# PETROLEUM DEVELOPMENT CORP DJ Basin

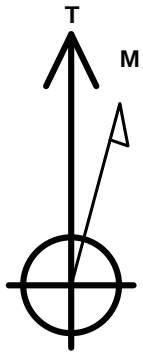
Well Name: **Bihain 26G-202**
Surface Location: Bihain 5N64W26GK Pad Sec.26-T5N-R64W
North American Datum 1983 , US State Plane 1983, Colorado Northern Zone
Ground Elevation: 4604.0

| +N/-S | +E/-W | Northing | Easting | Latitude | Longitude | Slot |
|---|---|---|---|---|---|---|
| 0.0 | 0.0 | 1379515.21 | 3271762.77 | 40.371068 | -104.524624 | |

RKB - 23' WELL @ 4627.0ft (RKB - 23')

## DESIGN TARGET DETAILS

| Name | TVD | +N/-S | +E/-W | Shape |
|---|---|---|---|---|
| SHL 2387'FNL & 496'FWL, Sec.26 | 11.0 | 0.0 | 0.0 | Point |
| BHL 2588'FSL & 500'FEL, Sec.25 | 6512.0 | -300.9 | 9543.6 | Point |



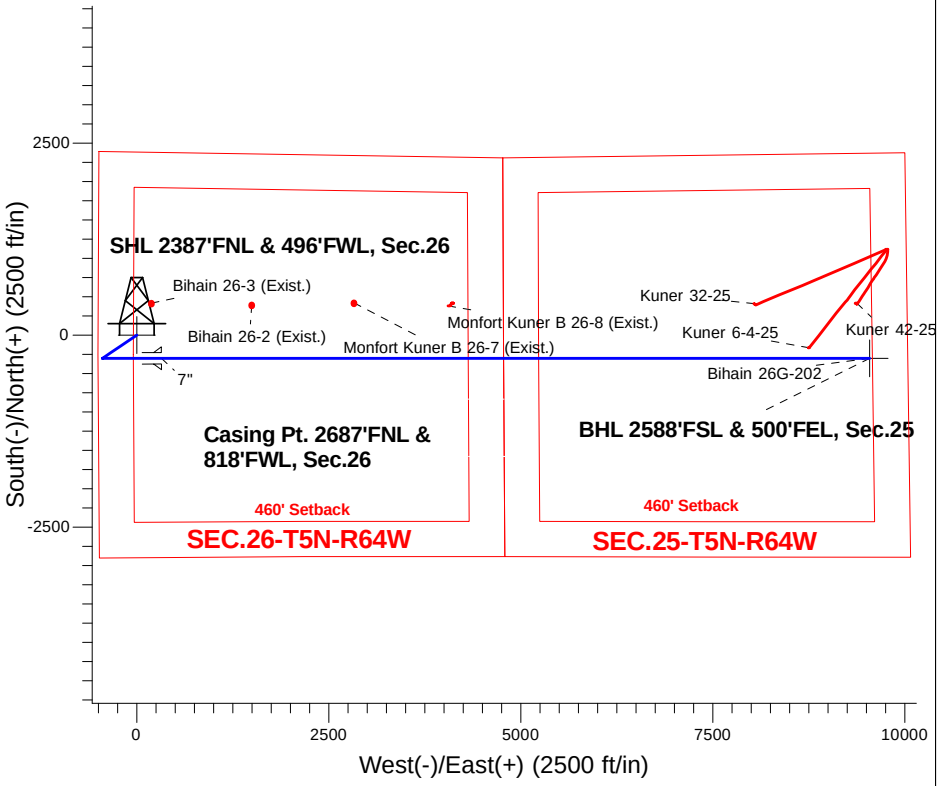

Azimuths to True North
Magnetic North: 8.14°

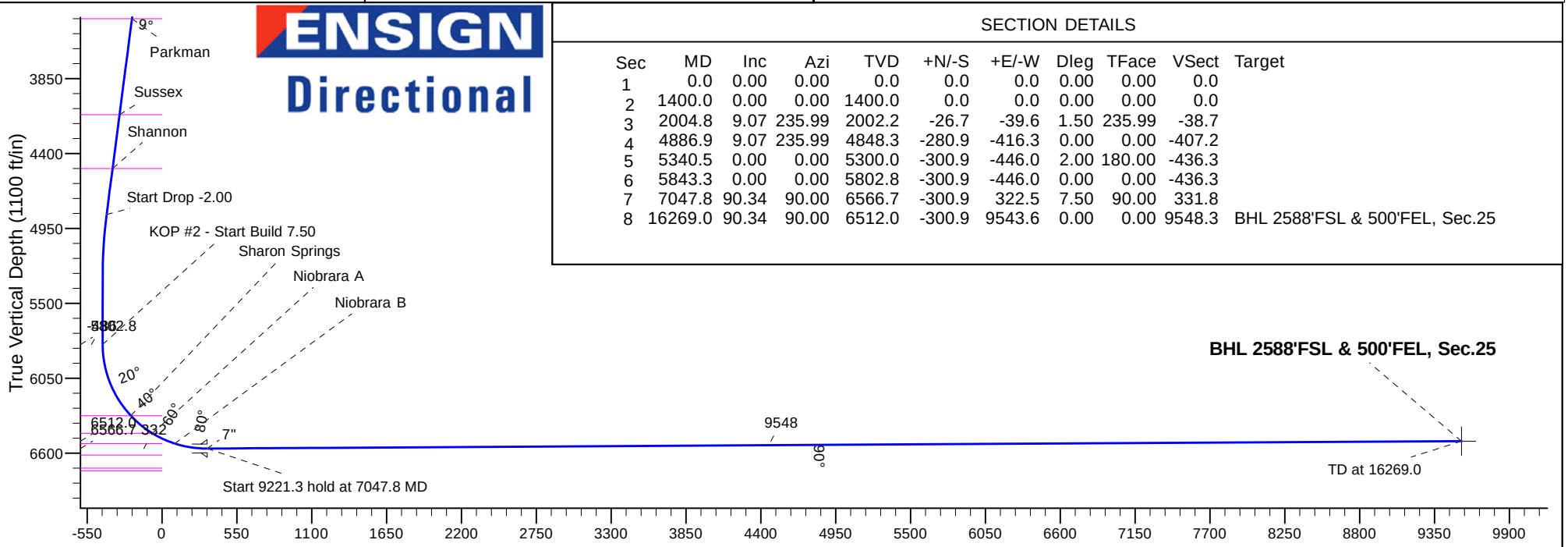
Magnetic Field
Strength: 52680.8snT
Dip Angle: 66.91°
Date: 11/2/2015
Model: IGRF2010

Bihain 5N64W26GK Pad Sec.26-T5N-R64W
Bihain 26G-202
Plan #1 Extension (3-3-16)
13:30, March 09 2016

## ANNOTATIONS

| TVD | MD | Annotation |
|---|---|---|
| 1400.0 | 1400.0 | KOP - Start Build 1.50 |
| 4848.3 | 4886.9 | Start Drop -2.00 |
| 5802.8 | 5843.3 | KOP #2 - Start Build 7.50 |
| 6566.7 | 7047.8 | Start 9221.3 hold at 7047.8 MD |
| 6512.0 | 16269.0 | TD at 16269.0 |




## SECTION DETAILS

| Sec | MD | Inc | Azi | TVD | +N/-S | +E/-W | Dleg | TFace | VSect | Target |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.0 | 0.00 | 0.00 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.0 | |
| 2 | 1400.0 | 0.00 | 0.00 | 1400.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.0 | |
| 3 | 2004.8 | 9.07 | 235.99 | 2002.2 | -26.7 | -39.6 | 1.50 | 235.99 | -38.7 | |
| 4 | 4886.9 | 9.07 | 235.99 | 4848.3 | -280.9 | -416.3 | 0.00 | 0.00 | -407.2 | |
| 5 | 5340.5 | 0.00 | 0.00 | 5300.0 | -300.9 | -446.0 | 2.00 | 180.00 | -436.3 | |
| 6 | 5843.3 | 0.00 | 0.00 | 5802.8 | -300.9 | -446.0 | 0.00 | 0.00 | -436.3 | |
| 7 | 7047.8 | 90.34 | 90.00 | 6566.7 | -300.9 | 322.5 | 7.50 | 90.00 | 331.8 | |
| 8 | 16269.0 | 90.34 | 90.00 | 6512.0 | -300.9 | 9543.6 | 0.00 | 0.00 | 9548.3 | BHL 2588'FSL & 500'FEL, Sec.25 |

ENSIGN Directional

# PETROLEUM DEVELOPMENT CORP DJ Basin

**SEC.26-T5N-R64W**
**Bihain 5N64W26GK Pad Sec.26-T5N-R64W**
**Bihain 26G-202**

**Wellbore #1**

**Plan: Plan #1 Extension (3-3-16)**

# Standard Planning Report

**09 March, 2016**

PDC ENERGY
Growing E&P Value

| | | | |
|---|---|---|---|
| **Database:** | US_EDM | **Local Co-ordinate Reference:** | Well Bihain 26G-202 |
| **Company:** | PETROLEUM DEVELOPMENT CORP DJ Basin | **TVD Reference:** | WELL @ 4627.0ft (RKB - 23') |
| **Project:** | SEC.26-T5N-R64W | **MD Reference:** | WELL @ 4627.0ft (RKB - 23') |
| **Site:** | Bihain 5N64W26GK Pad Sec.26-T5N-R64W | **North Reference:** | True |
| **Well:** | Bihain 26G-202 | **Survey Calculation Method:** | Minimum Curvature |
| **Wellbore:** | Wellbore #1 | | |
| **Design:** | Plan #1 Extension (3-3-16) | | |

**Project** SEC.26-T5N-R64W, Weld County, CO

| | | | |
|---|---|---|---|
| **Map System:** | US State Plane 1983 | **System Datum:** | Mean Sea Level |
| **Geo Datum:** | North American Datum 1983 | | Using Well Reference Point |
| **Map Zone:** | Colorado Northern Zone | | Using geodetic scale factor |

**Site** Bihain 5N64W26GK Pad Sec.26-T5N-R64W

| | | | | | |
|---|---|---|---|---|---|
| **Site Position:** | | **Northing:** | 1,379,524.57 usft | **Latitude:** | 40.371094 |
| **From:** | Lat/Long | **Easting:** | 3,271,750.97 usft | **Longitude:** | -104.524666 |
| **Position Uncertainty:** | 0.0 ft | **Slot Radius:** | 13-3/16 " | **Grid Convergence:** | 0.63 ° |

**Well** Bihain 26G-202

| | | | | | | |
|---|---|---|---|---|---|---|
| **Well Position** | **+N/-S** | -9.5 ft | **Northing:** | 1,379,515.21 usft | **Latitude:** | 40.371068 |
| | **+E/-W** | 11.7 ft | **Easting:** | 3,271,762.77 usft | **Longitude:** | -104.524624 |
| **Position Uncertainty** | | 0.0 ft | **Wellhead Elevation:** | 0.0 ft | **Ground Level:** | 4,604.0 ft |

**Wellbore** Wellbore #1

| Magnetics | Model Name | Sample Date | Declination (°) | Dip Angle (°) | Field Strength (nT) |
|---|---|---|---|---|---|
| | IGRF2010 | 11/2/2015 | 8.14 | 66.91 | 52,681 |

**Design** Plan #1 Extension (3-3-16)

**Audit Notes:**

| | | | | | |
|---|---|---|---|---|---|
| **Version:** | | **Phase:** | PROTOTYPE | **Tie On Depth:** | 0.0 |

| Vertical Section: | Depth From (TVD) (ft) | +N/-S (ft) | +E/-W (ft) | Direction (°) |
|---|---|---|---|---|
| | 0.0 | 0.0 | 0.0 | 91.81 |

**Plan Sections**

| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) | TFO (°) | Target |
|---|---|---|---|---|---|---|---|---|---|---|
| 0.0 | 0.00 | 0.00 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 1,400.0 | 0.00 | 0.00 | 1,400.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 2,004.8 | 9.07 | 235.99 | 2,002.2 | -26.7 | -39.6 | 1.50 | 1.50 | 0.00 | 235.99 | |
| 4,886.9 | 9.07 | 235.99 | 4,848.3 | -280.9 | -416.3 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 5,340.5 | 0.00 | 0.00 | 5,300.0 | -300.9 | -446.0 | 2.00 | -2.00 | 0.00 | 180.00 | |
| 5,843.3 | 0.00 | 0.00 | 5,802.8 | -300.9 | -446.0 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 7,047.8 | 90.34 | 90.00 | 6,566.7 | -300.9 | 322.5 | 7.50 | 7.50 | 0.00 | 90.00 | |
| 16,269.0 | 90.34 | 90.00 | 6,512.0 | -300.9 | 9,543.6 | 0.00 | 0.00 | 0.00 | 0.00 | BHL 2588'FSL & 500'I |

| | | | |
|---|---|---|---|
| **Database:** | US_EDM | **Local Co-ordinate Reference:** | Well Bihain 26G-202 |
| **Company:** | PETROLEUM DEVELOPMENT CORP DJ Basin | **TVD Reference:** | WELL @ 4627.0ft (RKB - 23') |
| **Project:** | SEC.26-T5N-R64W | **MD Reference:** | WELL @ 4627.0ft (RKB - 23') |
| **Site:** | Bihain 5N64W26GK Pad Sec.26-T5N-R64W | **North Reference:** | True |
| **Well:** | Bihain 26G-202 | **Survey Calculation Method:** | Minimum Curvature |
| **Wellbore:** | Wellbore #1 | | |
| **Design:** | Plan #1 Extension (3-3-16) | | |

**Planned Survey**

| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
|---|---|---|---|---|---|---|---|---|---|
| 0.0 | 0.00 | 0.00 | 0.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 11.0 | 0.00 | 0.00 | 11.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| **SHL 2387'FNL & 496'FWL, Sec.26** | | | | | | | | | |
| 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 |
| **KOP - Start Build 1.50** | | | | | | | | | |
| 1,500.0 | 1.50 | 235.99 | 1,500.0 | -0.7 | -1.1 | -1.1 | 1.50 | 1.50 | 0.00 |
| 1,600.0 | 3.00 | 235.99 | 1,599.9 | -2.9 | -4.3 | -4.2 | 1.50 | 1.50 | 0.00 |
| 1,700.0 | 4.50 | 235.99 | 1,699.7 | -6.6 | -9.8 | -9.5 | 1.50 | 1.50 | 0.00 |
| 1,800.0 | 6.00 | 235.99 | 1,799.3 | -11.7 | -17.3 | -17.0 | 1.50 | 1.50 | 0.00 |
| 1,900.0 | 7.50 | 235.99 | 1,898.6 | -18.3 | -27.1 | -26.5 | 1.50 | 1.50 | 0.00 |
| 2,000.0 | 9.00 | 235.99 | 1,997.5 | -26.3 | -39.0 | -38.1 | 1.50 | 1.50 | 0.00 |
| 2,004.8 | 9.07 | 235.99 | 2,002.2 | -26.7 | -39.6 | -38.7 | 1.50 | 1.50 | 0.00 |
| 2,100.0 | 9.07 | 235.99 | 2,096.3 | -35.1 | -52.1 | -50.9 | 0.00 | 0.00 | 0.00 |
| 2,200.0 | 9.07 | 235.99 | 2,195.0 | -43.9 | -65.1 | -63.7 | 0.00 | 0.00 | 0.00 |
| 2,300.0 | 9.07 | 235.99 | 2,293.8 | -52.8 | -78.2 | -76.5 | 0.00 | 0.00 | 0.00 |
| 2,400.0 | 9.07 | 235.99 | 2,392.5 | -61.6 | -91.3 | -89.3 | 0.00 | 0.00 | 0.00 |
| 2,500.0 | 9.07 | 235.99 | 2,491.3 | -70.4 | -104.3 | -102.1 | 0.00 | 0.00 | 0.00 |
| 2,600.0 | 9.07 | 235.99 | 2,590.0 | -79.2 | -117.4 | -114.8 | 0.00 | 0.00 | 0.00 |
| 2,700.0 | 9.07 | 235.99 | 2,688.8 | -88.0 | -130.5 | -127.6 | 0.00 | 0.00 | 0.00 |
| 2,800.0 | 9.07 | 235.99 | 2,787.5 | -96.8 | -143.5 | -140.4 | 0.00 | 0.00 | 0.00 |
| 2,900.0 | 9.07 | 235.99 | 2,886.3 | -105.7 | -156.6 | -153.2 | 0.00 | 0.00 | 0.00 |
| 3,000.0 | 9.07 | 235.99 | 2,985.0 | -114.5 | -169.7 | -166.0 | 0.00 | 0.00 | 0.00 |
| 3,100.0 | 9.07 | 235.99 | 3,083.8 | -123.3 | -182.8 | -178.8 | 0.00 | 0.00 | 0.00 |
| 3,200.0 | 9.07 | 235.99 | 3,182.5 | -132.1 | -195.8 | -191.6 | 0.00 | 0.00 | 0.00 |
| 3,300.0 | 9.07 | 235.99 | 3,281.3 | -140.9 | -208.9 | -204.3 | 0.00 | 0.00 | 0.00 |
| 3,400.0 | 9.07 | 235.99 | 3,380.0 | -149.7 | -222.0 | -217.1 | 0.00 | 0.00 | 0.00 |
| 3,430.4 | 9.07 | 235.99 | 3,410.0 | -152.4 | -225.9 | -221.0 | 0.00 | 0.00 | 0.00 |
| **Parkman** | | | | | | | | | |
| 3,500.0 | 9.07 | 235.99 | 3,478.8 | -158.6 | -235.0 | -229.9 | 0.00 | 0.00 | 0.00 |
| 3,600.0 | 9.07 | 235.99 | 3,577.5 | -167.4 | -248.1 | -242.7 | 0.00 | 0.00 | 0.00 |
| 3,700.0 | 9.07 | 235.99 | 3,676.3 | -176.2 | -261.2 | -255.5 | 0.00 | 0.00 | 0.00 |
| 3,800.0 | 9.07 | 235.99 | 3,775.0 | -185.0 | -274.2 | -268.3 | 0.00 | 0.00 | 0.00 |
| 3,900.0 | 9.07 | 235.99 | 3,873.8 | -193.8 | -287.3 | -281.1 | 0.00 | 0.00 | 0.00 |
| 4,000.0 | 9.07 | 235.99 | 3,972.5 | -202.7 | -300.4 | -293.8 | 0.00 | 0.00 | 0.00 |
| 4,100.0 | 9.07 | 235.99 | 4,071.3 | -211.5 | -313.5 | -306.6 | 0.00 | 0.00 | 0.00 |
| 4,144.3 | 9.07 | 235.99 | 4,115.0 | -215.4 | -319.2 | -312.3 | 0.00 | 0.00 | 0.00 |
| **Sussex** | | | | | | | | | |
| 4,200.0 | 9.07 | 235.99 | 4,170.0 | -220.3 | -326.5 | -319.4 | 0.00 | 0.00 | 0.00 |
| 4,300.0 | 9.07 | 235.99 | 4,268.8 | -229.1 | -339.6 | -332.2 | 0.00 | 0.00 | 0.00 |
| 4,400.0 | 9.07 | 235.99 | 4,367.5 | -237.9 | -352.7 | -345.0 | 0.00 | 0.00 | 0.00 |

| | | | |
|---|---|---|---|
| **Database:** | US_EDM | **Local Co-ordinate Reference:** | Well Bihain 26G-202 |
| **Company:** | PETROLEUM DEVELOPMENT CORP DJ Basin | **TVD Reference:** | WELL @ 4627.0ft (RKB - 23') |
| **Project:** | SEC.26-T5N-R64W | **MD Reference:** | WELL @ 4627.0ft (RKB - 23') |
| **Site:** | Bihain 5N64W26GK Pad Sec.26-T5N-R64W | **North Reference:** | True |
| **Well:** | Bihain 26G-202 | **Survey Calculation Method:** | Minimum Curvature |
| **Wellbore:** | Wellbore #1 | | |
| **Design:** | Plan #1 Extension (3-3-16) | | |

**Planned Survey**

| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
|---|---|---|---|---|---|---|---|---|---|
| 4,500.0 | 9.07 | 235.99 | 4,466.3 | -246.7 | -365.7 | -357.8 | 0.00 | 0.00 | 0.00 |
| 4,544.3 | 9.07 | 235.99 | 4,510.0 | -250.6 | -371.5 | -363.4 | 0.00 | 0.00 | 0.00 |
| **Shannon** | | | | | | | | | |
| 4,600.0 | 9.07 | 235.99 | 4,565.0 | -255.6 | -378.8 | -370.6 | 0.00 | 0.00 | 0.00 |
| 4,700.0 | 9.07 | 235.99 | 4,663.8 | -264.4 | -391.9 | -383.3 | 0.00 | 0.00 | 0.00 |
| 4,800.0 | 9.07 | 235.99 | 4,762.5 | -273.2 | -404.9 | -396.1 | 0.00 | 0.00 | 0.00 |
| 4,886.9 | 9.07 | 235.99 | 4,848.3 | -280.9 | -416.3 | -407.2 | 0.00 | 0.00 | 0.00 |
| **Start Drop -2.00** | | | | | | | | | |
| 4,900.0 | 8.81 | 235.99 | 4,861.3 | -282.0 | -418.0 | -408.9 | 2.00 | -2.00 | 0.00 |
| 5,000.0 | 6.81 | 235.99 | 4,960.3 | -289.6 | -429.2 | -419.9 | 2.00 | -2.00 | 0.00 |
| 5,100.0 | 4.81 | 235.99 | 5,059.8 | -295.3 | -437.6 | -428.1 | 2.00 | -2.00 | 0.00 |
| 5,200.0 | 2.81 | 235.99 | 5,159.6 | -299.0 | -443.1 | -433.5 | 2.00 | -2.00 | 0.00 |
| 5,300.0 | 0.81 | 235.99 | 5,259.5 | -300.7 | -445.8 | -436.1 | 2.00 | -2.00 | 0.00 |
| 5,340.5 | 0.00 | 0.00 | 5,300.0 | -300.9 | -446.0 | -436.3 | 2.00 | -2.00 | 0.00 |
| 5,400.0 | 0.00 | 0.00 | 5,359.5 | -300.9 | -446.0 | -436.3 | 0.00 | 0.00 | 0.00 |
| 5,500.0 | 0.00 | 0.00 | 5,459.5 | -300.9 | -446.0 | -436.3 | 0.00 | 0.00 | 0.00 |
| 5,600.0 | 0.00 | 0.00 | 5,559.5 | -300.9 | -446.0 | -436.3 | 0.00 | 0.00 | 0.00 |
| 5,700.0 | 0.00 | 0.00 | 5,659.5 | -300.9 | -446.0 | -436.3 | 0.00 | 0.00 | 0.00 |
| 5,800.0 | 0.00 | 0.00 | 5,759.5 | -300.9 | -446.0 | -436.3 | 0.00 | 0.00 | 0.00 |
| 5,843.3 | 0.00 | 0.00 | 5,802.8 | -300.9 | -446.0 | -436.3 | 0.00 | 0.00 | 0.00 |
| **KOP #2 - Start Build 7.50** | | | | | | | | | |
| 5,900.0 | 4.26 | 90.00 | 5,859.5 | -300.9 | -443.9 | -434.2 | 7.51 | 7.51 | 0.00 |
| 6,000.0 | 11.76 | 90.00 | 5,958.4 | -300.9 | -430.0 | -420.3 | 7.50 | 7.50 | 0.00 |
| 6,100.0 | 19.26 | 90.00 | 6,054.7 | -300.9 | -403.3 | -393.6 | 7.50 | 7.50 | 0.00 |
| 6,200.0 | 26.76 | 90.00 | 6,146.7 | -300.9 | -364.2 | -354.5 | 7.50 | 7.50 | 0.00 |
| 6,300.0 | 34.26 | 90.00 | 6,232.8 | -300.9 | -313.5 | -303.8 | 7.50 | 7.50 | 0.00 |
| 6,400.0 | 41.76 | 90.00 | 6,311.5 | -300.9 | -251.9 | -242.3 | 7.50 | 7.50 | 0.00 |
| 6,418.2 | 43.12 | 90.00 | 6,325.0 | -300.9 | -239.6 | -230.0 | 7.50 | 7.50 | 0.00 |
| **Sharon Springs** | | | | | | | | | |
| 6,500.0 | 49.26 | 90.00 | 6,381.6 | -300.9 | -180.7 | -171.1 | 7.50 | 7.50 | 0.00 |
| 6,600.0 | 56.76 | 90.00 | 6,441.7 | -300.9 | -100.9 | -91.3 | 7.50 | 7.50 | 0.00 |
| 6,624.9 | 58.62 | 90.00 | 6,455.0 | -300.9 | -79.8 | -70.3 | 7.50 | 7.50 | 0.00 |
| **Niobrara A** | | | | | | | | | |
| 6,700.0 | 64.26 | 90.00 | 6,490.9 | -300.9 | -13.9 | -4.4 | 7.50 | 7.50 | 0.00 |
| 6,800.0 | 71.76 | 90.00 | 6,528.3 | -300.9 | 78.8 | 88.2 | 7.50 | 7.50 | 0.00 |
| 6,805.4 | 72.16 | 90.00 | 6,530.0 | -300.9 | 83.9 | 93.3 | 7.50 | 7.50 | 0.00 |
| **Niobrara B** | | | | | | | | | |
| 6,900.0 | 79.26 | 90.00 | 6,553.3 | -300.9 | 175.5 | 184.9 | 7.50 | 7.50 | 0.00 |
| 7,000.0 | 86.76 | 90.00 | 6,565.5 | -300.9 | 274.7 | 284.1 | 7.50 | 7.50 | 0.00 |
| 7,047.8 | 90.34 | 90.00 | 6,566.7 | -300.9 | 322.5 | 331.8 | 7.50 | 7.50 | 0.00 |
| **Start 9221.3 hold at 7047.8 MD - 7"** | | | | | | | | | |
| 7,100.0 | 90.34 | 90.00 | 6,566.4 | -300.9 | 374.7 | 384.0 | 0.00 | 0.00 | 0.00 |
| 7,200.0 | 90.34 | 90.00 | 6,565.8 | -300.9 | 474.7 | 483.9 | 0.00 | 0.00 | 0.00 |
| 7,300.0 | 90.34 | 90.00 | 6,565.2 | -300.9 | 574.7 | 583.9 | 0.00 | 0.00 | 0.00 |
| 7,400.0 | 90.34 | 90.00 | 6,564.6 | -300.9 | 674.7 | 683.8 | 0.00 | 0.00 | 0.00 |
| 7,500.0 | 90.34 | 90.00 | 6,564.0 | -300.9 | 774.7 | 783.8 | 0.00 | 0.00 | 0.00 |
| 7,600.0 | 90.34 | 90.00 | 6,563.4 | -300.9 | 874.7 | 883.7 | 0.00 | 0.00 | 0.00 |
| 7,700.0 | 90.34 | 90.00 | 6,562.8 | -300.9 | 974.7 | 983.7 | 0.00 | 0.00 | 0.00 |
| 7,800.0 | 90.34 | 90.00 | 6,562.3 | -300.9 | 1,074.7 | 1,083.6 | 0.00 | 0.00 | 0.00 |
| 7,900.0 | 90.34 | 90.00 | 6,561.7 | -300.9 | 1,174.7 | 1,183.6 | 0.00 | 0.00 | 0.00 |
| 8,000.0 | 90.34 | 90.00 | 6,561.1 | -300.9 | 1,274.7 | 1,283.5 | 0.00 | 0.00 | 0.00 |
| 8,100.0 | 90.34 | 90.00 | 6,560.5 | -300.9 | 1,374.7 | 1,383.5 | 0.00 | 0.00 | 0.00 |

| | | | |
|---|---|---|---|
| **Database:** | US_EDM | **Local Co-ordinate Reference:** | Well Bihain 26G-202 |
| **Company:** | PETROLEUM DEVELOPMENT CORP DJ Basin | **TVD Reference:** | WELL @ 4627.0ft (RKB - 23') |
| **Project:** | SEC.26-T5N-R64W | **MD Reference:** | WELL @ 4627.0ft (RKB - 23') |
| **Site:** | Bihain 5N64W26GK Pad Sec.26-T5N-R64W | **North Reference:** | True |
| **Well:** | Bihain 26G-202 | **Survey Calculation Method:** | Minimum Curvature |
| **Wellbore:** | Wellbore #1 | | |
| **Design:** | Plan #1 Extension (3-3-16) | | |

**Planned Survey**

| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
|---|---|---|---|---|---|---|---|---|---|
| 8,200.0 | 90.34 | 90.00 | 6,559.9 | -300.9 | 1,474.7 | 1,483.4 | 0.00 | 0.00 | 0.00 |
| 8,300.0 | 90.34 | 90.00 | 6,559.3 | -300.9 | 1,574.7 | 1,583.4 | 0.00 | 0.00 | 0.00 |
| 8,400.0 | 90.34 | 90.00 | 6,558.7 | -300.9 | 1,674.7 | 1,683.3 | 0.00 | 0.00 | 0.00 |
| 8,500.0 | 90.34 | 90.00 | 6,558.1 | -300.9 | 1,774.7 | 1,783.3 | 0.00 | 0.00 | 0.00 |
| 8,600.0 | 90.34 | 90.00 | 6,557.5 | -300.9 | 1,874.7 | 1,883.2 | 0.00 | 0.00 | 0.00 |
| 8,700.0 | 90.34 | 90.00 | 6,556.9 | -300.9 | 1,974.7 | 1,983.2 | 0.00 | 0.00 | 0.00 |
| 8,800.0 | 90.34 | 90.00 | 6,556.3 | -300.9 | 2,074.7 | 2,083.1 | 0.00 | 0.00 | 0.00 |
| 8,900.0 | 90.34 | 90.00 | 6,555.7 | -300.9 | 2,174.7 | 2,183.1 | 0.00 | 0.00 | 0.00 |
| 9,000.0 | 90.34 | 90.00 | 6,555.1 | -300.9 | 2,274.7 | 2,283.0 | 0.00 | 0.00 | 0.00 |
| 9,100.0 | 90.34 | 90.00 | 6,554.5 | -300.9 | 2,374.7 | 2,383.0 | 0.00 | 0.00 | 0.00 |
| 9,200.0 | 90.34 | 90.00 | 6,553.9 | -300.9 | 2,474.7 | 2,482.9 | 0.00 | 0.00 | 0.00 |
| 9,300.0 | 90.34 | 90.00 | 6,553.4 | -300.9 | 2,574.7 | 2,582.9 | 0.00 | 0.00 | 0.00 |
| 9,400.0 | 90.34 | 90.00 | 6,552.8 | -300.9 | 2,674.7 | 2,682.8 | 0.00 | 0.00 | 0.00 |
| 9,500.0 | 90.34 | 90.00 | 6,552.2 | -300.9 | 2,774.6 | 2,782.8 | 0.00 | 0.00 | 0.00 |
| 9,600.0 | 90.34 | 90.00 | 6,551.6 | -300.9 | 2,874.6 | 2,882.7 | 0.00 | 0.00 | 0.00 |
| 9,700.0 | 90.34 | 90.00 | 6,551.0 | -300.9 | 2,974.6 | 2,982.6 | 0.00 | 0.00 | 0.00 |
| 9,800.0 | 90.34 | 90.00 | 6,550.4 | -300.9 | 3,074.6 | 3,082.6 | 0.00 | 0.00 | 0.00 |
| 9,900.0 | 90.34 | 90.00 | 6,549.8 | -300.9 | 3,174.6 | 3,182.5 | 0.00 | 0.00 | 0.00 |
| 10,000.0 | 90.34 | 90.00 | 6,549.2 | -300.9 | 3,274.6 | 3,282.5 | 0.00 | 0.00 | 0.00 |
| 10,100.0 | 90.34 | 90.00 | 6,548.6 | -300.9 | 3,374.6 | 3,382.4 | 0.00 | 0.00 | 0.00 |
| 10,200.0 | 90.34 | 90.00 | 6,548.0 | -300.9 | 3,474.6 | 3,482.4 | 0.00 | 0.00 | 0.00 |
| 10,300.0 | 90.34 | 90.00 | 6,547.4 | -300.9 | 3,574.6 | 3,582.3 | 0.00 | 0.00 | 0.00 |
| 10,400.0 | 90.34 | 90.00 | 6,546.8 | -300.9 | 3,674.6 | 3,682.3 | 0.00 | 0.00 | 0.00 |
| 10,500.0 | 90.34 | 90.00 | 6,546.2 | -300.9 | 3,774.6 | 3,782.2 | 0.00 | 0.00 | 0.00 |
| 10,600.0 | 90.34 | 90.00 | 6,545.6 | -300.9 | 3,874.6 | 3,882.2 | 0.00 | 0.00 | 0.00 |
| 10,700.0 | 90.34 | 90.00 | 6,545.0 | -300.9 | 3,974.6 | 3,982.1 | 0.00 | 0.00 | 0.00 |
| 10,800.0 | 90.34 | 90.00 | 6,544.5 | -300.9 | 4,074.6 | 4,082.1 | 0.00 | 0.00 | 0.00 |
| 10,900.0 | 90.34 | 90.00 | 6,543.9 | -300.9 | 4,174.6 | 4,182.0 | 0.00 | 0.00 | 0.00 |
| 11,000.0 | 90.34 | 90.00 | 6,543.3 | -300.9 | 4,274.6 | 4,282.0 | 0.00 | 0.00 | 0.00 |
| 11,100.0 | 90.34 | 90.00 | 6,542.7 | -300.9 | 4,374.6 | 4,381.9 | 0.00 | 0.00 | 0.00 |
| 11,200.0 | 90.34 | 90.00 | 6,542.1 | -300.9 | 4,474.6 | 4,481.9 | 0.00 | 0.00 | 0.00 |
| 11,300.0 | 90.34 | 90.00 | 6,541.5 | -300.9 | 4,574.6 | 4,581.8 | 0.00 | 0.00 | 0.00 |
| 11,400.0 | 90.34 | 90.00 | 6,540.9 | -300.9 | 4,674.6 | 4,681.8 | 0.00 | 0.00 | 0.00 |
| 11,500.0 | 90.34 | 90.00 | 6,540.3 | -300.9 | 4,774.6 | 4,781.7 | 0.00 | 0.00 | 0.00 |
| 11,600.0 | 90.34 | 90.00 | 6,539.7 | -300.9 | 4,874.6 | 4,881.7 | 0.00 | 0.00 | 0.00 |
| 11,700.0 | 90.34 | 90.00 | 6,539.1 | -300.9 | 4,974.6 | 4,981.6 | 0.00 | 0.00 | 0.00 |
| 11,800.0 | 90.34 | 90.00 | 6,538.5 | -300.9 | 5,074.6 | 5,081.6 | 0.00 | 0.00 | 0.00 |
| 11,900.0 | 90.34 | 90.00 | 6,537.9 | -300.9 | 5,174.6 | 5,181.5 | 0.00 | 0.00 | 0.00 |
| 12,000.0 | 90.34 | 90.00 | 6,537.3 | -300.9 | 5,274.6 | 5,281.5 | 0.00 | 0.00 | 0.00 |
| 12,100.0 | 90.34 | 90.00 | 6,536.7 | -300.9 | 5,374.6 | 5,381.4 | 0.00 | 0.00 | 0.00 |
| 12,200.0 | 90.34 | 90.00 | 6,536.1 | -300.9 | 5,474.6 | 5,481.4 | 0.00 | 0.00 | 0.00 |
| 12,300.0 | 90.34 | 90.00 | 6,535.6 | -300.9 | 5,574.6 | 5,581.3 | 0.00 | 0.00 | 0.00 |
| 12,400.0 | 90.34 | 90.00 | 6,535.0 | -300.9 | 5,674.6 | 5,681.3 | 0.00 | 0.00 | 0.00 |
| 12,500.0 | 90.34 | 90.00 | 6,534.4 | -300.9 | 5,774.6 | 5,781.2 | 0.00 | 0.00 | 0.00 |
| 12,600.0 | 90.34 | 90.00 | 6,533.8 | -300.9 | 5,874.6 | 5,881.2 | 0.00 | 0.00 | 0.00 |
| 12,700.0 | 90.34 | 90.00 | 6,533.2 | -300.9 | 5,974.6 | 5,981.1 | 0.00 | 0.00 | 0.00 |
| 12,800.0 | 90.34 | 90.00 | 6,532.6 | -300.9 | 6,074.6 | 6,081.1 | 0.00 | 0.00 | 0.00 |
| 12,900.0 | 90.34 | 90.00 | 6,532.0 | -300.9 | 6,174.6 | 6,181.0 | 0.00 | 0.00 | 0.00 |
| 13,000.0 | 90.34 | 90.00 | 6,531.4 | -300.9 | 6,274.6 | 6,281.0 | 0.00 | 0.00 | 0.00 |
| 13,100.0 | 90.34 | 90.00 | 6,530.8 | -300.9 | 6,374.6 | 6,380.9 | 0.00 | 0.00 | 0.00 |
| 13,200.0 | 90.34 | 90.00 | 6,530.2 | -300.9 | 6,474.6 | 6,480.8 | 0.00 | 0.00 | 0.00 |
| 13,300.0 | 90.34 | 90.00 | 6,529.6 | -300.9 | 6,574.6 | 6,580.8 | 0.00 | 0.00 | 0.00 |
| 13,400.0 | 90.34 | 90.00 | 6,529.0 | -300.9 | 6,674.6 | 6,680.7 | 0.00 | 0.00 | 0.00 |

| | | | |
|---|---|---|---|
| **Database:** | US_EDM | **Local Co-ordinate Reference:** | Well Bihain 26G-202 |
| **Company:** | PETROLEUM DEVELOPMENT CORP DJ Basin | **TVD Reference:** | WELL @ 4627.0ft (RKB - 23') |
| **Project:** | SEC.26-T5N-R64W | **MD Reference:** | WELL @ 4627.0ft (RKB - 23') |
| **Site:** | Bihain 5N64W26GK Pad Sec.26-T5N-R64W | **North Reference:** | True |
| **Well:** | Bihain 26G-202 | **Survey Calculation Method:** | Minimum Curvature |
| **Wellbore:** | Wellbore #1 | | |
| **Design:** | Plan #1 Extension (3-3-16) | | |

**Planned Survey**

| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
|---|---|---|---|---|---|---|---|---|---|
| 13,500.0 | 90.34 | 90.00 | 6,528.4 | -300.9 | 6,774.6 | 6,780.7 | 0.00 | 0.00 | 0.00 |
| 13,600.0 | 90.34 | 90.00 | 6,527.8 | -300.9 | 6,874.6 | 6,880.6 | 0.00 | 0.00 | 0.00 |
| 13,649.0 | 90.34 | 90.00 | 6,527.5 | -300.9 | 6,923.6 | 6,929.6 | 0.00 | 0.00 | 0.00 |
| **BHL 2608'FSL & 2140'FWL, Sec.25** | | | | | | | | | |
| 13,700.0 | 90.34 | 90.00 | 6,527.2 | -300.9 | 6,974.6 | 6,980.6 | 0.00 | 0.00 | 0.00 |
| 13,800.0 | 90.34 | 90.00 | 6,526.7 | -300.9 | 7,074.6 | 7,080.5 | 0.00 | 0.00 | 0.00 |
| 13,900.0 | 90.34 | 90.00 | 6,526.1 | -300.9 | 7,174.6 | 7,180.5 | 0.00 | 0.00 | 0.00 |
| 14,000.0 | 90.34 | 90.00 | 6,525.5 | -300.9 | 7,274.6 | 7,280.4 | 0.00 | 0.00 | 0.00 |
| 14,100.0 | 90.34 | 90.00 | 6,524.9 | -300.9 | 7,374.6 | 7,380.4 | 0.00 | 0.00 | 0.00 |
| 14,200.0 | 90.34 | 90.00 | 6,524.3 | -300.9 | 7,474.6 | 7,480.3 | 0.00 | 0.00 | 0.00 |
| 14,300.0 | 90.34 | 90.00 | 6,523.7 | -300.9 | 7,574.6 | 7,580.3 | 0.00 | 0.00 | 0.00 |
| 14,400.0 | 90.34 | 90.00 | 6,523.1 | -300.9 | 7,674.6 | 7,680.2 | 0.00 | 0.00 | 0.00 |
| 14,500.0 | 90.34 | 90.00 | 6,522.5 | -300.9 | 7,774.6 | 7,780.2 | 0.00 | 0.00 | 0.00 |
| 14,600.0 | 90.34 | 90.00 | 6,521.9 | -300.9 | 7,874.6 | 7,880.1 | 0.00 | 0.00 | 0.00 |
| 14,700.0 | 90.34 | 90.00 | 6,521.3 | -300.9 | 7,974.6 | 7,980.1 | 0.00 | 0.00 | 0.00 |
| 14,800.0 | 90.34 | 90.00 | 6,520.7 | -300.9 | 8,074.6 | 8,080.0 | 0.00 | 0.00 | 0.00 |
| 14,900.0 | 90.34 | 90.00 | 6,520.1 | -300.9 | 8,174.6 | 8,180.0 | 0.00 | 0.00 | 0.00 |
| 15,000.0 | 90.34 | 90.00 | 6,519.5 | -300.9 | 8,274.6 | 8,279.9 | 0.00 | 0.00 | 0.00 |
| 15,100.0 | 90.34 | 90.00 | 6,518.9 | -300.9 | 8,374.5 | 8,379.9 | 0.00 | 0.00 | 0.00 |
| 15,200.0 | 90.34 | 90.00 | 6,518.3 | -300.9 | 8,474.5 | 8,479.8 | 0.00 | 0.00 | 0.00 |
| 15,300.0 | 90.34 | 90.00 | 6,517.8 | -300.9 | 8,574.5 | 8,579.8 | 0.00 | 0.00 | 0.00 |
| 15,400.0 | 90.34 | 90.00 | 6,517.2 | -300.9 | 8,674.5 | 8,679.7 | 0.00 | 0.00 | 0.00 |
| 15,500.0 | 90.34 | 90.00 | 6,516.6 | -300.9 | 8,774.5 | 8,779.7 | 0.00 | 0.00 | 0.00 |
| 15,600.0 | 90.34 | 90.00 | 6,516.0 | -300.9 | 8,874.5 | 8,879.6 | 0.00 | 0.00 | 0.00 |
| 15,700.0 | 90.34 | 90.00 | 6,515.4 | -300.9 | 8,974.5 | 8,979.6 | 0.00 | 0.00 | 0.00 |
| 15,800.0 | 90.34 | 90.00 | 6,514.8 | -300.9 | 9,074.5 | 9,079.5 | 0.00 | 0.00 | 0.00 |
| 15,900.0 | 90.34 | 90.00 | 6,514.2 | -300.9 | 9,174.5 | 9,179.5 | 0.00 | 0.00 | 0.00 |
| 16,000.0 | 90.34 | 90.00 | 6,513.6 | -300.9 | 9,274.5 | 9,279.4 | 0.00 | 0.00 | 0.00 |
| 16,100.0 | 90.34 | 90.00 | 6,513.0 | -300.9 | 9,374.5 | 9,379.4 | 0.00 | 0.00 | 0.00 |
| 16,200.0 | 90.34 | 90.00 | 6,512.4 | -300.9 | 9,474.5 | 9,479.3 | 0.00 | 0.00 | 0.00 |
| 16,269.0 | 90.34 | 90.00 | 6,512.0 | -300.9 | 9,543.5 | 9,548.3 | 0.00 | 0.00 | 0.00 |
| **TD at 16269.0 - BHL 2588'FSL & 500'FEL, Sec.25** | | | | | | | | | |

