

US ROCKIES REGION PLANNING

COLORADO NORTHERN ZONE - 83

WELD_Lee 2-6 pad

Lee 7-6

Lee 7-6

Plan: Lee 7-6 (wp01)

Standard Planning Report

04 January, 2011



Project: COLORADO NORTHERN ZONE - 83
 Site: WELD_Lee 2-6 pad
 Well: Lee 7-6
 Wellbore: Lee 7-6
 Section:
 SHL:
 Design: Lee 7-6 (wp01)
 Latitude: 40.172913
 Longitude: -104.703880
 GL: 4962.00
 KB: WELL @ 4962.00ft (Original Well Elev)

FORMATION TOP DETAILS

| TVDPath | MDPath | Formation |
|---------|---------|-----------|
| 4162.00 | 4412.39 | PK |
| 4537.00 | 4788.06 | SX |
| 7040.00 | 7291.06 | NIO |
| 7322.00 | 7573.06 | CD |
| 7408.00 | 7659.06 | GH |



Weatherford®

WELL DETAILS: Lee 7-6

| +N/-S | +E/-W | Northing | Ground Level: Easting | 4962.00 Latitude | Longitude | Slot |
|-------|-------|------------|--------------------------|---------------------|-------------|------|
| 0.00 | 0.00 | 1306833.80 | 3222467.38 | 40.172913 | -104.703880 | |

CASING DETAILS

| TVD | MD | Name | Size |
|--------|--------|--------|-------|
| 800.00 | 802.57 | 9 5/8" | 9-5/8 |

DESIGN TARGET DETAILS

| Name | TVD | +N/-S | +E/-W | Northing | Easting | Latitude | Longitude | Shape |
|-------------|---------|----------|--------|------------|------------|-----------|-------------|-------|
| Lee 7-6 BHL | 7482.00 | -1334.36 | -41.08 | 1305499.12 | 3222438.28 | 40.169250 | -104.704027 | Point |

