



**Departure**  
Energy Services (US) LP

## **Laramie Energy II, LLC**

Rio Blanco County, CO

Sec 22, T2N-R100W

Fletcher Gulch Federal 22-14-01-01H

Original Pilot Hole and Horizontal Hole

## **Standard Planning Report**

09 May, 2012





# REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Well Fletcher Gulch Federal 22-14-01-01H, True North  
 Vertical (TVD) Reference: WELL @ 6075.50ft (RKB @ 21')  
 Section (VS) Reference: Slot - (0.00N, 0.00E)  
 Measured Depth Reference: WELL @ 6075.50ft (RKB @ 21')  
 Calculation Method: Minimum Curvature

Project: Rio Blanco County, CO  
 Site: Sec 22, T2N-R100W  
 Well: Fletcher Gulch Federal 22-14-01-01H  
 Wellbore: Original Horizontal Hole  
 Design: Plan #2

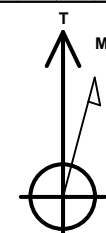
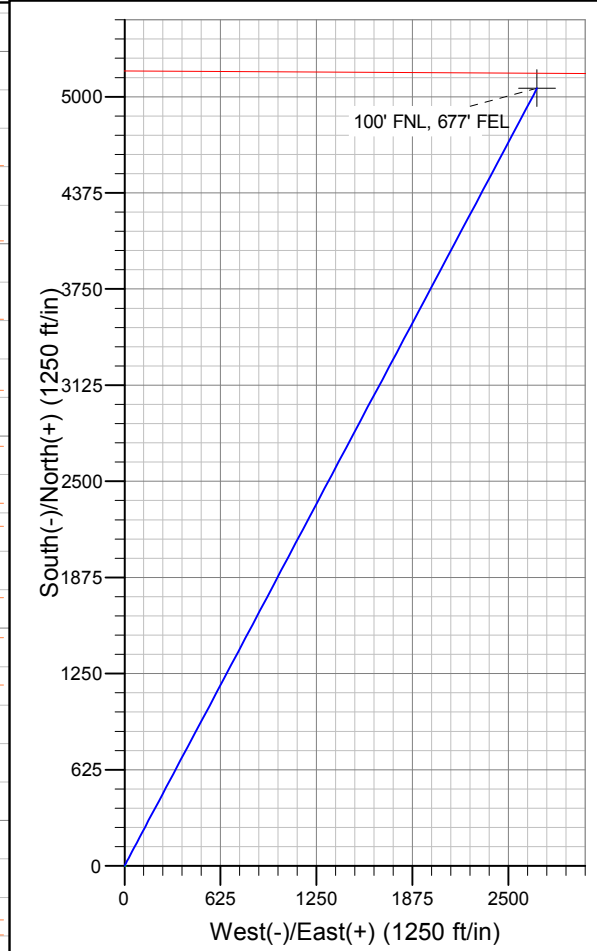
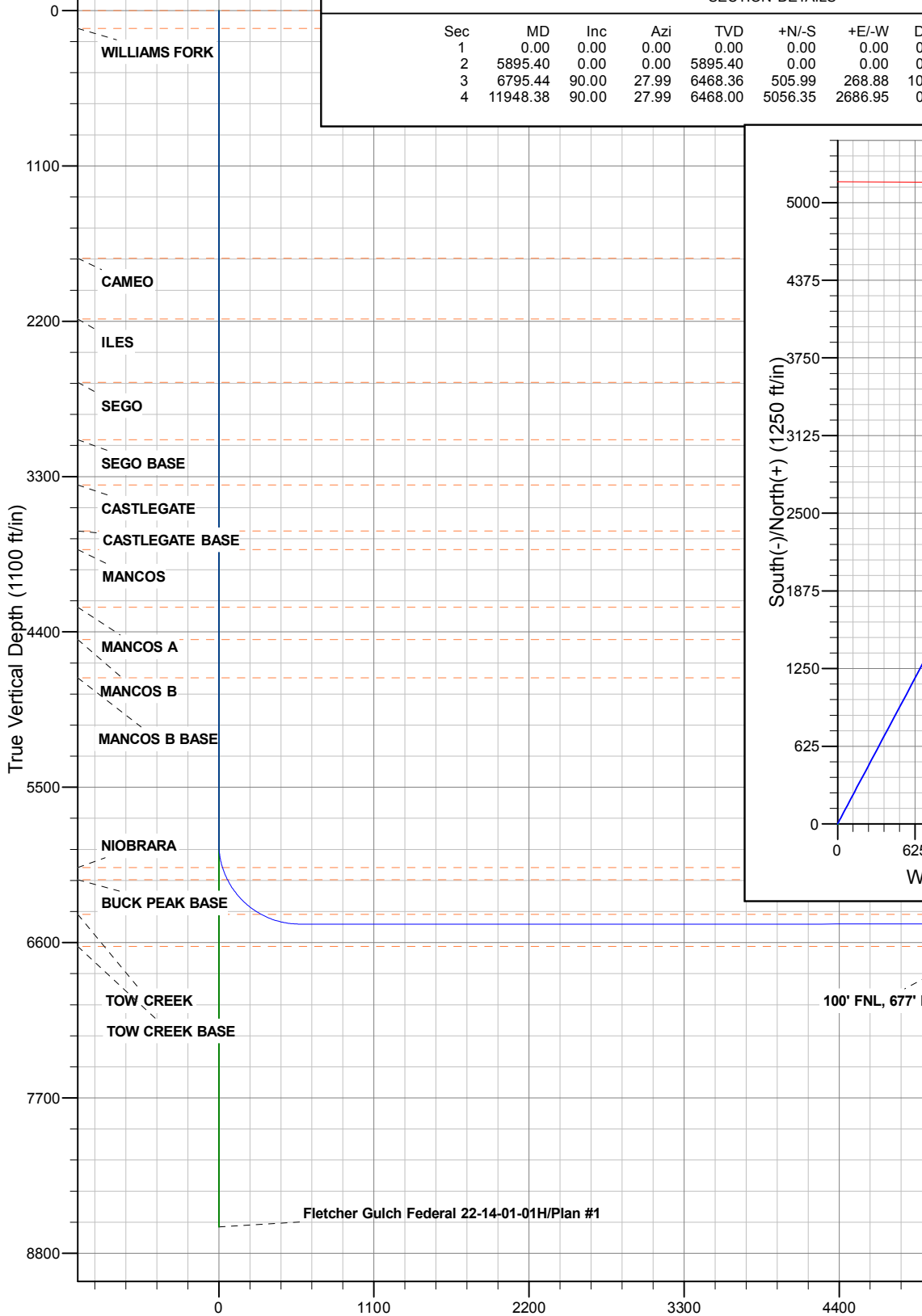