**Design Targets**

| Target Name - hit/miss target - Shape | Dip Angle (°) | Dip Dir. (°) | TVD (ft) | +N/-S (ft) | +E/-W (ft) | Northing (usft) | Easting (usft) | Latitude | Longitude |
|---|---|---|---|---|---|---|---|---|---|
| SHL 2387'FNL & 496'FW<br>- plan hits target center<br>- Point | 0.00 | 0.00 | 11.0 | 0.0 | 0.0 | 1,379,515.23 | 3,271,762.77 | 40.371068 | -104.524624 |
| BHL 2588'FSL & 500'FE<br>- plan hits target center<br>- Point | 0.00 | 0.00 | 6,512.0 | -300.9 | 9,543.6 | 1,379,319.33 | 3,281,308.67 | 40.370237 | -104.490374 |

| | | | |
|---|---|---|---|
| **Database:** | US_EDM | **Local Co-ordinate Reference:** | Well Bihain 26G-202 |
| **Company:** | PETROLEUM DEVELOPMENT CORP DJ Basin | **TVD Reference:** | WELL @ 4627.0ft (RKB - 23') |
| **Project:** | SEC.26-T5N-R64W | **MD Reference:** | WELL @ 4627.0ft (RKB - 23') |
| **Site:** | Bihain 5N64W26GK Pad Sec.26-T5N-R64W | **North Reference:** | True |
| **Well:** | Bihain 26G-202 | **Survey Calculation Method:** | Minimum Curvature |
| **Wellbore:** | Wellbore #1 | | |
| **Design:** | Plan #1 Extension (3-3-16) | | |

**Casing Points**

| Measured Depth (ft) | Vertical Depth (ft) | Name | Casing Diameter (") | Hole Diameter (") |
|---|---|---|---|---|
| 7,047.8 | 6,566.7 | 7" | 7 | 8-3/4 |

**Formations**

| Measured Depth (ft) | Vertical Depth (ft) | Name | Lithology | Dip (°) | Dip Direction (°) |
|---|---|---|---|---|---|
| 3,430.4 | 3,410.0 | Parkman | | 0.00 | |
| 4,144.3 | 4,115.0 | Sussex | | 0.00 | |
| 4,544.3 | 4,510.0 | Shannon | | 0.00 | |
| 6,418.2 | 6,325.0 | Sharon Springs | | 0.00 | |
| 6,624.9 | 6,455.0 | Niobrara A | | 0.00 | |
| 6,805.4 | 6,530.0 | Niobrara B | | 0.00 | |

**Plan Annotations**

| Measured Depth (ft) | Vertical Depth (ft) | Local Coordinates +N/-S (ft) | Local Coordinates +E/-W (ft) | Comment |
|---|---|---|---|---|
| 1,400.0 | 1,400.0 | 0.0 | 0.0 | KOP - Start Build 1.50 |
| 4,886.9 | 4,848.3 | -26.7 | -39.6 | Start Drop -2.00 |
| 5,843.3 | 5,802.8 | -280.9 | -416.3 | KOP #2 - Start Build 7.50 |
| 7,047.8 | 6,566.7 | -300.9 | -446.0 | Start 9221.3 hold at 7047.8 MD |
| 16,269.0 | 6,512.0 | -300.9 | -446.0 | TD at 16269.0 |

ENSIGN Directional

# PETROLEUM DEVELOPMENT CORP DJ Basin

**SEC.26-T5N-R64W**
**Bihain 5N64W26GK Pad Sec.26-T5N-R64W**
**Bihain 26G-202**

**Wellbore #1**
**Plan #1 Extension (3-3-16)**

# Anticollision Report

**09 March, 2016**

PDC ENERGY
Growing E&P Value

| | | | |
|---|---|---|---|
| **Company:** | PETROLEUM DEVELOPMENT CORP DJ Basin | **Local Co-ordinate Reference:** | Well Bihain 26G-202 |
| **Project:** | SEC.26-T5N-R64W | **TVD Reference:** | WELL @ 4627.0ft (RKB - 23') |
| **Reference Site:** | Bihain 5N64W26GK Pad Sec.26-T5N-R64W | **MD Reference:** | WELL @ 4627.0ft (RKB - 23') |
| **Site Error:** | 0.0 ft | **North Reference:** | True |
| **Reference Well:** | Bihain 26G-202 | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.0 ft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | Wellbore #1 | **Database:** | US_EDM |
| **Reference Design:** | Plan #1 Extension (3-3-16) | **Offset TVD Reference:** | Offset Datum |

**Reference** Plan #1 Extension (3-3-16)

| | | | |
|---|---|---|---|
| **Filter type:** | NO GLOBAL FILTER: Using user defined selection & filtering criteria | | |
| **Interpolation Method:** | Stations | **Error Model:** | ISCWSA |
| **Depth Range:** | Unlimited | **Scan Method:** | Closest Approach 3D |
| **Results Limited by:** | Maximum center-center distance of 1,000.0 ft | **Error Surface:** | Elliptical Conic |
| **Warning Levels Evaluated at:** | 2.00 **Sigma** | **Casing Method:** | Not applied |

**Survey Tool Program** **Date** 3/9/2016

| From (ft) | To (ft) | Survey (Wellbore) | Tool Name | Description |
|---|---|---|---|---|
| 0.0 | 16,269.0 | Plan #1 Extension (3-3-16) (Wellbore #1) | MWD | MWD - Standard |

**Summary**

| Site Name / Offset Well - Wellbore - Design | Reference Measured Depth (ft) | Offset Measured Depth (ft) | Distance Between Centres (ft) | Distance Between Ellipses (ft) | Separation Factor | Warning |
|---|---|---|---|---|---|---|
| Bihain 5N64W26GK Pad Sec.26-T5N-R64W | | | | | | |
| Bihain 26F-232 - Wellbore #1 - Plan #1 Extention (3-3-16 | 1,000.0 | 1,000.0 | 60.0 | 55.8 | 14.055 | CC, ES |
| Bihain 26F-232 - Wellbore #1 - Plan #1 Extention (3-3-16 | 16,269.0 | 16,284.8 | 991.5 | 442.8 | 1.807 | SF |
| Bihain 26F-332 - Wellbore #1 - Plan #1 Extension (3-3-16 | 1,200.0 | 1,200.0 | 45.0 | 39.8 | 8.695 | CC, ES |
| Bihain 26F-332 - Wellbore #1 - Plan #1 Extension (3-3-16 | 16,269.0 | 16,344.5 | 785.8 | 240.1 | 1.440 | Level 3, SF |
| Bihain 26G-212 - Wellbore #1 - Plan #1 Extended (3-3-16 | 1,620.5 | 1,620.3 | 28.8 | 21.8 | 4.116 | CC |
| Bihain 26G-212 - Wellbore #1 - Plan #1 Extended (3-3-16 | 16,269.0 | 16,253.1 | 471.7 | -77.0 | 0.860 | Level 1, ES, SF |
| Bihain 26G-312 - Wellbore #1 - Plan #1 Extension (3-4-1 | 1,583.4 | 1,583.3 | 14.4 | 7.6 | 2.106 | CC |
| Bihain 26G-312 - Wellbore #1 - Plan #1 Extension (3-4-1 | 16,269.0 | 16,334.1 | 246.5 | -274.7 | 0.473 | Level 1, ES, SF |
| Existing Wells Pad Sec.26-T5N-R64W | | | | | | |
| Bihain 26-2 (Exist.) - Wellbore #1 - Wellbore #1 | 8,224.4 | 6,529.7 | 694.8 | 513.7 | 3.837 | CC, ES |
| Bihain 26-2 (Exist.) - Wellbore #1 - Wellbore #1 | 8,300.0 | 6,529.3 | 698.9 | 515.8 | 3.817 | SF |
| Bihain 26-3 (Exist.) - Wellbore #1 - Wellbore #1 | 1,400.0 | 1,372.0 | 457.0 | 426.5 | 14.995 | CC |
| Bihain 26-3 (Exist.) - Wellbore #1 - Wellbore #1 | 1,500.0 | 1,472.0 | 458.1 | 425.4 | 14.022 | ES |
| Bihain 26-3 (Exist.) - Wellbore #1 - Wellbore #1 | 7,000.0 | 6,537.5 | 720.7 | 569.0 | 4.753 | SF |
| Monfort Kuner B 26-7 (Exist.) - Wellbore #1 - Wellbore #1 | 9,552.1 | 6,517.9 | 722.2 | 505.2 | 3.328 | CC, ES |
| Monfort Kuner B 26-7 (Exist.) - Wellbore #1 - Wellbore #1 | 9,600.0 | 6,517.6 | 723.8 | 505.4 | 3.315 | SF |
| Monfort Kuner B 26-8 (Exist.) - Wellbore #1 - Wellbore #1 | 10,799.2 | 6,510.8 | 681.1 | 546.7 | 5.069 | CC |
| Monfort Kuner B 26-8 (Exist.) - Wellbore #1 - Wellbore #1 | 10,800.0 | 6,510.7 | 681.1 | 546.7 | 5.068 | ES |
| Monfort Kuner B 26-8 (Exist.) - Wellbore #1 - Wellbore #1 | 10,900.0 | 6,504.5 | 688.5 | 551.3 | 5.020 | SF |
| Kuner 8-2-25 Pad Sec.25-T5N-R64W | | | | | | |
| Kuner 32-25 - Wellbore #1 - Wellbore #1 | 14,773.3 | 6,832.9 | 702.9 | 435.0 | 2.623 | CC |
| Kuner 32-25 - Wellbore #1 - Wellbore #1 | 14,800.0 | 6,832.1 | 703.4 | 434.7 | 2.618 | ES, SF |
| Kuner 42-25 - Wellbore #1 - Wellbore #1 | 16,081.0 | 6,569.0 | 715.7 | 430.4 | 2.509 | CC |
| Kuner 42-25 - Wellbore #1 - Wellbore #1 | 16,100.0 | 6,568.8 | 715.9 | 430.1 | 2.505 | ES, SF |
| Kuner 6-4-25 - Wellbore #1 - Wellbore #1 | 15,472.1 | 6,782.8 | 139.4 | -137.0 | 0.504 | Level 1, CC, ES, SF |
| Loloff Farms 5N64W26G Pad Sec.26-T5N-R64W | | | | | | |
| Loloff Farms 26G-432 - Wellbore #1 - Extension Plan #1 | 5,843.3 | 5,830.0 | 264.8 | 238.3 | 9.980 | CC |
| Loloff Farms 26G-432 - Wellbore #1 - Extension Plan #1 | 16,269.0 | 16,426.7 | 309.4 | -167.8 | 0.648 | Level 1, ES, SF |

| | | | |
|---|---|---|---|
| **Company:** | PETROLEUM DEVELOPMENT CORP DJ Basin | **Local Co-ordinate Reference:** | Well Bihain 26G-202 |
| **Project:** | SEC.26-T5N-R64W | **TVD Reference:** | WELL @ 4627.0ft (RKB - 23') |
| **Reference Site:** | Bihain 5N64W26GK Pad Sec.26-T5N-R64W | **MD Reference:** | WELL @ 4627.0ft (RKB - 23') |
| **Site Error:** | 0.0 ft | **North Reference:** | True |
| **Reference Well:** | Bihain 26G-202 | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.0 ft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | Wellbore #1 | **Database:** | US_EDM |
| **Reference Design:** | Plan #1 Extension (3-3-16) | **Offset TVD Reference:** | Offset Datum |

**Offset Design** Bihain 5N64W26GK Pad Sec.26-T5N-R64W - Bihain 26F-232 - Wellbore #1 - Plan #1 Extention (3-3-16)

**Offset Site Error:** 0.0 ft

**Survey Program:** 0-MWD

**Offset Well Error:** 0.0 ft

| Reference Measured Depth (ft) | Reference Vertical Depth (ft) | Offset Measured Depth (ft) | Offset Vertical Depth (ft) | Semi Major Axis Reference (ft) | Semi Major Axis Offset (ft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (ft) | Offset Wellbore Centre +E/-W (ft) | Distance Between Centres (ft) | Distance Between Ellipses (ft) | Minimum Separation (ft) | Separation Factor | Warning |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -50.41 | 38.3 | -46.3 | 60.0 | | | | |
| 100.0 | 100.0 | 100.0 | 100.0 | 0.1 | 0.1 | -50.41 | 38.3 | -46.3 | 60.0 | 59.8 | 0.22 | 267.045 | |
| 200.0 | 200.0 | 200.0 | 200.0 | 0.3 | 0.3 | -50.41 | 38.3 | -46.3 | 60.0 | 59.3 | 0.67 | 89.015 | |
| 300.0 | 300.0 | 300.0 | 300.0 | 0.6 | 0.6 | -50.41 | 38.3 | -46.3 | 60.0 | 58.9 | 1.12 | 53.409 | |
| 400.0 | 400.0 | 400.0 | 400.0 | 0.8 | 0.8 | -50.41 | 38.3 | -46.3 | 60.0 | 58.4 | 1.57 | 38.149 | |
| 500.0 | 500.0 | 500.0 | 500.0 | 1.0 | 1.0 | -50.41 | 38.3 | -46.3 | 60.0 | 58.0 | 2.02 | 29.672 | |
| 600.0 | 600.0 | 600.0 | 600.0 | 1.2 | 1.2 | -50.41 | 38.3 | -46.3 | 60.0 | 57.6 | 2.47 | 24.277 | |
| 700.0 | 700.0 | 700.0 | 700.0 | 1.5 | 1.5 | -50.41 | 38.3 | -46.3 | 60.0 | 57.1 | 2.92 | 20.542 | |
| 800.0 | 800.0 | 800.0 | 800.0 | 1.7 | 1.7 | -50.41 | 38.3 | -46.3 | 60.0 | 56.7 | 3.37 | 17.803 | |
| 900.0 | 900.0 | 900.0 | 900.0 | 1.9 | 1.9 | -50.41 | 38.3 | -46.3 | 60.0 | 56.2 | 3.82 | 15.709 | |
| 1,000.0 | 1,000.0 | 1,000.0 | 1,000.0 | 2.1 | 2.1 | -50.41 | 38.3 | -46.3 | 60.0 | 55.8 | 4.27 | 14.055 | CC, ES |
| 1,100.0 | 1,100.0 | 1,098.5 | 1,098.5 | 2.4 | 2.4 | -50.02 | 39.3 | -46.9 | 61.2 | 56.5 | 4.71 | 12.991 | |
| 1,200.0 | 1,200.0 | 1,196.9 | 1,196.8 | 2.6 | 2.6 | -48.96 | 42.6 | -48.9 | 64.9 | 59.8 | 5.16 | 12.590 | |
| 1,300.0 | 1,300.0 | 1,295.0 | 1,294.7 | 2.8 | 2.8 | -47.43 | 48.0 | -52.2 | 71.1 | 65.5 | 5.60 | 12.690 | |
| 1,400.0 | 1,400.0 | 1,392.8 | 1,392.1 | 3.0 | 3.0 | -45.69 | 55.4 | -56.8 | 79.8 | 73.7 | 6.05 | 13.178 | |
| 1,500.0 | 1,500.0 | 1,490.0 | 1,488.6 | 3.2 | 3.3 | 80.69 | 65.0 | -62.7 | 90.8 | 84.3 | 6.47 | 14.026 | |
| 1,600.0 | 1,599.9 | 1,586.4 | 1,584.1 | 3.4 | 3.5 | 84.11 | 76.6 | -69.7 | 104.1 | 97.3 | 6.88 | 15.131 | |
| 1,700.0 | 1,699.7 | 1,682.0 | 1,678.4 | 3.6 | 3.8 | 87.96 | 90.0 | -78.0 | 120.2 | 112.9 | 7.30 | 16.458 | |
| 1,800.0 | 1,799.3 | 1,778.2 | 1,772.9 | 3.8 | 4.1 | 91.93 | 105.3 | -87.4 | 138.9 | 131.2 | 7.74 | 17.948 | |
| 1,900.0 | 1,898.6 | 1,875.6 | 1,868.6 | 4.1 | 4.4 | 95.85 | 121.1 | -97.1 | 158.8 | 150.6 | 8.20 | 19.370 | |
| 2,004.8 | 2,002.2 | 1,977.3 | 1,968.4 | 4.3 | 4.8 | 99.81 | 137.5 | -107.1 | 180.8 | 172.1 | 8.71 | 20.767 | |
| 2,100.0 | 2,096.3 | 2,069.5 | 2,058.9 | 4.6 | 5.1 | 103.26 | 152.4 | -116.3 | 201.7 | 192.5 | 9.19 | 21.948 | |
| 2,200.0 | 2,195.0 | 2,166.3 | 2,154.0 | 4.9 | 5.5 | 106.19 | 168.1 | -125.9 | 224.3 | 214.6 | 9.72 | 23.081 | |
| 2,300.0 | 2,293.8 | 2,263.2 | 2,249.0 | 5.2 | 5.9 | 108.58 | 183.7 | -135.5 | 247.4 | 237.2 | 10.26 | 24.106 | |
| 2,400.0 | 2,392.5 | 2,360.0 | 2,344.1 | 5.5 | 6.2 | 110.56 | 199.4 | -145.1 | 270.8 | 260.0 | 10.82 | 25.031 | |
| 2,500.0 | 2,491.3 | 2,456.8 | 2,439.2 | 5.8 | 6.6 | 112.23 | 215.1 | -154.7 | 294.5 | 283.1 | 11.39 | 25.865 | |
| 2,600.0 | 2,590.0 | 2,553.6 | 2,534.3 | 6.1 | 7.0 | 113.65 | 230.7 | -164.3 | 318.4 | 306.4 | 11.96 | 26.617 | |
| 2,700.0 | 2,688.8 | 2,650.5 | 2,629.3 | 6.4 | 7.4 | 114.87 | 246.4 | -173.9 | 342.4 | 329.9 | 12.54 | 27.297 | |
| 2,800.0 | 2,787.5 | 2,747.3 | 2,724.4 | 6.8 | 7.7 | 115.93 | 262.0 | -183.5 | 366.6 | 353.4 | 13.13 | 27.913 | |
| 2,900.0 | 2,886.3 | 2,844.1 | 2,819.5 | 7.1 | 8.1 | 116.86 | 277.7 | -193.1 | 390.8 | 377.1 | 13.73 | 28.473 | |
| 3,000.0 | 2,985.0 | 2,941.0 | 2,914.5 | 7.5 | 8.5 | 117.69 | 293.3 | -202.7 | 415.2 | 400.9 | 14.33 | 28.982 | |
| 3,100.0 | 3,083.8 | 3,037.8 | 3,009.6 | 7.8 | 8.9 | 118.42 | 309.0 | -212.3 | 439.6 | 424.7 | 14.93 | 29.447 | |
| 3,200.0 | 3,182.5 | 3,134.6 | 3,104.7 | 8.2 | 9.3 | 119.07 | 324.7 | -221.9 | 464.1 | 448.6 | 15.54 | 29.873 | |
| 3,300.0 | 3,281.3 | 3,231.4 | 3,199.7 | 8.5 | 9.7 | 119.66 | 340.3 | -231.5 | 488.6 | 472.5 | 16.15 | 30.264 | |
| 3,400.0 | 3,380.0 | 3,328.3 | 3,294.8 | 8.9 | 10.1 | 120.20 | 356.0 | -241.1 | 513.2 | 496.4 | 16.76 | 30.625 | |
| 3,500.0 | 3,478.8 | 3,425.1 | 3,389.9 | 9.2 | 10.5 | 120.68 | 371.6 | -250.7 | 537.8 | 520.5 | 17.37 | 30.957 | |
| 3,600.0 | 3,577.5 | 3,521.9 | 3,484.9 | 9.6 | 10.9 | 121.12 | 387.3 | -260.3 | 562.5 | 544.5 | 17.99 | 31.265 | |
| 3,700.0 | 3,676.3 | 3,618.7 | 3,580.0 | 9.9 | 11.3 | 121.53 | 402.9 | -269.9 | 587.2 | 568.5 | 18.61 | 31.550 | |
| 3,800.0 | 3,775.0 | 3,715.6 | 3,675.1 | 10.3 | 11.7 | 121.90 | 418.6 | -279.5 | 611.9 | 592.6 | 19.23 | 31.815 | |
| 3,900.0 | 3,873.8 | 3,812.4 | 3,770.1 | 10.7 | 12.1 | 122.24 | 434.3 | -289.1 | 636.6 | 616.7 | 19.85 | 32.063 | |
| 4,000.0 | 3,972.5 | 3,909.2 | 3,865.2 | 11.0 | 12.5 | 122.56 | 449.9 | -298.7 | 661.3 | 640.9 | 20.48 | 32.293 | |
| 4,100.0 | 4,071.3 | 4,006.0 | 3,960.3 | 11.4 | 12.9 | 122.85 | 465.6 | -308.3 | 686.1 | 665.0 | 21.10 | 32.509 | |
| 4,200.0 | 4,170.0 | 4,102.9 | 4,055.4 | 11.8 | 13.3 | 123.13 | 481.2 | -317.9 | 710.9 | 689.1 | 21.73 | 32.712 | |
| 4,300.0 | 4,268.8 | 4,199.7 | 4,150.4 | 12.1 | 13.7 | 123.39 | 496.9 | -327.5 | 735.7 | 713.3 | 22.36 | 32.901 | |
| 4,400.0 | 4,367.5 | 4,296.5 | 4,245.5 | 12.5 | 14.1 | 123.62 | 512.5 | -337.1 | 760.5 | 737.5 | 22.99 | 33.080 | |
| 4,500.0 | 4,466.3 | 4,393.4 | 4,340.6 | 12.9 | 14.5 | 123.85 | 528.2 | -346.7 | 785.3 | 761.7 | 23.62 | 33.248 | |
| 4,600.0 | 4,565.0 | 4,490.2 | 4,435.6 | 13.2 | 14.9 | 124.06 | 543.9 | -356.3 | 810.1 | 785.9 | 24.25 | 33.407 | |
| 4,700.0 | 4,663.8 | 4,587.0 | 4,530.7 | 13.6 | 15.3 | 124.26 | 559.5 | -365.9 | 835.0 | 810.1 | 24.88 | 33.557 | |
| 4,800.0 | 4,762.5 | 4,683.8 | 4,625.8 | 14.0 | 15.7 | 124.44 | 575.2 | -375.5 | 859.8 | 834.3 | 25.51 | 33.699 | |
| 4,886.9 | 4,848.3 | 4,768.0 | 4,708.4 | 14.3 | 16.0 | 124.60 | 588.8 | -383.9 | 881.4 | 855.4 | 26.06 | 33.816 | |
| 4,900.0 | 4,861.3 | 4,780.7 | 4,720.8 | 14.4 | 16.1 | 124.67 | 590.8 | -385.1 | 884.7 | 858.5 | 26.15 | 33.827 | |

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

| | | | |
|---|---|---|---|
| **Company:** | PETROLEUM DEVELOPMENT CORP DJ Basin | **Local Co-ordinate Reference:** | Well Bihain 26G-202 |
| **Project:** | SEC.26-T5N-R64W | **TVD Reference:** | WELL @ 4627.0ft (RKB - 23') |
| **Reference Site:** | Bihain 5N64W26GK Pad Sec.26-T5N-R64W | **MD Reference:** | WELL @ 4627.0ft (RKB - 23') |
| **Site Error:** | 0.0 ft | **North Reference:** | True |
| **Reference Well:** | Bihain 26G-202 | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.0 ft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | Wellbore #1 | **Database:** | US_EDM |
| **Reference Design:** | Plan #1 Extension (3-3-16) | **Offset TVD Reference:** | Offset Datum |

**Offset Design** Bihain 5N64W26GK Pad Sec.26-T5N-R64W - Bihain 26F-232 - Wellbore #1 - Plan #1 Extention (3-3-16)

**Offset Site Error:** 0.0 ft

**Survey Program:** 0-MWD

**Offset Well Error:** 0.0 ft

| Reference Measured Depth (ft) | Reference Vertical Depth (ft) | Offset Measured Depth (ft) | Offset Vertical Depth (ft) | Semi Major Axis Reference (ft) | Semi Major Axis Offset (ft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (ft) | Offset Wellbore Centre +E/-W (ft) | Distance Between Centres (ft) | Distance Between Ellipses (ft) | Minimum Separation (ft) | Separation Factor | Warning |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5,000.0 | 4,960.3 | 4,877.8 | 4,816.2 | 14.6 | 16.5 | 125.12 | 606.5 | -394.8 | 908.3 | 881.5 | 26.77 | 33.933 | |
| 5,100.0 | 5,059.8 | 4,975.4 | 4,912.1 | 14.8 | 16.9 | 125.35 | 622.3 | -404.5 | 930.0 | 902.6 | 27.35 | 34.007 | |
| 5,200.0 | 5,159.6 | 5,073.3 | 5,008.2 | 15.0 | 17.3 | 125.37 | 638.1 | -414.2 | 949.7 | 921.8 | 27.89 | 34.053 | |
| 5,300.0 | 5,259.5 | 5,190.9 | 5,123.8 | 15.2 | 17.7 | 125.13 | 656.5 | -425.4 | 967.0 | 938.6 | 28.42 | 34.029 | |
| 5,340.5 | 5,300.0 | 5,246.9 | 5,179.1 | 15.3 | 17.9 | 0.95 | 663.9 | -430.0 | 972.5 | 943.0 | 29.48 | 32.989 | |
| 5,400.0 | 5,359.5 | 5,329.8 | 5,261.3 | 15.4 | 18.1 | 0.60 | 673.3 | -435.7 | 979.2 | 949.4 | 29.80 | 32.859 | |
| 5,500.0 | 5,459.5 | 5,470.4 | 5,401.2 | 15.5 | 18.4 | 0.20 | 684.6 | -442.6 | 987.2 | 956.9 | 30.29 | 32.596 | |
| 5,600.0 | 5,559.5 | 5,612.0 | 5,542.6 | 15.7 | 18.7 | 0.00 | 690.0 | -446.0 | 991.0 | 960.3 | 30.71 | 32.272 | |
| 5,700.0 | 5,659.5 | 5,728.9 | 5,659.5 | 15.8 | 18.8 | -0.01 | 690.5 | -446.3 | 991.4 | 960.3 | 31.05 | 31.925 | |
| 5,800.0 | 5,759.5 | 5,828.9 | 5,759.5 | 16.0 | 19.0 | -0.01 | 690.5 | -446.3 | 991.4 | 960.0 | 31.38 | 31.588 | |
| 5,843.3 | 5,802.8 | 5,872.1 | 5,802.8 | 16.0 | 19.0 | -0.01 | 690.5 | -446.3 | 991.4 | 959.8 | 31.53 | 31.444 | |
| 5,850.0 | 5,809.5 | 5,878.9 | 5,809.5 | 16.1 | 19.0 | -90.01 | 690.5 | -446.2 | 991.4 | 960.8 | 30.55 | 32.455 | |
| 5,900.0 | 5,859.5 | 5,928.9 | 5,859.5 | 16.1 | 19.1 | -90.02 | 690.5 | -444.2 | 991.4 | 960.7 | 30.67 | 32.322 | |
| 5,950.0 | 5,909.2 | 5,978.9 | 5,909.2 | 16.1 | 19.1 | -90.02 | 690.5 | -438.9 | 991.4 | 960.6 | 30.75 | 32.238 | |
| 6,000.0 | 5,958.4 | 6,028.9 | 5,958.5 | 16.2 | 19.2 | -90.02 | 690.5 | -430.3 | 991.4 | 960.6 | 30.79 | 32.198 | |
| 6,050.0 | 6,007.0 | 6,079.0 | 6,007.1 | 16.2 | 19.2 | -90.02 | 690.5 | -418.5 | 991.4 | 960.6 | 30.79 | 32.196 | |
| 6,100.0 | 6,054.7 | 6,129.0 | 6,054.9 | 16.1 | 19.1 | -90.02 | 690.5 | -403.6 | 991.4 | 960.6 | 30.77 | 32.223 | |
| 6,150.0 | 6,101.4 | 6,179.0 | 6,101.5 | 16.1 | 19.1 | -90.02 | 690.5 | -385.6 | 991.4 | 960.6 | 30.72 | 32.271 | |
| 6,200.0 | 6,146.7 | 6,229.0 | 6,146.9 | 16.1 | 19.1 | -90.02 | 690.5 | -364.6 | 991.4 | 960.7 | 30.67 | 32.326 | |
| 6,250.0 | 6,190.6 | 6,279.1 | 6,190.8 | 16.0 | 19.0 | -90.03 | 690.5 | -340.6 | 991.4 | 960.7 | 30.62 | 32.375 | |
| 6,300.0 | 6,232.8 | 6,329.1 | 6,233.1 | 16.0 | 19.0 | -90.03 | 690.5 | -313.9 | 991.4 | 960.8 | 30.60 | 32.399 | |
| 6,350.0 | 6,273.2 | 6,379.1 | 6,273.5 | 15.9 | 18.9 | -90.03 | 690.5 | -284.4 | 991.4 | 960.7 | 30.62 | 32.377 | |
| 6,400.0 | 6,311.5 | 6,429.2 | 6,311.9 | 15.9 | 18.9 | -90.03 | 690.5 | -252.3 | 991.4 | 960.6 | 30.70 | 32.288 | |
| 6,450.0 | 6,347.7 | 6,479.2 | 6,348.1 | 15.9 | 18.8 | -90.03 | 690.5 | -217.8 | 991.4 | 960.5 | 30.87 | 32.109 | |
| 6,500.0 | 6,381.6 | 6,529.2 | 6,382.0 | 15.9 | 18.8 | -90.03 | 690.5 | -181.0 | 991.4 | 960.2 | 31.15 | 31.820 | |
| 6,550.0 | 6,413.0 | 6,579.3 | 6,413.4 | 16.0 | 18.7 | -90.03 | 690.5 | -142.1 | 991.4 | 959.8 | 31.56 | 31.407 | |
| 6,600.0 | 6,441.7 | 6,629.3 | 6,442.1 | 16.1 | 18.7 | -90.03 | 690.5 | -101.1 | 991.4 | 959.2 | 32.12 | 30.861 | |
| 6,650.0 | 6,467.7 | 6,679.3 | 6,468.2 | 16.4 | 18.6 | -90.03 | 690.5 | -58.4 | 991.4 | 958.5 | 32.84 | 30.184 | |
| 6,700.0 | 6,490.9 | 6,729.4 | 6,491.4 | 16.7 | 18.6 | -90.03 | 690.5 | -14.1 | 991.4 | 957.6 | 33.74 | 29.386 | |
| 6,750.0 | 6,511.1 | 6,779.4 | 6,511.6 | 17.2 | 18.5 | -90.03 | 690.5 | 31.7 | 991.4 | 956.5 | 34.80 | 28.486 | |
| 6,800.0 | 6,528.3 | 6,829.4 | 6,528.8 | 17.7 | 18.5 | -90.03 | 690.5 | 78.6 | 991.3 | 955.3 | 36.04 | 27.510 | |
| 6,850.0 | 6,542.4 | 6,879.5 | 6,542.9 | 18.4 | 19.1 | -90.03 | 690.5 | 126.6 | 991.3 | 953.9 | 37.43 | 26.483 | |
| 6,900.0 | 6,553.3 | 6,929.5 | 6,553.8 | 19.2 | 19.9 | -90.03 | 690.4 | 175.4 | 991.3 | 952.4 | 38.98 | 25.434 | |
| 6,950.0 | 6,561.0 | 6,979.5 | 6,561.5 | 20.0 | 20.7 | -90.03 | 690.4 | 224.9 | 991.3 | 950.7 | 40.65 | 24.387 | |
| 7,000.0 | 6,565.5 | 7,029.6 | 6,566.0 | 20.9 | 21.7 | -90.03 | 690.4 | 274.7 | 991.3 | 948.9 | 42.43 | 23.362 | |
| 7,047.8 | 6,566.7 | 7,077.4 | 6,567.2 | 21.8 | 22.6 | -90.03 | 690.4 | 322.5 | 991.3 | 947.1 | 44.22 | 22.420 | |
| 7,100.0 | 6,566.4 | 7,129.6 | 6,566.9 | 22.8 | 23.6 | -90.03 | 690.4 | 374.7 | 991.3 | 945.1 | 46.28 | 21.422 | |
| 7,200.0 | 6,565.8 | 7,229.6 | 6,566.5 | 24.9 | 25.8 | -90.04 | 690.4 | 474.7 | 991.3 | 940.9 | 50.43 | 19.658 | |
| 7,300.0 | 6,565.2 | 7,329.6 | 6,566.1 | 27.1 | 28.0 | -90.05 | 690.4 | 574.7 | 991.3 | 936.5 | 54.85 | 18.075 | |
| 7,400.0 | 6,564.6 | 7,429.6 | 6,565.6 | 29.4 | 30.3 | -90.06 | 690.4 | 674.7 | 991.3 | 931.9 | 59.46 | 16.671 | |
| 7,500.0 | 6,564.0 | 7,529.6 | 6,565.2 | 31.8 | 32.7 | -90.07 | 690.4 | 774.7 | 991.3 | 927.1 | 64.24 | 15.431 | |
| 7,600.0 | 6,563.4 | 7,629.6 | 6,564.8 | 34.3 | 35.1 | -90.08 | 690.4 | 874.7 | 991.3 | 922.2 | 69.15 | 14.336 | |
| 7,700.0 | 6,562.8 | 7,729.6 | 6,564.3 | 36.8 | 37.6 | -90.09 | 690.4 | 974.7 | 991.3 | 917.2 | 74.16 | 13.368 | |
| 7,800.0 | 6,562.3 | 7,829.6 | 6,563.9 | 39.4 | 40.2 | -90.09 | 690.4 | 1,074.7 | 991.3 | 912.1 | 79.25 | 12.509 | |
| 7,900.0 | 6,561.7 | 7,929.6 | 6,563.5 | 42.0 | 42.7 | -90.10 | 690.4 | 1,174.7 | 991.3 | 906.9 | 84.41 | 11.745 | |
| 8,000.0 | 6,561.1 | 8,029.6 | 6,563.0 | 44.6 | 45.3 | -90.11 | 690.4 | 1,274.7 | 991.3 | 901.7 | 89.62 | 11.062 | |
| 8,100.0 | 6,560.5 | 8,129.6 | 6,562.6 | 47.2 | 48.0 | -90.12 | 690.4 | 1,374.7 | 991.3 | 896.5 | 94.88 | 10.449 | |
| 8,200.0 | 6,559.9 | 8,229.6 | 6,562.1 | 49.9 | 50.6 | -90.13 | 690.4 | 1,474.7 | 991.3 | 891.2 | 100.18 | 9.896 | |
| 8,300.0 | 6,559.3 | 8,329.6 | 6,561.7 | 52.5 | 53.2 | -90.14 | 690.4 | 1,574.7 | 991.3 | 885.8 | 105.51 | 9.396 | |
| 8,400.0 | 6,558.7 | 8,429.6 | 6,561.3 | 55.2 | 55.9 | -90.15 | 690.4 | 1,674.7 | 991.3 | 880.5 | 110.87 | 8.942 | |
| 8,500.0 | 6,558.1 | 8,529.6 | 6,560.8 | 57.9 | 58.6 | -90.16 | 690.4 | 1,774.7 | 991.3 | 875.1 | 116.25 | 8.527 | |

| | | | |
|---|---|---|---|
| **Company:** | PETROLEUM DEVELOPMENT CORP DJ Basin | **Local Co-ordinate Reference:** | Well Bihain 26G-202 |
| **Project:** | SEC.26-T5N-R64W | **TVD Reference:** | WELL @ 4627.0ft (RKB - 23') |
| **Reference Site:** | Bihain 5N64W26GK Pad Sec.26-T5N-R64W | **MD Reference:** | WELL @ 4627.0ft (RKB - 23') |
| **Site Error:** | 0.0 ft | **North Reference:** | True |
| **Reference Well:** | Bihain 26G-202 | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.0 ft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | Wellbore #1 | **Database:** | US_EDM |
| **Reference Design:** | Plan #1 Extension (3-3-16) | **Offset TVD Reference:** | Offset Datum |