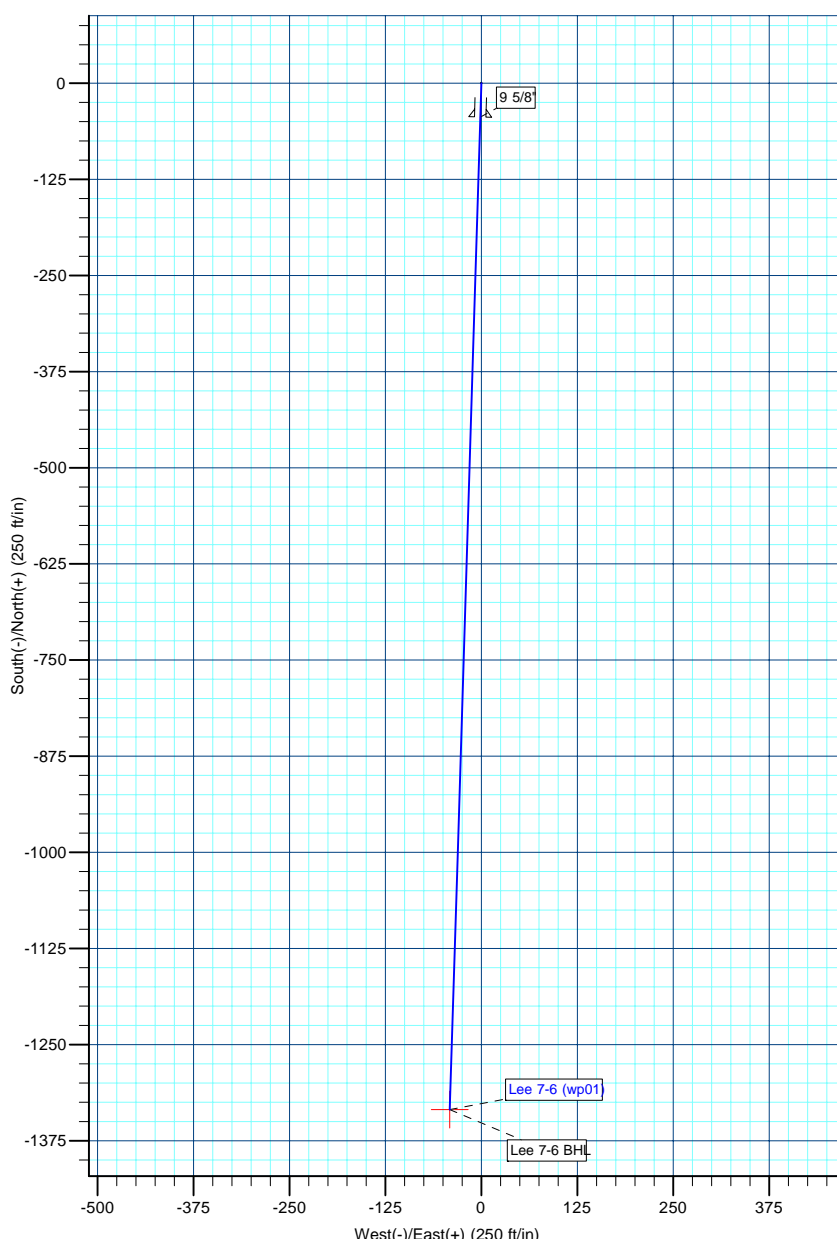
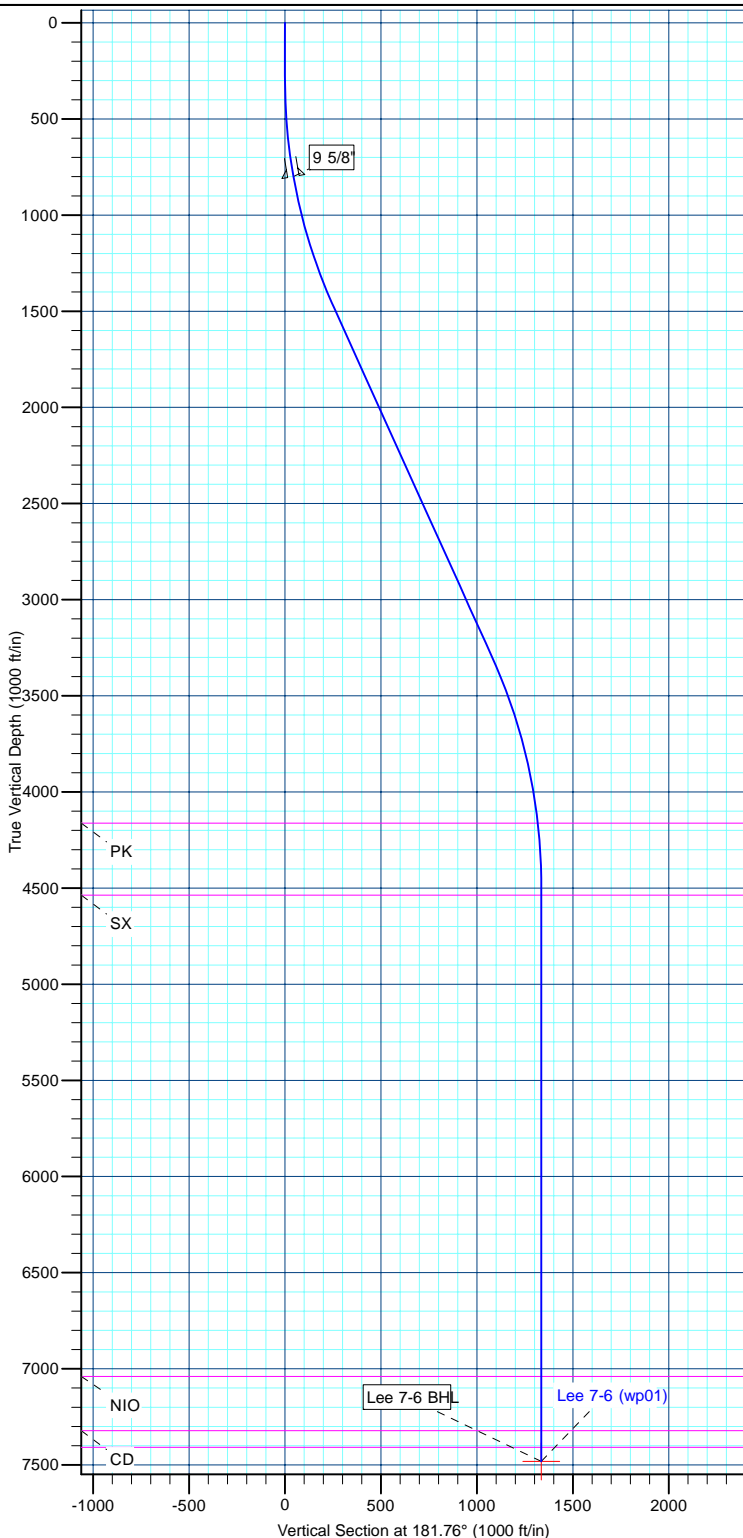


