

PETROLEUM DEVELOPMENT CORP Weld County CO

Well Name: **Loloff Farms 26H-332**

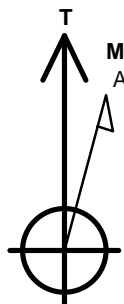
Surface Location: Loloff Farms 5N64W26I Pad Sec.26-T5N-R64W
 North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone
 Ground Elevation: 4679.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1376850.34	3271539.60	40.363760	-104.525530	

Original Well Elev WELL @ 4694.0ft (Original Well Elev)

WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
SHL 236'FSL & 230'FWL, Sec.26	1.0	0.0	0.0	Point
BHL 1065'FSL & 2140'FWL, Sec.25	6649.0	842.6	7183.9	Point



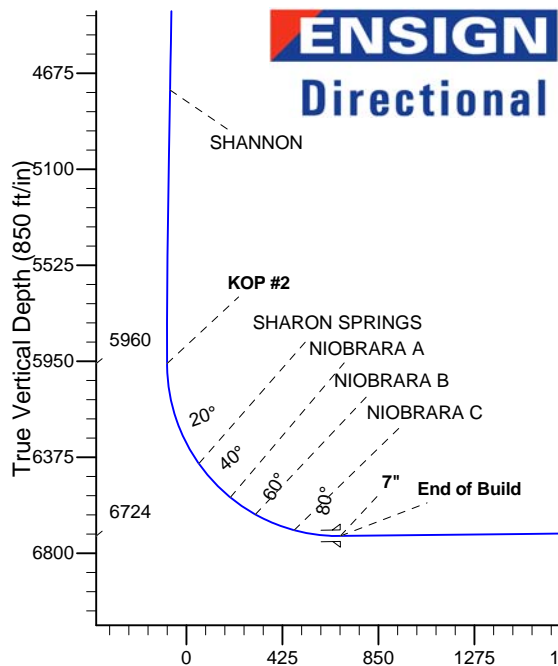
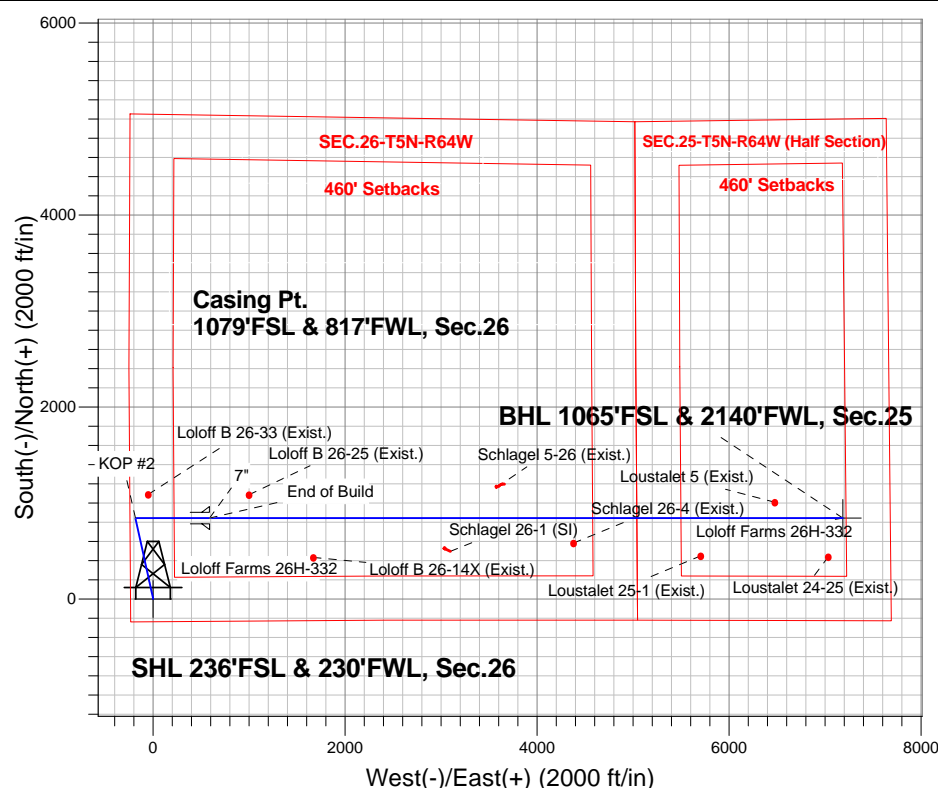
Azimuths to True North
 Magnetic North: 8.31°

Magnetic Field
 Strength: 52805.3snT
 Dip Angle: 66.95°
 Date: 8/13/2014
 Model: IGRF2010

ANNOTATIONS

TVD	MD	Annotation
200.0	200.0	KOP #1
5960.0	6029.9	KOP #2
6723.8	7238.6	End of Build

Loloff Farms 5N64W26I Pad Sec.26-T5N-R64W
 Loloff Farms 26H-332
 Plan #1 (8-13-14)
 13:20, August 15 2014



SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	Target	VSec
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.0	
3	678.2	9.56	347.60	676.0	38.9	-8.6	2.00	347.60	-4.0	
4	5391.8	9.56	347.60	5324.0	803.7	-176.7	0.00	0.00	-81.9	
5	5869.9	0.00	0.00	5800.0	842.6	-185.3	2.00	180.00	-85.9	
6	6029.9	0.00	0.00	5959.9	842.6	-185.3	0.00	0.00	-85.9	
7	7238.6	90.65	90.00	6723.8	842.6	587.3	7.50	90.00	681.5	
8	13835.6	90.65	90.00	6649.0	842.6	7183.9	0.00	0.00	7233.1	BHL 1065'FSL & 2140'FWL, Sec.25

BHL 1065'FSL & 2140'FWL, Sec.25

Vertical Section at 83.31° (850 ft/in)



PETROLEUM DEVELOPMENT CORP Weld County CO

SEC.26-T5N-R64W

Loloff Farms 5N64W26I Pad Sec.26-T5N-R64W

Loloff Farms 26H-332

Wellbore #1

Plan: Plan #1 (8-13-14)

Standard Planning Report

15 August, 2014

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.00	0.00	
678.2	9.56	347.60	676.0	38.9	-8.6	2.00	2.00	0.00	347.60	
5,391.8	9.56	347.60	5,324.0	803.7	-176.7	0.00	0.00	0.00	0.00	
5,869.9	0.00	0.00	5,800.0	842.6	-185.3	2.00	-2.00	0.00	180.00	
6,029.9	0.00	0.00	5,959.9	842.6	-185.3	0.00	0.00	0.00	0.00	
7,238.6	90.65	90.00	6,723.8	842.6	587.3	7.50	7.50	0.00	90.00	
13,835.6	90.65	90.00	6,649.0	842.6	7,183.9	0.00	0.00	0.00	0.00	BHL 1065'FSL & 21

Database:	Landmark	Local Co-ordinate Reference:	Well Loloff Farms 26H-332
Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	TVD Reference:	WELL @ 4694.0ft (Original Well Elev)
Project:	SEC.26-T5N-R64W	MD Reference:	WELL @ 4694.0ft (Original Well Elev)
Site:	Loloff Farms 5N64W26I Pad Sec.26-T5N-R64W	North Reference:	True
Well:	Loloff Farms 26H-332	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (8-13-14)		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
1.0	0.00	0.00	1.0	0.0	0.0	0.0	0.00	0.00	0.00
SHL 236'FSL & 230'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
KOP #1									
300.0	2.00	347.60	300.0	1.7	-0.4	-0.2	2.00	2.00	0.00
400.0	4.00	347.60	399.8	6.8	-1.5	-0.7	2.00	2.00	0.00
500.0	6.00	347.60	499.5	15.3	-3.4	-1.6	2.00	2.00	0.00
600.0	8.00	347.60	598.7	27.2	-6.0	-2.8	2.00	2.00	0.00
678.2	9.56	347.60	676.0	38.9	-8.6	-4.0	2.00	2.00	0.00
700.0	9.56	347.60	697.5	42.4	-9.3	-4.3	0.00	0.00	0.00
800.0	9.56	347.60	796.1	58.7	-12.9	-6.0	0.00	0.00	0.00
900.0	9.56	347.60	894.7	74.9	-16.5	-7.6	0.00	0.00	0.00
1,000.0	9.56	347.60	993.3	91.1	-20.0	-9.3	0.00	0.00	0.00
1,100.0	9.56	347.60	1,091.9	107.3	-23.6	-10.9	0.00	0.00	0.00
1,200.0	9.56	347.60	1,190.5	123.6	-27.2	-12.6	0.00	0.00	0.00
1,300.0	9.56	347.60	1,289.1	139.8	-30.7	-14.2	0.00	0.00	0.00
1,400.0	9.56	347.60	1,387.8	156.0	-34.3	-15.9	0.00	0.00	0.00
1,500.0	9.56	347.60	1,486.4	172.2	-37.9	-17.6	0.00	0.00	0.00
1,600.0	9.56	347.60	1,585.0	188.5	-41.4	-19.2	0.00	0.00	0.00
1,700.0	9.56	347.60	1,683.6	204.7	-45.0	-20.9	0.00	0.00	0.00
1,800.0	9.56	347.60	1,782.2	220.9	-48.6	-22.5	0.00	0.00	0.00
1,900.0	9.56	347.60	1,880.8	237.1	-52.2	-24.2	0.00	0.00	0.00
2,000.0	9.56	347.60	1,979.4	253.4	-55.7	-25.8	0.00	0.00	0.00
2,100.0	9.56	347.60	2,078.0	269.6	-59.3	-27.5	0.00	0.00	0.00
2,200.0	9.56	347.60	2,176.6	285.8	-62.9	-29.1	0.00	0.00	0.00
2,300.0	9.56	347.60	2,275.2	302.0	-66.4	-30.8	0.00	0.00	0.00
2,400.0	9.56	347.60	2,373.9	318.3	-70.0	-32.4	0.00	0.00	0.00
2,500.0	9.56	347.60	2,472.5	334.5	-73.6	-34.1	0.00	0.00	0.00
2,600.0	9.56	347.60	2,571.1	350.7	-77.1	-35.7	0.00	0.00	0.00
2,700.0	9.56	347.60	2,669.7	366.9	-80.7	-37.4	0.00	0.00	0.00
2,800.0	9.56	347.60	2,768.3	383.2	-84.3	-39.1	0.00	0.00	0.00
2,900.0	9.56	347.60	2,866.9	399.4	-87.8	-40.7	0.00	0.00	0.00
3,000.0	9.56	347.60	2,965.5	415.6	-91.4	-42.4	0.00	0.00	0.00
3,100.0	9.56	347.60	3,064.1	431.9	-95.0	-44.0	0.00	0.00	0.00
3,200.0	9.56	347.60	3,162.7	448.1	-98.5	-45.7	0.00	0.00	0.00
3,300.0	9.56	347.60	3,261.3	464.3	-102.1	-47.3	0.00	0.00	0.00
3,400.0	9.56	347.60	3,360.0	480.5	-105.7	-49.0	0.00	0.00	0.00
3,500.0	9.56	347.60	3,458.6	496.8	-109.2	-50.6	0.00	0.00	0.00
3,565.3	9.56	347.60	3,523.0	507.4	-111.6	-51.7	0.00	0.00	0.00
PARKMAN									
3,600.0	9.56	347.60	3,557.2	513.0	-112.8	-52.3	0.00	0.00	0.00
3,700.0	9.56	347.60	3,655.8	529.2	-116.4	-53.9	0.00	0.00	0.00
3,800.0	9.56	347.60	3,754.4	545.4	-119.9	-55.6	0.00	0.00	0.00
3,900.0	9.56	347.60	3,853.0	561.7	-123.5	-57.2	0.00	0.00	0.00
4,000.0	9.56	347.60	3,951.6	577.9	-127.1	-58.9	0.00	0.00	0.00
4,100.0	9.56	347.60	4,050.2	594.1	-130.7	-60.6	0.00	0.00	0.00
4,200.0	9.56	347.60	4,148.8	610.3	-134.2	-62.2	0.00	0.00	0.00
4,217.4	9.56	347.60	4,166.0	613.2	-134.8	-62.5	0.00	0.00	0.00
SUSSEX									
4,300.0	9.56	347.60	4,247.4	626.6	-137.8	-63.9	0.00	0.00	0.00

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Project:	SEC.26-T5N-R64W	MD Reference:	WELL @ 4694.0ft (Original Well Elev)
Site:	Loloff Farms 5N64W26I Pad Sec.26-T5N-R64W	North Reference:	True
Well:	Loloff Farms 26H-332	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (8-13-14)		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,400.0	9.56	347.60	4,346.1	642.8	-141.4	-65.5	0.00	0.00	0.00
4,500.0	9.56	347.60	4,444.7	659.0	-144.9	-67.2	0.00	0.00	0.00
4,600.0	9.56	347.60	4,543.3	675.2	-148.5	-68.8	0.00	0.00	0.00
4,700.0	9.56	347.60	4,641.9	691.5	-152.1	-70.5	0.00	0.00	0.00
4,800.0	9.56	347.60	4,740.5	707.7	-155.6	-72.1	0.00	0.00	0.00
4,809.6	9.56	347.60	4,750.0	709.3	-156.0	-72.3	0.00	0.00	0.00
SHANNON									
4,900.0	9.56	347.60	4,839.1	723.9	-159.2	-73.8	0.00	0.00	0.00
5,000.0	9.56	347.60	4,937.7	740.2	-162.8	-75.4	0.00	0.00	0.00
5,100.0	9.56	347.60	5,036.3	756.4	-166.3	-77.1	0.00	0.00	0.00
5,200.0	9.56	347.60	5,134.9	772.6	-169.9	-78.7	0.00	0.00	0.00
5,300.0	9.56	347.60	5,233.6	788.8	-173.5	-80.4	0.00	0.00	0.00
5,391.8	9.56	347.60	5,324.0	803.7	-176.7	-81.9	0.00	0.00	0.00
5,400.0	9.40	347.60	5,332.2	805.0	-177.0	-82.1	2.00	-2.00	0.00
5,500.0	7.40	347.60	5,431.1	819.3	-180.2	-83.5	2.00	-2.00	0.00
5,600.0	5.40	347.60	5,530.5	830.2	-182.6	-84.6	2.00	-2.00	0.00
5,700.0	3.40	347.60	5,630.2	837.7	-184.2	-85.4	2.00	-2.00	0.00
5,800.0	1.40	347.60	5,730.1	841.8	-185.1	-85.8	2.00	-2.00	0.00
5,869.9	0.00	0.00	5,800.0	842.6	-185.3	-85.9	2.00	-2.00	0.00
5,900.0	0.00	0.00	5,830.1	842.6	-185.3	-85.9	0.00	0.00	0.00
6,000.0	0.00	0.00	5,930.1	842.6	-185.3	-85.9	0.00	0.00	0.00
6,029.9	0.00	0.00	5,960.0	842.6	-185.3	-85.9	0.00	0.00	0.00
KOP #2									
6,100.0	5.26	90.00	6,030.0	842.6	-182.1	-82.7	7.50	7.50	0.00
6,200.0	12.76	90.00	6,128.7	842.6	-166.4	-67.1	7.50	7.50	0.00
6,300.0	20.26	90.00	6,224.5	842.6	-138.0	-38.9	7.50	7.50	0.00
6,400.0	27.76	90.00	6,315.7	842.6	-97.4	1.4	7.50	7.50	0.00
6,500.0	35.26	90.00	6,400.9	842.6	-45.2	53.3	7.50	7.50	0.00
6,502.5	35.45	90.00	6,403.0	842.6	-43.7	54.8	7.50	7.50	0.00
SHARON SPRINGS									
6,600.0	42.76	90.00	6,478.6	842.6	17.7	115.8	7.50	7.50	0.00
6,700.0	50.26	90.00	6,547.4	842.6	90.2	187.8	7.50	7.50	0.00
6,708.9	50.92	90.00	6,553.0	842.6	97.1	194.6	7.50	7.50	0.00
NIOBRARA A									
6,800.0	57.76	90.00	6,606.1	842.6	171.1	268.1	7.50	7.50	0.00
6,843.0	60.98	90.00	6,628.0	842.6	208.1	304.8	7.50	7.50	0.00
NIOBRARA B									
6,900.0	65.26	90.00	6,653.8	842.6	258.9	355.3	7.50	7.50	0.00
7,000.0	72.76	90.00	6,689.6	842.6	352.2	448.0	7.50	7.50	0.00
7,030.4	75.04	90.00	6,698.0	842.6	381.5	477.0	7.50	7.50	0.00
NIOBRARA C									
7,100.0	80.26	90.00	6,712.9	842.6	449.4	544.5	7.50	7.50	0.00
7,200.0	87.76	90.00	6,723.3	842.6	548.8	643.2	7.50	7.50	0.00
7,238.6	90.65	90.00	6,723.8	842.6	587.4	681.5	7.49	7.49	0.00
End of Build - 7"									
7,300.0	90.65	90.00	6,723.1	842.6	648.8	742.5	0.00	0.00	0.00
7,400.0	90.65	90.00	6,722.0	842.6	748.7	841.8	0.00	0.00	0.00
7,500.0	90.65	90.00	6,720.9	842.6	848.7	941.1	0.00	0.00	0.00
7,600.0	90.65	90.00	6,719.7	842.6	948.7	1,040.4	0.00	0.00	0.00
7,700.0	90.65	90.00	6,718.6	842.6	1,048.7	1,139.7	0.00	0.00	0.00
7,800.0	90.65	90.00	6,717.5	842.6	1,148.7	1,239.1	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well Loloff Farms 26H-332
Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	TVD Reference:	WELL @ 4694.0ft (Original Well Elev)
Project:	SEC.26-T5N-R64W	MD Reference:	WELL @ 4694.0ft (Original Well Elev)
Site:	Loloff Farms 5N64W26I Pad Sec.26-T5N-R64W	North Reference:	True
Well:	Loloff Farms 26H-332	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (8-13-14)		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
7,900.0	90.65	90.00	6,716.3	842.6	1,248.7	1,338.4	0.00	0.00	0.00
8,000.0	90.65	90.00	6,715.2	842.6	1,348.7	1,437.7	0.00	0.00	0.00
8,100.0	90.65	90.00	6,714.1	842.6	1,448.7	1,537.0	0.00	0.00	0.00
8,200.0	90.65	90.00	6,712.9	842.6	1,548.7	1,636.3	0.00	0.00	0.00
8,300.0	90.65	90.00	6,711.8	842.6	1,648.7	1,735.6	0.00	0.00	0.00
8,400.0	90.65	90.00	6,710.7	842.6	1,748.7	1,834.9	0.00	0.00	0.00
8,500.0	90.65	90.00	6,709.5	842.6	1,848.7	1,934.2	0.00	0.00	0.00
8,600.0	90.65	90.00	6,708.4	842.6	1,948.7	2,033.6	0.00	0.00	0.00
8,700.0	90.65	90.00	6,707.3	842.6	2,048.7	2,132.9	0.00	0.00	0.00
8,800.0	90.65	90.00	6,706.1	842.6	2,148.7	2,232.2	0.00	0.00	0.00
8,900.0	90.65	90.00	6,705.0	842.6	2,248.7	2,331.5	0.00	0.00	0.00
9,000.0	90.65	90.00	6,703.9	842.6	2,348.6	2,430.8	0.00	0.00	0.00
9,100.0	90.65	90.00	6,702.7	842.6	2,448.6	2,530.1	0.00	0.00	0.00
9,200.0	90.65	90.00	6,701.6	842.6	2,548.6	2,629.4	0.00	0.00	0.00
9,300.0	90.65	90.00	6,700.5	842.6	2,648.6	2,728.7	0.00	0.00	0.00
9,400.0	90.65	90.00	6,699.3	842.6	2,748.6	2,828.1	0.00	0.00	0.00
9,500.0	90.65	90.00	6,698.2	842.6	2,848.6	2,927.4	0.00	0.00	0.00
9,600.0	90.65	90.00	6,697.0	842.6	2,948.6	3,026.7	0.00	0.00	0.00
9,700.0	90.65	90.00	6,695.9	842.6	3,048.6	3,126.0	0.00	0.00	0.00
9,800.0	90.65	90.00	6,694.8	842.6	3,148.6	3,225.3	0.00	0.00	0.00
9,900.0	90.65	90.00	6,693.6	842.6	3,248.6	3,324.6	0.00	0.00	0.00
10,000.0	90.65	90.00	6,692.5	842.6	3,348.6	3,423.9	0.00	0.00	0.00
10,100.0	90.65	90.00	6,691.4	842.6	3,448.6	3,523.3	0.00	0.00	0.00
10,200.0	90.65	90.00	6,690.2	842.6	3,548.6	3,622.6	0.00	0.00	0.00
10,300.0	90.65	90.00	6,689.1	842.6	3,648.6	3,721.9	0.00	0.00	0.00
10,400.0	90.65	90.00	6,688.0	842.6	3,748.6	3,821.2	0.00	0.00	0.00
10,500.0	90.65	90.00	6,686.8	842.6	3,848.5	3,920.5	0.00	0.00	0.00
10,600.0	90.65	90.00	6,685.7	842.6	3,948.5	4,019.8	0.00	0.00	0.00
10,700.0	90.65	90.00	6,684.6	842.6	4,048.5	4,119.1	0.00	0.00	0.00
10,800.0	90.65	90.00	6,683.4	842.6	4,148.5	4,218.4	0.00	0.00	0.00
10,900.0	90.65	90.00	6,682.3	842.6	4,248.5	4,317.8	0.00	0.00	0.00
11,000.0	90.65	90.00	6,681.2	842.6	4,348.5	4,417.1	0.00	0.00	0.00
11,100.0	90.65	90.00	6,680.0	842.6	4,448.5	4,516.4	0.00	0.00	0.00
11,200.0	90.65	90.00	6,678.9	842.6	4,548.5	4,615.7	0.00	0.00	0.00
11,300.0	90.65	90.00	6,677.8	842.6	4,648.5	4,715.0	0.00	0.00	0.00
11,400.0	90.65	90.00	6,676.6	842.6	4,748.5	4,814.3	0.00	0.00	0.00
11,500.0	90.65	90.00	6,675.5	842.6	4,848.5	4,913.6	0.00	0.00	0.00
11,600.0	90.65	90.00	6,674.4	842.6	4,948.5	5,012.9	0.00	0.00	0.00
11,700.0	90.65	90.00	6,673.2	842.6	5,048.5	5,112.3	0.00	0.00	0.00
11,800.0	90.65	90.00	6,672.1	842.6	5,148.5	5,211.6	0.00	0.00	0.00
11,900.0	90.65	90.00	6,671.0	842.6	5,248.5	5,310.9	0.00	0.00	0.00
12,000.0	90.65	90.00	6,669.8	842.6	5,348.5	5,410.2	0.00	0.00	0.00
12,100.0	90.65	90.00	6,668.7	842.6	5,448.4	5,509.5	0.00	0.00	0.00
12,200.0	90.65	90.00	6,667.6	842.6	5,548.4	5,608.8	0.00	0.00	0.00
12,300.0	90.65	90.00	6,666.4	842.6	5,648.4	5,708.1	0.00	0.00	0.00
12,400.0	90.65	90.00	6,665.3	842.6	5,748.4	5,807.4	0.00	0.00	0.00
12,500.0	90.65	90.00	6,664.2	842.6	5,848.4	5,906.8	0.00	0.00	0.00
12,600.0	90.65	90.00	6,663.0	842.6	5,948.4	6,006.1	0.00	0.00	0.00
12,700.0	90.65	90.00	6,661.9	842.6	6,048.4	6,105.4	0.00	0.00	0.00
12,800.0	90.65	90.00	6,660.7	842.6	6,148.4	6,204.7	0.00	0.00	0.00
12,900.0	90.65	90.00	6,659.6	842.6	6,248.4	6,304.0	0.00	0.00	0.00
13,000.0	90.65	90.00	6,658.5	842.6	6,348.4	6,403.3	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well Loloff Farms 26H-332
Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	TVD Reference:	WELL @ 4694.0ft (Original Well Elev)
Project:	SEC.26-T5N-R64W	MD Reference:	WELL @ 4694.0ft (Original Well Elev)
Site:	Loloff Farms 5N64W26I Pad Sec.26-T5N-R64W	North Reference:	True
Well:	Loloff Farms 26H-332	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (8-13-14)		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
13,100.0	90.65	90.00	6,657.3	842.6	6,448.4	6,502.6	0.00	0.00	0.00	
13,200.0	90.65	90.00	6,656.2	842.6	6,548.4	6,601.9	0.00	0.00	0.00	
13,300.0	90.65	90.00	6,655.1	842.6	6,648.4	6,701.3	0.00	0.00	0.00	
13,400.0	90.65	90.00	6,653.9	842.6	6,748.4	6,800.6	0.00	0.00	0.00	
13,500.0	90.65	90.00	6,652.8	842.6	6,848.4	6,899.9	0.00	0.00	0.00	
13,600.0	90.65	90.00	6,651.7	842.6	6,948.3	6,999.2	0.00	0.00	0.00	
13,700.0	90.65	90.00	6,650.5	842.6	7,048.3	7,098.5	0.00	0.00	0.00	
13,800.0	90.65	90.00	6,649.4	842.6	7,148.3	7,197.8	0.00	0.00	0.00	
13,835.6	90.65	90.00	6,649.0	842.6	7,183.9	7,233.1	0.00	0.00	0.00	
BHL 1065'FSL & 2140'FWL, Sec.25										