**Offset Design** Bihain 5N64W26GK Pad Sec.26-T5N-R64W - Bihain 26F-232 - Wellbore #1 - Plan #1 Extention (3-3-16)

**Offset Site Error:** 0.0 ft

**Survey Program:** 0-MWD

**Offset Well Error:** 0.0 ft

| Reference Measured Depth (ft) | Reference Vertical Depth (ft) | Offset Measured Depth (ft) | Offset Vertical Depth (ft) | Semi Major Axis Reference (ft) | Semi Major Axis Offset (ft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (ft) | Offset Wellbore Centre +E/-W (ft) | Distance Between Centres (ft) | Distance Between Ellipses (ft) | Minimum Separation (ft) | Separation Factor | Warning |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 8,600.0 | 6,557.5 | 8,629.6 | 6,560.4 | 60.6 | 61.3 | -90.17 | 690.4 | 1,874.7 | 991.3 | 869.7 | 121.66 | 8.149 | |
| 8,700.0 | 6,556.9 | 8,729.6 | 6,560.0 | 63.3 | 64.0 | -90.18 | 690.4 | 1,974.7 | 991.3 | 864.3 | 127.08 | 7.801 | |
| 8,800.0 | 6,556.3 | 8,829.6 | 6,559.5 | 66.0 | 66.7 | -90.19 | 690.4 | 2,074.7 | 991.3 | 858.8 | 132.52 | 7.480 | |
| 8,900.0 | 6,555.7 | 8,929.6 | 6,559.1 | 68.8 | 69.4 | -90.19 | 690.4 | 2,174.7 | 991.3 | 853.4 | 137.98 | 7.185 | |
| 9,000.0 | 6,555.1 | 9,029.6 | 6,558.7 | 71.5 | 72.2 | -90.20 | 690.4 | 2,274.7 | 991.3 | 847.9 | 143.45 | 6.911 | |
| 9,100.0 | 6,554.5 | 9,129.6 | 6,558.2 | 74.2 | 74.9 | -90.21 | 690.4 | 2,374.7 | 991.3 | 842.4 | 148.93 | 6.657 | |
| 9,200.0 | 6,553.9 | 9,229.6 | 6,557.8 | 77.0 | 77.6 | -90.22 | 690.4 | 2,474.7 | 991.3 | 836.9 | 154.42 | 6.420 | |
| 9,300.0 | 6,553.4 | 9,329.6 | 6,557.3 | 79.7 | 80.4 | -90.23 | 690.4 | 2,574.7 | 991.3 | 831.4 | 159.91 | 6.199 | |
| 9,400.0 | 6,552.8 | 9,429.6 | 6,556.9 | 82.5 | 83.1 | -90.24 | 690.4 | 2,674.7 | 991.3 | 825.9 | 165.42 | 5.993 | |
| 9,500.0 | 6,552.2 | 9,529.6 | 6,556.5 | 85.3 | 85.9 | -90.25 | 690.4 | 2,774.7 | 991.3 | 820.4 | 170.93 | 5.800 | |
| 9,586.1 | 6,551.7 | 9,615.7 | 6,556.1 | 87.6 | 88.3 | -90.26 | 690.4 | 2,860.8 | 991.3 | 815.6 | 175.69 | 5.643 | |
| 9,600.0 | 6,551.6 | 9,629.6 | 6,556.0 | 88.0 | 88.6 | -90.26 | 690.4 | 2,874.7 | 991.3 | 814.9 | 176.46 | 5.618 | |
| 9,700.0 | 6,551.0 | 9,729.6 | 6,555.6 | 90.8 | 91.4 | -90.27 | 690.4 | 2,974.7 | 991.3 | 809.4 | 181.98 | 5.447 | |
| 9,800.0 | 6,550.4 | 9,829.6 | 6,555.2 | 93.6 | 94.2 | -90.28 | 690.4 | 3,074.7 | 991.3 | 803.8 | 187.51 | 5.287 | |
| 9,900.0 | 6,549.8 | 9,929.6 | 6,554.7 | 96.3 | 96.9 | -90.29 | 690.4 | 3,174.7 | 991.3 | 798.3 | 193.05 | 5.135 | |
| 10,000.0 | 6,549.2 | 10,029.6 | 6,554.3 | 99.1 | 99.7 | -90.29 | 690.4 | 3,274.7 | 991.3 | 792.7 | 198.59 | 4.992 | |
| 10,100.0 | 6,548.6 | 10,129.6 | 6,553.9 | 101.9 | 102.5 | -90.30 | 690.4 | 3,374.7 | 991.3 | 787.2 | 204.14 | 4.856 | |
| 10,200.0 | 6,548.0 | 10,229.6 | 6,553.4 | 104.6 | 105.2 | -90.31 | 690.4 | 3,474.7 | 991.3 | 781.7 | 209.69 | 4.728 | |
| 10,300.0 | 6,547.4 | 10,329.6 | 6,553.0 | 107.4 | 108.0 | -90.32 | 690.4 | 3,574.7 | 991.3 | 776.1 | 215.24 | 4.606 | |
| 10,400.0 | 6,546.8 | 10,429.6 | 6,552.5 | 110.2 | 110.8 | -90.33 | 690.4 | 3,674.7 | 991.3 | 770.5 | 220.80 | 4.490 | |
| 10,500.0 | 6,546.2 | 10,529.6 | 6,552.1 | 113.0 | 113.5 | -90.34 | 690.4 | 3,774.7 | 991.3 | 765.0 | 226.36 | 4.380 | |
| 10,600.0 | 6,545.6 | 10,629.6 | 6,551.7 | 115.8 | 116.3 | -90.35 | 690.4 | 3,874.7 | 991.3 | 759.4 | 231.92 | 4.274 | |
| 10,700.0 | 6,545.0 | 10,729.6 | 6,551.2 | 118.5 | 119.1 | -90.36 | 690.4 | 3,974.7 | 991.3 | 753.9 | 237.49 | 4.174 | |
| 10,800.0 | 6,544.5 | 10,829.6 | 6,550.8 | 121.3 | 121.9 | -90.37 | 690.4 | 4,074.7 | 991.3 | 748.3 | 243.05 | 4.079 | |
| 10,900.0 | 6,543.9 | 10,929.6 | 6,550.4 | 124.1 | 124.7 | -90.38 | 690.4 | 4,174.7 | 991.3 | 742.7 | 248.62 | 3.987 | |
| 11,000.0 | 6,543.3 | 11,029.6 | 6,549.9 | 126.9 | 127.5 | -90.39 | 690.4 | 4,274.7 | 991.3 | 737.1 | 254.20 | 3.900 | |
| 11,100.0 | 6,542.7 | 11,129.6 | 6,549.5 | 129.7 | 130.2 | -90.39 | 690.4 | 4,374.7 | 991.3 | 731.6 | 259.77 | 3.816 | |
| 11,200.0 | 6,542.1 | 11,229.6 | 6,549.1 | 132.5 | 133.0 | -90.40 | 690.4 | 4,474.7 | 991.3 | 726.0 | 265.35 | 3.736 | |
| 11,300.0 | 6,541.5 | 11,329.6 | 6,548.6 | 135.3 | 135.8 | -90.41 | 690.4 | 4,574.7 | 991.3 | 720.4 | 270.93 | 3.659 | |
| 11,400.0 | 6,540.9 | 11,429.6 | 6,548.2 | 138.1 | 138.6 | -90.42 | 690.4 | 4,674.7 | 991.3 | 714.8 | 276.51 | 3.585 | |
| 11,500.0 | 6,540.3 | 11,529.6 | 6,547.7 | 140.8 | 141.4 | -90.43 | 690.4 | 4,774.7 | 991.3 | 709.3 | 282.09 | 3.514 | |
| 11,600.0 | 6,539.7 | 11,629.6 | 6,547.3 | 143.6 | 144.2 | -90.44 | 690.4 | 4,874.7 | 991.3 | 703.7 | 287.67 | 3.446 | |
| 11,700.0 | 6,539.1 | 11,729.6 | 6,546.9 | 146.4 | 147.0 | -90.45 | 690.4 | 4,974.6 | 991.3 | 698.1 | 293.25 | 3.381 | |
| 11,800.0 | 6,538.5 | 11,829.6 | 6,546.4 | 149.2 | 149.8 | -90.46 | 690.4 | 5,074.6 | 991.3 | 692.5 | 298.84 | 3.317 | |
| 11,900.0 | 6,537.9 | 11,929.6 | 6,546.0 | 152.0 | 152.5 | -90.47 | 690.4 | 5,174.6 | 991.3 | 686.9 | 304.43 | 3.256 | |
| 12,000.0 | 6,537.3 | 12,029.6 | 6,545.6 | 154.8 | 155.3 | -90.48 | 690.4 | 5,274.6 | 991.3 | 681.3 | 310.01 | 3.198 | |
| 12,100.0 | 6,536.7 | 12,129.6 | 6,545.1 | 157.6 | 158.1 | -90.48 | 690.4 | 5,374.6 | 991.3 | 675.7 | 315.60 | 3.141 | |
| 12,200.0 | 6,536.1 | 12,229.6 | 6,544.7 | 160.4 | 160.9 | -90.49 | 690.4 | 5,474.6 | 991.3 | 670.2 | 321.19 | 3.086 | |
| 12,300.0 | 6,535.6 | 12,329.6 | 6,544.3 | 163.2 | 163.7 | -90.50 | 690.4 | 5,574.6 | 991.3 | 664.6 | 326.78 | 3.034 | |
| 12,400.0 | 6,535.0 | 12,429.6 | 6,543.8 | 166.0 | 166.5 | -90.51 | 690.4 | 5,674.6 | 991.3 | 659.0 | 332.37 | 2.983 | |
| 12,500.0 | 6,534.4 | 12,529.6 | 6,543.4 | 168.8 | 169.3 | -90.52 | 690.4 | 5,774.6 | 991.4 | 653.4 | 337.97 | 2.933 | |
| 12,600.0 | 6,533.8 | 12,629.6 | 6,542.9 | 171.6 | 172.1 | -90.53 | 690.4 | 5,874.6 | 991.4 | 647.8 | 343.56 | 2.886 | |
| 12,700.0 | 6,533.2 | 12,729.6 | 6,542.5 | 174.4 | 174.9 | -90.54 | 690.4 | 5,974.6 | 991.4 | 642.2 | 349.15 | 2.839 | |
| 12,800.0 | 6,532.6 | 12,829.6 | 6,542.1 | 177.2 | 177.7 | -90.55 | 690.4 | 6,074.6 | 991.4 | 636.6 | 354.75 | 2.795 | |
| 12,900.0 | 6,532.0 | 12,929.6 | 6,541.6 | 180.0 | 180.5 | -90.56 | 690.4 | 6,174.6 | 991.4 | 631.0 | 360.34 | 2.751 | |
| 13,000.0 | 6,531.4 | 13,029.6 | 6,541.2 | 182.8 | 183.3 | -90.57 | 690.4 | 6,274.6 | 991.4 | 625.4 | 365.94 | 2.709 | |
| 13,100.0 | 6,530.8 | 13,129.6 | 6,540.8 | 185.6 | 186.1 | -90.58 | 690.4 | 6,374.6 | 991.4 | 619.8 | 371.54 | 2.668 | |
| 13,200.0 | 6,530.2 | 13,229.6 | 6,540.3 | 188.4 | 188.9 | -90.58 | 690.4 | 6,474.6 | 991.4 | 614.2 | 377.14 | 2.629 | |
| 13,300.0 | 6,529.6 | 13,329.6 | 6,539.9 | 191.2 | 191.7 | -90.59 | 690.4 | 6,574.6 | 991.4 | 608.6 | 382.73 | 2.590 | |
| 13,400.0 | 6,529.0 | 13,429.6 | 6,539.5 | 194.0 | 194.5 | -90.60 | 690.4 | 6,674.6 | 991.4 | 603.0 | 388.33 | 2.553 | |
| 13,500.0 | 6,528.4 | 13,529.6 | 6,539.0 | 196.8 | 197.3 | -90.61 | 690.4 | 6,774.6 | 991.4 | 597.4 | 393.93 | 2.517 | |

| | | | |
|---|---|---|---|
| **Company:** | PETROLEUM DEVELOPMENT CORP DJ Basin | **Local Co-ordinate Reference:** | Well Bihain 26G-202 |
| **Project:** | SEC.26-T5N-R64W | **TVD Reference:** | WELL @ 4627.0ft (RKB - 23') |
| **Reference Site:** | Bihain 5N64W26GK Pad Sec.26-T5N-R64W | **MD Reference:** | WELL @ 4627.0ft (RKB - 23') |
| **Site Error:** | 0.0 ft | **North Reference:** | True |
| **Reference Well:** | Bihain 26G-202 | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.0 ft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | Wellbore #1 | **Database:** | US_EDM |
| **Reference Design:** | Plan #1 Extension (3-3-16) | **Offset TVD Reference:** | Offset Datum |

**Offset Design** Bihain 5N64W26GK Pad Sec.26-T5N-R64W - Bihain 26F-232 - Wellbore #1 - Plan #1 Extention (3-3-16)

**Offset Site Error:** 0.0 ft

**Survey Program:** 0-MWD

**Offset Well Error:** 0.0 ft

| Reference Measured Depth (ft) | Reference Vertical Depth (ft) | Offset Measured Depth (ft) | Offset Vertical Depth (ft) | Semi Major Axis Reference (ft) | Semi Major Axis Offset (ft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (ft) | Offset Wellbore Centre +E/-W (ft) | Distance Between Centres (ft) | Distance Between Ellipses (ft) | Minimum Separation (ft) | Separation Factor | Warning |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 13,600.0 | 6,527.8 | 13,629.6 | 6,538.6 | 199.6 | 200.1 | -90.62 | 690.4 | 6,874.6 | 991.4 | 591.8 | 399.53 | 2.481 | |
| 13,700.0 | 6,527.2 | 13,729.6 | 6,538.1 | 202.4 | 202.9 | -90.63 | 690.4 | 6,974.6 | 991.4 | 586.2 | 405.13 | 2.447 | |
| 13,800.0 | 6,526.7 | 13,829.6 | 6,537.7 | 205.2 | 205.7 | -90.64 | 690.4 | 7,074.6 | 991.4 | 580.6 | 410.73 | 2.414 | |
| 13,900.0 | 6,526.1 | 13,929.6 | 6,537.3 | 208.0 | 208.5 | -90.65 | 690.4 | 7,174.6 | 991.4 | 575.0 | 416.33 | 2.381 | |
| 14,000.0 | 6,525.5 | 14,029.6 | 6,536.8 | 210.8 | 211.3 | -90.66 | 690.4 | 7,274.6 | 991.4 | 569.4 | 421.94 | 2.350 | |
| 14,100.0 | 6,524.9 | 14,129.6 | 6,536.4 | 213.6 | 214.1 | -90.67 | 690.4 | 7,374.6 | 991.4 | 563.8 | 427.54 | 2.319 | |
| 14,200.0 | 6,524.3 | 14,229.6 | 6,536.0 | 216.4 | 216.9 | -90.68 | 690.4 | 7,474.6 | 991.4 | 558.2 | 433.14 | 2.289 | |
| 14,300.0 | 6,523.7 | 14,329.6 | 6,535.5 | 219.2 | 219.7 | -90.68 | 690.4 | 7,574.6 | 991.4 | 552.6 | 438.74 | 2.260 | |
| 14,400.0 | 6,523.1 | 14,429.6 | 6,535.1 | 222.0 | 222.5 | -90.69 | 690.4 | 7,674.6 | 991.4 | 547.0 | 444.35 | 2.231 | |
| 14,500.0 | 6,522.5 | 14,529.6 | 6,534.7 | 224.8 | 225.3 | -90.70 | 690.4 | 7,774.6 | 991.4 | 541.4 | 449.95 | 2.203 | |
| 14,600.0 | 6,521.9 | 14,629.6 | 6,534.2 | 227.6 | 228.1 | -90.71 | 690.4 | 7,874.6 | 991.4 | 535.8 | 455.56 | 2.176 | |
| 14,700.0 | 6,521.3 | 14,729.6 | 6,533.8 | 230.4 | 230.9 | -90.72 | 690.4 | 7,974.6 | 991.4 | 530.2 | 461.16 | 2.150 | |
| 14,800.0 | 6,520.7 | 14,829.6 | 6,533.3 | 233.2 | 233.7 | -90.73 | 690.4 | 8,074.6 | 991.4 | 524.6 | 466.76 | 2.124 | |
| 14,900.0 | 6,520.1 | 14,929.6 | 6,532.9 | 236.0 | 236.5 | -90.74 | 690.4 | 8,174.6 | 991.4 | 519.0 | 472.37 | 2.099 | |
| 15,000.0 | 6,519.5 | 15,029.6 | 6,532.5 | 238.8 | 239.3 | -90.75 | 690.4 | 8,274.6 | 991.4 | 513.4 | 477.97 | 2.074 | |
| 15,100.0 | 6,518.9 | 15,129.6 | 6,532.0 | 241.6 | 242.1 | -90.76 | 690.4 | 8,374.6 | 991.4 | 507.8 | 483.58 | 2.050 | |
| 15,200.0 | 6,518.3 | 15,229.6 | 6,531.6 | 244.4 | 244.9 | -90.77 | 690.4 | 8,474.6 | 991.4 | 502.2 | 489.18 | 2.027 | |
| 15,300.0 | 6,517.8 | 15,329.6 | 6,531.2 | 247.2 | 247.7 | -90.78 | 690.4 | 8,574.6 | 991.4 | 496.6 | 494.79 | 2.004 | |
| 15,400.0 | 6,517.2 | 15,429.6 | 6,530.7 | 250.0 | 250.5 | -90.78 | 690.4 | 8,674.6 | 991.4 | 491.0 | 500.40 | 1.981 | |
| 15,500.0 | 6,516.6 | 15,529.6 | 6,530.3 | 252.8 | 253.3 | -90.79 | 690.4 | 8,774.6 | 991.4 | 485.4 | 506.00 | 1.959 | |
| 15,600.0 | 6,516.0 | 15,629.6 | 6,529.9 | 255.6 | 256.1 | -90.80 | 690.4 | 8,874.6 | 991.4 | 479.8 | 511.61 | 1.938 | |
| 15,700.0 | 6,515.4 | 15,729.6 | 6,529.4 | 258.4 | 258.9 | -90.81 | 690.4 | 8,974.6 | 991.4 | 474.2 | 517.22 | 1.917 | |
| 15,800.0 | 6,514.8 | 15,829.6 | 6,529.0 | 261.2 | 261.7 | -90.82 | 690.4 | 9,074.6 | 991.4 | 468.6 | 522.82 | 1.896 | |
| 15,900.0 | 6,514.2 | 15,929.6 | 6,528.5 | 264.1 | 264.5 | -90.83 | 690.4 | 9,174.6 | 991.4 | 463.0 | 528.43 | 1.876 | |
| 16,000.0 | 6,513.6 | 16,029.6 | 6,528.1 | 266.9 | 267.3 | -90.84 | 690.4 | 9,274.6 | 991.4 | 457.4 | 534.04 | 1.856 | |
| 16,100.0 | 6,513.0 | 16,129.6 | 6,527.7 | 269.7 | 270.1 | -90.85 | 690.4 | 9,374.6 | 991.4 | 451.7 | 539.65 | 1.837 | |
| 16,200.0 | 6,512.4 | 16,229.6 | 6,527.2 | 272.5 | 272.9 | -90.86 | 690.4 | 9,474.6 | 991.4 | 446.1 | 545.25 | 1.818 | |
| 16,234.7 | 6,512.2 | 16,264.2 | 6,527.1 | 273.4 | 273.9 | -90.86 | 690.4 | 9,509.3 | 991.4 | 444.2 | 547.20 | 1.812 | |
| 16,269.0 | 6,512.0 | 16,284.8 | 6,527.0 | 274.4 | 274.5 | -90.86 | 690.4 | 9,529.8 | 991.5 | 442.8 | 548.74 | 1.807 SF | |

| | | | |
|---|---|---|---|
| **Company:** | PETROLEUM DEVELOPMENT CORP DJ Basin | **Local Co-ordinate Reference:** | Well Bihain 26G-202 |
| **Project:** | SEC.26-T5N-R64W | **TVD Reference:** | WELL @ 4627.0ft (RKB - 23') |
| **Reference Site:** | Bihain 5N64W26GK Pad Sec.26-T5N-R64W | **MD Reference:** | WELL @ 4627.0ft (RKB - 23') |
| **Site Error:** | 0.0 ft | **North Reference:** | True |
| **Reference Well:** | Bihain 26G-202 | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.0 ft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | Wellbore #1 | **Database:** | US_EDM |
| **Reference Design:** | Plan #1 Extension (3-3-16) | **Offset TVD Reference:** | Offset Datum |

**Offset Design** Bihain 5N64W26GK Pad Sec.26-T5N-R64W - Bihain 26F-332 - Wellbore #1 - Plan #1 Extension (3-3-16

**Offset Site Error:** 0.0 ft

**Survey Program:** 0-MWD

**Offset Well Error:** 0.0 ft

| Reference Measured Depth (ft) | Reference Vertical Depth (ft) | Offset Measured Depth (ft) | Offset Vertical Depth (ft) | Semi Major Axis Reference (ft) | Semi Major Axis Offset (ft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (ft) | Offset Wellbore Centre +E/-W (ft) | Distance Between Centres (ft) | Distance Between Ellipses (ft) | Minimum Separation (ft) | Separation Factor | Warning |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -50.79 | 28.4 | -34.8 | 45.0 | | | | |
| 100.0 | 100.0 | 100.0 | 100.0 | 0.1 | 0.1 | -50.79 | 28.4 | -34.8 | 45.0 | 44.7 | 0.22 | 199.991 | |
| 200.0 | 200.0 | 200.0 | 200.0 | 0.3 | 0.3 | -50.79 | 28.4 | -34.8 | 45.0 | 44.3 | 0.67 | 66.664 | |
| 300.0 | 300.0 | 300.0 | 300.0 | 0.6 | 0.6 | -50.79 | 28.4 | -34.8 | 45.0 | 43.8 | 1.12 | 39.998 | |
| 400.0 | 400.0 | 400.0 | 400.0 | 0.8 | 0.8 | -50.79 | 28.4 | -34.8 | 45.0 | 43.4 | 1.57 | 28.570 | |
| 500.0 | 500.0 | 500.0 | 500.0 | 1.0 | 1.0 | -50.79 | 28.4 | -34.8 | 45.0 | 42.9 | 2.02 | 22.221 | |
| 600.0 | 600.0 | 600.0 | 600.0 | 1.2 | 1.2 | -50.79 | 28.4 | -34.8 | 45.0 | 42.5 | 2.47 | 18.181 | |
| 700.0 | 700.0 | 700.0 | 700.0 | 1.5 | 1.5 | -50.79 | 28.4 | -34.8 | 45.0 | 42.0 | 2.92 | 15.384 | |
| 800.0 | 800.0 | 800.0 | 800.0 | 1.7 | 1.7 | -50.79 | 28.4 | -34.8 | 45.0 | 41.6 | 3.37 | 13.333 | |
| 900.0 | 900.0 | 900.0 | 900.0 | 1.9 | 1.9 | -50.79 | 28.4 | -34.8 | 45.0 | 41.1 | 3.82 | 11.764 | |
| 1,000.0 | 1,000.0 | 1,000.0 | 1,000.0 | 2.1 | 2.1 | -50.79 | 28.4 | -34.8 | 45.0 | 40.7 | 4.27 | 10.526 | |
| 1,100.0 | 1,100.0 | 1,100.0 | 1,100.0 | 2.4 | 2.4 | -50.79 | 28.4 | -34.8 | 45.0 | 40.2 | 4.72 | 9.523 | |
| 1,200.0 | 1,200.0 | 1,200.0 | 1,200.0 | 2.6 | 2.6 | -50.79 | 28.4 | -34.8 | 45.0 | 39.8 | 5.17 | 8.695 | CC, ES |
| 1,300.0 | 1,300.0 | 1,298.8 | 1,298.8 | 2.8 | 2.8 | -50.56 | 29.4 | -35.7 | 46.2 | 40.6 | 5.61 | 8.237 | |
| 1,400.0 | 1,400.0 | 1,397.5 | 1,397.4 | 3.0 | 3.0 | -49.93 | 32.2 | -38.3 | 50.1 | 44.0 | 6.05 | 8.272 | |
| 1,500.0 | 1,500.0 | 1,496.0 | 1,495.7 | 3.2 | 3.2 | 76.12 | 36.9 | -42.5 | 56.2 | 49.7 | 6.47 | 8.673 | |
| 1,600.0 | 1,599.9 | 1,594.0 | 1,593.3 | 3.4 | 3.5 | 80.11 | 43.4 | -48.5 | 64.4 | 57.5 | 6.88 | 9.356 | |
| 1,700.0 | 1,699.7 | 1,691.4 | 1,690.1 | 3.6 | 3.7 | 85.00 | 51.8 | -56.1 | 75.1 | 67.8 | 7.30 | 10.295 | |
| 1,800.0 | 1,799.3 | 1,788.1 | 1,785.8 | 3.8 | 4.0 | 90.01 | 61.8 | -65.2 | 88.8 | 81.1 | 7.73 | 11.486 | |
| 1,900.0 | 1,898.6 | 1,885.8 | 1,882.3 | 4.1 | 4.2 | 94.83 | 73.4 | -75.7 | 105.0 | 96.8 | 8.19 | 12.822 | |
| 2,004.8 | 2,002.2 | 1,988.5 | 1,983.6 | 4.3 | 4.5 | 99.71 | 85.5 | -86.8 | 123.2 | 114.5 | 8.70 | 14.161 | |
| 2,100.0 | 2,096.3 | 2,081.7 | 2,075.6 | 4.6 | 4.8 | 103.73 | 96.6 | -96.8 | 140.6 | 131.5 | 9.19 | 15.307 | |
| 2,200.0 | 2,195.0 | 2,179.5 | 2,172.1 | 4.9 | 5.1 | 107.01 | 108.2 | -107.4 | 159.5 | 149.8 | 9.72 | 16.416 | |
| 2,300.0 | 2,293.8 | 2,277.3 | 2,268.7 | 5.2 | 5.5 | 109.58 | 119.8 | -117.9 | 178.8 | 168.6 | 10.26 | 17.424 | |
| 2,400.0 | 2,392.5 | 2,375.2 | 2,365.3 | 5.5 | 5.8 | 111.66 | 131.4 | -128.5 | 198.4 | 187.6 | 10.82 | 18.336 | |
| 2,500.0 | 2,491.3 | 2,473.0 | 2,461.9 | 5.8 | 6.1 | 113.36 | 143.0 | -139.1 | 218.2 | 206.8 | 11.39 | 19.159 | |
| 2,600.0 | 2,590.0 | 2,570.9 | 2,558.4 | 6.1 | 6.4 | 114.78 | 154.6 | -149.6 | 238.1 | 226.1 | 11.96 | 19.903 | |
| 2,700.0 | 2,688.8 | 2,668.7 | 2,655.0 | 6.4 | 6.8 | 115.98 | 166.2 | -160.2 | 258.2 | 245.6 | 12.55 | 20.576 | |
| 2,800.0 | 2,787.5 | 2,766.5 | 2,751.6 | 6.8 | 7.1 | 117.00 | 177.8 | -170.7 | 278.3 | 265.2 | 13.14 | 21.186 | |
| 2,900.0 | 2,886.3 | 2,864.4 | 2,848.1 | 7.1 | 7.5 | 117.89 | 189.4 | -181.3 | 298.5 | 284.8 | 13.73 | 21.741 | |
| 3,000.0 | 2,985.0 | 2,962.2 | 2,944.7 | 7.5 | 7.8 | 118.67 | 201.0 | -191.8 | 318.8 | 304.5 | 14.33 | 22.246 | |
| 3,100.0 | 3,083.8 | 3,060.0 | 3,041.3 | 7.8 | 8.2 | 119.35 | 212.6 | -202.4 | 339.1 | 324.2 | 14.93 | 22.707 | |
| 3,200.0 | 3,182.5 | 3,157.9 | 3,137.9 | 8.2 | 8.5 | 119.95 | 224.2 | -212.9 | 359.5 | 344.0 | 15.54 | 23.130 | |
| 3,300.0 | 3,281.3 | 3,255.7 | 3,234.4 | 8.5 | 8.9 | 120.49 | 235.8 | -223.5 | 379.9 | 363.8 | 16.15 | 23.519 | |
| 3,400.0 | 3,380.0 | 3,353.5 | 3,331.0 | 8.9 | 9.2 | 120.98 | 247.4 | -234.0 | 400.3 | 383.6 | 16.77 | 23.877 | |
| 3,500.0 | 3,478.8 | 3,451.4 | 3,427.6 | 9.2 | 9.6 | 121.42 | 259.0 | -244.6 | 420.8 | 403.4 | 17.38 | 24.207 | |
| 3,600.0 | 3,577.5 | 3,549.2 | 3,524.1 | 9.6 | 9.9 | 121.82 | 270.6 | -255.2 | 441.3 | 423.3 | 18.00 | 24.513 | |
| 3,700.0 | 3,676.3 | 3,647.1 | 3,620.7 | 9.9 | 10.3 | 122.18 | 282.2 | -265.7 | 461.8 | 443.2 | 18.62 | 24.797 | |
| 3,800.0 | 3,775.0 | 3,744.9 | 3,717.3 | 10.3 | 10.6 | 122.51 | 293.8 | -276.3 | 482.3 | 463.0 | 19.24 | 25.061 | |
| 3,900.0 | 3,873.8 | 3,842.7 | 3,813.9 | 10.7 | 11.0 | 122.81 | 305.4 | -286.8 | 502.8 | 483.0 | 19.87 | 25.307 | |
| 4,000.0 | 3,972.5 | 3,940.6 | 3,910.4 | 11.0 | 11.3 | 123.10 | 317.0 | -297.4 | 523.4 | 502.9 | 20.49 | 25.536 | |
| 4,100.0 | 4,071.3 | 4,038.4 | 4,007.0 | 11.4 | 11.7 | 123.35 | 328.6 | -307.9 | 543.9 | 522.8 | 21.12 | 25.751 | |
| 4,200.0 | 4,170.0 | 4,136.2 | 4,103.6 | 11.8 | 12.1 | 123.60 | 340.2 | -318.5 | 564.5 | 542.7 | 21.75 | 25.953 | |
| 4,300.0 | 4,268.8 | 4,234.1 | 4,200.1 | 12.1 | 12.4 | 123.82 | 351.8 | -329.0 | 585.1 | 562.7 | 22.38 | 26.142 | |
| 4,400.0 | 4,367.5 | 4,331.9 | 4,296.7 | 12.5 | 12.8 | 124.03 | 363.4 | -339.6 | 605.6 | 582.6 | 23.01 | 26.320 | |
| 4,500.0 | 4,466.3 | 4,429.7 | 4,393.3 | 12.9 | 13.1 | 124.22 | 375.0 | -350.1 | 626.2 | 602.6 | 23.64 | 26.488 | |
| 4,600.0 | 4,565.0 | 4,527.6 | 4,489.9 | 13.2 | 13.5 | 124.40 | 386.6 | -360.7 | 646.8 | 622.5 | 24.27 | 26.646 | |
| 4,700.0 | 4,663.8 | 4,625.4 | 4,586.4 | 13.6 | 13.9 | 124.58 | 398.2 | -371.2 | 667.4 | 642.5 | 24.91 | 26.795 | |
| 4,800.0 | 4,762.5 | 4,723.3 | 4,683.0 | 14.0 | 14.2 | 124.74 | 409.8 | -381.8 | 688.0 | 662.5 | 25.54 | 26.937 | |
| 4,886.9 | 4,848.3 | 4,808.3 | 4,766.9 | 14.3 | 14.5 | 124.87 | 419.9 | -391.0 | 705.9 | 679.8 | 26.09 | 27.054 | |
| 4,900.0 | 4,861.3 | 4,821.1 | 4,779.6 | 14.4 | 14.6 | 124.93 | 421.4 | -392.4 | 708.6 | 682.4 | 26.18 | 27.068 | |

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

| | | | |
|---|---|---|---|
| **Company:** | PETROLEUM DEVELOPMENT CORP DJ Basin | **Local Co-ordinate Reference:** | Well Bihain 26G-202 |
| **Project:** | SEC.26-T5N-R64W | **TVD Reference:** | WELL @ 4627.0ft (RKB - 23') |
| **Reference Site:** | Bihain 5N64W26GK Pad Sec.26-T5N-R64W | **MD Reference:** | WELL @ 4627.0ft (RKB - 23') |
| **Site Error:** | 0.0 ft | **North Reference:** | True |
| **Reference Well:** | Bihain 26G-202 | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.0 ft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | Wellbore #1 | **Database:** | US_EDM |
| **Reference Design:** | Plan #1 Extension (3-3-16) | **Offset TVD Reference:** | Offset Datum |

**Offset Design** Bihain 5N64W26GK Pad Sec.26-T5N-R64W - Bihain 26F-332 - Wellbore #1 - Plan #1 Extension (3-3-16

**Offset Site Error:** 0.0 ft

**Survey Program:** 0-MWD

**Offset Well Error:** 0.0 ft

| Reference Measured Depth (ft) | Reference Vertical Depth (ft) | Offset Measured Depth (ft) | Offset Vertical Depth (ft) | Semi Major Axis Reference (ft) | Semi Major Axis Offset (ft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (ft) | Offset Wellbore Centre +E/-W (ft) | Distance Between Centres (ft) | Distance Between Ellipses (ft) | Minimum Separation (ft) | Separation Factor | Warning |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5,000.0 | 4,960.3 | 4,919.2 | 4,876.4 | 14.6 | 14.9 | 125.25 | 433.0 | -402.9 | 728.0 | 701.2 | 26.78 | 27.186 | |
| 5,100.0 | 5,059.8 | 5,017.6 | 4,973.6 | 14.8 | 15.3 | 125.32 | 444.7 | -413.6 | 745.4 | 718.0 | 27.35 | 27.257 | |
| 5,200.0 | 5,159.6 | 5,123.6 | 5,078.2 | 15.0 | 15.7 | 125.11 | 457.1 | -424.8 | 760.7 | 732.8 | 27.87 | 27.289 | |
| 5,300.0 | 5,259.5 | 5,246.8 | 5,200.5 | 15.2 | 16.0 | 124.73 | 468.6 | -435.3 | 771.7 | 743.3 | 28.32 | 27.244 | |
| 5,340.5 | 5,300.0 | 5,297.1 | 5,250.4 | 15.3 | 16.1 | 0.56 | 472.1 | -438.5 | 774.7 | 747.3 | 27.35 | 28.325 | |
| 5,400.0 | 5,359.5 | 5,371.2 | 5,324.4 | 15.4 | 16.2 | 0.28 | 476.2 | -442.2 | 777.9 | 750.3 | 27.60 | 28.184 | |
| 5,500.0 | 5,459.5 | 5,496.3 | 5,449.3 | 15.5 | 16.5 | 0.03 | 479.9 | -445.5 | 780.8 | 752.8 | 28.00 | 27.891 | |
| 5,600.0 | 5,559.5 | 5,606.5 | 5,559.5 | 15.7 | 16.6 | 0.01 | 480.2 | -445.8 | 781.1 | 752.7 | 28.35 | 27.556 | |
| 5,700.0 | 5,659.5 | 5,706.5 | 5,659.5 | 15.8 | 16.8 | 0.01 | 480.2 | -445.8 | 781.1 | 752.4 | 28.70 | 27.217 | |
| 5,800.0 | 5,759.5 | 5,806.5 | 5,759.5 | 16.0 | 16.9 | 0.01 | 480.2 | -445.8 | 781.1 | 752.0 | 29.06 | 26.883 | |
| 5,843.3 | 5,802.8 | 5,849.7 | 5,802.8 | 16.0 | 17.0 | 0.01 | 480.2 | -445.8 | 781.1 | 751.9 | 29.21 | 26.741 | |
| 5,850.0 | 5,809.5 | 5,856.5 | 5,809.5 | 16.1 | 17.0 | -89.99 | 480.2 | -445.8 | 781.1 | 750.8 | 30.31 | 25.770 | |
| 5,859.9 | 5,819.4 | 5,866.3 | 5,819.4 | 16.1 | 17.0 | -90.00 | 480.2 | -445.8 | 781.1 | 750.8 | 30.34 | 25.744 | |
| 5,900.0 | 5,859.5 | 5,906.4 | 5,859.5 | 16.1 | 17.1 | -90.14 | 480.2 | -445.8 | 781.1 | 750.6 | 30.46 | 25.642 | |
| 5,950.0 | 5,909.2 | 5,956.4 | 5,909.4 | 16.1 | 17.2 | -90.50 | 480.2 | -445.4 | 781.1 | 750.5 | 30.58 | 25.547 | |
| 6,000.0 | 5,958.4 | 6,006.7 | 5,959.7 | 16.2 | 17.2 | -90.88 | 480.2 | -442.0 | 781.2 | 750.5 | 30.64 | 25.496 | |
| 6,050.0 | 6,007.0 | 6,057.4 | 6,009.9 | 16.2 | 17.3 | -91.26 | 480.2 | -435.2 | 781.3 | 750.6 | 30.66 | 25.480 | |
| 6,100.0 | 6,054.7 | 6,108.5 | 6,059.9 | 16.1 | 17.3 | -91.63 | 480.2 | -425.0 | 781.4 | 750.8 | 30.65 | 25.493 | |
| 6,150.0 | 6,101.4 | 6,159.9 | 6,109.5 | 16.1 | 17.3 | -92.00 | 480.2 | -411.4 | 781.6 | 751.0 | 30.61 | 25.530 | |
| 6,200.0 | 6,146.7 | 6,211.7 | 6,158.4 | 16.1 | 17.2 | -92.36 | 480.2 | -394.4 | 781.8 | 751.2 | 30.56 | 25.583 | |
| 6,250.0 | 6,190.6 | 6,263.8 | 6,206.4 | 16.0 | 17.2 | -92.72 | 480.2 | -374.0 | 782.0 | 751.5 | 30.50 | 25.640 | |
| 6,300.0 | 6,232.8 | 6,316.3 | 6,253.1 | 16.0 | 17.2 | -93.06 | 480.2 | -350.1 | 782.2 | 751.8 | 30.45 | 25.688 | |
| 6,350.0 | 6,273.2 | 6,369.2 | 6,298.4 | 15.9 | 17.1 | -93.39 | 480.2 | -322.9 | 782.5 | 752.0 | 30.43 | 25.711 | |
| 6,400.0 | 6,311.5 | 6,422.4 | 6,342.0 | 15.9 | 17.1 | -93.70 | 480.2 | -292.5 | 782.7 | 752.3 | 30.47 | 25.691 | |
| 6,450.0 | 6,347.7 | 6,475.9 | 6,383.6 | 15.9 | 17.0 | -94.00 | 480.2 | -258.8 | 783.0 | 752.4 | 30.58 | 25.607 | |
| 6,500.0 | 6,381.6 | 6,529.8 | 6,423.0 | 15.9 | 17.0 | -94.28 | 480.2 | -222.1 | 783.3 | 752.5 | 30.79 | 25.441 | |
| 6,550.0 | 6,413.0 | 6,583.9 | 6,459.9 | 16.0 | 16.9 | -94.54 | 480.2 | -182.5 | 783.6 | 752.4 | 31.13 | 25.175 | |
| 6,600.0 | 6,441.7 | 6,638.4 | 6,494.1 | 16.1 | 16.9 | -94.79 | 480.2 | -140.2 | 783.8 | 752.2 | 31.61 | 24.796 | |
| 6,650.0 | 6,467.7 | 6,693.1 | 6,525.4 | 16.4 | 17.0 | -95.01 | 480.2 | -95.2 | 784.1 | 751.8 | 32.27 | 24.301 | |
| 6,700.0 | 6,490.9 | 6,748.0 | 6,553.4 | 16.7 | 17.1 | -95.20 | 480.2 | -48.0 | 784.3 | 751.2 | 33.10 | 23.693 | |
| 6,750.0 | 6,511.1 | 6,803.2 | 6,578.1 | 17.2 | 17.4 | -95.37 | 480.2 | 1.3 | 784.6 | 750.4 | 34.14 | 22.982 | |
| 6,800.0 | 6,528.3 | 6,858.6 | 6,599.2 | 17.7 | 17.9 | -95.52 | 480.2 | 52.5 | 784.7 | 749.4 | 35.37 | 22.189 | |
| 6,850.0 | 6,542.4 | 6,914.1 | 6,616.6 | 18.4 | 18.6 | -95.64 | 480.2 | 105.2 | 784.9 | 748.1 | 36.78 | 21.340 | |
| 6,900.0 | 6,553.3 | 6,969.8 | 6,630.1 | 19.2 | 19.5 | -95.74 | 480.2 | 159.2 | 785.0 | 746.7 | 38.36 | 20.464 | |
| 6,950.0 | 6,561.0 | 7,025.5 | 6,639.7 | 20.0 | 20.4 | -95.81 | 480.2 | 214.1 | 785.1 | 745.0 | 40.09 | 19.582 | |
| 7,000.0 | 6,565.5 | 7,081.3 | 6,645.3 | 20.9 | 21.4 | -95.84 | 480.2 | 269.6 | 785.2 | 743.2 | 41.95 | 18.715 | |
| 7,047.8 | 6,566.7 | 7,134.6 | 6,646.8 | 21.8 | 22.4 | -95.86 | 480.2 | 322.9 | 785.2 | 741.4 | 43.82 | 17.917 | |
| 7,100.0 | 6,566.4 | 7,186.9 | 6,646.5 | 22.8 | 23.4 | -95.86 | 480.2 | 375.1 | 785.2 | 739.3 | 45.86 | 17.121 | |
| 7,200.0 | 6,565.8 | 7,286.9 | 6,646.0 | 24.9 | 25.5 | -95.86 | 480.2 | 475.1 | 785.2 | 735.2 | 50.00 | 15.703 | |
| 7,300.0 | 6,565.2 | 7,386.9 | 6,645.5 | 27.1 | 27.7 | -95.87 | 480.2 | 575.1 | 785.2 | 730.8 | 54.40 | 14.434 | |
| 7,400.0 | 6,564.6 | 7,486.9 | 6,644.9 | 29.4 | 30.0 | -95.87 | 480.2 | 675.1 | 785.2 | 726.2 | 59.00 | 13.309 | |
| 7,500.0 | 6,564.0 | 7,586.9 | 6,644.4 | 31.8 | 32.4 | -95.87 | 480.2 | 775.1 | 785.2 | 721.5 | 63.76 | 12.316 | |
| 7,600.0 | 6,563.4 | 7,686.9 | 6,643.8 | 34.3 | 34.9 | -95.88 | 480.2 | 875.1 | 785.2 | 716.6 | 68.64 | 11.439 | |
| 7,700.0 | 6,562.8 | 7,786.9 | 6,643.3 | 36.8 | 37.4 | -95.88 | 480.2 | 975.1 | 785.2 | 711.6 | 73.63 | 10.665 | |
| 7,800.0 | 6,562.3 | 7,886.9 | 6,642.8 | 39.4 | 39.9 | -95.88 | 480.2 | 1,075.1 | 785.2 | 706.5 | 78.69 | 9.978 | |
| 7,900.0 | 6,561.7 | 7,986.9 | 6,642.2 | 42.0 | 42.5 | -95.89 | 480.2 | 1,175.1 | 785.2 | 701.4 | 83.83 | 9.367 | |
| 8,000.0 | 6,561.1 | 8,086.9 | 6,641.7 | 44.6 | 45.1 | -95.89 | 480.2 | 1,275.1 | 785.2 | 696.2 | 89.01 | 8.822 | |
| 8,100.0 | 6,560.5 | 8,186.9 | 6,641.1 | 47.2 | 47.7 | -95.90 | 480.2 | 1,375.1 | 785.2 | 691.0 | 94.25 | 8.332 | |
| 8,200.0 | 6,559.9 | 8,286.9 | 6,640.6 | 49.9 | 50.4 | -95.90 | 480.2 | 1,475.1 | 785.3 | 685.7 | 99.52 | 7.890 | |
| 8,300.0 | 6,559.3 | 8,386.9 | 6,640.1 | 52.5 | 53.0 | -95.90 | 480.2 | 1,575.1 | 785.3 | 680.4 | 104.83 | 7.491 | |
| 8,400.0 | 6,558.7 | 8,486.9 | 6,639.5 | 55.2 | 55.7 | -95.91 | 480.2 | 1,675.1 | 785.3 | 675.1 | 110.16 | 7.128 | |

| | | | |
|---|---|---|---|
| **Company:** | PETROLEUM DEVELOPMENT CORP DJ Basin | **Local Co-ordinate Reference:** | Well Bihain 26G-202 |
| **Project:** | SEC.26-T5N-R64W | **TVD Reference:** | WELL @ 4627.0ft (RKB - 23') |
| **Reference Site:** | Bihain 5N64W26GK Pad Sec.26-T5N-R64W | **MD Reference:** | WELL @ 4627.0ft (RKB - 23') |
| **Site Error:** | 0.0 ft | **North Reference:** | True |
| **Reference Well:** | Bihain 26G-202 | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.0 ft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | Wellbore #1 | **Database:** | US_EDM |
| **Reference Design:** | Plan #1 Extension (3-3-16) | **Offset TVD Reference:** | Offset Datum |