**Departure**  
 Energy Services (US) LP

Phone: 307.265.2231  
 Fax: 307.472.5064  
 www.depatureus.com

# SECTION DETAILS

| Sec | MD       | Inc   | Azi   | TVD     | +N/-S   | +E/-W   | Dleg  | TFace | VSect   |
|-----|----------|-------|-------|---------|---------|---------|-------|-------|---------|
| 1   | 0.00     | 0.00  | 0.00  | 0.00    | 0.00    | 0.00    | 0.00  | 0.00  | 0.00    |
| 2   | 5895.40  | 0.00  | 0.00  | 5895.40 | 0.00    | 0.00    | 0.00  | 0.00  | 0.00    |
| 3   | 6795.44  | 90.00 | 27.99 | 6468.36 | 505.99  | 268.88  | 10.00 | 27.99 | 573.00  |
| 4   | 11948.38 | 90.00 | 27.99 | 6468.00 | 5056.35 | 2686.95 | 0.00  | 0.00  | 5725.94 |



Azimuths to True North  
 Magnetic North: 10.59°  
 Magnetic Field  
 Strength: 52417.1nT  
 Dip Angle: 66.11°  
 Date: 5/9/2012  
 Model: IGRF2010



**Departure**  
Energy Services (US) LP

## **Laramie Energy II, LLC**

Rio Blanco County, CO

Sec 22, T2N-R100W

Fletcher Gulch Federal 22-14-01-01H

Original Horizontal Hole

Plan: Plan #2

## **Standard Planning Report**

09 May, 2012



|                  |                                     |                                     |  |
|------------------|-------------------------------------|-------------------------------------|--|
| <b>Database:</b> | EDM 5000.1 Single User Db           | <b>Local Co-ordinate Reference:</b> | Well Fletcher Gulch Federal 22-14-01-01H |
| <b>Company:</b>  | Laramie Energy II, LLC              | <b>TVD Reference:</b>               | WELL @ 6075.50ft (RKB @ 21')             |
| <b>Project:</b>  | Rio Blanco County, CO               | <b>MD Reference:</b>                | WELL @ 6075.50ft (RKB @ 21')             |
| <b>Site:</b>     | Sec 22, T2N-R100W                   | <b>North Reference:</b>             | True                                     |
| <b>Well:</b>     | Fletcher Gulch Federal 22-14-01-01H | <b>Survey Calculation Method:</b>   | Minimum Curvature                        |
| <b>Wellbore:</b> | Original Horizontal Hole            |                                     |  |
| <b>Design:</b>   | Plan #2                             |                                     |  |