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
7,238.6	6,723.8	7"	7	7-1/2	

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
3,565.3	3,523.0	PARKMAN		0.00		
4,217.4	4,166.0	SUSSEX		0.00		
4,809.6	4,750.0	SHANNON		0.00		
6,502.5	6,403.0	SHARON SPRINGS		0.00		
6,708.9	6,553.0	NIOBRARA A		0.00		
6,843.0	6,628.0	NIOBRARA B		0.00		
7,030.4	6,698.0	NIOBRARA C		0.00		
	6,793.0	FT. HAYS		0.00		
	6,815.0	CODELL		0.00		

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
200.0	200.0	0.0	0.0	KOP #1	
6,029.9	5,960.0	842.6	-185.3	KOP #2	
7,238.6	6,723.8	842.6	587.4	End of Build	



PETROLEUM DEVELOPMENT CORP Weld County CO

SEC.26-T5N-R64W

Loloff Farms 5N64W26l Pad Sec.26-T5N-R64W

Loloff Farms 26H-332

Wellbore #1

Plan #1 (8-13-14)

Anticollision Report

15 August, 2014



Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well Loloff Farms 26H-332
Project:	SEC.26-T5N-R64W	TVD Reference:	WELL @ 4694.0ft (Original Well Elev)
Reference Site:	Loloff Farms 5N64W26I Pad Sec.26-T5N-R64W	MD Reference:	WELL @ 4694.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Loloff Farms 26H-332	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (8-13-14)	Offset TVD Reference:	Offset Datum

Reference	Plan #1 (8-13-14)		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD Interval 100.0ft	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 1,000.0ft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma		

Survey Tool Program		Date	8/15/2014		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
0.0	13,835.6	Plan #1 (8-13-14) (Wellbore #1)	MWD	MWD - Standard	

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Existing Wells Pad Sec.26-T5N-R64W						
Loloff B 26-14X (Exist.) - Wellbore #1 - Wellbore #1	8,320.5	6,676.6	409.0	225.2	2.225	CC, ES, SF
Loloff B 26-25 (Exist.) - Wellbore #1 - Wellbore #1	7,651.7	6,667.2	243.1	76.6	1.460	Level 3, CC, ES, SF
Loloff B 26-33 (Exist.) - Wellbore #1 - Wellbore #1	6,491.3	6,335.8	246.7	104.6	1.736	CC
Loloff B 26-33 (Exist.) - Wellbore #1 - Wellbore #1	6,500.0	6,342.9	246.7	104.5	1.735	ES, SF
Loustalet 24-25 (Exist.) - Wellbore #1 - Wellbore #1	13,682.4	6,544.7	404.4	74.8	1.227	Level 2, CC
Loustalet 24-25 (Exist.) - Wellbore #1 - Wellbore #1	13,700.0	6,544.5	404.8	74.7	1.226	Level 2, ES, SF
Loustalet 25-1 (Exist.) - Wellbore #1 - Wellbore #1	12,355.9	6,562.8	393.8	100.9	1.345	Level 3, CC, ES, SF
Loustalet 5 (Exist.) - Wellbore #1 - Wellbore #1	13,127.7	6,547.0	163.7	-150.4	0.521	Level 1, CC, ES, SF
Schlagel 26-1 (SI) - Wellbore #1 - Wellbore #1	9,740.5	6,608.8	344.1	243.4	3.418	CC, ES
Schlagel 26-1 (SI) - Wellbore #1 - Wellbore #1	9,800.0	6,609.8	349.2	246.9	3.413	SF
Schlagel 26-4 (Exist.) - Wellbore #1 - Wellbore #1	11,032.1	6,576.8	259.3	3.1	1.012	Level 2, CC, ES, SF
Schlagel 5-26 (Exist.) - Wellbore #1 - Wellbore #1	10,224.1	6,592.1	321.1	204.7	2.760	CC, ES, SF
Loloff Farms 5N64W26G Pad Sec.26-T5N-R64W						
Loloff Farms 26H-402 - Wellbore #1 - Plan #1 (8-14-14)	6,000.0	5,940.1	331.5	290.3	8.041	CC
Loloff Farms 26H-402 - Wellbore #1 - Plan #1 (8-14-14)	13,835.6	13,864.7	349.6	-36.1	0.906	Level 1, ES, SF
Loloff Farms 5N64W26I Pad Sec.26-T5N-R64W						
Loloff Farms 26H-432 - Wellbore #1 - Plan #1 (8-13-14)	200.0	199.0	30.9	30.2	45.932	CC
Loloff Farms 26H-432 - Wellbore #1 - Plan #1 (8-13-14)	13,835.6	13,874.5	346.9	-43.3	0.889	Level 1, ES, SF
Loloff Farms 26I-212 - Wellbore #1 - Plan #1 (8-13-14)	200.0	199.0	61.4	60.7	91.385	CC
Loloff Farms 26I-212 - Wellbore #1 - Plan #1 (8-13-14)	300.0	299.0	61.7	60.6	55.037	ES
Loloff Farms 26I-212 - Wellbore #1 - Plan #1 (8-13-14)	13,835.6	13,718.7	665.6	264.1	1.658	SF
Loloff Farms 26I-402 - Wellbore #1 - Plan #1 (8-13-14)	200.0	198.0	89.2	88.6	133.247	CC
Loloff Farms 26I-402 - Wellbore #1 - Plan #1 (8-13-14)	300.0	298.0	89.6	88.5	80.040	ES
Loloff Farms 26I-402 - Wellbore #1 - Plan #1 (8-13-14)	13,835.6	13,854.8	996.3	593.4	2.473	SF

Existing Wells Pad Sec.26-T5N-R64W - Loloff B 26-14X (Exist.) - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 ft
Survey Program: 6927-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		
7,500.0	6,720.9	6,685.9	6,685.9	30.6	133.7	91.30	433.6	1,669.2	916.8	753.6	163.21	5.617		

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

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well Loloff Farms 26H-332
Project:	SEC.26-T5N-R64W	TVD Reference:	WELL @ 4694.0ft (Original Well Elev)
Reference Site:	Loloff Farms 5N64W26I Pad Sec.26-T5N-R64W	MD Reference:	WELL @ 4694.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Loloff Farms 26H-332	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (8-13-14)	Offset TVD Reference:	Offset Datum

Offset Design Existing Wells Pad Sec.26-T5N-R64W - Loloff B 26-14X (Exist.) - Wellbore #1 - Wellbore #1													Offset Site Error: 0.0 ft
Survey Program: 6927-UNKNOWN													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
7,600.0	6,719.7	6,684.7	6,684.7	32.9	133.7	91.14	433.6	1,669.2	828.5	662.9	165.56	5.004	
7,700.0	6,718.6	6,683.6	6,683.6	35.2	133.7	90.99	433.6	1,669.2	743.2	575.2	167.97	4.424	
7,800.0	6,717.5	6,682.5	6,682.5	37.7	133.6	90.83	433.6	1,669.2	662.0	491.5	170.43	3.884	
7,900.0	6,716.3	6,681.3	6,681.3	40.1	133.6	90.67	433.6	1,669.2	586.6	413.7	172.94	3.392	
8,000.0	6,715.2	6,680.2	6,680.2	42.7	133.6	90.51	433.6	1,669.2	519.6	344.2	175.48	2.961	
8,100.0	6,714.1	6,679.1	6,679.1	45.2	133.6	90.35	433.6	1,669.2	464.7	286.6	178.05	2.610	
8,200.0	6,712.9	6,677.9	6,677.9	47.8	133.6	90.19	433.6	1,669.2	426.4	245.8	180.64	2.361	
8,300.0	6,711.8	6,676.8	6,676.8	50.4	133.5	90.03	433.6	1,669.2	409.5	226.3	183.25	2.235	
8,320.5	6,711.6	6,676.6	6,676.6	50.9	133.5	90.00	433.6	1,669.2	409.0	225.2	183.79	2.225 CC, ES, SF	
8,400.0	6,710.7	6,675.7	6,675.7	53.0	133.5	89.87	433.6	1,669.2	416.7	230.8	185.88	2.242	
8,500.0	6,709.5	6,674.5	6,674.5	55.7	133.5	89.71	433.6	1,669.2	446.7	258.1	188.52	2.369	
8,600.0	6,708.4	6,673.4	6,673.4	58.3	133.5	89.56	433.6	1,669.2	495.4	304.2	191.18	2.591	
8,700.0	6,707.3	6,672.3	6,672.3	61.0	133.4	89.40	433.6	1,669.2	557.9	364.1	193.84	2.878	
8,800.0	6,706.1	6,671.1	6,671.1	63.7	133.4	89.24	433.6	1,669.2	630.2	433.7	196.51	3.207	
8,900.0	6,705.0	6,670.0	6,670.0	66.4	133.4	89.08	433.6	1,669.2	709.3	510.1	199.19	3.561	
9,000.0	6,703.9	6,668.9	6,668.9	69.1	133.4	88.92	433.6	1,669.2	793.1	591.2	201.87	3.928	
9,100.0	6,702.7	6,667.7	6,667.7	71.8	133.4	88.76	433.6	1,669.2	880.2	675.7	204.56	4.303	
9,200.0	6,701.6	6,666.6	6,666.6	74.5	133.3	88.60	433.6	1,669.2	969.9	762.6	207.25	4.680	

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well Loloff Farms 26H-332
Project:	SEC.26-T5N-R64W	TVD Reference:	WELL @ 4694.0ft (Original Well Elev)
Reference Site:	Loloff Farms 5N64W26I Pad Sec.26-T5N-R64W	MD Reference:	WELL @ 4694.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Loloff Farms 26H-332	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (8-13-14)	Offset TVD Reference:	Offset Datum

Offset Design		Existing Wells Pad Sec.26-T5N-R64W - Loloff B 26-25 (Exist.) - Wellbore #1 - Wellbore #1											Offset Site Error:	0.0 ft
Survey Program: 6920-UNKNOWN													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor		
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)			
6,700.0	6,547.4	6,495.4	6,495.4	21.0	129.9	-22.67	1,085.7	1,000.4	942.0	835.2	106.80	8.821		
6,800.0	6,606.1	6,554.1	6,554.1	21.2	131.1	-28.78	1,085.7	1,000.4	864.2	761.7	102.49	8.432		
6,900.0	6,653.8	6,601.8	6,601.8	21.5	132.0	-38.07	1,085.7	1,000.4	780.3	673.0	107.26	7.275		
7,000.0	6,689.6	6,637.6	6,637.6	22.1	132.8	-51.68	1,085.7	1,000.4	692.2	568.1	124.18	5.575		
7,100.0	6,712.9	6,660.9	6,660.9	23.1	133.2	-69.01	1,085.7	1,000.4	602.2	457.0	145.22	4.147		
7,200.0	6,723.3	6,671.3	6,671.3	24.6	133.4	-85.84	1,085.7	1,000.4	512.9	356.7	156.18	3.284		
7,300.0	6,723.1	6,671.1	6,671.1	26.4	133.4	-90.94	1,085.7	1,000.4	427.5	269.1	158.39	2.699		
7,400.0	6,722.0	6,670.0	6,670.0	28.4	133.4	-90.67	1,085.7	1,000.4	349.9	189.3	160.56	2.179		
7,500.0	6,720.9	6,668.9	6,668.9	30.6	133.4	-90.41	1,085.7	1,000.4	286.5	123.6	162.84	1.759		
7,600.0	6,719.7	6,667.7	6,667.7	32.9	133.4	-90.14	1,085.7	1,000.4	248.5	83.3	165.20	1.504		
7,651.7	6,719.2	6,667.2	6,667.2	34.1	133.3	-90.00	1,085.7	1,000.4	243.1	76.6	166.45	1.460	Level 3, CC, ES, SF	
7,700.0	6,718.6	6,666.6	6,666.6	35.2	133.3	-89.87	1,085.7	1,000.4	247.8	80.2	167.62	1.478	Level 3	
7,800.0	6,717.5	6,665.5	6,665.5	37.7	133.3	-89.60	1,085.7	1,000.4	284.7	114.7	170.09	1.674		
7,900.0	6,716.3	6,664.3	6,664.3	40.1	133.3	-89.34	1,085.7	1,000.4	347.5	174.9	172.60	2.013		
8,000.0	6,715.2	6,663.2	6,663.2	42.7	133.3	-89.07	1,085.7	1,000.4	424.7	249.6	175.14	2.425		
8,100.0	6,714.1	6,662.1	6,662.1	45.2	133.2	-88.80	1,085.7	1,000.4	510.0	332.3	177.71	2.870		
8,200.0	6,712.9	6,660.9	6,660.9	47.8	133.2	-88.53	1,085.7	1,000.4	599.8	419.5	180.30	3.327		
8,300.0	6,711.8	6,659.8	6,659.8	50.4	133.2	-88.27	1,085.7	1,000.4	692.4	509.5	182.90	3.786		
8,400.0	6,710.7	6,658.7	6,658.7	53.0	133.2	-88.00	1,085.7	1,000.4	786.8	601.3	185.52	4.241		
8,500.0	6,709.5	6,657.5	6,657.5	55.7	133.2	-87.73	1,085.7	1,000.4	882.4	694.3	188.14	4.690		
8,600.0	6,708.4	6,656.4	6,656.4	58.3	133.1	-87.47	1,085.7	1,000.4	978.9	788.2	190.78	5.131		

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well Loloff Farms 26H-332
Project:	SEC.26-T5N-R64W	TVD Reference:	WELL @ 4694.0ft (Original Well Elev)
Reference Site:	Loloff Farms 5N64W26I Pad Sec.26-T5N-R64W	MD Reference:	WELL @ 4694.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Loloff Farms 26H-332	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (8-13-14)	Offset TVD Reference:	Offset Datum