**Offset Design** Bihain 5N64W26GK Pad Sec.26-T5N-R64W - Bihain 26F-332 - Wellbore #1 - Plan #1 Extension (3-3-16

**Offset Site Error:** 0.0 ft

**Survey Program:** 0-MWD

**Offset Well Error:** 0.0 ft

| Reference | | Offset | | Semi Major Axis | | | Offset Wellbore Centre | | Distance | | | | Warning |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Measured Depth (ft) | Vertical Depth (ft) | Measured Depth (ft) | Vertical Depth (ft) | Reference (ft) | Offset (ft) | Highside Toolface (°) | +N/-S (ft) | +E/-W (ft) | Between Centres (ft) | Between Ellipses (ft) | Minimum Separation (ft) | Separation Factor | |
| 8,500.0 | 6,558.1 | 8,586.9 | 6,639.0 | 57.9 | 58.4 | -95.91 | 480.2 | 1,775.1 | 785.3 | 669.7 | 115.52 | 6.798 | |
| 8,600.0 | 6,557.5 | 8,686.9 | 6,638.4 | 60.6 | 61.1 | -95.91 | 480.2 | 1,875.1 | 785.3 | 664.4 | 120.90 | 6.495 | |
| 8,700.0 | 6,556.9 | 8,786.9 | 6,637.9 | 63.3 | 63.8 | -95.92 | 480.2 | 1,975.1 | 785.3 | 659.0 | 126.30 | 6.218 | |
| 8,800.0 | 6,556.3 | 8,886.9 | 6,637.3 | 66.0 | 66.5 | -95.92 | 480.2 | 2,075.1 | 785.3 | 653.6 | 131.71 | 5.962 | |
| 8,900.0 | 6,555.7 | 8,986.9 | 6,636.8 | 68.8 | 69.2 | -95.93 | 480.2 | 2,175.1 | 785.3 | 648.2 | 137.14 | 5.726 | |
| 9,000.0 | 6,555.1 | 9,086.9 | 6,636.3 | 71.5 | 72.0 | -95.93 | 480.2 | 2,275.1 | 785.3 | 642.7 | 142.58 | 5.508 | |
| 9,100.0 | 6,554.5 | 9,186.9 | 6,635.7 | 74.2 | 74.7 | -95.93 | 480.2 | 2,375.1 | 785.3 | 637.3 | 148.03 | 5.305 | |
| 9,200.0 | 6,553.9 | 9,286.9 | 6,635.2 | 77.0 | 77.4 | -95.94 | 480.2 | 2,475.1 | 785.3 | 631.8 | 153.49 | 5.116 | |
| 9,300.0 | 6,553.4 | 9,386.9 | 6,634.6 | 79.7 | 80.2 | -95.94 | 480.2 | 2,575.1 | 785.3 | 626.4 | 158.96 | 4.940 | |
| 9,400.0 | 6,552.8 | 9,486.9 | 6,634.1 | 82.5 | 82.9 | -95.95 | 480.2 | 2,675.1 | 785.3 | 620.9 | 164.44 | 4.776 | |
| 9,500.0 | 6,552.2 | 9,586.9 | 6,633.6 | 85.3 | 85.7 | -95.95 | 480.2 | 2,775.1 | 785.3 | 615.4 | 169.92 | 4.622 | |
| 9,600.0 | 6,551.6 | 9,686.9 | 6,633.0 | 88.0 | 88.5 | -95.95 | 480.2 | 2,875.1 | 785.3 | 609.9 | 175.41 | 4.477 | |
| 9,700.0 | 6,551.0 | 9,786.9 | 6,632.5 | 90.8 | 91.2 | -95.96 | 480.2 | 2,975.1 | 785.3 | 604.4 | 180.91 | 4.341 | |
| 9,800.0 | 6,550.4 | 9,886.9 | 6,631.9 | 93.6 | 94.0 | -95.96 | 480.2 | 3,075.1 | 785.3 | 598.9 | 186.41 | 4.213 | |
| 9,900.0 | 6,549.8 | 9,986.9 | 6,631.4 | 96.3 | 96.7 | -95.96 | 480.2 | 3,175.1 | 785.3 | 593.4 | 191.92 | 4.092 | |
| 10,000.0 | 6,549.2 | 10,086.9 | 6,630.9 | 99.1 | 99.5 | -95.97 | 480.2 | 3,275.1 | 785.3 | 587.9 | 197.43 | 3.978 | |
| 10,100.0 | 6,548.6 | 10,186.9 | 6,630.3 | 101.9 | 102.3 | -95.97 | 480.2 | 3,375.1 | 785.4 | 582.4 | 202.95 | 3.870 | |
| 10,200.0 | 6,548.0 | 10,286.9 | 6,629.8 | 104.6 | 105.1 | -95.98 | 480.2 | 3,475.1 | 785.4 | 576.9 | 208.47 | 3.767 | |
| 10,300.0 | 6,547.4 | 10,386.9 | 6,629.2 | 107.4 | 107.8 | -95.98 | 480.2 | 3,575.1 | 785.4 | 571.4 | 213.99 | 3.670 | |
| 10,400.0 | 6,546.8 | 10,486.9 | 6,628.7 | 110.2 | 110.6 | -95.98 | 480.2 | 3,675.1 | 785.4 | 565.8 | 219.52 | 3.578 | |
| 10,500.0 | 6,546.2 | 10,586.9 | 6,628.2 | 113.0 | 113.4 | -95.99 | 480.2 | 3,775.1 | 785.4 | 560.3 | 225.05 | 3.490 | |
| 10,600.0 | 6,545.6 | 10,686.9 | 6,627.6 | 115.8 | 116.2 | -95.99 | 480.2 | 3,875.1 | 785.4 | 554.8 | 230.58 | 3.406 | |
| 10,700.0 | 6,545.0 | 10,786.9 | 6,627.1 | 118.5 | 119.0 | -95.99 | 480.2 | 3,975.1 | 785.4 | 549.3 | 236.12 | 3.326 | |
| 10,800.0 | 6,544.5 | 10,886.9 | 6,626.5 | 121.3 | 121.7 | -96.00 | 480.2 | 4,075.1 | 785.4 | 543.7 | 241.66 | 3.250 | |
| 10,900.0 | 6,543.9 | 10,986.9 | 6,626.0 | 124.1 | 124.5 | -96.00 | 480.2 | 4,175.1 | 785.4 | 538.2 | 247.20 | 3.177 | |
| 11,000.0 | 6,543.3 | 11,086.9 | 6,625.4 | 126.9 | 127.3 | -96.01 | 480.2 | 4,275.1 | 785.4 | 532.7 | 252.74 | 3.108 | |
| 11,100.0 | 6,542.7 | 11,186.9 | 6,624.9 | 129.7 | 130.1 | -96.01 | 480.2 | 4,375.1 | 785.4 | 527.1 | 258.28 | 3.041 | |
| 11,200.0 | 6,542.1 | 11,286.9 | 6,624.4 | 132.5 | 132.9 | -96.01 | 480.2 | 4,475.1 | 785.4 | 521.6 | 263.83 | 2.977 | |
| 11,300.0 | 6,541.5 | 11,386.9 | 6,623.8 | 135.3 | 135.7 | -96.02 | 480.2 | 4,575.1 | 785.4 | 516.0 | 269.38 | 2.916 | |
| 11,400.0 | 6,540.9 | 11,486.9 | 6,623.3 | 138.1 | 138.5 | -96.02 | 480.2 | 4,675.1 | 785.4 | 510.5 | 274.92 | 2.857 | |
| 11,500.0 | 6,540.3 | 11,586.9 | 6,622.7 | 140.8 | 141.2 | -96.03 | 480.2 | 4,775.1 | 785.4 | 505.0 | 280.47 | 2.800 | |
| 11,600.0 | 6,539.7 | 11,686.9 | 6,622.2 | 143.6 | 144.0 | -96.03 | 480.2 | 4,875.1 | 785.4 | 499.4 | 286.03 | 2.746 | |
| 11,700.0 | 6,539.1 | 11,786.9 | 6,621.7 | 146.4 | 146.8 | -96.03 | 480.2 | 4,975.1 | 785.4 | 493.9 | 291.58 | 2.694 | |
| 11,800.0 | 6,538.5 | 11,886.9 | 6,621.1 | 149.2 | 149.6 | -96.04 | 480.2 | 5,075.1 | 785.4 | 488.3 | 297.13 | 2.643 | |
| 11,900.0 | 6,537.9 | 11,986.9 | 6,620.6 | 152.0 | 152.4 | -96.04 | 480.2 | 5,175.1 | 785.4 | 482.8 | 302.69 | 2.595 | |
| 12,000.0 | 6,537.3 | 12,086.9 | 6,620.0 | 154.8 | 155.2 | -96.04 | 480.2 | 5,275.1 | 785.5 | 477.2 | 308.25 | 2.548 | |
| 12,100.0 | 6,536.7 | 12,186.9 | 6,619.5 | 157.6 | 158.0 | -96.05 | 480.2 | 5,375.1 | 785.5 | 471.7 | 313.80 | 2.503 | |
| 12,200.0 | 6,536.1 | 12,286.9 | 6,619.0 | 160.4 | 160.8 | -96.05 | 480.2 | 5,475.0 | 785.5 | 466.1 | 319.36 | 2.459 | |
| 12,300.0 | 6,535.6 | 12,386.9 | 6,618.4 | 163.2 | 163.6 | -96.06 | 480.2 | 5,575.0 | 785.5 | 460.5 | 324.92 | 2.417 | |
| 12,400.0 | 6,535.0 | 12,486.9 | 6,617.9 | 166.0 | 166.4 | -96.06 | 480.2 | 5,675.0 | 785.5 | 455.0 | 330.48 | 2.377 | |
| 12,500.0 | 6,534.4 | 12,586.9 | 6,617.3 | 168.8 | 169.2 | -96.06 | 480.2 | 5,775.0 | 785.5 | 449.4 | 336.04 | 2.337 | |
| 12,600.0 | 6,533.8 | 12,686.9 | 6,616.8 | 171.6 | 172.0 | -96.07 | 480.2 | 5,875.0 | 785.5 | 443.9 | 341.61 | 2.299 | |
| 12,700.0 | 6,533.2 | 12,786.9 | 6,616.2 | 174.4 | 174.8 | -96.07 | 480.2 | 5,975.0 | 785.5 | 438.3 | 347.17 | 2.263 | |
| 12,800.0 | 6,532.6 | 12,886.9 | 6,615.7 | 177.2 | 177.6 | -96.07 | 480.2 | 6,075.0 | 785.5 | 432.8 | 352.73 | 2.227 | |
| 12,900.0 | 6,532.0 | 12,986.9 | 6,615.2 | 180.0 | 180.4 | -96.08 | 480.2 | 6,175.0 | 785.5 | 427.2 | 358.30 | 2.192 | |
| 13,000.0 | 6,531.4 | 13,086.9 | 6,614.6 | 182.8 | 183.2 | -96.08 | 480.2 | 6,275.0 | 785.5 | 421.6 | 363.86 | 2.159 | |
| 13,100.0 | 6,530.8 | 13,186.9 | 6,614.1 | 185.6 | 186.0 | -96.09 | 480.2 | 6,375.0 | 785.5 | 416.1 | 369.43 | 2.126 | |
| 13,200.0 | 6,530.2 | 13,286.9 | 6,613.5 | 188.4 | 188.8 | -96.09 | 480.2 | 6,475.0 | 785.5 | 410.5 | 374.99 | 2.095 | |
| 13,300.0 | 6,529.6 | 13,386.9 | 6,613.0 | 191.2 | 191.6 | -96.09 | 480.2 | 6,575.0 | 785.5 | 405.0 | 380.56 | 2.064 | |
| 13,400.0 | 6,529.0 | 13,486.9 | 6,612.5 | 194.0 | 194.4 | -96.10 | 480.2 | 6,675.0 | 785.5 | 399.4 | 386.13 | 2.034 | |
| 13,500.0 | 6,528.4 | 13,586.9 | 6,611.9 | 196.8 | 197.2 | -96.10 | 480.2 | 6,775.0 | 785.5 | 393.8 | 391.69 | 2.005 | |

| | | | |
|---|---|---|---|
| **Company:** | PETROLEUM DEVELOPMENT CORP DJ Basin | **Local Co-ordinate Reference:** | Well Bihain 26G-202 |
| **Project:** | SEC.26-T5N-R64W | **TVD Reference:** | WELL @ 4627.0ft (RKB - 23') |
| **Reference Site:** | Bihain 5N64W26GK Pad Sec.26-T5N-R64W | **MD Reference:** | WELL @ 4627.0ft (RKB - 23') |
| **Site Error:** | 0.0 ft | **North Reference:** | True |
| **Reference Well:** | Bihain 26G-202 | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.0 ft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | Wellbore #1 | **Database:** | US_EDM |
| **Reference Design:** | Plan #1 Extension (3-3-16) | **Offset TVD Reference:** | Offset Datum |

**Offset Design** Bihain 5N64W26GK Pad Sec.26-T5N-R64W - Bihain 26F-332 - Wellbore #1 - Plan #1 Extension (3-3-16

**Offset Site Error:** 0.0 ft

**Survey Program:** 0-MWD

**Offset Well Error:** 0.0 ft

| Reference Measured Depth (ft) | Reference Vertical Depth (ft) | Offset Measured Depth (ft) | Offset Vertical Depth (ft) | Semi Major Axis Reference (ft) | Semi Major Axis Offset (ft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (ft) | Offset Wellbore Centre +E/-W (ft) | Distance Between Centres (ft) | Distance Between Ellipses (ft) | Minimum Separation (ft) | Separation Factor | Warning |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 13,600.0 | 6,527.8 | 13,686.9 | 6,611.4 | 199.6 | 200.0 | -96.10 | 480.2 | 6,875.0 | 785.5 | 388.3 | 397.26 | 1.977 | |
| 13,700.0 | 6,527.2 | 13,786.9 | 6,610.8 | 202.4 | 202.8 | -96.11 | 480.2 | 6,975.0 | 785.5 | 382.7 | 402.83 | 1.950 | |
| 13,800.0 | 6,526.7 | 13,886.9 | 6,610.3 | 205.2 | 205.6 | -96.11 | 480.2 | 7,075.0 | 785.5 | 377.2 | 408.40 | 1.923 | |
| 13,900.0 | 6,526.1 | 13,986.9 | 6,609.8 | 208.0 | 208.4 | -96.12 | 480.2 | 7,175.0 | 785.6 | 371.6 | 413.97 | 1.898 | |
| 14,000.0 | 6,525.5 | 14,086.9 | 6,609.2 | 210.8 | 211.2 | -96.12 | 480.2 | 7,275.0 | 785.6 | 366.0 | 419.54 | 1.872 | |
| 14,100.0 | 6,524.9 | 14,186.9 | 6,608.7 | 213.6 | 214.0 | -96.12 | 480.2 | 7,375.0 | 785.6 | 360.5 | 425.11 | 1.848 | |
| 14,200.0 | 6,524.3 | 14,286.9 | 6,608.1 | 216.4 | 216.8 | -96.13 | 480.2 | 7,475.0 | 785.6 | 354.9 | 430.68 | 1.824 | |
| 14,300.0 | 6,523.7 | 14,386.9 | 6,607.6 | 219.2 | 219.6 | -96.13 | 480.2 | 7,575.0 | 785.6 | 349.3 | 436.25 | 1.801 | |
| 14,400.0 | 6,523.1 | 14,486.9 | 6,607.1 | 222.0 | 222.4 | -96.14 | 480.2 | 7,675.0 | 785.6 | 343.8 | 441.82 | 1.778 | |
| 14,500.0 | 6,522.5 | 14,586.9 | 6,606.5 | 224.8 | 225.2 | -96.14 | 480.2 | 7,775.0 | 785.6 | 338.2 | 447.39 | 1.756 | |
| 14,600.0 | 6,521.9 | 14,686.9 | 6,606.0 | 227.6 | 228.0 | -96.14 | 480.2 | 7,875.0 | 785.6 | 332.6 | 452.96 | 1.734 | |
| 14,700.0 | 6,521.3 | 14,786.9 | 6,605.4 | 230.4 | 230.8 | -96.15 | 480.2 | 7,975.0 | 785.6 | 327.1 | 458.53 | 1.713 | |
| 14,800.0 | 6,520.7 | 14,886.9 | 6,604.9 | 233.2 | 233.6 | -96.15 | 480.2 | 8,075.0 | 785.6 | 321.5 | 464.10 | 1.693 | |
| 14,900.0 | 6,520.1 | 14,986.9 | 6,604.3 | 236.0 | 236.4 | -96.15 | 480.2 | 8,175.0 | 785.6 | 315.9 | 469.68 | 1.673 | |
| 15,000.0 | 6,519.5 | 15,086.9 | 6,603.8 | 238.8 | 239.2 | -96.16 | 480.2 | 8,275.0 | 785.6 | 310.4 | 475.25 | 1.653 | |
| 15,100.0 | 6,518.9 | 15,186.9 | 6,603.3 | 241.6 | 242.0 | -96.16 | 480.2 | 8,375.0 | 785.6 | 304.8 | 480.82 | 1.634 | |
| 15,200.0 | 6,518.3 | 15,286.9 | 6,602.7 | 244.4 | 244.8 | -96.17 | 480.2 | 8,475.0 | 785.6 | 299.2 | 486.39 | 1.615 | |
| 15,300.0 | 6,517.8 | 15,386.9 | 6,602.2 | 247.2 | 247.6 | -96.17 | 480.2 | 8,575.0 | 785.6 | 293.7 | 491.97 | 1.597 | |
| 15,400.0 | 6,517.2 | 15,486.9 | 6,601.6 | 250.0 | 250.4 | -96.17 | 480.2 | 8,675.0 | 785.6 | 288.1 | 497.54 | 1.579 | |
| 15,500.0 | 6,516.6 | 15,586.9 | 6,601.1 | 252.8 | 253.2 | -96.18 | 480.2 | 8,775.0 | 785.6 | 282.5 | 503.11 | 1.562 | |
| 15,600.0 | 6,516.0 | 15,686.9 | 6,600.6 | 255.6 | 256.0 | -96.18 | 480.2 | 8,875.0 | 785.6 | 277.0 | 508.69 | 1.544 | |
| 15,700.0 | 6,515.4 | 15,786.9 | 6,600.0 | 258.4 | 258.8 | -96.18 | 480.2 | 8,975.0 | 785.7 | 271.4 | 514.26 | 1.528 | |
| 15,800.0 | 6,514.8 | 15,886.9 | 6,599.5 | 261.2 | 261.6 | -96.19 | 480.2 | 9,075.0 | 785.7 | 265.8 | 519.84 | 1.511 | |
| 15,900.0 | 6,514.2 | 15,986.9 | 6,598.9 | 264.1 | 264.4 | -96.19 | 480.2 | 9,175.0 | 785.7 | 260.3 | 525.41 | 1.495 | Level 3 |
| 16,000.0 | 6,513.6 | 16,086.9 | 6,598.4 | 266.9 | 267.2 | -96.20 | 480.2 | 9,275.0 | 785.7 | 254.7 | 530.98 | 1.480 | Level 3 |
| 16,100.0 | 6,513.0 | 16,186.9 | 6,597.9 | 269.7 | 270.0 | -96.20 | 480.2 | 9,375.0 | 785.7 | 249.1 | 536.56 | 1.464 | Level 3 |
| 16,200.0 | 6,512.4 | 16,286.9 | 6,597.3 | 272.5 | 272.8 | -96.20 | 480.2 | 9,475.0 | 785.7 | 243.5 | 542.13 | 1.449 | Level 3 |
| 16,235.8 | 6,512.2 | 16,322.6 | 6,597.1 | 273.5 | 273.8 | -96.21 | 480.2 | 9,510.8 | 785.7 | 241.6 | 544.13 | 1.444 | Level 3 |
| 16,269.0 | 6,512.0 | 16,344.5 | 6,597.0 | 274.4 | 274.4 | -96.21 | 480.2 | 9,532.7 | 785.8 | 240.1 | 545.67 | 1.440 | Level 3, SF |

| | | | |
|---|---|---|---|
| **Company:** | PETROLEUM DEVELOPMENT CORP DJ Basin | **Local Co-ordinate Reference:** | Well Bihain 26G-202 |
| **Project:** | SEC.26-T5N-R64W | **TVD Reference:** | WELL @ 4627.0ft (RKB - 23') |
| **Reference Site:** | Bihain 5N64W26GK Pad Sec.26-T5N-R64W | **MD Reference:** | WELL @ 4627.0ft (RKB - 23') |
| **Site Error:** | 0.0 ft | **North Reference:** | True |
| **Reference Well:** | Bihain 26G-202 | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.0 ft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | Wellbore #1 | **Database:** | US_EDM |
| **Reference Design:** | Plan #1 Extension (3-3-16) | **Offset TVD Reference:** | Offset Datum |

**Offset Design** Bihain 5N64W26GK Pad Sec.26-T5N-R64W - Bihain 26G-212 - Wellbore #1 - Plan #1 Extended (3-3-16

**Offset Site Error:** 0.0 ft

**Survey Program:** 0-MWD

**Offset Well Error:** 0.0 ft

| Reference Measured Depth (ft) | Reference Vertical Depth (ft) | Offset Measured Depth (ft) | Offset Vertical Depth (ft) | Semi Major Axis Reference (ft) | Semi Major Axis Offset (ft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (ft) | Offset Wellbore Centre +E/-W (ft) | Distance Between Centres (ft) | Distance Between Ellipses (ft) | Minimum Separation (ft) | Separation Factor | Warning |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -50.68 | 18.9 | -23.1 | 29.9 | | | | |
| 100.0 | 100.0 | 100.0 | 100.0 | 0.1 | 0.1 | -50.68 | 18.9 | -23.1 | 29.9 | 29.7 | 0.22 | 133.008 | |
| 200.0 | 200.0 | 200.0 | 200.0 | 0.3 | 0.3 | -50.68 | 18.9 | -23.1 | 29.9 | 29.2 | 0.67 | 44.336 | |
| 300.0 | 300.0 | 300.0 | 300.0 | 0.6 | 0.6 | -50.68 | 18.9 | -23.1 | 29.9 | 28.8 | 1.12 | 26.602 | |
| 400.0 | 400.0 | 400.0 | 400.0 | 0.8 | 0.8 | -50.68 | 18.9 | -23.1 | 29.9 | 28.3 | 1.57 | 19.001 | |
| 500.0 | 500.0 | 500.0 | 500.0 | 1.0 | 1.0 | -50.68 | 18.9 | -23.1 | 29.9 | 27.9 | 2.02 | 14.779 | |
| 600.0 | 600.0 | 600.0 | 600.0 | 1.2 | 1.2 | -50.68 | 18.9 | -23.1 | 29.9 | 27.4 | 2.47 | 12.092 | |
| 700.0 | 700.0 | 700.0 | 700.0 | 1.5 | 1.5 | -50.68 | 18.9 | -23.1 | 29.9 | 27.0 | 2.92 | 10.231 | |
| 800.0 | 800.0 | 800.0 | 800.0 | 1.7 | 1.7 | -50.68 | 18.9 | -23.1 | 29.9 | 26.5 | 3.37 | 8.867 | |
| 900.0 | 900.0 | 900.0 | 900.0 | 1.9 | 1.9 | -50.68 | 18.9 | -23.1 | 29.9 | 26.1 | 3.82 | 7.824 | |
| 1,000.0 | 1,000.0 | 1,000.0 | 1,000.0 | 2.1 | 2.1 | -50.68 | 18.9 | -23.1 | 29.9 | 25.6 | 4.27 | 7.000 | |
| 1,100.0 | 1,100.0 | 1,100.0 | 1,100.0 | 2.4 | 2.4 | -50.68 | 18.9 | -23.1 | 29.9 | 25.2 | 4.72 | 6.334 | |
| 1,200.0 | 1,200.0 | 1,200.0 | 1,200.0 | 2.6 | 2.6 | -50.68 | 18.9 | -23.1 | 29.9 | 24.7 | 5.17 | 5.783 | |
| 1,300.0 | 1,300.0 | 1,300.0 | 1,300.0 | 2.8 | 2.8 | -50.68 | 18.9 | -23.1 | 29.9 | 24.3 | 5.62 | 5.320 | |
| 1,400.0 | 1,400.0 | 1,400.0 | 1,400.0 | 3.0 | 3.0 | -50.68 | 18.9 | -23.1 | 29.9 | 23.8 | 6.07 | 4.926 | |
| 1,500.0 | 1,500.0 | 1,500.0 | 1,500.0 | 3.2 | 3.3 | 75.76 | 18.9 | -23.1 | 29.5 | 23.1 | 6.50 | 4.549 | |
| 1,600.0 | 1,599.9 | 1,599.9 | 1,599.9 | 3.4 | 3.5 | 83.35 | 18.9 | -23.1 | 28.8 | 21.9 | 6.91 | 4.175 | |
| 1,620.5 | 1,620.4 | 1,620.3 | 1,620.3 | 3.5 | 3.5 | 85.52 | 19.0 | -23.2 | 28.8 | 21.8 | 6.99 | 4.116 | CC |
| 1,700.0 | 1,699.7 | 1,699.1 | 1,699.1 | 3.6 | 3.7 | 94.59 | 19.4 | -24.3 | 29.8 | 22.5 | 7.32 | 4.070 | |
| 1,800.0 | 1,799.3 | 1,798.3 | 1,798.2 | 3.8 | 3.9 | 105.58 | 20.7 | -28.0 | 34.1 | 26.4 | 7.73 | 4.410 | |
| 1,900.0 | 1,898.6 | 1,897.3 | 1,897.0 | 4.1 | 4.1 | 114.00 | 22.8 | -34.0 | 41.7 | 33.6 | 8.16 | 5.112 | |
| 2,004.8 | 2,002.2 | 2,000.8 | 2,000.0 | 4.3 | 4.4 | 119.79 | 26.0 | -42.9 | 52.9 | 44.3 | 8.64 | 6.126 | |
| 2,100.0 | 2,096.3 | 2,094.7 | 2,093.3 | 4.6 | 4.6 | 122.28 | 29.7 | -53.2 | 64.9 | 55.8 | 9.09 | 7.140 | |
| 2,200.0 | 2,195.0 | 2,193.4 | 2,191.1 | 4.9 | 4.8 | 122.53 | 34.4 | -66.2 | 78.4 | 68.8 | 9.61 | 8.163 | |
| 2,300.0 | 2,293.8 | 2,292.5 | 2,289.2 | 5.2 | 5.1 | 122.51 | 39.1 | -79.5 | 92.0 | 81.9 | 10.14 | 9.074 | |
| 2,400.0 | 2,392.5 | 2,391.6 | 2,387.2 | 5.5 | 5.4 | 122.49 | 43.9 | -92.7 | 105.6 | 94.9 | 10.69 | 9.879 | |
| 2,500.0 | 2,491.3 | 2,490.6 | 2,485.3 | 5.8 | 5.7 | 122.47 | 48.7 | -106.0 | 119.2 | 108.0 | 11.25 | 10.592 | |
| 2,600.0 | 2,590.0 | 2,589.7 | 2,583.3 | 6.1 | 5.9 | 122.46 | 53.4 | -119.3 | 132.8 | 121.0 | 11.83 | 11.225 | |
| 2,700.0 | 2,688.8 | 2,688.8 | 2,681.4 | 6.4 | 6.2 | 122.45 | 58.2 | -132.6 | 146.4 | 134.0 | 12.42 | 11.788 | |
| 2,800.0 | 2,787.5 | 2,787.9 | 2,779.5 | 6.8 | 6.5 | 122.45 | 62.9 | -145.9 | 160.0 | 147.0 | 13.02 | 12.292 | |
| 2,900.0 | 2,886.3 | 2,886.9 | 2,877.5 | 7.1 | 6.8 | 122.44 | 67.7 | -159.2 | 173.6 | 160.0 | 13.62 | 12.744 | |
| 3,000.0 | 2,985.0 | 2,986.0 | 2,975.6 | 7.5 | 7.2 | 122.43 | 72.5 | -172.5 | 187.2 | 173.0 | 14.23 | 13.152 | |
| 3,100.0 | 3,083.8 | 3,085.1 | 3,073.6 | 7.8 | 7.5 | 122.43 | 77.2 | -185.8 | 200.8 | 185.9 | 14.85 | 13.520 | |
| 3,200.0 | 3,182.5 | 3,184.1 | 3,171.7 | 8.2 | 7.8 | 122.42 | 82.0 | -199.1 | 214.4 | 198.9 | 15.48 | 13.853 | |
| 3,300.0 | 3,281.3 | 3,283.2 | 3,269.8 | 8.5 | 8.1 | 122.42 | 86.8 | -212.3 | 228.0 | 211.9 | 16.11 | 14.157 | |
| 3,400.0 | 3,380.0 | 3,382.3 | 3,367.8 | 8.9 | 8.4 | 122.42 | 91.5 | -225.6 | 241.6 | 224.9 | 16.74 | 14.434 | |
| 3,500.0 | 3,478.8 | 3,481.4 | 3,465.9 | 9.2 | 8.7 | 122.41 | 96.3 | -238.9 | 255.2 | 237.8 | 17.37 | 14.688 | |
| 3,600.0 | 3,577.5 | 3,580.4 | 3,563.9 | 9.6 | 9.1 | 122.41 | 101.0 | -252.2 | 268.8 | 250.8 | 18.01 | 14.921 | |
| 3,700.0 | 3,676.3 | 3,679.5 | 3,662.0 | 9.9 | 9.4 | 122.41 | 105.8 | -265.5 | 282.4 | 263.7 | 18.66 | 15.135 | |
| 3,800.0 | 3,775.0 | 3,778.6 | 3,760.1 | 10.3 | 9.7 | 122.41 | 110.6 | -278.8 | 296.0 | 276.7 | 19.30 | 15.334 | |
| 3,900.0 | 3,873.8 | 3,877.6 | 3,858.1 | 10.7 | 10.1 | 122.41 | 115.3 | -292.1 | 309.6 | 289.6 | 19.95 | 15.517 | |
| 4,000.0 | 3,972.5 | 3,976.7 | 3,956.2 | 11.0 | 10.4 | 122.40 | 120.1 | -305.4 | 323.2 | 302.6 | 20.60 | 15.687 | |
| 4,100.0 | 4,071.3 | 4,075.8 | 4,054.2 | 11.4 | 10.7 | 122.40 | 124.9 | -318.7 | 336.8 | 315.5 | 21.26 | 15.845 | |
| 4,200.0 | 4,170.0 | 4,174.9 | 4,152.3 | 11.8 | 11.1 | 122.40 | 129.6 | -331.9 | 350.4 | 328.5 | 21.91 | 15.993 | |
| 4,300.0 | 4,268.8 | 4,273.9 | 4,250.4 | 12.1 | 11.4 | 122.40 | 134.4 | -345.2 | 364.0 | 341.4 | 22.57 | 16.130 | |
| 4,400.0 | 4,367.5 | 4,373.0 | 4,348.4 | 12.5 | 11.7 | 122.40 | 139.1 | -358.5 | 377.6 | 354.4 | 23.22 | 16.259 | |
| 4,500.0 | 4,466.3 | 4,472.1 | 4,446.5 | 12.9 | 12.1 | 122.40 | 143.9 | -371.8 | 391.2 | 367.3 | 23.88 | 16.380 | |
| 4,600.0 | 4,565.0 | 4,571.1 | 4,544.5 | 13.2 | 12.4 | 122.40 | 148.7 | -385.1 | 404.8 | 380.3 | 24.54 | 16.493 | |
| 4,700.0 | 4,663.8 | 4,670.2 | 4,642.6 | 13.6 | 12.7 | 122.40 | 153.4 | -398.4 | 418.4 | 393.2 | 25.20 | 16.600 | |
| 4,800.0 | 4,762.5 | 4,769.3 | 4,740.7 | 14.0 | 13.1 | 122.39 | 158.2 | -411.7 | 432.0 | 406.1 | 25.87 | 16.700 | |
| 4,886.9 | 4,848.3 | 4,857.4 | 4,827.9 | 14.3 | 13.3 | 122.42 | 162.3 | -423.3 | 443.7 | 417.3 | 26.43 | 16.788 | |

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

| | | | |
|---|---|---|---|
| **Company:** | PETROLEUM DEVELOPMENT CORP DJ Basin | **Local Co-ordinate Reference:** | Well Bihain 26G-202 |
| **Project:** | SEC.26-T5N-R64W | **TVD Reference:** | WELL @ 4627.0ft (RKB - 23') |
| **Reference Site:** | Bihain 5N64W26GK Pad Sec.26-T5N-R64W | **MD Reference:** | WELL @ 4627.0ft (RKB - 23') |
| **Site Error:** | 0.0 ft | **North Reference:** | True |
| **Reference Well:** | Bihain 26G-202 | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.0 ft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | Wellbore #1 | **Database:** | US_EDM |
| **Reference Design:** | Plan #1 Extension (3-3-16) | **Offset TVD Reference:** | Offset Datum |

**Offset Design** Bihain 5N64W26GK Pad Sec.26-T5N-R64W - Bihain 26G-212 - Wellbore #1 - Plan #1 Extended (3-3-16

**Offset Site Error:** 0.0 ft

**Survey Program:** 0-MWD

**Offset Well Error:** 0.0 ft

| Reference Measured Depth (ft) | Reference Vertical Depth (ft) | Offset Measured Depth (ft) | Offset Vertical Depth (ft) | Semi Major Axis Reference (ft) | Semi Major Axis Offset (ft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (ft) | Offset Wellbore Centre +E/-W (ft) | Distance Between Centres (ft) | Distance Between Ellipses (ft) | Minimum Separation (ft) | Separation Factor | Warning |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4,900.0 | 4,861.3 | 4,871.1 | 4,841.5 | 14.4 | 13.4 | 122.47 | 162.9 | -424.9 | 445.4 | 418.9 | 26.51 | 16.801 | |
| 5,000.0 | 4,960.3 | 4,976.3 | 4,946.1 | 14.6 | 13.6 | 122.86 | 166.7 | -435.5 | 456.6 | 429.6 | 27.02 | 16.896 | |
| 5,100.0 | 5,059.8 | 5,081.9 | 5,051.4 | 14.8 | 13.9 | 123.24 | 169.2 | -442.5 | 464.6 | 437.1 | 27.46 | 16.916 | |
| 5,200.0 | 5,159.6 | 5,187.7 | 5,157.2 | 15.0 | 14.0 | 123.64 | 170.4 | -445.8 | 469.4 | 441.6 | 27.85 | 16.858 | |
| 5,300.0 | 5,259.5 | 5,290.1 | 5,259.5 | 15.2 | 14.2 | 123.96 | 170.5 | -446.1 | 471.3 | 443.1 | 28.18 | 16.726 | |
| 5,340.5 | 5,300.0 | 5,330.5 | 5,300.0 | 15.3 | 14.3 | -0.02 | 170.5 | -446.1 | 471.4 | 446.4 | 25.06 | 18.809 | |
| 5,400.0 | 5,359.5 | 5,390.1 | 5,359.5 | 15.4 | 14.4 | -0.02 | 170.5 | -446.1 | 471.4 | 446.1 | 25.29 | 18.641 | |
| 5,500.0 | 5,459.5 | 5,490.1 | 5,459.5 | 15.5 | 14.6 | -0.02 | 170.5 | -446.1 | 471.4 | 445.8 | 25.67 | 18.366 | |
| 5,600.0 | 5,559.5 | 5,590.1 | 5,559.5 | 15.7 | 14.7 | -0.02 | 170.5 | -446.1 | 471.4 | 445.4 | 26.05 | 18.098 | |
| 5,700.0 | 5,659.5 | 5,690.1 | 5,659.5 | 15.8 | 14.9 | -0.02 | 170.5 | -446.1 | 471.4 | 445.0 | 26.43 | 17.836 | |
| 5,800.0 | 5,759.5 | 5,790.1 | 5,759.5 | 16.0 | 15.1 | -0.02 | 170.5 | -446.1 | 471.4 | 444.6 | 26.82 | 17.580 | |
| 5,843.3 | 5,802.8 | 5,833.3 | 5,802.8 | 16.0 | 15.2 | -0.02 | 170.5 | -446.1 | 471.4 | 444.4 | 26.98 | 17.471 | |
| 5,850.0 | 5,809.5 | 5,840.1 | 5,809.5 | 16.1 | 15.2 | -90.02 | 170.5 | -446.1 | 471.4 | 441.3 | 30.09 | 15.668 | |
| 5,900.0 | 5,859.5 | 5,890.1 | 5,859.5 | 16.1 | 15.3 | -90.02 | 170.5 | -444.1 | 471.4 | 441.2 | 30.21 | 15.603 | |
| 5,950.0 | 5,909.2 | 5,940.1 | 5,909.2 | 16.1 | 15.3 | -90.02 | 170.5 | -438.7 | 471.4 | 441.1 | 30.29 | 15.562 | |
| 6,000.0 | 5,958.4 | 5,990.1 | 5,958.5 | 16.2 | 15.3 | -90.03 | 170.5 | -430.2 | 471.4 | 441.1 | 30.33 | 15.543 | |
| 6,050.0 | 6,007.0 | 6,040.1 | 6,007.1 | 16.2 | 15.3 | -90.03 | 170.5 | -418.4 | 471.4 | 441.1 | 30.33 | 15.543 | |
| 6,100.0 | 6,054.7 | 6,090.2 | 6,054.8 | 16.1 | 15.3 | -90.03 | 170.5 | -403.5 | 471.4 | 441.1 | 30.30 | 15.557 | |
| 6,150.0 | 6,101.4 | 6,140.2 | 6,101.5 | 16.1 | 15.3 | -90.04 | 170.5 | -385.5 | 471.4 | 441.2 | 30.26 | 15.581 | |
| 6,200.0 | 6,146.7 | 6,190.2 | 6,146.9 | 16.1 | 15.3 | -90.04 | 170.5 | -364.5 | 471.4 | 441.2 | 30.20 | 15.608 | |
| 6,250.0 | 6,190.6 | 6,240.2 | 6,190.8 | 16.0 | 15.3 | -90.04 | 170.5 | -340.6 | 471.4 | 441.3 | 30.16 | 15.632 | |
| 6,300.0 | 6,232.8 | 6,290.2 | 6,233.0 | 16.0 | 15.2 | -90.05 | 170.5 | -313.8 | 471.4 | 441.3 | 30.14 | 15.643 | |
| 6,350.0 | 6,273.2 | 6,340.3 | 6,273.4 | 15.9 | 15.3 | -90.05 | 170.5 | -284.3 | 471.4 | 441.3 | 30.16 | 15.632 | |
| 6,400.0 | 6,311.5 | 6,390.3 | 6,311.8 | 15.9 | 15.3 | -90.05 | 170.5 | -252.3 | 471.4 | 441.2 | 30.25 | 15.586 | |
| 6,450.0 | 6,347.7 | 6,440.3 | 6,348.0 | 15.9 | 15.4 | -90.05 | 170.5 | -217.8 | 471.4 | 441.0 | 30.42 | 15.496 | |
| 6,500.0 | 6,381.6 | 6,490.3 | 6,381.9 | 15.9 | 15.5 | -90.05 | 170.5 | -181.0 | 471.4 | 440.7 | 30.71 | 15.352 | |
| 6,550.0 | 6,413.0 | 6,540.4 | 6,413.3 | 16.0 | 15.7 | -90.06 | 170.5 | -142.0 | 471.4 | 440.3 | 31.13 | 15.145 | |
| 6,600.0 | 6,441.7 | 6,590.4 | 6,442.1 | 16.1 | 16.0 | -90.06 | 170.5 | -101.1 | 471.4 | 439.7 | 31.70 | 14.874 | |
| 6,650.0 | 6,467.7 | 6,640.4 | 6,468.2 | 16.4 | 16.3 | -90.06 | 170.5 | -58.4 | 471.4 | 439.0 | 32.43 | 14.538 | |
| 6,700.0 | 6,490.9 | 6,690.5 | 6,491.4 | 16.7 | 16.8 | -90.06 | 170.5 | -14.1 | 471.4 | 438.1 | 33.33 | 14.143 | |
| 6,750.0 | 6,511.1 | 6,740.5 | 6,511.6 | 17.2 | 17.3 | -90.06 | 170.5 | 31.7 | 471.4 | 437.0 | 34.41 | 13.700 | |
| 6,800.0 | 6,528.3 | 6,790.5 | 6,528.8 | 17.7 | 18.0 | -90.06 | 170.5 | 78.6 | 471.4 | 435.8 | 35.66 | 13.220 | |
| 6,850.0 | 6,542.4 | 6,840.6 | 6,542.9 | 18.4 | 18.7 | -90.06 | 170.5 | 126.6 | 471.4 | 434.4 | 37.07 | 12.717 | |
| 6,900.0 | 6,553.3 | 6,890.6 | 6,553.8 | 19.2 | 19.5 | -90.06 | 170.5 | 175.4 | 471.4 | 432.8 | 38.63 | 12.204 | |
| 6,950.0 | 6,561.0 | 6,940.6 | 6,561.5 | 20.0 | 20.3 | -90.06 | 170.5 | 224.9 | 471.4 | 431.1 | 40.32 | 11.693 | |
| 7,000.0 | 6,565.5 | 6,990.7 | 6,566.0 | 20.9 | 21.2 | -90.06 | 170.5 | 274.7 | 471.4 | 429.3 | 42.11 | 11.195 | |
| 7,047.8 | 6,566.7 | 7,038.5 | 6,567.2 | 21.8 | 22.1 | -90.06 | 170.5 | 322.5 | 471.4 | 427.5 | 43.91 | 10.737 | |
| 7,091.4 | 6,566.5 | 7,082.1 | 6,567.0 | 22.6 | 23.0 | -90.07 | 170.5 | 366.1 | 471.4 | 425.8 | 45.62 | 10.333 | |
| 7,100.0 | 6,566.4 | 7,090.7 | 6,567.0 | 22.8 | 23.2 | -90.07 | 170.5 | 374.7 | 471.4 | 425.5 | 45.96 | 10.257 | |
| 7,200.0 | 6,565.8 | 7,190.7 | 6,566.5 | 24.9 | 25.3 | -90.09 | 170.5 | 474.7 | 471.4 | 421.3 | 50.14 | 9.402 | |
| 7,300.0 | 6,565.2 | 7,290.7 | 6,566.1 | 27.1 | 27.5 | -90.11 | 170.5 | 574.7 | 471.4 | 416.9 | 54.57 | 8.638 | |
| 7,400.0 | 6,564.6 | 7,390.7 | 6,565.7 | 29.4 | 29.8 | -90.13 | 170.5 | 674.7 | 471.4 | 412.2 | 59.21 | 7.962 | |
| 7,500.0 | 6,564.0 | 7,490.7 | 6,565.2 | 31.8 | 32.2 | -90.15 | 170.5 | 774.7 | 471.4 | 407.4 | 64.00 | 7.366 | |
| 7,600.0 | 6,563.4 | 7,590.7 | 6,564.8 | 34.3 | 34.7 | -90.16 | 170.5 | 874.7 | 471.4 | 402.5 | 68.92 | 6.840 | |
| 7,700.0 | 6,562.8 | 7,690.7 | 6,564.4 | 36.8 | 37.2 | -90.18 | 170.5 | 974.7 | 471.4 | 397.5 | 73.94 | 6.376 | |
| 7,800.0 | 6,562.3 | 7,790.7 | 6,563.9 | 39.4 | 39.7 | -90.20 | 170.5 | 1,074.7 | 471.4 | 392.4 | 79.04 | 5.964 | |
| 7,900.0 | 6,561.7 | 7,890.7 | 6,563.5 | 42.0 | 42.3 | -90.22 | 170.5 | 1,174.7 | 471.4 | 387.2 | 84.21 | 5.598 | |
| 8,000.0 | 6,561.1 | 7,990.7 | 6,563.1 | 44.6 | 44.9 | -90.24 | 170.5 | 1,274.7 | 471.4 | 382.0 | 89.43 | 5.272 | |
| 8,100.0 | 6,560.5 | 8,090.7 | 6,562.6 | 47.2 | 47.5 | -90.26 | 170.5 | 1,374.7 | 471.4 | 376.7 | 94.70 | 4.978 | |
| 8,200.0 | 6,559.9 | 8,190.7 | 6,562.2 | 49.9 | 50.2 | -90.28 | 170.5 | 1,474.7 | 471.4 | 371.4 | 100.00 | 4.714 | |
| 8,300.0 | 6,559.3 | 8,290.7 | 6,561.7 | 52.5 | 52.9 | -90.30 | 170.5 | 1,574.7 | 471.4 | 366.1 | 105.34 | 4.475 | |

| | | | |
|---|---|---|---|
| **Company:** | PETROLEUM DEVELOPMENT CORP DJ Basin | **Local Co-ordinate Reference:** | Well Bihain 26G-202 |
| **Project:** | SEC.26-T5N-R64W | **TVD Reference:** | WELL @ 4627.0ft (RKB - 23') |
| **Reference Site:** | Bihain 5N64W26GK Pad Sec.26-T5N-R64W | **MD Reference:** | WELL @ 4627.0ft (RKB - 23') |
| **Site Error:** | 0.0 ft | **North Reference:** | True |
| **Reference Well:** | Bihain 26G-202 | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.0 ft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | Wellbore #1 | **Database:** | US_EDM |
| **Reference Design:** | Plan #1 Extension (3-3-16) | **Offset TVD Reference:** | Offset Datum |

