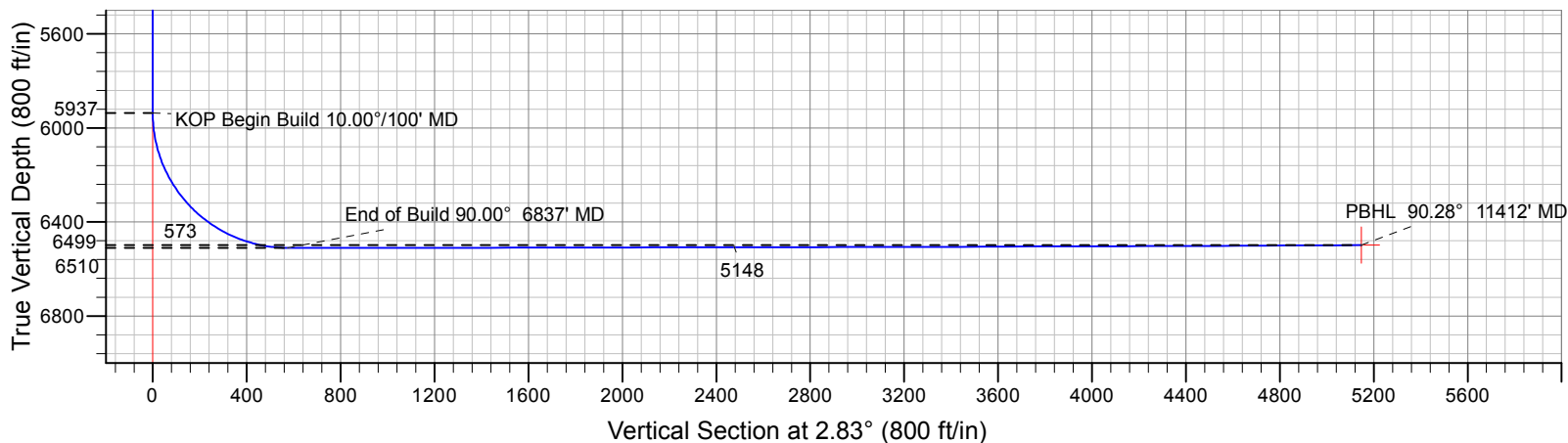
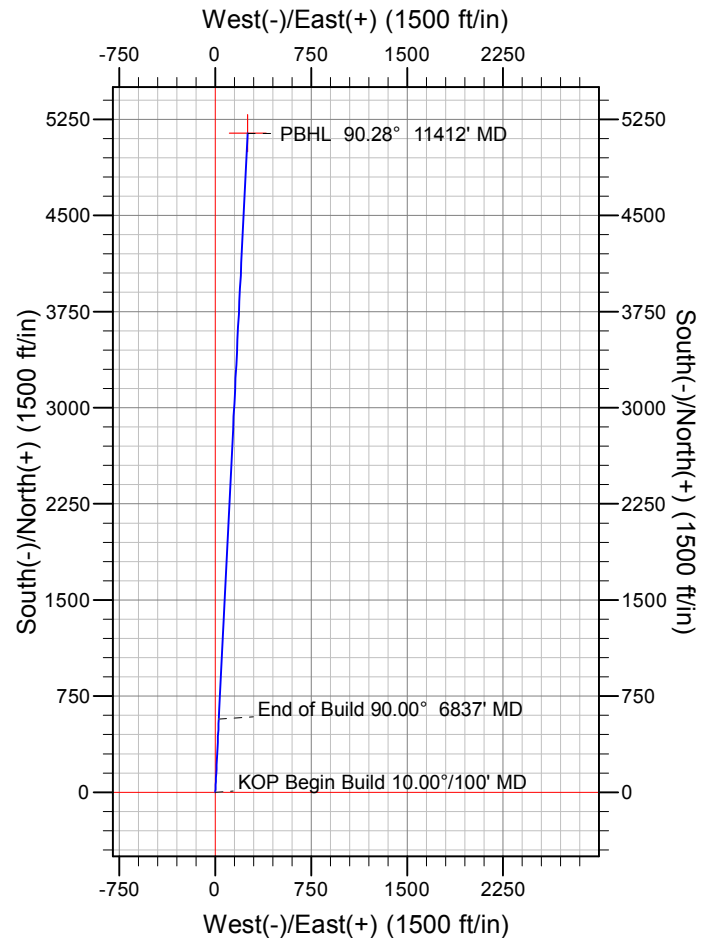
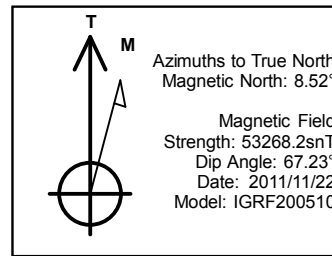
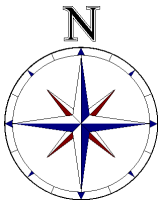