Azimuths to True North
 Magnetic North: 8.87°

Magnetic Field
 Strength: 53064.7snT
 Dip Angle: 66.89°
 Date: 1/3/2011
 Model: IGRF2010

SECTION DETAILS

| MD | Inc | Azi | TVD | +N/-S | +E/-W | Dleg | TFace | VSec | Target |
|---------|-------|--------|---------|----------|--------|------|---------------|--------|-------------|
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 300.00 | 0.00 | 0.00 | 300.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 1519.85 | 24.40 | 181.76 | 1483.32 | -255.69 | -7.87 | 2.00 | 181.76 | 255.81 | |
| 3513.20 | 24.40 | 181.76 | 3298.68 | -1078.67 | -33.21 | 0.00 | 0.001079.18 | | |
| 4733.06 | 0.00 | 0.00 | 4482.00 | -1334.36 | -41.08 | 2.00 | 180.001334.99 | | |
| 7733.06 | 0.00 | 0.00 | 7482.00 | -1334.36 | -41.08 | 0.00 | 0.001334.99 | | Lee 7-6 BHL |



| | | | |
|------------------|-----------------------------|-------------------------------------|---------------------------------------|
| Database: | edm5000p | Local Co-ordinate Reference: | Well Lee 7-6 |
| Company: | US ROCKIES REGION PLANNING | TVD Reference: | WELL @ 4962.00ft (Original Well Elev) |
| Project: | COLORADO NORTHERN ZONE - 83 | MD Reference: | WELL @ 4962.00ft (Original Well Elev) |
| Site: | WELD_Lee 2-6 pad | North Reference: | True |
| Well: | Lee 7-6 | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Lee 7-6 | | |
| Design: | Lee 7-6 (wp01) | | |

| | | | |
|--------------------|-----------------------------|----------------------|----------------|
| Project | COLORADO NORTHERN ZONE - 83 | | |
| Map System: | US State Plane 1983 | System Datum: | Mean Sea Level |
| Geo Datum: | North American Datum 1983 | | |
| Map Zone: | Colorado Northern Zone | | |

| Site | | WELD_Lee 2-6 pad | | | |
|-----------------------|----------|------------------|-----------------|-------------------|-------------|
| Site Position: | | Northing: | 1,306,833.80 ft | Latitude: | 40.172913 |
| From: | Lat/Long | Easting: | 3,222,467.38 ft | Longitude: | -104.703880 |
| Position Uncertainty: | 0.00 ft | Slot Radius: | 0 " | Grid Convergence: | 0.51 |

| | | | | | | |
|----------------------|---------|---------|---------------------|-----------------|---------------|-------------|
| Well | Lee 7-6 | | | | | |
| Well Position | +N-S | 0.00 ft | Northing: | 1,306,833.80 ft | Latitude: | 40.172913 |
| | +E-W | 0.00 ft | Easting: | 3,222,467.38 ft | Longitude: | -104.703880 |
| Position Uncertainty | | 0.00 ft | Wellhead Elevation: | | Ground Level: | 4,962.00 ft |

| | | | | | |
|------------------|-------------------|--------------------|------------------------|----------------------|----------------------------|
| Wellbore | Lee 7-6 | | | | |
| Magnetics | Model Name | Sample Date | Declination (°) | Dip Angle (°) | Field Strength (nT) |
| | IGRF2010 | 1/3/2011 | 8.87 | 66.89 | 53,065 |

| | | | | | |
|--------------------------|------------------------------|-------------------|-------------------|----------------------|------|
| Design | Lee 7-6 (wp01) | | | | |
| Audit Notes: | | | | | |
| Version: | Phase: | PLAN | | Tie On Depth: | 0.00 |
| Vertical Section: | Depth From (TVD) (ft) | +N/-S (ft) | +E/-W (ft) | Direction (°) | |
| | 0.00 | 0.00 | 0.00 | 181.76 | |