**Offset Design** Bihain 5N64W26GK Pad Sec.26-T5N-R64W - Bihain 26G-212 - Wellbore #1 - Plan #1 Extended (3-3-16

**Offset Site Error:** 0.0 ft

**Survey Program:** 0-MWD

**Offset Well Error:** 0.0 ft

| Reference Measured Depth (ft) | Reference Vertical Depth (ft) | Offset Measured Depth (ft) | Offset Vertical Depth (ft) | Semi Major Axis Reference (ft) | Semi Major Axis Offset (ft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (ft) | Offset Wellbore Centre +E/-W (ft) | Distance Between Centres (ft) | Distance Between Ellipses (ft) | Minimum Separation (ft) | Separation Factor | Warning |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 8,400.0 | 6,558.7 | 8,390.7 | 6,561.3 | 55.2 | 55.5 | -90.32 | 170.5 | 1,674.7 | 471.4 | 360.7 | 110.70 | 4.258 | |
| 8,500.0 | 6,558.1 | 8,490.7 | 6,560.9 | 57.9 | 58.2 | -90.34 | 170.5 | 1,774.7 | 471.4 | 355.3 | 116.09 | 4.061 | |
| 8,600.0 | 6,557.5 | 8,590.7 | 6,560.4 | 60.6 | 60.9 | -90.36 | 170.5 | 1,874.7 | 471.4 | 349.9 | 121.50 | 3.880 | |
| 8,700.0 | 6,556.9 | 8,690.7 | 6,560.0 | 63.3 | 63.7 | -90.37 | 170.5 | 1,974.7 | 471.4 | 344.5 | 126.93 | 3.714 | |
| 8,800.0 | 6,556.3 | 8,790.7 | 6,559.6 | 66.0 | 66.4 | -90.39 | 170.5 | 2,074.7 | 471.4 | 339.1 | 132.38 | 3.561 | |
| 8,900.0 | 6,555.7 | 8,890.7 | 6,559.1 | 68.8 | 69.1 | -90.41 | 170.5 | 2,174.7 | 471.4 | 333.6 | 137.84 | 3.420 | |
| 9,000.0 | 6,555.1 | 8,990.7 | 6,558.7 | 71.5 | 71.8 | -90.43 | 170.5 | 2,274.7 | 471.4 | 328.1 | 143.31 | 3.290 | |
| 9,100.0 | 6,554.5 | 9,090.7 | 6,558.3 | 74.2 | 74.6 | -90.45 | 170.5 | 2,374.7 | 471.4 | 322.7 | 148.79 | 3.169 | |
| 9,200.0 | 6,553.9 | 9,190.7 | 6,557.8 | 77.0 | 77.3 | -90.47 | 170.5 | 2,474.7 | 471.4 | 317.2 | 154.28 | 3.056 | |
| 9,300.0 | 6,553.4 | 9,290.7 | 6,557.4 | 79.7 | 80.1 | -90.49 | 170.5 | 2,574.7 | 471.4 | 311.7 | 159.78 | 2.951 | |
| 9,400.0 | 6,552.8 | 9,390.7 | 6,556.9 | 82.5 | 82.8 | -90.51 | 170.5 | 2,674.7 | 471.4 | 306.2 | 165.29 | 2.852 | |
| 9,500.0 | 6,552.2 | 9,490.7 | 6,556.5 | 85.3 | 85.6 | -90.53 | 170.5 | 2,774.7 | 471.4 | 300.6 | 170.81 | 2.760 | |
| 9,600.0 | 6,551.6 | 9,590.7 | 6,556.1 | 88.0 | 88.4 | -90.55 | 170.5 | 2,874.7 | 471.4 | 295.1 | 176.33 | 2.674 | |
| 9,700.0 | 6,551.0 | 9,690.7 | 6,555.6 | 90.8 | 91.1 | -90.57 | 170.5 | 2,974.7 | 471.5 | 289.6 | 181.86 | 2.592 | |
| 9,800.0 | 6,550.4 | 9,790.7 | 6,555.2 | 93.6 | 93.9 | -90.58 | 170.5 | 3,074.7 | 471.5 | 284.1 | 187.39 | 2.516 | |
| 9,900.0 | 6,549.8 | 9,890.7 | 6,554.8 | 96.3 | 96.7 | -90.60 | 170.5 | 3,174.7 | 471.5 | 278.5 | 192.93 | 2.444 | |
| 10,000.0 | 6,549.2 | 9,990.7 | 6,554.3 | 99.1 | 99.4 | -90.62 | 170.5 | 3,274.7 | 471.5 | 273.0 | 198.47 | 2.375 | |
| 10,100.0 | 6,548.6 | 10,090.7 | 6,553.9 | 101.9 | 102.2 | -90.64 | 170.5 | 3,374.7 | 471.5 | 267.4 | 204.02 | 2.311 | |
| 10,200.0 | 6,548.0 | 10,190.7 | 6,553.5 | 104.6 | 105.0 | -90.66 | 170.5 | 3,474.7 | 471.5 | 261.9 | 209.57 | 2.250 | |
| 10,300.0 | 6,547.4 | 10,290.7 | 6,553.0 | 107.4 | 107.8 | -90.68 | 170.5 | 3,574.7 | 471.5 | 256.3 | 215.12 | 2.192 | |
| 10,400.0 | 6,546.8 | 10,390.7 | 6,552.6 | 110.2 | 110.5 | -90.70 | 170.5 | 3,674.7 | 471.5 | 250.8 | 220.68 | 2.136 | |
| 10,500.0 | 6,546.2 | 10,490.7 | 6,552.1 | 113.0 | 113.3 | -90.72 | 170.5 | 3,774.7 | 471.5 | 245.2 | 226.24 | 2.084 | |
| 10,600.0 | 6,545.6 | 10,590.7 | 6,551.7 | 115.8 | 116.1 | -90.74 | 170.5 | 3,874.7 | 471.5 | 239.7 | 231.80 | 2.034 | |
| 10,700.0 | 6,545.0 | 10,690.7 | 6,551.3 | 118.5 | 118.9 | -90.76 | 170.5 | 3,974.7 | 471.5 | 234.1 | 237.37 | 1.986 | |
| 10,800.0 | 6,544.5 | 10,790.7 | 6,550.8 | 121.3 | 121.7 | -90.78 | 170.5 | 4,074.7 | 471.5 | 228.5 | 242.94 | 1.941 | |
| 10,900.0 | 6,543.9 | 10,890.7 | 6,550.4 | 124.1 | 124.4 | -90.79 | 170.5 | 4,174.7 | 471.5 | 223.0 | 248.51 | 1.897 | |
| 11,000.0 | 6,543.3 | 10,990.7 | 6,550.0 | 126.9 | 127.2 | -90.81 | 170.5 | 4,274.7 | 471.5 | 217.4 | 254.08 | 1.856 | |
| 11,100.0 | 6,542.7 | 11,090.7 | 6,549.5 | 129.7 | 130.0 | -90.83 | 170.5 | 4,374.7 | 471.5 | 211.8 | 259.65 | 1.816 | |
| 11,200.0 | 6,542.1 | 11,190.7 | 6,549.1 | 132.5 | 132.8 | -90.85 | 170.5 | 4,474.6 | 471.5 | 206.2 | 265.23 | 1.778 | |
| 11,300.0 | 6,541.5 | 11,290.7 | 6,548.7 | 135.3 | 135.6 | -90.87 | 170.5 | 4,574.6 | 471.5 | 200.7 | 270.81 | 1.741 | |
| 11,400.0 | 6,540.9 | 11,390.7 | 6,548.2 | 138.1 | 138.4 | -90.89 | 170.5 | 4,674.6 | 471.5 | 195.1 | 276.39 | 1.706 | |
| 11,500.0 | 6,540.3 | 11,490.7 | 6,547.8 | 140.8 | 141.2 | -90.91 | 170.5 | 4,774.6 | 471.5 | 189.5 | 281.97 | 1.672 | |
| 11,600.0 | 6,539.7 | 11,590.7 | 6,547.3 | 143.6 | 144.0 | -90.93 | 170.5 | 4,874.6 | 471.5 | 183.9 | 287.55 | 1.640 | |
| 11,700.0 | 6,539.1 | 11,690.7 | 6,546.9 | 146.4 | 146.8 | -90.95 | 170.5 | 4,974.6 | 471.5 | 178.4 | 293.13 | 1.608 | |
| 11,800.0 | 6,538.5 | 11,790.7 | 6,546.5 | 149.2 | 149.6 | -90.97 | 170.5 | 5,074.6 | 471.5 | 172.8 | 298.72 | 1.578 | |
| 11,900.0 | 6,537.9 | 11,890.7 | 6,546.0 | 152.0 | 152.4 | -90.99 | 170.5 | 5,174.6 | 471.5 | 167.2 | 304.30 | 1.549 | |
| 12,000.0 | 6,537.3 | 11,990.7 | 6,545.6 | 154.8 | 155.1 | -91.00 | 170.5 | 5,274.6 | 471.5 | 161.6 | 309.89 | 1.522 | |
| 12,100.0 | 6,536.7 | 12,090.7 | 6,545.2 | 157.6 | 157.9 | -91.02 | 170.5 | 5,374.6 | 471.5 | 156.0 | 315.47 | 1.495 | Level 3 |
| 12,200.0 | 6,536.1 | 12,190.7 | 6,544.7 | 160.4 | 160.7 | -91.04 | 170.5 | 5,474.6 | 471.5 | 150.4 | 321.06 | 1.469 | Level 3 |
| 12,300.0 | 6,535.6 | 12,290.7 | 6,544.3 | 163.2 | 163.5 | -91.06 | 170.5 | 5,574.6 | 471.5 | 144.9 | 326.65 | 1.443 | Level 3 |
| 12,400.0 | 6,535.0 | 12,390.7 | 6,543.9 | 166.0 | 166.3 | -91.08 | 170.5 | 5,674.6 | 471.5 | 139.3 | 332.24 | 1.419 | Level 3 |
| 12,500.0 | 6,534.4 | 12,490.7 | 6,543.4 | 168.8 | 169.1 | -91.10 | 170.5 | 5,774.6 | 471.5 | 133.7 | 337.83 | 1.396 | Level 3 |
| 12,600.0 | 6,533.8 | 12,590.7 | 6,543.0 | 171.6 | 171.9 | -91.12 | 170.5 | 5,874.6 | 471.5 | 128.1 | 343.43 | 1.373 | Level 3 |
| 12,700.0 | 6,533.2 | 12,690.7 | 6,542.5 | 174.4 | 174.7 | -91.14 | 170.5 | 5,974.6 | 471.5 | 122.5 | 349.02 | 1.351 | Level 3 |
| 12,800.0 | 6,532.6 | 12,790.7 | 6,542.1 | 177.2 | 177.5 | -91.16 | 170.5 | 6,074.6 | 471.5 | 116.9 | 354.61 | 1.330 | Level 3 |
| 12,900.0 | 6,532.0 | 12,890.7 | 6,541.7 | 180.0 | 180.3 | -91.18 | 170.5 | 6,174.6 | 471.5 | 111.3 | 360.20 | 1.309 | Level 3 |
| 13,000.0 | 6,531.4 | 12,990.7 | 6,541.2 | 182.8 | 183.1 | -91.20 | 170.5 | 6,274.6 | 471.5 | 105.7 | 365.80 | 1.289 | Level 3 |
| 13,100.0 | 6,530.8 | 13,090.7 | 6,540.8 | 185.6 | 185.9 | -91.21 | 170.5 | 6,374.6 | 471.5 | 100.1 | 371.39 | 1.270 | Level 3 |
| 13,200.0 | 6,530.2 | 13,190.7 | 6,540.4 | 188.4 | 188.7 | -91.23 | 170.5 | 6,474.6 | 471.5 | 94.5 | 376.99 | 1.251 | Level 3 |
| 13,300.0 | 6,529.6 | 13,290.7 | 6,539.9 | 191.2 | 191.5 | -91.25 | 170.5 | 6,574.6 | 471.5 | 88.9 | 382.58 | 1.232 | Level 2 |
| 13,400.0 | 6,529.0 | 13,390.7 | 6,539.5 | 194.0 | 194.3 | -91.27 | 170.5 | 6,674.6 | 471.5 | 83.4 | 388.18 | 1.215 | Level 2 |

| | | | |
|---|---|---|---|
| **Company:** | PETROLEUM DEVELOPMENT CORP DJ Basin | **Local Co-ordinate Reference:** | Well Bihain 26G-202 |
| **Project:** | SEC.26-T5N-R64W | **TVD Reference:** | WELL @ 4627.0ft (RKB - 23') |
| **Reference Site:** | Bihain 5N64W26GK Pad Sec.26-T5N-R64W | **MD Reference:** | WELL @ 4627.0ft (RKB - 23') |
| **Site Error:** | 0.0 ft | **North Reference:** | True |
| **Reference Well:** | Bihain 26G-202 | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.0 ft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | Wellbore #1 | **Database:** | US_EDM |
| **Reference Design:** | Plan #1 Extension (3-3-16) | **Offset TVD Reference:** | Offset Datum |

**Offset Design** Bihain 5N64W26GK Pad Sec.26-T5N-R64W - Bihain 26G-212 - Wellbore #1 - Plan #1 Extended (3-3-16

**Offset Site Error:** 0.0 ft

**Survey Program:** 0-MWD

**Offset Well Error:** 0.0 ft

| Reference Measured Depth (ft) | Reference Vertical Depth (ft) | Offset Measured Depth (ft) | Offset Vertical Depth (ft) | Semi Major Axis Reference (ft) | Semi Major Axis Offset (ft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (ft) | Offset Wellbore Centre +E/-W (ft) | Distance Between Centres (ft) | Distance Between Ellipses (ft) | Minimum Separation (ft) | Separation Factor | Warning |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 13,500.0 | 6,528.4 | 13,490.7 | 6,539.1 | 196.8 | 197.1 | -91.29 | 170.5 | 6,774.6 | 471.5 | 77.8 | 393.78 | 1.197 | Level 2 |
| 13,600.0 | 6,527.8 | 13,590.7 | 6,538.6 | 199.6 | 199.9 | -91.31 | 170.5 | 6,874.6 | 471.5 | 72.2 | 399.37 | 1.181 | Level 2 |
| 13,700.0 | 6,527.2 | 13,690.7 | 6,538.2 | 202.4 | 202.7 | -91.33 | 170.5 | 6,974.6 | 471.5 | 66.6 | 404.97 | 1.164 | Level 2 |
| 13,800.0 | 6,526.7 | 13,790.7 | 6,537.7 | 205.2 | 205.5 | -91.35 | 170.5 | 7,074.6 | 471.6 | 61.0 | 410.57 | 1.149 | Level 2 |
| 13,900.0 | 6,526.1 | 13,890.7 | 6,537.3 | 208.0 | 208.3 | -91.37 | 170.5 | 7,174.6 | 471.6 | 55.4 | 416.17 | 1.133 | Level 2 |
| 14,000.0 | 6,525.5 | 13,990.7 | 6,536.9 | 210.8 | 211.1 | -91.39 | 170.5 | 7,274.6 | 471.6 | 49.8 | 421.77 | 1.118 | Level 2 |
| 14,100.0 | 6,524.9 | 14,090.7 | 6,536.4 | 213.6 | 213.9 | -91.41 | 170.5 | 7,374.6 | 471.6 | 44.2 | 427.36 | 1.103 | Level 2 |
| 14,200.0 | 6,524.3 | 14,190.7 | 6,536.0 | 216.4 | 216.7 | -91.42 | 170.5 | 7,474.6 | 471.6 | 38.6 | 432.96 | 1.089 | Level 2 |
| 14,300.0 | 6,523.7 | 14,290.7 | 6,535.6 | 219.2 | 219.5 | -91.44 | 170.5 | 7,574.6 | 471.6 | 33.0 | 438.56 | 1.075 | Level 2 |
| 14,400.0 | 6,523.1 | 14,390.7 | 6,535.1 | 222.0 | 222.3 | -91.46 | 170.5 | 7,674.6 | 471.6 | 27.4 | 444.16 | 1.062 | Level 2 |
| 14,500.0 | 6,522.5 | 14,490.7 | 6,534.7 | 224.8 | 225.1 | -91.48 | 170.5 | 7,774.6 | 471.6 | 21.8 | 449.76 | 1.049 | Level 2 |
| 14,600.0 | 6,521.9 | 14,590.7 | 6,534.3 | 227.6 | 227.9 | -91.50 | 170.5 | 7,874.6 | 471.6 | 16.2 | 455.36 | 1.036 | Level 2 |
| 14,700.0 | 6,521.3 | 14,690.7 | 6,533.8 | 230.4 | 230.7 | -91.52 | 170.5 | 7,974.6 | 471.6 | 10.6 | 460.96 | 1.023 | Level 2 |
| 14,800.0 | 6,520.7 | 14,790.7 | 6,533.4 | 233.2 | 233.5 | -91.54 | 170.5 | 8,074.6 | 471.6 | 5.0 | 466.56 | 1.011 | Level 2 |
| 14,900.0 | 6,520.1 | 14,890.7 | 6,532.9 | 236.0 | 236.3 | -91.56 | 170.5 | 8,174.6 | 471.6 | -0.6 | 472.16 | 0.999 | Level 1 |
| 15,000.0 | 6,519.5 | 14,990.7 | 6,532.5 | 238.8 | 239.2 | -91.58 | 170.5 | 8,274.6 | 471.6 | -6.2 | 477.76 | 0.987 | Level 1 |
| 15,100.0 | 6,518.9 | 15,090.7 | 6,532.1 | 241.6 | 242.0 | -91.60 | 170.5 | 8,374.6 | 471.6 | -11.8 | 483.36 | 0.976 | Level 1 |
| 15,200.0 | 6,518.3 | 15,190.7 | 6,531.6 | 244.4 | 244.8 | -91.62 | 170.5 | 8,474.6 | 471.6 | -17.4 | 488.97 | 0.964 | Level 1 |
| 15,300.0 | 6,517.8 | 15,290.7 | 6,531.2 | 247.2 | 247.6 | -91.63 | 170.5 | 8,574.6 | 471.6 | -23.0 | 494.57 | 0.954 | Level 1 |
| 15,400.0 | 6,517.2 | 15,390.7 | 6,530.8 | 250.0 | 250.4 | -91.65 | 170.5 | 8,674.6 | 471.6 | -28.6 | 500.17 | 0.943 | Level 1 |
| 15,500.0 | 6,516.6 | 15,490.7 | 6,530.3 | 252.8 | 253.2 | -91.67 | 170.5 | 8,774.6 | 471.6 | -34.2 | 505.77 | 0.932 | Level 1 |
| 15,600.0 | 6,516.0 | 15,590.7 | 6,529.9 | 255.6 | 256.0 | -91.69 | 170.5 | 8,874.6 | 471.6 | -39.7 | 511.37 | 0.922 | Level 1 |
| 15,700.0 | 6,515.4 | 15,690.7 | 6,529.5 | 258.4 | 258.8 | -91.71 | 170.5 | 8,974.6 | 471.6 | -45.3 | 516.97 | 0.912 | Level 1 |
| 15,800.0 | 6,514.8 | 15,790.7 | 6,529.0 | 261.2 | 261.6 | -91.73 | 170.5 | 9,074.6 | 471.6 | -50.9 | 522.57 | 0.903 | Level 1 |
| 15,900.0 | 6,514.2 | 15,890.7 | 6,528.6 | 264.1 | 264.4 | -91.75 | 170.5 | 9,174.6 | 471.6 | -56.5 | 528.18 | 0.893 | Level 1 |
| 16,000.0 | 6,513.6 | 15,990.7 | 6,528.1 | 266.9 | 267.2 | -91.77 | 170.5 | 9,274.6 | 471.6 | -62.1 | 533.78 | 0.884 | Level 1 |
| 16,100.0 | 6,513.0 | 16,090.7 | 6,527.7 | 269.7 | 270.0 | -91.79 | 170.5 | 9,374.6 | 471.6 | -67.7 | 539.38 | 0.874 | Level 1 |
| 16,200.0 | 6,512.4 | 16,190.7 | 6,527.3 | 272.5 | 272.8 | -91.81 | 170.5 | 9,474.6 | 471.6 | -73.3 | 544.98 | 0.865 | Level 1 |
| 16,237.9 | 6,512.2 | 16,228.6 | 6,527.1 | 273.5 | 273.9 | -91.81 | 170.5 | 9,512.5 | 471.7 | -75.5 | 547.10 | 0.862 | Level 1 |
| 16,269.0 | 6,512.0 | 16,253.1 | 6,527.0 | 274.4 | 274.6 | -91.82 | 170.5 | 9,537.0 | 471.7 | -77.0 | 548.66 | 0.860 | Level 1, ES, SF |

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|---|---|---|---|
| **Company:** | PETROLEUM DEVELOPMENT CORP DJ Basin | **Local Co-ordinate Reference:** | Well Bihain 26G-202 |
| **Project:** | SEC.26-T5N-R64W | **TVD Reference:** | WELL @ 4627.0ft (RKB - 23') |
| **Reference Site:** | Bihain 5N64W26GK Pad Sec.26-T5N-R64W | **MD Reference:** | WELL @ 4627.0ft (RKB - 23') |
| **Site Error:** | 0.0 ft | **North Reference:** | True |
| **Reference Well:** | Bihain 26G-202 | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.0 ft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | Wellbore #1 | **Database:** | US_EDM |
| **Reference Design:** | Plan #1 Extension (3-3-16) | **Offset TVD Reference:** | Offset Datum |

**Offset Design** Bihain 5N64W26GK Pad Sec.26-T5N-R64W - Bihain 26G-312 - Wellbore #1 - Plan #1 Extension (3-4-1

**Offset Site Error:** 0.0 ft

**Survey Program:** 0-MWD

**Offset Well Error:** 0.0 ft

| Reference Measured Depth (ft) | Reference Vertical Depth (ft) | Offset Measured Depth (ft) | Offset Vertical Depth (ft) | Semi Major Axis Reference (ft) | Semi Major Axis Offset (ft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (ft) | Offset Wellbore Centre +E/-W (ft) | Distance Between Centres (ft) | Distance Between Ellipses (ft) | Minimum Separation (ft) | Separation Factor | Warning |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -51.00 | 9.5 | -11.7 | 15.1 | 15.1 | 0.00 | N/A | |
| 100.0 | 100.0 | 100.0 | 100.0 | 0.1 | 0.1 | -51.00 | 9.5 | -11.7 | 15.1 | 14.8 | 0.22 | 66.996 | |
| 200.0 | 200.0 | 200.0 | 200.0 | 0.3 | 0.3 | -51.00 | 9.5 | -11.7 | 15.1 | 14.4 | 0.67 | 22.332 | |
| 300.0 | 300.0 | 300.0 | 300.0 | 0.6 | 0.6 | -51.00 | 9.5 | -11.7 | 15.1 | 13.9 | 1.12 | 13.399 | |
| 400.0 | 400.0 | 400.0 | 400.0 | 0.8 | 0.8 | -51.00 | 9.5 | -11.7 | 15.1 | 13.5 | 1.57 | 9.571 | |
| 500.0 | 500.0 | 500.0 | 500.0 | 1.0 | 1.0 | -51.00 | 9.5 | -11.7 | 15.1 | 13.0 | 2.02 | 7.444 | |
| 600.0 | 600.0 | 600.0 | 600.0 | 1.2 | 1.2 | -51.00 | 9.5 | -11.7 | 15.1 | 12.6 | 2.47 | 6.091 | |
| 700.0 | 700.0 | 700.0 | 700.0 | 1.5 | 1.5 | -51.00 | 9.5 | -11.7 | 15.1 | 12.1 | 2.92 | 5.154 | |
| 800.0 | 800.0 | 800.0 | 800.0 | 1.7 | 1.7 | -51.00 | 9.5 | -11.7 | 15.1 | 11.7 | 3.37 | 4.466 | |
| 900.0 | 900.0 | 900.0 | 900.0 | 1.9 | 1.9 | -51.00 | 9.5 | -11.7 | 15.1 | 11.2 | 3.82 | 3.941 | |
| 1,000.0 | 1,000.0 | 1,000.0 | 1,000.0 | 2.1 | 2.1 | -51.00 | 9.5 | -11.7 | 15.1 | 10.8 | 4.27 | 3.526 | |
| 1,100.0 | 1,100.0 | 1,100.0 | 1,100.0 | 2.4 | 2.4 | -51.00 | 9.5 | -11.7 | 15.1 | 10.3 | 4.72 | 3.190 | |
| 1,200.0 | 1,200.0 | 1,200.0 | 1,200.0 | 2.6 | 2.6 | -51.00 | 9.5 | -11.7 | 15.1 | 9.9 | 5.17 | 2.913 | |
| 1,300.0 | 1,300.0 | 1,300.0 | 1,300.0 | 2.8 | 2.8 | -51.00 | 9.5 | -11.7 | 15.1 | 9.4 | 5.62 | 2.680 | |
| 1,400.0 | 1,400.0 | 1,400.0 | 1,400.0 | 3.0 | 3.0 | -51.00 | 9.5 | -11.7 | 15.1 | 9.0 | 6.07 | 2.481 | |
| 1,500.0 | 1,500.0 | 1,500.0 | 1,500.0 | 3.2 | 3.3 | 77.88 | 9.5 | -11.7 | 14.7 | 8.2 | 6.50 | 2.267 | |
| 1,583.4 | 1,583.3 | 1,583.3 | 1,583.3 | 3.4 | 3.4 | 90.00 | 9.5 | -11.7 | 14.4 | 7.6 | 6.84 | 2.106 | CC |
| 1,600.0 | 1,599.9 | 1,599.9 | 1,599.9 | 3.4 | 3.5 | 93.31 | 9.5 | -11.7 | 14.4 | 7.5 | 6.91 | 2.088 | |
| 1,700.0 | 1,699.7 | 1,699.7 | 1,699.7 | 3.6 | 3.7 | 117.04 | 9.5 | -11.7 | 16.2 | 8.9 | 7.32 | 2.209 | |
| 1,800.0 | 1,799.3 | 1,799.3 | 1,799.3 | 3.8 | 3.9 | 138.77 | 9.5 | -11.7 | 21.9 | 14.2 | 7.74 | 2.833 | |
| 1,900.0 | 1,898.6 | 1,898.6 | 1,898.6 | 4.1 | 4.2 | 152.81 | 9.5 | -11.7 | 31.7 | 23.6 | 8.14 | 3.898 | |
| 2,004.8 | 2,002.2 | 2,002.2 | 2,002.2 | 4.3 | 4.4 | 161.42 | 9.5 | -11.7 | 45.7 | 37.1 | 8.56 | 5.340 | |
| 2,100.0 | 2,096.3 | 2,097.1 | 2,097.1 | 4.6 | 4.6 | 165.52 | 9.3 | -12.5 | 59.5 | 50.5 | 8.95 | 6.649 | |
| 2,200.0 | 2,195.0 | 2,197.1 | 2,197.0 | 4.9 | 4.8 | 167.38 | 8.9 | -15.0 | 72.8 | 63.5 | 9.35 | 7.788 | |
| 2,300.0 | 2,293.8 | 2,297.5 | 2,297.4 | 5.2 | 5.0 | 167.99 | 8.1 | -19.3 | 84.8 | 75.0 | 9.76 | 8.683 | |
| 2,400.0 | 2,392.5 | 2,398.2 | 2,397.9 | 5.5 | 5.2 | 167.82 | 7.1 | -25.3 | 95.3 | 85.1 | 10.19 | 9.357 | |
| 2,500.0 | 2,491.3 | 2,499.2 | 2,498.6 | 5.8 | 5.4 | 167.11 | 5.7 | -33.1 | 104.5 | 93.8 | 10.62 | 9.834 | |
| 2,600.0 | 2,590.0 | 2,600.4 | 2,599.3 | 6.1 | 5.6 | 165.97 | 4.0 | -42.6 | 112.2 | 101.1 | 11.07 | 10.137 | |
| 2,700.0 | 2,688.8 | 2,701.7 | 2,700.0 | 6.4 | 5.9 | 164.42 | 2.0 | -54.0 | 118.6 | 107.1 | 11.53 | 10.286 | |
| 2,800.0 | 2,787.5 | 2,803.2 | 2,800.5 | 6.8 | 6.1 | 162.50 | -0.4 | -67.0 | 123.8 | 111.8 | 12.02 | 10.302 | |
| 2,900.0 | 2,886.3 | 2,903.1 | 2,899.5 | 7.1 | 6.4 | 160.45 | -2.8 | -80.9 | 128.4 | 115.8 | 12.52 | 10.252 | |
| 3,000.0 | 2,985.0 | 3,002.9 | 2,998.3 | 7.5 | 6.6 | 158.54 | -5.3 | -94.8 | 133.0 | 120.0 | 13.04 | 10.206 | |
| 3,100.0 | 3,083.8 | 3,102.7 | 3,097.1 | 7.8 | 6.9 | 156.76 | -7.8 | -108.7 | 137.9 | 124.3 | 13.57 | 10.162 | |
| 3,200.0 | 3,182.5 | 3,202.5 | 3,195.9 | 8.2 | 7.2 | 155.10 | -10.2 | -122.6 | 142.8 | 128.7 | 14.11 | 10.120 | |
| 3,300.0 | 3,281.3 | 3,302.3 | 3,294.7 | 8.5 | 7.5 | 153.56 | -12.7 | -136.4 | 147.9 | 133.2 | 14.67 | 10.080 | |
| 3,400.0 | 3,380.0 | 3,402.1 | 3,393.5 | 8.9 | 7.8 | 152.12 | -15.2 | -150.3 | 153.1 | 137.8 | 15.24 | 10.042 | |
| 3,500.0 | 3,478.8 | 3,501.9 | 3,492.2 | 9.2 | 8.1 | 150.77 | -17.6 | -164.2 | 158.3 | 142.5 | 15.82 | 10.005 | |
| 3,600.0 | 3,577.5 | 3,601.7 | 3,591.0 | 9.6 | 8.4 | 149.51 | -20.1 | -178.1 | 163.6 | 147.2 | 16.41 | 9.970 | |
| 3,700.0 | 3,676.3 | 3,701.5 | 3,689.8 | 9.9 | 8.7 | 148.33 | -22.6 | -191.9 | 169.0 | 152.0 | 17.01 | 9.935 | |
| 3,800.0 | 3,775.0 | 3,801.3 | 3,788.6 | 10.3 | 9.0 | 147.22 | -25.1 | -205.8 | 174.5 | 156.9 | 17.62 | 9.903 | |
| 3,900.0 | 3,873.8 | 3,901.1 | 3,887.4 | 10.7 | 9.3 | 146.18 | -27.5 | -219.7 | 180.1 | 161.8 | 18.24 | 9.871 | |
| 4,000.0 | 3,972.5 | 4,000.9 | 3,986.2 | 11.0 | 9.6 | 145.21 | -30.0 | -233.6 | 185.7 | 166.8 | 18.86 | 9.841 | |
| 4,100.0 | 4,071.3 | 4,100.6 | 4,085.0 | 11.4 | 9.9 | 144.29 | -32.5 | -247.4 | 191.3 | 171.8 | 19.50 | 9.813 | |
| 4,200.0 | 4,170.0 | 4,200.4 | 4,183.8 | 11.8 | 10.3 | 143.42 | -34.9 | -261.3 | 197.0 | 176.9 | 20.13 | 9.785 | |
| 4,300.0 | 4,268.8 | 4,300.2 | 4,282.6 | 12.1 | 10.6 | 142.61 | -37.4 | -275.2 | 202.7 | 181.9 | 20.77 | 9.759 | |
| 4,400.0 | 4,367.5 | 4,400.0 | 4,381.4 | 12.5 | 10.9 | 141.83 | -39.9 | -289.1 | 208.5 | 187.1 | 21.42 | 9.734 | |
| 4,500.0 | 4,466.3 | 4,499.8 | 4,480.2 | 12.9 | 11.2 | 141.10 | -42.3 | -302.9 | 214.3 | 192.2 | 22.07 | 9.710 | |
| 4,600.0 | 4,565.0 | 4,599.6 | 4,579.0 | 13.2 | 11.6 | 140.41 | -44.8 | -316.8 | 220.1 | 197.4 | 22.73 | 9.687 | |
| 4,700.0 | 4,663.8 | 4,699.4 | 4,677.8 | 13.6 | 11.9 | 139.75 | -47.3 | -330.7 | 226.0 | 202.6 | 23.38 | 9.665 | |
| 4,800.0 | 4,762.5 | 4,799.2 | 4,776.6 | 14.0 | 12.2 | 139.13 | -49.7 | -344.6 | 231.9 | 207.9 | 24.05 | 9.644 | |
| 4,886.9 | 4,848.3 | 4,885.9 | 4,862.4 | 14.3 | 12.5 | 138.61 | -51.9 | -356.6 | 237.1 | 212.4 | 24.62 | 9.627 | |

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

| | | | |
|---|---|---|---|
| **Company:** | PETROLEUM DEVELOPMENT CORP DJ Basin | **Local Co-ordinate Reference:** | Well Bihain 26G-202 |
| **Project:** | SEC.26-T5N-R64W | **TVD Reference:** | WELL @ 4627.0ft (RKB - 23') |
| **Reference Site:** | Bihain 5N64W26GK Pad Sec.26-T5N-R64W | **MD Reference:** | WELL @ 4627.0ft (RKB - 23') |
| **Site Error:** | 0.0 ft | **North Reference:** | True |
| **Reference Well:** | Bihain 26G-202 | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.0 ft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | Wellbore #1 | **Database:** | US_EDM |
| **Reference Design:** | Plan #1 Extension (3-3-16) | **Offset TVD Reference:** | Offset Datum |

**Offset Design** Bihain 5N64W26GK Pad Sec.26-T5N-R64W - Bihain 26G-312 - Wellbore #1 - Plan #1 Extension (3-4-1

**Offset Site Error:** 0.0 ft

**Survey Program:** 0-MWD

**Offset Well Error:** 0.0 ft

| Reference Measured Depth (ft) | Reference Vertical Depth (ft) | Offset Measured Depth (ft) | Offset Vertical Depth (ft) | Semi Major Axis Reference (ft) | Semi Major Axis Offset (ft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (ft) | Offset Wellbore Centre +E/-W (ft) | Distance Between Centres (ft) | Distance Between Ellipses (ft) | Minimum Separation (ft) | Separation Factor | Warning |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4,900.0 | 4,861.3 | 4,899.0 | 4,875.4 | 14.4 | 12.6 | 138.54 | -52.2 | -358.4 | 237.8 | 213.1 | 24.71 | 9.623 | |
| 5,000.0 | 4,960.3 | 4,998.8 | 4,974.2 | 14.6 | 12.9 | 137.69 | -54.7 | -372.3 | 242.1 | 216.8 | 25.36 | 9.546 | |
| 5,100.0 | 5,059.8 | 5,098.6 | 5,073.0 | 14.8 | 13.2 | 136.28 | -57.1 | -386.2 | 244.0 | 217.9 | 26.03 | 9.372 | |
| 5,200.0 | 5,159.6 | 5,198.3 | 5,171.6 | 15.0 | 13.6 | 134.28 | -59.6 | -400.0 | 243.5 | 216.8 | 26.72 | 9.113 | |
| 5,300.0 | 5,259.5 | 5,297.6 | 5,270.0 | 15.2 | 13.9 | 131.64 | -62.1 | -413.9 | 241.0 | 213.6 | 27.43 | 8.787 | |
| 5,340.5 | 5,300.0 | 5,337.4 | 5,309.3 | 15.3 | 14.0 | 6.39 | -63.0 | -419.4 | 239.5 | 214.2 | 25.36 | 9.447 | |
| 5,400.0 | 5,359.5 | 5,395.1 | 5,366.6 | 15.4 | 14.2 | 4.70 | -64.3 | -426.5 | 237.5 | 212.0 | 25.44 | 9.334 | |
| 5,500.0 | 5,459.5 | 5,492.7 | 5,463.7 | 15.5 | 14.4 | 2.41 | -66.0 | -436.1 | 235.1 | 209.5 | 25.62 | 9.177 | |
| 5,600.0 | 5,559.5 | 5,590.9 | 5,561.7 | 15.7 | 14.6 | 0.88 | -67.1 | -442.4 | 233.8 | 207.9 | 25.86 | 9.040 | |
| 5,700.0 | 5,659.5 | 5,689.4 | 5,660.1 | 15.8 | 14.8 | 0.14 | -67.7 | -445.4 | 233.2 | 207.1 | 26.17 | 8.913 | |
| 5,755.9 | 5,715.4 | 5,744.6 | 5,715.4 | 15.9 | 14.9 | 0.07 | -67.7 | -445.7 | 233.2 | 206.8 | 26.37 | 8.844 | |
| 5,800.0 | 5,759.5 | 5,788.8 | 5,759.5 | 16.0 | 15.0 | 0.07 | -67.7 | -445.7 | 233.2 | 206.6 | 26.53 | 8.788 | |
| 5,843.3 | 5,802.8 | 5,832.0 | 5,802.8 | 16.0 | 15.0 | 0.07 | -67.7 | -445.7 | 233.2 | 206.5 | 26.70 | 8.734 | |
| 5,850.0 | 5,809.5 | 5,838.8 | 5,809.5 | 16.1 | 15.0 | -89.93 | -67.7 | -445.7 | 233.2 | 203.1 | 30.05 | 7.759 | |
| 5,864.6 | 5,824.1 | 5,853.3 | 5,824.1 | 16.1 | 15.1 | -90.00 | -67.7 | -445.7 | 233.2 | 203.1 | 30.10 | 7.747 | |
| 5,900.0 | 5,859.5 | 5,888.7 | 5,859.5 | 16.1 | 15.1 | -90.44 | -67.7 | -445.7 | 233.2 | 202.9 | 30.23 | 7.712 | |
| 5,950.0 | 5,909.2 | 5,938.7 | 5,909.4 | 16.1 | 15.2 | -91.63 | -67.7 | -445.2 | 233.3 | 202.8 | 30.43 | 7.667 | |
| 6,000.0 | 5,958.4 | 5,989.0 | 5,959.6 | 16.2 | 15.3 | -92.91 | -67.7 | -441.8 | 233.5 | 202.9 | 30.57 | 7.638 | |
| 6,050.0 | 6,007.0 | 6,039.7 | 6,009.9 | 16.2 | 15.3 | -94.17 | -67.7 | -435.1 | 233.8 | 203.1 | 30.66 | 7.626 | |
| 6,100.0 | 6,054.7 | 6,090.8 | 6,059.9 | 16.1 | 15.3 | -95.42 | -67.7 | -424.9 | 234.2 | 203.5 | 30.70 | 7.630 | |
| 6,150.0 | 6,101.4 | 6,142.2 | 6,109.5 | 16.1 | 15.3 | -96.64 | -67.7 | -411.3 | 234.8 | 204.1 | 30.70 | 7.648 | |
| 6,200.0 | 6,146.7 | 6,193.9 | 6,158.3 | 16.1 | 15.3 | -97.83 | -67.7 | -394.3 | 235.4 | 204.7 | 30.66 | 7.678 | |
| 6,250.0 | 6,190.6 | 6,246.1 | 6,206.3 | 16.0 | 15.3 | -98.99 | -67.7 | -373.8 | 236.1 | 205.5 | 30.60 | 7.717 | |
| 6,300.0 | 6,232.8 | 6,298.6 | 6,253.0 | 16.0 | 15.2 | -100.10 | -67.7 | -350.0 | 236.9 | 206.4 | 30.52 | 7.761 | |
| 6,350.0 | 6,273.2 | 6,351.4 | 6,298.3 | 15.9 | 15.2 | -101.17 | -67.7 | -322.8 | 237.7 | 207.3 | 30.45 | 7.806 | |
| 6,400.0 | 6,311.5 | 6,404.6 | 6,341.9 | 15.9 | 15.2 | -102.18 | -67.7 | -292.3 | 238.6 | 208.2 | 30.41 | 7.845 | |
| 6,450.0 | 6,347.7 | 6,458.1 | 6,383.5 | 15.9 | 15.3 | -103.14 | -67.7 | -258.7 | 239.5 | 209.1 | 30.42 | 7.872 | |
| 6,500.0 | 6,381.6 | 6,511.9 | 6,422.9 | 15.9 | 15.4 | -104.03 | -67.7 | -222.0 | 240.4 | 209.9 | 30.51 | 7.878 | |
| 6,550.0 | 6,413.0 | 6,566.1 | 6,459.8 | 16.0 | 15.5 | -104.86 | -67.7 | -182.4 | 241.3 | 210.6 | 30.71 | 7.857 | |
| 6,600.0 | 6,441.7 | 6,620.5 | 6,494.0 | 16.1 | 15.7 | -105.62 | -67.7 | -140.0 | 242.2 | 211.1 | 31.04 | 7.801 | |
| 6,650.0 | 6,467.7 | 6,675.2 | 6,525.2 | 16.4 | 16.1 | -106.31 | -67.7 | -95.1 | 243.0 | 211.5 | 31.53 | 7.707 | |
| 6,700.0 | 6,490.9 | 6,730.1 | 6,553.2 | 16.7 | 16.5 | -106.92 | -67.7 | -47.9 | 243.8 | 211.6 | 32.19 | 7.572 | |
| 6,750.0 | 6,511.1 | 6,785.3 | 6,577.9 | 17.2 | 17.0 | -107.45 | -67.7 | 1.4 | 244.4 | 211.4 | 33.05 | 7.397 | |
| 6,800.0 | 6,528.3 | 6,840.7 | 6,599.0 | 17.7 | 17.6 | -107.91 | -67.7 | 52.6 | 245.1 | 211.0 | 34.10 | 7.187 | |
| 6,850.0 | 6,542.4 | 6,896.2 | 6,616.4 | 18.4 | 18.4 | -108.28 | -67.7 | 105.3 | 245.6 | 210.2 | 35.34 | 6.949 | |
| 6,900.0 | 6,553.3 | 6,951.8 | 6,630.0 | 19.2 | 19.2 | -108.57 | -67.7 | 159.2 | 246.0 | 209.2 | 36.77 | 6.689 | |
| 6,950.0 | 6,561.0 | 7,007.6 | 6,639.6 | 20.0 | 20.1 | -108.77 | -67.7 | 214.1 | 246.3 | 207.9 | 38.38 | 6.417 | |
| 7,000.0 | 6,565.5 | 7,063.4 | 6,645.2 | 20.9 | 21.1 | -108.90 | -67.7 | 269.6 | 246.5 | 206.3 | 40.14 | 6.141 | |
| 7,047.8 | 6,566.7 | 7,116.7 | 6,646.7 | 21.8 | 22.1 | -108.93 | -67.7 | 323.0 | 246.5 | 204.6 | 41.93 | 5.879 | |
| 7,100.0 | 6,566.4 | 7,168.9 | 6,646.4 | 22.8 | 23.1 | -108.93 | -67.7 | 375.2 | 246.5 | 202.6 | 43.89 | 5.617 | |
| 7,200.0 | 6,565.8 | 7,268.9 | 6,645.8 | 24.9 | 25.2 | -108.93 | -67.7 | 475.2 | 246.5 | 198.7 | 47.85 | 5.152 | |
| 7,300.0 | 6,565.2 | 7,368.9 | 6,645.2 | 27.1 | 27.4 | -108.93 | -67.7 | 575.2 | 246.5 | 194.5 | 52.05 | 4.736 | |
| 7,400.0 | 6,564.6 | 7,468.9 | 6,644.6 | 29.4 | 29.7 | -108.93 | -67.7 | 675.2 | 246.5 | 190.1 | 56.45 | 4.367 | |
| 7,500.0 | 6,564.0 | 7,568.9 | 6,644.0 | 31.8 | 32.1 | -108.93 | -67.7 | 775.2 | 246.5 | 185.5 | 60.99 | 4.042 | |
| 7,600.0 | 6,563.4 | 7,668.9 | 6,643.4 | 34.3 | 34.6 | -108.93 | -67.7 | 875.2 | 246.5 | 180.9 | 65.66 | 3.754 | |
| 7,700.0 | 6,562.8 | 7,768.9 | 6,642.8 | 36.8 | 37.1 | -108.93 | -67.7 | 975.2 | 246.5 | 176.1 | 70.42 | 3.501 | |
| 7,800.0 | 6,562.3 | 7,868.9 | 6,642.2 | 39.4 | 39.6 | -108.93 | -67.7 | 1,075.2 | 246.5 | 171.3 | 75.25 | 3.276 | |
| 7,900.0 | 6,561.7 | 7,968.9 | 6,641.6 | 42.0 | 42.2 | -108.93 | -67.7 | 1,175.2 | 246.5 | 166.4 | 80.15 | 3.075 | |
| 8,000.0 | 6,561.1 | 8,068.9 | 6,641.0 | 44.6 | 44.8 | -108.93 | -67.7 | 1,275.1 | 246.5 | 161.4 | 85.11 | 2.897 | |
| 8,100.0 | 6,560.5 | 8,168.9 | 6,640.5 | 47.2 | 47.4 | -108.93 | -67.7 | 1,375.1 | 246.5 | 156.4 | 90.10 | 2.736 | |
| 8,200.0 | 6,559.9 | 8,268.9 | 6,639.9 | 49.9 | 50.1 | -108.93 | -67.7 | 1,475.1 | 246.5 | 151.4 | 95.13 | 2.591 | |