**Crow Valley 7-62-26-2H**  
**Weld County, Colorado**



gyrodata



| Design #1 |         |                  |      |            |        |                  |       |                   |        |        |  |
|-----------|---------|------------------|------|------------|--------|------------------|-------|-------------------|--------|--------|--|
|           |         | Surface Location |      |            |        |                  |       |                   |        |        |  |
|           |         | Northing         |      | Easting    |        | Latitude         |       | Longitude         |        |        |  |
|           |         | 1440794.89       |      | 3335709.39 |        | 40° 32' 13.582 N |       | 104° 17' 31.722 W |        |        |  |
| Sec       | MD      | Inc              | Azi  | TVD        | +N/-S  | +E/-W            | Dleg  | TFace             | VSect  | Target |  |
| 1         | 0.0     |                  |      | 0.0        | 0.0    | 0.0              | 0.00  | 0.00              | 0.0    |        |  |
| 2         | 5937.0  | 0.00             | 0.00 | 5937.0     | 0.0    | 0.0              | 0.00  | 0.00              | 0.0    |        |  |
| 3         | 6837.1  | 90.00            | 2.83 | 6510.0     | 572.3  | 28.3             | 10.00 | 2.83              | 573.0  |        |  |
| 4         | 11411.9 | 90.28            | 2.83 | 6499.0     | 5141.5 | 254.0            | 0.01  | -0.88             | 5147.8 | PBHL . |  |

**To convert a Magnetic Direction to a Grid Direction, Add 7.74°**

# **Marathon Oil Company**

**Weld County**

**Weld County, Colorado .**

**Crow Valley 7-62-26-2H**

**Wellbore #1**

**Plan: Design #1**

## **Standard Planning Report**

**22 November, 2011**

# Gyrodata

## Planning Report

|                  |                           |                                     |                                   |
|------------------|---------------------------|-------------------------------------|-----------------------------------|
| <b>Database:</b> | EDM 5000.1 Single User Db | <b>Local Co-ordinate Reference:</b> | Site Weld County, Colorado .      |
| <b>Company:</b>  | Marathon Oil Company      | <b>TVD Reference:</b>               | WELL @ 0.0ft (Original Well Elev) |
| <b>Project:</b>  | Weld County               | <b>MD Reference:</b>                | WELL @ 0.0ft (Original Well Elev) |
| <b>Site:</b>     | Weld County, Colorado .   | <b>North Reference:</b>             | True                              |
| <b>Well:</b>     | Crow Valley 7-62-26-2H    | <b>Survey Calculation Method:</b>   | Minimum Curvature                 |
| <b>Wellbore:</b> | Wellbore #1               |                                     |                                   |
| <b>Design:</b>   | Design #1                 |                                     |                                   |

|                    |                           |                      |                |
|--------------------|---------------------------|----------------------|----------------|
| <b>Project</b>     | Weld County               |                      |                |
| <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 County, Colorado . |                 |              |                   |
|-------------------------|----------|-------------------------|-----------------|--------------|-------------------|
| Site Position:<br>From: | Lat/Long | Northing:               | 1,440,794.89 ft | Latitude:    | 40° 32' 13.582 N  |
|                         |          | Easting:                | 3,335,709.40 ft | Longitude:   | 104° 17' 31.722 W |
|                         |          | Position Uncertainty:   | 0.0 ft          | Slot Radius: | 0 "               |

