            | 37.57          | 18.41       | -47.88                | -408.36                           | -456.59    | 1,792.60             | 1,753.14              | 39.45                   | 45.435             |         |
| 6,800.00  | 6,446.35            | 6,489.76            | 6,446.35            | 37.64          | 18.56       | -47.88                | -408.36                           | -456.59    | 1,792.60             | 1,752.88              | 39.71                   | 45.137             |         |
| 6,900.00  | 6,546.35            | 6,589.76            | 6,546.35            | 37.71          | 18.70       | -47.88                | -408.36                           | -456.59    | 1,792.60             | 1,752.62              | 39.98                   | 44.839             |         |
| 7,000.00  | 6,646.35            | 6,689.76            | 6,646.35            | 37.78          | 18.85       | -47.88                | -408.36                           | -456.59    | 1,792.60             | 1,752.35              | 40.25                   | 44.541             |         |
| 7,100.00  | 6,746.35            | 6,789.76            | 6,746.35            | 37.86          | 19.00       | -47.88                | -408.36                           | -456.59    | 1,792.60             | 1,752.08              | 40.52                   | 44.244             |         |
| 7,200.00  | 6,846.35            | 6,889.76            | 6,846.35            | 37.93          | 19.14       | -47.88                | -408.36                           | -456.59    | 1,792.60             | 1,751.81              | 40.79                   | 43.947             |         |
| 7,300.00  | 6,946.35            | 6,989.76            | 6,946.35            | 38.00          | 19.30       | -47.88                | -408.36                           | -456.59    | 1,792.60             | 1,751.53              | 41.07                   | 43.651             |         |
| 7,400.00  | 7,046.35            | 7,089.76            | 7,046.35            | 38.08          | 19.45       | -47.88                | -408.36                           | -456.59    | 1,792.60             | 1,751.25              | 41.35                   | 43.355             |         |
| 7,453.65  | 7,100.00            | 7,143.41            | 7,100.00            | 38.12          | 19.53       | -47.88                | -408.36                           | -456.59    | 1,792.60             | 1,751.10              | 41.50                   | 43.197             |         |

|                           |                             |                                     |                                       |
|---------------------------|-----------------------------|-------------------------------------|---------------------------------------|
| <b>Company:</b>           | US ROCKIES REGION PLANNING  | <b>Local Co-ordinate Reference:</b> | Well P_WINTERS 35-3                   |
| <b>Project:</b>           | COLORADO NORTHERN ZONE - 83 | <b>TVD Reference:</b>               | WELL @ 4647.00ft (Original Well Elev) |
| <b>Reference Site:</b>    | WELD_WINTERS 12-3 PAD       | <b>MD Reference:</b>                | WELL @ 4647.00ft (Original Well Elev) |
| <b>Site Error:</b>        | 0.00ft                      | <b>North Reference:</b>             | True                                  |
| <b>Reference Well:</b>    | P_WINTERS 35-3              | <b>Survey Calculation Method:</b>   | Minimum Curvature                     |
| <b>Well Error:</b>        | 0.00ft                      | <b>Output errors are at</b>         | 2.00 sigma                            |
| <b>Reference Wellbore</b> | P_WINTERS 35-3              | <b>Database:</b>                    | EDM 2003.21 Single User Db            |
| <b>Reference Design:</b>  | PLAN #1 3-10-10 RHS         | <b>Offset TVD Reference:</b>        | Offset Datum                          |