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

| Site                  |          | Sec 22, T2N-R100W |                 |                   |              |
|-----------------------|----------|-------------------|-----------------|-------------------|--------------|
| Site Position:        |          | Northing:         | 1,302,238.56 ft | Latitude:         | 40.121280°N  |
| From:                 | Lat/Long | Easting:          | 2,131,603.02 ft | Longitude:        | 108.605890°W |
| Position Uncertainty: | 0.00 ft  | Slot Radius:      | 13.200 in       | Grid Convergence: | -2.01        |

|                      |                                     |         |                     |                 |               |              |
|----------------------|-------------------------------------|---------|---------------------|-----------------|---------------|--------------|
| Well                 | Fletcher Gulch Federal 22-14-01-01H |         |                     |                 |               |              |
| Well Position        | +N/-S                               | 0.00 ft | Northing:           | 1,302,238.56 ft | Latitude:     | 40.121280°N  |
|                      | +E/-W                               | 0.00 ft | Easting:            | 2,131,603.02 ft | Longitude:    | 108.605890°W |
| Position Uncertainty |                                     | 0.00 ft | Wellhead Elevation: | 6,075.50 ft     | Ground Level: | 6,054.50 ft  |

|                  |                          |                    |                        |                      |                            |
|------------------|--------------------------|--------------------|------------------------|----------------------|----------------------------|
| <b>Wellbore</b>  | Original Horizontal Hole |                    |                        |                      |                            |
| <b>Magnetics</b> | <b>Model Name</b>        | <b>Sample Date</b> | <b>Declination (°)</b> | <b>Dip Angle (°)</b> | <b>Field Strength (nT)</b> |
|                  | IGRF2010                 | 5/9/2012           | 10.59                  | 66.11                | 52,417                     |

|                          |                              |                   |                      |                      |
|--------------------------|------------------------------|-------------------|----------------------|----------------------|
| <b>Design</b>            | Plan #2                      |                   |                      |                      |
| <b>Audit Notes:</b>      |                              |                   |                      |                      |
| <b>Version:</b>          | <b>Phase:</b>                | PROTOTYPE         | <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                 | 27.99                |

| <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    |                    |
| 5,895.40             | 0.00            | 0.00        | 5,895.40            | 0.00       | 0.00       | 0.00                  | 0.00                 | 0.00                | 0.00    |                    |
| 6,795.44             | 90.00           | 27.99       | 6,468.36            | 505.99     | 268.88     | 10.00                 | 10.00                | 3.11                | 27.99   |                    |
| 11,948.38            | 90.00           | 27.99       | 6,468.00            | 5,056.35   | 2,686.95   | 0.00                  | 0.00                 | 0.00                | 0.00    | 100' FNL, 677' FEL |



|                  |                                     |                                     |  |
|------------------|-------------------------------------|-------------------------------------|--|
| <b>Database:</b> | EDM 5000.1 Single User Db           | <b>Local Co-ordinate Reference:</b> | Well Fletcher Gulch Federal 22-14-01-01H |
| <b>Company:</b>  | Laramie Energy II, LLC              | <b>TVD Reference:</b>               | WELL @ 6075.50ft (RKB @ 21')             |
| <b>Project:</b>  | Rio Blanco County, CO               | <b>MD Reference:</b>                | WELL @ 6075.50ft (RKB @ 21')             |
| <b>Site:</b>     | Sec 22, T2N-R100W                   | <b>North Reference:</b>             | True                                     |
| <b>Well:</b>     | Fletcher Gulch Federal 22-14-01-01H | <b>Survey Calculation Method:</b>   | Minimum Curvature                        |
| <b>Wellbore:</b> | Original Horizontal Hole            |                                     |  |
| <b>Design:</b>   | Plan #2                             |                                     |  |