|                      |                        |        |                     |                 |               |                   |
|----------------------|------------------------|--------|---------------------|-----------------|---------------|-------------------|
| Well                 | Crow Valley 7-62-26-2H |        |                     |                 |               |                   |
| Well Position        | +N/-S                  | 0.0 ft | Northing:           | 1,440,794.89 ft | Latitude:     | 40° 32' 13.582 N  |
|                      | +E/-W                  | 0.0 ft | Easting:            | 3,335,709.40 ft | Longitude:    | 104° 17' 31.722 W |
| Position Uncertainty |                        | 0.0 ft | Wellhead Elevation: |                 | Ground Level: | 0.0 ft            |

|                  |                   |                    |                        |                      |                            |
|------------------|-------------------|--------------------|------------------------|----------------------|----------------------------|
| <b>Wellbore</b>  | Wellbore #1       |                    |                        |                      |                            |
| <b>Magnetics</b> | <b>Model Name</b> | <b>Sample Date</b> | <b>Declination (°)</b> | <b>Dip Angle (°)</b> | <b>Field Strength (nT)</b> |
|                  | IGRF200510        | 2011/11/22         | 8.52                   | 67.23                | 53,268                     |

|                          |                              |                   |                      |                      |
|--------------------------|------------------------------|-------------------|----------------------|----------------------|
| <b>Design</b>            | Design #1                    |                   |                      |                      |
| <b>Audit Notes:</b>      |                              |                   |                      |                      |
| <b>Version:</b>          | <b>Phase:</b>                | PROTOTYPE         | <b>Tie On Depth:</b> | 0.0                  |
| <b>Vertical Section:</b> | <b>Depth From (TVD) (ft)</b> | <b>+N/-S (ft)</b> | <b>+E/-W (ft)</b>    | <b>Direction (°)</b> |
|                          | 0.0                          | 0.0               | 0.0                  | 2.83                 |

| <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 |
| 0.0                  | 0.00            | 0.00        | 0.0                 | 0.0        | 0.0        | 0.00                  | 0.00                 | 0.00                | 0.00       |        |
| 5,937.0              | 0.00            | 0.00        | 5,937.0             | 0.0        | 0.0        | 0.00                  | 0.00                 | 0.00                | 0.00       |        |
| 6,837.1              | 90.00           | 2.83        | 6,510.0             | 572.3      | 28.3       | 10.00                 | 10.00                | 0.00                | 2.83       |        |
| 11,411.9             | 90.28           | 2.83        | 6,499.0             | 5,141.5    | 254.0      | 0.01                  | 0.01                 | 0.00                | -0.88 PBHL |        |

# Gyrodatta

## Planning Report

|                  |                           |                                     |                                   |
|------------------|---------------------------|-------------------------------------|-----------------------------------|
| <b>Database:</b> | EDM 5000.1 Single User Db | <b>Local Co-ordinate Reference:</b> | Site Weld County, Colorado .      |
| <b>Company:</b>  | Marathon Oil Company      | <b>TVD Reference:</b>               | WELL @ 0.0ft (Original Well Elev) |
| <b>Project:</b>  | Weld County               | <b>MD Reference:</b>                | WELL @ 0.0ft (Original Well Elev) |
| <b>Site:</b>     | Weld County, Colorado .   | <b>North Reference:</b>             | True                              |
| <b>Well:</b>     | Crow Valley 7-62-26-2H    | <b>Survey Calculation Method:</b>   | Minimum Curvature                 |
| <b>Wellbore:</b> | Wellbore #1               |                                     |                                   |
| <b>Design:</b>   | Design #1                 |                                     |                                   |

