

# PETROLEUM DEVELOPMENT CORP DJ Basin

Well Name: **Connie 26E-332**

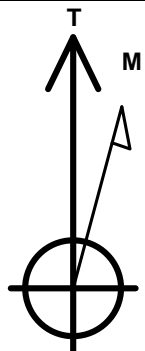
Surface Location: Connie 5N64W26EF Pad Sec.26-T5N-R64W  
North American Datum 1983 , US State Plane 1983, Colorado Northern Zone  
Ground Elevation: 4597.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1381401.49	3271516.06	40.376253	-104.525435	

RKB - 13' WELL @ 4610.0ft (RKB - 13')

## DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
SHL 502'FNL & 262'FWL, Sec.26	1.0	0.0	0.0	Point
BHL 425'FNL & 2140'FWL, Sec.25	6582.0	24.4	7140.2	Point



Azimuths to True North  
Magnetic North: 8.14°

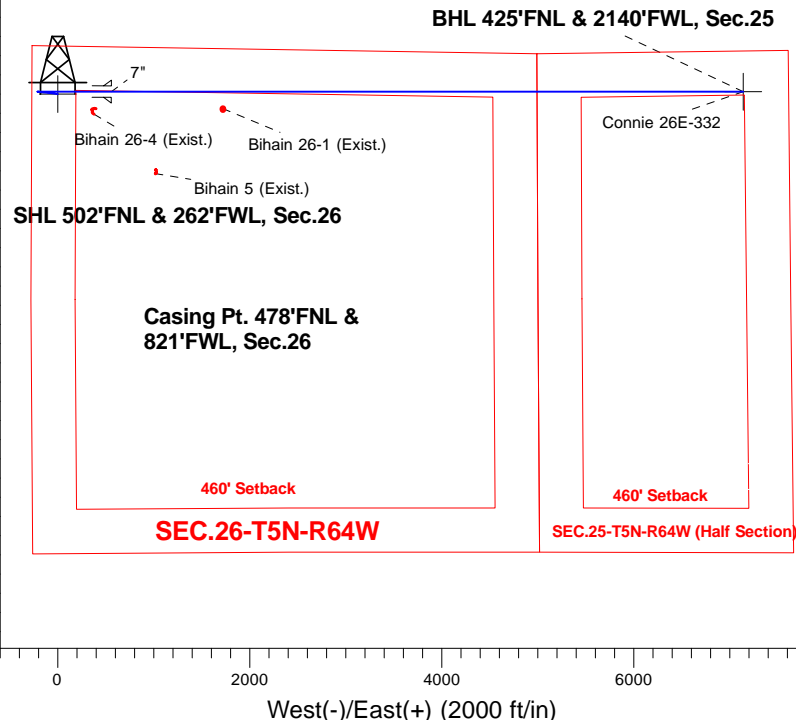
Magnetic Field  
Strength: 52682.9snT  
Dip Angle: 66.92°  
Date: 11/4/2015  
Model: IGRF2010

Connie 5N64W26EF Pad Sec.26-T5N-R64W  
Connie 26E-332  
Plan #1 (11-3-15)  
12:10, November 05 2015

## ANNOTATIONS

TVD	MD	Annotation
2500.0	2500.0	KOP - Start Build 1.00
4704.1	4713.8	Start Drop -2.00
5877.8	5888.1	KOP #2 - Start Build 7.50
6641.7	7095.0	Start 6581.6 hold at 7095.0 MD
6582.0	13676.6	TD at 13676.6

South(-)/North(+) (2000 ft/in)

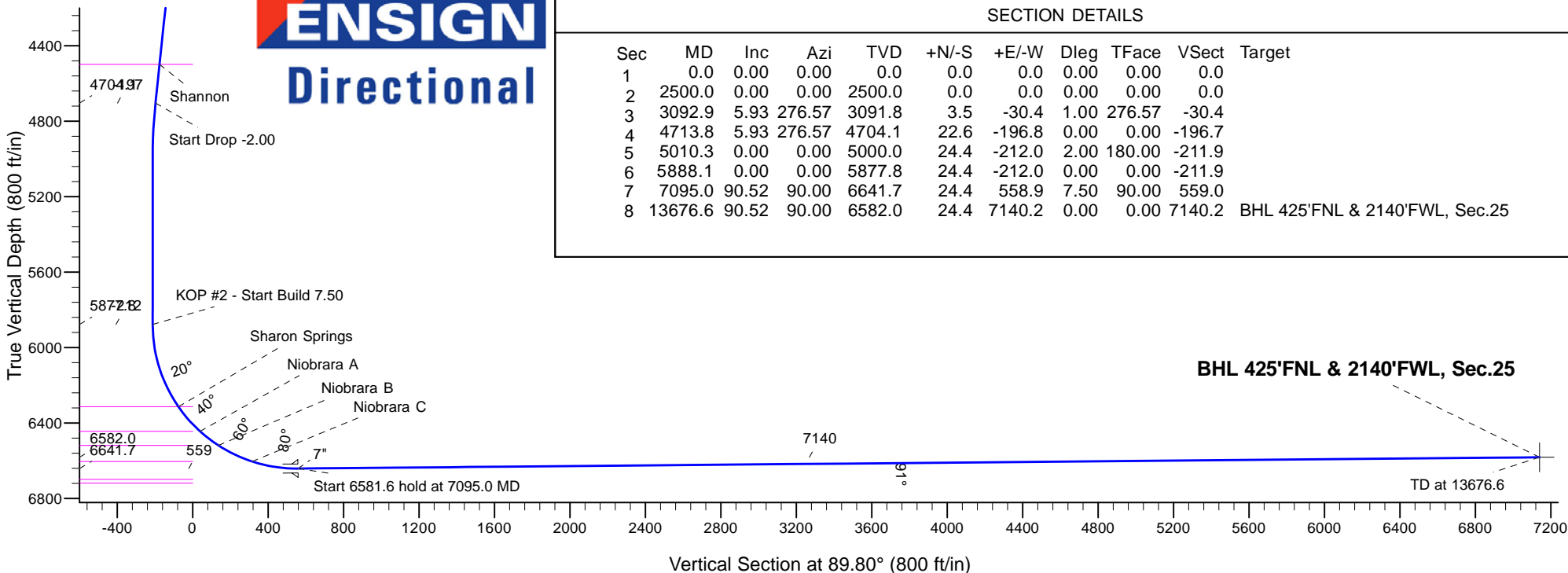


**ENSIGN**  
Directional

## 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	2500.0	0.00	0.00	2500.0	0.0	0.0	0.00	0.00	0.0	
3	3092.9	5.93	276.57	3091.8	3.5	-30.4	1.00	276.57	-30.4	
4	4713.8	5.93	276.57	4704.1	22.6	-196.8	0.00	0.00	-196.7	
5	5010.3	0.00	0.00	5000.0	24.4	-212.0	2.00	180.00	-211.9	
6	5888.1	0.00	0.00	5877.8	24.4	-212.0	0.00	0.00	-211.9	
7	7095.0	90.52	90.00	6641.7	24.4	558.9	7.50	90.00	559.0	
8	13676.6	90.52	90.00	6582.0	24.4	7140.2	0.00	0.00	7140.2	BHL 425'FNL & 2140'FWL, Sec.25

BHL 425'FNL & 2140'FWL, Sec.25





## **Directional**

### **PETROLEUM DEVELOPMENT CORP DJ Basin**

**SEC.26-T5N-R64W**

**Connie 5N64W26EF Pad Sec.26-T5N-R64W**

**Connie 26E-332**

**Wellbore #1**

**Plan: Plan #1 (11-3-15)**

### **Standard Planning Report**

**05 November, 2015**

<b>Database:</b>	US_EDM	<b>Local Co-ordinate Reference:</b>	Well Connie 26E-332
<b>Company:</b>	PETROLEUM DEVELOPMENT CORP DJ Basin	<b>TVD Reference:</b>	WELL @ 4610.0ft (RKB - 13')
<b>Project:</b>	SEC.26-T5N-R64W	<b>MD Reference:</b>	WELL @ 4610.0ft (RKB - 13')
<b>Site:</b>	Connie 5N64W26EF Pad Sec.26-T5N-R64W	<b>North Reference:</b>	True
<b>Well:</b>	Connie 26E-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (11-3-15)		

<b>Project</b>	SEC.26-T5N-R64W, Weld County, CO		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		Using Well Reference Point
<b>Map Zone:</b>	Colorado Northern Zone		Using geodetic scale factor

Site		Connie 5N64W26EF Pad Sec.26-T5N-R64W			
Site Position:		Northing:	1,381,364.42 usft	Latitude:	40.376152
From:	Lat/Long	Easting:	3,271,490.55 usft	Longitude:	-104.525528
Position Uncertainty:	0.0 ft	Slot Radius:	13-3/16 "	Grid Convergence:	0.63

Well	Connie 26E-332					
Well Position	+N/-S	36.8 ft	Northing:	1,381,401.49 usft	Latitude:	40.376253
	+E/-W	25.9 ft	Easting:	3,271,516.06 usft	Longitude:	-104.525435
Position Uncertainty		0.0 ft	Wellhead Elevation:	0.0 ft	Ground Level:	4,597.0 ft

<b>Wellbore</b>	Wellbore #1				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	11/4/2015	8.14	66.92	52,683

<b>Design</b>	Plan #1 (11-3-15)			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PROTOTYPE	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>
	0.0	0.0	0.0	89.80

<b>Plan Sections</b>										
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	
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.00	0.00	0.00	0.00	
3,092.9	5.93	276.57	3,091.8	3.5	-30.4	1.00	1.00	0.00	276.57	
4,713.8	5.93	276.57	4,704.1	22.6	-196.8	0.00	0.00	0.00	0.00	
5,010.3	0.00	0.00	5,000.0	24.4	-212.0	2.00	-2.00	0.00	180.00	
5,888.1	0.00	0.00	5,877.8	24.4	-212.0	0.00	0.00	0.00	0.00	
7,095.0	90.52	90.00	6,641.7	24.4	558.9	7.50	7.50	0.00	90.00	
13,676.6	90.52	90.00	6,582.0	24.4	7,140.2	0.00	0.00	0.00	0.00	BHL 425'FNL & 2140'

Database:	US_EDM	Local Co-ordinate Reference:	Well Connie 26E-332
Company:	PETROLEUM DEVELOPMENT CORP DJ Basin	TVD Reference:	WELL @ 4610.0ft (RKB - 13')
Project:	SEC.26-T5N-R64W	MD Reference:	WELL @ 4610.0ft (RKB - 13')
Site:	Connie 5N64W26EF Pad Sec.26-T5N-R64W	North Reference:	True
Well:	Connie 26E-332	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (11-3-15)		

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
1.0	0.00	0.00	1.0	0.0	0.0	0.0	0.00	0.00	0.00
SHL 502'FNL & 262'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
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
KOP - Start Build 1.00									
2,600.0	1.00	276.57	2,600.0	0.1	-0.9	-0.9	1.00	1.00	0.00
2,700.0	2.00	276.57	2,700.0	0.4	-3.5	-3.5	1.00	1.00	0.00
2,800.0	3.00	276.57	2,799.9	0.9	-7.8	-7.8	1.00	1.00	0.00
2,900.0	4.00	276.57	2,899.7	1.6	-13.9	-13.9	1.00	1.00	0.00
3,000.0	5.00	276.57	2,999.4	2.5	-21.7	-21.7	1.00	1.00	0.00
3,092.9	5.93	276.57	3,091.8	3.5	-30.4	-30.4	1.00	1.00	0.00
3,100.0	5.93	276.57	3,098.9	3.6	-31.2	-31.2	0.00	0.00	0.00
3,200.0	5.93	276.57	3,198.4	4.8	-41.4	-41.4	0.00	0.00	0.00
3,300.0	5.93	276.57	3,297.8	6.0	-51.7	-51.7	0.00	0.00	0.00
3,400.0	5.93	276.57	3,397.3	7.1	-62.0	-61.9	0.00	0.00	0.00
3,401.7	5.93	276.57	3,399.0	7.2	-62.1	-62.1	0.00	0.00	0.00
Parkman									
3,500.0	5.93	276.57	3,496.8	8.3	-72.2	-72.2	0.00	0.00	0.00
3,600.0	5.93	276.57	3,596.2	9.5	-82.5	-82.5	0.00	0.00	0.00
3,700.0	5.93	276.57	3,695.7	10.7	-92.7	-92.7	0.00	0.00	0.00
3,800.0	5.93	276.57	3,795.2	11.9	-103.0	-103.0	0.00	0.00	0.00
3,900.0	5.93	276.57	3,894.6	13.0	-113.3	-113.2	0.00	0.00	0.00
4,000.0	5.93	276.57	3,994.1	14.2	-123.5	-123.5	0.00	0.00	0.00
4,100.0	5.93	276.57	4,093.6	15.4	-133.8	-133.7	0.00	0.00	0.00
4,110.5	5.93	276.57	4,104.0	15.5	-134.9	-134.8	0.00	0.00	0.00
Sussex									
4,200.0	5.93	276.57	4,193.0	16.6	-144.1	-144.0	0.00	0.00	0.00
4,300.0	5.93	276.57	4,292.5	17.8	-154.3	-154.3	0.00	0.00	0.00
4,400.0	5.93	276.57	4,392.0	18.9	-164.6	-164.5	0.00	0.00	0.00

<b>Database:</b>	US_EDM	<b>Local Co-ordinate Reference:</b>	Well Connie 26E-332
<b>Company:</b>	PETROLEUM DEVELOPMENT CORP DJ Basin	<b>TVD Reference:</b>	WELL @ 4610.0ft (RKB - 13')
<b>Project:</b>	SEC.26-T5N-R64W	<b>MD Reference:</b>	WELL @ 4610.0ft (RKB - 13')
<b>Site:</b>	Connie 5N64W26EF Pad Sec.26-T5N-R64W	<b>North Reference:</b>	True
<b>Well:</b>	Connie 26E-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (11-3-15)		

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	5.93	276.57	4,491.4	20.1	-174.8	-174.8	0.00	0.00	0.00
4,507.6	5.93	276.57	4,499.0	20.2	-175.6	-175.5	0.00	0.00	0.00
<b>Shannon</b>									
4,600.0	5.93	276.57	4,590.9	21.3	-185.1	-185.0	0.00	0.00	0.00
4,700.0	5.93	276.57	4,690.3	22.5	-195.4	-195.3	0.00	0.00	0.00
4,713.8	5.93	276.57	4,704.1	22.6	-196.8	-196.7	0.00	0.00	0.00
<b>Start Drop -2.00</b>									
4,800.0	4.21	276.57	4,789.9	23.5	-204.3	-204.3	2.00	-2.00	0.00
4,900.0	2.21	276.57	4,889.8	24.2	-209.9	-209.8	2.00	-2.00	0.00
5,000.0	0.21	276.57	4,989.7	24.4	-212.0	-211.9	2.00	-2.00	0.00
5,010.3	0.00	0.00	5,000.0	24.4	-212.0	-211.9	2.00	-2.00	0.00
5,100.0	0.00	0.00	5,089.7	24.4	-212.0	-211.9	0.00	0.00	0.00
5,200.0	0.00	0.00	5,189.7	24.4	-212.0	-211.9	0.00	0.00	0.00
5,300.0	0.00	0.00	5,289.7	24.4	-212.0	-211.9	0.00	0.00	0.00
5,400.0	0.00	0.00	5,389.7	24.4	-212.0	-211.9	0.00	0.00	0.00
5,500.0	0.00	0.00	5,489.7	24.4	-212.0	-211.9	0.00	0.00	0.00
5,600.0	0.00	0.00	5,589.7	24.4	-212.0	-211.9	0.00	0.00	0.00
5,700.0	0.00	0.00	5,689.7	24.4	-212.0	-211.9	0.00	0.00	0.00
5,800.0	0.00	0.00	5,789.7	24.4	-212.0	-211.9	0.00	0.00	0.00
5,888.1	0.00	0.00	5,877.8	24.4	-212.0	-211.9	0.00	0.00	0.00
<b>KOP #2 - Start Build 7.50</b>									
5,900.0	0.89	90.00	5,889.7	24.4	-211.9	-211.8	7.52	7.52	0.00
6,000.0	8.39	90.00	5,989.3	24.4	-203.8	-203.7	7.50	7.50	0.00
6,100.0	15.89	90.00	6,087.0	24.4	-182.8	-182.7	7.50	7.50	0.00
6,200.0	23.39	90.00	6,181.1	24.4	-149.2	-149.1	7.50	7.50	0.00
6,300.0	30.89	90.00	6,270.1	24.4	-103.6	-103.5	7.50	7.50	0.00
6,352.3	34.82	90.00	6,314.0	24.4	-75.2	-75.2	7.50	7.50	0.00
<b>Sharon Springs</b>									
6,400.0	38.39	90.00	6,352.3	24.4	-46.8	-46.7	7.50	7.50	0.00
6,500.0	45.89	90.00	6,426.4	24.4	20.3	20.3	7.50	7.50	0.00
6,525.8	47.83	90.00	6,444.0	24.4	39.1	39.1	7.50	7.50	0.00
<b>Niobrara A</b>									
6,600.0	53.39	90.00	6,491.1	24.4	96.4	96.5	7.50	7.50	0.00
6,649.0	57.07	90.00	6,519.0	24.4	136.6	136.7	7.50	7.50	0.00
<b>Niobrara B</b>									
6,700.0	60.89	90.00	6,545.3	24.4	180.3	180.4	7.50	7.50	0.00
6,800.0	68.39	90.00	6,588.1	24.4	270.6	270.7	7.50	7.50	0.00
6,846.9	71.91	90.00	6,604.0	24.4	314.7	314.8	7.50	7.50	0.00
<b>Niobrara C</b>									
6,900.0	75.89	90.00	6,618.7	24.4	365.8	365.8	7.50	7.50	0.00
7,000.0	83.39	90.00	6,636.7	24.4	464.1	464.1	7.50	7.50	0.00
7,095.0	90.52	90.00	6,641.7	24.4	558.9	558.9	7.50	7.50	0.00
<b>Start 6581.6 hold at 7095.0 MD - 7"</b>									
7,100.0	90.52	90.00	6,641.7	24.4	563.9	563.9	0.01	0.01	0.00
7,200.0	90.52	90.00	6,640.8	24.4	663.9	663.9	0.00	0.00	0.00
7,300.0	90.52	90.00	6,639.9	24.4	763.9	763.9	0.00	0.00	0.00
7,400.0	90.52	90.00	6,639.0	24.4	863.9	863.9	0.00	0.00	0.00
7,500.0	90.52	90.00	6,638.1	24.4	963.9	963.9	0.00	0.00	0.00
7,600.0	90.52	90.00	6,637.1	24.4	1,063.8	1,063.9	0.00	0.00	0.00
7,700.0	90.52	90.00	6,636.2	24.4	1,163.8	1,163.9	0.00	0.00	0.00
7,800.0	90.52	90.00	6,635.3	24.4	1,263.8	1,263.9	0.00	0.00	0.00
7,900.0	90.52	90.00	6,634.4	24.4	1,363.8	1,363.9	0.00	0.00	0.00