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

| | | | |
|---|---|---|---|
| **Company:** | PETROLEUM DEVELOPMENT CORP DJ Basin | **Local Co-ordinate Reference:** | Well Bihain 26G-202 |
| **Project:** | SEC.26-T5N-R64W | **TVD Reference:** | WELL @ 4627.0ft (RKB - 23') |
| **Reference Site:** | Bihain 5N64W26GK Pad Sec.26-T5N-R64W | **MD Reference:** | WELL @ 4627.0ft (RKB - 23') |
| **Site Error:** | 0.0 ft | **North Reference:** | True |
| **Reference Well:** | Bihain 26G-202 | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.0 ft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | Wellbore #1 | **Database:** | US_EDM |
| **Reference Design:** | Plan #1 Extension (3-3-16) | **Offset TVD Reference:** | Offset Datum |

**Offset Design** Bihain 5N64W26GK Pad Sec.26-T5N-R64W - Bihain 26G-312 - Wellbore #1 - Plan #1 Extension (3-4-1

**Offset Site Error:** 0.0 ft

**Survey Program:** 0-MWD

**Offset Well Error:** 0.0 ft

| Reference Measured Depth (ft) | Reference Vertical Depth (ft) | Offset Measured Depth (ft) | Offset Vertical Depth (ft) | Semi Major Axis Reference (ft) | Semi Major Axis Offset (ft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (ft) | Offset Wellbore Centre +E/-W (ft) | Distance Between Centres (ft) | Distance Between Ellipses (ft) | Minimum Separation (ft) | Separation Factor | Warning |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 8,300.0 | 6,559.3 | 8,368.9 | 6,639.3 | 52.5 | 52.8 | -108.93 | -67.7 | 1,575.1 | 246.5 | 146.3 | 100.20 | 2.460 | |
| 8,400.0 | 6,558.7 | 8,468.9 | 6,638.7 | 55.2 | 55.4 | -108.93 | -67.7 | 1,675.1 | 246.5 | 141.2 | 105.29 | 2.341 | |
| 8,500.0 | 6,558.1 | 8,568.9 | 6,638.1 | 57.9 | 58.1 | -108.93 | -67.7 | 1,775.1 | 246.5 | 136.1 | 110.40 | 2.233 | |
| 8,600.0 | 6,557.5 | 8,668.9 | 6,637.5 | 60.6 | 60.8 | -108.93 | -67.7 | 1,875.1 | 246.5 | 131.0 | 115.53 | 2.134 | |
| 8,700.0 | 6,556.9 | 8,768.9 | 6,636.9 | 63.3 | 63.5 | -108.93 | -67.7 | 1,975.1 | 246.5 | 125.8 | 120.68 | 2.043 | |
| 8,800.0 | 6,556.3 | 8,868.9 | 6,636.3 | 66.0 | 66.3 | -108.93 | -67.7 | 2,075.1 | 246.5 | 120.7 | 125.85 | 1.959 | |
| 8,900.0 | 6,555.7 | 8,968.9 | 6,635.7 | 68.8 | 69.0 | -108.93 | -67.7 | 2,175.1 | 246.5 | 115.5 | 131.03 | 1.881 | |
| 9,000.0 | 6,555.1 | 9,068.9 | 6,635.1 | 71.5 | 71.7 | -108.93 | -67.7 | 2,275.1 | 246.5 | 110.3 | 136.22 | 1.810 | |
| 9,100.0 | 6,554.5 | 9,168.9 | 6,634.5 | 74.2 | 74.5 | -108.93 | -67.7 | 2,375.1 | 246.5 | 105.1 | 141.42 | 1.743 | |
| 9,200.0 | 6,553.9 | 9,268.9 | 6,633.9 | 77.0 | 77.2 | -108.93 | -67.7 | 2,475.1 | 246.5 | 99.9 | 146.63 | 1.681 | |
| 9,300.0 | 6,553.4 | 9,368.9 | 6,633.3 | 79.7 | 80.0 | -108.93 | -67.7 | 2,575.1 | 246.5 | 94.7 | 151.85 | 1.623 | |
| 9,400.0 | 6,552.8 | 9,468.9 | 6,632.7 | 82.5 | 82.7 | -108.93 | -67.7 | 2,675.1 | 246.5 | 89.4 | 157.08 | 1.569 | |
| 9,500.0 | 6,552.2 | 9,568.9 | 6,632.1 | 85.3 | 85.5 | -108.93 | -67.7 | 2,775.1 | 246.5 | 84.2 | 162.32 | 1.519 | |
| 9,600.0 | 6,551.6 | 9,668.9 | 6,631.6 | 88.0 | 88.2 | -108.93 | -67.7 | 2,875.1 | 246.5 | 78.9 | 167.56 | 1.471 | Level 3 |
| 9,700.0 | 6,551.0 | 9,768.9 | 6,631.0 | 90.8 | 91.0 | -108.93 | -67.7 | 2,975.1 | 246.5 | 73.7 | 172.80 | 1.427 | Level 3 |
| 9,800.0 | 6,550.4 | 9,868.9 | 6,630.4 | 93.6 | 93.8 | -108.93 | -67.7 | 3,075.1 | 246.5 | 68.4 | 178.05 | 1.384 | Level 3 |
| 9,900.0 | 6,549.8 | 9,968.9 | 6,629.8 | 96.3 | 96.5 | -108.93 | -67.7 | 3,175.1 | 246.5 | 63.2 | 183.31 | 1.345 | Level 3 |
| 10,000.0 | 6,549.2 | 10,068.9 | 6,629.2 | 99.1 | 99.3 | -108.93 | -67.7 | 3,275.1 | 246.5 | 57.9 | 188.57 | 1.307 | Level 3 |
| 10,100.0 | 6,548.6 | 10,168.9 | 6,628.6 | 101.9 | 102.1 | -108.93 | -67.7 | 3,375.1 | 246.5 | 52.7 | 193.84 | 1.272 | Level 3 |
| 10,200.0 | 6,548.0 | 10,268.9 | 6,628.0 | 104.6 | 104.9 | -108.93 | -67.7 | 3,475.1 | 246.5 | 47.4 | 199.10 | 1.238 | Level 2 |
| 10,300.0 | 6,547.4 | 10,368.9 | 6,627.4 | 107.4 | 107.6 | -108.93 | -67.7 | 3,575.1 | 246.5 | 42.1 | 204.38 | 1.206 | Level 2 |
| 10,400.0 | 6,546.8 | 10,468.9 | 6,626.8 | 110.2 | 110.4 | -108.93 | -67.7 | 3,675.1 | 246.5 | 36.9 | 209.65 | 1.176 | Level 2 |
| 10,500.0 | 6,546.2 | 10,568.9 | 6,626.2 | 113.0 | 113.2 | -108.93 | -67.7 | 3,775.1 | 246.5 | 31.6 | 214.93 | 1.147 | Level 2 |
| 10,600.0 | 6,545.6 | 10,668.9 | 6,625.6 | 115.8 | 116.0 | -108.93 | -67.7 | 3,875.1 | 246.5 | 26.3 | 220.21 | 1.119 | Level 2 |
| 10,700.0 | 6,545.0 | 10,768.9 | 6,625.0 | 118.5 | 118.8 | -108.93 | -67.7 | 3,975.1 | 246.5 | 21.0 | 225.49 | 1.093 | Level 2 |
| 10,800.0 | 6,544.5 | 10,868.9 | 6,624.4 | 121.3 | 121.5 | -108.93 | -67.7 | 4,075.1 | 246.5 | 15.7 | 230.78 | 1.068 | Level 2 |
| 10,900.0 | 6,543.9 | 10,968.9 | 6,623.8 | 124.1 | 124.3 | -108.93 | -67.7 | 4,175.1 | 246.5 | 10.4 | 236.06 | 1.044 | Level 2 |
| 11,000.0 | 6,543.3 | 11,068.9 | 6,623.2 | 126.9 | 127.1 | -108.93 | -67.7 | 4,275.1 | 246.5 | 5.1 | 241.35 | 1.021 | Level 2 |
| 11,100.0 | 6,542.7 | 11,168.9 | 6,622.7 | 129.7 | 129.9 | -108.93 | -67.7 | 4,375.1 | 246.5 | -0.1 | 246.65 | 0.999 | Level 1 |
| 11,200.0 | 6,542.1 | 11,268.9 | 6,622.1 | 132.5 | 132.7 | -108.93 | -67.7 | 4,475.1 | 246.5 | -5.4 | 251.94 | 0.978 | Level 1 |
| 11,300.0 | 6,541.5 | 11,368.9 | 6,621.5 | 135.3 | 135.5 | -108.93 | -67.7 | 4,575.1 | 246.5 | -10.7 | 257.23 | 0.958 | Level 1 |
| 11,400.0 | 6,540.9 | 11,468.9 | 6,620.9 | 138.1 | 138.3 | -108.93 | -67.7 | 4,675.1 | 246.5 | -16.0 | 262.53 | 0.939 | Level 1 |
| 11,500.0 | 6,540.3 | 11,568.9 | 6,620.3 | 140.8 | 141.1 | -108.93 | -67.7 | 4,775.1 | 246.5 | -21.3 | 267.83 | 0.920 | Level 1 |
| 11,600.0 | 6,539.7 | 11,668.9 | 6,619.7 | 143.6 | 143.9 | -108.93 | -67.7 | 4,875.1 | 246.5 | -26.6 | 273.13 | 0.903 | Level 1 |
| 11,700.0 | 6,539.1 | 11,768.9 | 6,619.1 | 146.4 | 146.6 | -108.93 | -67.7 | 4,975.1 | 246.5 | -31.9 | 278.43 | 0.885 | Level 1 |
| 11,800.0 | 6,538.5 | 11,868.9 | 6,618.5 | 149.2 | 149.4 | -108.93 | -67.7 | 5,075.1 | 246.5 | -37.2 | 283.73 | 0.869 | Level 1 |
| 11,900.0 | 6,537.9 | 11,968.9 | 6,617.9 | 152.0 | 152.2 | -108.93 | -67.7 | 5,175.1 | 246.5 | -42.5 | 289.03 | 0.853 | Level 1 |
| 12,000.0 | 6,537.3 | 12,068.9 | 6,617.3 | 154.8 | 155.0 | -108.93 | -67.7 | 5,275.1 | 246.5 | -47.8 | 294.34 | 0.837 | Level 1 |
| 12,100.0 | 6,536.7 | 12,168.9 | 6,616.7 | 157.6 | 157.8 | -108.93 | -67.7 | 5,375.1 | 246.5 | -53.1 | 299.64 | 0.823 | Level 1 |
| 12,200.0 | 6,536.1 | 12,268.9 | 6,616.1 | 160.4 | 160.6 | -108.93 | -67.7 | 5,475.1 | 246.5 | -58.4 | 304.95 | 0.808 | Level 1 |
| 12,300.0 | 6,535.6 | 12,368.9 | 6,615.5 | 163.2 | 163.4 | -108.93 | -67.7 | 5,575.1 | 246.5 | -63.8 | 310.25 | 0.795 | Level 1 |
| 12,400.0 | 6,535.0 | 12,468.9 | 6,614.9 | 166.0 | 166.2 | -108.93 | -67.7 | 5,675.1 | 246.5 | -69.1 | 315.56 | 0.781 | Level 1 |
| 12,500.0 | 6,534.4 | 12,568.9 | 6,614.3 | 168.8 | 169.0 | -108.93 | -67.7 | 5,775.1 | 246.5 | -74.4 | 320.87 | 0.768 | Level 1 |
| 12,600.0 | 6,533.8 | 12,668.9 | 6,613.7 | 171.6 | 171.8 | -108.93 | -67.7 | 5,875.1 | 246.5 | -79.7 | 326.18 | 0.756 | Level 1 |
| 12,700.0 | 6,533.2 | 12,768.9 | 6,613.2 | 174.4 | 174.6 | -108.93 | -67.7 | 5,975.1 | 246.5 | -85.0 | 331.49 | 0.744 | Level 1 |
| 12,800.0 | 6,532.6 | 12,868.9 | 6,612.6 | 177.2 | 177.4 | -108.93 | -67.7 | 6,075.1 | 246.5 | -90.3 | 336.80 | 0.732 | Level 1 |
| 12,900.0 | 6,532.0 | 12,968.9 | 6,612.0 | 180.0 | 180.2 | -108.93 | -67.7 | 6,175.1 | 246.5 | -95.6 | 342.11 | 0.721 | Level 1 |
| 13,000.0 | 6,531.4 | 13,068.9 | 6,611.4 | 182.8 | 183.0 | -108.93 | -67.7 | 6,275.1 | 246.5 | -100.9 | 347.43 | 0.709 | Level 1 |
| 13,100.0 | 6,530.8 | 13,168.9 | 6,610.8 | 185.6 | 185.8 | -108.93 | -67.7 | 6,375.1 | 246.5 | -106.2 | 352.74 | 0.699 | Level 1 |
| 13,200.0 | 6,530.2 | 13,268.9 | 6,610.2 | 188.4 | 188.6 | -108.93 | -67.7 | 6,475.1 | 246.5 | -111.6 | 358.05 | 0.688 | Level 1 |
| 13,300.0 | 6,529.6 | 13,368.9 | 6,609.6 | 191.2 | 191.4 | -108.93 | -67.7 | 6,575.1 | 246.5 | -116.9 | 363.37 | 0.678 | Level 1 |

| | | | |
|---|---|---|---|
| **Company:** | PETROLEUM DEVELOPMENT CORP DJ Basin | **Local Co-ordinate Reference:** | Well Bihain 26G-202 |
| **Project:** | SEC.26-T5N-R64W | **TVD Reference:** | WELL @ 4627.0ft (RKB - 23') |
| **Reference Site:** | Bihain 5N64W26GK Pad Sec.26-T5N-R64W | **MD Reference:** | WELL @ 4627.0ft (RKB - 23') |
| **Site Error:** | 0.0 ft | **North Reference:** | True |
| **Reference Well:** | Bihain 26G-202 | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.0 ft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | Wellbore #1 | **Database:** | US_EDM |
| **Reference Design:** | Plan #1 Extension (3-3-16) | **Offset TVD Reference:** | Offset Datum |

**Offset Design** Bihain 5N64W26GK Pad Sec.26-T5N-R64W - Bihain 26G-312 - Wellbore #1 - Plan #1 Extension (3-4-1

**Offset Site Error:** 0.0 ft

**Survey Program:** 0-MWD

**Offset Well Error:** 0.0 ft

| Reference Measured Depth (ft) | Reference Vertical Depth (ft) | Offset Measured Depth (ft) | Offset Vertical Depth (ft) | Semi Major Axis Reference (ft) | Semi Major Axis Offset (ft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (ft) | Offset Wellbore Centre +E/-W (ft) | Distance Between Centres (ft) | Distance Between Ellipses (ft) | Minimum Separation (ft) | Separation Factor | Warning |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 13,400.0 | 6,529.0 | 13,468.9 | 6,609.0 | 194.0 | 194.2 | -108.93 | -67.7 | 6,675.1 | 246.5 | -122.2 | 368.68 | 0.669 | Level 1 |
| 13,500.0 | 6,528.4 | 13,568.9 | 6,608.4 | 196.8 | 197.0 | -108.93 | -67.7 | 6,775.1 | 246.5 | -127.5 | 374.00 | 0.659 | Level 1 |
| 13,600.0 | 6,527.8 | 13,668.9 | 6,607.8 | 199.6 | 199.8 | -108.93 | -67.7 | 6,875.1 | 246.5 | -132.8 | 379.31 | 0.650 | Level 1 |
| 13,700.0 | 6,527.2 | 13,768.9 | 6,607.2 | 202.4 | 202.6 | -108.93 | -67.7 | 6,975.0 | 246.5 | -138.1 | 384.63 | 0.641 | Level 1 |
| 13,800.0 | 6,526.7 | 13,868.9 | 6,606.6 | 205.2 | 205.4 | -108.93 | -67.7 | 7,075.0 | 246.5 | -143.4 | 389.95 | 0.632 | Level 1 |
| 13,900.0 | 6,526.1 | 13,968.9 | 6,606.0 | 208.0 | 208.2 | -108.93 | -67.7 | 7,175.0 | 246.5 | -148.8 | 395.26 | 0.624 | Level 1 |
| 14,000.0 | 6,525.5 | 14,068.9 | 6,605.4 | 210.8 | 211.0 | -108.93 | -67.7 | 7,275.0 | 246.5 | -154.1 | 400.58 | 0.615 | Level 1 |
| 14,100.0 | 6,524.9 | 14,168.9 | 6,604.8 | 213.6 | 213.8 | -108.93 | -67.7 | 7,375.0 | 246.5 | -159.4 | 405.90 | 0.607 | Level 1 |
| 14,200.0 | 6,524.3 | 14,268.9 | 6,604.3 | 216.4 | 216.6 | -108.93 | -67.7 | 7,475.0 | 246.5 | -164.7 | 411.22 | 0.599 | Level 1 |
| 14,300.0 | 6,523.7 | 14,368.9 | 6,603.7 | 219.2 | 219.4 | -108.93 | -67.7 | 7,575.0 | 246.5 | -170.0 | 416.54 | 0.592 | Level 1 |
| 14,400.0 | 6,523.1 | 14,468.9 | 6,603.1 | 222.0 | 222.2 | -108.93 | -67.7 | 7,675.0 | 246.5 | -175.4 | 421.86 | 0.584 | Level 1 |
| 14,500.0 | 6,522.5 | 14,568.9 | 6,602.5 | 224.8 | 225.0 | -108.93 | -67.7 | 7,775.0 | 246.5 | -180.7 | 427.18 | 0.577 | Level 1 |
| 14,600.0 | 6,521.9 | 14,668.9 | 6,601.9 | 227.6 | 227.8 | -108.93 | -67.7 | 7,875.0 | 246.5 | -186.0 | 432.50 | 0.570 | Level 1 |
| 14,700.0 | 6,521.3 | 14,768.9 | 6,601.3 | 230.4 | 230.6 | -108.93 | -67.7 | 7,975.0 | 246.5 | -191.3 | 437.82 | 0.563 | Level 1 |
| 14,800.0 | 6,520.7 | 14,868.9 | 6,600.7 | 233.2 | 233.4 | -108.93 | -67.7 | 8,075.0 | 246.5 | -196.6 | 443.14 | 0.556 | Level 1 |
| 14,900.0 | 6,520.1 | 14,968.9 | 6,600.1 | 236.0 | 236.2 | -108.93 | -67.7 | 8,175.0 | 246.5 | -202.0 | 448.46 | 0.550 | Level 1 |
| 15,000.0 | 6,519.5 | 15,068.9 | 6,599.5 | 238.8 | 239.0 | -108.93 | -67.7 | 8,275.0 | 246.5 | -207.3 | 453.78 | 0.543 | Level 1 |
| 15,100.0 | 6,518.9 | 15,168.9 | 6,598.9 | 241.6 | 241.8 | -108.93 | -67.7 | 8,375.0 | 246.5 | -212.6 | 459.10 | 0.537 | Level 1 |
| 15,200.0 | 6,518.3 | 15,268.9 | 6,598.3 | 244.4 | 244.6 | -108.93 | -67.7 | 8,475.0 | 246.5 | -217.9 | 464.42 | 0.531 | Level 1 |
| 15,300.0 | 6,517.8 | 15,368.9 | 6,597.7 | 247.2 | 247.4 | -108.93 | -67.7 | 8,575.0 | 246.5 | -223.3 | 469.75 | 0.525 | Level 1 |
| 15,400.0 | 6,517.2 | 15,468.9 | 6,597.1 | 250.0 | 250.2 | -108.93 | -67.7 | 8,675.0 | 246.5 | -228.6 | 475.07 | 0.519 | Level 1 |
| 15,500.0 | 6,516.6 | 15,568.9 | 6,596.5 | 252.8 | 253.0 | -108.93 | -67.7 | 8,775.0 | 246.5 | -233.9 | 480.39 | 0.513 | Level 1 |
| 15,600.0 | 6,516.0 | 15,668.9 | 6,595.9 | 255.6 | 255.8 | -108.93 | -67.7 | 8,875.0 | 246.5 | -239.2 | 485.71 | 0.507 | Level 1 |
| 15,700.0 | 6,515.4 | 15,768.9 | 6,595.4 | 258.4 | 258.7 | -108.93 | -67.7 | 8,975.0 | 246.5 | -244.5 | 491.04 | 0.502 | Level 1 |
| 15,800.0 | 6,514.8 | 15,868.9 | 6,594.8 | 261.2 | 261.5 | -108.93 | -67.7 | 9,075.0 | 246.5 | -249.9 | 496.36 | 0.497 | Level 1 |
| 15,900.0 | 6,514.2 | 15,968.9 | 6,594.2 | 264.1 | 264.3 | -108.93 | -67.7 | 9,175.0 | 246.5 | -255.2 | 501.68 | 0.491 | Level 1 |
| 16,000.0 | 6,513.6 | 16,068.9 | 6,593.6 | 266.9 | 267.1 | -108.93 | -67.7 | 9,275.0 | 246.5 | -260.5 | 507.01 | 0.486 | Level 1 |
| 16,100.0 | 6,513.0 | 16,168.9 | 6,593.0 | 269.7 | 269.9 | -108.93 | -67.7 | 9,375.0 | 246.5 | -265.8 | 512.33 | 0.481 | Level 1 |
| 16,200.0 | 6,512.4 | 16,268.9 | 6,592.4 | 272.5 | 272.7 | -108.93 | -67.7 | 9,475.0 | 246.5 | -271.2 | 517.66 | 0.476 | Level 1 |
| 16,249.7 | 6,512.1 | 16,318.6 | 6,592.1 | 273.9 | 274.1 | -108.93 | -67.7 | 9,524.7 | 246.5 | -273.8 | 520.30 | 0.474 | Level 1 |
| 16,269.0 | 6,512.0 | 16,334.1 | 6,592.0 | 274.4 | 274.5 | -108.93 | -67.7 | 9,540.1 | 246.5 | -274.7 | 521.23 | 0.473 | Level 1, ES, SF |

| | | | |
|---|---|---|---|
| **Company:** | PETROLEUM DEVELOPMENT CORP DJ Basin | **Local Co-ordinate Reference:** | Well Bihain 26G-202 |
| **Project:** | SEC.26-T5N-R64W | **TVD Reference:** | WELL @ 4627.0ft (RKB - 23') |
| **Reference Site:** | Bihain 5N64W26GK Pad Sec.26-T5N-R64W | **MD Reference:** | WELL @ 4627.0ft (RKB - 23') |
| **Site Error:** | 0.0 ft | **North Reference:** | True |
| **Reference Well:** | Bihain 26G-202 | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.0 ft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | Wellbore #1 | **Database:** | US_EDM |
| **Reference Design:** | Plan #1 Extension (3-3-16) | **Offset TVD Reference:** | Offset Datum |

**Offset Design** Existing Wells Pad Sec.26-T5N-R64W - Bihain 26-2 (Exist.) - Wellbore #1 - Wellbore #1

**Offset Site Error:** 0.0 ft

**Survey Program:** 6867-UNKNOWN

**Offset Well Error:** 0.0 ft

| Reference Measured Depth (ft) | Reference Vertical Depth (ft) | Offset Measured Depth (ft) | Offset Vertical Depth (ft) | Semi Major Axis Reference (ft) | Semi Major Axis Offset (ft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (ft) | Offset Wellbore Centre +E/-W (ft) | Distance Between Centres (ft) | Distance Between Ellipses (ft) | Minimum Separation (ft) | Separation Factor | Warning |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7,600.0 | 6,563.4 | 6,533.4 | 6,533.4 | 34.3 | 130.7 | -90.31 | 393.9 | 1,499.1 | 934.1 | 769.2 | 164.95 | 5.663 | |
| 7,700.0 | 6,562.8 | 6,532.8 | 6,532.8 | 36.8 | 130.7 | -90.26 | 393.9 | 1,499.1 | 870.4 | 703.0 | 167.44 | 5.198 | |
| 7,800.0 | 6,562.3 | 6,532.3 | 6,532.3 | 39.4 | 130.6 | -90.21 | 393.9 | 1,499.1 | 814.1 | 644.1 | 169.98 | 4.789 | |
| 7,900.0 | 6,561.7 | 6,531.7 | 6,531.7 | 42.0 | 130.6 | -90.16 | 393.9 | 1,499.1 | 766.8 | 594.2 | 172.55 | 4.444 | |
| 8,000.0 | 6,561.1 | 6,531.1 | 6,531.1 | 44.6 | 130.6 | -90.11 | 393.9 | 1,499.1 | 730.1 | 554.9 | 175.15 | 4.168 | |
| 8,100.0 | 6,560.5 | 6,530.5 | 6,530.5 | 47.2 | 130.6 | -90.06 | 393.9 | 1,499.1 | 705.8 | 528.0 | 177.77 | 3.970 | |
| 8,200.0 | 6,559.9 | 6,529.9 | 6,529.9 | 49.9 | 130.6 | -90.01 | 393.9 | 1,499.1 | 695.2 | 514.8 | 180.41 | 3.853 | |
| 8,224.4 | 6,559.7 | 6,529.7 | 6,529.7 | 50.5 | 130.6 | -90.00 | 393.9 | 1,499.1 | 694.8 | 513.7 | 181.06 | 3.837 | CC, ES |
| 8,300.0 | 6,559.3 | 6,529.3 | 6,529.3 | 52.5 | 130.6 | -89.96 | 393.9 | 1,499.1 | 698.9 | 515.8 | 183.07 | 3.817 | SF |
| 8,400.0 | 6,558.7 | 6,528.7 | 6,528.7 | 55.2 | 130.6 | -89.91 | 393.9 | 1,499.1 | 716.6 | 530.9 | 185.74 | 3.858 | |
| 8,500.0 | 6,558.1 | 6,528.1 | 6,528.1 | 57.9 | 130.6 | -89.87 | 393.9 | 1,499.1 | 747.4 | 559.0 | 188.43 | 3.967 | |
| 8,600.0 | 6,557.5 | 6,527.5 | 6,527.5 | 60.6 | 130.6 | -89.82 | 393.9 | 1,499.1 | 789.8 | 598.7 | 191.12 | 4.132 | |
| 8,700.0 | 6,556.9 | 6,526.9 | 6,526.9 | 63.3 | 130.5 | -89.77 | 393.9 | 1,499.1 | 842.0 | 648.1 | 193.82 | 4.344 | |
| 8,800.0 | 6,556.3 | 6,526.3 | 6,526.3 | 66.0 | 130.5 | -89.72 | 393.9 | 1,499.1 | 902.2 | 705.7 | 196.53 | 4.591 | |
| 8,900.0 | 6,555.7 | 6,525.7 | 6,525.7 | 68.8 | 130.5 | -89.67 | 393.9 | 1,499.1 | 969.1 | 769.8 | 199.25 | 4.864 | |

| | | | |
|---|---|---|---|
| **Company:** | PETROLEUM DEVELOPMENT CORP DJ Basin | **Local Co-ordinate Reference:** | Well Bihain 26G-202 |
| **Project:** | SEC.26-T5N-R64W | **TVD Reference:** | WELL @ 4627.0ft (RKB - 23') |
| **Reference Site:** | Bihain 5N64W26GK Pad Sec.26-T5N-R64W | **MD Reference:** | WELL @ 4627.0ft (RKB - 23') |
| **Site Error:** | 0.0 ft | **North Reference:** | True |
| **Reference Well:** | Bihain 26G-202 | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.0 ft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | Wellbore #1 | **Database:** | US_EDM |
| **Reference Design:** | Plan #1 Extension (3-3-16) | **Offset TVD Reference:** | Offset Datum |

**Offset Design** Existing Wells Pad Sec.26-T5N-R64W - Bihain 26-3 (Exist.) - Wellbore #1 - Wellbore #1

**Offset Site Error:** 0.0 ft

**Survey Program:** 6865-UNKNOWN

**Offset Well Error:** 0.0 ft

| Reference | | Offset | | Semi Major Axis | | | Offset Wellbore Centre | | Distance | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Measured Depth (ft) | Vertical Depth (ft) | Measured Depth (ft) | Vertical Depth (ft) | Reference (ft) | Offset (ft) | Highside Toolface (°) | +N/-S (ft) | +E/-W (ft) | Between Centres (ft) | Between Ellipses (ft) | Minimum Separation (ft) | Separation Factor | Warning |
| 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 24.76 | 414.9 | 191.4 | 457.8 | | | | |
| 100.0 | 100.0 | 72.0 | 72.0 | 0.1 | 1.4 | 24.76 | 414.9 | 191.4 | 457.0 | 455.4 | 1.55 | 294.330 | |
| 200.0 | 200.0 | 172.0 | 172.0 | 0.3 | 3.4 | 24.76 | 414.9 | 191.4 | 457.0 | 453.2 | 3.78 | 120.977 | |
| 300.0 | 300.0 | 272.0 | 272.0 | 0.6 | 5.4 | 24.76 | 414.9 | 191.4 | 457.0 | 451.0 | 6.00 | 76.135 | |
| 400.0 | 400.0 | 372.0 | 372.0 | 0.8 | 7.4 | 24.76 | 414.9 | 191.4 | 457.0 | 448.7 | 8.23 | 55.546 | |
| 500.0 | 500.0 | 472.0 | 472.0 | 1.0 | 9.4 | 24.76 | 414.9 | 191.4 | 457.0 | 446.5 | 10.45 | 43.723 | |
| 600.0 | 600.0 | 572.0 | 572.0 | 1.2 | 11.4 | 24.76 | 414.9 | 191.4 | 457.0 | 444.3 | 12.68 | 36.049 | |
| 700.0 | 700.0 | 672.0 | 672.0 | 1.5 | 13.4 | 24.76 | 414.9 | 191.4 | 457.0 | 442.1 | 14.90 | 30.667 | |
| 800.0 | 800.0 | 772.0 | 772.0 | 1.7 | 15.4 | 24.76 | 414.9 | 191.4 | 457.0 | 439.8 | 17.13 | 26.683 | |
| 900.0 | 900.0 | 872.0 | 872.0 | 1.9 | 17.4 | 24.76 | 414.9 | 191.4 | 457.0 | 437.6 | 19.35 | 23.615 | |
| 1,000.0 | 1,000.0 | 972.0 | 972.0 | 2.1 | 19.4 | 24.76 | 414.9 | 191.4 | 457.0 | 435.4 | 21.58 | 21.180 | |
| 1,100.0 | 1,100.0 | 1,072.0 | 1,072.0 | 2.4 | 21.4 | 24.76 | 414.9 | 191.4 | 457.0 | 433.2 | 23.80 | 19.200 | |
| 1,200.0 | 1,200.0 | 1,172.0 | 1,172.0 | 2.6 | 23.4 | 24.76 | 414.9 | 191.4 | 457.0 | 430.9 | 26.02 | 17.559 | |
| 1,300.0 | 1,300.0 | 1,272.0 | 1,272.0 | 2.8 | 25.4 | 24.76 | 414.9 | 191.4 | 457.0 | 428.7 | 28.25 | 16.176 | |
| 1,400.0 | 1,400.0 | 1,372.0 | 1,372.0 | 3.0 | 27.4 | 24.76 | 414.9 | 191.4 | 457.0 | 426.5 | 30.47 | 14.995 | CC |
| 1,500.0 | 1,500.0 | 1,472.0 | 1,472.0 | 3.2 | 29.4 | 148.85 | 414.9 | 191.4 | 458.1 | 425.4 | 32.67 | 14.022 | ES |
| 1,600.0 | 1,599.9 | 1,571.9 | 1,571.9 | 3.4 | 31.4 | 149.07 | 414.9 | 191.4 | 461.5 | 426.6 | 34.83 | 13.250 | |
| 1,700.0 | 1,699.7 | 1,671.7 | 1,671.7 | 3.6 | 33.4 | 149.44 | 414.9 | 191.4 | 467.1 | 430.1 | 36.97 | 12.635 | |
| 1,800.0 | 1,799.3 | 1,771.3 | 1,771.3 | 3.8 | 35.4 | 149.94 | 414.9 | 191.4 | 475.0 | 435.9 | 39.08 | 12.153 | |
| 1,900.0 | 1,898.6 | 1,870.6 | 1,870.6 | 4.1 | 37.4 | 150.56 | 414.9 | 191.4 | 485.2 | 444.0 | 41.17 | 11.785 | |
| 2,004.8 | 2,002.2 | 1,974.2 | 1,974.2 | 4.3 | 39.5 | 151.32 | 414.9 | 191.4 | 498.4 | 455.1 | 43.33 | 11.505 | |
| 2,100.0 | 2,096.3 | 2,068.3 | 2,068.3 | 4.6 | 41.4 | 152.12 | 414.9 | 191.4 | 511.7 | 466.3 | 45.39 | 11.273 | |
| 2,200.0 | 2,195.0 | 2,167.0 | 2,167.0 | 4.9 | 43.3 | 152.92 | 414.9 | 191.4 | 525.7 | 478.2 | 47.57 | 11.052 | |
| 2,300.0 | 2,293.8 | 2,265.8 | 2,265.8 | 5.2 | 45.3 | 153.68 | 414.9 | 191.4 | 539.8 | 490.1 | 49.75 | 10.851 | |
| 2,400.0 | 2,392.5 | 2,364.5 | 2,364.5 | 5.5 | 47.3 | 154.40 | 414.9 | 191.4 | 554.1 | 502.1 | 51.93 | 10.669 | |
| 2,500.0 | 2,491.3 | 2,463.3 | 2,463.3 | 5.8 | 49.3 | 155.09 | 414.9 | 191.4 | 568.3 | 514.2 | 54.12 | 10.502 | |
| 2,600.0 | 2,590.0 | 2,562.0 | 2,562.0 | 6.1 | 51.2 | 155.74 | 414.9 | 191.4 | 582.7 | 526.4 | 56.30 | 10.349 | |
| 2,700.0 | 2,688.8 | 2,660.8 | 2,660.8 | 6.4 | 53.2 | 156.36 | 414.9 | 191.4 | 597.2 | 538.7 | 58.49 | 10.209 | |
| 2,800.0 | 2,787.5 | 2,759.5 | 2,759.5 | 6.8 | 55.2 | 156.95 | 414.9 | 191.4 | 611.7 | 551.0 | 60.68 | 10.080 | |
| 2,900.0 | 2,886.3 | 2,858.3 | 2,858.3 | 7.1 | 57.2 | 157.52 | 414.9 | 191.4 | 626.2 | 563.4 | 62.87 | 9.960 | |
| 3,000.0 | 2,985.0 | 2,957.0 | 2,957.0 | 7.5 | 59.1 | 158.05 | 414.9 | 191.4 | 640.8 | 575.8 | 65.06 | 9.850 | |
| 3,100.0 | 3,083.8 | 3,055.8 | 3,055.8 | 7.8 | 61.1 | 158.57 | 414.9 | 191.4 | 655.5 | 588.3 | 67.26 | 9.747 | |
| 3,200.0 | 3,182.5 | 3,154.5 | 3,154.5 | 8.2 | 63.1 | 159.06 | 414.9 | 191.4 | 670.2 | 600.8 | 69.45 | 9.651 | |
| 3,300.0 | 3,281.3 | 3,253.3 | 3,253.3 | 8.5 | 65.1 | 159.53 | 414.9 | 191.4 | 685.0 | 613.4 | 71.64 | 9.562 | |
| 3,400.0 | 3,380.0 | 3,352.0 | 3,352.0 | 8.9 | 67.0 | 159.98 | 414.9 | 191.4 | 699.8 | 626.0 | 73.83 | 9.479 | |
| 3,500.0 | 3,478.8 | 3,450.8 | 3,450.8 | 9.2 | 69.0 | 160.41 | 414.9 | 191.4 | 714.7 | 638.7 | 76.03 | 9.401 | |
| 3,600.0 | 3,577.5 | 3,549.5 | 3,549.5 | 9.6 | 71.0 | 160.83 | 414.9 | 191.4 | 729.6 | 651.4 | 78.22 | 9.327 | |
| 3,700.0 | 3,676.3 | 3,648.3 | 3,648.3 | 9.9 | 73.0 | 161.23 | 414.9 | 191.4 | 744.5 | 664.1 | 80.41 | 9.259 | |
| 3,800.0 | 3,775.0 | 3,747.0 | 3,747.0 | 10.3 | 74.9 | 161.61 | 414.9 | 191.4 | 759.5 | 676.9 | 82.61 | 9.194 | |
| 3,900.0 | 3,873.8 | 3,845.8 | 3,845.8 | 10.7 | 76.9 | 161.98 | 414.9 | 191.4 | 774.5 | 689.7 | 84.80 | 9.133 | |
| 4,000.0 | 3,972.5 | 3,944.5 | 3,944.5 | 11.0 | 78.9 | 162.33 | 414.9 | 191.4 | 789.5 | 702.5 | 87.00 | 9.075 | |
| 4,100.0 | 4,071.3 | 4,043.3 | 4,043.3 | 11.4 | 80.9 | 162.67 | 414.9 | 191.4 | 804.5 | 715.4 | 89.19 | 9.021 | |
| 4,200.0 | 4,170.0 | 4,142.0 | 4,142.0 | 11.8 | 82.8 | 163.00 | 414.9 | 191.4 | 819.6 | 728.2 | 91.38 | 8.969 | |
| 4,300.0 | 4,268.8 | 4,240.8 | 4,240.8 | 12.1 | 84.8 | 163.31 | 414.9 | 191.4 | 834.7 | 741.2 | 93.58 | 8.920 | |
| 4,400.0 | 4,367.5 | 4,339.5 | 4,339.5 | 12.5 | 86.8 | 163.62 | 414.9 | 191.4 | 849.9 | 754.1 | 95.77 | 8.874 | |
| 4,500.0 | 4,466.3 | 4,438.3 | 4,438.3 | 12.9 | 88.8 | 163.91 | 414.9 | 191.4 | 865.0 | 767.0 | 97.97 | 8.830 | |
| 4,600.0 | 4,565.0 | 4,537.0 | 4,537.0 | 13.2 | 90.7 | 164.20 | 414.9 | 191.4 | 880.2 | 780.0 | 100.16 | 8.788 | |
| 4,700.0 | 4,663.8 | 4,635.8 | 4,635.8 | 13.6 | 92.7 | 164.47 | 414.9 | 191.4 | 895.4 | 793.0 | 102.36 | 8.748 | |
| 4,800.0 | 4,762.5 | 4,734.5 | 4,734.5 | 14.0 | 94.7 | 164.74 | 414.9 | 191.4 | 910.6 | 806.0 | 104.55 | 8.709 | |
| 4,886.9 | 4,848.3 | 4,820.3 | 4,820.3 | 14.3 | 96.4 | 164.96 | 414.9 | 191.4 | 923.8 | 817.4 | 106.46 | 8.678 | |
| 4,900.0 | 4,861.3 | 4,833.3 | 4,833.3 | 14.4 | 96.7 | 165.00 | 414.9 | 191.4 | 925.8 | 819.0 | 106.81 | 8.668 | |

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

| | | | |
|---|---|---|---|
| **Company:** | PETROLEUM DEVELOPMENT CORP DJ Basin | **Local Co-ordinate Reference:** | Well Bihain 26G-202 |
| **Project:** | SEC.26-T5N-R64W | **TVD Reference:** | WELL @ 4627.0ft (RKB - 23') |
| **Reference Site:** | Bihain 5N64W26GK Pad Sec.26-T5N-R64W | **MD Reference:** | WELL @ 4627.0ft (RKB - 23') |
| **Site Error:** | 0.0 ft | **North Reference:** | True |
| **Reference Well:** | Bihain 26G-202 | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.0 ft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | Wellbore #1 | **Database:** | US_EDM |
| **Reference Design:** | Plan #1 Extension (3-3-16) | **Offset TVD Reference:** | Offset Datum |