| 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) |
| 0.00                   | 0.00            | 0.00        | 0.00                | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| <b>GREEN RIVER</b>     |                 |             |                     |            |            |                       |                       |                      |                     |
| 100.00                 | 0.00            | 0.00        | 100.00              | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 126.00                 | 0.00            | 0.00        | 126.00              | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| <b>WILLIAMS FORK</b>   |                 |             |                     |            |            |                       |                       |                      |                     |
| 200.00                 | 0.00            | 0.00        | 200.00              | 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                |
| 400.00                 | 0.00            | 0.00        | 400.00              | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 500.00                 | 0.00            | 0.00        | 500.00              | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 600.00                 | 0.00            | 0.00        | 600.00              | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 700.00                 | 0.00            | 0.00        | 700.00              | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 800.00                 | 0.00            | 0.00        | 800.00              | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 900.00                 | 0.00            | 0.00        | 900.00              | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 1,000.00               | 0.00            | 0.00        | 1,000.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| <b>Surface Casing</b>  |                 |             |                     |            |            |                       |                       |                      |                     |
| 1,100.00               | 0.00            | 0.00        | 1,100.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 1,200.00               | 0.00            | 0.00        | 1,200.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 1,300.00               | 0.00            | 0.00        | 1,300.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 1,400.00               | 0.00            | 0.00        | 1,400.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 1,500.00               | 0.00            | 0.00        | 1,500.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 1,600.00               | 0.00            | 0.00        | 1,600.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 1,700.00               | 0.00            | 0.00        | 1,700.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 1,753.00               | 0.00            | 0.00        | 1,753.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| <b>CAMEO</b>           |                 |             |                     |            |            |                       |                       |                      |                     |
| 1,800.00               | 0.00            | 0.00        | 1,800.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 1,900.00               | 0.00            | 0.00        | 1,900.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 2,000.00               | 0.00            | 0.00        | 2,000.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 2,100.00               | 0.00            | 0.00        | 2,100.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 2,183.00               | 0.00            | 0.00        | 2,183.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| <b>ILES</b>            |                 |             |                     |            |            |                       |                       |                      |                     |
| 2,200.00               | 0.00            | 0.00        | 2,200.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 2,300.00               | 0.00            | 0.00        | 2,300.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 2,400.00               | 0.00            | 0.00        | 2,400.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 2,500.00               | 0.00            | 0.00        | 2,500.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 2,600.00               | 0.00            | 0.00        | 2,600.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 2,633.00               | 0.00            | 0.00        | 2,633.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| <b>SEGO</b>            |                 |             |                     |            |            |                       |                       |                      |                     |
| 2,700.00               | 0.00            | 0.00        | 2,700.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 2,800.00               | 0.00            | 0.00        | 2,800.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 2,900.00               | 0.00            | 0.00        | 2,900.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 3,000.00               | 0.00            | 0.00        | 3,000.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 3,038.00               | 0.00            | 0.00        | 3,038.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| <b>SEGO BASE</b>       |                 |             |                     |            |            |                       |                       |                      |                     |
| 3,100.00               | 0.00            | 0.00        | 3,100.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 3,200.00               | 0.00            | 0.00        | 3,200.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 3,300.00               | 0.00            | 0.00        | 3,300.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 3,359.00               | 0.00            | 0.00        | 3,359.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| <b>CASTLEGATE</b>      |                 |             |                     |            |            |                       |                       |                      |                     |
| 3,400.00               | 0.00            | 0.00        | 3,400.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 3,500.00               | 0.00            | 0.00        | 3,500.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 3,600.00               | 0.00            | 0.00        | 3,600.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 3,685.00               | 0.00            | 0.00        | 3,685.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| <b>CASTLEGATE BASE</b> |                 |             |                     |            |            |                       |                       |                      |                     |

|                  |                                     |                                     |  |
|------------------|-------------------------------------|-------------------------------------|--|
| <b>Database:</b> | EDM 5000.1 Single User Db           | <b>Local Co-ordinate Reference:</b> | Well Fletcher Gulch Federal 22-14-01-01H |
| <b>Company:</b>  | Laramie Energy II, LLC              | <b>TVD Reference:</b>               | WELL @ 6075.50ft (RKB @ 21')             |
| <b>Project:</b>  | Rio Blanco County, CO               | <b>MD Reference:</b>                | WELL @ 6075.50ft (RKB @ 21')             |
| <b>Site:</b>     | Sec 22, T2N-R100W                   | <b>North Reference:</b>             | True                                     |
| <b>Well:</b>     | Fletcher Gulch Federal 22-14-01-01H | <b>Survey Calculation Method:</b>   | Minimum Curvature                        |
| <b>Wellbore:</b> | Original Horizontal Hole            |                                     |  |
| <b>Design:</b>   | Plan #2                             |                                     |  |