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<b>Company:</b>	PETROLEUM DEVELOPMENT CORP DJ Basin	<b>TVD Reference:</b>	WELL @ 4610.0ft (RKB - 13')
<b>Project:</b>	SEC.26-T5N-R64W	<b>MD Reference:</b>	WELL @ 4610.0ft (RKB - 13')
<b>Site:</b>	Connie 5N64W26EF Pad Sec.26-T5N-R64W	<b>North Reference:</b>	True
<b>Well:</b>	Connie 26E-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (11-3-15)		

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)	
8,000.0	90.52	90.00	6,633.5	24.4	1,463.8	1,463.9	0.00	0.00	0.00	
8,100.0	90.52	90.00	6,632.6	24.4	1,563.8	1,563.9	0.00	0.00	0.00	
8,200.0	90.52	90.00	6,631.7	24.4	1,663.8	1,663.9	0.00	0.00	0.00	
8,300.0	90.52	90.00	6,630.8	24.4	1,763.8	1,763.9	0.00	0.00	0.00	
8,400.0	90.52	90.00	6,629.9	24.4	1,863.8	1,863.9	0.00	0.00	0.00	
8,500.0	90.52	90.00	6,629.0	24.4	1,963.8	1,963.9	0.00	0.00	0.00	
8,600.0	90.52	90.00	6,628.1	24.4	2,063.8	2,063.9	0.00	0.00	0.00	
8,700.0	90.52	90.00	6,627.2	24.4	2,163.8	2,163.9	0.00	0.00	0.00	
8,800.0	90.52	90.00	6,626.3	24.4	2,263.8	2,263.9	0.00	0.00	0.00	
8,900.0	90.52	90.00	6,625.4	24.4	2,363.8	2,363.9	0.00	0.00	0.00	
9,000.0	90.52	90.00	6,624.4	24.4	2,463.8	2,463.9	0.00	0.00	0.00	
9,100.0	90.52	90.00	6,623.5	24.4	2,563.8	2,563.9	0.00	0.00	0.00	
9,200.0	90.52	90.00	6,622.6	24.4	2,663.8	2,663.8	0.00	0.00	0.00	
9,300.0	90.52	90.00	6,621.7	24.4	2,763.8	2,763.8	0.00	0.00	0.00	
9,400.0	90.52	90.00	6,620.8	24.4	2,863.8	2,863.8	0.00	0.00	0.00	
9,500.0	90.52	90.00	6,619.9	24.4	2,963.8	2,963.8	0.00	0.00	0.00	
9,600.0	90.52	90.00	6,619.0	24.4	3,063.8	3,063.8	0.00	0.00	0.00	
9,700.0	90.52	90.00	6,618.1	24.4	3,163.8	3,163.8	0.00	0.00	0.00	
9,800.0	90.52	90.00	6,617.2	24.4	3,263.8	3,263.8	0.00	0.00	0.00	
9,900.0	90.52	90.00	6,616.3	24.4	3,363.8	3,363.8	0.00	0.00	0.00	
10,000.0	90.52	90.00	6,615.4	24.4	3,463.7	3,463.8	0.00	0.00	0.00	
10,100.0	90.52	90.00	6,614.5	24.4	3,563.7	3,563.8	0.00	0.00	0.00	
10,200.0	90.52	90.00	6,613.6	24.4	3,663.7	3,663.8	0.00	0.00	0.00	
10,300.0	90.52	90.00	6,612.6	24.4	3,763.7	3,763.8	0.00	0.00	0.00	
10,400.0	90.52	90.00	6,611.7	24.4	3,863.7	3,863.8	0.00	0.00	0.00	
10,500.0	90.52	90.00	6,610.8	24.4	3,963.7	3,963.8	0.00	0.00	0.00	
10,600.0	90.52	90.00	6,609.9	24.4	4,063.7	4,063.8	0.00	0.00	0.00	
10,700.0	90.52	90.00	6,609.0	24.4	4,163.7	4,163.8	0.00	0.00	0.00	
10,800.0	90.52	90.00	6,608.1	24.4	4,263.7	4,263.8	0.00	0.00	0.00	
10,900.0	90.52	90.00	6,607.2	24.4	4,363.7	4,363.8	0.00	0.00	0.00	
11,000.0	90.52	90.00	6,606.3	24.4	4,463.7	4,463.8	0.00	0.00	0.00	
11,100.0	90.52	90.00	6,605.4	24.4	4,563.7	4,563.8	0.00	0.00	0.00	
11,200.0	90.52	90.00	6,604.5	24.4	4,663.7	4,663.8	0.00	0.00	0.00	
11,300.0	90.52	90.00	6,603.6	24.4	4,763.7	4,763.8	0.00	0.00	0.00	
11,400.0	90.52	90.00	6,602.7	24.4	4,863.7	4,863.7	0.00	0.00	0.00	
11,500.0	90.52	90.00	6,601.8	24.4	4,963.7	4,963.7	0.00	0.00	0.00	
11,600.0	90.52	90.00	6,600.8	24.4	5,063.7	5,063.7	0.00	0.00	0.00	
11,700.0	90.52	90.00	6,599.9	24.4	5,163.7	5,163.7	0.00	0.00	0.00	
11,800.0	90.52	90.00	6,599.0	24.4	5,263.7	5,263.7	0.00	0.00	0.00	
11,900.0	90.52	90.00	6,598.1	24.4	5,363.7	5,363.7	0.00	0.00	0.00	
12,000.0	90.52	90.00	6,597.2	24.4	5,463.7	5,463.7	0.00	0.00	0.00	
12,100.0	90.52	90.00	6,596.3	24.4	5,563.7	5,563.7	0.00	0.00	0.00	
12,200.0	90.52	90.00	6,595.4	24.4	5,663.7	5,663.7	0.00	0.00	0.00	
12,300.0	90.52	90.00	6,594.5	24.4	5,763.7	5,763.7	0.00	0.00	0.00	
12,400.0	90.52	90.00	6,593.6	24.4	5,863.6	5,863.7	0.00	0.00	0.00	
12,500.0	90.52	90.00	6,592.7	24.4	5,963.6	5,963.7	0.00	0.00	0.00	
12,600.0	90.52	90.00	6,591.8	24.4	6,063.6	6,063.7	0.00	0.00	0.00	
12,700.0	90.52	90.00	6,590.9	24.4	6,163.6	6,163.7	0.00	0.00	0.00	
12,800.0	90.52	90.00	6,590.0	24.4	6,263.6	6,263.7	0.00	0.00	0.00	
12,900.0	90.52	90.00	6,589.0	24.4	6,363.6	6,363.7	0.00	0.00	0.00	
13,000.0	90.52	90.00	6,588.1	24.4	6,463.6	6,463.7	0.00	0.00	0.00	
13,100.0	90.52	90.00	6,587.2	24.4	6,563.6	6,563.7	0.00	0.00	0.00	
13,200.0	90.52	90.00	6,586.3	24.4	6,663.6	6,663.7	0.00	0.00	0.00	

<b>Database:</b>	US_EDM	<b>Local Co-ordinate Reference:</b>	Well Connie 26E-332
<b>Company:</b>	PETROLEUM DEVELOPMENT CORP DJ Basin	<b>TVD Reference:</b>	WELL @ 4610.0ft (RKB - 13')
<b>Project:</b>	SEC.26-T5N-R64W	<b>MD Reference:</b>	WELL @ 4610.0ft (RKB - 13')
<b>Site:</b>	Connie 5N64W26EF Pad Sec.26-T5N-R64W	<b>North Reference:</b>	True
<b>Well:</b>	Connie 26E-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (11-3-15)		

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)
13,300.0	90.52	90.00	6,585.4	24.4	6,763.6	6,763.7	0.00	0.00	0.00
13,400.0	90.52	90.00	6,584.5	24.4	6,863.6	6,863.7	0.00	0.00	0.00
13,500.0	90.52	90.00	6,583.6	24.4	6,963.6	6,963.6	0.00	0.00	0.00
13,600.0	90.52	90.00	6,582.7	24.4	7,063.6	7,063.6	0.00	0.00	0.00
13,676.6	90.52	90.00	6,582.0	24.4	7,140.2	7,140.2	0.00	0.00	0.00
TD at 13676.6 - BHL 425'FNL & 2140'FWL, 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 502'FNL & 262'FWL - plan hits target center - Point	0.00	0.63	1.0	0.0	0.0	1,381,401.50	3,271,516.06	40.376253	-104.525435
BHL 425'FNL & 2140'FW - plan hits target center - Point	0.00	0.65	6,582.0	24.4	7,140.2	1,381,504.31	3,278,655.24	40.376317	-104.499808

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
7,095.0	6,641.7	7"	7	8-3/4	

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,401.7	3,399.0	Parkman		0.00	
4,110.5	4,104.0	Sussex		0.00	
4,507.6	4,499.0	Shannon		0.00	
6,352.3	6,314.0	Sharon Springs		0.00	
6,525.8	6,444.0	Niobrara A		0.00	
6,649.0	6,519.0	Niobrara B		0.00	
6,846.9	6,604.0	Niobrara C		0.00	

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Comment
2,500.0	2,500.0	0.0	0.0	KOP - Start Build 1.00
4,713.8	4,704.1	3.5	-30.4	Start Drop -2.00
5,888.1	5,877.8	22.6	-196.8	KOP #2 - Start Build 7.50
7,095.0	6,641.7	24.4	-212.0	Start 6581.6 hold at 7095.0 MD
13,676.6	6,582.0	24.4	-212.0	TD at 13676.6



# Directional

## **PETROLEUM DEVELOPMENT CORP DJ Basin**

**SEC.26-T5N-R64W**

**Connie 5N64W26EF Pad Sec.26-T5N-R64W**

**Connie 26E-332**

**Wellbore #1**

**Plan #1 (11-3-15)**

## **Anticollision Report**

**05 November, 2015**





<b>Company:</b>	PETROLEUM DEVELOPMENT CORP DJ Basin	<b>Local Co-ordinate Reference:</b>	Well Connie 26E-332
<b>Project:</b>	SEC.26-T5N-R64W	<b>TVD Reference:</b>	WELL @ 4610.0ft (RKB - 13')
<b>Reference Site:</b>	Connie 5N64W26EF Pad Sec.26-T5N-R64W	<b>MD Reference:</b>	WELL @ 4610.0ft (RKB - 13')
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Connie 26E-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	US_EDM
<b>Reference Design:</b>	Plan #1 (11-3-15)	<b>Offset TVD Reference:</b>	Offset Datum

<b>Reference</b>	Plan #1 (11-3-15)		
<b>Filter type:</b>	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
<b>Interpolation Method:</b>	Stations	<b>Error Model:</b>	ISCWSA
<b>Depth Range:</b>	Unlimited	<b>Scan Method:</b>	Closest Approach 3D
<b>Results Limited by:</b>	Maximum center-center distance of 1,000.0 ft	<b>Error Surface:</b>	Elliptical Conic
<b>Warning Levels Evaluated at:</b>	2.00 Sigma	<b>Casing Method:</b>	Not applied

<b>Survey Tool Program</b>	<b>Date</b> 11/5/2015			
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>
0.0	13,676.6	Plan #1 (11-3-15) (Wellbore #1)	MWD	MWD - Standard

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Connie 5N64W26EF Pad Sec.26-T5N-R64W						
Connie 26E-202 - Wellbore #1 - Plan #1 (11-3-15)	1,600.0	1,600.0	15.1	8.1	2.167	CC
Connie 26E-202 - Wellbore #1 - Plan #1 (11-3-15)	13,676.6	13,628.6	285.9	-107.7	0.726	Level 1, ES, SF
Connie 26F-212 - Wellbore #1 - Plan #1 (11-3-15)	1,400.0	1,400.0	15.1	9.0	2.488	CC, ES
Connie 26F-212 - Wellbore #1 - Plan #1 (11-3-15)	13,676.6	13,631.1	445.6	45.5	1.114	Level 2, SF
Connie 26F-302 - Wellbore #1 - Plan #1 (11-2-15)	966.3	967.3	29.9	25.8	7.255	CC
Connie 26F-302 - Wellbore #1 - Plan #1 (11-2-15)	1,000.0	1,001.0	29.9	25.6	6.999	ES
Connie 26F-302 - Wellbore #1 - Plan #1 (11-2-15)	13,676.6	13,732.9	704.9	300.1	1.741	SF
Connie 26F-402 - Wellbore #1 - Plan #1 (11-2-15)	800.0	801.0	45.0	41.6	13.339	CC, ES
Connie 26F-402 - Wellbore #1 - Plan #1 (11-2-15)	1,000.0	998.7	49.8	45.6	11.875	SF
Existing Wells Pad Sec.26-T5N-R64W						
Bihain 26-1 (Exist.) - Wellbore #1 - Wellbore #1	8,258.1	6,614.2	177.7	-6.5	0.965	Level 1, CC, ES, SF
Bihain 26-4 (Exist.) - Wellbore #1 - Wellbore #1	6,908.5	6,607.2	232.5	200.1	7.173	CC, ES
Bihain 26-4 (Exist.) - Wellbore #1 - Wellbore #1	6,950.0	6,616.5	236.0	202.9	7.116	SF
Bihain 5 (Exist.) - Wellbore #1 - Wellbore #1	7,551.4	6,629.7	854.9	809.2	18.686	CC, ES
Bihain 5 (Exist.) - Wellbore #1 - Wellbore #1	8,000.0	6,624.4	965.5	908.1	16.841	SF

<b>Offset Design</b>												
Connie 5N64W26EF Pad Sec.26-T5N-R64W - Connie 26E-202 - Wellbore #1 - Plan #1 (11-3-15)												
Survey Program: 0-MWD												
Reference		Offset		Semi Major Axis			Distance					
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor
0.0	0.0	0.0	0.0	0.0	0.0	34.89	12.4	8.6	15.1	15.1	0.00	N/A
100.0	100.0	100.0	100.0	0.1	0.1	34.89	12.4	8.6	15.1	14.9	0.22	67.184
200.0	200.0	200.0	200.0	0.3	0.3	34.89	12.4	8.6	15.1	14.4	0.67	22.395
300.0	300.0	300.0	300.0	0.6	0.6	34.89	12.4	8.6	15.1	14.0	1.12	13.437
400.0	400.0	400.0	400.0	0.8	0.8	34.89	12.4	8.6	15.1	13.5	1.57	9.598
500.0	500.0	500.0	500.0	1.0	1.0	34.89	12.4	8.6	15.1	13.1	2.02	7.465
600.0	600.0	600.0	600.0	1.2	1.2	34.89	12.4	8.6	15.1	12.6	2.47	6.108
700.0	700.0	700.0	700.0	1.5	1.5	34.89	12.4	8.6	15.1	12.2	2.92	5.168
800.0	800.0	800.0	800.0	1.7	1.7	34.89	12.4	8.6	15.1	11.7	3.37	4.479
900.0	900.0	900.0	900.0	1.9	1.9	34.89	12.4	8.6	15.1	11.3	3.82	3.952
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	34.89	12.4	8.6	15.1	10.8	4.27	3.536