**Offset Design** Existing Wells Pad Sec.26-T5N-R64W - Bihain 26-3 (Exist.) - Wellbore #1 - Wellbore #1

**Offset Site Error:** 0.0 ft

**Survey Program:** 6865-UNKNOWN

**Offset Well Error:** 0.0 ft

| Reference Measured Depth (ft) | Reference Vertical Depth (ft) | Offset Measured Depth (ft) | Offset Vertical Depth (ft) | Semi Major Axis Reference (ft) | Semi Major Axis Offset (ft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (ft) | Offset Wellbore Centre +E/-W (ft) | Distance Between Centres (ft) | Distance Between Ellipses (ft) | Minimum Separation (ft) | Separation Factor | Warning |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5,000.0 | 4,960.3 | 4,932.4 | 4,932.3 | 14.6 | 98.6 | 165.29 | 414.9 | 191.4 | 938.9 | 829.5 | 109.42 | 8.581 | |
| 5,100.0 | 5,059.8 | 5,031.8 | 5,031.8 | 14.8 | 100.6 | 165.49 | 414.9 | 191.4 | 948.7 | 836.8 | 111.93 | 8.477 | |
| 5,200.0 | 5,159.6 | 5,131.6 | 5,131.6 | 15.0 | 102.6 | 165.62 | 414.9 | 191.4 | 955.2 | 840.9 | 114.31 | 8.356 | |
| 5,300.0 | 5,259.5 | 5,231.5 | 5,231.5 | 15.2 | 104.6 | 165.68 | 414.9 | 191.4 | 958.2 | 841.7 | 116.58 | 8.220 | |
| 5,340.5 | 5,300.0 | 5,272.0 | 5,272.0 | 15.3 | 105.4 | 41.68 | 414.9 | 191.4 | 958.5 | 838.0 | 120.53 | 7.952 | |
| 5,400.0 | 5,359.5 | 5,331.5 | 5,331.5 | 15.4 | 106.6 | 41.68 | 414.9 | 191.4 | 958.5 | 836.7 | 121.81 | 7.869 | |
| 5,500.0 | 5,459.5 | 5,431.5 | 5,431.5 | 15.5 | 108.6 | 41.68 | 414.9 | 191.4 | 958.5 | 834.5 | 123.97 | 7.732 | |
| 5,600.0 | 5,559.5 | 5,531.5 | 5,531.5 | 15.7 | 110.6 | 41.68 | 414.9 | 191.4 | 958.5 | 832.4 | 126.12 | 7.600 | |
| 5,700.0 | 5,659.5 | 5,631.5 | 5,631.5 | 15.8 | 112.6 | 41.68 | 414.9 | 191.4 | 958.5 | 830.2 | 128.28 | 7.472 | |
| 5,800.0 | 5,759.5 | 5,731.5 | 5,731.5 | 16.0 | 114.6 | 41.68 | 414.9 | 191.4 | 958.5 | 828.1 | 130.44 | 7.349 | |
| 5,843.3 | 5,802.8 | 5,774.8 | 5,774.8 | 16.0 | 115.5 | 41.68 | 414.9 | 191.4 | 958.5 | 827.1 | 131.37 | 7.296 | |
| 5,850.0 | 5,809.5 | 5,781.5 | 5,781.5 | 16.1 | 115.6 | -48.32 | 414.9 | 191.4 | 958.5 | 829.9 | 128.62 | 7.452 | |
| 5,900.0 | 5,859.5 | 5,831.5 | 5,831.5 | 16.1 | 116.6 | -48.49 | 414.9 | 191.4 | 957.1 | 827.6 | 129.50 | 7.391 | |
| 5,950.0 | 5,909.2 | 5,881.2 | 5,881.2 | 16.1 | 117.6 | -48.93 | 414.9 | 191.4 | 953.6 | 823.4 | 130.15 | 7.327 | |
| 6,000.0 | 5,958.4 | 5,930.4 | 5,930.4 | 16.2 | 118.6 | -49.64 | 414.9 | 191.4 | 947.9 | 817.4 | 130.57 | 7.260 | |
| 6,050.0 | 6,007.0 | 5,979.0 | 5,979.0 | 16.2 | 119.6 | -50.63 | 414.9 | 191.4 | 940.2 | 809.4 | 130.83 | 7.187 | |
| 6,100.0 | 6,054.7 | 6,026.7 | 6,026.7 | 16.1 | 120.5 | -51.89 | 414.9 | 191.4 | 930.6 | 799.7 | 130.97 | 7.106 | |
| 6,150.0 | 6,101.4 | 6,073.4 | 6,073.4 | 16.1 | 121.5 | -53.44 | 414.9 | 191.4 | 919.2 | 788.2 | 131.07 | 7.013 | |
| 6,200.0 | 6,146.7 | 6,118.7 | 6,118.7 | 16.1 | 122.4 | -55.27 | 414.9 | 191.4 | 906.2 | 774.9 | 131.24 | 6.905 | |
| 6,250.0 | 6,190.6 | 6,162.6 | 6,162.6 | 16.0 | 123.3 | -57.38 | 414.9 | 191.4 | 891.7 | 760.1 | 131.56 | 6.778 | |
| 6,300.0 | 6,232.8 | 6,204.8 | 6,204.8 | 16.0 | 124.1 | -59.76 | 414.9 | 191.4 | 876.0 | 743.9 | 132.12 | 6.630 | |
| 6,350.0 | 6,273.2 | 6,245.2 | 6,245.2 | 15.9 | 124.9 | -62.38 | 414.9 | 191.4 | 859.3 | 726.4 | 132.98 | 6.462 | |
| 6,400.0 | 6,311.5 | 6,283.5 | 6,283.5 | 15.9 | 125.7 | -65.20 | 414.9 | 191.4 | 842.0 | 707.8 | 134.18 | 6.275 | |
| 6,450.0 | 6,347.7 | 6,319.7 | 6,319.7 | 15.9 | 126.4 | -68.18 | 414.9 | 191.4 | 824.4 | 688.7 | 135.70 | 6.075 | |
| 6,500.0 | 6,381.6 | 6,353.6 | 6,353.6 | 15.9 | 127.1 | -71.26 | 414.9 | 191.4 | 806.8 | 669.3 | 137.45 | 5.870 | |
| 6,550.0 | 6,413.0 | 6,385.0 | 6,385.0 | 16.0 | 127.7 | -74.35 | 414.9 | 191.4 | 789.6 | 650.2 | 139.34 | 5.666 | |
| 6,600.0 | 6,441.7 | 6,413.7 | 6,413.7 | 16.1 | 128.3 | -77.38 | 414.9 | 191.4 | 773.2 | 632.0 | 141.26 | 5.474 | |
| 6,650.0 | 6,467.7 | 6,439.7 | 6,439.7 | 16.4 | 128.8 | -80.26 | 414.9 | 191.4 | 758.1 | 615.0 | 143.08 | 5.298 | |
| 6,700.0 | 6,490.9 | 6,462.9 | 6,462.9 | 16.7 | 129.3 | -82.90 | 414.9 | 191.4 | 744.7 | 600.0 | 144.74 | 5.145 | |
| 6,750.0 | 6,511.1 | 6,483.1 | 6,483.1 | 17.2 | 129.7 | -85.23 | 414.9 | 191.4 | 733.4 | 587.2 | 146.20 | 5.016 | |
| 6,800.0 | 6,528.3 | 6,500.3 | 6,500.3 | 17.7 | 130.0 | -87.18 | 414.9 | 191.4 | 724.7 | 577.2 | 147.48 | 4.914 | |
| 6,850.0 | 6,542.4 | 6,514.4 | 6,514.4 | 18.4 | 130.3 | -88.70 | 414.9 | 191.4 | 718.8 | 570.1 | 148.61 | 4.836 | |
| 6,900.0 | 6,553.3 | 6,525.3 | 6,525.3 | 19.2 | 130.5 | -89.76 | 414.9 | 191.4 | 716.0 | 566.4 | 149.66 | 4.784 | |
| 6,916.1 | 6,556.2 | 6,528.2 | 6,528.2 | 19.4 | 130.6 | -90.00 | 414.9 | 191.4 | 715.8 | 565.9 | 149.99 | 4.773 | |
| 6,950.0 | 6,561.0 | 6,533.0 | 6,533.0 | 20.0 | 130.7 | -90.33 | 414.9 | 191.4 | 716.6 | 566.0 | 150.65 | 4.757 | |
| 7,000.0 | 6,565.5 | 6,537.5 | 6,537.5 | 20.9 | 130.8 | -90.38 | 414.9 | 191.4 | 720.7 | 569.0 | 151.64 | 4.753 SF | |
| 7,047.8 | 6,566.7 | 6,538.7 | 6,538.7 | 21.8 | 130.8 | -89.94 | 414.9 | 191.4 | 727.7 | 575.2 | 152.55 | 4.770 | |
| 7,100.0 | 6,566.4 | 6,538.4 | 6,538.4 | 22.8 | 130.8 | -89.91 | 414.9 | 191.4 | 738.9 | 585.4 | 153.57 | 4.812 | |
| 7,200.0 | 6,565.8 | 6,537.8 | 6,537.8 | 24.9 | 130.8 | -89.87 | 414.9 | 191.4 | 769.9 | 614.2 | 155.64 | 4.946 | |
| 7,300.0 | 6,565.2 | 6,537.2 | 6,537.2 | 27.1 | 130.7 | -89.82 | 414.9 | 191.4 | 812.0 | 654.1 | 157.84 | 5.144 | |
| 7,400.0 | 6,564.6 | 6,536.6 | 6,536.6 | 29.4 | 130.7 | -89.77 | 414.9 | 191.4 | 863.7 | 703.6 | 160.15 | 5.393 | |
| 7,500.0 | 6,564.0 | 6,536.0 | 6,536.0 | 31.8 | 130.7 | -89.72 | 414.9 | 191.4 | 923.4 | 760.8 | 162.53 | 5.681 | |
| 7,600.0 | 6,563.4 | 6,535.4 | 6,535.4 | 34.3 | 130.7 | -89.68 | 414.9 | 191.4 | 989.6 | 824.6 | 164.98 | 5.998 | |

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|---|---|---|---|
| **Company:** | PETROLEUM DEVELOPMENT CORP DJ Basin | **Local Co-ordinate Reference:** | Well Bihain 26G-202 |
| **Project:** | SEC.26-T5N-R64W | **TVD Reference:** | WELL @ 4627.0ft (RKB - 23') |
| **Reference Site:** | Bihain 5N64W26GK Pad Sec.26-T5N-R64W | **MD Reference:** | WELL @ 4627.0ft (RKB - 23') |
| **Site Error:** | 0.0 ft | **North Reference:** | True |
| **Reference Well:** | Bihain 26G-202 | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.0 ft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | Wellbore #1 | **Database:** | US_EDM |
| **Reference Design:** | Plan #1 Extension (3-3-16) | **Offset TVD Reference:** | Offset Datum |

**Offset Design** Existing Wells Pad Sec.26-T5N-R64W - Monfort Kuner B 26-7 (Exist.) - Wellbore #1 - Wellbore #1

**Offset Site Error:** 0.0 ft

**Survey Program:** 7312-UNKNOWN

**Offset Well Error:** 0.0 ft

| Reference Measured Depth (ft) | Reference Vertical Depth (ft) | Offset Measured Depth (ft) | Offset Vertical Depth (ft) | Semi Major Axis Reference (ft) | Semi Major Axis Offset (ft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (ft) | Offset Wellbore Centre +E/-W (ft) | Distance Between Centres (ft) | Distance Between Ellipses (ft) | Minimum Separation (ft) | Separation Factor | Warning |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 8,900.0 | 6,555.7 | 6,521.7 | 6,521.7 | 68.8 | 130.4 | -90.31 | 421.3 | 2,826.8 | 973.0 | 773.9 | 199.17 | 4.885 | |
| 9,000.0 | 6,555.1 | 6,521.1 | 6,521.1 | 71.5 | 130.4 | -90.26 | 421.3 | 2,826.8 | 909.1 | 707.2 | 201.90 | 4.503 | |
| 9,100.0 | 6,554.5 | 6,520.5 | 6,520.5 | 74.2 | 130.4 | -90.21 | 421.3 | 2,826.8 | 852.0 | 647.4 | 204.63 | 4.164 | |
| 9,200.0 | 6,553.9 | 6,519.9 | 6,519.9 | 77.0 | 130.4 | -90.17 | 421.3 | 2,826.8 | 803.5 | 596.1 | 207.36 | 3.875 | |
| 9,300.0 | 6,553.4 | 6,519.4 | 6,519.4 | 79.7 | 130.4 | -90.12 | 421.3 | 2,826.8 | 764.9 | 554.8 | 210.10 | 3.641 | |
| 9,400.0 | 6,552.8 | 6,518.8 | 6,518.8 | 82.5 | 130.4 | -90.07 | 421.3 | 2,826.8 | 738.0 | 525.2 | 212.84 | 3.468 | |
| 9,500.0 | 6,552.2 | 6,518.2 | 6,518.2 | 85.3 | 130.4 | -90.02 | 421.3 | 2,826.8 | 724.1 | 508.5 | 215.59 | 3.359 | |
| 9,552.1 | 6,551.9 | 6,517.9 | 6,517.9 | 86.7 | 130.4 | -90.00 | 421.3 | 2,826.8 | 722.2 | 505.2 | 217.02 | 3.328 | CC, ES |
| 9,600.0 | 6,551.6 | 6,517.6 | 6,517.6 | 88.0 | 130.4 | -89.98 | 421.3 | 2,826.8 | 723.8 | 505.4 | 218.34 | 3.315 | SF |
| 9,700.0 | 6,551.0 | 6,517.0 | 6,517.0 | 90.8 | 130.3 | -89.93 | 421.3 | 2,826.8 | 737.2 | 516.1 | 221.09 | 3.334 | |
| 9,800.0 | 6,550.4 | 6,516.4 | 6,516.4 | 93.6 | 130.3 | -89.88 | 421.3 | 2,826.8 | 763.6 | 539.7 | 223.85 | 3.411 | |
| 9,900.0 | 6,549.8 | 6,515.8 | 6,515.8 | 96.3 | 130.3 | -89.84 | 421.3 | 2,826.8 | 801.6 | 575.0 | 226.61 | 3.537 | |
| 10,000.0 | 6,549.2 | 6,515.2 | 6,515.2 | 99.1 | 130.3 | -89.79 | 421.3 | 2,826.8 | 849.8 | 620.4 | 229.36 | 3.705 | |
| 10,100.0 | 6,548.6 | 6,514.6 | 6,514.6 | 101.9 | 130.3 | -89.74 | 421.3 | 2,826.8 | 906.5 | 674.4 | 232.13 | 3.905 | |
| 10,200.0 | 6,548.0 | 6,514.0 | 6,514.0 | 104.6 | 130.3 | -89.69 | 421.3 | 2,826.8 | 970.2 | 735.3 | 234.89 | 4.130 | |

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|---|---|---|---|
| **Company:** | PETROLEUM DEVELOPMENT CORP DJ Basin | **Local Co-ordinate Reference:** | Well Bihain 26G-202 |
| **Project:** | SEC.26-T5N-R64W | **TVD Reference:** | WELL @ 4627.0ft (RKB - 23') |
| **Reference Site:** | Bihain 5N64W26GK Pad Sec.26-T5N-R64W | **MD Reference:** | WELL @ 4627.0ft (RKB - 23') |
| **Site Error:** | 0.0 ft | **North Reference:** | True |
| **Reference Well:** | Bihain 26G-202 | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.0 ft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | Wellbore #1 | **Database:** | US_EDM |
| **Reference Design:** | Plan #1 Extension (3-3-16) | **Offset TVD Reference:** | Offset Datum |

**Offset Design** Existing Wells Pad Sec.26-T5N-R64W - Monfort Kuner B 26-8 (Exist.) - Wellbore #1 - Wellbore #1

**Offset Site Error:** 0.0 ft

**Survey Program:** 100-NS-GYRO-MS

**Offset Well Error:** 0.0 ft

| Reference Measured Depth (ft) | Reference Vertical Depth (ft) | Offset Measured Depth (ft) | Offset Vertical Depth (ft) | Semi Major Axis Reference (ft) | Semi Major Axis Offset (ft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (ft) | Offset Wellbore Centre +E/-W (ft) | Distance Between Centres (ft) | Distance Between Ellipses (ft) | Minimum Separation (ft) | Separation Factor | Warning |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 10,100.0 | 6,548.6 | 6,557.7 | 6,556.8 | 101.9 | 13.2 | -94.14 | 380.2 | 4,070.7 | 974.9 | 860.1 | 114.80 | 8.492 | |
| 10,200.0 | 6,548.0 | 6,550.5 | 6,549.6 | 104.6 | 13.2 | -93.54 | 380.2 | 4,071.2 | 906.2 | 788.6 | 117.62 | 7.705 | |
| 10,300.0 | 6,547.4 | 6,543.2 | 6,542.4 | 107.4 | 13.2 | -92.93 | 380.2 | 4,071.7 | 843.7 | 723.3 | 120.44 | 7.006 | |
| 10,400.0 | 6,546.8 | 6,536.0 | 6,535.2 | 110.2 | 13.2 | -92.33 | 380.2 | 4,072.1 | 789.0 | 665.7 | 123.25 | 6.402 | |
| 10,500.0 | 6,546.2 | 6,529.5 | 6,528.7 | 113.0 | 13.1 | -91.79 | 380.2 | 4,072.6 | 743.6 | 617.6 | 126.04 | 5.900 | |
| 10,600.0 | 6,545.6 | 6,523.3 | 6,522.4 | 115.8 | 13.1 | -91.26 | 380.2 | 4,073.0 | 709.5 | 580.6 | 128.83 | 5.507 | |
| 10,700.0 | 6,545.0 | 6,517.0 | 6,516.2 | 118.5 | 13.1 | -90.73 | 380.2 | 4,073.4 | 688.2 | 556.6 | 131.62 | 5.229 | |
| 10,799.2 | 6,544.5 | 6,510.8 | 6,510.0 | 121.3 | 13.1 | -90.21 | 380.2 | 4,073.8 | 681.1 | 546.7 | 134.37 | 5.069 | CC |
| 10,800.0 | 6,544.5 | 6,510.7 | 6,509.9 | 121.3 | 13.1 | -90.21 | 380.2 | 4,073.8 | 681.1 | 546.7 | 134.39 | 5.068 | ES |
| 10,900.0 | 6,543.9 | 6,504.5 | 6,503.7 | 124.1 | 13.1 | -89.69 | 380.2 | 4,074.2 | 688.5 | 551.3 | 137.16 | 5.020 | SF |
| 11,000.0 | 6,543.3 | 6,500.0 | 6,499.2 | 126.9 | 13.1 | -89.31 | 380.2 | 4,074.5 | 709.9 | 570.0 | 139.92 | 5.074 | |
| 11,100.0 | 6,542.7 | 6,492.0 | 6,491.2 | 129.7 | 13.0 | -88.64 | 380.3 | 4,075.0 | 744.3 | 601.6 | 142.66 | 5.217 | |
| 11,200.0 | 6,542.1 | 6,486.0 | 6,485.2 | 132.5 | 13.0 | -88.13 | 380.3 | 4,075.4 | 789.8 | 644.4 | 145.39 | 5.432 | |
| 11,300.0 | 6,541.5 | 6,480.2 | 6,479.4 | 135.3 | 13.0 | -87.65 | 380.4 | 4,075.8 | 844.7 | 696.6 | 148.12 | 5.703 | |
| 11,400.0 | 6,540.9 | 6,474.5 | 6,473.8 | 138.1 | 13.0 | -87.18 | 380.4 | 4,076.1 | 907.3 | 756.5 | 150.84 | 6.015 | |
| 11,500.0 | 6,540.3 | 6,469.1 | 6,468.4 | 140.8 | 13.0 | -86.72 | 380.5 | 4,076.5 | 976.2 | 822.6 | 153.55 | 6.357 | |

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|---|---|---|---|
| **Company:** | PETROLEUM DEVELOPMENT CORP DJ Basin | **Local Co-ordinate Reference:** | Well Bihain 26G-202 |
| **Project:** | SEC.26-T5N-R64W | **TVD Reference:** | WELL @ 4627.0ft (RKB - 23') |
| **Reference Site:** | Bihain 5N64W26GK Pad Sec.26-T5N-R64W | **MD Reference:** | WELL @ 4627.0ft (RKB - 23') |
| **Site Error:** | 0.0 ft | **North Reference:** | True |
| **Reference Well:** | Bihain 26G-202 | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.0 ft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | Wellbore #1 | **Database:** | US_EDM |
| **Reference Design:** | Plan #1 Extension (3-3-16) | **Offset TVD Reference:** | Offset Datum |

**Offset Design** Kuner 8-2-25 Pad Sec.25-T5N-R64W - Kuner 32-25 - Wellbore #1 - Wellbore #1

**Offset Site Error:** 0.0 ft

**Survey Program:** 181- **Offset Well Error:** 0.0 ft

| Reference Measured Depth (ft) | Reference Vertical Depth (ft) | Offset Measured Depth (ft) | Offset Vertical Depth (ft) | Semi Major Axis Reference (ft) | Semi Major Axis Offset (ft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (ft) | Offset Wellbore Centre +E/-W (ft) | Distance Between Centres (ft) | Distance Between Ellipses (ft) | Minimum Separation (ft) | Separation Factor | Warning |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 14,100.0 | 6,524.9 | 6,854.5 | 6,506.1 | 213.6 | 37.8 | -91.24 | 402.2 | 8,047.2 | 973.1 | 724.0 | 249.08 | 3.907 | |
| 14,200.0 | 6,524.3 | 6,851.1 | 6,502.8 | 216.4 | 37.8 | -90.97 | 402.2 | 8,047.3 | 906.8 | 655.0 | 251.90 | 3.600 | |
| 14,300.0 | 6,523.7 | 6,847.9 | 6,499.5 | 219.2 | 37.8 | -90.70 | 402.1 | 8,047.4 | 847.2 | 592.5 | 254.70 | 3.326 | |
| 14,400.0 | 6,523.1 | 6,844.7 | 6,496.3 | 222.0 | 37.8 | -90.44 | 402.1 | 8,047.5 | 795.8 | 538.3 | 257.51 | 3.090 | |
| 14,500.0 | 6,522.5 | 6,841.5 | 6,493.1 | 224.8 | 37.8 | -90.18 | 402.1 | 8,047.6 | 754.1 | 493.8 | 260.31 | 2.897 | |
| 14,600.0 | 6,521.9 | 6,838.3 | 6,489.9 | 227.6 | 37.8 | -89.92 | 402.0 | 8,047.6 | 723.9 | 460.8 | 263.10 | 2.751 | |
| 14,700.0 | 6,521.3 | 6,835.2 | 6,486.8 | 230.4 | 37.8 | -89.67 | 402.0 | 8,047.7 | 706.7 | 440.8 | 265.89 | 2.658 | |
| 14,773.3 | 6,520.9 | 6,832.9 | 6,484.6 | 232.5 | 37.8 | -89.49 | 402.0 | 8,047.8 | 702.9 | 435.0 | 267.94 | 2.623 | CC |
| 14,800.0 | 6,520.7 | 6,832.1 | 6,483.8 | 233.2 | 37.8 | -89.42 | 402.0 | 8,047.8 | 703.4 | 434.7 | 268.68 | 2.618 | ES, SF |
| 14,900.0 | 6,520.1 | 6,829.1 | 6,480.7 | 236.0 | 37.8 | -89.17 | 402.0 | 8,047.9 | 714.2 | 442.8 | 271.46 | 2.631 | |
| 15,000.0 | 6,519.5 | 6,826.1 | 6,477.7 | 238.8 | 37.8 | -88.93 | 401.9 | 8,048.0 | 738.5 | 464.3 | 274.24 | 2.693 | |
| 15,100.0 | 6,518.9 | 6,823.1 | 6,474.8 | 241.6 | 37.8 | -88.69 | 401.9 | 8,048.0 | 775.1 | 498.1 | 277.01 | 2.798 | |
| 15,200.0 | 6,518.3 | 6,820.2 | 6,471.8 | 244.4 | 37.8 | -88.45 | 401.9 | 8,048.1 | 822.2 | 542.4 | 279.78 | 2.939 | |
| 15,300.0 | 6,517.8 | 6,817.3 | 6,468.9 | 247.2 | 37.8 | -88.21 | 401.9 | 8,048.2 | 878.2 | 595.7 | 282.54 | 3.108 | |
| 15,400.0 | 6,517.2 | 6,814.4 | 6,466.1 | 250.0 | 37.8 | -87.98 | 401.8 | 8,048.2 | 941.5 | 656.2 | 285.30 | 3.300 | |

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|---|---|---|---|
| **Company:** | PETROLEUM DEVELOPMENT CORP DJ Basin | **Local Co-ordinate Reference:** | Well Bihain 26G-202 |
| **Project:** | SEC.26-T5N-R64W | **TVD Reference:** | WELL @ 4627.0ft (RKB - 23') |
| **Reference Site:** | Bihain 5N64W26GK Pad Sec.26-T5N-R64W | **MD Reference:** | WELL @ 4627.0ft (RKB - 23') |
| **Site Error:** | 0.0 ft | **North Reference:** | True |
| **Reference Well:** | Bihain 26G-202 | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.0 ft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | Wellbore #1 | **Database:** | US_EDM |
| **Reference Design:** | Plan #1 Extension (3-3-16) | **Offset TVD Reference:** | Offset Datum |

**Offset Design** Kuner 8-2-25 Pad Sec.25-T5N-R64W - Kuner 42-25 - Wellbore #1 - Wellbore #1

**Offset Site Error:** 0.0 ft

**Survey Program:** 92- **Offset Well Error:** 0.0 ft

| Reference Measured Depth (ft) | Reference Vertical Depth (ft) | Offset Measured Depth (ft) | Offset Vertical Depth (ft) | Semi Major Axis Reference (ft) | Semi Major Axis Offset (ft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (ft) | Offset Wellbore Centre +E/-W (ft) | Distance Between Centres (ft) | Distance Between Ellipses (ft) | Minimum Separation (ft) | Separation Factor | Warning |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 15,400.0 | 6,517.2 | 6,573.9 | 6,486.9 | 250.0 | 19.9 | -90.23 | 414.8 | 9,355.5 | 987.9 | 721.7 | 266.20 | 3.711 | |
| 15,500.0 | 6,516.6 | 6,573.1 | 6,486.2 | 252.8 | 19.9 | -90.17 | 414.8 | 9,355.5 | 921.8 | 652.8 | 269.00 | 3.427 | |
| 15,600.0 | 6,516.0 | 6,572.4 | 6,485.5 | 255.6 | 19.9 | -90.11 | 414.8 | 9,355.5 | 862.3 | 590.5 | 271.80 | 3.173 | |
| 15,700.0 | 6,515.4 | 6,571.7 | 6,484.8 | 258.4 | 19.9 | -90.05 | 414.8 | 9,355.5 | 810.8 | 536.2 | 274.61 | 2.953 | |
| 15,800.0 | 6,514.8 | 6,571.0 | 6,484.0 | 261.2 | 19.9 | -89.99 | 414.8 | 9,355.5 | 768.9 | 491.5 | 277.41 | 2.772 | |
| 15,900.0 | 6,514.2 | 6,570.3 | 6,483.3 | 264.1 | 19.9 | -89.94 | 414.8 | 9,355.5 | 738.2 | 458.0 | 280.21 | 2.635 | |
| 16,000.0 | 6,513.6 | 6,569.5 | 6,482.6 | 266.9 | 19.9 | -89.88 | 414.8 | 9,355.5 | 720.3 | 437.3 | 283.01 | 2.545 | |
| 16,081.0 | 6,513.1 | 6,569.0 | 6,482.0 | 269.1 | 19.9 | -89.83 | 414.8 | 9,355.5 | 715.7 | 430.4 | 285.28 | 2.509 | CC |
| 16,100.0 | 6,513.0 | 6,568.8 | 6,481.9 | 269.7 | 19.9 | -89.82 | 414.8 | 9,355.5 | 715.9 | 430.1 | 285.81 | 2.505 | ES, SF |
| 16,200.0 | 6,512.4 | 6,568.1 | 6,481.2 | 272.5 | 19.9 | -89.76 | 414.8 | 9,355.5 | 725.5 | 436.9 | 288.62 | 2.514 | |
| 16,269.0 | 6,512.0 | 6,567.6 | 6,480.7 | 274.4 | 19.9 | -89.72 | 414.8 | 9,355.5 | 740.0 | 449.4 | 290.55 | 2.547 | |

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

| | | | |
|---|---|---|---|
| **Company:** | PETROLEUM DEVELOPMENT CORP DJ Basin | **Local Co-ordinate Reference:** | Well Bihain 26G-202 |
| **Project:** | SEC.26-T5N-R64W | **TVD Reference:** | WELL @ 4627.0ft (RKB - 23') |
| **Reference Site:** | Bihain 5N64W26GK Pad Sec.26-T5N-R64W | **MD Reference:** | WELL @ 4627.0ft (RKB - 23') |
| **Site Error:** | 0.0 ft | **North Reference:** | True |
| **Reference Well:** | Bihain 26G-202 | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.0 ft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | Wellbore #1 | **Database:** | US_EDM |
| **Reference Design:** | Plan #1 Extension (3-3-16) | **Offset TVD Reference:** | Offset Datum |

**Offset Design** Kuner 8-2-25 Pad Sec.25-T5N-R64W - Kuner 6-4-25 - Wellbore #1 - Wellbore #1

**Offset Site Error:** 0.0 ft

**Survey Program:** 92- **Offset Well Error:** 0.0 ft

| Reference Measured Depth (ft) | Reference Vertical Depth (ft) | Offset Measured Depth (ft) | Offset Vertical Depth (ft) | Semi Major Axis Reference (ft) | Semi Major Axis Offset (ft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (ft) | Offset Wellbore Centre +E/-W (ft) | Distance Between Centres (ft) | Distance Between Ellipses (ft) | Minimum Separation (ft) | Separation Factor | Warning |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 14,500.0 | 6,522.5 | 6,798.3 | 6,502.5 | 224.8 | 32.7 | -96.44 | -161.5 | 8,746.5 | 982.0 | 733.9 | 248.05 | 3.959 | |
| 14,600.0 | 6,521.9 | 6,796.8 | 6,501.0 | 227.6 | 32.7 | -95.83 | -161.5 | 8,746.5 | 883.1 | 632.0 | 251.07 | 3.517 | |
| 14,700.0 | 6,521.3 | 6,795.3 | 6,499.4 | 230.4 | 32.7 | -95.21 | -161.5 | 8,746.5 | 784.5 | 530.4 | 254.07 | 3.088 | |
| 14,800.0 | 6,520.7 | 6,793.8 | 6,497.9 | 233.2 | 32.7 | -94.58 | -161.5 | 8,746.6 | 686.4 | 429.3 | 257.06 | 2.670 | |
| 14,900.0 | 6,520.1 | 6,792.2 | 6,496.3 | 236.0 | 32.7 | -93.95 | -161.5 | 8,746.6 | 588.8 | 328.8 | 260.02 | 2.264 | |
| 15,000.0 | 6,519.5 | 6,790.6 | 6,494.8 | 238.8 | 32.7 | -93.29 | -161.5 | 8,746.6 | 492.2 | 229.3 | 262.96 | 1.872 | |
| 15,100.0 | 6,518.9 | 6,789.0 | 6,493.1 | 241.6 | 32.7 | -92.63 | -161.5 | 8,746.6 | 397.3 | 131.5 | 265.88 | 1.494 | Level 3 |
| 15,200.0 | 6,518.3 | 6,787.4 | 6,491.5 | 244.4 | 32.7 | -91.96 | -161.5 | 8,746.6 | 305.7 | 37.0 | 268.76 | 1.138 | Level 2 |
| 15,300.0 | 6,517.8 | 6,785.7 | 6,489.8 | 247.2 | 32.7 | -91.28 | -161.5 | 8,746.6 | 221.5 | -50.1 | 271.62 | 0.815 | Level 1 |
| 15,400.0 | 6,517.2 | 6,784.0 | 6,488.1 | 250.0 | 32.7 | -90.58 | -161.5 | 8,746.7 | 157.0 | -117.5 | 274.44 | 0.572 | Level 1 |
| 15,472.1 | 6,516.7 | 6,782.8 | 6,486.9 | 252.1 | 32.7 | -90.07 | -161.5 | 8,746.7 | 139.4 | -137.0 | 276.45 | 0.504 | Level 1, CC, ES, SF |
| 15,500.0 | 6,516.6 | 6,782.3 | 6,486.4 | 252.8 | 32.7 | -89.87 | -161.5 | 8,746.7 | 142.2 | -135.1 | 277.22 | 0.513 | Level 1 |
| 15,600.0 | 6,516.0 | 6,780.5 | 6,484.7 | 255.6 | 32.6 | -89.15 | -161.5 | 8,746.7 | 189.2 | -90.8 | 279.96 | 0.676 | Level 1 |
| 15,700.0 | 6,515.4 | 6,778.8 | 6,482.9 | 258.4 | 32.6 | -88.42 | -161.5 | 8,746.7 | 267.1 | -15.6 | 282.66 | 0.945 | Level 1 |
| 15,800.0 | 6,514.8 | 6,776.9 | 6,481.1 | 261.2 | 32.6 | -87.68 | -161.5 | 8,746.7 | 356.2 | 70.9 | 285.31 | 1.249 | Level 2 |
| 15,900.0 | 6,514.2 | 6,775.1 | 6,479.2 | 264.1 | 32.6 | -86.92 | -161.5 | 8,746.8 | 449.9 | 162.0 | 287.92 | 1.563 | |
| 16,000.0 | 6,513.6 | 6,773.2 | 6,477.4 | 266.9 | 32.6 | -86.16 | -161.5 | 8,746.8 | 545.9 | 255.4 | 290.46 | 1.879 | |
| 16,100.0 | 6,513.0 | 6,771.3 | 6,475.5 | 269.7 | 32.6 | -85.38 | -161.5 | 8,746.8 | 643.1 | 350.1 | 292.95 | 2.195 | |
| 16,200.0 | 6,512.4 | 6,770.0 | 6,474.1 | 272.5 | 32.6 | -84.84 | -161.5 | 8,746.8 | 741.0 | 445.5 | 295.51 | 2.508 | |
| 16,269.0 | 6,512.0 | 6,768.2 | 6,472.4 | 274.4 | 32.6 | -84.12 | -161.5 | 8,746.9 | 808.9 | 511.8 | 297.07 | 2.723 | |

| | | | |
|---|---|---|---|
| **Company:** | PETROLEUM DEVELOPMENT CORP DJ Basin | **Local Co-ordinate Reference:** | Well Bihain 26G-202 |
| **Project:** | SEC.26-T5N-R64W | **TVD Reference:** | WELL @ 4627.0ft (RKB - 23') |
| **Reference Site:** | Bihain 5N64W26GK Pad Sec.26-T5N-R64W | **MD Reference:** | WELL @ 4627.0ft (RKB - 23') |
| **Site Error:** | 0.0 ft | **North Reference:** | True |
| **Reference Well:** | Bihain 26G-202 | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.0 ft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | Wellbore #1 | **Database:** | US_EDM |
| **Reference Design:** | Plan #1 Extension (3-3-16) | **Offset TVD Reference:** | Offset Datum |

**Offset Design** Loloff Farms 5N64W26G Pad Sec.26-T5N-R64W - Loloff Farms 26G-432 - Wellbore #1 - Extension Pla

**Offset Site Error:** 0.0 ft

**Survey Program:** 0-MWD

**Offset Well Error:** 0.0 ft

| Reference Measured Depth (ft) | Reference Vertical Depth (ft) | Offset Measured Depth (ft) | Offset Vertical Depth (ft) | Semi Major Axis Reference (ft) | Semi Major Axis Offset (ft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (ft) | Offset Wellbore Centre +E/-W (ft) | Distance Between Centres (ft) | Distance Between Ellipses (ft) | Minimum Separation (ft) | Separation Factor | Warning |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.0 | 0.0 | 10.0 | 10.0 | 0.0 | 0.0 | -164.89 | -615.0 | -166.1 | 637.0 | 637.0 | 0.01 | N/A | |
| 100.0 | 100.0 | 110.0 | 110.0 | 0.1 | 0.1 | -164.89 | -615.0 | -166.1 | 637.0 | 636.8 | 0.25 | 2,576.501 | |
| 200.0 | 200.0 | 210.0 | 210.0 | 0.3 | 0.4 | -164.89 | -615.0 | -166.1 | 637.0 | 636.3 | 0.70 | 914.242 | |
| 300.0 | 300.0 | 310.0 | 310.0 | 0.6 | 0.6 | -164.89 | -615.0 | -166.1 | 637.0 | 635.9 | 1.15 | 555.716 | |
| 400.0 | 400.0 | 410.0 | 410.0 | 0.8 | 0.8 | -164.89 | -615.0 | -166.1 | 637.0 | 635.4 | 1.60 | 399.176 | |
| 500.0 | 500.0 | 510.0 | 510.0 | 1.0 | 1.0 | -164.89 | -615.0 | -166.1 | 637.0 | 635.0 | 2.05 | 311.445 | |
| 600.0 | 600.0 | 610.0 | 610.0 | 1.2 | 1.3 | -164.89 | -615.0 | -166.1 | 637.0 | 634.5 | 2.49 | 255.329 | |
| 700.0 | 700.0 | 710.0 | 710.0 | 1.5 | 1.5 | -164.89 | -615.0 | -166.1 | 637.0 | 634.1 | 2.94 | 216.347 | |
| 800.0 | 800.0 | 810.0 | 810.0 | 1.7 | 1.7 | -164.89 | -615.0 | -166.1 | 637.0 | 633.6 | 3.39 | 187.692 | |
| 900.0 | 900.0 | 910.0 | 910.0 | 1.9 | 1.9 | -164.89 | -615.0 | -166.1 | 637.0 | 633.2 | 3.84 | 165.740 | |
| 1,000.0 | 1,000.0 | 1,010.0 | 1,010.0 | 2.1 | 2.2 | -164.89 | -615.0 | -166.1 | 637.0 | 632.7 | 4.29 | 148.385 | |
| 1,100.0 | 1,100.0 | 1,110.0 | 1,110.0 | 2.4 | 2.4 | -164.89 | -615.0 | -166.1 | 637.0 | 632.3 | 4.74 | 134.320 | |
| 1,200.0 | 1,200.0 | 1,210.0 | 1,210.0 | 2.6 | 2.6 | -164.89 | -615.0 | -166.1 | 637.0 | 631.8 | 5.19 | 122.691 | |
| 1,300.0 | 1,300.0 | 1,310.0 | 1,310.0 | 2.8 | 2.8 | -164.89 | -615.0 | -166.1 | 637.0 | 631.4 | 5.64 | 112.914 | |
| 1,400.0 | 1,400.0 | 1,410.0 | 1,410.0 | 3.0 | 3.1 | -164.89 | -615.0 | -166.1 | 637.0 | 630.9 | 6.09 | 104.581 | |
| 1,500.0 | 1,500.0 | 1,510.0 | 1,510.0 | 3.2 | 3.3 | -40.97 | -615.0 | -166.1 | 636.0 | 629.5 | 6.52 | 97.575 | |
| 1,600.0 | 1,599.9 | 1,609.9 | 1,609.9 | 3.4 | 3.5 | -41.23 | -615.0 | -166.1 | 633.1 | 626.1 | 6.93 | 91.392 | |
| 1,700.0 | 1,699.7 | 1,709.7 | 1,709.7 | 3.6 | 3.7 | -41.67 | -615.0 | -166.1 | 628.2 | 620.8 | 7.34 | 85.576 | |
| 1,800.0 | 1,799.3 | 1,809.3 | 1,809.3 | 3.8 | 4.0 | -42.30 | -615.0 | -166.1 | 621.4 | 613.6 | 7.76 | 80.074 | |
| 1,900.0 | 1,898.6 | 1,908.6 | 1,908.6 | 4.1 | 4.2 | -43.13 | -615.0 | -166.1 | 612.7 | 604.5 | 8.19 | 74.836 | |
| 2,004.8 | 2,002.2 | 2,012.2 | 2,012.2 | 4.3 | 4.4 | -44.22 | -615.0 | -166.1 | 601.7 | 593.1 | 8.65 | 69.586 | |
| 2,100.0 | 2,096.3 | 2,106.3 | 2,106.3 | 4.6 | 4.6 | -45.23 | -615.0 | -166.1 | 591.0 | 581.9 | 9.09 | 65.017 | |
| 2,200.0 | 2,195.0 | 2,205.0 | 2,205.0 | 4.9 | 4.8 | -46.33 | -615.0 | -166.1 | 579.9 | 570.3 | 9.57 | 60.621 | |
| 2,300.0 | 2,293.8 | 2,303.8 | 2,303.8 | 5.2 | 5.1 | -47.47 | -615.0 | -166.1 | 569.1 | 559.0 | 10.05 | 56.602 | |
| 2,400.0 | 2,392.5 | 2,402.9 | 2,402.9 | 5.5 | 5.3 | -48.56 | -614.8 | -167.0 | 558.4 | 547.9 | 10.54 | 52.974 | |
| 2,500.0 | 2,491.3 | 2,502.4 | 2,502.3 | 5.8 | 5.5 | -49.52 | -614.4 | -169.6 | 547.9 | 536.9 | 11.03 | 49.675 | |
| 2,600.0 | 2,590.0 | 2,602.1 | 2,602.0 | 6.1 | 5.7 | -50.34 | -613.6 | -173.9 | 537.4 | 525.9 | 11.53 | 46.614 | |
| 2,700.0 | 2,688.8 | 2,702.1 | 2,701.7 | 6.4 | 5.9 | -51.00 | -612.5 | -180.0 | 526.9 | 514.8 | 12.04 | 43.766 | |
| 2,800.0 | 2,787.5 | 2,802.2 | 2,801.5 | 6.8 | 6.1 | -51.49 | -611.2 | -187.7 | 516.2 | 503.7 | 12.56 | 41.109 | |
| 2,900.0 | 2,886.3 | 2,902.4 | 2,901.3 | 7.1 | 6.3 | -51.81 | -609.5 | -197.2 | 505.5 | 492.4 | 13.09 | 38.624 | |
| 3,000.0 | 2,985.0 | 3,002.6 | 3,000.9 | 7.5 | 6.6 | -51.93 | -607.5 | -208.4 | 494.6 | 481.0 | 13.63 | 36.294 | |
| 3,100.0 | 3,083.8 | 3,102.5 | 3,099.9 | 7.8 | 6.8 | -51.88 | -605.3 | -221.2 | 483.6 | 469.4 | 14.18 | 34.107 | |
| 3,200.0 | 3,182.5 | 3,201.9 | 3,198.4 | 8.2 | 7.1 | -51.78 | -603.0 | -234.1 | 472.5 | 457.8 | 14.74 | 32.064 | |
| 3,300.0 | 3,281.3 | 3,301.3 | 3,296.9 | 8.5 | 7.3 | -51.68 | -600.7 | -247.1 | 461.4 | 446.1 | 15.30 | 30.154 | |
| 3,400.0 | 3,380.0 | 3,400.6 | 3,395.4 | 8.9 | 7.6 | -51.58 | -598.4 | -260.1 | 450.3 | 434.5 | 15.88 | 28.367 | |
| 3,500.0 | 3,478.8 | 3,500.0 | 3,493.9 | 9.2 | 7.9 | -51.47 | -596.2 | -273.0 | 439.3 | 422.8 | 16.46 | 26.694 | |
| 3,600.0 | 3,577.5 | 3,599.4 | 3,592.4 | 9.6 | 8.2 | -51.35 | -593.9 | -286.0 | 428.2 | 411.2 | 17.04 | 25.127 | |
| 3,700.0 | 3,676.3 | 3,698.8 | 3,690.9 | 9.9 | 8.4 | -51.23 | -591.6 | -298.9 | 417.1 | 399.5 | 17.63 | 23.658 | |
| 3,800.0 | 3,775.0 | 3,798.2 | 3,789.4 | 10.3 | 8.7 | -51.10 | -589.3 | -311.9 | 406.1 | 387.8 | 18.23 | 22.278 | |
| 3,900.0 | 3,873.8 | 3,897.5 | 3,887.9 | 10.7 | 9.0 | -50.97 | -587.0 | -324.8 | 395.0 | 376.2 | 18.83 | 20.982 | |
| 4,000.0 | 3,972.5 | 3,996.9 | 3,986.4 | 11.0 | 9.3 | -50.83 | -584.8 | -337.8 | 383.9 | 364.5 | 19.43 | 19.762 | |
| 4,100.0 | 4,071.3 | 4,096.3 | 4,085.0 | 11.4 | 9.6 | -50.67 | -582.5 | -350.8 | 372.9 | 352.9 | 20.03 | 18.613 | |
| 4,200.0 | 4,170.0 | 4,195.7 | 4,183.5 | 11.8 | 9.9 | -50.51 | -580.2 | -363.7 | 361.8 | 341.2 | 20.64 | 17.529 | |
| 4,300.0 | 4,268.8 | 4,295.1 | 4,282.0 | 12.1 | 10.2 | -50.34 | -577.9 | -376.7 | 350.8 | 329.5 | 21.25 | 16.506 | |
| 4,400.0 | 4,367.5 | 4,394.5 | 4,380.5 | 12.5 | 10.5 | -50.16 | -575.6 | -389.6 | 339.7 | 317.9 | 21.86 | 15.539 | |
| 4,500.0 | 4,466.3 | 4,493.8 | 4,479.0 | 12.9 | 10.8 | -49.97 | -573.3 | -402.6 | 328.7 | 306.2 | 22.48 | 14.624 | |
| 4,600.0 | 4,565.0 | 4,593.2 | 4,577.5 | 13.2 | 11.1 | -49.76 | -571.1 | -415.6 | 317.6 | 294.6 | 23.09 | 13.757 | |
| 4,700.0 | 4,663.8 | 4,692.3 | 4,675.7 | 13.6 | 11.4 | -49.64 | -568.9 | -427.9 | 306.6 | 283.0 | 23.68 | 12.947 | |
| 4,800.0 | 4,762.5 | 4,791.0 | 4,774.0 | 14.0 | 11.6 | -50.11 | -567.2 | -437.3 | 295.8 | 271.6 | 24.25 | 12.198 | |
| 4,886.9 | 4,848.3 | 4,876.6 | 4,859.5 | 14.3 | 11.8 | -51.09 | -566.3 | -442.7 | 286.6 | 261.9 | 24.76 | 11.578 | |
| 4,900.0 | 4,861.3 | 4,889.5 | 4,872.4 | 14.4 | 11.8 | -51.27 | -566.2 | -443.3 | 285.3 | 260.5 | 24.84 | 11.488 | |

| | | | |
|---|---|---|---|
| **Company:** | PETROLEUM DEVELOPMENT CORP DJ Basin | **Local Co-ordinate Reference:** | Well Bihain 26G-202 |
| **Project:** | SEC.26-T5N-R64W | **TVD Reference:** | WELL @ 4627.0ft (RKB - 23') |
| **Reference Site:** | Bihain 5N64W26GK Pad Sec.26-T5N-R64W | **MD Reference:** | WELL @ 4627.0ft (RKB - 23') |
| **Site Error:** | 0.0 ft | **North Reference:** | True |
| **Reference Well:** | Bihain 26G-202 | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.0 ft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | Wellbore #1 | **Database:** | US_EDM |
| **Reference Design:** | Plan #1 Extension (3-3-16) | **Offset TVD Reference:** | Offset Datum |