Offset Design		Existing Wells Pad Sec.26-T5N-R64W - Loloff B 26-33 (Exist.) - Wellbore #1 - Wellbore #1										Offset Site Error:		0.0 ft			
Survey Program: 6965-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		Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor					
							+N/-S (ft)	+E/-W (ft)									
1,000.0	993.3	935.3	935.3	2.7	18.7	10.82	1,089.3	-50.2	998.6	977.9	20.71	48.227					
1,100.0	1,091.9	1,033.9	1,033.9	3.1	20.7	11.00	1,089.3	-50.2	982.3	959.4	22.91	42.880					
1,200.0	1,190.5	1,132.5	1,132.5	3.5	22.7	11.19	1,089.3	-50.2	966.0	940.9	25.11	38.468					
1,300.0	1,289.1	1,231.1	1,231.1	3.8	24.6	11.39	1,089.3	-50.2	949.7	922.4	27.32	34.767					
1,400.0	1,387.8	1,329.8	1,329.8	4.2	26.6	11.59	1,089.3	-50.2	933.4	903.9	29.52	31.617					
1,500.0	1,486.4	1,428.4	1,428.4	4.6	28.6	11.79	1,089.3	-50.2	917.1	885.4	31.73	28.905					
1,600.0	1,585.0	1,527.0	1,527.0	5.0	30.5	12.01	1,089.3	-50.2	900.9	866.9	33.94	26.545					
1,700.0	1,683.6	1,625.6	1,625.6	5.3	32.5	12.23	1,089.3	-50.2	884.6	848.5	36.15	24.474					
1,800.0	1,782.2	1,724.2	1,724.2	5.7	34.5	12.47	1,089.3	-50.2	868.4	830.0	38.36	22.640					
1,900.0	1,880.8	1,822.8	1,822.8	6.1	36.5	12.71	1,089.3	-50.2	852.1	811.6	40.57	21.006					
2,000.0	1,979.4	1,921.4	1,921.4	6.5	38.4	12.96	1,089.3	-50.2	835.9	793.2	42.78	19.541					
2,100.0	2,078.0	2,020.0	2,020.0	6.8	40.4	13.22	1,089.3	-50.2	819.7	774.7	44.99	18.220					
2,200.0	2,176.6	2,118.6	2,118.6	7.2	42.4	13.49	1,089.3	-50.2	803.6	756.4	47.21	17.023					
2,300.0	2,275.2	2,217.2	2,217.2	7.6	44.3	13.77	1,089.3	-50.2	787.4	738.0	49.42	15.932					
2,400.0	2,373.9	2,315.9	2,315.9	8.0	46.3	14.06	1,089.3	-50.2	771.3	719.6	51.64	14.936					
2,500.0	2,472.5	2,414.5	2,414.5	8.4	48.3	14.37	1,089.3	-50.2	755.1	701.3	53.86	14.021					
2,600.0	2,571.1	2,513.1	2,513.1	8.7	50.3	14.69	1,089.3	-50.2	739.1	683.0	56.08	13.179					
2,700.0	2,669.7	2,611.7	2,611.7	9.1	52.2	15.02	1,089.3	-50.2	723.0	664.7	58.30	12.401					
2,800.0	2,768.3	2,710.3	2,710.3	9.5	54.2	15.37	1,089.3	-50.2	706.9	646.4	60.52	11.680					
2,900.0	2,866.9	2,808.9	2,808.9	9.9	56.2	15.74	1,089.3	-50.2	690.9	628.2	62.75	11.011					
3,000.0	2,965.5	2,907.5	2,907.5	10.2	58.2	16.12	1,089.3	-50.2	674.9	609.9	64.98	10.387					
3,100.0	3,064.1	3,006.1	3,006.1	10.6	60.1	16.52	1,089.3	-50.2	659.0	591.7	67.21	9.805					
3,200.0	3,162.7	3,104.7	3,104.7	11.0	62.1	16.94	1,089.3	-50.2	643.0	573.6	69.44	9.260					
3,300.0	3,261.3	3,203.3	3,203.3	11.4	64.1	17.38	1,089.3	-50.2	627.1	555.5	71.68	8.749					
3,400.0	3,360.0	3,302.0	3,302.0	11.8	66.0	17.85	1,089.3	-50.2	611.3	537.4	73.92	8.270					
3,500.0	3,458.6	3,400.6	3,400.6	12.1	68.0	18.34	1,089.3	-50.2	595.5	519.3	76.16	7.819					
3,600.0	3,557.2	3,499.2	3,499.2	12.5	70.0	18.85	1,089.3	-50.2	579.7	501.3	78.41	7.394					
3,700.0	3,655.8	3,597.8	3,597.8	12.9	72.0	19.40	1,089.3	-50.2	564.0	483.3	80.66	6.992					
3,800.0	3,754.4	3,696.4	3,696.4	13.3	73.9	19.97	1,089.3	-50.2	548.3	465.4	82.91	6.613					
3,900.0	3,853.0	3,795.0	3,795.0	13.7	75.9	20.58	1,089.3	-50.2	532.7	447.5	85.17	6.254					
4,000.0	3,951.6	3,893.6	3,893.6	14.0	77.9	21.23	1,089.3	-50.2	517.1	429.7	87.44	5.914					
4,100.0	4,050.2	3,992.2	3,992.2	14.4	79.8	21.91	1,089.3	-50.2	501.7	412.0	89.71	5.592					
4,200.0	4,148.8	4,090.8	4,090.8	14.8	81.8	22.64	1,089.3	-50.2	486.3	394.3	92.00	5.286					
4,300.0	4,247.4	4,189.4	4,189.4	15.2	83.8	23.42	1,089.3	-50.2	470.9	376.7	94.29	4.995					
4,400.0	4,346.1	4,288.1	4,288.1	15.6	85.8	24.25	1,089.3	-50.2	455.7	359.1	96.58	4.718					
4,500.0	4,444.7	4,386.7	4,386.7	15.9	87.7	25.13	1,089.3	-50.2	440.6	341.7	98.89	4.455					
4,600.0	4,543.3	4,485.3	4,485.3	16.3	89.7	26.08	1,089.3	-50.2	425.6	324.3	101.21	4.205					
4,700.0	4,641.9	4,583.9	4,583.9	16.7	91.7	27.09	1,089.3	-50.2	410.7	307.1	103.55	3.966					
4,800.0	4,740.5	4,682.5	4,682.5	17.1	93.7	28.19	1,089.3	-50.2	395.9	290.0	105.90	3.739					
4,900.0	4,839.1	4,781.1	4,781.1	17.5	95.6	29.36	1,089.3	-50.2	381.3	273.0	108.26	3.522					
5,000.0	4,937.7	4,879.7	4,879.7	17.8	97.6	30.63	1,089.3	-50.2	366.8	256.2	110.64	3.316					
5,100.0	5,036.3	4,978.3	4,978.3	18.2	99.6	32.00	1,089.3	-50.2	352.6	239.5	113.05	3.119					
5,200.0	5,134.9	5,076.9	5,076.9	18.6	101.5	33.48	1,089.3	-50.2	338.6	223.1	115.47	2.932					
5,300.0	5,233.6	5,175.6	5,175.6	19.0	103.5	35.09	1,089.3	-50.2	324.8	206.8	117.93	2.754					
5,400.0	5,332.2	5,274.2	5,274.2	19.3	105.5	36.83	1,089.3	-50.2	311.3	190.8	120.44	2.585					
5,500.0	5,431.1	5,373.1	5,373.1	19.6	107.5	38.35	1,089.3	-50.2	299.7	176.5	123.15	2.433					
5,600.0	5,530.5	5,472.5	5,472.5	19.9	109.4	39.60	1,089.3	-50.2	291.0	165.2	125.73	2.314					
5,700.0	5,630.2	5,572.2	5,572.2	20.1	111.4	40.50	1,089.3	-50.2	285.1	156.9	128.17	2.224					
5,800.0	5,730.1	5,672.1	5,672.1	20.2	113.4	41.01	1,089.3	-50.2	281.9	151.5	130.45	2.161					
5,900.0	5,830.1	5,772.1	5,772.1	20.4	115.4	28.72	1,089.3	-50.2	281.3	148.0	133.30	2.110					
6,000.0	5,930.1	5,872.1	5,872.1	20.5	117.4	28.72	1,089.3	-50.2	281.3	145.8	135.45	2.077					

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

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well Loloff Farms 26H-332
Project:	SEC.26-T5N-R64W	TVD Reference:	WELL @ 4694.0ft (Original Well Elev)
Reference Site:	Loloff Farms 5N64W26I Pad Sec.26-T5N-R64W	MD Reference:	WELL @ 4694.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Loloff Farms 26H-332	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (8-13-14)	Offset TVD Reference:	Offset Datum

Offset Design Existing Wells Pad Sec.26-T5N-R64W - Loloff B 26-33 (Exist.) - Wellbore #1 - Wellbore #1														Offset Site Error: 0.0 ft
Survey Program: 6965-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		
6,100.0	6,030.0	5,972.0	5,972.0	20.6	119.4	-61.96	1,089.3	-50.2	279.7	143.0	136.74	2.046		
6,200.0	6,128.7	6,070.7	6,070.7	20.7	121.4	-65.31	1,089.3	-50.2	272.7	134.7	137.97	1.977		
6,300.0	6,224.5	6,166.5	6,166.5	20.8	123.3	-71.52	1,089.3	-50.2	261.9	122.9	139.01	1.884		
6,400.0	6,315.7	6,257.7	6,257.7	20.8	125.2	-80.38	1,089.3	-50.2	251.2	110.7	140.51	1.788		
6,491.3	6,393.8	6,335.8	6,335.8	20.8	126.7	-90.00	1,089.3	-50.2	246.7	104.6	142.08	1.736 CC		
6,500.0	6,400.9	6,342.9	6,342.9	20.9	126.9	-90.95	1,089.3	-50.2	246.7	104.5	142.20	1.735 ES, SF		
6,600.0	6,478.6	6,420.6	6,420.6	20.9	128.4	-101.43	1,089.3	-50.2	255.9	113.2	142.61	1.794		
6,700.0	6,547.4	6,489.4	6,489.4	21.0	129.8	-109.99	1,089.3	-50.2	283.8	143.1	140.77	2.016		
6,800.0	6,606.1	6,548.1	6,548.1	21.2	131.0	-115.57	1,089.3	-50.2	331.4	193.6	137.73	2.406		
6,900.0	6,653.8	6,595.8	6,595.8	21.5	131.9	-117.67	1,089.3	-50.2	395.4	259.5	135.92	2.909		
7,000.0	6,689.6	6,631.6	6,631.6	22.1	132.6	-115.80	1,089.3	-50.2	472.0	333.9	138.08	3.418		
7,100.0	6,712.9	6,654.9	6,654.9	23.1	133.1	-108.91	1,089.3	-50.2	557.1	411.4	145.74	3.823		
7,200.0	6,723.3	6,665.3	6,665.3	24.6	133.3	-95.42	1,089.3	-50.2	647.7	492.3	155.39	4.168		
7,300.0	6,723.1	6,665.1	6,665.1	26.4	133.3	-88.16	1,089.3	-50.2	741.2	582.8	158.33	4.681		
7,400.0	6,722.0	6,664.0	6,664.0	28.4	133.3	-87.90	1,089.3	-50.2	836.1	675.7	160.47	5.211		
7,500.0	6,720.9	6,662.9	6,662.9	30.6	133.3	-87.63	1,089.3	-50.2	932.1	769.4	162.70	5.729		

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well Loloff Farms 26H-332
Project:	SEC.26-T5N-R64W	TVD Reference:	WELL @ 4694.0ft (Original Well Elev)
Reference Site:	Loloff Farms 5N64W26I Pad Sec.26-T5N-R64W	MD Reference:	WELL @ 4694.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Loloff Farms 26H-332	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (8-13-14)	Offset TVD Reference:	Offset Datum

Offset Design		Existing Wells Pad Sec.26-T5N-R64W - Loustalet 24-25 (Exist.) - Wellbore #1 - Wellbore #1											Offset Site Error:		0.0 ft
Survey Program: 6959-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			
12,800.0	6,660.7	6,554.7	6,554.7	174.3	131.1	91.42	438.2	7,030.8	970.6	665.5	305.13	3.181			
12,900.0	6,659.6	6,553.6	6,553.6	177.1	131.1	91.26	438.2	7,030.8	880.7	572.8	307.92	2.860			
13,000.0	6,658.5	6,552.5	6,552.5	179.9	131.0	91.10	438.2	7,030.8	793.2	482.5	310.70	2.553			
13,100.0	6,657.3	6,551.3	6,551.3	182.7	131.0	90.94	438.2	7,030.8	709.0	395.5	313.49	2.262			
13,200.0	6,656.2	6,550.2	6,550.2	185.5	131.0	90.78	438.2	7,030.8	629.5	313.2	316.27	1.990			
13,300.0	6,655.1	6,549.1	6,549.1	188.2	131.0	90.61	438.2	7,030.8	556.6	237.5	319.05	1.745			
13,400.0	6,653.9	6,547.9	6,547.9	191.0	131.0	90.45	438.2	7,030.8	493.3	171.4	321.82	1.533			
13,500.0	6,652.8	6,546.8	6,546.8	193.8	130.9	90.29	438.2	7,030.8	443.7	119.1	324.60	1.367	Level 3		
13,600.0	6,651.7	6,545.7	6,545.7	196.6	130.9	90.13	438.2	7,030.8	412.7	85.4	327.37	1.261	Level 3		
13,682.4	6,650.7	6,544.7	6,544.7	198.9	130.9	90.00	438.2	7,030.8	404.4	74.8	329.66	1.227	Level 2, CC		
13,700.0	6,650.5	6,544.5	6,544.5	199.4	130.9	89.97	438.2	7,030.8	404.8	74.7	330.14	1.226	Level 2, ES, SF		
13,800.0	6,649.4	6,543.4	6,543.4	202.2	130.9	89.81	438.2	7,030.8	421.2	88.3	332.91	1.265	Level 3		
13,835.6	6,649.0	6,543.0	6,543.0	203.2	130.9	89.75	438.2	7,030.8	432.5	98.6	333.90	1.295	Level 3		

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well Loloff Farms 26H-332
Project:	SEC.26-T5N-R64W	TVD Reference:	WELL @ 4694.0ft (Original Well Elev)
Reference Site:	Loloff Farms 5N64W26I Pad Sec.26-T5N-R64W	MD Reference:	WELL @ 4694.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Loloff Farms 26H-332	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (8-13-14)	Offset TVD Reference:	Offset Datum

Offset Design Existing Wells Pad Sec.26-T5N-R64W - Loustalet 25-1 (Exist.) - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 ft
Survey Program: 6848-UNKNOWN												Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Distance							Warning
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor	
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)		
11,500.0	6,675.5	6,572.5	6,572.5	138.0	131.4	91.41	448.8	5,704.3	942.1	672.9	269.19	3.500	
11,600.0	6,674.4	6,571.4	6,571.4	140.8	131.4	91.25	448.8	5,704.3	852.3	580.3	271.97	3.134	
11,700.0	6,673.2	6,570.2	6,570.2	143.6	131.4	91.08	448.8	5,704.3	765.0	490.3	274.74	2.784	
11,800.0	6,672.1	6,569.1	6,569.1	146.4	131.4	90.92	448.8	5,704.3	681.2	403.7	277.52	2.455	
11,900.0	6,671.0	6,568.0	6,568.0	149.2	131.4	90.75	448.8	5,704.3	602.4	322.1	280.29	2.149	
12,000.0	6,669.8	6,566.8	6,566.8	152.0	131.3	90.59	448.8	5,704.3	530.8	247.7	283.06	1.875	
12,100.0	6,668.7	6,565.7	6,565.7	154.7	131.3	90.42	448.8	5,704.3	469.7	183.8	285.83	1.643	
12,200.0	6,667.6	6,564.6	6,564.6	157.5	131.3	90.26	448.8	5,704.3	423.6	135.0	288.60	1.468	Level 3
12,300.0	6,666.4	6,563.4	6,563.4	160.3	131.3	90.09	448.8	5,704.3	397.8	106.4	291.37	1.365	Level 3
12,355.9	6,665.8	6,562.8	6,562.8	161.9	131.3	90.00	448.8	5,704.3	393.8	100.9	292.92	1.345	Level 3, CC, ES, SF
12,400.0	6,665.3	6,562.3	6,562.3	163.1	131.2	89.93	448.8	5,704.3	396.3	102.2	294.14	1.347	Level 3
12,500.0	6,664.2	6,561.2	6,561.2	165.9	131.2	89.76	448.8	5,704.3	419.4	122.5	296.90	1.413	Level 3
12,600.0	6,663.0	6,560.0	6,560.0	168.7	131.2	89.60	448.8	5,704.3	463.4	163.7	299.66	1.546	
12,700.0	6,661.9	6,558.9	6,558.9	171.5	131.2	89.43	448.8	5,704.3	523.0	220.6	302.42	1.729	
12,800.0	6,660.7	6,557.7	6,557.7	174.3	131.2	89.27	448.8	5,704.3	593.6	288.4	305.18	1.945	
12,900.0	6,659.6	6,556.6	6,556.6	177.1	131.1	89.10	448.8	5,704.3	671.7	363.8	307.93	2.181	
13,000.0	6,658.5	6,555.5	6,555.5	179.9	131.1	88.94	448.8	5,704.3	755.0	444.3	310.68	2.430	
13,100.0	6,657.3	6,554.3	6,554.3	182.7	131.1	88.77	448.8	5,704.3	841.9	528.5	313.43	2.686	
13,200.0	6,656.2	6,553.2	6,553.2	185.5	131.1	88.61	448.8	5,704.3	931.4	615.3	316.18	2.946	

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well Loloff Farms 26H-332
Project:	SEC.26-T5N-R64W	TVD Reference:	WELL @ 4694.0ft (Original Well Elev)
Reference Site:	Loloff Farms 5N64W26I Pad Sec.26-T5N-R64W	MD Reference:	WELL @ 4694.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Loloff Farms 26H-332	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (8-13-14)	Offset TVD Reference:	Offset Datum

Offset Design Existing Wells Pad Sec.26-T5N-R64W - Loustalet 5 (Exist.) - Wellbore #1 - Wellbore #1														Offset Site Error:	0.0 ft
Survey Program: 6958-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			
12,200.0	6,667.6	6,557.6	6,557.6	157.5	131.2	-93.68	1,006.3	6,476.1	942.0	654.2	287.75	3.274			
12,300.0	6,666.4	6,556.4	6,556.4	160.3	131.1	-93.28	1,006.3	6,476.1	843.7	553.0	290.64	2.903			
12,400.0	6,665.3	6,555.3	6,555.3	163.1	131.1	-92.89	1,006.3	6,476.1	745.8	452.3	293.53	2.541			
12,500.0	6,664.2	6,554.2	6,554.2	165.9	131.1	-92.49	1,006.3	6,476.1	648.6	352.2	296.41	2.188			
12,600.0	6,663.0	6,553.0	6,553.0	168.7	131.1	-92.09	1,006.3	6,476.1	552.5	253.2	299.27	1.846			
12,700.0	6,661.9	6,551.9	6,551.9	171.5	131.0	-91.70	1,006.3	6,476.1	457.9	155.8	302.12	1.516			
12,800.0	6,660.7	6,550.7	6,550.7	174.3	131.0	-91.30	1,006.3	6,476.1	366.3	61.3	304.96	1.201 Level 2			
12,900.0	6,659.6	6,549.6	6,549.6	177.1	131.0	-90.90	1,006.3	6,476.1	280.4	-27.4	307.79	0.911 Level 1			
13,000.0	6,658.5	6,548.5	6,548.5	179.9	131.0	-90.51	1,006.3	6,476.1	207.6	-103.0	310.61	0.668 Level 1			
13,100.0	6,657.3	6,547.3	6,547.3	182.7	130.9	-90.11	1,006.3	6,476.1	166.1	-147.3	313.41	0.530 Level 1			
13,127.7	6,657.0	6,547.0	6,547.0	183.4	130.9	-90.00	1,006.3	6,476.1	163.7	-150.4	314.18	0.521 Level 1, CC, ES, SF			
13,200.0	6,656.2	6,546.2	6,546.2	185.5	130.9	-89.71	1,006.3	6,476.1	179.0	-137.2	316.19	0.566 Level 1			
13,300.0	6,655.1	6,545.1	6,545.1	188.2	130.9	-89.32	1,006.3	6,476.1	237.7	-81.3	318.97	0.745 Level 1			
13,400.0	6,653.9	6,543.9	6,543.9	191.0	130.9	-88.92	1,006.3	6,476.1	317.7	-4.0	321.72	0.988 Level 1			
13,500.0	6,652.8	6,542.8	6,542.8	193.8	130.9	-88.52	1,006.3	6,476.1	406.7	82.2	324.47	1.253 Level 3			
13,600.0	6,651.7	6,541.7	6,541.7	196.6	130.8	-88.13	1,006.3	6,476.1	499.9	172.7	327.19	1.528			
13,700.0	6,650.5	6,540.5	6,540.5	199.4	130.8	-87.73	1,006.3	6,476.1	595.2	265.3	329.90	1.804			
13,800.0	6,649.4	6,539.4	6,539.4	202.2	130.8	-87.33	1,006.3	6,476.1	691.9	359.3	332.60	2.080			
13,835.6	6,649.0	6,539.0	6,539.0	203.2	130.8	-87.19	1,006.3	6,476.1	726.5	393.0	333.55	2.178			