| 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) |
| 3,700.00                                | 0.00            | 0.00        | 3,700.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 3,800.00                                | 0.00            | 0.00        | 3,800.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 3,809.00                                | 0.00            | 0.00        | 3,809.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| <b>Intermediate Casing</b>              |                 |             |                     |            |            |                       |                       |                      |                     |
| 3,817.00                                | 0.00            | 0.00        | 3,817.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| <b>MANCOS</b>                           |                 |             |                     |            |            |                       |                       |                      |                     |
| 3,900.00                                | 0.00            | 0.00        | 3,900.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 4,000.00                                | 0.00            | 0.00        | 4,000.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 4,100.00                                | 0.00            | 0.00        | 4,100.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 4,200.00                                | 0.00            | 0.00        | 4,200.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 4,225.00                                | 0.00            | 0.00        | 4,225.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| <b>MANCOS A</b>                         |                 |             |                     |            |            |                       |                       |                      |                     |
| 4,300.00                                | 0.00            | 0.00        | 4,300.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 4,400.00                                | 0.00            | 0.00        | 4,400.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 4,455.00                                | 0.00            | 0.00        | 4,455.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| <b>MANCOS B</b>                         |                 |             |                     |            |            |                       |                       |                      |                     |
| 4,500.00                                | 0.00            | 0.00        | 4,500.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 4,600.00                                | 0.00            | 0.00        | 4,600.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 4,700.00                                | 0.00            | 0.00        | 4,700.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 4,724.00                                | 0.00            | 0.00        | 4,724.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| <b>MANCOS B BASE</b>                    |                 |             |                     |            |            |                       |                       |                      |                     |
| 4,800.00                                | 0.00            | 0.00        | 4,800.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 4,900.00                                | 0.00            | 0.00        | 4,900.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 5,000.00                                | 0.00            | 0.00        | 5,000.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 5,100.00                                | 0.00            | 0.00        | 5,100.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 5,200.00                                | 0.00            | 0.00        | 5,200.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 5,300.00                                | 0.00            | 0.00        | 5,300.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 5,400.00                                | 0.00            | 0.00        | 5,400.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 5,500.00                                | 0.00            | 0.00        | 5,500.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 5,600.00                                | 0.00            | 0.00        | 5,600.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 5,700.00                                | 0.00            | 0.00        | 5,700.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 5,800.00                                | 0.00            | 0.00        | 5,800.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 5,895.40                                | 0.00            | 0.00        | 5,895.40            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| <b>Start DLS 10.00 TFO 27.99</b>        |                 |             |                     |            |            |                       |                       |                      |                     |
| 5,900.00                                | 0.46            | 27.99       | 5,900.00            | 0.02       | 0.01       | 0.02                  | 10.00                 | 10.00                | 0.00                |
| 6,000.00                                | 10.46           | 27.99       | 5,999.42            | 8.41       | 4.47       | 9.52                  | 10.00                 | 10.00                | 0.00                |
| 6,070.72                                | 17.53           | 27.99       | 6,068.00            | 23.50      | 12.49      | 26.62                 | 10.00                 | 10.00                | 0.00                |
| <b>NIOBRARA</b>                         |                 |             |                     |            |            |                       |                       |                      |                     |
| 6,100.00                                | 20.46           | 27.99       | 6,095.68            | 31.92      | 16.96      | 36.14                 | 10.00                 | 10.00                | 0.00                |
| 6,164.82                                | 26.94           | 27.99       | 6,155.00            | 54.91      | 29.18      | 62.19                 | 10.00                 | 10.00                | 0.00                |
| <b>BUCK PEAK BASE</b>                   |                 |             |                     |            |            |                       |                       |                      |                     |
| 6,200.00                                | 30.46           | 27.99       | 6,185.85            | 69.83      | 37.11      | 79.08                 | 10.00                 | 10.00                | 0.00                |
| 6,300.00                                | 40.46           | 27.99       | 6,267.20            | 120.99     | 64.30      | 137.02                | 10.00                 | 10.00                | 0.00                |
| 6,400.00                                | 50.46           | 27.99       | 6,337.25            | 183.86     | 97.70      | 208.20                | 10.00                 | 10.00                | 0.00                |
| 6,500.00                                | 60.46           | 27.99       | 6,393.88            | 256.50     | 136.31     | 290.47                | 10.00                 | 10.00                | 0.00                |
| 6,510.56                                | 61.52           | 27.99       | 6,399.00            | 264.66     | 140.64     | 299.70                | 10.00                 | 10.00                | 0.00                |
| <b>TOW CREEK</b>                        |                 |             |                     |            |            |                       |                       |                      |                     |
| 6,600.00                                | 70.46           | 27.99       | 6,435.36            | 336.73     | 178.94     | 381.32                | 10.00                 | 10.00                | 0.00                |
| 6,700.00                                | 80.46           | 27.99       | 6,460.43            | 422.10     | 224.30     | 478.00                | 10.00                 | 10.00                | 0.00                |
| 6,795.44                                | 90.00           | 27.99       | 6,468.36            | 505.99     | 268.88     | 573.00                | 10.00                 | 10.00                | 0.00                |
| <b>Start 5152.94 hold at 6795.44 MD</b> |                 |             |                     |            |            |                       |                       |                      |                     |
| 6,800.00                                | 90.00           | 27.99       | 6,468.36            | 510.02     | 271.02     | 577.56                | 0.00                  | 0.00                 | 0.00                |



|                  |                                     |                                     |  |
|------------------|-------------------------------------|-------------------------------------|--|
| <b>Database:</b> | EDM 5000.1 Single User Db           | <b>Local Co-ordinate Reference:</b> | Well Fletcher Gulch Federal 22-14-01-01H |
| <b>Company:</b>  | Laramie Energy II, LLC              | <b>TVD Reference:</b>               | WELL @ 6075.50ft (RKB @ 21')             |
| <b>Project:</b>  | Rio Blanco County, CO               | <b>MD Reference:</b>                | WELL @ 6075.50ft (RKB @ 21')             |
| <b>Site:</b>     | Sec 22, T2N-R100W                   | <b>North Reference:</b>             | True                                     |
| <b>Well:</b>     | Fletcher Gulch Federal 22-14-01-01H | <b>Survey Calculation Method:</b>   | Minimum Curvature                        |
| <b>Wellbore:</b> | Original Horizontal Hole            |                                     |  |
| <b>Design:</b>   | Plan #2                             |                                     |  |