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

<b>Company:</b>	PETROLEUM DEVELOPMENT CORP DJ Basin	<b>Local Co-ordinate Reference:</b>	Well Connie 26E-332
<b>Project:</b>	SEC.26-T5N-R64W	<b>TVD Reference:</b>	WELL @ 4610.0ft (RKB - 13')
<b>Reference Site:</b>	Connie 5N64W26EF Pad Sec.26-T5N-R64W	<b>MD Reference:</b>	WELL @ 4610.0ft (RKB - 13')
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Connie 26E-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	US_EDM
<b>Reference Design:</b>	Plan #1 (11-3-15)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
1,100.0	1,100.0	1,100.0	1,100.0	2.4	2.4	34.89	12.4	8.6	15.1	10.4	4.72	3.199		
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	34.89	12.4	8.6	15.1	9.9	5.17	2.921		
1,300.0	1,300.0	1,300.0	1,300.0	2.8	2.8	34.89	12.4	8.6	15.1	9.5	5.62	2.687		
1,400.0	1,400.0	1,400.0	1,400.0	3.0	3.0	34.89	12.4	8.6	15.1	9.0	6.07	2.488		
1,500.0	1,500.0	1,500.0	1,500.0	3.3	3.3	34.89	12.4	8.6	15.1	8.6	6.52	2.317		
1,600.0	1,600.0	1,600.0	1,600.0	3.5	3.5	34.89	12.4	8.6	15.1	8.1	6.97	2.167 CC		
1,700.0	1,700.0	1,699.9	1,699.8	3.7	3.7	30.30	13.4	7.8	15.5	8.1	7.41	2.097		
1,800.0	1,800.0	1,799.6	1,799.5	3.9	3.9	18.32	16.5	5.5	17.4	9.6	7.86	2.217		
1,900.0	1,900.0	1,899.0	1,898.7	4.2	4.2	4.05	21.7	1.5	21.8	13.5	8.30	2.623		
2,000.0	2,000.0	1,998.1	1,997.4	4.4	4.4	-7.79	28.9	-3.9	29.2	20.5	8.75	3.341		
2,100.0	2,100.0	2,096.6	2,095.2	4.6	4.6	-16.05	38.0	-10.9	39.8	30.6	9.21	4.324		
2,200.0	2,200.0	2,195.7	2,193.4	4.8	4.9	-21.27	48.3	-18.8	52.2	42.5	9.69	5.391		
2,300.0	2,300.0	2,294.8	2,291.7	5.1	5.1	-24.47	58.6	-26.7	64.9	54.7	10.17	6.379		
2,400.0	2,400.0	2,394.0	2,390.0	5.3	5.4	-26.63	68.9	-34.5	77.7	67.0	10.67	7.284		
2,500.0	2,500.0	2,493.1	2,488.3	5.5	5.7	-28.17	79.2	-42.4	90.6	79.4	11.17	8.111		
2,600.0	2,600.0	2,592.3	2,586.7	5.7	5.9	54.40	89.5	-50.3	103.0	91.5	11.44	9.001		
2,700.0	2,700.0	2,691.7	2,685.2	5.9	6.2	54.42	99.8	-58.2	114.4	102.5	11.87	9.635		
2,800.0	2,799.9	2,791.1	2,783.8	6.1	6.5	55.08	110.1	-66.0	124.8	112.5	12.31	10.138		
2,900.0	2,899.7	2,890.6	2,882.4	6.3	6.8	56.25	120.4	-73.9	134.3	121.5	12.76	10.526		
3,000.0	2,999.4	2,980.2	2,981.1	6.6	7.1	57.86	130.8	-81.8	142.9	129.7	13.21	10.813		
3,092.9	3,091.8	3,082.6	3,072.8	6.8	7.4	59.69	140.4	-89.2	150.2	136.5	13.65	11.003		
3,100.0	3,098.9	3,089.7	3,079.8	6.8	7.4	59.85	141.1	-89.7	150.7	137.0	13.68	11.015		
3,200.0	3,198.4	3,189.3	3,178.5	7.0	7.7	61.94	151.5	-97.6	158.3	144.2	14.16	11.179		
3,300.0	3,297.8	3,288.8	3,277.2	7.2	8.0	63.83	161.8	-105.5	166.2	151.5	14.65	11.338		
3,400.0	3,397.3	3,388.4	3,375.9	7.5	8.3	65.55	172.1	-113.4	174.2	159.0	15.15	11.493		
3,500.0	3,496.8	3,487.9	3,474.6	7.7	8.6	67.13	182.5	-121.3	182.3	166.6	15.66	11.641		
3,600.0	3,596.2	3,587.5	3,573.3	8.0	8.9	68.56	192.8	-129.2	190.6	174.4	16.17	11.783		
3,700.0	3,695.7	3,687.0	3,672.0	8.2	9.2	69.88	203.1	-137.1	198.9	182.2	16.69	11.918		
3,800.0	3,795.2	3,786.6	3,770.7	8.5	9.6	71.09	213.5	-145.0	207.4	190.2	17.22	12.047		
3,900.0	3,894.6	3,886.1	3,869.4	8.7	9.9	72.20	223.8	-152.9	216.0	198.2	17.75	12.169		
4,000.0	3,994.1	3,985.7	3,968.1	9.0	10.2	73.23	234.1	-160.8	224.6	206.3	18.28	12.285		
4,100.0	4,093.6	4,085.2	4,066.8	9.3	10.5	74.18	244.5	-168.7	233.3	214.5	18.82	12.396		
4,200.0	4,193.0	4,184.8	4,165.5	9.5	10.8	75.07	254.8	-176.6	242.0	222.7	19.36	12.501		
4,300.0	4,292.5	4,284.3	4,264.2	9.8	11.1	75.89	265.2	-184.5	250.8	230.9	19.91	12.601		
4,400.0	4,392.0	4,383.9	4,362.9	10.1	11.4	76.66	275.5	-192.4	259.7	239.2	20.46	12.696		
4,500.0	4,491.4	4,486.6	4,464.7	10.3	11.8	77.42	285.9	-200.4	268.4	247.4	21.00	12.778		
4,600.0	4,590.9	4,584.9	4,572.5	10.6	12.0	78.55	294.4	-206.9	274.6	253.1	21.52	12.762		
4,700.0	4,690.3	4,703.4	4,680.8	10.9	12.2	80.08	299.6	-210.9	277.7	255.7	22.03	12.607		
4,713.8	4,704.1	4,718.4	4,695.7	10.9	12.2	80.33	300.1	-211.2	277.9	255.8	22.10	12.577		
4,800.0	4,789.9	4,811.7	4,789.1	11.1	12.4	81.79	301.6	-212.4	278.2	255.7	22.50	12.361		
4,900.0	4,889.8	4,912.4	4,889.8	11.3	12.6	82.93	301.6	-212.4	277.4	254.5	22.92	12.107		
5,000.0	4,989.7	5,012.4	4,989.7	11.5	12.8	83.36	301.6	-212.4	277.2	253.9	23.31	11.889		
5,010.3	5,000.0	5,022.6	5,000.0	11.5	12.8	-0.08	301.6	-212.4	277.2	254.2	22.95	12.079		
5,100.0	5,089.7	5,112.4	5,089.7	11.7	12.9	-0.08	301.6	-212.4	277.2	253.9	23.30	11.894		
5,200.0	5,189.7	5,212.4	5,189.7	11.9	13.1	-0.08	301.6	-212.4	277.2	253.5	23.72	11.686		
5,300.0	5,289.7	5,312.4	5,289.7	12.1	13.3	-0.08	301.6	-212.4	277.2	253.1	24.14	11.485		
5,400.0	5,389.7	5,412.4	5,389.7	12.3	13.5	-0.08	301.6	-212.4	277.2	252.6	24.55	11.289		
5,500.0	5,489.7	5,512.4	5,489.7	12.5	13.7	-0.08	301.6	-212.4	277.2	252.2	24.97	11.100		
5,600.0	5,589.7	5,612.4	5,589.7	12.7	13.9	-0.08	301.6	-212.4	277.2	251.8	25.39	10.917		
5,700.0	5,689.7	5,712.4	5,689.7	12.9	14.1	-0.08	301.6	-212.4	277.2	251.4	25.81	10.739		
5,800.0	5,789.7	5,812.4	5,789.7	13.1	14.3	-0.08	301.6	-212.4	277.2	251.0	26.23	10.566		

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

<b>Company:</b>	PETROLEUM DEVELOPMENT CORP DJ Basin	<b>Local Co-ordinate Reference:</b>	Well Connie 26E-332
<b>Project:</b>	SEC.26-T5N-R64W	<b>TVD Reference:</b>	WELL @ 4610.0ft (RKB - 13')
<b>Reference Site:</b>	Connie 5N64W26EF Pad Sec.26-T5N-R64W	<b>MD Reference:</b>	WELL @ 4610.0ft (RKB - 13')
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Connie 26E-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	US_EDM
<b>Reference Design:</b>	Plan #1 (11-3-15)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 ft
Survey Program: 0-MWD												Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
5,851.9	5,841.6	5,864.3	5,841.6	13.3	14.4	0.00	301.6	-212.0	277.2	250.7	26.44	10.482	
5,888.1	5,877.8	5,900.4	5,877.7	13.3	14.4	0.40	301.6	-210.0	277.2	250.6	26.58	10.430	
5,900.0	5,889.7	5,912.2	5,889.5	13.4	14.5	-89.40	301.6	-209.0	277.2	250.2	27.03	10.255	
5,950.0	5,939.7	5,961.7	5,938.6	13.4	14.5	-88.61	301.6	-202.8	277.3	250.1	27.20	10.194	
6,000.0	5,989.3	6,011.0	5,987.0	13.5	14.6	-87.81	301.6	-193.5	277.4	250.0	27.35	10.143	
6,050.0	6,038.5	6,060.1	6,034.5	13.6	14.6	-87.04	301.6	-181.1	277.6	250.1	27.47	10.102	
6,100.0	6,087.0	6,108.9	6,080.8	13.6	14.6	-86.27	301.6	-165.8	277.8	250.2	27.59	10.069	
6,150.0	6,134.6	6,157.5	6,125.9	13.7	14.7	-85.53	301.6	-147.6	278.0	250.3	27.69	10.040	
6,200.0	6,181.1	6,205.9	6,169.5	13.7	14.7	-84.80	301.6	-126.8	278.3	250.5	27.80	10.012	
6,250.0	6,226.4	6,254.1	6,211.6	13.8	14.7	-84.10	301.6	-103.3	278.7	250.7	27.92	9.980	
6,300.0	6,270.1	6,302.1	6,251.9	13.9	14.7	-83.43	301.6	-77.3	279.0	251.0	28.07	9.941	
6,350.0	6,312.1	6,350.0	6,290.5	14.0	14.7	-82.79	301.6	-48.8	279.4	251.1	28.26	9.888	
6,400.0	6,352.3	6,397.5	6,326.9	14.1	14.8	-82.18	301.6	-18.3	279.8	251.3	28.51	9.815	
6,450.0	6,390.4	6,444.9	6,361.3	14.3	14.8	-81.60	301.6	14.3	280.2	251.4	28.84	9.716	
6,500.0	6,426.4	6,492.2	6,393.5	14.5	14.9	-81.06	301.6	49.0	280.6	251.3	29.27	9.588	
6,550.0	6,460.0	6,539.4	6,423.4	14.8	15.1	-80.55	301.6	85.4	281.0	251.2	29.81	9.427	
6,600.0	6,491.1	6,586.4	6,450.9	15.1	15.5	-80.09	301.6	123.6	281.4	250.9	30.49	9.229	
6,650.0	6,519.6	6,633.4	6,476.0	15.6	16.0	-79.67	301.6	163.2	281.8	250.5	31.31	9.000	
6,700.0	6,545.3	6,680.2	6,498.5	16.1	16.5	-79.28	301.6	204.2	282.1	249.8	32.28	8.740	
6,750.0	6,568.2	6,726.9	6,518.5	16.7	17.1	-78.95	301.6	246.4	282.4	249.0	33.40	8.456	
6,800.0	6,588.1	6,773.5	6,535.8	17.4	17.8	-78.65	301.6	289.7	282.7	248.0	34.68	8.153	
6,850.0	6,605.0	6,820.1	6,550.4	18.2	18.5	-78.40	301.6	333.9	283.0	246.9	36.10	7.839	
6,900.0	6,618.7	6,866.5	6,562.3	19.0	19.3	-78.20	301.6	378.9	283.2	245.5	37.66	7.520	
6,950.0	6,629.3	6,913.0	6,571.4	19.9	20.1	-78.04	301.6	424.4	283.3	244.0	39.34	7.202	
7,000.0	6,636.7	6,959.4	6,577.8	20.8	21.0	-77.93	301.6	470.4	283.5	242.3	41.13	6.892	
7,050.0	6,640.8	7,005.8	6,581.3	21.8	22.0	-77.87	301.6	516.6	283.5	240.5	43.01	6.592	
7,095.0	6,641.7	7,048.9	6,582.0	22.8	22.8	-77.85	301.6	559.7	283.5	238.7	44.80	6.329	
7,096.4	6,641.7	7,048.9	6,582.0	22.8	22.8	-77.85	301.6	559.7	283.5	238.7	44.83	6.325	
7,100.0	6,641.7	7,052.4	6,582.0	22.9	22.9	-77.85	301.6	563.2	283.5	238.6	44.97	6.305	
7,200.0	6,640.8	7,152.4	6,580.9	25.0	25.1	-77.82	301.6	663.2	283.6	234.4	49.21	5.763	
7,300.0	6,639.9	7,252.4	6,579.9	27.3	27.4	-77.79	301.6	763.2	283.6	230.0	53.66	5.285	
7,400.0	6,639.0	7,352.4	6,578.8	29.7	29.7	-77.76	301.6	863.2	283.6	225.4	58.29	4.866	
7,500.0	6,638.1	7,452.4	6,577.8	32.1	32.1	-77.73	301.6	963.2	283.7	220.6	63.06	4.499	
7,600.0	6,637.1	7,552.4	6,576.7	34.6	34.6	-77.70	301.6	1,063.2	283.7	215.8	67.94	4.176	
7,700.0	6,636.2	7,652.4	6,575.6	37.2	37.2	-77.66	301.6	1,163.2	283.7	210.8	72.90	3.892	
7,800.0	6,635.3	7,752.4	6,574.6	39.8	39.7	-77.63	301.6	1,263.2	283.8	205.8	77.94	3.641	
7,900.0	6,634.4	7,852.4	6,573.5	42.4	42.3	-77.60	301.6	1,363.2	283.8	200.8	83.03	3.418	
8,000.0	6,633.5	7,952.4	6,572.4	45.0	45.0	-77.57	301.6	1,463.2	283.9	195.7	88.17	3.219	
8,100.0	6,632.6	8,052.4	6,571.4	47.7	47.6	-77.54	301.6	1,563.2	283.9	190.5	93.34	3.041	
8,200.0	6,631.7	8,152.4	6,570.3	50.3	50.3	-77.51	301.6	1,663.2	283.9	185.4	98.56	2.881	
8,300.0	6,630.8	8,252.4	6,569.2	53.0	53.0	-77.48	301.6	1,763.2	284.0	180.2	103.79	2.736	
8,400.0	6,629.9	8,352.4	6,568.2	55.7	55.7	-77.45	301.6	1,863.2	284.0	174.9	109.06	2.604	
8,500.0	6,629.0	8,452.4	6,567.1	58.4	58.4	-77.42	301.6	1,963.2	284.0	169.7	114.34	2.484	
8,600.0	6,628.1	8,552.4	6,566.0	61.1	61.1	-77.39	301.6	2,063.1	284.1	164.4	119.64	2.374	
8,700.0	6,627.2	8,652.4	6,565.0	63.9	63.8	-77.35	301.6	2,163.1	284.1	159.1	124.95	2.274	
8,800.0	6,626.3	8,752.4	6,563.9	66.6	66.5	-77.32	301.6	2,263.1	284.1	153.9	130.28	2.181	
8,900.0	6,625.4	8,852.4	6,562.8	69.3	69.3	-77.29	301.6	2,363.1	284.2	148.6	135.61	2.095	
9,000.0	6,624.4	8,952.4	6,561.8	72.1	72.0	-77.26	301.6	2,463.1	284.2	143.2	140.96	2.016	
9,100.0	6,623.5	9,052.4	6,560.7	74.8	74.7	-77.23	301.6	2,563.1	284.2	137.9	146.32	1.943	
9,200.0	6,622.6	9,152.4	6,559.7	77.6	77.5	-77.20	301.6	2,663.1	284.3	132.6	151.68	1.874	
9,300.0	6,621.7	9,252.4	6,558.6	80.3	80.3	-77.17	301.6	2,763.1	284.3	127.3	157.05	1.810	

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

<b>Company:</b>	PETROLEUM DEVELOPMENT CORP DJ Basin	<b>Local Co-ordinate Reference:</b>	Well Connie 26E-332
<b>Project:</b>	SEC.26-T5N-R64W	<b>TVD Reference:</b>	WELL @ 4610.0ft (RKB - 13')
<b>Reference Site:</b>	Connie 5N64W26EF Pad Sec.26-T5N-R64W	<b>MD Reference:</b>	WELL @ 4610.0ft (RKB - 13')
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Connie 26E-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	US_EDM
<b>Reference Design:</b>	Plan #1 (11-3-15)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
9,400.0	6,620.8	9,352.4	6,557.5	83.1	83.0	-77.14	301.6	2,863.1	284.3	121.9	162.43	1.751		
9,500.0	6,619.9	9,452.4	6,556.5	85.9	85.8	-77.11	301.6	2,963.1	284.4	116.6	167.81	1.695		
9,600.0	6,619.0	9,552.4	6,555.4	88.6	88.5	-77.08	301.6	3,063.1	284.4	111.2	173.19	1.642		
9,700.0	6,618.1	9,652.4	6,554.3	91.4	91.3	-77.05	301.6	3,163.1	284.4	105.9	178.58	1.593		
9,800.0	6,617.2	9,752.4	6,553.3	94.2	94.1	-77.02	301.6	3,263.1	284.5	100.5	183.97	1.546		
9,900.0	6,616.3	9,852.4	6,552.2	96.9	96.8	-76.98	301.6	3,363.1	284.5	95.2	189.37	1.502		
10,000.0	6,615.4	9,952.4	6,551.1	99.7	99.6	-76.95	301.6	3,463.1	284.6	89.8	194.77	1.461 Level 3		
10,100.0	6,614.5	10,052.4	6,550.1	102.5	102.4	-76.92	301.6	3,563.1	284.6	84.4	200.17	1.422 Level 3		
10,200.0	6,613.6	10,152.4	6,549.0	105.3	105.2	-76.89	301.6	3,663.1	284.6	79.1	205.57	1.385 Level 3		
10,300.0	6,612.6	10,252.4	6,547.9	108.0	108.0	-76.86	301.6	3,763.0	284.7	73.7	210.98	1.349 Level 3		
10,400.0	6,611.7	10,352.4	6,546.9	110.8	110.7	-76.83	301.6	3,863.0	284.7	68.3	216.38	1.316 Level 3		
10,500.0	6,610.8	10,452.4	6,545.8	113.6	113.5	-76.80	301.6	3,963.0	284.7	62.9	221.79	1.284 Level 3		
10,600.0	6,609.9	10,552.4	6,544.7	116.4	116.3	-76.77	301.6	4,063.0	284.8	57.6	227.20	1.253 Level 3		
10,700.0	6,609.0	10,652.4	6,543.7	119.2	119.1	-76.74	301.6	4,163.0	284.8	52.2	232.61	1.224 Level 2		
10,800.0	6,608.1	10,752.4	6,542.6	122.0	121.9	-76.71	301.6	4,263.0	284.8	46.8	238.02	1.197 Level 2		
10,900.0	6,607.2	10,852.4	6,541.6	124.8	124.7	-76.68	301.6	4,363.0	284.9	41.5	243.43	1.170 Level 2		
11,000.0	6,606.3	10,952.4	6,540.5	127.6	127.4	-76.65	301.6	4,463.0	284.9	36.1	248.84	1.145 Level 2		
11,100.0	6,605.4	11,052.4	6,539.4	130.3	130.2	-76.62	301.6	4,563.0	285.0	30.7	254.26	1.121 Level 2		
11,200.0	6,604.5	11,152.4	6,538.4	133.1	133.0	-76.59	301.6	4,663.0	285.0	25.3	259.67	1.098 Level 2		
11,300.0	6,603.6	11,252.4	6,537.3	135.9	135.8	-76.55	301.6	4,763.0	285.0	20.0	265.08	1.075 Level 2		
11,400.0	6,602.7	11,352.4	6,536.2	138.7	138.6	-76.52	301.6	4,863.0	285.1	14.6	270.49	1.054 Level 2		
11,500.0	6,601.8	11,452.4	6,535.2	141.5	141.4	-76.49	301.6	4,963.0	285.1	9.2	275.91	1.033 Level 2		
11,600.0	6,600.8	11,552.4	6,534.1	144.3	144.2	-76.46	301.6	5,063.0	285.1	3.8	281.32	1.014 Level 2		
11,700.0	6,599.9	11,652.4	6,533.0	147.1	147.0	-76.43	301.6	5,163.0	285.2	-1.5	286.73	0.995 Level 1		
11,800.0	6,599.0	11,752.4	6,532.0	149.9	149.8	-76.40	301.6	5,263.0	285.2	-6.9	292.15	0.976 Level 1		
11,900.0	6,598.1	11,852.4	6,530.9	152.7	152.6	-76.37	301.6	5,363.0	285.3	-12.3	297.56	0.959 Level 1		
12,000.0	6,597.2	11,952.4	6,529.8	155.5	155.4	-76.34	301.6	5,462.9	285.3	-17.7	302.97	0.942 Level 1		
12,100.0	6,596.3	12,052.4	6,528.8	158.3	158.2	-76.31	301.6	5,562.9	285.3	-23.0	308.38	0.925 Level 1		
12,200.0	6,595.4	12,152.4	6,527.7	161.1	161.0	-76.28	301.6	5,662.9	285.4	-28.4	313.79	0.909 Level 1		
12,300.0	6,594.5	12,252.4	6,526.7	163.9	163.8	-76.25	301.6	5,762.9	285.4	-33.8	319.20	0.894 Level 1		
12,400.0	6,593.6	12,352.4	6,525.6	166.7	166.6	-76.22	301.6	5,862.9	285.4	-39.2	324.61	0.879 Level 1		
12,500.0	6,592.7	12,452.4	6,524.5	169.5	169.4	-76.19	301.6	5,962.9	285.5	-44.5	330.02	0.865 Level 1		
12,600.0	6,591.8	12,552.4	6,523.5	172.3	172.2	-76.16	301.6	6,062.9	285.5	-49.9	335.43	0.851 Level 1		
12,700.0	6,590.9	12,652.4	6,522.4	175.1	175.0	-76.13	301.6	6,162.9	285.6	-55.3	340.84	0.838 Level 1		
12,800.0	6,590.0	12,752.4	6,521.3	177.9	177.8	-76.10	301.6	6,262.9	285.6	-60.6	346.25	0.825 Level 1		
12,900.0	6,589.0	12,852.4	6,520.3	180.7	180.6	-76.06	301.6	6,362.9	285.6	-66.0	351.65	0.812 Level 1		
13,000.0	6,588.1	12,952.4	6,519.2	183.5	183.4	-76.03	301.6	6,462.9	285.7	-71.4	357.06	0.800 Level 1		
13,100.0	6,587.2	13,052.4	6,518.1	186.3	186.2	-76.00	301.6	6,562.9	285.7	-76.7	362.46	0.788 Level 1		
13,200.0	6,586.3	13,152.4	6,517.1	189.1	189.0	-75.97	301.6	6,662.9	285.8	-82.1	367.87	0.777 Level 1		
13,300.0	6,585.4	13,252.4	6,516.0	191.9	191.8	-75.94	301.6	6,762.9	285.8	-87.5	373.27	0.766 Level 1		
13,400.0	6,584.5	13,352.4	6,514.9	194.7	194.6	-75.91	301.6	6,862.9	285.8	-92.8	378.67	0.755 Level 1		
13,500.0	6,583.6	13,452.4	6,513.9	197.5	197.4	-75.88	301.6	6,962.9	285.9	-98.2	384.08	0.744 Level 1		
13,600.0	6,582.7	13,552.4	6,512.8	200.3	200.2	-75.85	301.6	7,062.9	285.9	-103.6	389.48	0.734 Level 1		
13,676.6	6,582.0	13,628.6	6,512.0	202.4	202.3	-75.83	301.6	7,139.0	285.9	-107.7	393.60	0.726 Level 1, ES, SF		