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well Loloff Farms 26H-332
Project:	SEC.26-T5N-R64W	TVD Reference:	WELL @ 4694.0ft (Original Well Elev)
Reference Site:	Loloff Farms 5N64W26I Pad Sec.26-T5N-R64W	MD Reference:	WELL @ 4694.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Loloff Farms 26H-332	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (8-13-14)	Offset TVD Reference:	Offset Datum

Offset Design Existing Wells Pad Sec.26-T5N-R64W - Schlagel 26-1 (SI) - 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	
8,900.0	6,705.0	6,595.4	6,594.2	66.4	11.8	86.96	498.7	3,088.7	908.1	830.7	77.40	11.732	
9,000.0	6,703.9	6,597.0	6,595.8	69.1	11.8	87.23	498.7	3,088.7	816.5	736.3	80.15	10.186	
9,100.0	6,702.7	6,598.6	6,597.4	71.8	11.8	87.49	498.7	3,088.8	727.0	644.1	82.91	8.769	
9,200.0	6,701.6	6,600.2	6,599.0	74.5	11.8	87.76	498.7	3,088.8	640.7	555.0	85.67	7.478	
9,300.0	6,700.5	6,601.8	6,600.6	77.2	11.8	88.02	498.7	3,088.9	558.9	470.5	88.44	6.320	
9,400.0	6,699.3	6,603.4	6,602.2	80.0	11.8	88.29	498.6	3,088.9	484.1	392.9	91.20	5.307	
9,500.0	6,698.2	6,605.0	6,603.8	82.7	11.8	88.56	498.6	3,089.0	419.8	325.8	93.98	4.467	
9,600.0	6,697.0	6,606.6	6,605.4	85.4	11.8	88.82	498.6	3,089.0	371.7	274.9	96.75	3.841	
9,700.0	6,695.9	6,608.2	6,607.0	88.2	11.8	89.09	498.6	3,089.0	346.5	246.9	99.53	3.481	
9,740.5	6,695.5	6,608.8	6,607.6	89.3	11.8	89.19	498.6	3,089.1	344.1	243.4	100.65	3.418 CC, ES	
9,800.0	6,694.8	6,609.8	6,608.6	90.9	11.8	89.35	498.5	3,089.1	349.2	246.9	102.31	3.413 SF	
9,900.0	6,693.6	6,611.4	6,610.2	93.7	11.8	89.62	498.5	3,089.1	379.2	274.2	105.09	3.609	
10,000.0	6,692.5	6,613.0	6,611.8	96.4	11.8	89.88	498.5	3,089.2	430.9	323.1	107.87	3.995	
10,100.0	6,691.4	6,614.6	6,613.4	99.2	11.8	90.15	498.5	3,089.2	497.6	386.9	110.65	4.497	
10,200.0	6,690.2	6,616.2	6,615.0	102.0	11.8	90.42	498.5	3,089.3	574.0	460.6	113.43	5.060	
10,300.0	6,689.1	6,617.8	6,616.6	104.7	11.8	90.68	498.4	3,089.3	656.8	540.6	116.21	5.652	
10,400.0	6,688.0	6,619.4	6,618.1	107.5	11.8	90.95	498.4	3,089.3	743.8	624.8	118.99	6.251	
10,500.0	6,686.8	6,621.0	6,619.7	110.3	11.8	91.21	498.4	3,089.4	833.7	711.9	121.77	6.847	
10,600.0	6,685.7	6,622.6	6,621.3	113.0	11.8	91.48	498.4	3,089.4	925.7	801.2	124.54	7.433	

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well Loloff Farms 26H-332
Project:	SEC.26-T5N-R64W	TVD Reference:	WELL @ 4694.0ft (Original Well Elev)
Reference Site:	Loloff Farms 5N64W26I Pad Sec.26-T5N-R64W	MD Reference:	WELL @ 4694.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Loloff Farms 26H-332	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (8-13-14)	Offset TVD Reference:	Offset Datum

Offset Design Existing Wells Pad Sec.26-T5N-R64W - Schlagel 26-4 (Exist.) - Wellbore #1 - Wellbore #1												Offset Site Error: 0.0 ft	
Survey Program: 6838-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	
10,100.0	6,691.4	6,587.4	6,587.4	99.2	131.7	92.33	583.3	4,380.6	967.4	736.9	230.49	4.197	
10,200.0	6,690.2	6,586.2	6,586.2	102.0	131.7	92.08	583.3	4,380.6	871.5	638.3	233.26	3.736	
10,300.0	6,689.1	6,585.1	6,585.1	104.7	131.7	91.83	583.3	4,380.6	776.6	540.6	236.04	3.290	
10,400.0	6,688.0	6,584.0	6,584.0	107.5	131.7	91.58	583.3	4,380.6	683.2	444.4	238.81	2.861	
10,500.0	6,686.8	6,582.8	6,582.8	110.3	131.7	91.33	583.3	4,380.6	591.9	350.3	241.58	2.450	
10,600.0	6,685.7	6,581.7	6,581.7	113.0	131.6	91.08	583.3	4,380.6	503.9	259.6	244.34	2.062	
10,700.0	6,684.6	6,580.6	6,580.6	115.8	131.6	90.83	583.3	4,380.6	421.3	174.2	247.11	1.705	
10,800.0	6,683.4	6,579.4	6,579.4	118.6	131.6	90.58	583.3	4,380.6	348.0	98.1	249.87	1.393 Level 3	
10,900.0	6,682.3	6,578.3	6,578.3	121.3	131.6	90.33	583.3	4,380.6	291.0	38.4	252.63	1.152 Level 2	
11,000.0	6,681.2	6,577.2	6,577.2	124.1	131.5	90.08	583.3	4,380.6	261.3	5.9	255.38	1.023 Level 2	
11,032.1	6,680.8	6,576.8	6,576.8	125.0	131.5	90.00	583.3	4,380.6	259.3	3.1	256.27	1.012 Level 2, CC, ES, SF	
11,100.0	6,680.0	6,576.0	6,576.0	126.9	131.5	89.83	583.3	4,380.6	268.1	9.9	258.13	1.038 Level 2	
11,200.0	6,678.9	6,574.9	6,574.9	129.7	131.5	89.58	583.3	4,380.6	308.9	48.0	260.88	1.184 Level 2	
11,300.0	6,677.8	6,573.8	6,573.8	132.5	131.5	89.33	583.3	4,380.6	372.8	109.2	263.62	1.414 Level 3	
11,400.0	6,676.6	6,572.6	6,572.6	135.2	131.5	89.08	583.3	4,380.6	450.1	183.7	266.36	1.690	
11,500.0	6,675.5	6,571.5	6,571.5	138.0	131.4	88.83	583.3	4,380.6	534.9	265.8	269.10	1.988	
11,600.0	6,674.4	6,570.4	6,570.4	140.8	131.4	88.58	583.3	4,380.6	624.3	352.4	271.83	2.297	
11,700.0	6,673.2	6,569.2	6,569.2	143.6	131.4	88.33	583.3	4,380.6	716.4	441.9	274.55	2.609	
11,800.0	6,672.1	6,568.1	6,568.1	146.4	131.4	88.08	583.3	4,380.6	810.5	533.2	277.28	2.923	
11,900.0	6,671.0	6,567.0	6,567.0	149.2	131.3	87.83	583.3	4,380.6	905.8	625.8	279.99	3.235	

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well Loloff Farms 26H-332
Project:	SEC.26-T5N-R64W	TVD Reference:	WELL @ 4694.0ft (Original Well Elev)
Reference Site:	Loloff Farms 5N64W26I Pad Sec.26-T5N-R64W	MD Reference:	WELL @ 4694.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Loloff Farms 26H-332	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (8-13-14)	Offset TVD Reference:	Offset Datum

Offset Design Existing Wells Pad Sec.26-T5N-R64W - Schlagel 5-26 (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						
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor	Warning
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)		
9,300.0	6,700.5	6,600.0	6,598.8	77.2	14.1	-91.93	1,163.6	3,572.7	978.2	887.5	90.78	10.776	
9,400.0	6,699.3	6,598.4	6,597.2	80.0	14.1	-91.66	1,163.6	3,572.7	884.4	790.8	93.54	9.455	
9,500.0	6,698.2	6,597.7	6,596.5	82.7	14.1	-91.52	1,163.6	3,572.7	792.0	695.7	96.30	8.225	
9,600.0	6,697.0	6,597.0	6,595.8	85.4	14.1	-91.39	1,163.6	3,572.7	701.8	602.7	99.06	7.085	
9,700.0	6,695.9	6,596.2	6,595.0	88.2	14.1	-91.26	1,163.7	3,572.7	614.6	512.8	101.82	6.036	
9,800.0	6,694.8	6,595.4	6,594.2	90.9	14.1	-91.12	1,163.7	3,572.7	531.9	427.3	104.59	5.085	
9,900.0	6,693.6	6,594.7	6,593.5	93.7	14.1	-90.98	1,163.7	3,572.7	456.2	348.8	107.36	4.249	
10,000.0	6,692.5	6,593.9	6,592.7	96.4	14.1	-90.84	1,163.7	3,572.7	391.5	281.4	110.14	3.555	
10,100.0	6,691.4	6,593.1	6,591.9	99.2	14.1	-90.70	1,163.7	3,572.7	344.2	231.3	112.91	3.049	
10,200.0	6,690.2	6,592.3	6,591.1	102.0	14.1	-90.55	1,163.7	3,572.7	322.0	206.3	115.69	2.783	
10,224.1	6,690.0	6,592.1	6,590.9	102.6	14.1	-90.52	1,163.7	3,572.7	321.1	204.7	116.36	2.760	CC, ES, SF
10,300.0	6,689.1	6,591.4	6,590.2	104.7	14.1	-90.41	1,163.7	3,572.7	330.0	211.5	118.47	2.785	
10,400.0	6,688.0	6,590.6	6,589.4	107.5	14.1	-90.26	1,163.7	3,572.6	366.1	244.9	121.25	3.020	
10,500.0	6,686.8	6,589.7	6,588.6	110.3	14.1	-90.10	1,163.7	3,572.6	423.4	299.3	124.03	3.414	
10,600.0	6,685.7	6,588.9	6,587.7	113.0	14.1	-89.95	1,163.7	3,572.6	494.4	367.6	126.81	3.899	
10,700.0	6,684.6	6,588.0	6,586.8	115.8	14.1	-89.79	1,163.7	3,572.6	574.1	444.5	129.59	4.430	
10,800.0	6,683.4	6,587.1	6,585.9	118.6	14.1	-89.63	1,163.7	3,572.6	659.4	527.0	132.38	4.981	
10,900.0	6,682.3	6,586.2	6,585.0	121.3	14.1	-89.47	1,163.7	3,572.6	748.3	613.2	135.16	5.537	
11,000.0	6,681.2	6,585.3	6,584.1	124.1	14.1	-89.31	1,163.8	3,572.6	839.7	701.8	137.94	6.088	
11,100.0	6,680.0	6,584.3	6,583.2	126.9	14.1	-89.14	1,163.8	3,572.6	932.9	792.2	140.73	6.629	

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well Loloff Farms 26H-332
Project:	SEC.26-T5N-R64W	TVD Reference:	WELL @ 4694.0ft (Original Well Elev)
Reference Site:	Loloff Farms 5N64W26I Pad Sec.26-T5N-R64W	MD Reference:	WELL @ 4694.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Loloff Farms 26H-332	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (8-13-14)	Offset TVD Reference:	Offset Datum

Offset Design										Loloff Farms 5N64W26G Pad Sec.26-T5N-R64W - Loloff Farms 26H-402 - Wellbore #1 - Plan #1 (8-14)				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			
3,600.0	3,557.2	3,708.0	3,660.5	12.5	13.5	12.54	1,497.7	-119.4	999.1	981.1	17.91	55.791				
3,700.0	3,655.8	3,802.5	3,753.6	12.9	13.9	12.54	1,481.8	-122.8	966.4	948.0	18.41	52.508				
3,800.0	3,754.4	3,897.1	3,846.7	13.3	14.3	12.54	1,465.9	-126.2	933.8	914.9	18.90	49.397				
3,900.0	3,853.0	3,991.6	3,939.8	13.7	14.7	12.53	1,449.9	-129.6	901.2	881.8	19.40	46.445				
4,000.0	3,951.6	4,086.1	4,032.9	14.0	15.1	12.53	1,434.0	-132.9	868.5	848.6	19.90	43.641				
4,100.0	4,050.2	4,180.7	4,126.0	14.4	15.4	12.53	1,418.1	-136.3	835.9	815.5	20.40	40.974				
4,200.0	4,148.8	4,275.2	4,219.2	14.8	15.8	12.53	1,402.1	-139.7	803.3	782.4	20.90	38.434				
4,300.0	4,247.4	4,369.7	4,312.3	15.2	16.2	12.52	1,386.2	-143.1	770.6	749.2	21.40	36.012				
4,400.0	4,346.1	4,464.2	4,405.4	15.6	16.6	12.52	1,370.2	-146.5	738.0	716.1	21.90	33.701				
4,500.0	4,444.7	4,558.8	4,498.5	15.9	16.9	12.52	1,354.3	-149.9	705.4	683.0	22.40	31.492				
4,600.0	4,543.3	4,653.3	4,591.6	16.3	17.3	12.51	1,338.4	-153.2	672.8	649.9	22.90	29.380				
4,700.0	4,641.9	4,747.8	4,684.7	16.7	17.7	12.51	1,322.4	-156.6	640.1	616.7	23.40	27.358				
4,800.0	4,740.5	4,842.3	4,777.8	17.1	18.1	12.51	1,306.5	-160.0	607.5	583.6	23.90	25.420				
4,900.0	4,839.1	4,936.9	4,870.9	17.5	18.5	12.50	1,290.6	-163.4	574.9	550.5	24.40	23.562				
5,000.0	4,937.7	5,031.4	4,964.1	17.8	18.8	12.50	1,274.6	-166.8	542.2	517.3	24.90	21.778				
5,100.0	5,036.3	5,125.9	5,057.2	18.2	19.2	12.49	1,258.7	-170.1	509.6	484.2	25.40	20.064				
5,200.0	5,134.9	5,220.4	5,150.3	18.6	19.6	12.48	1,242.8	-173.5	477.0	451.1	25.90	18.416				
5,300.0	5,233.6	5,315.0	5,243.4	19.0	20.0	12.47	1,226.8	-176.9	444.4	418.0	26.40	16.831				
5,400.0	5,332.2	5,400.0	5,327.2	19.3	20.3	12.46	1,212.6	-179.9	411.9	385.0	26.88	15.324				
5,500.0	5,431.1	5,490.1	5,416.3	19.6	20.5	12.33	1,199.4	-182.7	383.4	356.0	27.37	14.006				
5,600.0	5,530.5	5,576.6	5,502.1	19.9	20.7	12.21	1,189.3	-184.9	361.0	333.2	27.81	12.980				
5,700.0	5,630.2	5,664.7	5,589.9	20.1	20.9	12.10	1,181.7	-186.5	344.9	316.7	28.21	12.225				
5,800.0	5,730.1	5,753.9	5,678.9	20.2	21.0	12.00	1,176.6	-187.6	335.2	306.6	28.56	11.734				
5,900.0	5,830.1	5,843.6	5,768.6	20.4	21.2	-0.48	1,174.3	-188.1	331.7	290.7	40.98	8.095				
5,951.2	5,881.3	5,891.3	5,816.3	20.4	21.2	-0.48	1,174.1	-188.1	331.5	290.4	41.11	8.064				
6,000.0	5,930.1	5,940.1	5,865.1	20.5	21.3	-0.48	1,174.1	-188.1	331.5	290.3	41.23	8.041CC				
6,025.9	5,956.0	5,966.0	5,891.0	20.5	21.3	-90.53	1,174.1	-188.1	331.5	302.2	29.33	11.305				
6,100.0	6,030.0	6,040.0	5,965.0	20.6	21.4	-91.03	1,174.1	-188.1	331.6	302.0	29.57	11.212				
6,200.0	6,128.7	6,140.4	6,065.3	20.7	21.5	-93.22	1,174.1	-185.2	332.1	302.2	29.90	11.104				
6,300.0	6,224.5	6,243.1	6,166.7	20.8	21.6	-95.43	1,174.1	-169.0	333.0	302.8	30.20	11.028				
6,400.0	6,315.7	6,347.8	6,266.6	20.8	21.6	-97.47	1,174.1	-138.2	334.4	303.9	30.45	10.981				
6,500.0	6,400.9	6,454.3	6,362.8	20.9	21.7	-99.29	1,174.1	-92.6	336.0	305.3	30.71	10.940				
6,600.0	6,478.6	6,562.6	6,452.8	20.9	21.7	-100.84	1,174.1	-32.5	337.6	306.5	31.08	10.863				
6,700.0	6,547.4	6,672.4	6,534.0	21.0	21.8	-102.11	1,174.1	41.1	339.1	307.4	31.73	10.688				
6,800.0	6,606.1	6,783.4	6,604.2	21.2	21.9	-103.05	1,174.1	127.1	340.3	307.5	32.87	10.355				
6,900.0	6,653.8	6,895.4	6,661.0	21.5	22.1	-103.64	1,174.1	223.4	341.2	306.5	34.67	9.840				
7,000.0	6,689.6	7,007.8	6,702.7	22.1	22.6	-103.89	1,174.1	327.6	341.5	304.2	37.26	9.165				
7,100.0	6,712.9	7,120.2	6,728.2	23.1	23.5	-103.77	1,174.1	437.1	341.3	300.7	40.60	8.406				
7,200.0	6,723.3	7,232.4	6,736.7	24.6	24.9	-103.29	1,174.1	548.8	340.7	296.1	44.55	7.647				
7,251.2	6,724.6	7,284.0	6,736.3	25.5	25.8	-103.02	1,174.1	600.4	340.3	293.6	46.63	7.297				
7,300.0	6,723.1	7,332.8	6,736.0	26.4	26.6	-103.22	1,174.1	649.2	340.6	292.0	48.58	7.010				
7,400.0	6,722.0	7,432.8	6,735.4	28.4	28.6	-103.31	1,174.1	749.2	340.7	287.8	52.83	6.449				
7,500.0	6,720.9	7,532.8	6,734.8	30.6	30.7	-103.39	1,174.1	849.2	340.8	283.5	57.28	5.950				
7,600.0	6,719.7	7,632.8	6,734.2	32.9	32.9	-103.47	1,174.1	949.2	340.9	279.0	61.88	5.509				
7,700.0	6,718.6	7,732.8	6,733.5	35.2	35.3	-103.55	1,174.1	1,049.2	341.0	274.4	66.62	5.119				
7,800.0	6,717.5	7,832.8	6,732.9	37.7	37.7	-103.64	1,174.1	1,149.2	341.1	269.7	71.45	4.774				
7,900.0	6,716.3	7,932.8	6,732.3	40.1	40.1	-103.72	1,174.1	1,249.2	341.3	264.9	76.37	4.469				
8,000.0	6,715.2	8,032.8	6,731.6	42.7	42.7	-103.80	1,174.1	1,349.2	341.4	260.0	81.34	4.197				
8,100.0	6,714.1	8,132.8	6,731.0	45.2	45.2	-103.88	1,174.1	1,449.2	341.5	255.1	86.37	3.954				
8,200.0	6,712.9	8,232.8	6,730.4	47.8	47.8	-103.97	1,174.1	1,549.2	341.6	250.2	91.45	3.736				
8,300.0	6,711.8	8,332.8	6,729.8	50.4	50.4	-104.05	1,174.1	1,649.2	341.7	245.2	96.56	3.539				

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

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well Loloff Farms 26H-332
Project:	SEC.26-T5N-R64W	TVD Reference:	WELL @ 4694.0ft (Original Well Elev)
Reference Site:	Loloff Farms 5N64W26I Pad Sec.26-T5N-R64W	MD Reference:	WELL @ 4694.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Loloff Farms 26H-332	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (8-13-14)	Offset TVD Reference:	Offset Datum