| Plan Sections | | | | | | | | | | |
|----------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|----------------------|---------------------|---------|-------------|
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) | TFO (°) | Target |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 300.00 | 0.00 | 0.00 | 300.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 1,519.85 | 24.40 | 181.76 | 1,483.32 | -255.69 | -7.87 | 2.00 | 2.00 | 0.00 | 181.76 | |
| 3,513.20 | 24.40 | 181.76 | 3,298.68 | -1,078.67 | -33.21 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 4,733.06 | 0.00 | 0.00 | 4,482.00 | -1,334.36 | -41.08 | 2.00 | -2.00 | 0.00 | 180.00 | |
| 7,733.06 | 0.00 | 0.00 | 7,482.00 | -1,334.36 | -41.08 | 0.00 | 0.00 | 0.00 | 0.00 | Lee 7-6 BHL |

| | | | |
|------------------|-----------------------------|-------------------------------------|---------------------------------------|
| Database: | edm5000p | Local Co-ordinate Reference: | Well Lee 7-6 |
| Company: | US ROCKIES REGION PLANNING | TVD Reference: | WELL @ 4962.00ft (Original Well Elev) |
| Project: | COLORADO NORTHERN ZONE - 83 | MD Reference: | WELL @ 4962.00ft (Original Well Elev) |
| Site: | WELD_Lee 2-6 pad | North Reference: | True |
| Well: | Lee 7-6 | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Lee 7-6 | | |
| Design: | Lee 7-6 (wp01) | | |

| 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 |
| 300.00 | 0.00 | 0.00 | 300.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 802.57 | 10.05 | 181.76 | 800.00 | -43.95 | -1.35 | 43.97 | 2.00 | 2.00 | 0.00 |
| 9 5/8" | | | | | | | | | |
| 1,519.85 | 24.40 | 181.76 | 1,483.32 | -255.69 | -7.87 | 255.81 | 2.00 | 2.00 | 0.00 |
| 3,513.20 | 24.40 | 181.76 | 3,298.68 | -1,078.67 | -33.21 | 1,079.18 | 0.00 | 0.00 | 0.00 |
| 4,412.39 | 6.41 | 181.76 | 4,162.00 | -1,316.44 | -40.53 | 1,317.06 | 2.00 | -2.00 | 0.00 |
| PK | | | | | | | | | |
| 4,733.06 | 0.00 | 0.00 | 4,482.00 | -1,334.36 | -41.08 | 1,334.99 | 2.00 | -2.00 | 0.00 |
| 4,788.06 | 0.00 | 0.00 | 4,537.00 | -1,334.36 | -41.08 | 1,334.99 | 0.00 | 0.00 | 0.00 |
| SX | | | | | | | | | |
| 7,291.06 | 0.00 | 0.00 | 7,040.00 | -1,334.36 | -41.08 | 1,334.99 | 0.00 | 0.00 | 0.00 |
| NIO | | | | | | | | | |
| 7,573.06 | 0.00 | 0.00 | 7,322.00 | -1,334.36 | -41.08 | 1,334.99 | 0.00 | 0.00 | 0.00 |
| CD | | | | | | | | | |
| 7,659.06 | 0.00 | 0.00 | 7,408.00 | -1,334.36 | -41.08 | 1,334.99 | 0.00 | 0.00 | 0.00 |
| GH | | | | | | | | | |
| 7,733.06 | 0.00 | 0.00 | 7,482.00 | -1,334.36 | -41.08 | 1,334.99 | 0.00 | 0.00 | 0.00 |
| Lee 7-6 BHL | | | | | | | | | |

| 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 | | | | | | | | | |
| Lee 7-6 BHL | 0.00 | 0.00 | 7,482.00 | -1,334.36 | -41.08 | 1,305,499.12 | 3,222,438.28 | 40.169250 | -104.704027 |
| - plan hits target center | | | | | | | | | |
| - Point | | | | | | | | | |

| Casing Points | | | | |
|---------------------|---------------------|--------|---------------------|-------------------|
| Measured Depth (ft) | Vertical Depth (ft) | Name | Casing Diameter (") | Hole Diameter (") |
| 802.57 | 800.00 | 9 5/8" | 9-5/8 | 12-1/4 |

| Formations | | | | | |
|---------------------|---------------------|------|-----------|---------|-------------------|
| Measured Depth (ft) | Vertical Depth (ft) | Name | Lithology | Dip (°) | Dip Direction (°) |
| 4,412.39 | 4,162.00 | PK | | | |
| 4,788.06 | 4,537.00 | SX | | | |
| 7,291.06 | 7,040.00 | NIO | | | |
| 7,573.06 | 7,322.00 | CD | | | |
| 7,659.06 | 7,408.00 | GH | | | |