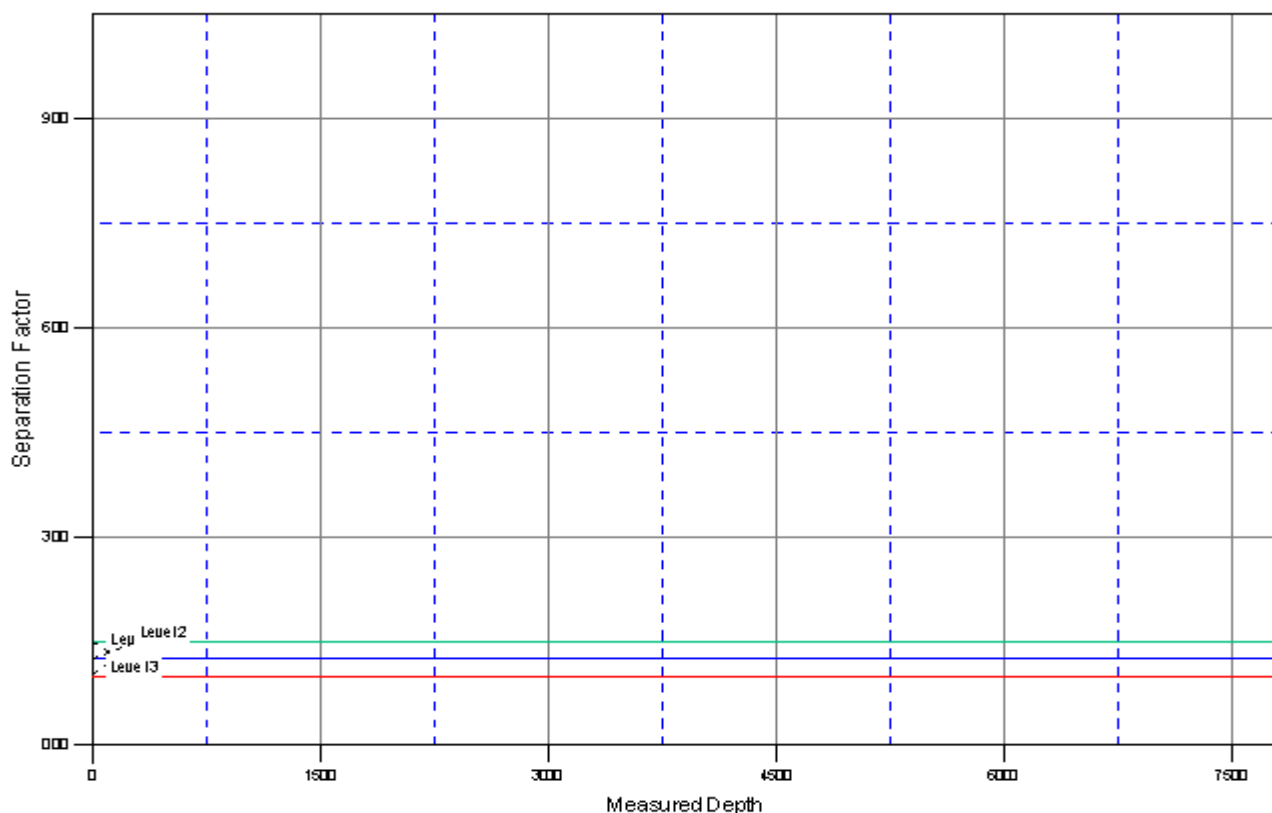
Reference Depths are relative to WELL @ 4647.00ft (Original Well Elev) Coordinates are relative to: P\_WINTERS 35-3  
Offset Depths are relative to Offset Datum Coordinate System is US State Plane 1983, Colorado Northern Zone  
Central Meridian is 105° 30' 0.000 W ° Grid Convergence at Surface is: 0.54°



|                           |                             |                                     |                                       |
|---------------------------|-----------------------------|-------------------------------------|---------------------------------------|
| <b>Company:</b>           | US ROCKIES REGION PLANNING  | <b>Local Co-ordinate Reference:</b> | Well P_WINTERS 35-3                   |
| <b>Project:</b>           | COLORADO NORTHERN ZONE - 83 | <b>TVD Reference:</b>               | WELL @ 4647.00ft (Original Well Elev) |
| <b>Reference Site:</b>    | WELD_WINTERS 12-3 PAD       | <b>MD Reference:</b>                | WELL @ 4647.00ft (Original Well Elev) |
| <b>Site Error:</b>        | 0.00ft                      | <b>North Reference:</b>             | True                                  |
| <b>Reference Well:</b>    | P_WINTERS 35-3              | <b>Survey Calculation Method:</b>   | Minimum Curvature                     |
| <b>Well Error:</b>        | 0.00ft                      | <b>Output errors are at</b>         | 2.00 sigma                            |
| <b>Reference Wellbore</b> | P_WINTERS 35-3              | <b>Database:</b>                    | EDM 2003.21 Single User Db            |
| <b>Reference Design:</b>  | PLAN #1 3-10-10 RHS         | <b>Offset TVD Reference:</b>        | Offset Datum                          |

Reference Depths are relative to WELL @ 4647.00ft (Original Well Elev) Coordinates are relative to: P\_WINTERS 35-3  
Offset Depths are relative to Offset Datum Coordinate System is US State Plane 1983, Colorado Northern Zone  
Central Meridian is 105° 30' 0.000 W ° Grid Convergence at Surface is: 0.54°

### Separation Factor Plot



### LEGEND

/ WINTERS 19-3, PLAN#13-10-10 RHS \ VD    ✚ P\_WINTERS 23-3, P\_WINTERS 23-3, PLAN#1 3-10-10 RHS \ VD    ✚ P\_WINTERS 33-3, P\_WINTERS 33-3