Offset Design										Loloff Farms 5N64W26G Pad Sec.26-T5N-R64W - Loloff Farms 26H-402 - Wellbore #1 - Plan #1 (8-14)				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	6,710.7	8,432.8	6,729.1	53.0	53.0	-104.13	1,174.1	1,749.2	341.9	240.2	101.70	3.362				
8,500.0	6,709.5	8,532.8	6,728.5	55.7	55.7	-104.21	1,174.1	1,849.2	342.0	235.1	106.86	3.200				
8,600.0	6,708.4	8,632.8	6,727.9	58.3	58.3	-104.30	1,174.1	1,949.2	342.1	230.1	112.04	3.053				
8,700.0	6,707.3	8,732.8	6,727.2	61.0	61.0	-104.38	1,174.1	2,049.2	342.2	225.0	117.25	2.919				
8,800.0	6,706.1	8,832.8	6,726.6	63.7	63.7	-104.46	1,174.1	2,149.2	342.4	219.9	122.46	2.796				
8,900.0	6,705.0	8,932.8	6,726.0	66.4	66.4	-104.54	1,174.1	2,249.2	342.5	214.8	127.69	2.682				
9,000.0	6,703.9	9,032.8	6,725.4	69.1	69.1	-104.62	1,174.1	2,349.2	342.6	209.7	132.93	2.577				
9,100.0	6,702.7	9,132.8	6,724.7	71.8	71.8	-104.71	1,174.1	2,449.2	342.8	204.6	138.18	2.480				
9,200.0	6,701.6	9,232.8	6,724.1	74.5	74.5	-104.79	1,174.1	2,549.2	342.9	199.4	143.43	2.390				
9,300.0	6,700.5	9,332.8	6,723.5	77.2	77.2	-104.87	1,174.1	2,649.2	343.0	194.3	148.70	2.307				
9,400.0	6,699.3	9,432.8	6,722.8	80.0	80.0	-104.95	1,174.1	2,749.2	343.1	189.2	153.96	2.229				
9,500.0	6,698.2	9,532.8	6,722.2	82.7	82.7	-105.03	1,174.1	2,849.2	343.3	184.0	159.23	2.156				
9,600.0	6,697.0	9,632.8	6,721.6	85.4	85.4	-105.11	1,174.1	2,949.2	343.4	178.9	164.51	2.087				
9,700.0	6,695.9	9,732.8	6,721.0	88.2	88.2	-105.20	1,174.1	3,049.2	343.5	173.8	169.78	2.023				
9,800.0	6,694.8	9,832.8	6,720.3	90.9	90.9	-105.28	1,174.1	3,149.2	343.7	168.6	175.06	1.963				
9,900.0	6,693.6	9,932.8	6,719.7	93.7	93.7	-105.36	1,174.1	3,249.2	343.8	163.5	180.34	1.906				
10,000.0	6,692.5	10,032.8	6,719.1	96.4	96.4	-105.44	1,174.1	3,349.2	343.9	158.3	185.62	1.853				
10,100.0	6,691.4	10,132.8	6,718.4	99.2	99.2	-105.52	1,174.1	3,449.2	344.1	153.2	190.90	1.802				
10,200.0	6,690.2	10,232.8	6,717.8	102.0	102.0	-105.60	1,174.1	3,549.1	344.2	148.0	196.18	1.755				
10,300.0	6,689.1	10,332.8	6,717.2	104.7	104.7	-105.68	1,174.1	3,649.1	344.3	142.9	201.46	1.709				
10,400.0	6,688.0	10,432.8	6,716.6	107.5	107.5	-105.76	1,174.1	3,749.1	344.5	137.7	206.74	1.666				
10,500.0	6,686.8	10,532.8	6,715.9	110.3	110.3	-105.85	1,174.1	3,849.1	344.6	132.6	212.02	1.625				
10,600.0	6,685.7	10,632.8	6,715.3	113.0	113.0	-105.93	1,174.1	3,949.1	344.8	127.5	217.30	1.587				
10,700.0	6,684.6	10,732.8	6,714.7	115.8	115.8	-106.01	1,174.1	4,049.1	344.9	122.3	222.57	1.550				
10,800.0	6,683.4	10,832.8	6,714.1	118.6	118.6	-106.09	1,174.1	4,149.1	345.0	117.2	227.84	1.514				
10,900.0	6,682.3	10,932.8	6,713.4	121.3	121.4	-106.17	1,174.1	4,249.1	345.2	112.1	233.12	1.481	Level 3			
11,000.0	6,681.2	11,032.8	6,712.8	124.1	124.1	-106.25	1,174.1	4,349.1	345.3	106.9	238.39	1.449	Level 3			
11,100.0	6,680.0	11,132.8	6,712.2	126.9	126.9	-106.33	1,174.1	4,449.1	345.5	101.8	243.65	1.418	Level 3			
11,200.0	6,678.9	11,232.8	6,711.5	129.7	129.7	-106.41	1,174.1	4,549.1	345.6	96.7	248.92	1.388	Level 3			
11,300.0	6,677.8	11,332.8	6,710.9	132.5	132.5	-106.49	1,174.1	4,649.1	345.7	91.6	254.18	1.360	Level 3			
11,400.0	6,676.6	11,432.8	6,710.3	135.2	135.3	-106.57	1,174.1	4,749.1	345.9	86.5	259.44	1.333	Level 3			
11,500.0	6,675.5	11,532.8	6,709.7	138.0	138.1	-106.65	1,174.1	4,849.1	346.0	81.3	264.69	1.307	Level 3			
11,600.0	6,674.4	11,632.8	6,709.0	140.8	140.8	-106.73	1,174.1	4,949.1	346.2	76.2	269.95	1.282	Level 3			
11,700.0	6,673.2	11,732.8	6,708.4	143.6	143.6	-106.81	1,174.1	5,049.1	346.3	71.1	275.20	1.258	Level 3			
11,800.0	6,672.1	11,832.8	6,707.8	146.4	146.4	-106.89	1,174.1	5,149.1	346.5	66.0	280.44	1.235	Level 2			
11,900.0	6,671.0	11,932.8	6,707.1	149.2	149.2	-106.97	1,174.1	5,249.1	346.6	60.9	285.69	1.213	Level 2			
12,000.0	6,669.8	12,032.8	6,706.5	152.0	152.0	-107.05	1,174.1	5,349.1	346.8	55.8	290.93	1.192	Level 2			
12,100.0	6,668.7	12,132.8	6,705.9	154.7	154.8	-107.13	1,174.1	5,449.1	346.9	50.8	296.16	1.171	Level 2			
12,200.0	6,667.6	12,232.8	6,705.3	157.5	157.6	-107.21	1,174.1	5,549.1	347.1	45.7	301.40	1.152	Level 2			
12,300.0	6,666.4	12,332.8	6,704.6	160.3	160.4	-107.29	1,174.1	5,649.1	347.2	40.6	306.63	1.132	Level 2			
12,400.0	6,665.3	12,432.8	6,704.0	163.1	163.1	-107.37	1,174.1	5,749.1	347.4	35.5	311.85	1.114	Level 2			
12,500.0	6,664.2	12,532.8	6,703.4	165.9	165.9	-107.45	1,174.1	5,849.1	347.5	30.4	317.07	1.096	Level 2			
12,600.0	6,663.0	12,632.8	6,702.7	168.7	168.7	-107.53	1,174.1	5,949.1	347.7	25.4	322.29	1.079	Level 2			
12,700.0	6,661.9	12,732.8	6,702.1	171.5	171.5	-107.61	1,174.1	6,049.1	347.8	20.3	327.50	1.062	Level 2			
12,800.0	6,660.7	12,832.8	6,701.5	174.3	174.3	-107.69	1,174.1	6,149.1	348.0	15.3	332.71	1.046	Level 2			
12,900.0	6,659.6	12,932.8	6,700.9	177.1	177.1	-107.77	1,174.1	6,249.1	348.1	10.2	337.92	1.030	Level 2			
13,000.0	6,658.5	13,032.8	6,700.2	179.9	179.9	-107.85	1,174.1	6,349.1	348.3	5.2	343.12	1.015	Level 2			
13,100.0	6,657.3	13,132.8	6,699.6	182.7	182.7	-107.93	1,174.1	6,449.1	348.4	0.1	348.32	1.000	Level 2			
13,200.0	6,656.2	13,232.8	6,699.0	185.5	185.5	-108.01	1,174.1	6,549.1	348.6	-4.9	353.51	0.986	Level 1			
13,300.0	6,655.1	13,332.8	6,698.3	188.2	188.3	-108.09	1,174.1	6,649.0	348.8	-9.9	358.70	0.972	Level 1			

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

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well Loloff Farms 26H-332
Project:	SEC.26-T5N-R64W	TVD Reference:	WELL @ 4694.0ft (Original Well Elev)
Reference Site:	Loloff Farms 5N64W26I Pad Sec.26-T5N-R64W	MD Reference:	WELL @ 4694.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Loloff Farms 26H-332	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (8-13-14)	Offset TVD Reference:	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	
13,400.0	6,653.9	13,432.8	6,697.7	191.0	191.1	-108.16	1,174.1	6,749.0	348.9	-15.0	363.88	0.959	Level 1	
13,500.0	6,652.8	13,532.8	6,697.1	193.8	193.9	-108.24	1,174.1	6,849.0	349.1	-20.0	369.06	0.946	Level 1	
13,600.0	6,651.7	13,632.8	6,696.5	196.6	196.7	-108.32	1,174.1	6,949.0	349.2	-25.0	374.24	0.933	Level 1	
13,700.0	6,650.5	13,732.8	6,695.8	199.4	199.5	-108.40	1,174.1	7,049.0	349.4	-30.0	379.41	0.921	Level 1	
13,800.0	6,649.4	13,832.7	6,695.2	202.2	201.9	-108.48	1,174.1	7,149.0	349.5	-34.7	384.26	0.910	Level 1	
13,812.8	6,649.3	13,845.6	6,695.1	202.6	202.2	-108.49	1,174.1	7,161.9	349.6	-35.2	384.81	0.908	Level 1	
13,835.6	6,649.0	13,864.7	6,695.0	203.2	202.5	-108.51	1,174.1	7,181.0	349.6	-36.1	385.71	0.906	Level 1, ES, SF	

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well Loloff Farms 26H-332
Project:	SEC.26-T5N-R64W	TVD Reference:	WELL @ 4694.0ft (Original Well Elev)
Reference Site:	Loloff Farms 5N64W26I Pad Sec.26-T5N-R64W	MD Reference:	WELL @ 4694.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Loloff Farms 26H-332	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (8-13-14)	Offset TVD Reference:	Offset Datum

Offset Design		Loloff Farms 5N64W26I Pad Sec.26-T5N-R64W - Loloff Farms 26H-432 - Wellbore #1 - Plan #1 (8-13-1)										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	83.24	3.6	30.7	30.9					
100.0	100.0	99.0	99.0	0.1	0.1	83.24	3.6	30.7	30.9	30.6	0.22	138.025		
200.0	200.0	199.0	199.0	0.3	0.3	83.24	3.6	30.7	30.9	30.2	0.67	45.932	CC	
300.0	300.0	299.0	299.0	0.6	0.6	98.84	3.6	30.7	31.1	30.0	1.12	27.727		
400.0	399.8	398.8	398.8	0.8	0.8	108.01	3.6	30.7	32.3	30.7	1.58	20.483		
500.0	499.5	498.5	498.5	1.0	1.0	121.23	3.6	30.7	36.0	33.9	2.05	17.555		
600.0	598.7	597.7	597.7	1.3	1.2	134.90	3.6	30.7	43.6	41.0	2.53	17.214		
700.0	697.5	696.5	696.5	1.6	1.5	146.17	3.6	30.7	55.7	52.7	3.01	18.511		
800.0	796.1	795.1	795.1	2.0	1.7	153.72	3.6	30.7	70.2	66.7	3.47	20.202		
900.0	894.7	893.7	893.7	2.4	1.9	158.65	3.6	30.7	85.4	81.5	3.93	21.711		
1,000.0	993.3	992.3	992.3	2.7	2.1	162.08	3.6	30.7	101.1	96.7	4.40	23.001		
1,100.0	1,091.9	1,094.7	1,094.7	3.1	2.3	164.60	5.1	30.0	115.5	110.7	4.86	23.773		
1,200.0	1,190.5	1,198.4	1,198.3	3.5	2.6	166.47	10.0	28.0	126.6	121.3	5.33	23.765		
1,300.0	1,289.1	1,302.8	1,302.3	3.8	2.8	168.00	18.4	24.5	134.1	128.3	5.80	23.120		
1,400.0	1,387.8	1,406.4	1,405.1	4.2	3.1	169.34	30.1	19.6	138.2	131.9	6.28	22.010		
1,500.0	1,486.4	1,506.3	1,504.1	4.6	3.3	170.56	42.3	14.4	141.4	134.6	6.76	20.925		
1,600.0	1,585.0	1,606.2	1,603.1	5.0	3.6	171.73	54.5	9.3	144.6	137.3	7.23	19.984		
1,700.0	1,683.6	1,706.1	1,702.1	5.3	3.9	172.84	66.7	4.2	147.8	140.1	7.71	19.162		
1,800.0	1,782.2	1,806.0	1,801.2	5.7	4.2	173.91	78.9	-0.9	151.2	143.0	8.20	18.440		
1,900.0	1,880.8	1,905.9	1,900.2	6.1	4.5	174.93	91.1	-6.1	154.5	145.8	8.68	17.797		
2,000.0	1,979.4	2,005.8	1,999.2	6.5	4.8	175.91	103.3	-11.2	157.9	148.8	9.17	17.224		
2,100.0	2,078.0	2,105.7	2,098.2	6.8	5.1	176.85	115.5	-16.3	161.4	151.8	9.66	16.708		
2,200.0	2,176.6	2,205.6	2,197.3	7.2	5.4	177.74	127.7	-21.4	164.9	154.8	10.15	16.243		
2,300.0	2,275.2	2,305.6	2,296.3	7.6	5.7	178.60	139.9	-26.6	168.5	157.8	10.65	15.820		
2,400.0	2,373.9	2,405.5	2,395.3	8.0	6.0	179.43	152.1	-31.7	172.0	160.9	11.15	15.435		
2,500.0	2,472.5	2,505.4	2,494.3	8.4	6.3	-179.78	164.3	-36.8	175.7	164.0	11.65	15.082		
2,600.0	2,571.1	2,605.3	2,593.4	8.7	6.6	-179.03	176.5	-41.9	179.3	167.2	12.15	14.758		
2,700.0	2,669.7	2,705.2	2,692.4	9.1	7.0	-178.30	188.7	-47.0	183.0	170.3	12.66	14.459		
2,800.0	2,768.3	2,805.1	2,791.4	9.5	7.3	-177.60	200.9	-52.2	186.7	173.5	13.16	14.182		
2,900.0	2,866.9	2,905.0	2,890.4	9.9	7.6	-176.93	213.1	-57.3	190.4	176.7	13.67	13.925		
3,000.0	2,965.5	3,004.9	2,989.5	10.2	7.9	-176.28	225.3	-62.4	194.2	180.0	14.19	13.687		
3,100.0	3,064.1	3,104.8	3,088.5	10.6	8.2	-175.66	237.5	-67.5	198.0	183.3	14.70	13.464		
3,200.0	3,162.7	3,204.7	3,187.5	11.0	8.6	-175.06	249.7	-72.7	201.8	186.5	15.22	13.255		
3,300.0	3,261.3	3,304.6	3,286.5	11.4	8.9	-174.49	261.9	-77.8	205.6	189.8	15.74	13.060		
3,400.0	3,360.0	3,404.5	3,385.6	11.8	9.2	-173.93	274.1	-82.9	209.4	193.2	16.26	12.877		
3,500.0	3,458.6	3,504.4	3,484.6	12.1	9.5	-173.40	286.3	-88.0	213.3	196.5	16.79	12.705		
3,600.0	3,557.2	3,604.3	3,583.6	12.5	9.9	-172.88	298.5	-93.2	217.2	199.9	17.32	12.542		
3,700.0	3,655.8	3,704.2	3,682.6	12.9	10.2	-172.39	310.7	-98.3	221.1	203.2	17.84	12.389		
3,800.0	3,754.4	3,804.1	3,781.7	13.3	10.5	-171.91	322.9	-103.4	225.0	206.6	18.37	12.244		
3,900.0	3,853.0	3,904.0	3,880.7	13.7	10.8	-171.44	335.1	-108.5	228.9	210.0	18.91	12.107		
4,000.0	3,951.6	4,004.0	3,979.7	14.0	11.2	-171.00	347.3	-113.7	232.9	213.4	19.44	11.977		
4,100.0	4,050.2	4,103.9	4,078.8	14.4	11.5	-170.56	359.5	-118.8	236.8	216.8	19.98	11.853		
4,200.0	4,148.8	4,203.8	4,177.8	14.8	11.8	-170.14	371.7	-123.9	240.8	220.3	20.52	11.736		
4,300.0	4,247.4	4,303.7	4,276.8	15.2	12.1	-169.74	383.9	-129.0	244.8	223.7	21.06	11.624		
4,400.0	4,346.1	4,403.6	4,375.8	15.6	12.5	-169.35	396.1	-134.1	248.8	227.2	21.60	11.518		
4,500.0	4,444.7	4,503.5	4,474.9	15.9	12.8	-168.97	408.3	-139.3	252.8	230.6	22.14	11.417		
4,600.0	4,543.3	4,603.4	4,573.9	16.3	13.1	-168.60	420.5	-144.4	256.8	234.1	22.68	11.320		
4,700.0	4,641.9	4,703.3	4,672.9	16.7	13.5	-168.24	432.7	-149.5	260.8	237.6	23.23	11.227		
4,800.0	4,740.5	4,803.2	4,771.9	17.1	13.8	-167.90	444.9	-154.6	264.8	241.1	23.78	11.139		
4,900.0	4,839.1	4,903.1	4,871.0	17.5	14.1	-167.56	457.1	-159.8	268.9	244.6	24.33	11.054		
5,000.0	4,937.7	5,003.0	4,970.0	17.8	14.4	-167.24	469.2	-164.9	272.9	248.1	24.88	10.972		

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

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well Loloff Farms 26H-332
Project:	SEC.26-T5N-R64W	TVD Reference:	WELL @ 4694.0ft (Original Well Elev)
Reference Site:	Loloff Farms 5N64W26I Pad Sec.26-T5N-R64W	MD Reference:	WELL @ 4694.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Loloff Farms 26H-332	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (8-13-14)	Offset TVD Reference:	Offset Datum