<b>Company:</b>	PETROLEUM DEVELOPMENT CORP DJ Basin	<b>Local Co-ordinate Reference:</b>	Well Connie 26E-332
<b>Project:</b>	SEC.26-T5N-R64W	<b>TVD Reference:</b>	WELL @ 4610.0ft (RKB - 13')
<b>Reference Site:</b>	Connie 5N64W26EF Pad Sec.26-T5N-R64W	<b>MD Reference:</b>	WELL @ 4610.0ft (RKB - 13')
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Connie 26E-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	US_EDM
<b>Reference Design:</b>	Plan #1 (11-3-15)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-145.11	-12.4	-8.6	15.1	15.1	0.00	N/A		
100.0	100.0	100.0	100.0	0.1	0.1	-145.11	-12.4	-8.6	15.1	14.9	0.22	67.184		
200.0	200.0	200.0	200.0	0.3	0.3	-145.11	-12.4	-8.6	15.1	14.4	0.67	22.395		
300.0	300.0	300.0	300.0	0.6	0.6	-145.11	-12.4	-8.6	15.1	14.0	1.12	13.437		
400.0	400.0	400.0	400.0	0.8	0.8	-145.11	-12.4	-8.6	15.1	13.5	1.57	9.598		
500.0	500.0	500.0	500.0	1.0	1.0	-145.11	-12.4	-8.6	15.1	13.1	2.02	7.465		
600.0	600.0	600.0	600.0	1.2	1.2	-145.11	-12.4	-8.6	15.1	12.6	2.47	6.108		
700.0	700.0	700.0	700.0	1.5	1.5	-145.11	-12.4	-8.6	15.1	12.2	2.92	5.168		
800.0	800.0	800.0	800.0	1.7	1.7	-145.11	-12.4	-8.6	15.1	11.7	3.37	4.479		
900.0	900.0	900.0	900.0	1.9	1.9	-145.11	-12.4	-8.6	15.1	11.3	3.82	3.952		
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	-145.11	-12.4	-8.6	15.1	10.8	4.27	3.536		
1,100.0	1,100.0	1,100.0	1,100.0	2.4	2.4	-145.11	-12.4	-8.6	15.1	10.4	4.72	3.199		
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	-145.11	-12.4	-8.6	15.1	9.9	5.17	2.921		
1,300.0	1,300.0	1,300.0	1,300.0	2.8	2.8	-145.11	-12.4	-8.6	15.1	9.5	5.62	2.687		
1,400.0	1,400.0	1,400.0	1,400.0	3.0	3.0	-145.11	-12.4	-8.6	15.1	9.0	6.07	2.488 CC, ES		
1,500.0	1,500.0	1,499.6	1,499.6	3.3	3.2	-145.72	-13.5	-9.2	16.4	9.9	6.49	2.526		
1,600.0	1,600.0	1,599.0	1,598.9	3.5	3.4	-147.07	-17.0	-11.0	20.3	13.4	6.89	2.944		
1,700.0	1,700.0	1,698.2	1,697.9	3.7	3.6	-148.44	-22.7	-14.0	26.8	19.5	7.30	3.668		
1,800.0	1,800.0	1,797.0	1,796.3	3.9	3.8	-149.53	-30.7	-18.1	35.8	28.1	7.71	4.644		
1,900.0	1,900.0	1,895.3	1,893.9	4.2	4.0	-150.32	-40.9	-23.3	47.5	39.3	8.15	5.825		
2,000.0	2,000.0	1,993.5	1,991.2	4.4	4.2	-150.87	-53.1	-29.6	61.4	52.8	8.60	7.141		
2,100.0	2,100.0	2,092.5	2,089.1	4.6	4.5	-151.23	-65.8	-36.1	75.8	66.8	9.08	8.354		
2,200.0	2,200.0	2,191.4	2,187.0	4.8	4.7	-151.48	-78.5	-42.6	90.2	80.7	9.56	9.434		
2,300.0	2,300.0	2,290.4	2,284.9	5.1	5.0	-151.65	-91.1	-49.2	104.6	94.6	10.06	10.398		
2,400.0	2,400.0	2,389.3	2,382.9	5.3	5.3	-151.79	-103.8	-55.7	119.0	108.5	10.57	11.261		
2,500.0	2,500.0	2,488.3	2,480.8	5.5	5.6	-151.89	-116.5	-62.2	133.4	122.4	11.09	12.036		
2,600.0	2,600.0	2,587.3	2,578.7	5.7	5.9	-68.73	-129.2	-68.7	147.5	136.4	11.13	13.260		
2,700.0	2,700.0	2,686.3	2,676.8	5.9	6.2	-69.52	-141.8	-75.3	161.0	149.5	11.55	13.946		
2,800.0	2,799.9	2,785.4	2,774.8	6.1	6.5	-70.72	-154.5	-81.8	174.0	162.0	11.97	14.530		
2,900.0	2,899.7	2,884.5	2,872.9	6.3	6.8	-72.25	-167.2	-88.3	186.4	174.0	12.41	15.029		
3,000.0	2,999.4	2,983.6	2,970.9	6.6	7.1	-74.06	-179.9	-94.9	198.6	185.7	12.85	15.455		
3,092.9	3,091.8	3,075.5	3,061.9	6.8	7.4	-75.95	-191.7	-100.9	209.7	196.4	13.27	15.797		
3,100.0	3,098.9	3,082.5	3,068.8	6.8	7.5	-76.11	-192.6	-101.4	210.5	197.2	13.31	15.822		
3,200.0	3,198.4	3,181.5	3,166.8	7.0	7.8	-78.23	-205.3	-107.9	222.6	208.8	13.77	16.157		
3,300.0	3,297.8	3,280.5	3,264.7	7.2	8.1	-80.13	-217.9	-114.4	234.9	220.6	14.25	16.478		
3,400.0	3,397.3	3,379.4	3,362.6	7.5	8.4	-81.84	-230.6	-120.9	247.4	232.7	14.74	16.784		
3,500.0	3,496.8	3,478.4	3,460.5	7.7	8.8	-83.39	-243.3	-127.5	260.1	244.9	15.23	17.075		
3,600.0	3,596.2	3,577.3	3,558.4	8.0	9.1	-84.78	-256.0	-134.0	273.0	257.3	15.74	17.349		
3,700.0	3,695.7	3,676.3	3,656.4	8.2	9.4	-86.06	-268.6	-140.5	286.1	269.8	16.25	17.609		
3,800.0	3,795.2	3,775.2	3,754.3	8.5	9.8	-87.22	-281.3	-147.0	299.2	282.5	16.76	17.854		
3,900.0	3,894.6	3,874.2	3,852.2	8.7	10.1	-88.28	-294.0	-153.6	312.5	295.3	17.28	18.085		
4,000.0	3,994.1	3,973.1	3,950.1	9.0	10.5	-89.26	-306.6	-160.1	325.9	308.1	17.81	18.304		
4,100.0	4,093.6	4,072.1	4,048.0	9.3	10.8	-90.16	-319.3	-166.6	339.4	321.1	18.34	18.510		
4,200.0	4,193.0	4,171.0	4,146.0	9.5	11.1	-90.99	-332.0	-173.1	352.9	334.1	18.87	18.704		
4,300.0	4,292.5	4,270.0	4,243.9	9.8	11.5	-91.76	-344.7	-179.6	366.6	347.1	19.41	18.888		
4,400.0	4,392.0	4,368.9	4,341.8	10.1	11.8	-92.48	-357.3	-186.2	380.2	360.3	19.95	19.062		
4,500.0	4,491.4	4,467.9	4,439.7	10.3	12.2	-93.14	-370.0	-192.7	394.0	373.5	20.49	19.227		
4,600.0	4,590.9	4,566.8	4,537.7	10.6	12.5	-93.76	-382.7	-199.2	407.7	386.7	21.04	19.383		
4,700.0	4,690.3	4,673.2	4,643.0	10.9	12.8	-94.42	-395.8	-206.0	421.1	399.5	21.59	19.502		
4,713.8	4,704.1	4,689.0	4,658.7	10.9	12.9	-94.53	-397.5	-206.9	422.8	401.1	21.67	19.507		
4,800.0	4,789.9	4,788.0	4,757.1	11.1	13.1	-95.28	-406.5	-211.5	431.3	409.2	22.12	19.502		

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

<b>Company:</b>	PETROLEUM DEVELOPMENT CORP DJ Basin	<b>Local Co-ordinate Reference:</b>	Well Connie 26E-332
<b>Project:</b>	SEC.26-T5N-R64W	<b>TVD Reference:</b>	WELL @ 4610.0ft (RKB - 13')
<b>Reference Site:</b>	Connie 5N64W26EF Pad Sec.26-T5N-R64W	<b>MD Reference:</b>	WELL @ 4610.0ft (RKB - 13')
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Connie 26E-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	US_EDM
<b>Reference Design:</b>	Plan #1 (11-3-15)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design		Connie 5N64W26EF Pad Sec.26-T5N-R64W - Connie 26F-212 - Wellbore #1 - Plan #1 (11-3-15)											Offset Site Error:		0.0 ft
Survey Program:		0-MWD											Offset Well Error:		0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
4,900.0	4,889.8	4,903.4	4,872.3	11.3	13.4	-95.82	-413.2	-214.9	437.7	415.1	22.57	19.392			
5,000.0	4,989.7	5,019.3	4,988.1	11.5	13.6	-96.02	-415.7	-216.2	440.1	417.1	22.98	19.149			
5,010.3	5,000.0	5,031.2	5,000.0	11.5	13.6	-179.45	-415.7	-216.2	440.1	416.2	23.90	18.414			
5,100.0	5,089.7	5,120.9	5,089.7	11.7	13.7	-179.45	-415.7	-216.2	440.1	415.9	24.23	18.166			
5,200.0	5,189.7	5,220.9	5,189.7	11.9	13.9	-179.45	-415.7	-216.2	440.1	415.5	24.60	17.888			
5,300.0	5,289.7	5,320.9	5,289.7	12.1	14.0	-179.45	-415.7	-216.2	440.1	415.1	24.98	17.618			
5,400.0	5,389.7	5,420.9	5,389.7	12.3	14.2	-179.45	-415.7	-216.2	440.1	414.7	25.36	17.354			
5,500.0	5,489.7	5,520.9	5,489.7	12.5	14.3	-179.45	-415.7	-216.2	440.1	414.4	25.74	17.097			
5,600.0	5,589.7	5,620.9	5,589.7	12.7	14.5	-179.45	-415.7	-216.2	440.1	414.0	26.13	16.846			
5,700.0	5,689.7	5,720.9	5,689.7	12.9	14.7	-179.45	-415.7	-216.2	440.1	413.6	26.51	16.601			
5,800.0	5,789.7	5,820.9	5,789.7	13.1	14.8	-179.45	-415.7	-216.2	440.1	413.2	26.90	16.362			
5,888.1	5,877.8	5,909.2	5,877.9	13.3	15.0	-179.87	-415.7	-213.0	440.1	412.9	27.23	16.164			
5,898.7	5,888.5	5,919.8	5,888.5	13.4	15.0	90.00	-415.7	-211.9	440.1	413.6	26.53	16.591			
5,900.0	5,889.7	5,921.0	5,889.7	13.4	15.0	89.99	-415.7	-211.8	440.1	413.6	26.53	16.588			
5,950.0	5,939.7	5,970.7	5,938.9	13.4	15.0	89.39	-415.7	-204.9	440.1	413.4	26.69	16.487			
6,000.0	5,989.3	6,020.0	5,987.2	13.5	15.1	88.80	-415.7	-194.9	440.2	413.3	26.83	16.404			
6,050.0	6,038.5	6,069.1	6,034.5	13.6	15.1	88.22	-415.7	-181.8	440.3	413.3	26.95	16.335			
6,100.0	6,087.0	6,117.9	6,080.6	13.6	15.1	87.65	-415.7	-165.9	440.5	413.4	27.06	16.277			
6,150.0	6,134.6	6,166.4	6,125.3	13.7	15.2	87.09	-415.7	-147.1	440.7	413.5	27.16	16.225			
6,200.0	6,181.1	6,214.7	6,168.6	13.7	15.2	86.54	-415.7	-125.7	440.9	413.6	27.26	16.172			
6,250.0	6,226.4	6,262.7	6,210.1	13.8	15.2	86.01	-415.7	-101.7	441.2	413.8	27.38	16.112			
6,300.0	6,270.1	6,310.5	6,250.0	13.9	15.2	85.50	-415.7	-75.3	441.5	413.9	27.53	16.035			
6,350.0	6,312.1	6,358.1	6,287.9	14.0	15.2	85.01	-415.7	-46.6	441.8	414.0	27.73	15.934			
6,400.0	6,352.3	6,405.4	6,323.8	14.1	15.3	84.54	-415.7	-15.7	442.1	414.1	27.99	15.797			
6,450.0	6,390.4	6,452.6	6,357.6	14.3	15.3	84.09	-415.7	17.2	442.5	414.1	28.33	15.618			
6,500.0	6,426.4	6,500.0	6,389.4	14.5	15.3	83.66	-415.7	52.3	442.8	414.0	28.78	15.386			
6,550.0	6,460.0	6,546.4	6,418.4	14.8	15.4	83.27	-415.7	88.5	443.2	413.8	29.35	15.099			
6,600.0	6,491.1	6,593.0	6,445.3	15.1	15.5	82.90	-415.7	126.7	443.5	413.4	30.06	14.755			
6,650.0	6,519.6	6,639.5	6,469.7	15.6	15.7	82.56	-415.7	166.2	443.8	412.9	30.91	14.358			
6,700.0	6,545.3	6,685.9	6,491.6	16.1	16.2	82.25	-415.7	207.1	444.1	412.2	31.92	13.914			
6,750.0	6,568.2	6,732.2	6,511.0	16.7	16.8	81.97	-415.7	249.1	444.4	411.4	33.09	13.433			
6,800.0	6,588.1	6,778.3	6,527.8	17.4	17.5	81.73	-415.7	292.1	444.7	410.3	34.41	12.926			
6,850.0	6,605.0	6,824.4	6,541.9	18.2	18.2	81.52	-415.7	335.9	445.0	409.1	35.87	12.405			
6,900.0	6,618.7	6,870.4	6,553.3	19.0	19.0	81.34	-415.7	380.5	445.2	407.7	37.47	11.881			
6,950.0	6,629.3	6,916.3	6,562.0	19.9	19.9	81.19	-415.7	425.5	445.3	406.2	39.19	11.363			
7,000.0	6,636.7	6,962.1	6,568.0	20.8	20.8	81.08	-415.7	471.0	445.5	404.5	41.02	10.861			
7,050.0	6,640.8	7,008.0	6,571.2	21.8	21.7	81.00	-415.7	516.7	445.6	402.6	42.93	10.379			
7,095.0	6,641.7	7,049.5	6,571.8	22.8	22.6	80.96	-415.7	558.2	445.6	400.9	44.72	9.964			
7,100.0	6,641.7	7,054.5	6,571.7	22.9	22.7	80.96	-415.7	563.2	445.6	400.7	44.93	9.918			
7,200.0	6,640.8	7,154.5	6,570.8	25.0	24.9	80.96	-415.7	663.2	445.6	396.4	49.26	9.047			
7,300.0	6,639.9	7,254.5	6,569.9	27.3	27.2	80.96	-415.7	763.2	445.6	391.8	53.79	8.284			
7,400.0	6,639.0	7,354.5	6,569.0	29.7	29.6	80.96	-415.7	863.2	445.6	387.1	58.51	7.616			
7,500.0	6,638.1	7,454.5	6,568.1	32.1	32.0	80.96	-415.7	963.2	445.6	382.3	63.36	7.033			
7,600.0	6,637.1	7,554.5	6,567.2	34.6	34.5	80.96	-415.7	1,063.2	445.6	377.3	68.32	6.523			
7,700.0	6,636.2	7,654.5	6,566.3	37.2	37.1	80.96	-415.7	1,163.2	445.6	372.3	73.36	6.074			
7,800.0	6,635.3	7,754.5	6,565.4	39.8	39.7	80.96	-415.7	1,263.2	445.6	367.1	78.47	5.679			
7,900.0	6,634.4	7,854.5	6,564.4	42.4	42.3	80.96	-415.7	1,363.2	445.6	362.0	83.64	5.328			
8,000.0	6,633.5	7,954.5	6,563.5	45.0	44.9	80.96	-415.7	1,463.2	445.6	356.8	88.85	5.015			
8,100.0	6,632.6	8,054.5	6,562.6	47.7	47.6	80.96	-415.7	1,563.2	445.6	351.5	94.11	4.735			
8,200.0	6,631.7	8,154.5	6,561.7	50.3	50.3	80.96	-415.7	1,663.2	445.6	346.2	99.39	4.483			
8,300.0	6,630.8	8,254.5	6,560.8	53.0	52.9	80.96	-415.7	1,763.2	445.6	340.9	104.71	4.256			