| 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) |
| 0.0                 | 0.00            | 0.00        | 0.0                 | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 100.0               | 0.00            | 0.00        | 100.0               | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 200.0               | 0.00            | 0.00        | 200.0               | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 300.0               | 0.00            | 0.00        | 300.0               | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 400.0               | 0.00            | 0.00        | 400.0               | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 500.0               | 0.00            | 0.00        | 500.0               | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 600.0               | 0.00            | 0.00        | 600.0               | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 700.0               | 0.00            | 0.00        | 700.0               | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 800.0               | 0.00            | 0.00        | 800.0               | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 900.0               | 0.00            | 0.00        | 900.0               | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 1,000.0             | 0.00            | 0.00        | 1,000.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 1,100.0             | 0.00            | 0.00        | 1,100.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 1,200.0             | 0.00            | 0.00        | 1,200.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 1,300.0             | 0.00            | 0.00        | 1,300.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 1,400.0             | 0.00            | 0.00        | 1,400.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 1,500.0             | 0.00            | 0.00        | 1,500.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 1,600.0             | 0.00            | 0.00        | 1,600.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 1,700.0             | 0.00            | 0.00        | 1,700.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 1,800.0             | 0.00            | 0.00        | 1,800.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 1,900.0             | 0.00            | 0.00        | 1,900.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 2,000.0             | 0.00            | 0.00        | 2,000.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 2,100.0             | 0.00            | 0.00        | 2,100.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 2,200.0             | 0.00            | 0.00        | 2,200.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 2,300.0             | 0.00            | 0.00        | 2,300.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 2,400.0             | 0.00            | 0.00        | 2,400.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 2,500.0             | 0.00            | 0.00        | 2,500.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 2,600.0             | 0.00            | 0.00        | 2,600.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 2,700.0             | 0.00            | 0.00        | 2,700.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 2,800.0             | 0.00            | 0.00        | 2,800.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 2,900.0             | 0.00            | 0.00        | 2,900.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 3,000.0             | 0.00            | 0.00        | 3,000.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 3,100.0             | 0.00            | 0.00        | 3,100.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 3,200.0             | 0.00            | 0.00        | 3,200.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 3,300.0             | 0.00            | 0.00        | 3,300.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 3,400.0             | 0.00            | 0.00        | 3,400.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 3,500.0             | 0.00            | 0.00        | 3,500.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 3,600.0             | 0.00            | 0.00        | 3,600.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 3,700.0             | 0.00            | 0.00        | 3,700.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 3,800.0             | 0.00            | 0.00        | 3,800.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 3,900.0             | 0.00            | 0.00        | 3,900.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 4,000.0             | 0.00            | 0.00        | 4,000.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 4,100.0             | 0.00            | 0.00        | 4,100.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 4,200.0             | 0.00            | 0.00        | 4,200.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 4,300.0             | 0.00            | 0.00        | 4,300.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 4,400.0             | 0.00            | 0.00        | 4,400.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 4,500.0             | 0.00            | 0.00        | 4,500.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 4,600.0             | 0.00            | 0.00        | 4,600.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 4,700.0             | 0.00            | 0.00        | 4,700.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 4,800.0             | 0.00            | 0.00        | 4,800.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 4,900.0             | 0.00            | 0.00        | 4,900.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 5,000.0             | 0.00            | 0.00        | 5,000.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 5,100.0             | 0.00            | 0.00        | 5,100.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 5,200.0             | 0.00            | 0.00        | 5,200.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 5,300.0             | 0.00            | 0.00        | 5,300.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |

# Gyrodatta

## Planning Report

|                  |                           |                                     |                                   |
|------------------|---------------------------|-------------------------------------|-----------------------------------|
| <b>Database:</b> | EDM 5000.1 Single User Db | <b>Local Co-ordinate Reference:</b> | Site Weld County, Colorado .      |
| <b>Company:</b>  | Marathon Oil Company      | <b>TVD Reference:</b>               | WELL @ 0.0ft (Original Well Elev) |
| <b>Project:</b>  | Weld County               | <b>MD Reference:</b>                | WELL @ 0.0ft (Original Well Elev) |
| <b>Site:</b>     | Weld County, Colorado .   | <b>North Reference:</b>             | True                              |
| <b>Well:</b>     | Crow Valley 7-62-26-2H    | <b>Survey Calculation Method:</b>   | Minimum Curvature                 |
| <b>Wellbore:</b> | Wellbore #1               |                                     |                                   |
| <b>Design:</b>   | Design #1                 |                                     |                                   |