Offset Design		Loloff Farms 5N64W26I Pad Sec.26-T5N-R64W - Loloff Farms 26H-432 - Wellbore #1 - Plan #1 (8-13-1)										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		
5,100.0	5,036.3	5,102.9	5,069.0	18.2	14.8	-166.92	481.4	-170.0	277.0	251.6	25.43	10.895		
5,200.0	5,134.9	5,200.0	5,165.3	18.6	15.1	-166.65	493.0	-174.8	281.4	255.5	25.95	10.844		
5,300.0	5,233.6	5,290.3	5,255.1	19.0	15.3	-166.61	501.4	-178.4	288.4	262.0	26.39	10.927		
5,400.0	5,332.2	5,381.3	5,345.9	19.3	15.5	-166.80	507.2	-180.8	298.2	271.4	26.79	11.129		
5,500.0	5,431.1	5,471.9	5,436.4	19.6	15.6	-167.16	510.4	-182.2	309.0	281.8	27.12	11.391		
5,600.0	5,530.5	5,564.9	5,529.5	19.9	15.8	-167.57	511.1	-182.4	319.1	291.7	27.42	11.640		
5,700.0	5,630.2	5,664.6	5,629.2	20.1	15.9	-167.89	511.1	-182.4	326.6	298.9	27.72	11.783		
5,800.0	5,730.1	5,764.6	5,729.1	20.2	16.1	-168.06	511.1	-182.4	330.7	302.7	28.01	11.807		
5,900.0	5,830.1	5,864.5	5,829.1	20.4	16.3	179.51	511.1	-182.4	331.5	295.6	35.92	9.229		
6,000.0	5,930.1	5,964.5	5,929.1	20.5	16.4	179.51	511.1	-182.4	331.5	295.3	36.24	9.150		
6,090.3	6,020.2	6,054.7	6,019.2	20.6	16.6	90.15	511.1	-182.4	331.5	302.4	29.12	11.387		
6,100.0	6,030.0	6,064.4	6,029.0	20.6	16.6	90.06	511.1	-182.4	331.5	302.4	29.14	11.376		
6,200.0	6,128.7	6,164.6	6,128.9	20.7	16.7	91.78	511.1	-176.7	331.7	302.1	29.61	11.203		
6,300.0	6,224.5	6,266.2	6,228.6	20.8	16.8	93.49	511.1	-157.7	332.2	302.2	29.99	11.075		
6,400.0	6,315.7	6,369.1	6,326.1	20.8	16.9	95.13	511.1	-125.1	332.9	302.6	30.31	10.982		
6,500.0	6,400.9	6,473.4	6,419.6	20.9	16.9	96.70	511.1	-78.9	333.8	303.2	30.64	10.896		
6,600.0	6,478.6	6,579.0	6,507.0	20.9	17.0	98.14	511.1	-19.7	334.9	303.8	31.09	10.772		
6,700.0	6,547.4	6,686.0	6,586.2	21.0	17.0	99.44	511.1	51.9	336.1	304.3	31.85	10.553		
6,800.0	6,606.1	6,794.0	6,655.4	21.2	17.1	100.57	511.1	134.8	337.3	304.2	33.12	10.185		
6,900.0	6,653.8	6,903.2	6,712.7	21.5	17.6	101.51	511.1	227.6	338.4	303.3	35.05	9.653		
7,000.0	6,689.6	7,013.1	6,756.4	22.1	18.9	102.23	511.1	328.4	339.2	301.5	37.75	8.987		
7,100.0	6,712.9	7,123.7	6,785.4	23.1	20.6	102.73	511.1	435.0	339.9	298.7	41.17	8.257		
7,200.0	6,723.3	7,234.7	6,798.7	24.6	22.7	102.99	511.1	545.1	340.2	295.1	45.17	7.533		
7,300.0	6,723.1	7,338.9	6,799.1	26.4	24.8	103.07	511.1	649.3	340.3	291.0	49.32	6.901		
7,400.0	6,722.0	7,438.9	6,798.3	28.4	27.0	103.13	511.1	749.3	340.4	286.9	53.55	6.357		
7,500.0	6,720.9	7,538.9	6,797.6	30.6	29.3	103.19	511.1	849.3	340.5	282.5	57.99	5.872		
7,600.0	6,719.7	7,638.9	6,796.8	32.9	31.6	103.26	511.1	949.3	340.6	278.0	62.59	5.442		
7,700.0	6,718.6	7,738.9	6,796.1	35.2	34.1	103.32	511.1	1,049.3	340.7	273.4	67.32	5.061		
7,800.0	6,717.5	7,838.9	6,795.3	37.7	36.6	103.38	511.1	1,149.3	340.8	268.6	72.15	4.723		
7,900.0	6,716.3	7,938.9	6,794.6	40.1	39.1	103.44	511.1	1,249.3	340.9	263.8	77.07	4.423		
8,000.0	6,715.2	8,038.9	6,793.8	42.7	41.6	103.51	511.1	1,349.3	341.0	258.9	82.05	4.155		
8,100.0	6,714.1	8,138.9	6,793.1	45.2	44.2	103.57	511.1	1,449.3	341.1	254.0	87.09	3.916		
8,200.0	6,712.9	8,238.9	6,792.3	47.8	46.8	103.63	511.1	1,549.3	341.1	249.0	92.17	3.701		
8,300.0	6,711.8	8,338.9	6,791.6	50.4	49.5	103.69	511.1	1,649.3	341.2	243.9	97.29	3.507		
8,400.0	6,710.7	8,438.9	6,790.8	53.0	52.1	103.76	511.1	1,749.3	341.3	238.9	102.45	3.332		
8,500.0	6,709.5	8,538.9	6,790.1	55.7	54.8	103.82	511.1	1,849.3	341.4	233.8	107.63	3.172		
8,600.0	6,708.4	8,638.9	6,789.3	58.3	57.5	103.88	511.1	1,949.3	341.5	228.7	112.83	3.027		
8,700.0	6,707.3	8,738.9	6,788.6	61.0	60.2	103.94	511.1	2,049.3	341.6	223.6	118.05	2.894		
8,800.0	6,706.1	8,838.9	6,787.8	63.7	62.9	104.01	511.1	2,149.3	341.7	218.4	123.29	2.772		
8,900.0	6,705.0	8,938.9	6,787.1	66.4	65.6	104.07	511.1	2,249.3	341.8	213.2	128.54	2.659		
9,000.0	6,703.9	9,038.9	6,786.3	69.1	68.3	104.13	511.1	2,349.3	341.9	208.1	133.80	2.555		
9,100.0	6,702.7	9,138.9	6,785.6	71.8	71.0	104.19	511.1	2,449.3	342.0	202.9	139.08	2.459		
9,200.0	6,701.6	9,238.9	6,784.8	74.5	73.8	104.26	511.1	2,549.3	342.1	197.7	144.36	2.370		
9,300.0	6,700.5	9,338.9	6,784.1	77.2	76.5	104.32	511.1	2,649.3	342.2	192.5	149.65	2.286		
9,400.0	6,699.3	9,438.9	6,783.3	80.0	79.3	104.38	511.1	2,749.3	342.3	187.3	154.95	2.209		
9,500.0	6,698.2	9,538.9	6,782.6	82.7	82.0	104.44	511.1	2,849.3	342.4	182.1	160.25	2.136		
9,600.0	6,697.0	9,638.9	6,781.8	85.4	84.8	104.51	511.1	2,949.2	342.4	176.9	165.56	2.068		
9,700.0	6,695.9	9,738.9	6,781.1	88.2	87.5	104.57	511.1	3,049.2	342.5	171.7	170.87	2.005		
9,800.0	6,694.8	9,838.9	6,780.3	90.9	90.3	104.63	511.1	3,149.2	342.6	166.5	176.18	1.945		
9,900.0	6,693.6	9,938.9	6,779.6	93.7	93.0	104.69	511.1	3,249.2	342.7	161.2	181.50	1.888		

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

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well Loloff Farms 26H-332
Project:	SEC.26-T5N-R64W	TVD Reference:	WELL @ 4694.0ft (Original Well Elev)
Reference Site:	Loloff Farms 5N64W26I Pad Sec.26-T5N-R64W	MD Reference:	WELL @ 4694.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Loloff Farms 26H-332	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (8-13-14)	Offset TVD Reference:	Offset Datum

Offset Design										Survey Program: 0-MWD			Offset Site Error: 0.0 ft	
Reference		Offset		Semi Major Axis			Distance					Offset Well Error: 0.0 ft		
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	
10,000.0	6,692.5	10,038.9	6,778.8	96.4	95.8	104.75	511.1	3,349.2	342.8	156.0	186.82	1.835		
10,100.0	6,691.4	10,138.9	6,778.1	99.2	98.6	104.82	511.1	3,449.2	342.9	150.8	192.14	1.785		
10,200.0	6,690.2	10,238.9	6,777.3	102.0	101.3	104.88	511.1	3,549.2	343.0	145.6	197.46	1.737		
10,300.0	6,689.1	10,338.9	6,776.6	104.7	104.1	104.94	511.1	3,649.2	343.1	140.3	202.79	1.692		
10,400.0	6,688.0	10,438.9	6,775.8	107.5	106.9	105.00	511.1	3,749.2	343.2	135.1	208.11	1.649		
10,500.0	6,686.8	10,538.9	6,775.1	110.3	109.7	105.06	511.1	3,849.2	343.3	129.9	213.44	1.609		
10,600.0	6,685.7	10,638.9	6,774.3	113.0	112.4	105.13	511.1	3,949.2	343.4	124.7	218.76	1.570		
10,700.0	6,684.6	10,738.9	6,773.6	115.8	115.2	105.19	511.1	4,049.2	343.5	119.4	224.08	1.533		
10,800.0	6,683.4	10,838.9	6,772.8	118.6	118.0	105.25	511.1	4,149.2	343.6	114.2	229.41	1.498	Level 3	
10,900.0	6,682.3	10,938.9	6,772.1	121.3	120.8	105.31	511.1	4,249.2	343.7	109.0	234.73	1.464	Level 3	
11,000.0	6,681.2	11,038.9	6,771.3	124.1	123.6	105.37	511.1	4,349.2	343.8	103.8	240.06	1.432	Level 3	
11,100.0	6,680.0	11,138.9	6,770.6	126.9	126.3	105.43	511.1	4,449.2	343.9	98.6	245.38	1.402	Level 3	
11,200.0	6,678.9	11,238.9	6,769.8	129.7	129.1	105.50	511.1	4,549.2	344.0	93.3	250.70	1.372	Level 3	
11,300.0	6,677.8	11,338.9	6,769.1	132.5	131.9	105.56	511.1	4,649.2	344.1	88.1	256.02	1.344	Level 3	
11,400.0	6,676.6	11,438.9	6,768.3	135.2	134.7	105.62	511.1	4,749.2	344.2	82.9	261.34	1.317	Level 3	
11,500.0	6,675.5	11,538.9	6,767.6	138.0	137.5	105.68	511.1	4,849.2	344.3	77.7	266.65	1.291	Level 3	
11,600.0	6,674.4	11,638.9	6,766.8	140.8	140.3	105.74	511.1	4,949.2	344.5	72.5	271.97	1.267	Level 3	
11,700.0	6,673.2	11,738.9	6,766.1	143.6	143.1	105.80	511.1	5,049.2	344.6	67.3	277.28	1.243	Level 2	
11,800.0	6,672.1	11,838.9	6,765.3	146.4	145.9	105.87	511.1	5,149.2	344.7	62.1	282.59	1.220	Level 2	
11,900.0	6,671.0	11,938.9	6,764.6	149.2	148.6	105.93	511.1	5,249.2	344.8	56.9	287.90	1.198	Level 2	
12,000.0	6,669.8	12,038.9	6,763.8	152.0	151.4	105.99	511.1	5,349.2	344.9	51.7	293.21	1.176	Level 2	
12,100.0	6,668.7	12,138.9	6,763.1	154.7	154.2	106.05	511.1	5,449.2	345.0	46.5	298.52	1.156	Level 2	
12,200.0	6,667.6	12,238.9	6,762.3	157.5	157.0	106.11	511.1	5,549.2	345.1	41.3	303.82	1.136	Level 2	
12,300.0	6,666.4	12,338.9	6,761.6	160.3	159.8	106.17	511.1	5,649.2	345.2	36.1	309.12	1.117	Level 2	
12,400.0	6,665.3	12,438.9	6,760.8	163.1	162.6	106.23	511.1	5,749.1	345.3	30.9	314.42	1.098	Level 2	
12,500.0	6,664.2	12,538.9	6,760.1	165.9	165.4	106.29	511.1	5,849.1	345.4	25.7	319.71	1.080	Level 2	
12,600.0	6,663.0	12,638.9	6,759.3	168.7	168.2	106.36	511.1	5,949.1	345.5	20.5	325.01	1.063	Level 2	
12,700.0	6,661.9	12,738.9	6,758.6	171.5	171.0	106.42	511.1	6,049.1	345.6	15.3	330.30	1.046	Level 2	
12,800.0	6,660.7	12,838.9	6,757.8	174.3	173.8	106.48	511.1	6,149.1	345.7	10.1	335.59	1.030	Level 2	
12,900.0	6,659.6	12,938.9	6,757.1	177.1	176.6	106.54	511.1	6,249.1	345.8	5.0	340.88	1.015	Level 2	
13,000.0	6,658.5	13,038.9	6,756.3	179.9	179.4	106.60	511.1	6,349.1	346.0	-0.2	346.16	0.999	Level 1	
13,100.0	6,657.3	13,138.9	6,755.6	182.7	182.2	106.66	511.1	6,449.1	346.1	-5.4	351.44	0.985	Level 1	
13,200.0	6,656.2	13,238.9	6,754.8	185.5	185.0	106.72	511.1	6,549.1	346.2	-10.5	356.72	0.970	Level 1	
13,300.0	6,655.1	13,338.9	6,754.1	188.2	187.8	106.78	511.1	6,649.1	346.3	-15.7	361.99	0.957	Level 1	
13,400.0	6,653.9	13,438.9	6,753.3	191.0	190.6	106.84	511.1	6,749.1	346.4	-20.9	367.27	0.943	Level 1	
13,500.0	6,652.8	13,538.9	6,752.6	193.8	193.4	106.90	511.1	6,849.1	346.5	-26.0	372.54	0.930	Level 1	
13,600.0	6,651.7	13,638.9	6,751.8	196.6	196.2	106.96	511.1	6,949.1	346.6	-31.2	377.80	0.917	Level 1	
13,700.0	6,650.5	13,738.9	6,751.1	199.4	199.0	107.03	511.1	7,049.1	346.7	-36.3	383.07	0.905	Level 1	
13,800.0	6,649.4	13,838.9	6,750.3	202.2	201.8	107.09	511.1	7,149.1	346.8	-41.5	388.33	0.893	Level 1	
13,835.6	6,649.0	13,874.5	6,750.0	203.2	202.8	107.11	511.1	7,184.7	346.9	-43.3	390.20	0.889	Level 1, ES, SF	

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well Loloff Farms 26H-332
Project:	SEC.26-T5N-R64W	TVD Reference:	WELL @ 4694.0ft (Original Well Elev)
Reference Site:	Loloff Farms 5N64W26I Pad Sec.26-T5N-R64W	MD Reference:	WELL @ 4694.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Loloff Farms 26H-332	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (8-13-14)	Offset TVD Reference:	Offset Datum

Offset Design		Loloff Farms 5N64W26I Pad Sec.26-T5N-R64W - Loloff Farms 26I-212 - Wellbore #1 - Plan #1 (8-13-14)										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	86.60	3.6	61.3	61.4					
100.0	100.0	99.0	99.0	0.1	0.1	86.60	3.6	61.3	61.4	61.2	0.22	274.613		
200.0	200.0	199.0	199.0	0.3	0.3	86.60	3.6	61.3	61.4	60.7	0.67	91.385	CC	
300.0	300.0	299.0	299.0	0.6	0.6	100.60	3.6	61.3	61.7	60.6	1.12	55.037	ES	
400.0	399.8	398.8	398.8	0.8	0.8	105.26	3.6	61.3	62.9	61.3	1.58	39.876		
500.0	499.5	498.5	498.5	1.0	1.0	112.53	3.6	61.3	65.7	63.7	2.05	32.067		
600.0	598.7	597.7	597.7	1.3	1.2	121.47	3.6	61.3	71.3	68.8	2.54	28.056		
700.0	697.5	696.5	696.5	1.6	1.5	130.78	3.6	61.3	80.6	77.5	3.04	26.480		
800.0	796.1	795.1	795.1	2.0	1.7	138.56	3.6	61.3	92.4	88.8	3.53	26.152		
900.0	894.7	893.7	893.7	2.4	1.9	144.51	3.6	61.3	105.5	101.5	4.01	26.307		
1,000.0	993.3	992.3	992.3	2.7	2.1	149.13	3.6	61.3	119.4	115.0	4.48	26.668		
1,100.0	1,091.9	1,090.9	1,090.9	3.1	2.3	152.76	3.6	61.3	134.0	129.1	4.94	27.104		
1,200.0	1,190.5	1,189.5	1,189.5	3.5	2.6	155.68	3.6	61.3	149.0	143.6	5.41	27.554		
1,300.0	1,289.1	1,288.1	1,288.1	3.8	2.8	158.06	3.6	61.3	164.3	158.5	5.87	27.988		
1,400.0	1,387.8	1,386.8	1,386.8	4.2	3.0	160.04	3.6	61.3	179.9	173.6	6.34	28.395		
1,500.0	1,486.4	1,485.4	1,485.4	4.6	3.2	161.70	3.6	61.3	195.6	188.8	6.80	28.771		
1,600.0	1,585.0	1,584.0	1,584.0	5.0	3.4	163.11	3.6	61.3	211.5	204.2	7.26	29.116		
1,700.0	1,683.6	1,682.6	1,682.6	5.3	3.7	164.32	3.6	61.3	227.4	219.7	7.73	29.432		
1,800.0	1,782.2	1,781.2	1,781.2	5.7	3.9	165.38	3.6	61.3	243.5	235.3	8.19	29.720		
1,900.0	1,880.8	1,886.8	1,886.7	6.1	4.1	166.50	4.4	60.3	258.5	249.9	8.66	29.837		
2,000.0	1,979.4	1,994.7	1,994.5	6.5	4.4	167.91	7.6	56.0	270.5	261.3	9.13	29.619		
2,100.0	2,078.0	2,103.0	2,102.5	6.8	4.6	169.62	13.2	48.5	279.3	269.7	9.60	29.089		
2,200.0	2,176.6	2,207.8	2,206.5	7.2	4.9	171.55	20.8	38.3	285.4	275.3	10.07	28.339		
2,300.0	2,275.2	2,307.2	2,305.1	7.6	5.1	173.37	28.4	28.1	291.2	280.6	10.54	27.631		
2,400.0	2,373.9	2,406.6	2,403.7	8.0	5.4	175.12	36.0	17.9	297.3	286.3	11.02	26.986		
2,500.0	2,472.5	2,506.0	2,502.3	8.4	5.6	176.80	43.6	7.7	303.7	292.2	11.50	26.395		
2,600.0	2,571.1	2,605.5	2,600.9	8.7	5.9	178.41	51.1	-2.5	310.3	298.3	12.00	25.852		
2,700.0	2,669.7	2,704.9	2,699.4	9.1	6.2	179.95	58.7	-12.6	317.1	304.6	12.51	25.352		
2,800.0	2,768.3	2,804.3	2,798.0	9.5	6.4	-178.57	66.3	-22.8	324.2	311.2	13.03	24.888		
2,900.0	2,866.9	2,903.7	2,896.6	9.9	6.7	-177.16	73.9	-33.0	331.5	318.0	13.55	24.458		
3,000.0	2,965.5	3,003.1	2,995.2	10.2	7.0	-175.81	81.5	-43.2	339.0	324.9	14.09	24.059		
3,100.0	3,064.1	3,102.5	3,093.8	10.6	7.3	-174.52	89.1	-53.4	346.6	332.0	14.63	23.687		
3,200.0	3,162.7	3,201.9	3,192.4	11.0	7.6	-173.28	96.7	-63.6	354.5	339.3	15.19	23.340		
3,300.0	3,261.3	3,301.3	3,291.0	11.4	7.9	-172.10	104.3	-73.8	362.5	346.7	15.75	23.016		
3,400.0	3,360.0	3,400.7	3,389.6	11.8	8.2	-170.97	111.9	-83.9	370.6	354.3	16.32	22.713		
3,500.0	3,458.6	3,500.1	3,488.2	12.1	8.5	-169.89	119.4	-94.1	378.9	362.0	16.89	22.430		
3,600.0	3,557.2	3,599.5	3,586.8	12.5	8.8	-168.85	127.0	-104.3	387.3	369.8	17.47	22.164		
3,700.0	3,655.8	3,698.9	3,685.4	12.9	9.1	-167.86	134.6	-114.5	395.8	377.7	18.06	21.915		
3,800.0	3,754.4	3,798.3	3,783.9	13.3	9.4	-166.91	142.2	-124.7	404.4	385.8	18.65	21.681		
3,900.0	3,853.0	3,897.7	3,882.5	13.7	9.7	-166.00	149.8	-134.9	413.1	393.9	19.25	21.461		
4,000.0	3,951.6	3,997.1	3,981.1	14.0	10.0	-165.13	157.4	-145.1	422.0	402.1	19.85	21.255		
4,100.0	4,050.2	4,096.5	4,079.7	14.4	10.3	-164.29	165.0	-155.3	430.9	410.5	20.46	21.061		
4,200.0	4,148.8	4,192.5	4,174.9	14.8	10.6	-163.55	172.1	-164.9	440.1	419.1	21.04	20.917		
4,300.0	4,247.4	4,284.2	4,266.2	15.2	10.8	-163.14	177.5	-172.0	450.8	429.3	21.53	20.940		
4,400.0	4,346.1	4,375.6	4,357.4	15.6	11.0	-163.05	181.1	-176.8	463.3	441.3	21.98	21.078		
4,500.0	4,444.7	4,466.6	4,448.3	15.9	11.2	-163.27	182.9	-179.3	477.4	455.0	22.39	21.322		
4,600.0	4,543.3	4,560.6	4,542.3	16.3	11.3	-163.76	183.2	-179.7	493.0	470.3	22.78	21.642		
4,700.0	4,641.9	4,659.2	4,640.9	16.7	11.5	-164.28	183.2	-179.7	509.0	485.8	23.20	21.945		
4,800.0	4,740.5	4,757.8	4,739.5	17.1	11.7	-164.77	183.2	-179.7	525.1	501.4	23.62	22.229		
4,900.0	4,839.1	4,856.4	4,838.1	17.5	11.9	-165.23	183.2	-179.7	541.1	517.1	24.05	22.501		
5,000.0	4,937.7	4,955.0	4,936.7	17.8	12.1	-165.67	183.2	-179.7	557.2	532.7	24.48	22.764		