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



<b>Company:</b>	PETROLEUM DEVELOPMENT CORP DJ Basin	<b>Local Co-ordinate Reference:</b>	Well Connie 26E-332
<b>Project:</b>	SEC.26-T5N-R64W	<b>TVD Reference:</b>	WELL @ 4610.0ft (RKB - 13')
<b>Reference Site:</b>	Connie 5N64W26EF Pad Sec.26-T5N-R64W	<b>MD Reference:</b>	WELL @ 4610.0ft (RKB - 13')
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Connie 26E-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	US_EDM
<b>Reference Design:</b>	Plan #1 (11-3-15)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 ft
Survey Program: 0-MWD												Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
8,400.0	6,629.9	8,354.5	6,559.9	55.7	55.6	80.96	-415.7	1,863.2	445.6	335.6	110.05	4.049	
8,500.0	6,629.0	8,454.5	6,559.0	58.4	58.4	80.96	-415.7	1,963.2	445.6	330.2	115.40	3.861	
8,600.0	6,628.1	8,554.5	6,558.1	61.1	61.1	80.96	-415.7	2,063.2	445.6	324.8	120.78	3.690	
8,700.0	6,627.2	8,654.5	6,557.2	63.9	63.8	80.96	-415.7	2,163.2	445.6	319.4	126.17	3.532	
8,800.0	6,626.3	8,754.5	6,556.3	66.6	66.5	80.96	-415.7	2,263.2	445.6	314.0	131.57	3.387	
8,900.0	6,625.4	8,854.5	6,555.4	69.3	69.3	80.96	-415.7	2,363.2	445.6	308.6	136.99	3.253	
9,000.0	6,624.4	8,954.5	6,554.5	72.1	72.0	80.96	-415.7	2,463.2	445.6	303.2	142.42	3.129	
9,100.0	6,623.5	9,054.5	6,553.6	74.8	74.8	80.96	-415.7	2,563.1	445.6	297.8	147.85	3.014	
9,200.0	6,622.6	9,154.5	6,552.6	77.6	77.5	80.96	-415.7	2,663.1	445.6	292.3	153.30	2.907	
9,300.0	6,621.7	9,254.5	6,551.7	80.3	80.3	80.96	-415.7	2,763.1	445.6	286.9	158.75	2.807	
9,400.0	6,620.8	9,354.5	6,550.8	83.1	83.0	80.96	-415.7	2,863.1	445.6	281.4	164.21	2.714	
9,500.0	6,619.9	9,454.5	6,549.9	85.9	85.8	80.96	-415.7	2,963.1	445.6	275.9	169.67	2.626	
9,600.0	6,619.0	9,554.5	6,549.0	88.6	88.6	80.96	-415.7	3,063.1	445.6	270.5	175.15	2.544	
9,700.0	6,618.1	9,654.5	6,548.1	91.4	91.3	80.96	-415.7	3,163.1	445.6	265.0	180.62	2.467	
9,800.0	6,617.2	9,754.5	6,547.2	94.2	94.1	80.96	-415.7	3,263.1	445.6	259.5	186.10	2.394	
9,900.0	6,616.3	9,854.5	6,546.3	96.9	96.9	80.96	-415.7	3,363.1	445.6	254.0	191.59	2.326	
10,000.0	6,615.4	9,954.5	6,545.4	99.7	99.7	80.96	-415.7	3,463.1	445.6	248.5	197.07	2.261	
10,100.0	6,614.5	10,054.5	6,544.5	102.5	102.4	80.96	-415.7	3,563.1	445.6	243.1	202.57	2.200	
10,200.0	6,613.6	10,154.5	6,543.6	105.3	105.2	80.96	-415.7	3,663.1	445.6	237.6	208.06	2.142	
10,300.0	6,612.6	10,254.5	6,542.7	108.0	108.0	80.96	-415.7	3,763.1	445.6	232.1	213.56	2.087	
10,400.0	6,611.7	10,354.5	6,541.8	110.8	110.8	80.96	-415.7	3,863.1	445.6	226.6	219.06	2.034	
10,500.0	6,610.8	10,454.5	6,540.9	113.6	113.6	80.96	-415.7	3,963.1	445.6	221.1	224.56	1.984	
10,600.0	6,609.9	10,554.5	6,539.9	116.4	116.4	80.96	-415.7	4,063.1	445.6	215.5	230.07	1.937	
10,700.0	6,609.0	10,654.5	6,539.0	119.2	119.1	80.96	-415.7	4,163.1	445.6	210.0	235.58	1.892	
10,800.0	6,608.1	10,754.5	6,538.1	122.0	121.9	80.96	-415.7	4,263.1	445.6	204.5	241.09	1.848	
10,900.0	6,607.2	10,854.5	6,537.2	124.8	124.7	80.96	-415.7	4,363.1	445.6	199.0	246.60	1.807	
11,000.0	6,606.3	10,954.5	6,536.3	127.6	127.5	80.96	-415.7	4,463.1	445.6	193.5	252.11	1.768	
11,100.0	6,605.4	11,054.5	6,535.4	130.3	130.3	80.96	-415.7	4,563.1	445.6	188.0	257.63	1.730	
11,200.0	6,604.5	11,154.5	6,534.5	133.1	133.1	80.96	-415.7	4,663.1	445.6	182.5	263.15	1.693	
11,300.0	6,603.6	11,254.5	6,533.6	135.9	135.9	80.96	-415.7	4,763.1	445.6	177.0	268.66	1.659	
11,400.0	6,602.7	11,354.5	6,532.7	138.7	138.7	80.96	-415.7	4,863.1	445.6	171.4	274.18	1.625	
11,500.0	6,601.8	11,454.5	6,531.8	141.5	141.5	80.96	-415.7	4,963.0	445.6	165.9	279.71	1.593	
11,600.0	6,600.8	11,554.5	6,530.9	144.3	144.3	80.96	-415.7	5,063.0	445.6	160.4	285.23	1.562	
11,700.0	6,599.9	11,654.5	6,530.0	147.1	147.1	80.96	-415.7	5,163.0	445.6	154.9	290.75	1.533	
11,800.0	6,599.0	11,754.5	6,529.1	149.9	149.9	80.96	-415.7	5,263.0	445.6	149.3	296.28	1.504	
11,900.0	6,598.1	11,854.5	6,528.1	152.7	152.7	80.96	-415.7	5,363.0	445.6	143.8	301.80	1.477 Level 3	
12,000.0	6,597.2	11,954.5	6,527.2	155.5	155.5	80.96	-415.7	5,463.0	445.6	138.3	307.33	1.450 Level 3	
12,100.0	6,596.3	12,054.5	6,526.3	158.3	158.2	80.96	-415.7	5,563.0	445.6	132.8	312.86	1.424 Level 3	
12,200.0	6,595.4	12,154.5	6,525.4	161.1	161.0	80.96	-415.7	5,663.0	445.6	127.2	318.39	1.400 Level 3	
12,300.0	6,594.5	12,254.5	6,524.5	163.9	163.8	80.96	-415.7	5,763.0	445.6	121.7	323.92	1.376 Level 3	
12,400.0	6,593.6	12,354.5	6,523.6	166.7	166.6	80.96	-415.7	5,863.0	445.6	116.2	329.45	1.353 Level 3	
12,500.0	6,592.7	12,454.5	6,522.7	169.5	169.4	80.96	-415.7	5,963.0	445.6	110.6	334.98	1.330 Level 3	
12,600.0	6,591.8	12,554.5	6,521.8	172.3	172.2	80.96	-415.7	6,063.0	445.6	105.1	340.51	1.309 Level 3	
12,700.0	6,590.9	12,654.5	6,520.9	175.1	175.0	80.96	-415.7	6,163.0	445.6	99.6	346.04	1.288 Level 3	
12,800.0	6,590.0	12,754.5	6,520.0	177.9	177.8	80.96	-415.7	6,263.0	445.6	94.0	351.57	1.267 Level 3	
12,900.0	6,589.0	12,854.5	6,519.1	180.7	180.6	80.96	-415.7	6,363.0	445.6	88.5	357.11	1.248 Level 2	
13,000.0	6,588.1	12,954.5	6,518.2	183.5	183.4	80.96	-415.7	6,463.0	445.6	83.0	362.64	1.229 Level 2	
13,100.0	6,587.2	13,054.5	6,517.3	186.3	186.2	80.96	-415.7	6,563.0	445.6	77.4	368.18	1.210 Level 2	
13,200.0	6,586.3	13,154.5	6,516.3	189.1	189.0	80.96	-415.7	6,663.0	445.6	71.9	373.71	1.192 Level 2	
13,300.0	6,585.4	13,254.5	6,515.4	191.9	191.8	80.96	-415.7	6,763.0	445.6	66.4	379.25	1.175 Level 2	
13,400.0	6,584.5	13,354.5	6,514.5	194.7	194.6	80.96	-415.7	6,863.0	445.6	60.8	384.78	1.158 Level 2	

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

<b>Company:</b>	PETROLEUM DEVELOPMENT CORP DJ Basin	<b>Local Co-ordinate Reference:</b>	Well Connie 26E-332
<b>Project:</b>	SEC.26-T5N-R64W	<b>TVD Reference:</b>	WELL @ 4610.0ft (RKB - 13')
<b>Reference Site:</b>	Connie 5N64W26EF Pad Sec.26-T5N-R64W	<b>MD Reference:</b>	WELL @ 4610.0ft (RKB - 13')
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Connie 26E-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	US_EDM
<b>Reference Design:</b>	Plan #1 (11-3-15)	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b>												<b>Offset Site Error:</b>	0.0 ft
Connie 5N64W26EF Pad Sec.26-T5N-R64W - Connie 26F-212 - Wellbore #1 - Plan #1 (11-3-15)												<b>Offset Well Error:</b>	0.0 ft
Survey Program: 0-MWD													
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
13,500.0	6,583.6	13,454.5	6,513.6	197.5	197.4	80.96	-415.7	6,963.0	445.6	55.3	390.32	1.142	Level 2
13,600.0	6,582.7	13,554.5	6,512.7	200.3	200.2	80.96	-415.7	7,063.0	445.6	49.8	395.86	1.126	Level 2
13,676.6	6,582.0	13,631.1	6,512.0	202.4	202.4	80.96	-415.7	7,139.5	445.6	45.5	400.10	1.114	Level 2, SF



<b>Company:</b>	PETROLEUM DEVELOPMENT CORP DJ Basin	<b>Local Co-ordinate Reference:</b>	Well Connie 26E-332
<b>Project:</b>	SEC.26-T5N-R64W	<b>TVD Reference:</b>	WELL @ 4610.0ft (RKB - 13')
<b>Reference Site:</b>	Connie 5N64W26EF Pad Sec.26-T5N-R64W	<b>MD Reference:</b>	WELL @ 4610.0ft (RKB - 13')
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Connie 26E-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	US_EDM
<b>Reference Design:</b>	Plan #1 (11-3-15)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.0	0.0	1.0	1.0	0.0	0.0	-144.71	-24.4	-17.3	29.9	29.9	0.00	N/A		
100.0	100.0	101.0	101.0	0.1	0.1	-144.71	-24.4	-17.3	29.9	29.7	0.23	131.724		
200.0	200.0	201.0	201.0	0.3	0.3	-144.71	-24.4	-17.3	29.9	29.2	0.68	44.200		
300.0	300.0	301.0	301.0	0.6	0.6	-144.71	-24.4	-17.3	29.9	28.8	1.13	26.555		
400.0	400.0	401.0	401.0	0.8	0.8	-144.71	-24.4	-17.3	29.9	28.3	1.58	18.979		
500.0	500.0	501.0	501.0	1.0	1.0	-144.71	-24.4	-17.3	29.9	27.9	2.03	14.766		
600.0	600.0	601.0	601.0	1.2	1.2	-144.71	-24.4	-17.3	29.9	27.4	2.47	12.084		
700.0	700.0	701.0	701.0	1.5	1.5	-144.71	-24.4	-17.3	29.9	27.0	2.92	10.226		
800.0	800.0	801.0	801.0	1.7	1.7	-144.71	-24.4	-17.3	29.9	26.5	3.37	8.863		
900.0	900.0	901.0	901.0	1.9	1.9	-144.71	-24.4	-17.3	29.9	26.1	3.82	7.821		
966.3	966.3	967.3	967.3	2.1	2.1	-144.71	-24.4	-17.3	29.9	25.8	4.12	7.255 CC		
1,000.0	1,000.0	1,001.0	1,001.0	2.1	2.1	-144.71	-24.4	-17.3	29.9	25.6	4.27	6.999 ES		
1,100.0	1,100.0	1,100.0	1,100.0	2.4	2.3	-145.47	-25.7	-17.7	31.2	26.5	4.69	6.643		
1,200.0	1,200.0	1,199.3	1,199.2	2.6	2.5	-147.39	-29.4	-18.8	34.9	29.8	5.09	6.859		
1,300.0	1,300.0	1,298.2	1,297.9	2.8	2.7	-149.79	-35.5	-20.7	41.2	35.7	5.50	7.494		
1,400.0	1,400.0	1,396.6	1,395.9	3.0	2.9	-152.13	-44.1	-23.3	50.1	44.2	5.93	8.455		
1,500.0	1,500.0	1,494.5	1,493.1	3.3	3.1	-154.13	-55.0	-26.7	61.6	55.2	6.37	9.665		
1,600.0	1,600.0	1,591.8	1,589.4	3.5	3.4	-155.75	-68.1	-30.7	75.6	68.8	6.84	11.054		
1,700.0	1,700.0	1,688.3	1,684.6	3.7	3.6	-157.03	-83.5	-35.4	92.2	84.9	7.34	12.562		
1,800.0	1,800.0	1,786.2	1,780.8	3.9	3.9	-158.00	-100.7	-40.7	110.4	102.6	7.87	14.033		
1,900.0	1,900.0	1,884.5	1,877.5	4.2	4.3	-158.70	-117.9	-46.0	128.7	120.3	8.42	15.289		
2,000.0	2,000.0	1,982.8	1,974.1	4.4	4.6	-159.23	-135.1	-51.2	147.0	138.0	8.98	16.368		
2,100.0	2,100.0	2,081.1	2,070.8	4.6	4.9	-159.64	-152.3	-56.5	165.3	155.7	9.55	17.300		
2,200.0	2,200.0	2,179.4	2,167.4	4.8	5.3	-159.97	-169.5	-61.8	183.6	173.4	10.13	18.112		
2,300.0	2,300.0	2,277.7	2,264.0	5.1	5.7	-160.24	-186.8	-67.1	201.9	191.1	10.72	18.823		
2,400.0	2,400.0	2,376.1	2,360.7	5.3	6.0	-160.47	-204.0	-72.4	220.2	208.8	11.32	19.451		
2,500.0	2,500.0	2,474.4	2,457.3	5.5	6.4	-160.66	-221.2	-77.7	238.5	226.6	11.92	20.007		
2,600.0	2,600.0	2,572.7	2,554.0	5.7	6.8	-77.40	-238.4	-82.9	256.6	245.4	11.22	22.862		
2,700.0	2,700.0	2,671.0	2,650.7	5.9	7.2	-77.89	-255.7	-88.2	274.4	262.7	11.66	23.527		
2,800.0	2,799.9	2,769.4	2,747.4	6.1	7.6	-78.65	-272.9	-93.5	291.8	279.7	12.10	24.109		
2,900.0	2,899.7	2,867.7	2,844.0	6.3	8.0	-79.62	-290.1	-98.8	309.1	296.5	12.55	24.619		
3,000.0	2,999.4	2,966.0	2,940.6	6.6	8.4	-80.78	-307.3	-104.1	326.1	313.1	13.01	25.066		
3,092.9	3,091.8	3,057.2	3,030.3	6.8	8.7	-82.00	-323.3	-109.0	341.9	328.4	13.44	25.430		
3,100.0	3,098.9	3,064.2	3,037.2	6.8	8.7	-82.11	-324.5	-109.4	343.1	329.6	13.48	25.456		
3,200.0	3,198.4	3,162.3	3,133.6	7.0	9.1	-83.57	-341.7	-114.6	360.2	346.2	13.96	25.811		
3,300.0	3,297.8	3,260.4	3,230.1	7.2	9.5	-84.91	-358.9	-119.9	377.5	363.1	14.44	26.139		
3,400.0	3,397.3	3,358.5	3,326.5	7.5	9.9	-86.12	-376.1	-125.2	395.0	380.1	14.94	26.444		
3,500.0	3,496.8	3,456.7	3,423.0	7.7	10.3	-87.24	-393.3	-130.5	412.6	397.2	15.44	26.727		
3,600.0	3,596.2	3,554.8	3,519.5	8.0	10.7	-88.26	-410.5	-135.7	430.4	414.5	15.95	26.989		
3,700.0	3,695.7	3,652.9	3,615.9	8.2	11.1	-89.20	-427.7	-141.0	448.3	431.9	16.46	27.231		
3,800.0	3,795.2	3,751.0	3,712.4	8.5	11.5	-90.07	-444.9	-146.3	466.4	449.4	16.99	27.457		
3,900.0	3,894.6	3,849.2	3,808.9	8.7	11.9	-90.87	-462.1	-151.6	484.5	467.0	17.51	27.666		
4,000.0	3,994.1	3,947.3	3,905.3	9.0	12.3	-91.62	-479.2	-156.8	502.7	484.6	18.04	27.861		
4,100.0	4,093.6	4,045.4	4,001.8	9.3	12.7	-92.31	-496.4	-162.1	520.9	502.4	18.58	28.042		
4,200.0	4,193.0	4,143.5	4,098.3	9.5	13.1	-92.96	-513.6	-167.4	539.3	520.2	19.12	28.211		
4,300.0	4,292.5	4,241.7	4,194.7	9.8	13.5	-93.56	-530.8	-172.6	557.7	538.0	19.66	28.369		
4,400.0	4,392.0	4,339.8	4,291.2	10.1	13.9	-94.13	-548.0	-177.9	576.2	556.0	20.20	28.517		
4,500.0	4,491.4	4,437.9	4,387.7	10.3	14.4	-94.66	-565.2	-183.2	594.7	573.9	20.75	28.655		
4,600.0	4,490.9	4,536.1	4,484.1	10.6	14.8	-95.16	-582.4	-188.5	613.2	591.9	21.30	28.785		
4,700.0	4,690.3	4,634.2	4,580.6	10.9	15.2	-95.63	-599.6	-193.7	631.9	610.0	21.86	28.907		
4,713.8	4,704.1	4,647.7	4,593.9	10.9	15.2	-95.69	-602.0	-194.5	634.4	612.5	21.93	28.923		