**Offset Design** Loloff Farms 5N64W26G Pad Sec.26-T5N-R64W - Loloff Farms 26G-432 - Wellbore #1 - Extension Pla

**Offset Site Error:** 0.0 ft

**Survey Program:** 0-MWD

**Offset Well Error:** 0.0 ft

| Reference Measured Depth (ft) | Reference Vertical Depth (ft) | Offset Measured Depth (ft) | Offset Vertical Depth (ft) | Semi Major Axis Reference (ft) | Semi Major Axis Offset (ft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (ft) | Offset Wellbore Centre +E/-W (ft) | Distance Between Centres (ft) | Distance Between Ellipses (ft) | Minimum Separation (ft) | Separation Factor | Warning |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5,000.0 | 4,960.3 | 4,987.9 | 4,970.7 | 14.6 | 12.0 | -52.74 | -565.7 | -445.9 | 276.6 | 251.3 | 25.37 | 10.905 | |
| 5,100.0 | 5,059.8 | 5,087.0 | 5,069.8 | 14.8 | 12.2 | -54.30 | -565.7 | -446.1 | 270.6 | 244.7 | 25.86 | 10.461 | |
| 5,200.0 | 5,159.6 | 5,186.8 | 5,169.6 | 15.0 | 12.4 | -55.40 | -565.7 | -446.1 | 266.7 | 240.4 | 26.32 | 10.134 | |
| 5,300.0 | 5,259.5 | 5,286.8 | 5,269.5 | 15.2 | 12.6 | -55.93 | -565.7 | -446.1 | 265.0 | 238.2 | 26.72 | 9.916 | |
| 5,340.5 | 5,300.0 | 5,327.2 | 5,310.0 | 15.3 | 12.6 | -179.98 | -565.7 | -446.1 | 264.8 | 240.2 | 24.56 | 10.782 | |
| 5,400.0 | 5,359.5 | 5,386.8 | 5,369.5 | 15.4 | 12.8 | -179.98 | -565.7 | -446.1 | 264.8 | 240.0 | 24.79 | 10.681 | |
| 5,500.0 | 5,459.5 | 5,486.8 | 5,469.5 | 15.5 | 13.0 | -179.98 | -565.7 | -446.1 | 264.8 | 239.6 | 25.18 | 10.516 | |
| 5,600.0 | 5,559.5 | 5,586.8 | 5,569.5 | 15.7 | 13.2 | -179.98 | -565.7 | -446.1 | 264.8 | 239.2 | 25.57 | 10.355 | |
| 5,700.0 | 5,659.5 | 5,686.8 | 5,669.5 | 15.8 | 13.4 | -179.98 | -565.7 | -446.1 | 264.8 | 238.8 | 25.97 | 10.198 | |
| 5,800.0 | 5,759.5 | 5,786.8 | 5,769.5 | 16.0 | 13.6 | -179.98 | -565.7 | -446.1 | 264.8 | 238.4 | 26.36 | 10.045 | |
| 5,843.3 | 5,802.8 | 5,830.0 | 5,812.8 | 16.0 | 13.7 | -179.98 | -565.7 | -446.1 | 264.8 | 238.3 | 26.53 | 9.980 | CC |
| 5,850.0 | 5,809.5 | 5,836.8 | 5,819.5 | 16.1 | 13.7 | 90.02 | -565.7 | -446.1 | 264.8 | 236.0 | 28.75 | 9.211 | |
| 5,853.7 | 5,813.2 | 5,840.5 | 5,823.2 | 16.1 | 13.7 | 90.03 | -565.7 | -446.1 | 264.8 | 236.0 | 28.76 | 9.208 | |
| 5,900.0 | 5,859.5 | 5,886.7 | 5,869.5 | 16.1 | 13.8 | 90.47 | -565.7 | -446.1 | 264.8 | 235.9 | 28.89 | 9.166 | |
| 5,950.0 | 5,909.2 | 5,936.4 | 5,919.2 | 16.1 | 13.9 | 91.61 | -565.7 | -446.1 | 264.9 | 235.9 | 28.97 | 9.143 | |
| 6,000.0 | 5,958.4 | 5,985.7 | 5,968.4 | 16.2 | 14.0 | 93.41 | -565.7 | -446.1 | 265.3 | 236.3 | 29.00 | 9.148 | |
| 6,050.0 | 6,007.0 | 6,035.5 | 6,018.3 | 16.2 | 14.1 | 95.69 | -565.7 | -445.2 | 266.2 | 237.2 | 28.96 | 9.190 | |
| 6,100.0 | 6,054.7 | 6,086.5 | 6,069.1 | 16.1 | 14.1 | 98.00 | -565.7 | -441.2 | 267.5 | 238.6 | 28.88 | 9.262 | |
| 6,150.0 | 6,101.4 | 6,138.2 | 6,120.2 | 16.1 | 14.2 | 100.26 | -565.7 | -433.6 | 269.3 | 240.5 | 28.77 | 9.362 | |
| 6,200.0 | 6,146.7 | 6,190.8 | 6,171.6 | 16.1 | 14.2 | 102.47 | -565.7 | -422.3 | 271.5 | 242.9 | 28.62 | 9.488 | |
| 6,250.0 | 6,190.6 | 6,244.2 | 6,222.8 | 16.0 | 14.3 | 104.61 | -565.7 | -407.3 | 274.0 | 245.6 | 28.44 | 9.636 | |
| 6,300.0 | 6,232.8 | 6,298.5 | 6,273.7 | 16.0 | 14.3 | 106.67 | -565.7 | -388.4 | 276.9 | 248.7 | 28.25 | 9.803 | |
| 6,350.0 | 6,273.2 | 6,353.7 | 6,323.9 | 15.9 | 14.4 | 108.64 | -565.7 | -365.5 | 280.0 | 252.0 | 28.06 | 9.981 | |
| 6,400.0 | 6,311.5 | 6,409.8 | 6,373.1 | 15.9 | 14.4 | 110.50 | -565.7 | -338.6 | 283.4 | 255.5 | 27.88 | 10.164 | |
| 6,450.0 | 6,347.7 | 6,466.8 | 6,421.0 | 15.9 | 14.5 | 112.26 | -565.7 | -307.7 | 286.8 | 259.1 | 27.74 | 10.340 | |
| 6,500.0 | 6,381.6 | 6,524.7 | 6,467.1 | 15.9 | 14.6 | 113.89 | -565.7 | -272.7 | 290.3 | 262.7 | 27.66 | 10.496 | |
| 6,550.0 | 6,413.0 | 6,583.5 | 6,511.1 | 16.0 | 14.8 | 115.39 | -565.7 | -233.7 | 293.8 | 266.1 | 27.67 | 10.618 | |
| 6,600.0 | 6,441.7 | 6,643.1 | 6,552.5 | 16.1 | 15.0 | 116.77 | -565.7 | -190.8 | 297.2 | 269.4 | 27.80 | 10.690 | |
| 6,650.0 | 6,467.7 | 6,703.6 | 6,590.9 | 16.4 | 15.4 | 118.00 | -565.7 | -144.1 | 300.5 | 272.4 | 28.09 | 10.698 | |
| 6,700.0 | 6,490.9 | 6,764.8 | 6,626.0 | 16.7 | 15.9 | 119.10 | -565.7 | -93.9 | 303.6 | 275.0 | 28.56 | 10.628 | |
| 6,750.0 | 6,511.1 | 6,826.8 | 6,657.2 | 17.2 | 16.5 | 120.05 | -565.7 | -40.4 | 306.3 | 277.1 | 29.23 | 10.479 | |
| 6,800.0 | 6,528.3 | 6,889.4 | 6,684.3 | 17.7 | 17.2 | 120.86 | -565.7 | 16.0 | 308.8 | 278.7 | 30.12 | 10.253 | |
| 6,850.0 | 6,542.4 | 6,952.5 | 6,706.8 | 18.4 | 18.1 | 121.52 | -565.7 | 75.0 | 310.8 | 279.6 | 31.22 | 9.957 | |
| 6,900.0 | 6,553.3 | 7,016.1 | 6,724.5 | 19.2 | 19.1 | 122.03 | -565.7 | 136.0 | 312.5 | 279.9 | 32.55 | 9.600 | |
| 6,950.0 | 6,561.0 | 7,080.0 | 6,737.1 | 20.0 | 20.2 | 122.39 | -565.7 | 198.7 | 313.6 | 279.6 | 34.08 | 9.203 | |
| 7,000.0 | 6,565.5 | 7,144.2 | 6,744.4 | 20.9 | 21.4 | 122.60 | -565.7 | 262.4 | 314.3 | 278.5 | 35.79 | 8.781 | |
| 7,047.8 | 6,566.7 | 7,205.5 | 6,746.4 | 21.8 | 22.7 | 122.65 | -565.7 | 323.7 | 314.5 | 276.9 | 37.59 | 8.367 | |
| 7,100.0 | 6,566.4 | 7,257.7 | 6,746.0 | 22.8 | 23.8 | 122.64 | -565.7 | 375.9 | 314.5 | 275.1 | 39.41 | 7.979 | |
| 7,200.0 | 6,565.8 | 7,357.7 | 6,745.3 | 24.9 | 25.9 | 122.63 | -565.7 | 475.9 | 314.4 | 271.3 | 43.08 | 7.298 | |
| 7,300.0 | 6,565.2 | 7,457.7 | 6,744.6 | 27.1 | 28.2 | 122.61 | -565.7 | 575.9 | 314.4 | 267.4 | 46.95 | 6.695 | |
| 7,400.0 | 6,564.6 | 7,557.7 | 6,743.9 | 29.4 | 30.6 | 122.59 | -565.7 | 675.9 | 314.3 | 263.3 | 50.99 | 6.164 | |
| 7,500.0 | 6,564.0 | 7,657.7 | 6,743.2 | 31.8 | 33.0 | 122.58 | -565.7 | 775.9 | 314.2 | 259.1 | 55.15 | 5.698 | |
| 7,600.0 | 6,563.4 | 7,757.7 | 6,742.5 | 34.3 | 35.5 | 122.56 | -565.7 | 875.9 | 314.2 | 254.8 | 59.42 | 5.288 | |
| 7,700.0 | 6,562.8 | 7,857.7 | 6,741.8 | 36.8 | 38.1 | 122.55 | -565.7 | 975.9 | 314.1 | 250.4 | 63.76 | 4.927 | |
| 7,800.0 | 6,562.3 | 7,957.7 | 6,741.1 | 39.4 | 40.7 | 122.53 | -565.7 | 1,075.9 | 314.1 | 245.9 | 68.17 | 4.607 | |
| 7,900.0 | 6,561.7 | 8,057.7 | 6,740.4 | 42.0 | 43.3 | 122.51 | -565.7 | 1,175.9 | 314.0 | 241.4 | 72.63 | 4.323 | |
| 8,000.0 | 6,561.1 | 8,157.7 | 6,739.7 | 44.6 | 45.9 | 122.50 | -565.7 | 1,275.9 | 314.0 | 236.8 | 77.14 | 4.070 | |
| 8,100.0 | 6,560.5 | 8,257.7 | 6,739.1 | 47.2 | 48.5 | 122.48 | -565.7 | 1,375.8 | 313.9 | 232.2 | 81.68 | 3.843 | |
| 8,200.0 | 6,559.9 | 8,357.7 | 6,738.4 | 49.9 | 51.2 | 122.47 | -565.7 | 1,475.8 | 313.9 | 227.6 | 86.26 | 3.638 | |
| 8,300.0 | 6,559.3 | 8,457.7 | 6,737.7 | 52.5 | 53.9 | 122.45 | -565.7 | 1,575.8 | 313.8 | 222.9 | 90.86 | 3.453 | |
| 8,400.0 | 6,558.7 | 8,557.7 | 6,737.0 | 55.2 | 56.6 | 122.43 | -565.7 | 1,675.8 | 313.7 | 218.3 | 95.49 | 3.286 | |

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

| | | | |
|---|---|---|---|
| **Company:** | PETROLEUM DEVELOPMENT CORP DJ Basin | **Local Co-ordinate Reference:** | Well Bihain 26G-202 |
| **Project:** | SEC.26-T5N-R64W | **TVD Reference:** | WELL @ 4627.0ft (RKB - 23') |
| **Reference Site:** | Bihain 5N64W26GK Pad Sec.26-T5N-R64W | **MD Reference:** | WELL @ 4627.0ft (RKB - 23') |
| **Site Error:** | 0.0 ft | **North Reference:** | True |
| **Reference Well:** | Bihain 26G-202 | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.0 ft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | Wellbore #1 | **Database:** | US_EDM |
| **Reference Design:** | Plan #1 Extension (3-3-16) | **Offset TVD Reference:** | Offset Datum |

**Offset Design** Loloff Farms 5N64W26G Pad Sec.26-T5N-R64W - Loloff Farms 26G-432 - Wellbore #1 - Extension Pla

**Offset Site Error:** 0.0 ft

**Survey Program:** 0-MWD

**Offset Well Error:** 0.0 ft

| Reference Measured Depth (ft) | Reference Vertical Depth (ft) | Offset Measured Depth (ft) | Offset Vertical Depth (ft) | Semi Major Axis Reference (ft) | Semi Major Axis Offset (ft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (ft) | Offset Wellbore Centre +E/-W (ft) | Distance Between Centres (ft) | Distance Between Ellipses (ft) | Minimum Separation (ft) | Separation Factor | Warning |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 8,500.0 | 6,558.1 | 8,657.7 | 6,736.3 | 57.9 | 59.3 | 122.42 | -565.7 | 1,775.8 | 313.7 | 213.5 | 100.14 | 3.133 | |
| 8,600.0 | 6,557.5 | 8,757.7 | 6,735.6 | 60.6 | 62.0 | 122.40 | -565.7 | 1,875.8 | 313.6 | 208.8 | 104.80 | 2.993 | |
| 8,700.0 | 6,556.9 | 8,857.7 | 6,734.9 | 63.3 | 64.7 | 122.38 | -565.7 | 1,975.8 | 313.6 | 204.1 | 109.49 | 2.864 | |
| 8,800.0 | 6,556.3 | 8,957.7 | 6,734.2 | 66.0 | 67.5 | 122.37 | -565.7 | 2,075.8 | 313.5 | 199.3 | 114.18 | 2.746 | |
| 8,900.0 | 6,555.7 | 9,057.7 | 6,733.5 | 68.8 | 70.2 | 122.35 | -565.7 | 2,175.8 | 313.5 | 194.6 | 118.89 | 2.637 | |
| 9,000.0 | 6,555.1 | 9,157.7 | 6,732.8 | 71.5 | 72.9 | 122.34 | -565.7 | 2,275.8 | 313.4 | 189.8 | 123.61 | 2.535 | |
| 9,100.0 | 6,554.5 | 9,257.7 | 6,732.1 | 74.2 | 75.7 | 122.32 | -565.7 | 2,375.8 | 313.4 | 185.0 | 128.34 | 2.442 | |
| 9,200.0 | 6,553.9 | 9,357.7 | 6,731.4 | 77.0 | 78.4 | 122.30 | -565.7 | 2,475.8 | 313.3 | 180.2 | 133.08 | 2.354 | |
| 9,300.0 | 6,553.4 | 9,457.7 | 6,730.7 | 79.7 | 81.2 | 122.29 | -565.7 | 2,575.8 | 313.2 | 175.4 | 137.83 | 2.273 | |
| 9,400.0 | 6,552.8 | 9,557.7 | 6,730.0 | 82.5 | 83.9 | 122.27 | -565.7 | 2,675.8 | 313.2 | 170.6 | 142.58 | 2.197 | |
| 9,500.0 | 6,552.2 | 9,657.7 | 6,729.3 | 85.3 | 86.7 | 122.25 | -565.7 | 2,775.8 | 313.1 | 165.8 | 147.35 | 2.125 | |
| 9,600.0 | 6,551.6 | 9,757.7 | 6,728.6 | 88.0 | 89.5 | 122.24 | -565.7 | 2,875.8 | 313.1 | 161.0 | 152.12 | 2.058 | |
| 9,700.0 | 6,551.0 | 9,857.7 | 6,727.9 | 90.8 | 92.2 | 122.22 | -565.7 | 2,975.8 | 313.0 | 156.1 | 156.89 | 1.995 | |
| 9,800.0 | 6,550.4 | 9,957.7 | 6,727.2 | 93.6 | 95.0 | 122.21 | -565.7 | 3,075.8 | 313.0 | 151.3 | 161.67 | 1.936 | |
| 9,900.0 | 6,549.8 | 10,057.7 | 6,726.5 | 96.3 | 97.8 | 122.19 | -565.7 | 3,175.8 | 312.9 | 146.4 | 166.46 | 1.880 | |
| 10,000.0 | 6,549.2 | 10,157.7 | 6,725.8 | 99.1 | 100.6 | 122.17 | -565.7 | 3,275.8 | 312.9 | 141.6 | 171.25 | 1.827 | |
| 10,100.0 | 6,548.6 | 10,257.7 | 6,725.1 | 101.9 | 103.3 | 122.16 | -565.7 | 3,375.8 | 312.8 | 136.7 | 176.05 | 1.777 | |
| 10,200.0 | 6,548.0 | 10,357.7 | 6,724.4 | 104.6 | 106.1 | 122.14 | -565.7 | 3,475.8 | 312.7 | 131.9 | 180.85 | 1.729 | |
| 10,300.0 | 6,547.4 | 10,457.7 | 6,723.7 | 107.4 | 108.9 | 122.12 | -565.7 | 3,575.8 | 312.7 | 127.0 | 185.66 | 1.684 | |
| 10,400.0 | 6,546.8 | 10,557.7 | 6,723.0 | 110.2 | 111.7 | 122.11 | -565.7 | 3,675.8 | 312.6 | 122.2 | 190.47 | 1.641 | |
| 10,500.0 | 6,546.2 | 10,657.7 | 6,722.3 | 113.0 | 114.5 | 122.09 | -565.7 | 3,775.8 | 312.6 | 117.3 | 195.29 | 1.601 | |
| 10,600.0 | 6,545.6 | 10,757.7 | 6,721.6 | 115.8 | 117.2 | 122.08 | -565.7 | 3,875.8 | 312.5 | 112.4 | 200.10 | 1.562 | |
| 10,700.0 | 6,545.0 | 10,857.7 | 6,720.9 | 118.5 | 120.0 | 122.06 | -565.7 | 3,975.8 | 312.5 | 107.5 | 204.93 | 1.525 | |
| 10,800.0 | 6,544.5 | 10,957.7 | 6,720.2 | 121.3 | 122.8 | 122.04 | -565.7 | 4,075.8 | 312.4 | 102.7 | 209.75 | 1.489 | Level 3 |
| 10,900.0 | 6,543.9 | 11,057.7 | 6,719.5 | 124.1 | 125.6 | 122.03 | -565.7 | 4,175.8 | 312.4 | 97.8 | 214.58 | 1.456 | Level 3 |
| 11,000.0 | 6,543.3 | 11,157.7 | 6,718.8 | 126.9 | 128.4 | 122.01 | -565.7 | 4,275.8 | 312.3 | 92.9 | 219.41 | 1.423 | Level 3 |
| 11,100.0 | 6,542.7 | 11,257.7 | 6,718.1 | 129.7 | 131.2 | 121.99 | -565.7 | 4,375.8 | 312.2 | 88.0 | 224.25 | 1.392 | Level 3 |
| 11,200.0 | 6,542.1 | 11,357.7 | 6,717.4 | 132.5 | 134.0 | 121.98 | -565.7 | 4,475.8 | 312.2 | 83.1 | 229.09 | 1.363 | Level 3 |
| 11,300.0 | 6,541.5 | 11,457.7 | 6,716.7 | 135.3 | 136.8 | 121.96 | -565.7 | 4,575.8 | 312.1 | 78.2 | 233.93 | 1.334 | Level 3 |
| 11,400.0 | 6,540.9 | 11,557.7 | 6,716.0 | 138.1 | 139.6 | 121.94 | -565.7 | 4,675.8 | 312.1 | 73.3 | 238.77 | 1.307 | Level 3 |
| 11,500.0 | 6,540.3 | 11,657.7 | 6,715.3 | 140.8 | 142.3 | 121.93 | -565.7 | 4,775.8 | 312.0 | 68.4 | 243.62 | 1.281 | Level 3 |
| 11,600.0 | 6,539.7 | 11,757.7 | 6,714.6 | 143.6 | 145.1 | 121.91 | -565.7 | 4,875.8 | 312.0 | 63.5 | 248.47 | 1.256 | Level 3 |
| 11,700.0 | 6,539.1 | 11,857.7 | 6,713.9 | 146.4 | 147.9 | 121.90 | -565.7 | 4,975.8 | 311.9 | 58.6 | 253.32 | 1.231 | Level 2 |
| 11,800.0 | 6,538.5 | 11,957.7 | 6,713.2 | 149.2 | 150.7 | 121.88 | -565.7 | 5,075.8 | 311.9 | 53.7 | 258.17 | 1.208 | Level 2 |
| 11,900.0 | 6,537.9 | 12,057.7 | 6,712.5 | 152.0 | 153.5 | 121.86 | -565.7 | 5,175.8 | 311.8 | 48.8 | 263.03 | 1.185 | Level 2 |
| 12,000.0 | 6,537.3 | 12,157.7 | 6,711.8 | 154.8 | 156.3 | 121.85 | -565.7 | 5,275.8 | 311.8 | 43.9 | 267.89 | 1.164 | Level 2 |
| 12,100.0 | 6,536.7 | 12,257.7 | 6,711.1 | 157.6 | 159.1 | 121.83 | -565.7 | 5,375.7 | 311.7 | 38.9 | 272.75 | 1.143 | Level 2 |
| 12,200.0 | 6,536.1 | 12,357.7 | 6,710.4 | 160.4 | 161.9 | 121.81 | -565.7 | 5,475.7 | 311.6 | 34.0 | 277.62 | 1.123 | Level 2 |
| 12,300.0 | 6,535.6 | 12,457.7 | 6,709.7 | 163.2 | 164.7 | 121.80 | -565.7 | 5,575.7 | 311.6 | 29.1 | 282.48 | 1.103 | Level 2 |
| 12,400.0 | 6,535.0 | 12,557.7 | 6,709.0 | 166.0 | 167.5 | 121.78 | -565.7 | 5,675.7 | 311.5 | 24.2 | 287.35 | 1.084 | Level 2 |
| 12,500.0 | 6,534.4 | 12,657.7 | 6,708.3 | 168.8 | 170.3 | 121.76 | -565.7 | 5,775.7 | 311.5 | 19.3 | 292.22 | 1.066 | Level 2 |
| 12,600.0 | 6,533.8 | 12,757.7 | 6,707.6 | 171.6 | 173.1 | 121.75 | -565.7 | 5,875.7 | 311.4 | 14.3 | 297.10 | 1.048 | Level 2 |
| 12,700.0 | 6,533.2 | 12,857.7 | 6,706.9 | 174.4 | 175.9 | 121.73 | -565.7 | 5,975.7 | 311.4 | 9.4 | 301.97 | 1.031 | Level 2 |
| 12,800.0 | 6,532.6 | 12,957.7 | 6,706.2 | 177.2 | 178.7 | 121.71 | -565.7 | 6,075.7 | 311.3 | 4.5 | 306.85 | 1.015 | Level 2 |
| 12,900.0 | 6,532.0 | 13,057.7 | 6,705.5 | 180.0 | 181.5 | 121.70 | -565.7 | 6,175.7 | 311.3 | -0.5 | 311.73 | 0.998 | Level 1 |
| 13,000.0 | 6,531.4 | 13,157.7 | 6,704.8 | 182.8 | 184.3 | 121.68 | -565.7 | 6,275.7 | 311.2 | -5.4 | 316.61 | 0.983 | Level 1 |
| 13,100.0 | 6,530.8 | 13,257.7 | 6,704.1 | 185.6 | 187.1 | 121.67 | -565.7 | 6,375.7 | 311.2 | -10.3 | 321.50 | 0.968 | Level 1 |
| 13,200.0 | 6,530.2 | 13,357.7 | 6,703.4 | 188.4 | 189.9 | 121.65 | -565.7 | 6,475.7 | 311.1 | -15.3 | 326.38 | 0.953 | Level 1 |
| 13,300.0 | 6,529.6 | 13,457.7 | 6,702.7 | 191.2 | 192.7 | 121.63 | -565.7 | 6,575.7 | 311.0 | -20.2 | 331.27 | 0.939 | Level 1 |
| 13,400.0 | 6,529.0 | 13,557.7 | 6,702.0 | 194.0 | 195.5 | 121.62 | -565.7 | 6,675.7 | 311.0 | -25.2 | 336.16 | 0.925 | Level 1 |
| 13,500.0 | 6,528.4 | 13,657.7 | 6,701.4 | 196.8 | 198.3 | 121.60 | -565.7 | 6,775.7 | 310.9 | -30.1 | 341.06 | 0.912 | Level 1 |

| | | | |
|---|---|---|---|
| **Company:** | PETROLEUM DEVELOPMENT CORP DJ Basin | **Local Co-ordinate Reference:** | Well Bihain 26G-202 |
| **Project:** | SEC.26-T5N-R64W | **TVD Reference:** | WELL @ 4627.0ft (RKB - 23') |
| **Reference Site:** | Bihain 5N64W26GK Pad Sec.26-T5N-R64W | **MD Reference:** | WELL @ 4627.0ft (RKB - 23') |
| **Site Error:** | 0.0 ft | **North Reference:** | True |
| **Reference Well:** | Bihain 26G-202 | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.0 ft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | Wellbore #1 | **Database:** | US_EDM |
| **Reference Design:** | Plan #1 Extension (3-3-16) | **Offset TVD Reference:** | Offset Datum |

**Offset Design** Loloff Farms 5N64W26G Pad Sec.26-T5N-R64W - Loloff Farms 26G-432 - Wellbore #1 - Extension Pla

**Offset Site Error:** 0.0 ft

**Survey Program:** 0-MWD

**Offset Well Error:** 0.0 ft

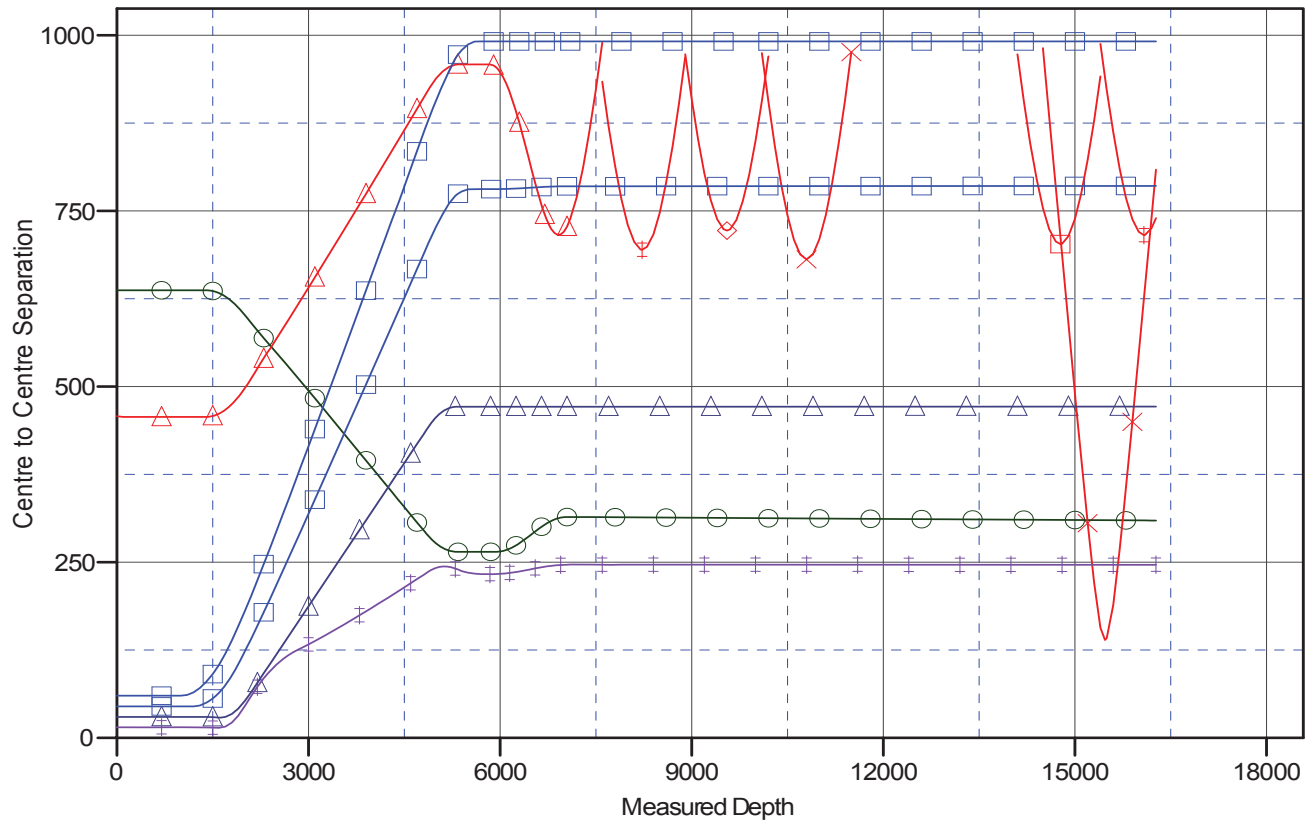
| Reference Measured Depth (ft) | Reference Vertical Depth (ft) | Offset Measured Depth (ft) | Offset Vertical Depth (ft) | Semi Major Axis Reference (ft) | Semi Major Axis Offset (ft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (ft) | Offset Wellbore Centre +E/-W (ft) | Distance Between Centres (ft) | Distance Between Ellipses (ft) | Minimum Separation (ft) | Separation Factor | Warning |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 13,600.0 | 6,527.8 | 13,757.7 | 6,700.7 | 199.6 | 201.1 | 121.58 | -565.7 | 6,875.7 | 310.9 | -35.1 | 345.95 | 0.899 | Level 1 |
| 13,700.0 | 6,527.2 | 13,857.7 | 6,700.0 | 202.4 | 203.9 | 121.57 | -565.7 | 6,975.7 | 310.8 | -40.0 | 350.85 | 0.886 | Level 1 |
| 13,800.0 | 6,526.7 | 13,957.7 | 6,699.3 | 205.2 | 206.7 | 121.55 | -565.7 | 7,075.7 | 310.8 | -45.0 | 355.74 | 0.874 | Level 1 |
| 13,900.0 | 6,526.1 | 14,057.7 | 6,698.6 | 208.0 | 209.5 | 121.53 | -565.7 | 7,175.7 | 310.7 | -49.9 | 360.64 | 0.862 | Level 1 |
| 14,000.0 | 6,525.5 | 14,157.7 | 6,697.9 | 210.8 | 212.3 | 121.52 | -565.7 | 7,275.7 | 310.7 | -54.9 | 365.55 | 0.850 | Level 1 |
| 14,100.0 | 6,524.9 | 14,257.7 | 6,697.2 | 213.6 | 215.1 | 121.50 | -565.7 | 7,375.7 | 310.6 | -59.8 | 370.45 | 0.838 | Level 1 |
| 14,200.0 | 6,524.3 | 14,357.7 | 6,696.5 | 216.4 | 217.9 | 121.48 | -565.7 | 7,475.7 | 310.6 | -64.8 | 375.36 | 0.827 | Level 1 |
| 14,300.0 | 6,523.7 | 14,457.7 | 6,695.8 | 219.2 | 220.7 | 121.47 | -565.7 | 7,575.7 | 310.5 | -69.8 | 380.26 | 0.817 | Level 1 |
| 14,400.0 | 6,523.1 | 14,557.7 | 6,695.1 | 222.0 | 223.5 | 121.45 | -565.7 | 7,675.7 | 310.4 | -74.7 | 385.17 | 0.806 | Level 1 |
| 14,500.0 | 6,522.5 | 14,657.7 | 6,694.4 | 224.8 | 226.3 | 121.43 | -565.7 | 7,775.7 | 310.4 | -79.7 | 390.08 | 0.796 | Level 1 |
| 14,600.0 | 6,521.9 | 14,757.7 | 6,693.7 | 227.6 | 229.1 | 121.42 | -565.7 | 7,875.7 | 310.3 | -84.7 | 395.00 | 0.786 | Level 1 |
| 14,700.0 | 6,521.3 | 14,857.7 | 6,693.0 | 230.4 | 231.9 | 121.40 | -565.7 | 7,975.7 | 310.3 | -89.6 | 399.91 | 0.776 | Level 1 |
| 14,800.0 | 6,520.7 | 14,957.7 | 6,692.3 | 233.2 | 234.7 | 121.38 | -565.7 | 8,075.7 | 310.2 | -94.6 | 404.83 | 0.766 | Level 1 |
| 14,900.0 | 6,520.1 | 15,057.7 | 6,691.6 | 236.0 | 237.5 | 121.37 | -565.7 | 8,175.7 | 310.2 | -99.6 | 409.75 | 0.757 | Level 1 |
| 15,000.0 | 6,519.5 | 15,157.7 | 6,690.9 | 238.8 | 240.3 | 121.35 | -565.7 | 8,275.7 | 310.1 | -104.5 | 414.67 | 0.748 | Level 1 |
| 15,100.0 | 6,518.9 | 15,257.7 | 6,690.2 | 241.6 | 243.1 | 121.33 | -565.7 | 8,375.7 | 310.1 | -109.5 | 419.59 | 0.739 | Level 1 |
| 15,200.0 | 6,518.3 | 15,357.7 | 6,689.5 | 244.4 | 246.0 | 121.32 | -565.7 | 8,475.7 | 310.0 | -114.5 | 424.51 | 0.730 | Level 1 |
| 15,300.0 | 6,517.8 | 15,457.7 | 6,688.8 | 247.2 | 248.8 | 121.30 | -565.7 | 8,575.7 | 310.0 | -119.5 | 429.44 | 0.722 | Level 1 |
| 15,400.0 | 6,517.2 | 15,557.7 | 6,688.1 | 250.0 | 251.6 | 121.28 | -565.7 | 8,675.7 | 309.9 | -124.5 | 434.37 | 0.713 | Level 1 |
| 15,500.0 | 6,516.6 | 15,657.7 | 6,687.4 | 252.8 | 254.4 | 121.27 | -565.7 | 8,775.7 | 309.9 | -129.4 | 439.30 | 0.705 | Level 1 |
| 15,600.0 | 6,516.0 | 15,757.7 | 6,686.7 | 255.6 | 257.2 | 121.25 | -565.7 | 8,875.7 | 309.8 | -134.4 | 444.23 | 0.697 | Level 1 |
| 15,700.0 | 6,515.4 | 15,857.7 | 6,686.0 | 258.4 | 260.0 | 121.24 | -565.7 | 8,975.7 | 309.7 | -139.4 | 449.16 | 0.690 | Level 1 |
| 15,800.0 | 6,514.8 | 15,957.7 | 6,685.3 | 261.2 | 262.8 | 121.22 | -565.7 | 9,075.7 | 309.7 | -144.4 | 454.10 | 0.682 | Level 1 |
| 15,900.0 | 6,514.2 | 16,057.7 | 6,684.6 | 264.1 | 265.6 | 121.20 | -565.7 | 9,175.7 | 309.6 | -149.4 | 459.03 | 0.675 | Level 1 |
| 16,000.0 | 6,513.6 | 16,157.7 | 6,683.9 | 266.9 | 268.4 | 121.19 | -565.7 | 9,275.7 | 309.6 | -154.4 | 463.97 | 0.667 | Level 1 |
| 16,100.0 | 6,513.0 | 16,257.7 | 6,683.2 | 269.7 | 271.2 | 121.17 | -565.7 | 9,375.6 | 309.5 | -159.4 | 468.91 | 0.660 | Level 1 |
| 16,200.0 | 6,512.4 | 16,357.7 | 6,682.5 | 272.5 | 274.0 | 121.15 | -565.7 | 9,475.6 | 309.5 | -164.4 | 473.85 | 0.653 | Level 1 |
| 16,269.0 | 6,512.0 | 16,426.7 | 6,682.0 | 274.4 | 275.9 | 121.14 | -565.7 | 9,544.7 | 309.4 | -167.8 | 477.26 | 0.648 | Level 1, ES, SF |

| | | | |
|---|---|---|---|
| **Company:** | PETROLEUM DEVELOPMENT CORP DJ Basin | **Local Co-ordinate Reference:** | Well Bihain 26G-202 |
| **Project:** | SEC.26-T5N-R64W | **TVD Reference:** | WELL @ 4627.0ft (RKB - 23') |
| **Reference Site:** | Bihain 5N64W26GK Pad Sec.26-T5N-R64W | **MD Reference:** | WELL @ 4627.0ft (RKB - 23') |
| **Site Error:** | 0.0 ft | **North Reference:** | True |
| **Reference Well:** | Bihain 26G-202 | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.0 ft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | Wellbore #1 | **Database:** | US_EDM |
| **Reference Design:** | Plan #1 Extension (3-3-16) | **Offset TVD Reference:** | Offset Datum |

Reference Depths are relative to WELL @ 4627.0ft (RKB - 23')
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000

Coordinates are relative to: Bihain 26G-202
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.63°

## Ladder Plot




L E G E N D

2, Wellbore #1, Extension Plan #1 (2-01-16) V0
7 (Exist.), Wellbore #1, Wellbore #1 V0
3 (Exist.), Wellbore #1, Wellbore #1 V0
Wellbore #1, Wellbore #1 V0
Bihain 26-2 (Exist.), Wellbore #1, Wellbore #1 V0
Kuner 6-4-25, Wellbore #1, Wellbore #1 V0
Kuner 42-25, Wellbore #1, Wellbore #1 V0
Kuner 32-25, Wellbore #1, Wellbore #1 V0
Bihain 26G-212, Wellbore #1, Plan #1 Ex
Bihain 26F-232, Wellbore #1, Plan #1 Ex
Bihain 26G-312, Wellbore #1, Plan #1 Ex
Bihain 26F-332, Wellbore #1, Plan #1 Ex

| | | | |
|---|---|---|---|
| **Company:** | PETROLEUM DEVELOPMENT CORP DJ Basin | **Local Co-ordinate Reference:** | Well Bihain 26G-202 |
| **Project:** | SEC.26-T5N-R64W | **TVD Reference:** | WELL @ 4627.0ft (RKB - 23') |
| **Reference Site:** | Bihain 5N64W26GK Pad Sec.26-T5N-R64W | **MD Reference:** | WELL @ 4627.0ft (RKB - 23') |
| **Site Error:** | 0.0 ft | **North Reference:** | True |
| **Reference Well:** | Bihain 26G-202 | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.0 ft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | Wellbore #1 | **Database:** | US_EDM |
| **Reference Design:** | Plan #1 Extension (3-3-16) | **Offset TVD Reference:** | Offset Datum |

Reference Depths are relative to WELL @ 4627.0ft (RKB - 23')
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000

Coordinates are relative to: Bihain 26G-202
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.63°