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

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well Loloff Farms 26H-332
Project:	SEC.26-T5N-R64W	TVD Reference:	WELL @ 4694.0ft (Original Well Elev)
Reference Site:	Loloff Farms 5N64W26I Pad Sec.26-T5N-R64W	MD Reference:	WELL @ 4694.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Loloff Farms 26H-332	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (8-13-14)	Offset TVD Reference:	Offset Datum

Offset Design		Loloff Farms 5N64W26I Pad Sec.26-T5N-R64W - Loloff Farms 26I-212 - Wellbore #1 - Plan #1 (8-13-14)										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		
5,100.0	5,036.3	5,053.6	5,035.3	18.2	12.3	-166.08	183.2	-179.7	573.3	548.4	24.91	23.016		
5,200.0	5,134.9	5,152.2	5,133.9	18.6	12.5	-166.46	183.2	-179.7	589.5	564.2	25.35	23.259		
5,300.0	5,233.6	5,250.8	5,232.6	19.0	12.7	-166.83	183.2	-179.7	605.7	579.9	25.78	23.493		
5,400.0	5,332.2	5,349.4	5,331.2	19.3	12.9	-167.19	183.2	-179.7	621.9	595.6	26.22	23.717		
5,500.0	5,431.1	5,448.4	5,430.1	19.6	13.1	-167.54	183.2	-179.7	636.1	609.5	26.63	23.886		
5,600.0	5,530.5	5,547.7	5,529.5	19.9	13.3	-167.80	183.2	-179.7	647.0	620.0	27.02	23.949		
5,700.0	5,630.2	5,647.4	5,629.2	20.1	13.5	-167.97	183.2	-179.7	654.5	627.1	27.37	23.912		
5,800.0	5,730.1	5,747.3	5,729.1	20.2	13.7	-168.07	183.2	-179.7	658.6	630.9	27.70	23.779		
5,900.0	5,830.1	5,847.3	5,829.1	20.4	13.9	179.51	183.2	-179.7	659.4	626.2	33.24	19.838		
5,954.6	5,884.7	5,901.9	5,883.7	20.4	14.0	179.51	183.2	-179.7	659.4	626.0	33.43	19.724		
6,000.0	5,930.1	5,947.1	5,928.8	20.5	14.1	179.47	183.2	-179.2	659.4	625.9	33.59	19.632		
6,100.0	6,030.0	6,045.7	6,026.8	20.6	14.2	88.88	183.2	-169.3	659.5	630.9	28.68	22.995		
6,200.0	6,128.7	6,143.3	6,121.9	20.7	14.3	88.26	183.2	-147.2	659.7	630.9	28.87	22.854		
6,300.0	6,224.5	6,240.1	6,212.5	20.8	14.4	87.67	183.2	-113.5	660.0	630.9	29.03	22.735		
6,400.0	6,315.7	6,336.1	6,297.5	20.8	14.4	87.12	183.2	-69.0	660.3	631.0	29.24	22.579		
6,500.0	6,400.9	6,431.4	6,375.7	20.9	14.5	86.62	183.2	-14.6	660.6	631.0	29.61	22.310		
6,600.0	6,478.6	6,526.1	6,446.1	20.9	14.8	86.18	183.2	48.7	660.9	630.6	30.25	21.846		
6,700.0	6,547.4	6,620.3	6,507.9	21.0	15.3	85.80	183.2	119.7	661.2	629.9	31.30	21.122		
6,800.0	6,606.1	6,714.1	6,560.2	21.2	16.1	85.49	183.2	197.5	661.5	628.6	32.87	20.126		
6,900.0	6,653.8	6,807.5	6,602.4	21.5	17.2	85.25	183.2	280.7	661.7	626.7	35.00	18.903		
7,000.0	6,689.6	6,900.0	6,634.0	22.1	18.5	85.08	183.2	367.6	661.9	624.2	37.70	17.556		
7,100.0	6,712.9	6,993.7	6,655.0	23.1	20.2	85.00	183.2	458.9	661.9	621.0	40.93	16.172		
7,200.0	6,723.3	7,086.7	6,664.6	24.6	22.0	85.00	183.2	551.3	661.9	617.4	44.54	14.862		
7,249.5	6,724.6	7,132.7	6,665.2	25.5	22.9	84.94	183.2	597.3	662.0	615.5	46.46	14.250		
7,300.0	6,723.1	7,183.2	6,664.4	26.4	24.0	84.99	183.2	647.8	661.9	613.4	48.54	13.637		
7,400.0	6,722.0	7,283.2	6,662.7	28.4	26.2	84.95	183.2	747.8	662.0	609.1	52.90	12.514		
7,500.0	6,720.9	7,383.2	6,661.1	30.6	28.5	84.91	183.2	847.8	662.0	604.6	57.47	11.520		
7,600.0	6,719.7	7,483.2	6,659.5	32.9	30.9	84.86	183.2	947.8	662.1	599.9	62.20	10.643		
7,700.0	6,718.6	7,583.2	6,657.8	35.2	33.3	84.82	183.2	1,047.7	662.1	595.0	67.07	9.872		
7,800.0	6,717.5	7,683.2	6,656.2	37.7	35.8	84.78	183.2	1,147.7	662.2	590.1	72.04	9.191		
7,900.0	6,716.3	7,783.2	6,654.5	40.1	38.4	84.73	183.2	1,247.7	662.2	585.1	77.10	8.589		
8,000.0	6,715.2	7,883.2	6,652.9	42.7	41.0	84.69	183.2	1,347.7	662.3	580.0	82.22	8.054		
8,100.0	6,714.1	7,983.2	6,651.3	45.2	43.6	84.64	183.2	1,447.7	662.3	574.9	87.40	7.578		
8,200.0	6,712.9	8,083.2	6,649.6	47.8	46.2	84.60	183.2	1,547.7	662.4	569.7	92.63	7.151		
8,300.0	6,711.8	8,183.2	6,648.0	50.4	48.9	84.56	183.2	1,647.7	662.4	564.5	97.89	6.767		
8,400.0	6,710.7	8,283.2	6,646.3	53.0	51.5	84.51	183.2	1,747.6	662.5	559.3	103.19	6.420		
8,500.0	6,709.5	8,383.2	6,644.7	55.7	54.2	84.47	183.2	1,847.6	662.5	554.0	108.52	6.105		
8,600.0	6,708.4	8,483.2	6,643.1	58.3	56.9	84.43	183.2	1,947.6	662.5	548.7	113.87	5.819		
8,700.0	6,707.3	8,583.2	6,641.4	61.0	59.6	84.38	183.2	2,047.6	662.6	543.4	119.24	5.557		
8,800.0	6,706.1	8,683.2	6,639.8	63.7	62.4	84.34	183.2	2,147.6	662.6	538.0	124.63	5.317		
8,900.0	6,705.0	8,783.2	6,638.1	66.4	65.1	84.30	183.2	2,247.6	662.7	532.7	130.03	5.096		
9,000.0	6,703.9	8,883.2	6,636.5	69.1	67.8	84.25	183.2	2,347.6	662.7	527.3	135.45	4.893		
9,100.0	6,702.7	8,983.2	6,634.9	71.8	70.5	84.21	183.2	2,447.5	662.8	521.9	140.88	4.705		
9,200.0	6,701.6	9,083.2	6,633.2	74.5	73.3	84.17	183.2	2,547.5	662.9	516.5	146.32	4.530		
9,300.0	6,700.5	9,183.2	6,631.6	77.2	76.0	84.12	183.2	2,647.5	662.9	511.1	151.76	4.368		
9,400.0	6,699.3	9,283.2	6,629.9	80.0	78.8	84.08	183.2	2,747.5	663.0	505.7	157.22	4.217		
9,500.0	6,698.2	9,383.2	6,628.3	82.7	81.5	84.03	183.2	2,847.5	663.0	500.3	162.69	4.075		
9,600.0	6,697.0	9,483.2	6,626.6	85.4	84.3	83.99	183.2	2,947.5	663.1	494.9	168.16	3.943		
9,700.0	6,695.9	9,583.2	6,625.0	88.2	87.1	83.95	183.2	3,047.5	663.1	489.5	173.63	3.819		
9,800.0	6,694.8	9,683.2	6,623.4	90.9	89.8	83.90	183.2	3,147.4	663.2	484.1	179.11	3.703		

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

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well Loloff Farms 26H-332
Project:	SEC.26-T5N-R64W	TVD Reference:	WELL @ 4694.0ft (Original Well Elev)
Reference Site:	Loloff Farms 5N64W26I Pad Sec.26-T5N-R64W	MD Reference:	WELL @ 4694.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Loloff Farms 26H-332	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (8-13-14)	Offset TVD Reference:	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
9,900.0	6,693.6	9,783.2	6,621.7	93.7	92.6	83.86	183.2	3,247.4	663.2	478.6	184.60	3.593	
10,000.0	6,692.5	9,883.2	6,620.1	96.4	95.4	83.82	183.2	3,347.4	663.3	473.2	190.09	3.489	
10,100.0	6,691.4	9,983.2	6,618.4	99.2	98.1	83.77	183.2	3,447.4	663.3	467.7	195.58	3.392	
10,200.0	6,690.2	10,083.2	6,616.8	102.0	100.9	83.73	183.2	3,547.4	663.4	462.3	201.08	3.299	
10,300.0	6,689.1	10,183.2	6,615.2	104.7	103.7	83.69	183.2	3,647.4	663.4	456.9	206.57	3.212	
10,400.0	6,688.0	10,283.2	6,613.5	107.5	106.5	83.64	183.2	3,747.3	663.5	451.4	212.08	3.129	
10,500.0	6,686.8	10,383.2	6,611.9	110.3	109.2	83.60	183.2	3,847.3	663.6	446.0	217.58	3.050	
10,600.0	6,685.7	10,483.2	6,610.2	113.0	112.0	83.56	183.2	3,947.3	663.6	440.5	223.09	2.975	
10,700.0	6,684.6	10,583.2	6,608.6	115.8	114.8	83.51	183.2	4,047.3	663.7	435.1	228.59	2.903	
10,800.0	6,683.4	10,683.2	6,607.0	118.6	117.6	83.47	183.2	4,147.3	663.7	429.6	234.10	2.835	
10,900.0	6,682.3	10,783.2	6,605.3	121.3	120.4	83.43	183.2	4,247.3	663.8	424.2	239.61	2.770	
11,000.0	6,681.2	10,883.2	6,603.7	124.1	123.1	83.38	183.2	4,347.3	663.8	418.7	245.13	2.708	
11,100.0	6,680.0	10,983.2	6,602.0	126.9	125.9	83.34	183.2	4,447.2	663.9	413.3	250.64	2.649	
11,200.0	6,678.9	11,083.2	6,600.4	129.7	128.7	83.30	183.2	4,547.2	664.0	407.8	256.15	2.592	
11,300.0	6,677.8	11,183.2	6,598.8	132.5	131.5	83.25	183.2	4,647.2	664.0	402.3	261.67	2.538	
11,400.0	6,676.6	11,283.2	6,597.1	135.2	134.3	83.21	183.2	4,747.2	664.1	396.9	267.18	2.485	
11,500.0	6,675.5	11,383.2	6,595.5	138.0	137.1	83.17	183.2	4,847.2	664.1	391.4	272.70	2.435	
11,600.0	6,674.4	11,483.2	6,593.8	140.8	139.9	83.12	183.2	4,947.2	664.2	386.0	278.22	2.387	
11,700.0	6,673.2	11,583.2	6,592.2	143.6	142.7	83.08	183.2	5,047.2	664.3	380.5	283.73	2.341	
11,800.0	6,672.1	11,683.2	6,590.6	146.4	145.5	83.04	183.2	5,147.1	664.3	375.1	289.25	2.297	
11,900.0	6,671.0	11,783.2	6,588.9	149.2	148.3	82.99	183.2	5,247.1	664.4	369.6	294.77	2.254	
12,000.0	6,669.8	11,883.2	6,587.3	152.0	151.0	82.95	183.2	5,347.1	664.4	364.2	300.28	2.213	
12,100.0	6,668.7	11,983.2	6,585.6	154.7	153.8	82.91	183.2	5,447.1	664.5	358.7	305.80	2.173	
12,200.0	6,667.6	12,083.2	6,584.0	157.5	156.6	82.86	183.2	5,547.1	664.6	353.2	311.32	2.135	
12,300.0	6,666.4	12,183.2	6,582.4	160.3	159.4	82.82	183.2	5,647.1	664.6	347.8	316.84	2.098	
12,400.0	6,665.3	12,283.1	6,580.7	163.1	162.2	82.78	183.2	5,747.1	664.7	342.3	322.35	2.062	
12,500.0	6,664.2	12,383.1	6,579.1	165.9	165.0	82.73	183.2	5,847.0	664.8	336.9	327.87	2.028	
12,600.0	6,663.0	12,483.1	6,577.4	168.7	167.8	82.69	183.2	5,947.0	664.8	331.4	333.39	1.994	
12,700.0	6,661.9	12,583.1	6,575.8	171.5	170.6	82.65	183.2	6,047.0	664.9	326.0	338.90	1.962	
12,800.0	6,660.7	12,683.1	6,574.2	174.3	173.4	82.60	183.2	6,147.0	664.9	320.5	344.42	1.931	
12,900.0	6,659.6	12,783.1	6,572.5	177.1	176.2	82.56	183.2	6,247.0	665.0	315.1	349.93	1.900	
13,000.0	6,658.5	12,883.1	6,570.9	179.9	179.0	82.52	183.2	6,347.0	665.1	309.6	355.45	1.871	
13,100.0	6,657.3	12,983.1	6,569.2	182.7	181.8	82.47	183.2	6,447.0	665.1	304.2	360.96	1.843	
13,200.0	6,656.2	13,083.1	6,567.6	185.5	184.6	82.43	183.2	6,546.9	665.2	298.7	366.47	1.815	
13,300.0	6,655.1	13,183.1	6,566.0	188.2	187.4	82.39	183.2	6,646.9	665.3	293.3	371.99	1.788	
13,400.0	6,653.9	13,283.1	6,564.3	191.0	190.2	82.34	183.2	6,746.9	665.3	287.8	377.50	1.763	
13,500.0	6,652.8	13,383.1	6,562.7	193.8	193.0	82.30	183.2	6,846.9	665.4	282.4	383.01	1.737	
13,600.0	6,651.7	13,483.1	6,561.0	196.6	195.8	82.26	183.2	6,946.9	665.5	277.0	388.52	1.713	
13,700.0	6,650.5	13,583.1	6,559.4	199.4	198.6	82.21	183.2	7,046.9	665.6	271.5	394.03	1.689	
13,800.0	6,649.4	13,683.1	6,557.7	202.2	201.4	82.17	183.2	7,146.8	665.6	266.1	399.54	1.666	
13,835.6	6,649.0	13,718.7	6,557.2	203.2	202.4	82.16	183.2	7,182.4	665.6	264.1	401.50	1.658 SF	

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well Loloff Farms 26H-332
Project:	SEC.26-T5N-R64W	TVD Reference:	WELL @ 4694.0ft (Original Well Elev)
Reference Site:	Loloff Farms 5N64W26I Pad Sec.26-T5N-R64W	MD Reference:	WELL @ 4694.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Loloff Farms 26H-332	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (8-13-14)	Offset TVD Reference:	Offset Datum