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

<b>Company:</b>	PETROLEUM DEVELOPMENT CORP DJ Basin	<b>Local Co-ordinate Reference:</b>	Well Connie 26E-332
<b>Project:</b>	SEC.26-T5N-R64W	<b>TVD Reference:</b>	WELL @ 4610.0ft (RKB - 13')
<b>Reference Site:</b>	Connie 5N64W26EF Pad Sec.26-T5N-R64W	<b>MD Reference:</b>	WELL @ 4610.0ft (RKB - 13')
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Connie 26E-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	US_EDM
<b>Reference Design:</b>	Plan #1 (11-3-15)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design		Connie 5N64W26EF Pad Sec.26-T5N-R64W - Connie 26F-302 - Wellbore #1 - Plan #1 (11-2-15)											Offset Site Error:		0.0 ft
Survey Program: 0-MWD													Offset Well Error:		0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
4,800.0	4,789.9	4,732.4	4,677.1	11.1	15.6	-96.28	-616.8	-199.0	650.4	628.0	22.40	29.034			
4,900.0	4,889.8	4,830.7	4,773.8	11.3	16.0	-96.66	-634.0	-204.3	668.5	645.6	22.89	29.209			
5,000.0	4,989.7	4,957.8	4,899.2	11.5	16.4	-96.68	-653.7	-210.3	684.2	660.9	23.37	29.277			
5,010.3	5,000.0	4,971.0	4,912.3	11.5	16.4	179.90	-655.4	-210.9	685.6	658.7	26.84	25.539			
5,100.0	5,089.7	5,086.9	5,027.4	11.7	16.7	-179.77	-668.2	-214.8	695.5	668.2	27.31	25.470			
5,200.0	5,189.7	5,217.1	5,157.2	11.9	16.9	-179.55	-677.2	-217.6	702.4	674.6	27.78	25.285			
5,300.0	5,289.7	5,347.8	5,287.9	12.1	17.1	-179.46	-680.6	-218.6	705.0	676.8	28.20	24.998			
5,400.0	5,389.7	5,450.7	5,390.7	12.3	17.3	-179.46	-680.6	-218.6	705.0	676.5	28.56	24.689			
5,500.0	5,489.7	5,550.7	5,490.7	12.5	17.4	-179.46	-680.6	-218.6	705.0	676.1	28.90	24.395			
5,600.0	5,589.7	5,650.7	5,590.7	12.7	17.5	-179.46	-680.6	-218.6	705.0	675.8	29.25	24.107			
5,700.0	5,689.7	5,750.7	5,690.7	12.9	17.6	-179.46	-680.6	-218.6	705.0	675.4	29.59	23.823			
5,800.0	5,789.7	5,850.7	5,790.7	13.1	17.8	-179.46	-680.6	-218.6	705.0	675.1	29.95	23.544			
5,888.1	5,877.8	5,938.8	5,878.8	13.3	17.9	-179.46	-680.6	-218.6	705.0	674.8	30.26	23.303			
5,900.0	5,889.7	5,950.8	5,890.9	13.4	17.9	90.54	-680.6	-218.5	705.0	678.0	27.01	26.106			
5,950.0	5,939.7	6,001.2	5,941.2	13.4	18.0	90.53	-680.6	-216.0	705.0	677.9	27.17	25.952			
6,000.0	5,989.3	6,051.6	5,991.3	13.5	18.0	90.52	-680.6	-210.1	705.0	677.7	27.30	25.822			
6,050.0	6,038.5	6,102.1	6,040.9	13.6	18.0	90.51	-680.6	-201.0	705.0	677.6	27.42	25.714			
6,100.0	6,087.0	6,152.5	6,089.7	13.6	18.1	90.50	-680.6	-188.7	705.0	677.5	27.52	25.622			
6,150.0	6,134.6	6,202.9	6,137.7	13.7	18.1	90.48	-680.6	-173.1	705.0	677.4	27.61	25.539			
6,200.0	6,181.1	6,253.2	6,184.4	13.7	18.1	90.46	-680.6	-154.4	705.0	677.3	27.69	25.457			
6,250.0	6,226.4	6,303.6	6,229.9	13.8	18.1	90.44	-680.6	-132.7	705.0	677.2	27.80	25.365			
6,300.0	6,270.1	6,354.0	6,273.8	13.9	18.2	90.42	-680.6	-108.0	705.0	677.1	27.92	25.248			
6,350.0	6,312.1	6,404.3	6,315.9	14.0	18.2	90.40	-680.6	-80.6	705.0	676.9	28.10	25.093			
6,400.0	6,352.3	6,454.6	6,356.2	14.1	18.2	90.37	-680.6	-50.4	705.0	676.7	28.33	24.884			
6,450.0	6,390.4	6,504.9	6,394.3	14.3	18.2	90.35	-680.6	-17.6	705.0	676.4	28.65	24.606			
6,500.0	6,426.4	6,555.2	6,430.2	14.5	18.3	90.32	-680.6	17.5	705.0	675.9	29.08	24.246			
6,550.0	6,460.0	6,605.4	6,463.7	14.8	18.3	90.29	-680.6	55.0	705.0	675.4	29.63	23.794			
6,600.0	6,491.1	6,655.6	6,494.7	15.1	18.4	90.26	-680.6	94.5	705.0	674.7	30.32	23.249			
6,650.0	6,519.6	6,705.8	6,522.9	15.6	18.5	90.23	-680.6	136.0	705.0	673.8	31.18	22.613			
6,700.0	6,545.3	6,756.0	6,548.4	16.1	18.6	90.19	-680.6	179.2	705.0	672.8	32.20	21.898			
6,750.0	6,568.2	6,806.1	6,571.0	16.7	18.8	90.16	-680.6	224.0	705.0	671.6	33.38	21.118			
6,800.0	6,588.1	6,856.3	6,590.5	17.4	19.1	90.13	-680.6	270.1	705.0	670.3	34.74	20.294			
6,850.0	6,605.0	6,906.3	6,607.0	18.2	19.6	90.09	-680.6	317.4	705.0	668.8	36.25	19.446			
6,900.0	6,618.7	6,956.4	6,620.4	19.0	20.2	90.06	-680.6	365.6	705.0	667.1	37.92	18.594			
6,950.0	6,629.3	7,006.4	6,630.6	19.9	20.9	90.02	-680.6	414.6	705.0	665.3	39.71	17.755			
7,000.0	6,636.7	7,056.4	6,637.5	20.8	21.8	89.99	-680.6	464.1	705.0	663.4	41.61	16.942			
7,050.0	6,640.8	7,106.4	6,641.2	21.8	22.7	89.95	-680.6	513.9	705.0	661.4	43.61	16.167			
7,095.0	6,641.7	7,151.4	6,641.8	22.8	23.6	89.92	-680.6	558.9	705.0	659.5	45.47	15.506			
7,100.0	6,641.7	7,156.4	6,641.7	22.9	23.7	89.92	-680.6	563.9	705.0	659.3	45.68	15.434			
7,200.0	6,640.8	7,256.4	6,640.8	25.0	25.8	89.92	-680.6	663.9	705.0	655.0	50.03	14.091			
7,300.0	6,639.9	7,356.4	6,639.9	27.3	28.0	89.92	-680.6	763.9	705.0	650.4	54.60	12.911			
7,400.0	6,639.0	7,456.4	6,639.0	29.7	30.3	89.92	-680.6	863.8	705.0	645.6	59.36	11.878			
7,500.0	6,638.1	7,556.4	6,638.1	32.1	32.7	89.92	-680.6	963.8	705.0	640.7	64.25	10.973			
7,600.0	6,637.1	7,656.4	6,637.2	34.6	35.2	89.92	-680.6	1,063.8	705.0	635.7	69.25	10.180			
7,700.0	6,636.2	7,756.4	6,636.3	37.2	37.7	89.92	-680.6	1,163.8	705.0	630.7	74.34	9.483			
7,800.0	6,635.3	7,856.4	6,635.4	39.8	40.3	89.92	-680.6	1,263.8	705.0	625.5	79.51	8.867			
7,900.0	6,634.4	7,956.4	6,634.5	42.4	42.8	89.92	-680.6	1,363.8	705.0	620.3	84.73	8.321			
8,000.0	6,633.5	8,056.4	6,633.5	45.0	45.5	89.92	-680.6	1,463.8	705.0	615.0	90.00	7.833			
8,100.0	6,632.6	8,156.4	6,632.6	47.7	48.1	89.92	-680.6	1,563.8	705.0	609.7	95.31	7.397			
8,200.0	6,631.7	8,256.4	6,631.7	50.3	50.7	89.92	-680.6	1,663.8	705.0	604.3	100.65	7.004			
8,300.0	6,630.8	8,356.4	6,630.8	53.0	53.4	89.92	-680.6	1,763.8	705.0	599.0	106.02	6.649			

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

<b>Company:</b>	PETROLEUM DEVELOPMENT CORP DJ Basin	<b>Local Co-ordinate Reference:</b>	Well Connie 26E-332
<b>Project:</b>	SEC.26-T5N-R64W	<b>TVD Reference:</b>	WELL @ 4610.0ft (RKB - 13')
<b>Reference Site:</b>	Connie 5N64W26EF Pad Sec.26-T5N-R64W	<b>MD Reference:</b>	WELL @ 4610.0ft (RKB - 13')
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Connie 26E-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	US_EDM
<b>Reference Design:</b>	Plan #1 (11-3-15)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 ft
Survey Program: 0-MWD												Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
8,400.0	6,629.9	8,456.4	6,629.9	55.7	56.1	89.92	-680.6	1,863.8	705.0	593.6	111.42	6.327	
8,500.0	6,629.0	8,556.4	6,629.0	58.4	58.8	89.92	-680.6	1,963.8	705.0	588.2	116.84	6.034	
8,600.0	6,628.1	8,656.4	6,628.1	61.1	61.5	89.92	-680.6	2,063.8	705.0	582.7	122.27	5.766	
8,700.0	6,627.2	8,756.4	6,627.2	63.9	64.2	89.92	-680.6	2,163.8	705.0	577.3	127.72	5.520	
8,800.0	6,626.3	8,856.4	6,626.3	66.6	66.9	89.92	-680.6	2,263.8	705.0	571.8	133.19	5.293	
8,900.0	6,625.4	8,956.4	6,625.4	69.3	69.6	89.92	-680.6	2,363.8	705.0	566.3	138.67	5.084	
9,000.0	6,624.4	9,056.4	6,624.4	72.1	72.4	89.92	-680.6	2,463.8	705.0	560.8	144.16	4.890	
9,100.0	6,623.5	9,156.4	6,623.5	74.8	75.1	89.92	-680.6	2,563.8	705.0	555.3	149.66	4.711	
9,200.0	6,622.6	9,256.4	6,622.6	77.6	77.9	89.92	-680.6	2,663.8	705.0	549.8	155.16	4.544	
9,300.0	6,621.7	9,356.4	6,621.7	80.3	80.6	89.92	-680.6	2,763.8	705.0	544.3	160.68	4.388	
9,400.0	6,620.8	9,456.4	6,620.8	83.1	83.4	89.92	-680.6	2,863.8	705.0	538.8	166.20	4.242	
9,500.0	6,619.9	9,556.4	6,619.9	85.9	86.1	89.92	-680.6	2,963.8	705.0	533.3	171.73	4.105	
9,600.0	6,619.0	9,656.4	6,619.0	88.6	88.9	89.92	-680.6	3,063.8	705.0	527.7	177.26	3.977	
9,700.0	6,618.1	9,756.4	6,618.1	91.4	91.6	89.92	-680.6	3,163.8	705.0	522.2	182.80	3.857	
9,800.0	6,617.2	9,856.4	6,617.2	94.2	94.4	89.92	-680.6	3,263.8	705.0	516.6	188.35	3.743	
9,900.0	6,616.3	9,956.4	6,616.3	96.9	97.2	89.92	-680.6	3,363.7	705.0	511.1	193.89	3.636	
10,000.0	6,615.4	10,056.4	6,615.4	99.7	100.0	89.92	-680.6	3,463.7	705.0	505.5	199.45	3.535	
10,100.0	6,614.5	10,156.4	6,614.5	102.5	102.7	89.92	-680.6	3,563.7	705.0	500.0	205.00	3.439	
10,200.0	6,613.6	10,256.4	6,613.6	105.3	105.5	89.92	-680.6	3,663.7	705.0	494.4	210.56	3.348	
10,300.0	6,612.6	10,356.4	6,612.6	108.0	108.3	89.92	-680.6	3,763.7	705.0	488.8	216.13	3.262	
10,400.0	6,611.7	10,456.4	6,611.7	110.8	111.1	89.92	-680.6	3,863.7	705.0	483.3	221.69	3.180	
10,500.0	6,610.8	10,556.4	6,610.8	113.6	113.8	89.92	-680.6	3,963.7	705.0	477.7	227.26	3.102	
10,600.0	6,609.9	10,656.4	6,609.9	116.4	116.6	89.92	-680.6	4,063.7	705.0	472.1	232.83	3.028	
10,700.0	6,609.0	10,756.4	6,609.0	119.2	119.4	89.92	-680.6	4,163.7	705.0	466.6	238.40	2.957	
10,800.0	6,608.1	10,856.4	6,608.1	122.0	122.2	89.92	-680.6	4,263.7	705.0	461.0	243.98	2.889	
10,900.0	6,607.2	10,956.4	6,607.2	124.8	125.0	89.92	-680.6	4,363.7	705.0	455.4	249.56	2.825	
11,000.0	6,606.3	11,056.4	6,606.3	127.6	127.8	89.92	-680.6	4,463.7	705.0	449.8	255.14	2.763	
11,100.0	6,605.4	11,156.4	6,605.4	130.3	130.5	89.92	-680.6	4,563.7	705.0	444.2	260.72	2.704	
11,200.0	6,604.5	11,256.4	6,604.5	133.1	133.3	89.92	-680.6	4,663.7	705.0	438.7	266.30	2.647	
11,300.0	6,603.6	11,356.4	6,603.6	135.9	136.1	89.92	-680.6	4,763.7	705.0	433.1	271.88	2.593	
11,400.0	6,602.7	11,456.4	6,602.7	138.7	138.9	89.92	-680.6	4,863.7	705.0	427.5	277.47	2.541	
11,500.0	6,601.8	11,556.4	6,601.8	141.5	141.7	89.92	-680.6	4,963.7	705.0	421.9	283.05	2.491	
11,600.0	6,600.8	11,656.4	6,600.8	144.3	144.5	89.92	-680.6	5,063.7	705.0	416.3	288.64	2.442	
11,700.0	6,599.9	11,756.4	6,600.0	147.1	147.3	89.92	-680.6	5,163.7	705.0	410.7	294.23	2.396	
11,800.0	6,599.0	11,856.4	6,599.1	149.9	150.1	89.92	-680.6	5,263.7	705.0	405.1	299.82	2.351	
11,900.0	6,598.1	11,956.4	6,598.2	152.7	152.9	89.92	-680.6	5,363.7	705.0	399.5	305.41	2.308	
12,000.0	6,597.2	12,056.4	6,597.2	155.5	155.7	89.92	-680.6	5,463.7	705.0	393.9	311.01	2.267	
12,100.0	6,596.3	12,156.4	6,596.3	158.3	158.5	89.92	-680.6	5,563.7	705.0	388.4	316.60	2.227	
12,200.0	6,595.4	12,256.4	6,595.4	161.1	161.3	89.92	-680.6	5,663.7	705.0	382.8	322.19	2.188	
12,300.0	6,594.5	12,356.4	6,594.5	163.9	164.0	89.92	-680.6	5,763.6	705.0	377.2	327.79	2.151	
12,400.0	6,593.6	12,456.4	6,593.6	166.7	166.8	89.92	-680.6	5,863.6	705.0	371.6	333.39	2.115	
12,500.0	6,592.7	12,556.4	6,592.7	169.5	169.6	89.92	-680.6	5,963.6	705.0	366.0	338.98	2.080	
12,600.0	6,591.8	12,656.4	6,591.8	172.3	172.4	89.92	-680.6	6,063.6	705.0	360.4	344.58	2.046	
12,700.0	6,590.9	12,756.4	6,590.9	175.1	175.2	89.92	-680.6	6,163.6	704.9	354.8	350.18	2.013	
12,800.0	6,590.0	12,856.4	6,590.0	177.9	178.0	89.92	-680.6	6,263.6	704.9	349.2	355.78	1.981	
12,900.0	6,589.0	12,956.4	6,589.1	180.7	180.8	89.92	-680.6	6,363.6	704.9	343.6	361.38	1.951	
13,000.0	6,588.1	13,056.4	6,588.2	183.5	183.6	89.92	-680.6	6,463.6	704.9	338.0	366.98	1.921	
13,100.0	6,587.2	13,156.4	6,587.3	186.3	186.4	89.92	-680.6	6,563.6	704.9	332.4	372.58	1.892	
13,200.0	6,586.3	13,256.4	6,586.4	189.1	189.2	89.92	-680.6	6,663.6	704.9	326.8	378.18	1.864	
13,300.0	6,585.4	13,356.4	6,585.4	191.9	192.0	89.92	-680.6	6,763.6	704.9	321.2	383.78	1.837	
13,400.0	6,584.5	13,456.4	6,584.5	194.7	194.8	89.92	-680.6	6,863.6	704.9	315.6	389.38	1.810	

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

<b>Company:</b>	PETROLEUM DEVELOPMENT CORP DJ Basin	<b>Local Co-ordinate Reference:</b>	Well Connie 26E-332
<b>Project:</b>	SEC.26-T5N-R64W	<b>TVD Reference:</b>	WELL @ 4610.0ft (RKB - 13')
<b>Reference Site:</b>	Connie 5N64W26EF Pad Sec.26-T5N-R64W	<b>MD Reference:</b>	WELL @ 4610.0ft (RKB - 13')
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Connie 26E-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	US_EDM
<b>Reference Design:</b>	Plan #1 (11-3-15)	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b>													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference														
Offset														
Semi Major Axis														
Distance														
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
13,500.0	6,583.6	13,556.4	6,583.6	197.5	197.6	89.92	-680.6	6,963.6	704.9	310.0	394.99	1.785		
13,600.0	6,582.7	13,656.4	6,582.7	200.3	200.4	89.92	-680.6	7,063.6	704.9	304.4	400.59	1.760		
13,676.6	6,582.0	13,732.9	6,582.0	202.4	202.6	89.92	-680.6	7,140.2	704.9	300.1	404.88	1.741 SF		