| 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) |
| 5,400.0                               | 0.00            | 0.00        | 5,400.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 5,500.0                               | 0.00            | 0.00        | 5,500.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 5,600.0                               | 0.00            | 0.00        | 5,600.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 5,700.0                               | 0.00            | 0.00        | 5,700.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 5,800.0                               | 0.00            | 0.00        | 5,800.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 5,900.0                               | 0.00            | 0.00        | 5,900.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 5,937.0                               | 0.00            | 0.00        | 5,937.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| <b>KOP Begin Build 10.00°/100' MD</b> |                 |             |                     |            |            |                       |                       |                      |                     |
| 6,000.0                               | 6.30            | 2.83        | 5,999.9             | 3.5        | 0.2        | 3.5                   | 10.00                 | 10.00                | 0.00                |
| 6,100.0                               | 16.30           | 2.83        | 6,097.8             | 23.0       | 1.1        | 23.0                  | 10.00                 | 10.00                | 0.00                |
| 6,200.0                               | 26.30           | 2.83        | 6,190.9             | 59.2       | 2.9        | 59.3                  | 10.00                 | 10.00                | 0.00                |
| 6,300.0                               | 36.30           | 2.83        | 6,276.2             | 111.1      | 5.5        | 111.2                 | 10.00                 | 10.00                | 0.00                |
| 6,400.0                               | 46.30           | 2.83        | 6,351.2             | 176.9      | 8.7        | 177.1                 | 10.00                 | 10.00                | 0.00                |
| 6,500.0                               | 56.30           | 2.83        | 6,413.7             | 254.7      | 12.6       | 255.0                 | 10.00                 | 10.00                | 0.00                |
| 6,600.0                               | 66.30           | 2.83        | 6,461.7             | 342.2      | 16.9       | 342.6                 | 10.00                 | 10.00                | 0.00                |
| 6,700.0                               | 76.29           | 2.83        | 6,493.7             | 436.7      | 21.6       | 437.2                 | 10.00                 | 10.00                | 0.00                |
| 6,800.0                               | 86.29           | 2.83        | 6,508.8             | 535.3      | 26.5       | 536.0                 | 10.00                 | 10.00                | 0.00                |
| 6,837.1                               | 90.00           | 2.83        | 6,510.0             | 572.3      | 28.3       | 573.0                 | 9.99                  | 9.99                 | 0.00                |
| <b>End of Build 90.00° 6837' MD</b>   |                 |             |                     |            |            |                       |                       |                      |                     |
| 6,900.0                               | 90.00           | 2.83        | 6,510.0             | 635.2      | 31.4       | 635.9                 | 0.01                  | 0.01                 | 0.00                |
| 7,000.0                               | 90.01           | 2.83        | 6,510.0             | 735.0      | 36.3       | 735.9                 | 0.01                  | 0.01                 | 0.00                |
| 7,100.0                               | 90.02           | 2.83        | 6,510.0             | 834.9      | 41.3       | 835.9                 | 0.01                  | 0.01                 | 0.00                |
| 7,200.0                               | 90.02           | 2.83        | 6,509.9             | 934.8      | 46.2       | 935.9                 | 0.01                  | 0.01                 | 0.00                |
| 7,300.0                               | 90.03           | 2.83        | 6,509.9             | 1,034.7    | 51.1       | 1,035.9               | 0.01                  | 0.01                 | 0.00                |
| 7,400.0                               | 90.03           | 2.83        | 6,509.8             | 1,134.5    | 56.1       | 1,135.9               | 0.01                  | 0.01                 | 0.00                |
| 7,500.0                               | 90.04           | 2.83        | 6,509.8             | 1,234.4    | 61.0       | 1,235.9               | 0.01                  | 0.01                 | 0.00                |
| 7,600.0                               | 90.05           | 2.83        | 6,509.7             | 1,334.3    | 66.0       | 1,335.9               | 0.01                  | 0.01                 | 0.00                |
| 7,700.0                               | 90.05           | 2.83        | 6,509.6             | 1,434.2    | 70.9       | 1,435.9               | 0.01                  | 0.01                 | 0.00                |