Offset Design		Loloff Farms 5N64W26I Pad Sec.26-T5N-R64W - Loloff Farms 26I-402 - Wellbore #1 - Plan #1 (8-13-14)										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	87.66	3.6	89.2	89.3					
100.0	100.0	98.0	98.0	0.1	0.1	87.66	3.6	89.2	89.2	89.0	0.22	401.079		
200.0	200.0	198.0	198.0	0.3	0.3	87.66	3.6	89.2	89.2	88.6	0.67	133.247 CC		
300.0	300.0	298.0	298.0	0.6	0.6	101.16	3.6	89.2	89.6	88.5	1.12	80.040 ES		
400.0	399.8	397.8	397.8	0.8	0.8	104.38	3.6	89.2	90.7	89.2	1.57	57.615		
500.0	499.5	497.5	497.5	1.0	1.0	109.50	3.6	89.2	93.3	91.2	2.05	45.557		
600.0	598.7	596.7	596.7	1.3	1.2	116.10	3.6	89.2	98.0	95.5	2.54	38.551		
700.0	697.5	695.5	695.5	1.6	1.5	123.53	3.6	89.2	105.9	102.8	3.06	34.633		
800.0	796.1	794.1	794.1	2.0	1.7	130.33	3.6	89.2	116.0	112.4	3.56	32.529		
900.0	894.7	892.7	892.7	2.4	1.9	136.00	3.6	89.2	127.4	123.4	4.06	31.383		
1,000.0	993.3	991.3	991.3	2.7	2.1	140.70	3.6	89.2	139.9	135.4	4.54	30.787		
1,100.0	1,091.9	1,089.9	1,089.9	3.1	2.3	144.62	3.6	89.2	153.2	148.2	5.02	30.511		
1,200.0	1,190.5	1,188.5	1,188.5	3.5	2.6	147.91	3.6	89.2	167.1	161.6	5.49	30.421		
1,300.0	1,289.1	1,287.1	1,287.1	3.8	2.8	150.69	3.6	89.2	181.4	175.5	5.96	30.440		
1,400.0	1,387.8	1,385.8	1,385.8	4.2	3.0	153.06	3.6	89.2	196.1	189.7	6.43	30.522		
1,500.0	1,486.4	1,484.4	1,484.4	4.6	3.2	155.10	3.6	89.2	211.1	204.2	6.89	30.640		
1,600.0	1,585.0	1,583.0	1,583.0	5.0	3.4	156.86	3.6	89.2	226.3	219.0	7.35	30.776		
1,700.0	1,683.6	1,681.6	1,681.6	5.3	3.7	158.41	3.6	89.2	241.7	233.9	7.82	30.921		
1,800.0	1,782.2	1,780.2	1,780.2	5.7	3.9	159.77	3.6	89.2	257.3	249.0	8.28	31.067		
1,900.0	1,880.8	1,878.8	1,878.8	6.1	4.1	160.97	3.6	89.2	272.9	264.2	8.74	31.211		
2,000.0	1,979.4	1,977.4	1,977.4	6.5	4.3	162.05	3.6	89.2	288.7	279.5	9.21	31.352		
2,100.0	2,078.0	2,076.0	2,076.0	6.8	4.6	163.01	3.6	89.2	304.6	294.9	9.67	31.486		
2,200.0	2,176.6	2,174.6	2,174.6	7.2	4.8	163.88	3.6	89.2	320.5	310.4	10.14	31.615		
2,300.0	2,275.2	2,273.2	2,273.2	7.6	5.0	164.66	3.6	89.2	336.5	325.9	10.60	31.737		
2,400.0	2,373.9	2,371.9	2,371.9	8.0	5.2	165.37	3.6	89.2	352.6	341.5	11.07	31.853		
2,500.0	2,472.5	2,470.5	2,470.5	8.4	5.4	166.03	3.6	89.2	368.7	357.2	11.54	31.962		
2,600.0	2,571.1	2,568.4	2,568.4	8.7	5.6	166.74	3.2	88.5	384.9	372.9	11.98	32.119		
2,700.0	2,669.7	2,665.7	2,665.6	9.1	5.8	167.85	1.3	85.0	401.5	389.1	12.41	32.362		
2,800.0	2,768.3	2,762.3	2,761.9	9.5	6.0	169.32	-2.3	78.7	418.5	405.7	12.82	32.651		
2,900.0	2,866.9	2,857.9	2,857.0	9.9	6.2	171.08	-7.3	69.7	436.3	423.0	13.23	32.968		
3,000.0	2,965.5	2,955.1	2,953.4	10.2	6.4	172.95	-13.4	59.1	454.7	441.1	13.67	33.274		
3,100.0	3,064.1	3,052.3	3,049.8	10.6	6.6	174.67	-19.4	48.5	473.6	459.5	14.11	33.559		
3,200.0	3,162.7	3,149.5	3,146.3	11.0	6.9	176.26	-25.4	37.8	492.9	478.3	14.57	33.824		
3,300.0	3,261.3	3,246.7	3,242.7	11.4	7.1	177.74	-31.4	27.2	512.6	497.5	15.05	34.067		
3,400.0	3,360.0	3,343.9	3,339.2	11.8	7.3	179.10	-37.4	16.6	532.5	517.0	15.53	34.293		
3,500.0	3,458.6	3,441.2	3,435.6	12.1	7.6	-179.63	-43.4	5.9	552.7	536.7	16.02	34.503		
3,600.0	3,557.2	3,538.4	3,532.0	12.5	7.8	-178.45	-49.4	-4.7	573.2	556.6	16.52	34.699		
3,700.0	3,655.8	3,635.6	3,628.5	12.9	8.1	-177.35	-55.4	-15.3	593.8	576.8	17.02	34.882		
3,800.0	3,754.4	3,732.8	3,724.9	13.3	8.3	-176.32	-61.4	-26.0	614.7	597.2	17.54	35.053		
3,900.0	3,853.0	3,830.0	3,821.4	13.7	8.6	-175.36	-67.5	-36.6	635.8	617.7	18.05	35.214		
4,000.0	3,951.6	3,927.2	3,917.8	14.0	8.9	-174.46	-73.5	-47.2	657.0	638.4	18.58	35.366		
4,100.0	4,050.2	4,024.4	4,014.3	14.4	9.1	-173.62	-79.5	-57.9	678.4	659.3	19.10	35.510		
4,200.0	4,148.8	4,121.7	4,110.7	14.8	9.4	-172.83	-85.5	-68.5	699.9	680.2	19.63	35.646		
4,300.0	4,247.4	4,218.9	4,207.2	15.2	9.7	-172.09	-91.5	-79.1	721.5	701.3	20.17	35.775		
4,400.0	4,346.1	4,316.1	4,303.6	15.6	10.0	-171.39	-97.5	-89.8	743.2	722.5	20.70	35.897		
4,500.0	4,444.7	4,413.3	4,400.1	15.9	10.3	-170.73	-103.5	-100.4	765.0	743.8	21.24	36.014		
4,600.0	4,543.3	4,510.5	4,496.5	16.3	10.6	-170.10	-109.5	-111.1	786.9	765.2	21.78	36.126		
4,700.0	4,641.9	4,607.7	4,592.9	16.7	10.8	-169.51	-115.5	-121.7	808.9	786.6	22.33	36.233		
4,800.0	4,740.5	4,705.0	4,689.4	17.1	11.1	-168.95	-121.5	-132.3	831.0	808.2	22.87	36.335		
4,900.0	4,839.1	4,802.2	4,785.8	17.5	11.4	-168.42	-127.6	-143.0	853.2	829.8	23.42	36.433		
5,000.0	4,937.7	4,899.4	4,882.3	17.8	11.7	-167.91	-133.6	-153.6	875.4	851.4	23.97	36.527		

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

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well Loloff Farms 26H-332
Project:	SEC.26-T5N-R64W	TVD Reference:	WELL @ 4694.0ft (Original Well Elev)
Reference Site:	Loloff Farms 5N64W26I Pad Sec.26-T5N-R64W	MD Reference:	WELL @ 4694.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Loloff Farms 26H-332	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (8-13-14)	Offset TVD Reference:	Offset Datum

Offset Design		Loloff Farms 5N64W26I Pad Sec.26-T5N-R64W - Loloff Farms 26I-402 - Wellbore #1 - Plan #1 (8-13-14)										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		
5,100.0	5,036.3	5,003.7	4,985.8	18.2	12.0	-167.42	-139.8	-164.7	897.5	873.0	24.52	36.600		
5,200.0	5,134.9	5,119.7	5,101.3	18.6	12.3	-167.11	-144.9	-173.7	918.1	893.1	25.05	36.652		
5,300.0	5,233.6	5,236.8	5,218.3	19.0	12.5	-167.07	-147.8	-178.7	936.7	911.2	25.55	36.665		
5,400.0	5,332.2	5,348.7	5,330.2	19.3	12.7	-167.27	-148.3	-179.7	953.4	927.4	26.01	36.649		
5,500.0	5,431.1	5,447.6	5,429.1	19.6	12.9	-167.52	-148.3	-179.7	967.6	941.2	26.45	36.588		
5,600.0	5,530.5	5,547.0	5,528.5	19.9	13.1	-167.71	-148.3	-179.7	978.5	951.7	26.85	36.440		
5,700.0	5,630.2	5,646.7	5,628.2	20.1	13.3	-167.84	-148.3	-179.7	986.0	958.8	27.23	36.215		
5,800.0	5,730.1	5,746.6	5,728.1	20.2	13.5	-167.91	-148.3	-179.7	990.1	962.6	27.57	35.918		
5,900.0	5,830.1	5,846.6	5,828.1	20.4	13.7	179.68	-148.3	-179.7	991.0	958.1	32.85	30.164		
6,000.0	5,930.1	5,946.6	5,928.1	20.5	13.9	179.68	-148.3	-179.7	991.0	957.8	33.20	29.851		
6,100.0	6,030.0	6,046.5	6,028.0	20.6	14.1	89.86	-148.3	-179.7	990.9	962.3	28.67	34.563		
6,123.6	6,053.4	6,069.9	6,051.4	20.6	14.1	90.00	-148.3	-179.6	990.9	962.2	28.75	34.468		
6,200.0	6,128.7	6,146.3	6,127.6	20.7	14.2	90.45	-148.3	-174.2	991.0	962.0	28.98	34.196		
6,300.0	6,224.5	6,247.5	6,227.0	20.8	14.3	91.03	-148.3	-155.4	991.1	961.9	29.20	33.936		
6,400.0	6,315.7	6,350.1	6,324.2	20.8	14.4	91.60	-148.3	-123.1	991.3	961.9	29.40	33.717		
6,500.0	6,400.9	6,454.1	6,417.6	20.9	14.4	92.14	-148.3	-77.4	991.6	962.0	29.66	33.433		
6,600.0	6,478.6	6,559.5	6,504.9	20.9	14.5	92.65	-148.3	-18.6	992.0	961.9	30.12	32.936		
6,700.0	6,547.4	6,666.2	6,584.2	21.0	14.8	93.12	-148.3	52.6	992.4	961.5	30.95	32.065		
6,800.0	6,606.1	6,774.1	6,653.6	21.2	15.4	93.53	-148.3	135.1	992.8	960.5	32.33	30.709		
6,900.0	6,653.8	6,883.1	6,711.2	21.5	16.3	93.88	-148.3	227.5	993.2	958.8	34.39	28.877		
7,000.0	6,689.6	6,993.0	6,755.4	22.1	17.7	94.15	-148.3	328.1	993.6	956.4	37.19	26.719		
7,100.0	6,712.9	7,103.6	6,784.8	23.1	19.5	94.35	-148.3	434.6	993.8	953.2	40.65	24.446		
7,200.0	6,723.3	7,214.7	6,798.6	24.6	21.6	94.46	-148.3	544.8	994.0	949.3	44.65	22.260		
7,300.0	6,723.1	7,319.3	6,799.1	26.4	23.8	94.50	-148.3	649.3	994.0	945.2	48.85	20.349		
7,400.0	6,722.0	7,419.3	6,798.4	28.4	26.0	94.52	-148.3	749.3	994.0	940.8	53.20	18.685		
7,500.0	6,720.9	7,519.3	6,797.6	30.6	28.3	94.54	-148.3	849.3	994.1	936.3	57.77	17.209		
7,600.0	6,719.7	7,619.3	6,796.9	32.9	30.7	94.57	-148.3	949.3	994.1	931.6	62.50	15.905		
7,700.0	6,718.6	7,719.3	6,796.1	35.2	33.1	94.59	-148.3	1,049.3	994.1	926.8	67.37	14.756		
7,800.0	6,717.5	7,819.3	6,795.4	37.7	35.6	94.61	-148.3	1,149.3	994.2	921.8	72.34	13.742		
7,900.0	6,716.3	7,919.3	6,794.6	40.1	38.2	94.63	-148.3	1,249.3	994.2	916.8	77.40	12.844		
8,000.0	6,715.2	8,019.3	6,793.9	42.7	40.8	94.65	-148.3	1,349.3	994.2	911.7	82.53	12.046		
8,100.0	6,714.1	8,119.3	6,793.1	45.2	43.4	94.68	-148.3	1,449.3	994.3	906.5	87.72	11.335		
8,200.0	6,712.9	8,219.3	6,792.4	47.8	46.0	94.70	-148.3	1,549.3	994.3	901.3	92.95	10.697		
8,300.0	6,711.8	8,319.3	6,791.6	50.4	48.7	94.72	-148.3	1,649.3	994.3	896.1	98.23	10.123		
8,400.0	6,710.7	8,419.3	6,790.9	53.0	51.3	94.74	-148.3	1,749.3	994.3	890.8	103.54	9.604		
8,500.0	6,709.5	8,519.3	6,790.1	55.7	54.0	94.76	-148.3	1,849.3	994.4	885.5	108.87	9.133		
8,600.0	6,708.4	8,619.3	6,789.4	58.3	56.7	94.79	-148.3	1,949.3	994.4	880.2	114.23	8.705		
8,700.0	6,707.3	8,719.3	6,788.6	61.0	59.4	94.81	-148.3	2,049.3	994.4	874.8	119.62	8.314		
8,800.0	6,706.1	8,819.3	6,787.9	63.7	62.1	94.83	-148.3	2,149.3	994.5	869.5	125.02	7.955		
8,900.0	6,705.0	8,919.3	6,787.1	66.4	64.9	94.85	-148.3	2,249.3	994.5	864.1	130.44	7.625		
9,000.0	6,703.9	9,019.3	6,786.4	69.1	67.6	94.87	-148.3	2,349.3	994.5	858.7	135.87	7.320		
9,100.0	6,702.7	9,119.3	6,785.6	71.8	70.3	94.90	-148.3	2,449.3	994.6	853.3	141.31	7.038		
9,200.0	6,701.6	9,219.3	6,784.9	74.5	73.1	94.92	-148.3	2,549.3	994.6	847.8	146.77	6.777		
9,300.0	6,700.5	9,319.3	6,784.1	77.2	75.8	94.94	-148.3	2,649.3	994.6	842.4	152.23	6.534		
9,400.0	6,699.3	9,419.3	6,783.4	80.0	78.6	94.96	-148.3	2,749.3	994.7	837.0	157.71	6.307		
9,500.0	6,698.2	9,519.3	6,782.6	82.7	81.3	94.98	-148.3	2,849.3	994.7	831.5	163.19	6.095		
9,600.0	6,697.0	9,619.3	6,781.9	85.4	84.1	95.01	-148.3	2,949.3	994.7	826.1	168.68	5.897		
9,700.0	6,695.9	9,719.3	6,781.1	88.2	86.8	95.03	-148.3	3,049.3	994.8	820.6	174.17	5.711		
9,800.0	6,694.8	9,819.3	6,780.4	90.9	89.6	95.05	-148.3	3,149.3	994.8	815.1	179.67	5.537		
9,900.0	6,693.6	9,919.3	6,779.6	93.7	92.4	95.07	-148.3	3,249.2	994.8	809.7	185.18	5.372		

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

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Reference Site:	Loloff Farms 5N64W26I Pad Sec.26-T5N-R64W	MD Reference:	WELL @ 4694.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Loloff Farms 26H-332	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (8-13-14)	Offset TVD Reference:	Offset Datum

Offset Design		Loloff Farms 5N64W26I Pad Sec.26-T5N-R64W - Loloff Farms 26I-402 - Wellbore #1 - Plan #1 (8-13-14)										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	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor			
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)				
10,000.0	6,692.5	10,019.3	6,778.9	96.4	95.1	95.10	-148.3	3,349.2	994.9	804.2	190.69	5.217			
10,100.0	6,691.4	10,119.3	6,778.1	99.2	97.9	95.12	-148.3	3,449.2	994.9	798.7	196.21	5.071			
10,200.0	6,690.2	10,219.3	6,777.4	102.0	100.7	95.14	-148.3	3,549.2	994.9	793.2	201.72	4.932			
10,300.0	6,689.1	10,319.3	6,776.6	104.7	103.5	95.16	-148.3	3,649.2	995.0	787.7	207.25	4.801			
10,400.0	6,688.0	10,419.3	6,775.9	107.5	106.2	95.18	-148.3	3,749.2	995.0	782.2	212.77	4.676			
10,500.0	6,686.8	10,519.3	6,775.1	110.3	109.0	95.21	-148.3	3,849.2	995.0	776.7	218.30	4.558			
10,600.0	6,685.7	10,619.3	6,774.4	113.0	111.8	95.23	-148.3	3,949.2	995.1	771.3	223.83	4.446			
10,700.0	6,684.6	10,719.3	6,773.6	115.8	114.6	95.25	-148.3	4,049.2	995.1	765.8	229.37	4.339			
10,800.0	6,683.4	10,819.3	6,772.9	118.6	117.4	95.27	-148.3	4,149.2	995.2	760.3	234.90	4.236			
10,900.0	6,682.3	10,919.3	6,772.1	121.3	120.2	95.29	-148.3	4,249.2	995.2	754.7	240.44	4.139			
11,000.0	6,681.2	11,019.3	6,771.4	124.1	122.9	95.32	-148.3	4,349.2	995.2	749.2	245.98	4.046			
11,100.0	6,680.0	11,119.3	6,770.6	126.9	125.7	95.34	-148.3	4,449.2	995.3	743.7	251.52	3.957			
11,200.0	6,678.9	11,219.3	6,769.9	129.7	128.5	95.36	-148.3	4,549.2	995.3	738.2	257.07	3.872			
11,300.0	6,677.8	11,319.3	6,769.1	132.5	131.3	95.38	-148.3	4,649.2	995.3	732.7	262.61	3.790			
11,400.0	6,676.6	11,419.3	6,768.4	135.2	134.1	95.40	-148.3	4,749.2	995.4	727.2	268.16	3.712			
11,500.0	6,675.5	11,519.3	6,767.6	138.0	136.9	95.43	-148.3	4,849.2	995.4	721.7	273.71	3.637			
11,600.0	6,674.4	11,619.3	6,766.9	140.8	139.7	95.45	-148.3	4,949.2	995.4	716.2	279.26	3.565			
11,700.0	6,673.2	11,719.3	6,766.1	143.6	142.5	95.47	-148.3	5,049.2	995.5	710.7	284.81	3.495			
11,800.0	6,672.1	11,819.3	6,765.4	146.4	145.3	95.49	-148.3	5,149.2	995.5	705.2	290.36	3.429			
11,900.0	6,671.0	11,919.3	6,764.6	149.2	148.1	95.51	-148.3	5,249.2	995.6	699.6	295.91	3.364			
12,000.0	6,669.8	12,019.3	6,763.9	152.0	150.8	95.54	-148.3	5,349.2	995.6	694.1	301.46	3.303			
12,100.0	6,668.7	12,119.3	6,763.1	154.7	153.6	95.56	-148.3	5,449.2	995.6	688.6	307.02	3.243			
12,200.0	6,667.6	12,219.3	6,762.4	157.5	156.4	95.58	-148.3	5,549.2	995.7	683.1	312.57	3.185			
12,300.0	6,666.4	12,319.3	6,761.6	160.3	159.2	95.60	-148.3	5,649.2	995.7	677.6	318.12	3.130			
12,400.0	6,665.3	12,419.3	6,760.9	163.1	162.0	95.62	-148.3	5,749.2	995.7	672.1	323.68	3.076			
12,500.0	6,664.2	12,519.3	6,760.1	165.9	164.8	95.65	-148.3	5,849.2	995.8	666.5	329.24	3.025			
12,600.0	6,663.0	12,619.3	6,759.4	168.7	167.6	95.67	-148.3	5,949.2	995.8	661.0	334.79	2.974			
12,700.0	6,661.9	12,719.3	6,758.6	171.5	170.4	95.69	-148.3	6,049.1	995.9	655.5	340.35	2.926			
12,800.0	6,660.7	12,819.3	6,757.9	174.3	173.2	95.71	-148.3	6,149.1	995.9	650.0	345.91	2.879			
12,900.0	6,659.6	12,919.3	6,757.1	177.1	176.0	95.73	-148.3	6,249.1	995.9	644.5	351.46	2.834			
13,000.0	6,658.5	13,019.3	6,756.4	179.9	178.8	95.76	-148.3	6,349.1	996.0	638.9	357.02	2.790			
13,100.0	6,657.3	13,119.3	6,755.6	182.7	181.6	95.78	-148.3	6,449.1	996.0	633.4	362.58	2.747			
13,200.0	6,656.2	13,219.3	6,754.8	185.5	184.4	95.80	-148.3	6,549.1	996.0	627.9	368.14	2.706			
13,300.0	6,655.1	13,319.3	6,754.1	188.2	187.2	95.82	-148.3	6,649.1	996.1	622.4	373.70	2.665			
13,400.0	6,653.9	13,419.3	6,753.3	191.0	190.0	95.84	-148.3	6,749.1	996.1	616.9	379.26	2.627			
13,500.0	6,652.8	13,519.3	6,752.6	193.8	192.8	95.87	-148.3	6,849.1	996.2	611.3	384.81	2.589			
13,600.0	6,651.7	13,619.3	6,751.8	196.6	195.6	95.89	-148.3	6,949.1	996.2	605.8	390.37	2.552			
13,700.0	6,650.5	13,719.3	6,751.1	199.4	198.4	95.91	-148.3	7,049.1	996.2	600.3	395.93	2.516			
13,800.0	6,649.4	13,819.3	6,750.3	202.2	201.0	95.93	-148.3	7,149.1	996.3	595.0	401.30	2.483			
13,835.6	6,649.0	13,854.8	6,750.1	203.2	201.7	95.94	-148.3	7,184.7	996.3	593.4	402.93	2.473 SF			

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Reference Well:	Loloff Farms 26H-332	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (8-13-14)	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 4694.0ft (Original Well Elev) Coordinates are relative to: Loloff Farms 26H-332
 Offset Depths are relative to Offset Datum Coordinate System is US State Plane 1983, Colorado Northern Zone
 Central Meridian is -105.500000 ° Grid Convergence at Surface is: 0.63°



Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well Loloff Farms 26H-332
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Reference Site:	Loloff Farms 5N64W26I Pad Sec.26-T5N-R64W	MD Reference:	WELL @ 4694.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Loloff Farms 26H-332	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (8-13-14)	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 4694.0ft (Original Well Elev) Coordinates are relative to: Loloff Farms 26H-332

Offset Depths are relative to Offset Datum

Coordinate System is US State Plane 1983, Colorado Northern Zone

Central Meridian is -105.500000 °

Grid Convergence at Surface is: 0.63°