<b>Company:</b>	PETROLEUM DEVELOPMENT CORP DJ Basin	<b>Local Co-ordinate Reference:</b>	Well Connie 26E-332
<b>Project:</b>	SEC.26-T5N-R64W	<b>TVD Reference:</b>	WELL @ 4610.0ft (RKB - 13')
<b>Reference Site:</b>	Connie 5N64W26EF Pad Sec.26-T5N-R64W	<b>MD Reference:</b>	WELL @ 4610.0ft (RKB - 13')
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Connie 26E-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	US_EDM
<b>Reference Design:</b>	Plan #1 (11-3-15)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.0	0.0	1.0	1.0	0.0	0.0	-144.85	-36.8	-25.9	45.0	45.0	0.00	N/A		
100.0	100.0	101.0	101.0	0.1	0.1	-144.85	-36.8	-25.9	45.0	44.8	0.23	198.241		
200.0	200.0	201.0	201.0	0.3	0.3	-144.85	-36.8	-25.9	45.0	44.3	0.68	66.519		
300.0	300.0	301.0	301.0	0.6	0.6	-144.85	-36.8	-25.9	45.0	43.9	1.13	39.965		
400.0	400.0	401.0	401.0	0.8	0.8	-144.85	-36.8	-25.9	45.0	43.4	1.58	28.563		
500.0	500.0	501.0	501.0	1.0	1.0	-144.85	-36.8	-25.9	45.0	43.0	2.03	22.222		
600.0	600.0	601.0	601.0	1.2	1.2	-144.85	-36.8	-25.9	45.0	42.5	2.47	18.186		
700.0	700.0	701.0	701.0	1.5	1.5	-144.85	-36.8	-25.9	45.0	42.1	2.92	15.390		
800.0	800.0	801.0	801.0	1.7	1.7	-144.85	-36.8	-25.9	45.0	41.6	3.37	13.339 CC, ES		
900.0	900.0	900.0	900.0	1.9	1.9	-145.48	-38.1	-26.2	46.2	42.4	3.79	12.179		
1,000.0	1,000.0	998.7	998.6	2.1	2.1	-147.20	-41.8	-26.9	49.8	45.6	4.19	11.875 SF		
1,100.0	1,100.0	1,097.2	1,096.9	2.4	2.2	-149.56	-48.0	-28.2	55.9	51.3	4.61	12.127		
1,200.0	1,200.0	1,195.3	1,194.6	2.6	2.5	-152.10	-56.7	-30.0	64.5	59.4	5.04	12.800		
1,300.0	1,300.0	1,292.9	1,291.6	2.8	2.7	-154.51	-67.8	-32.3	75.7	70.2	5.49	13.782		
1,400.0	1,400.0	1,389.9	1,387.5	3.0	2.9	-156.63	-81.2	-35.1	89.4	83.5	5.97	14.981		
1,500.0	1,500.0	1,486.1	1,482.4	3.3	3.2	-158.41	-96.8	-38.3	105.7	99.3	6.48	16.322		
1,600.0	1,600.0	1,581.4	1,576.0	3.5	3.5	-159.88	-114.6	-42.0	124.6	117.6	7.02	17.744		
1,700.0	1,700.0	1,675.8	1,668.1	3.7	3.9	-161.08	-134.5	-46.1	145.9	138.3	7.59	19.210		
1,800.0	1,800.0	1,773.0	1,762.8	3.9	4.3	-162.06	-156.2	-50.6	168.6	160.3	8.21	20.525		
1,900.0	1,900.0	1,870.3	1,857.6	4.2	4.7	-162.81	-177.9	-55.1	191.3	182.4	8.84	21.623		
2,000.0	2,000.0	1,967.7	1,952.4	4.4	5.1	-163.40	-199.7	-59.5	214.0	204.5	9.49	22.548		
2,100.0	2,100.0	2,065.0	2,047.2	4.6	5.5	-163.87	-221.4	-64.0	236.7	226.6	10.14	23.336		
2,200.0	2,200.0	2,162.4	2,141.9	4.8	6.0	-164.26	-243.2	-68.5	259.5	248.7	10.81	24.013		
2,300.0	2,300.0	2,259.8	2,236.7	5.1	6.4	-164.59	-264.9	-73.0	282.2	270.8	11.47	24.601		
2,400.0	2,400.0	2,357.1	2,331.5	5.3	6.9	-164.87	-286.7	-77.5	305.0	292.9	12.14	25.115		
2,500.0	2,500.0	2,454.5	2,426.3	5.5	7.3	-165.11	-308.5	-82.0	327.8	315.0	12.82	25.568		
2,600.0	2,600.0	2,551.9	2,521.1	5.7	7.8	-81.80	-330.2	-86.5	350.4	339.1	11.36	30.842		
2,700.0	2,700.0	2,649.3	2,616.0	5.9	8.2	-82.16	-352.0	-91.0	372.9	361.1	11.81	31.564		
2,800.0	2,799.9	2,746.6	2,710.7	6.1	8.7	-82.70	-373.7	-95.5	395.2	382.9	12.27	32.207		
2,900.0	2,899.7	2,843.9	2,805.5	6.3	9.2	-83.41	-395.5	-100.0	417.3	404.6	12.73	32.782		
3,000.0	2,999.4	2,941.1	2,900.1	6.6	9.6	-84.26	-417.2	-104.5	439.3	426.2	13.20	33.294		
3,092.9	3,091.8	3,031.3	2,987.9	6.8	10.0	-85.15	-437.3	-108.6	459.8	446.2	13.64	33.719		
3,100.0	3,098.9	3,038.2	2,994.7	6.8	10.1	-85.23	-438.9	-108.9	461.4	447.7	13.67	33.749		
3,200.0	3,198.4	3,135.3	3,089.2	7.0	10.5	-86.40	-460.6	-113.4	483.6	469.4	14.16	34.162		
3,300.0	3,297.8	3,232.3	3,183.7	7.2	11.0	-87.47	-482.2	-117.9	505.9	491.3	14.65	34.537		
3,400.0	3,397.3	3,329.4	3,278.2	7.5	11.5	-88.44	-503.9	-122.4	528.5	513.3	15.15	34.880		
3,500.0	3,496.8	3,426.4	3,372.7	7.7	11.9	-89.34	-525.6	-126.8	551.1	535.4	15.66	35.193		
3,600.0	3,596.2	3,523.5	3,467.1	8.0	12.4	-90.17	-547.3	-131.3	573.9	557.7	16.18	35.478		
3,700.0	3,695.7	3,620.5	3,561.6	8.2	12.9	-90.93	-569.0	-135.8	596.7	580.0	16.70	35.740		
3,800.0	3,795.2	3,717.6	3,656.1	8.5	13.4	-91.64	-590.7	-140.3	619.7	602.5	17.22	35.979		
3,900.0	3,894.6	3,814.7	3,750.6	8.7	13.8	-92.29	-612.3	-144.8	642.7	625.0	17.76	36.198		
4,000.0	3,994.1	3,911.7	3,845.1	9.0	14.3	-92.91	-634.0	-149.2	665.9	647.6	18.29	36.399		
4,100.0	4,093.6	4,008.8	3,939.6	9.3	14.8	-93.48	-655.7	-153.7	689.1	670.2	18.83	36.584		
4,200.0	4,193.0	4,105.8	4,034.1	9.5	15.2	-94.01	-677.4	-158.2	712.3	692.9	19.38	36.755		
4,300.0	4,292.5	4,202.9	4,128.6	9.8	15.7	-94.51	-699.1	-162.7	735.6	715.7	19.93	36.912		
4,400.0	4,392.0	4,299.9	4,223.1	10.1	16.2	-94.98	-720.8	-167.1	759.0	738.5	20.48	37.058		
4,500.0	4,491.4	4,397.0	4,317.6	10.3	16.7	-95.42	-742.5	-171.6	782.4	761.3	21.04	37.193		
4,600.0	4,590.9	4,494.0	4,412.1	10.6	17.1	-95.84	-764.1	-176.1	805.8	784.2	21.59	37.318		
4,700.0	4,690.3	4,591.1	4,506.6	10.9	17.6	-96.23	-785.8	-180.6	829.3	807.1	22.15	37.434		
4,713.8	4,704.1	4,604.5	4,519.6	10.9	17.7	-96.28	-788.8	-181.2	832.5	810.3	22.23	37.449		
4,800.0	4,789.9	4,688.2	4,601.1	11.1	18.1	-96.92	-807.5	-185.1	852.7	829.9	22.71	37.542		

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

<b>Company:</b>	PETROLEUM DEVELOPMENT CORP DJ Basin	<b>Local Co-ordinate Reference:</b>	Well Connie 26E-332
<b>Project:</b>	SEC.26-T5N-R64W	<b>TVD Reference:</b>	WELL @ 4610.0ft (RKB - 13')
<b>Reference Site:</b>	Connie 5N64W26EF Pad Sec.26-T5N-R64W	<b>MD Reference:</b>	WELL @ 4610.0ft (RKB - 13')
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Connie 26E-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	US_EDM
<b>Reference Design:</b>	Plan #1 (11-3-15)	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b>												<b>Offset Site Error:</b>	0.0 ft
Survey Program: 0-MWD												<b>Offset Well Error:</b>	0.0 ft
Reference													
Offset													
Semi Major Axis													
Distance													
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
4,900.0	4,889.8	4,785.5	4,695.9	11.3	18.6	-97.43	-829.3	-189.6	875.6	852.4	23.22	37.707	
5,000.0	4,989.7	4,882.9	4,790.7	11.5	19.0	-97.69	-851.0	-194.0	898.2	874.5	23.71	37.888	
5,010.3	5,000.0	4,892.9	4,800.4	11.5	19.1	178.86	-853.3	-194.5	900.5	870.8	29.61	30.415	
5,100.0	5,089.7	4,980.3	4,885.5	11.7	19.5	179.14	-872.8	-198.5	920.5	890.2	30.22	30.462	
5,200.0	5,189.7	5,077.6	4,980.3	11.9	20.0	179.44	-894.5	-203.0	942.8	911.8	30.91	30.496	
5,300.0	5,289.7	5,189.5	5,089.3	12.1	20.5	179.76	-919.2	-208.1	964.9	933.2	31.65	30.487	
5,400.0	5,389.7	5,336.8	5,233.9	12.3	20.9	-179.90	-946.3	-213.7	983.3	951.0	32.33	30.418	
5,500.0	5,489.7	5,486.6	5,382.4	12.5	21.3	-179.66	-966.4	-217.9	996.7	963.8	32.93	30.270	

<b>Company:</b>	PETROLEUM DEVELOPMENT CORP DJ Basin	<b>Local Co-ordinate Reference:</b>	Well Connie 26E-332
<b>Project:</b>	SEC.26-T5N-R64W	<b>TVD Reference:</b>	WELL @ 4610.0ft (RKB - 13')
<b>Reference Site:</b>	Connie 5N64W26EF Pad Sec.26-T5N-R64W	<b>MD Reference:</b>	WELL @ 4610.0ft (RKB - 13')
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Connie 26E-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	US_EDM
<b>Reference Design:</b>	Plan #1 (11-3-15)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design Existing Wells Pad Sec.26-T5N-R64W - Bihain 26-1 (Exist.) - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 ft
Survey Program: 6816-UNKNOWN													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
7,300.0	6,639.9	6,622.9	6,622.9	27.3	132.5	92.80	-153.3	1,721.9	974.4	814.8	159.59	6.105		
7,400.0	6,639.0	6,622.0	6,622.0	29.7	132.4	92.51	-153.3	1,721.9	876.2	714.3	161.98	5.409		
7,500.0	6,638.1	6,621.1	6,621.1	32.1	132.4	92.22	-153.3	1,721.9	778.6	614.1	164.44	4.735		
7,600.0	6,637.1	6,620.1	6,620.1	34.6	132.4	91.92	-153.3	1,721.9	681.6	514.7	166.95	4.083		
7,700.0	6,636.2	6,619.2	6,619.2	37.2	132.4	91.63	-153.3	1,721.9	585.6	416.2	169.50	3.455		
7,800.0	6,635.3	6,618.3	6,618.3	39.8	132.4	91.34	-153.3	1,721.9	491.3	319.2	172.08	2.855		
7,900.0	6,634.4	6,617.4	6,617.4	42.4	132.3	91.05	-153.3	1,721.9	399.7	225.0	174.69	2.288		
8,000.0	6,633.5	6,616.5	6,616.5	45.0	132.3	90.76	-153.3	1,721.9	313.3	136.0	177.32	1.767		
8,100.0	6,632.6	6,615.6	6,615.6	47.7	132.3	90.46	-153.3	1,721.9	237.8	57.9	179.96	1.322 Level 3		
8,200.0	6,631.7	6,614.7	6,614.7	50.3	132.3	90.17	-153.3	1,721.9	186.9	4.3	182.62	1.024 Level 2		
8,258.1	6,631.2	6,614.2	6,614.2	51.9	132.3	90.00	-153.3	1,721.9	177.7	-6.5	184.17	0.965 Level 1, CC, ES, SF		
8,300.0	6,630.8	6,613.8	6,613.8	53.0	132.3	89.88	-153.3	1,721.9	182.6	-2.7	185.28	0.985 Level 1		
8,400.0	6,629.9	6,612.9	6,612.9	55.7	132.3	89.58	-153.3	1,721.9	227.4	39.5	187.96	1.210 Level 2		
8,500.0	6,629.0	6,612.0	6,612.0	58.4	132.2	89.29	-153.3	1,721.9	300.2	109.5	190.64	1.575		
8,600.0	6,628.1	6,611.1	6,611.1	61.1	132.2	89.00	-153.3	1,721.9	385.3	192.0	193.32	1.993		
8,700.0	6,627.2	6,610.2	6,610.2	63.9	132.2	88.71	-153.3	1,721.9	476.3	280.3	196.00	2.430		
8,800.0	6,626.3	6,609.3	6,609.3	66.6	132.2	88.41	-153.3	1,721.9	570.3	371.6	198.69	2.870		
8,900.0	6,625.4	6,608.4	6,608.4	69.3	132.2	88.12	-153.3	1,721.9	666.1	464.7	201.38	3.307		
9,000.0	6,624.4	6,607.4	6,607.4	72.1	132.1	87.83	-153.3	1,721.9	762.9	558.8	204.07	3.738		
9,100.0	6,623.5	6,606.5	6,606.5	74.8	132.1	87.54	-153.3	1,721.9	860.5	653.7	206.75	4.162		
9,200.0	6,622.6	6,605.6	6,605.6	77.6	132.1	87.25	-153.3	1,721.9	958.5	749.1	209.44	4.577		

<b>Company:</b>	PETROLEUM DEVELOPMENT CORP DJ Basin	<b>Local Co-ordinate Reference:</b>	Well Connie 26E-332
<b>Project:</b>	SEC.26-T5N-R64W	<b>TVD Reference:</b>	WELL @ 4610.0ft (RKB - 13')
<b>Reference Site:</b>	Connie 5N64W26EF Pad Sec.26-T5N-R64W	<b>MD Reference:</b>	WELL @ 4610.0ft (RKB - 13')
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Connie 26E-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	US_EDM
<b>Reference Design:</b>	Plan #1 (11-3-15)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design Existing Wells Pad Sec.26-T5N-R64W - Bihain 26-4 (Exist.) - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 ft
Survey Program: 100-NS-GYRO-MS													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	110.84	-151.6	398.2	426.2					
100.0	100.0	87.5	87.5	0.1	0.1	110.85	-151.6	398.1	426.0	425.7	0.23	1,863.284		
200.0	200.0	187.9	187.9	0.3	0.4	110.86	-151.6	397.9	425.8	425.1	0.70	606.081		
300.0	300.0	288.0	288.0	0.6	0.6	110.88	-151.7	397.6	425.6	424.4	1.19	357.197		
400.0	400.0	388.1	388.1	0.8	0.9	110.90	-151.7	397.3	425.3	423.6	1.68	253.116		
500.0	500.0	487.9	487.9	1.0	1.2	110.93	-151.8	397.0	425.1	422.9	2.17	196.111		
600.0	600.0	587.9	587.9	1.2	1.4	110.96	-152.0	396.8	424.9	422.2	2.65	160.044		
700.0	700.0	687.8	687.8	1.5	1.7	110.99	-152.1	396.5	424.7	421.5	3.14	135.213		
800.0	800.0	787.7	787.7	1.7	1.9	111.03	-152.4	396.2	424.5	420.9	3.62	117.195		
900.0	900.0	887.3	887.3	1.9	2.2	111.08	-152.7	396.0	424.4	420.3	4.09	103.666		
1,000.0	1,000.0	987.4	987.4	2.1	2.4	111.13	-153.0	395.8	424.3	419.7	4.56	92.960		
1,100.0	1,100.0	1,087.6	1,087.6	2.4	2.7	111.18	-153.3	395.5	424.2	419.1	5.04	84.114		
1,200.0	1,200.0	1,187.6	1,187.6	2.6	2.9	111.23	-153.6	395.3	424.0	418.5	5.53	76.731		
1,300.0	1,300.0	1,287.9	1,287.9	2.8	3.2	111.28	-153.8	395.0	423.9	417.9	6.01	70.480		
1,400.0	1,400.0	1,388.0	1,388.0	3.0	3.5	111.32	-154.0	394.7	423.7	417.2	6.50	65.161		
1,500.0	1,500.0	1,489.0	1,489.0	3.3	3.7	111.32	-153.9	394.3	423.3	416.4	6.94	60.969		
1,600.0	1,600.0	1,590.7	1,590.7	3.5	3.8	111.27	-153.3	393.8	422.6	415.3	7.33	57.645		
1,700.0	1,700.0	1,693.1	1,693.1	3.7	4.0	111.20	-152.4	392.9	421.5	413.7	7.73	54.528		
1,800.0	1,800.0	1,794.2	1,794.1	3.9	4.2	111.12	-151.3	391.6	419.9	411.7	8.15	51.537		
1,900.0	1,900.0	1,896.6	1,896.5	4.2	4.4	111.05	-150.0	389.9	417.9	409.3	8.59	48.676		
2,000.0	2,000.0	1,997.0	1,997.0	4.4	4.7	111.00	-148.9	387.9	415.6	406.5	9.04	45.976		
2,100.0	2,100.0	2,098.0	2,097.9	4.6	4.9	111.05	-148.3	385.4	413.1	403.5	9.51	43.416		
2,200.0	2,200.0	2,197.0	2,196.8	4.8	5.2	111.21	-148.5	382.6	410.5	400.5	10.00	41.059		
2,300.0	2,300.0	2,296.1	2,295.9	5.1	5.4	111.41	-149.0	380.0	408.2	397.8	10.49	38.934		
2,400.0	2,400.0	2,394.9	2,394.7	5.3	5.7	111.61	-149.6	377.6	406.2	395.2	10.97	37.022		
2,500.0	2,500.0	2,495.0	2,494.7	5.5	6.0	111.83	-150.3	375.2	404.3	392.8	11.46	35.278		
2,600.0	2,600.0	2,595.0	2,594.7	5.7	6.2	-164.54	-151.1	372.9	403.2	391.3	11.93	33.790		
2,614.4	2,614.4	2,609.4	2,609.1	5.7	6.3	-164.52	-151.2	372.5	403.2	391.2	12.00	33.601		
2,700.0	2,700.0	2,695.1	2,694.7	5.9	6.5	-164.40	-151.9	370.4	403.8	391.4	12.39	32.582		
2,800.0	2,799.9	2,794.5	2,794.1	6.1	6.7	-164.33	-152.7	368.1	406.2	393.3	12.85	31.603		
2,900.0	2,899.7	2,894.2	2,893.8	6.3	7.0	-164.34	-153.4	365.9	410.3	397.0	13.31	30.828		
3,000.0	2,999.4	2,993.9	2,993.5	6.6	7.3	-164.41	-154.2	363.8	416.1	402.4	13.76	30.233		
3,092.9	3,091.8	3,085.7	3,085.3	6.8	7.5	-164.57	-154.6	362.0	423.1	408.9	14.18	29.840		
3,100.0	3,098.9	3,092.7	3,092.3	6.8	7.5	-164.59	-154.6	361.9	423.7	409.5	14.21	29.812		
3,200.0	3,198.4	3,192.1	3,191.7	7.0	7.8	-164.88	-154.5	360.3	432.2	417.5	14.68	29.439		
3,300.0	3,297.8	3,288.1	3,287.6	7.2	8.0	-165.11	-154.9	359.0	441.1	426.0	15.14	29.147		
3,400.0	3,397.3	3,385.4	3,385.0	7.5	8.3	-165.24	-156.3	358.1	450.8	435.2	15.57	28.950		
3,500.0	3,496.8	3,484.1	3,483.6	7.7	8.5	-165.31	-158.1	357.4	460.7	444.7	15.99	28.807		
3,600.0	3,596.2	3,583.8	3,583.3	8.0	8.7	-165.38	-160.1	356.6	470.7	454.3	16.42	28.671		
3,700.0	3,695.7	3,683.1	3,682.6	8.2	8.9	-165.43	-162.1	355.9	480.7	463.9	16.85	28.535		
3,800.0	3,795.2	3,782.5	3,781.9	8.5	9.1	-165.48	-164.1	355.1	490.8	473.5	17.28	28.404		
3,900.0	3,894.6	3,881.6	3,881.0	8.7	9.3	-165.62	-165.4	354.7	500.9	483.2	17.70	28.300		
4,000.0	3,994.1	3,981.8	3,981.2	9.0	9.4	-165.89	-165.6	354.7	510.9	492.9	18.05	28.300		
4,100.0	4,093.6	4,083.7	4,083.2	9.3	9.5	-166.25	-164.9	354.7	520.7	502.4	18.36	28.361		
4,200.0	4,193.0	4,183.9	4,183.3	9.5	9.6	-166.67	-163.4	354.7	530.2	511.5	18.68	28.390		
4,300.0	4,292.5	4,283.4	4,282.8	9.8	9.7	-167.07	-161.8	354.5	539.6	520.6	19.00	28.401		
4,400.0	4,392.0	4,374.1	4,373.5	10.1	9.8	-167.39	-161.0	354.9	549.8	530.5	19.29	28.500		
4,500.0	4,491.4	4,467.5	4,466.9	10.3	9.8	-167.61	-161.4	356.4	561.5	541.9	19.56	28.707		
4,600.0	4,590.9	4,564.1	4,563.5	10.6	9.9	-167.76	-162.7	358.3	573.9	554.0	19.84	28.918		
4,700.0	4,690.3	4,660.9	4,660.3	10.9	10.0	-167.81	-165.1	360.2	586.7	566.5	20.17	29.093		
4,713.8	4,704.1	4,674.3	4,673.6	10.9	10.0	-167.81	-165.5	360.5	588.5	568.2	20.21	29.115		