| 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) |
| 6,900.00            | 90.00           | 27.99       | 6,468.35            | 598.32     | 317.95     | 677.56                | 0.00                  | 0.00                 | 0.00                |
| 7,000.00            | 90.00           | 27.99       | 6,468.34            | 686.63     | 364.88     | 777.56                | 0.00                  | 0.00                 | 0.00                |
| 7,100.00            | 90.00           | 27.99       | 6,468.34            | 774.94     | 411.80     | 877.56                | 0.00                  | 0.00                 | 0.00                |
| 7,200.00            | 90.00           | 27.99       | 6,468.33            | 863.24     | 458.73     | 977.56                | 0.00                  | 0.00                 | 0.00                |
| 7,300.00            | 90.00           | 27.99       | 6,468.32            | 951.55     | 505.65     | 1,077.56              | 0.00                  | 0.00                 | 0.00                |
| 7,400.00            | 90.00           | 27.99       | 6,468.32            | 1,039.86   | 552.58     | 1,177.56              | 0.00                  | 0.00                 | 0.00                |
| 7,500.00            | 90.00           | 27.99       | 6,468.31            | 1,128.16   | 599.51     | 1,277.56              | 0.00                  | 0.00                 | 0.00                |
| 7,600.00            | 90.00           | 27.99       | 6,468.30            | 1,216.47   | 646.43     | 1,377.56              | 0.00                  | 0.00                 | 0.00                |
| 7,700.00            | 90.00           | 27.99       | 6,468.30            | 1,304.77   | 693.36     | 1,477.56              | 0.00                  | 0.00                 | 0.00                |
| 7,800.00            | 90.00           | 27.99       | 6,468.29            | 1,393.08   | 740.28     | 1,577.56              | 0.00                  | 0.00                 | 0.00                |
| 7,900.00            | 90.00           | 27.99       | 6,468.28            | 1,481.39   | 787.21     | 1,677.56              | 0.00                  | 0.00                 | 0.00                |
| 8,000.00            | 90.00           | 27.99       | 6,468.27            | 1,569.69   | 834.13     | 1,777.56              | 0.00                  | 0.00                 | 0.00                |
| 8,100.00            | 90.00           | 27.99       | 6,468.27            | 1,658.00   | 881.06     | 1,877.56              | 0.00                  | 0.00                 | 0.00                |
| 8,200.00            | 90.00           | 27.99       | 6,468.26            | 1,746.30   | 927.99     | 1,977.56              | 0.00                  | 0.00                 | 0.00                |
| 8,300.00            | 90.00           | 27.99       | 6,468.25            | 1,834.61   | 974.91     | 2,077.56              | 0.00                  | 0.00                 | 0.00                |
| 8,400.00            | 90.00           | 27.99       | 6,468.25            | 1,922.92   | 1,021.84   | 2,177.56              | 0.00                  | 0.00                 | 0.00                |
| 8,500.00            | 90.00           | 27.99       | 6,468.24            | 2,011.22   | 1,068.76   | 2,277.56              | 0.00                  | 0.00                 | 0.00                |
| 8,600.00            | 90.00           | 27.99       | 6,468.23            | 2,099.53   | 1,115.69   | 2,377.56              | 0.00                  | 0.00                 | 0.00                |
| 8,700.00            | 90.00           | 27.99       | 6,468.23            | 2,187.83   | 1,162.62   | 2,477.56              | 0.00                  | 0.00                 | 0.00                |
| 8,800.00            | 90.00           | 27.99       | 6,468.22            | 2,276.14   | 1,209.54   | 2,577.56              | 0.00                  | 0.00                 | 0.00                |
| 8,900.00            | 90.00           | 27.99       | 6,468.21            | 2,364.45   | 1,256.47   | 2,677.56              | 0.00                  | 0.00                 | 0.00                |
| 9,000.00            | 90.00           | 27.99       | 6,468.20            | 2,452.75   | 1,303.39   | 2,777.56              | 0.00                  | 0.00                 | 0.00                |
| 9,100.00            | 90.00           | 27.99       | 6,468.20            | 2,541.06   | 1,350.32   | 2,877.56              | 0.00                  | 0.00                 | 0.00                |
| 9,200.00            | 90.00           | 27.99       | 6,468.19            | 2,629.36   | 1,397.25   | 2,977.56              | 0.00                  | 0.00                 | 0.00                |
| 9,300.00            | 90.00           | 27.99       | 6,468.18            | 2,717.67   | 1,444.17   | 3,077.56              | 0.00                  | 0.00                 | 0.00                |
| 9,400.00            | 90.00           | 27.99       | 6,468.18            | 2,805.98   | 1,491.10   | 3,177.56              | 0.00                  | 0.00                 | 0.00                |