| 7,800.0                               | 90.06           | 2.83        | 6,509.5             | 1,534.1    | 75.8       | 1,535.9               | 0.01                  | 0.01                 | 0.00                |
| 7,900.0                               | 90.06           | 2.83        | 6,509.4             | 1,633.9    | 80.8       | 1,635.9               | 0.01                  | 0.01                 | 0.00                |
| 8,000.0                               | 90.07           | 2.83        | 6,509.3             | 1,733.8    | 85.7       | 1,735.9               | 0.01                  | 0.01                 | 0.00                |
| 8,100.0                               | 90.08           | 2.83        | 6,509.2             | 1,833.7    | 90.6       | 1,835.9               | 0.01                  | 0.01                 | 0.00                |
| 8,200.0                               | 90.08           | 2.83        | 6,509.0             | 1,933.6    | 95.6       | 1,935.9               | 0.01                  | 0.01                 | 0.00                |
| 8,300.0                               | 90.09           | 2.83        | 6,508.9             | 2,033.5    | 100.5      | 2,035.9               | 0.01                  | 0.01                 | 0.00                |
| 8,400.0                               | 90.09           | 2.83        | 6,508.7             | 2,133.3    | 105.4      | 2,135.9               | 0.01                  | 0.01                 | 0.00                |
| 8,500.0                               | 90.10           | 2.83        | 6,508.5             | 2,233.2    | 110.4      | 2,235.9               | 0.01                  | 0.01                 | 0.00                |
| 8,600.0                               | 90.11           | 2.83        | 6,508.4             | 2,333.1    | 115.3      | 2,335.9               | 0.01                  | 0.01                 | 0.00                |
| 8,700.0                               | 90.11           | 2.83        | 6,508.2             | 2,433.0    | 120.2      | 2,435.9               | 0.01                  | 0.01                 | 0.00                |
| 8,800.0                               | 90.12           | 2.83        | 6,508.0             | 2,532.8    | 125.2      | 2,535.9               | 0.01                  | 0.01                 | 0.00                |
| 8,900.0                               | 90.12           | 2.83        | 6,507.8             | 2,632.7    | 130.1      | 2,635.9               | 0.01                  | 0.01                 | 0.00                |
| 9,000.0                               | 90.13           | 2.83        | 6,507.5             | 2,732.6    | 135.0      | 2,735.9               | 0.01                  | 0.01                 | 0.00                |
| 9,100.0                               | 90.14           | 2.83        | 6,507.3             | 2,832.5    | 140.0      | 2,835.9               | 0.01                  | 0.01                 | 0.00                |
| 9,200.0                               | 90.14           | 2.83        | 6,507.1             | 2,932.4    | 144.9      | 2,935.9               | 0.01                  | 0.01                 | 0.00                |
| 9,300.0                               | 90.15           | 2.83        | 6,506.8             | 3,032.2    | 149.8      | 3,035.9               | 0.01                  | 0.01                 | 0.00                |
| 9,400.0                               | 90.15           | 2.83        | 6,506.5             | 3,132.1    | 154.8      | 3,135.9               | 0.01                  | 0.01                 | 0.00                |
| 9,500.0                               | 90.16           | 2.83        | 6,506.3             | 3,232.0    | 159.7      | 3,235.9               | 0.01                  | 0.01                 | 0.00                |
| 9,600.0                               | 90.17           | 2.83        | 6,506.0             | 3,331.9    | 164.6      | 3,335.9               | 0.01                  | 0.01                 | 0.00                |
| 9,700.0                               | 90.17           | 2.83        | 6,505.7             | 3,431.7    | 169.6      | 3,435.9               | 0.01                  | 0.01                 | 0.00                |
| 9,800.0                               | 90.18           | 2.83        | 6,505.4             | 3,531.6    | 174.5      | 3,535.9               | 0.01                  | 0.01                 | 0.00                |
| 9,900.0                               | 90.18           | 2.83        | 6,505.1             | 3,631.5    | 179.4      | 3,635.9               | 0.01                  | 0.01                 | 0.00                |
| 10,000.0                              | 90.19           | 2.83        | 6,504.7             | 3,731.4    | 184.4      | 3,735.9               | 0.01                  | 0.01                 | 0.00                |
| 10,100.0                              | 90.20           | 2.83        | 6,504.4             | 3,831.3    | 189.3      | 3,835.9               | 0.01                  | 0.01                 | 0.00                |
| 10,200.0                              | 90.20           | 2.83        | 6,504.1             | 3,931.1    | 194.2      | 3,935.9               | 0.01                  | 0.01                 | 0.00                |