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



<b>Company:</b>	PETROLEUM DEVELOPMENT CORP DJ Basin	<b>Local Co-ordinate Reference:</b>	Well Connie 26E-332
<b>Project:</b>	SEC.26-T5N-R64W	<b>TVD Reference:</b>	WELL @ 4610.0ft (RKB - 13')
<b>Reference Site:</b>	Connie 5N64W26EF Pad Sec.26-T5N-R64W	<b>MD Reference:</b>	WELL @ 4610.0ft (RKB - 13')
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Connie 26E-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	US_EDM
<b>Reference Design:</b>	Plan #1 (11-3-15)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design Existing Wells Pad Sec.26-T5N-R64W - Bihain 26-4 (Exist.) - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 ft
Survey Program: 100-NS-GYRO-MS												Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
4,800.0	4,789.9	4,761.4	4,760.6	11.1	10.1	-167.76	-168.7	362.1	598.4	577.9	20.54	29.139	
4,900.0	4,889.8	4,865.3	4,864.4	11.3	10.2	-167.63	-172.4	363.5	606.3	585.4	20.90	29.010	
5,000.0	4,989.7	4,973.0	4,972.1	11.5	10.4	-167.41	-175.7	364.1	609.8	588.5	21.27	28.665	
5,010.3	5,000.0	4,984.2	4,983.3	11.5	10.5	109.18	-176.0	364.0	609.9	588.0	21.92	27.827	
5,100.0	5,089.7	5,079.1	5,078.2	11.7	10.7	109.42	-178.4	363.3	610.0	587.7	22.29	27.363	
5,200.0	5,189.7	5,182.9	5,182.0	11.9	10.9	109.68	-180.8	361.9	609.5	586.7	22.75	26.791	
5,300.0	5,289.7	5,284.2	5,283.2	12.1	11.2	109.95	-183.2	359.9	608.5	585.3	23.21	26.220	
5,392.8	5,382.5	5,370.6	5,369.5	12.3	11.4	110.20	-185.5	358.5	607.9	584.3	23.63	25.722	
5,400.0	5,389.7	5,377.2	5,376.1	12.3	11.4	110.22	-185.7	358.5	607.9	584.3	23.63	25.722	
5,500.0	5,489.7	5,472.8	5,471.7	12.5	11.6	110.43	-188.0	358.2	608.4	584.4	24.04	25.307	
5,600.0	5,589.7	5,570.7	5,569.6	12.7	11.8	110.59	-189.9	358.5	609.5	585.0	24.43	24.944	
5,700.0	5,689.7	5,668.6	5,667.4	12.9	11.9	110.72	-191.6	359.3	610.8	586.0	24.80	24.629	
5,800.0	5,789.7	5,766.8	5,765.7	13.1	12.1	110.81	-193.2	360.4	612.5	587.3	25.15	24.352	
5,888.1	5,877.8	5,853.9	5,852.8	13.3	12.2	110.91	-194.7	361.6	614.2	588.7	25.46	24.122	
5,900.0	5,889.7	5,865.8	5,864.6	13.4	12.2	20.92	-194.9	361.8	614.3	589.3	24.98	24.594	
5,950.0	5,939.7	5,915.2	5,914.1	13.4	12.3	21.08	-195.8	362.5	613.1	588.0	25.04	24.481	
6,000.0	5,989.3	5,964.4	5,963.2	13.5	12.3	21.44	-196.7	363.3	608.8	583.8	25.01	24.338	
6,050.0	6,038.5	6,013.3	6,012.1	13.6	12.4	22.02	-197.7	364.0	601.6	576.7	24.90	24.163	
6,100.0	6,087.0	6,062.0	6,060.8	13.6	12.5	22.81	-198.7	364.8	591.5	566.8	24.70	23.947	
6,150.0	6,134.6	6,109.9	6,108.7	13.7	12.6	23.86	-199.6	365.6	578.4	554.0	24.43	23.681	
6,200.0	6,181.1	6,156.6	6,155.4	13.7	12.6	25.18	-200.5	366.4	562.6	538.5	24.10	23.349	
6,250.0	6,226.4	6,202.1	6,200.8	13.8	12.7	26.84	-201.4	367.1	544.2	520.4	23.73	22.931	
6,300.0	6,270.1	6,245.9	6,244.6	13.9	12.8	28.88	-202.2	367.8	523.2	499.9	23.37	22.394	
6,350.0	6,312.1	6,288.2	6,286.9	14.0	12.8	31.36	-203.0	368.6	500.0	477.0	23.04	21.697	
6,400.0	6,352.3	6,328.6	6,327.3	14.1	12.9	34.38	-203.8	369.3	474.7	451.9	22.83	20.792	
6,450.0	6,390.4	6,367.0	6,365.6	14.3	12.9	38.00	-204.5	370.0	447.7	424.9	22.81	19.628	
6,500.0	6,426.4	6,403.4	6,402.0	14.5	13.0	42.33	-205.3	370.7	419.2	396.1	23.06	18.178	
6,550.0	6,460.0	6,438.1	6,436.7	14.8	13.1	47.47	-205.9	371.4	389.7	366.0	23.67	16.460	
6,600.0	6,491.1	6,470.3	6,469.0	15.1	13.1	53.36	-206.4	372.0	359.7	335.0	24.66	14.582	
6,650.0	6,519.6	6,499.9	6,498.6	15.6	13.1	59.86	-206.9	372.6	329.9	304.0	25.97	12.703	
6,700.0	6,545.3	6,527.1	6,525.7	16.1	13.2	66.75	-207.3	373.1	301.5	274.0	27.45	10.982	
6,750.0	6,568.2	6,551.3	6,549.9	16.7	13.2	73.56	-207.6	373.6	275.6	246.7	28.91	9.534	
6,800.0	6,588.1	6,572.4	6,571.0	17.4	13.2	79.79	-207.8	373.9	254.2	224.0	30.21	8.414	
6,850.0	6,605.0	6,590.4	6,589.0	18.2	13.3	85.04	-208.0	374.2	239.2	207.9	31.31	7.640	
6,900.0	6,618.7	6,605.1	6,603.7	19.0	13.3	88.99	-208.1	374.5	232.7	200.4	32.26	7.213	
6,908.5	6,620.8	6,607.2	6,605.8	19.1	13.3	89.52	-208.1	374.5	232.5	200.1	32.42	7.173 CC, ES	
6,950.0	6,629.3	6,616.5	6,615.1	19.9	13.3	91.47	-208.2	374.6	236.0	202.9	33.16	7.116 SF	
7,000.0	6,636.7	6,624.6	6,623.2	20.8	13.3	92.42	-208.3	374.8	249.2	215.1	34.11	7.306	
7,050.0	6,640.8	6,629.6	6,628.2	21.8	13.3	91.80	-208.3	374.9	271.1	236.0	35.13	7.717	
7,095.0	6,641.7	6,631.3	6,629.9	22.8	13.3	89.86	-208.3	374.9	296.7	260.6	36.07	8.225	
7,100.0	6,641.7	6,631.3	6,629.9	22.9	13.3	89.87	-208.3	374.9	299.8	263.6	36.18	8.287	
7,200.0	6,640.8	6,632.0	6,630.6	25.0	13.3	90.05	-208.3	374.9	371.0	332.7	38.34	9.677	
7,300.0	6,639.9	6,632.8	6,631.4	27.3	13.3	90.24	-208.3	374.9	453.3	412.7	40.63	11.157	
7,400.0	6,639.0	6,633.5	6,632.1	29.7	13.3	90.42	-208.3	374.9	541.5	498.5	43.00	12.594	
7,500.0	6,638.1	6,634.2	6,632.8	32.1	13.3	90.60	-208.4	374.9	633.3	587.9	45.44	13.936	
7,600.0	6,637.1	6,635.0	6,633.6	34.6	13.3	90.78	-208.4	374.9	727.2	679.3	47.94	15.168	
7,700.0	6,636.2	6,635.7	6,634.3	37.2	13.3	90.97	-208.4	375.0	822.6	772.1	50.49	16.293	
7,800.0	6,635.3	6,636.5	6,635.1	39.8	13.3	91.15	-208.4	375.0	918.9	865.9	53.06	17.318	

<b>Company:</b>	PETROLEUM DEVELOPMENT CORP DJ Basin	<b>Local Co-ordinate Reference:</b>	Well Connie 26E-332
<b>Project:</b>	SEC.26-T5N-R64W	<b>TVD Reference:</b>	WELL @ 4610.0ft (RKB - 13')
<b>Reference Site:</b>	Connie 5N64W26EF Pad Sec.26-T5N-R64W	<b>MD Reference:</b>	WELL @ 4610.0ft (RKB - 13')
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Connie 26E-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	US_EDM
<b>Reference Design:</b>	Plan #1 (11-3-15)	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> Existing Wells Pad Sec.26-T5N-R64W - Bihain 5 (Exist.) - Wellbore #1 - Wellbore #1												<b>Offset Site Error:</b>	0.0 ft
Survey Program: 100-NS-GYRO-MS												<b>Offset Well Error:</b>	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
7,050.0	6,640.8	6,634.3	6,633.7	21.8	12.3	88.72	-830.5	1,015.3	991.1	956.9	34.16	29.011	
7,095.0	6,641.7	6,635.1	6,634.5	22.8	12.3	90.66	-830.5	1,015.3	969.1	934.0	35.10	27.611	
7,100.0	6,641.7	6,635.1	6,634.4	22.9	12.3	90.66	-830.5	1,015.3	966.8	931.6	35.20	27.462	
7,200.0	6,640.8	6,633.9	6,633.2	25.0	12.3	90.58	-830.5	1,015.3	924.3	886.9	37.37	24.735	
7,300.0	6,639.9	6,632.7	6,632.1	27.3	12.3	90.50	-830.5	1,015.3	891.1	851.5	39.65	22.474	
7,400.0	6,639.0	6,631.5	6,630.9	29.7	12.3	90.42	-830.5	1,015.3	868.2	826.2	42.02	20.660	
7,500.0	6,638.1	6,630.3	6,629.7	32.1	12.3	90.34	-830.5	1,015.3	856.5	812.0	44.47	19.261	
7,551.4	6,637.6	6,629.7	6,629.1	33.4	12.3	90.30	-830.5	1,015.3	854.9	809.2	45.75	18.686 CC, ES	
7,600.0	6,637.1	6,629.1	6,628.5	34.6	12.3	90.26	-830.5	1,015.3	856.3	809.3	46.97	18.233	
7,700.0	6,636.2	6,627.9	6,627.3	37.2	12.3	90.18	-830.5	1,015.3	867.7	818.2	49.51	17.527	
7,800.0	6,635.3	6,626.8	6,626.1	39.8	12.3	90.10	-830.5	1,015.3	890.3	838.2	52.09	17.093	
7,900.0	6,634.4	6,625.6	6,624.9	42.4	12.3	90.02	-830.5	1,015.3	923.2	868.6	54.70	16.880	
8,000.0	6,633.5	6,624.4	6,623.7	45.0	12.3	89.94	-830.5	1,015.3	965.5	908.1	57.33	16.841 SF	

<b>Company:</b>	PETROLEUM DEVELOPMENT CORP DJ Basin	<b>Local Co-ordinate Reference:</b>	Well Connie 26E-332
<b>Project:</b>	SEC.26-T5N-R64W	<b>TVD Reference:</b>	WELL @ 4610.0ft (RKB - 13')
<b>Reference Site:</b>	Connie 5N64W26EF Pad Sec.26-T5N-R64W	<b>MD Reference:</b>	WELL @ 4610.0ft (RKB - 13')
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Connie 26E-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	US_EDM
<b>Reference Design:</b>	Plan #1 (11-3-15)	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to WELL @ 4610.0ft (RKB - 13')

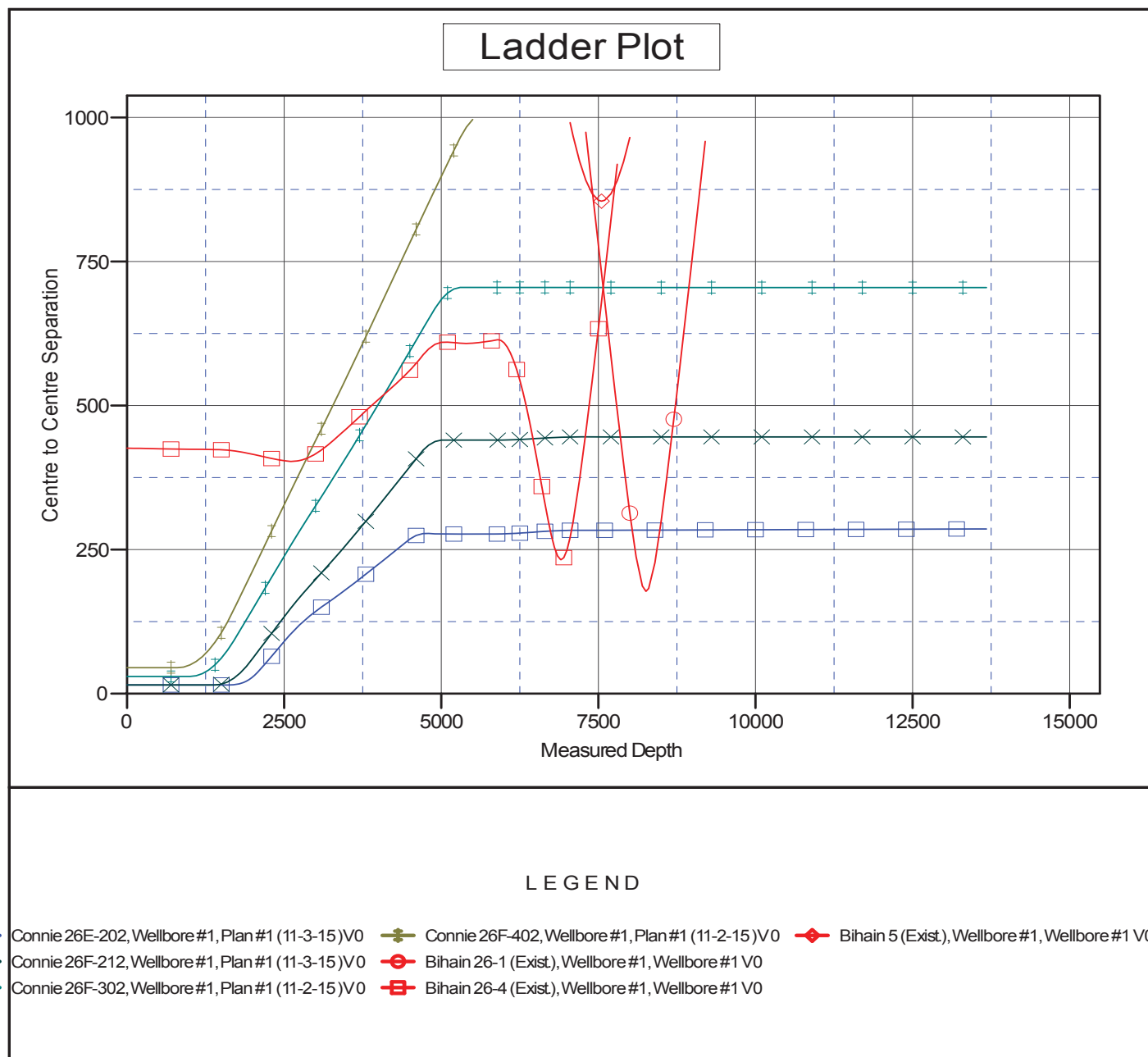
Offset Depths are relative to Offset Datum

Central Meridian is -105.500000

Coordinates are relative to: Connie 26E-332

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.63°



<b>Company:</b>	PETROLEUM DEVELOPMENT CORP DJ Basin	<b>Local Co-ordinate Reference:</b>	Well Connie 26E-332
<b>Project:</b>	SEC.26-T5N-R64W	<b>TVD Reference:</b>	WELL @ 4610.0ft (RKB - 13')
<b>Reference Site:</b>	Connie 5N64W26EF Pad Sec.26-T5N-R64W	<b>MD Reference:</b>	WELL @ 4610.0ft (RKB - 13')
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Connie 26E-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	US_EDM
<b>Reference Design:</b>	Plan #1 (11-3-15)	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to WELL @ 4610.0ft (RKB - 13')

Offset Depths are relative to Offset Datum

Central Meridian is -105.500000

Coordinates are relative to: Connie 26E-332

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