| 9,500.00            | 90.00           | 27.99       | 6,468.17            | 2,894.28   | 1,538.02   | 3,277.56              | 0.00                  | 0.00                 | 0.00                |
| 9,600.00            | 90.00           | 27.99       | 6,468.16            | 2,982.59   | 1,584.95   | 3,377.56              | 0.00                  | 0.00                 | 0.00                |
| 9,700.00            | 90.00           | 27.99       | 6,468.16            | 3,070.89   | 1,631.87   | 3,477.56              | 0.00                  | 0.00                 | 0.00                |
| 9,800.00            | 90.00           | 27.99       | 6,468.15            | 3,159.20   | 1,678.80   | 3,577.56              | 0.00                  | 0.00                 | 0.00                |
| 9,900.00            | 90.00           | 27.99       | 6,468.14            | 3,247.51   | 1,725.73   | 3,677.56              | 0.00                  | 0.00                 | 0.00                |
| 10,000.00           | 90.00           | 27.99       | 6,468.14            | 3,335.81   | 1,772.65   | 3,777.56              | 0.00                  | 0.00                 | 0.00                |
| 10,100.00           | 90.00           | 27.99       | 6,468.13            | 3,424.12   | 1,819.58   | 3,877.56              | 0.00                  | 0.00                 | 0.00                |
| 10,200.00           | 90.00           | 27.99       | 6,468.12            | 3,512.43   | 1,866.50   | 3,977.56              | 0.00                  | 0.00                 | 0.00                |
| 10,300.00           | 90.00           | 27.99       | 6,468.11            | 3,600.73   | 1,913.43   | 4,077.56              | 0.00                  | 0.00                 | 0.00                |
| 10,400.00           | 90.00           | 27.99       | 6,468.11            | 3,689.04   | 1,960.36   | 4,177.56              | 0.00                  | 0.00                 | 0.00                |
| 10,500.00           | 90.00           | 27.99       | 6,468.10            | 3,777.34   | 2,007.28   | 4,277.56              | 0.00                  | 0.00                 | 0.00                |
| 10,600.00           | 90.00           | 27.99       | 6,468.09            | 3,865.65   | 2,054.21   | 4,377.56              | 0.00                  | 0.00                 | 0.00                |
| 10,700.00           | 90.00           | 27.99       | 6,468.09            | 3,953.96   | 2,101.13   | 4,477.56              | 0.00                  | 0.00                 | 0.00                |
| 10,800.00           | 90.00           | 27.99       | 6,468.08            | 4,042.26   | 2,148.06   | 4,577.56              | 0.00                  | 0.00                 | 0.00                |
| 10,900.00           | 90.00           | 27.99       | 6,468.07            | 4,130.57   | 2,194.99   | 4,677.56              | 0.00                  | 0.00                 | 0.00                |
| 11,000.00           | 90.00           | 27.99       | 6,468.07            | 4,218.87   | 2,241.91   | 4,777.56              | 0.00                  | 0.00                 | 0.00                |
| 11,100.00           | 90.00           | 27.99       | 6,468.06            | 4,307.18   | 2,288.84   | 4,877.56              | 0.00                  | 0.00                 | 0.00                |
| 11,200.00           | 90.00           | 27.99       | 6,468.05            | 4,395.49   | 2,335.76   | 4,977.56              | 0.00                  | 0.00                 | 0.00                |
| 11,300.00           | 90.00           | 27.99       | 6,468.05            | 4,483.79   | 2,382.69   | 5,077.56              | 0.00                  | 0.00                 | 0.00                |
| 11,400.00           | 90.00           | 27.99       | 6,468.04            | 4,572.10   | 2,429.61   | 5,177.56              | 0.00                  | 0.00                 | 0.00                |
| 11,500.00           | 90.00           | 27.99       | 6,468.03            | 4,660.40   | 2,476.54   | 5,277.56              | 0.00                  | 0.00                 | 0.00                |
| 11,600.00           | 90.00           | 27.99       | 6,468.02            | 4,748.71   | 2,523.47   | 5,377.56              | 0.00                  | 0.00                 | 0.00                |
| 11,700.00           | 90.00           | 27.99       | 6,468.02            | 4,837.02   | 2,570.39   | 5,477.56              | 0.00                  | 0.00                 | 0.00                |
| 11,800.00           | 90.00           | 27.99       | 6,468.01            | 4,925.32   | 2,617.32   | 5,577.56              | 0.00                  | 0.00                 | 0.00                |
| 11,900.00           | 90.00           | 27.99       | 6,468.00            | 5,013.63   | 2,664.24   | 5,677.56              | 0.00                  | 0.00                 | 0.00                |
| 11,948.38           | 90.00           | 27.99       | 6,468.00            | 5,056.35   | 2,686.95   | 5,725.94              | 0.00                  | 0.00                 | 0.00                |
| TD at 11948.38      |                 |             |                     |            |            |                       |                       |                      |                     |