# Gyrodatta

## Planning Report

|                  |                           |                                     |                                   |
|------------------|---------------------------|-------------------------------------|-----------------------------------|
| <b>Database:</b> | EDM 5000.1 Single User Db | <b>Local Co-ordinate Reference:</b> | Site Weld County, Colorado .      |
| <b>Company:</b>  | Marathon Oil Company      | <b>TVD Reference:</b>               | WELL @ 0.0ft (Original Well Elev) |
| <b>Project:</b>  | Weld County               | <b>MD Reference:</b>                | WELL @ 0.0ft (Original Well Elev) |
| <b>Site:</b>     | Weld County, Colorado .   | <b>North Reference:</b>             | True                              |
| <b>Well:</b>     | Crow Valley 7-62-26-2H    | <b>Survey Calculation Method:</b>   | Minimum Curvature                 |
| <b>Wellbore:</b> | Wellbore #1               |                                     |                                   |
| <b>Design:</b>   | Design #1                 |                                     |                                   |

| 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) |  |
| 10,300.0                     | 90.21           | 2.83        | 6,503.7             | 4,031.0    | 199.2      | 4,035.9               | 0.01                  | 0.01                 | 0.00                |  |
| 10,400.0                     | 90.21           | 2.83        | 6,503.3             | 4,130.9    | 204.1      | 4,135.9               | 0.01                  | 0.01                 | 0.00                |  |
| 10,500.0                     | 90.22           | 2.83        | 6,502.9             | 4,230.8    | 209.0      | 4,235.9               | 0.01                  | 0.01                 | 0.00                |  |
| 10,600.0                     | 90.23           | 2.83        | 6,502.6             | 4,330.6    | 214.0      | 4,335.9               | 0.01                  | 0.01                 | 0.00                |  |
| 10,700.0                     | 90.23           | 2.83        | 6,502.2             | 4,430.5    | 218.9      | 4,435.9               | 0.01                  | 0.01                 | 0.00                |  |
| 10,800.0                     | 90.24           | 2.83        | 6,501.7             | 4,530.4    | 223.8      | 4,535.9               | 0.01                  | 0.01                 | 0.00                |  |
| 10,900.0                     | 90.24           | 2.83        | 6,501.3             | 4,630.3    | 228.8      | 4,635.9               | 0.01                  | 0.01                 | 0.00                |  |
| 11,000.0                     | 90.25           | 2.83        | 6,500.9             | 4,730.2    | 233.7      | 4,735.9               | 0.01                  | 0.01                 | 0.00                |  |
| 11,100.0                     | 90.26           | 2.83        | 6,500.4             | 4,830.0    | 238.6      | 4,835.9               | 0.01                  | 0.01                 | 0.00                |  |
| 11,200.0                     | 90.26           | 2.83        | 6,500.0             | 4,929.9    | 243.5      | 4,935.9               | 0.01                  | 0.01                 | 0.00                |  |
| 11,300.0                     | 90.27           | 2.83        | 6,499.5             | 5,029.8    | 248.5      | 5,035.9               | 0.01                  | 0.01                 | 0.00                |  |
| 11,400.0                     | 90.27           | 2.83        | 6,499.1             | 5,129.7    | 253.4      | 5,135.9               | 0.01                  | 0.01                 | 0.00                |  |
| 11,411.8                     | 90.27           | 2.83        | 6,499.0             | 5,141.4    | 254.0      | 5,147.7               | 0.00                  | 0.00                 | 0.00                |  |
| <b>PBHL 90.28° 11412' MD</b> |                 |             |                     |            |            |                       |                       |                      |                     |  |
| 11,411.9                     | 90.28           | 2.83        | 6,499.0             | 5,141.5    | 254.0      | 5,147.8               | 1.29                  | 1.29                 | -0.02               |  |

| 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 .                    | 0.00          | 0.00         | 6,499.0  | 5,141.5    | 254.0      | 1,445,939.38  | 3,335,893.33 | 40° 33' 4.388 N | 104° 17' 28.432 W |  |
| - plan hits target center |               |              |          |            |            |               |              |                 |                   |  |
| - Point                   |               |              |          |            |            |               |              |                 |                   |  |

| Plan Annotations    |                     |                   |            |                                |  |
|---------------------|---------------------|-------------------|------------|--------------------------------|--|
| Measured Depth (ft) | Vertical Depth (ft) | Local Coordinates |            |                                |  |
|                     |                     | +N/-S (ft)        | +E/-W (ft) | Comment                        |  |
| 5,937.0             | 5,937.0             | 0.0               | 0.0        | KOP Begin Build 10.00°/100' MD |  |
| 6,837.1             | 6,510.0             | 572.3             | 28.3       | End of Build 90.00° 6837' MD   |  |
| 11,411.8            | 6,499.0             | 5,141.4           | 254.0      | PBHL 90.28° 11412' MD          |  |