|                  |                                     |                                     |  |
|------------------|-------------------------------------|-------------------------------------|--|
| <b>Database:</b> | EDM 5000.1 Single User Db           | <b>Local Co-ordinate Reference:</b> | Well Fletcher Gulch Federal 22-14-01-01H |
| <b>Company:</b>  | Laramie Energy II, LLC              | <b>TVD Reference:</b>               | WELL @ 6075.50ft (RKB @ 21')             |
| <b>Project:</b>  | Rio Blanco County, CO               | <b>MD Reference:</b>                | WELL @ 6075.50ft (RKB @ 21')             |
| <b>Site:</b>     | Sec 22, T2N-R100W                   | <b>North Reference:</b>             | True                                     |
| <b>Well:</b>     | Fletcher Gulch Federal 22-14-01-01H | <b>Survey Calculation Method:</b>   | Minimum Curvature                        |
| <b>Wellbore:</b> | Original Horizontal Hole            |                                     |  |
| <b>Design:</b>   | Plan #2                             |                                     |  |

| Design Targets            |           |          |          |          |          |              |              |             |              |
|---------------------------|-----------|----------|----------|----------|----------|--------------|--------------|-------------|--------------|
| Target Name               | Dip Angle | Dip Dir. | TVD      | +N/-S    | +E/-W    | Northing     | Easting      | Latitude    | Longitude    |
| - hit/miss target         | (°)       | (°)      | (ft)     | (ft)     | (ft)     | (ft)         | (ft)         |             |              |
| - Shape                   |           |          |          |          |          |              |              |             |              |
| 100' FNL, 677' FEL        | 0.00      | 358.00   | 6,468.00 | 5,056.35 | 2,686.95 | 1,307,197.71 | 2,134,465.38 | 40.135160°N | 108.596280°W |
| - plan hits target center |           |          |          |          |          |              |              |             |              |
| - Point                   |           |          |          |          |          |              |              |             |              |

| Casing Points  |                |                     |  |                 |               |
|----------------|----------------|---------------------|--|-----------------|---------------|
| Measured Depth | Vertical Depth | Name                |  | Casing Diameter | Hole Diameter |
| (ft)           | (ft)           |                     |  | (in)            | (in)          |
| 1,000.00       | 1,000.00       | Surface Casing      |  | 9.625           | 12.250        |
| 3,809.00       | 3,809.00       | Intermediate Casing |  | 7.000           | 8.750         |

| Formations     |                |                 |           |      |               |  |
|----------------|----------------|-----------------|-----------|------|---------------|--|
| Measured Depth | Vertical Depth | Name            | Lithology | Dip  | Dip Direction |  |
| (ft)           | (ft)           |                 |           | (°)  | (°)           |  |
| 0.00           | 0.00           | GREEN RIVER     |           | 0.00 |               |  |
| 126.00         | 126.00         | WILLIAMS FORK   |           | 0.00 |               |  |
| 1,753.00       | 1,753.00       | CAMEO           |           | 0.00 |               |  |
| 2,183.00       | 2,183.00       | ILES            |           | 0.00 |               |  |
| 2,633.00       | 2,633.00       | SEGO            |           | 0.00 |               |  |
| 3,038.00       | 3,038.00       | SEGO BASE       |           | 0.00 |               |  |
| 3,359.00       | 3,359.00       | CASTLEGATE      |           | 0.00 |               |  |
| 3,685.00       | 3,685.00       | CASTLEGATE BASE |           | 0.00 |               |  |
| 3,817.00       | 3,817.00       | MANCOS          |           | 0.00 |               |  |
| 4,225.00       | 4,225.00       | MANCOS A        |           | 0.00 |               |  |
| 4,455.00       | 4,455.00       | MANCOS B        |           | 0.00 |               |  |
| 4,724.00       | 4,724.00       | MANCOS B BASE   |           | 0.00 |               |  |
| 6,070.72       | 6,068.00       | NIOBRARA        |           | 0.00 |               |  |
| 6,164.82       | 6,155.00       | BUCK PEAK BASE  |           | 0.00 |               |  |
| 6,510.56       | 6,399.00       | TOW CREEK       |           | 0.00 |               |  |

| Plan Annotations |                |                   |            |                                  |
|------------------|----------------|-------------------|------------|----------------------------------|
| Measured Depth   | Vertical Depth | Local Coordinates |            | Comment                          |
| (ft)             | (ft)           | +N/-S (ft)        | +E/-W (ft) |                                  |
| 5,895.40         | 5,895.40       | 0.00              | 0.00       | Start DLS 10.00 TFO 27.99        |
| 6,795.44         | 6,468.36       | 505.99            | 268.88     | Start 5152.94 hold at 6795.44 MD |
| 11,948.38        | 6,468.00       | 5,056.35          | 2,686.95   | TD at 11948.38                   |