

# PETROLEUM DEVELOPMENT CORP Weld County CO

Well Name: **Tarin 32Y-214**

Surface Location: Tarin 32X-HZ Pad Sec.32-T4N-R66W  
North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone

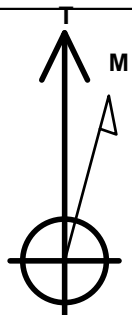
Ground Elevation: 4775.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	3197254.04	40.263400	-104.793170		

RKB - 15' WELL @ 4790.0ft (RKB - 15')

## WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
SHL 913'FSL & 355'FEL, Sec.32	1.0	0.0	0.0	Point
BHL 485'FSL & 2143'FEL, Sec.31	7055.0	-468.1	-7083.3	Point



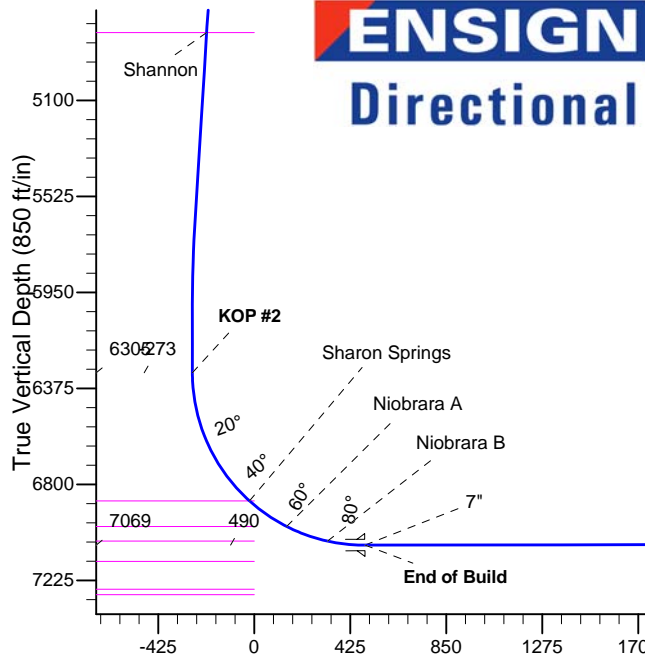
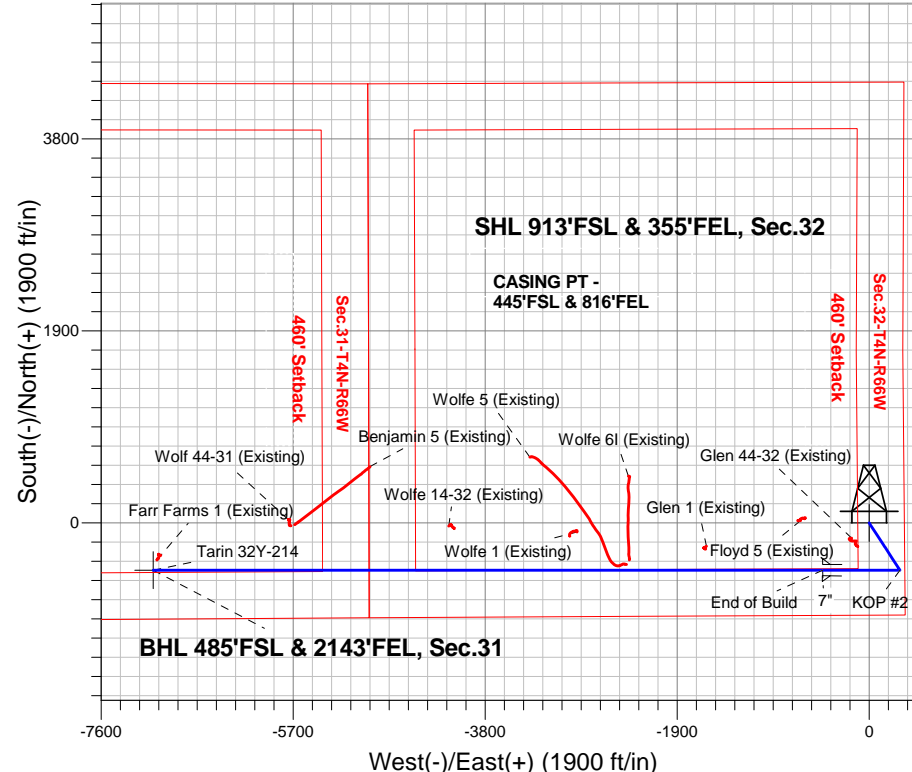
Azimuths to True North  
Magnetic North: 8.39°

Magnetic Field  
Strength: 52687.5nT  
Dip Angle: 66.81°  
Date: 12/18/2014  
Model: IGRF2010

Tarin 32X-HZ Pad Sec.32-T4N-R66W  
Tarin 32Y-214  
Plan #3 (12-18-14)  
16:43, December 18 2014

## ANNOTATIONS

TVD	MD	Annotation
1200.0	1200.0	KOP #1
6304.9	6339.0	KOP #2
7068.9	7540.6	End of Build



## SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	1200.0	0.00	0.00	1200.0	0.0	0.0	0.00	0.00	0.0	
3	1558.5	7.17	146.91	1557.6	-18.8	12.2	2.00	146.91	-11.0	
4	5675.5	7.17	146.91	5642.4	-449.3	292.8	0.00	0.00	-262.5	
5	6034.1	0.00	0.00	6000.0	-468.1	305.0	2.00	180.00	-273.5	
6	6339.0	0.00	0.00	6304.9	-468.1	305.0	0.00	0.00	-273.5	
7	7540.6	90.12	270.00	7068.9	-468.1	-460.5	7.50	270.00	490.4	
8	14163.3	90.12	270.00	7055.0	-468.1	-7083.3	0.00	0.00	7098.7	BHL 485'FSL & 2143'FEL, Sec.31

BHL 485'FSL & 2143'FEL, Sec.31

Vertical Section at 266.22° (850 ft/in)



# **PETROLEUM DEVELOPMENT CORP Weld County CO**

**SEC.32-T4N-R66W**

**Tarin 32X-HZ Pad Sec.32-T4N-R66W**

**Tarin 32Y-214**

**Wellbore #1**

**Plan: Plan #3 (12-18-14)**

## **Standard Planning Report**

**18 December, 2014**

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well Tarin 32Y-214
<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>TVD Reference:</b>	WELL @ 4790.0ft (RKB - 15')
<b>Project:</b>	SEC.32-T4N-R66W	<b>MD Reference:</b>	WELL @ 4790.0ft (RKB - 15')
<b>Site:</b>	Tarin 32X-HZ Pad Sec.32-T4N-R66W	<b>North Reference:</b>	True
<b>Well:</b>	Tarin 32Y-214	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #3 (12-18-14)		

<b>Project</b>	SEC.32-T4N-R66W, Weld County, Colorado		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		Using Well Reference Point
<b>Map Zone:</b>	Colorado Northern Zone		Using geodetic scale factor

Site						Tarin 32X-HZ Pad Sec.32-T4N-R66W											
Site Position:						Northing:			1,339,733.63ft			Latitude:			40.263810		
From:			Lat/Long			Easting:			3,197,250.06ft			Longitude:			-104.793180		
Position Uncertainty:			0.0 ft			Slot Radius:			"			Grid Convergence:			0.46 °		

Well	Tarin 32Y-214					
Well Position	+N-S	-149.4 ft	Northing:	1,339,584.28 ft	Latitude:	40.263400
	+E-W	2.8 ft	Easting:	3,197,254.04 ft	Longitude:	-104.793170
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,775.0 ft

<b>Wellbore</b>	Wellbore #1				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	12/18/2014	8.40	66.81	52,687

<b>Design</b>	Plan #3 (12-18-14)			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PROTOTYPE	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>
	0.0	0.0	0.0	266.22

<b>Plan Sections</b>										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,558.5	7.17	146.91	1,557.6	-18.8	12.2	2.00	2.00	0.00	146.91	
5,675.5	7.17	146.91	5,642.4	-449.3	292.8	0.00	0.00	0.00	0.00	
6,034.1	0.00	0.00	6,000.0	-468.1	305.0	2.00	-2.00	0.00	180.00	
6,339.0	0.00	0.00	6,304.9	-468.1	305.0	0.00	0.00	0.00	0.00	
7,540.6	90.12	270.00	7,068.9	-468.1	-460.5	7.50	7.50	0.00	270.00	
14,163.3	90.12	270.00	7,055.0	-468.1	-7,083.3	0.00	0.00	0.00	0.00	BHL 485'FSL & 214

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well Tarin 32Y-214
<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>TVD Reference:</b>	WELL @ 4790.0ft (RKB - 15')
<b>Project:</b>	SEC.32-T4N-R66W	<b>MD Reference:</b>	WELL @ 4790.0ft (RKB - 15')
<b>Site:</b>	Tarin 32X-HZ Pad Sec.32-T4N-R66W	<b>North Reference:</b>	True
<b>Well:</b>	Tarin 32Y-214	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #3 (12-18-14)		

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
<b>SHL 913'FSL &amp; 355'FEL, Sec.32</b>									
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
<b>KOP #1</b>									
1,300.0	2.00	146.91	1,300.0	-1.5	1.0	-0.9	2.00	2.00	0.00
1,400.0	4.00	146.91	1,399.8	-5.8	3.8	-3.4	2.00	2.00	0.00
1,500.0	6.00	146.91	1,499.5	-13.1	8.6	-7.7	2.00	2.00	0.00
1,558.5	7.17	146.91	1,557.6	-18.8	12.2	-11.0	2.00	2.00	0.00
1,600.0	7.17	146.91	1,598.7	-23.1	15.1	-13.5	0.00	0.00	0.00
1,700.0	7.17	146.91	1,698.0	-33.6	21.9	-19.6	0.00	0.00	0.00
1,800.0	7.17	146.91	1,797.2	-44.0	28.7	-25.7	0.00	0.00	0.00
1,900.0	7.17	146.91	1,896.4	-54.5	35.5	-31.8	0.00	0.00	0.00
2,000.0	7.17	146.91	1,995.6	-64.9	42.3	-37.9	0.00	0.00	0.00
2,100.0	7.17	146.91	2,094.8	-75.4	49.1	-44.0	0.00	0.00	0.00
2,200.0	7.17	146.91	2,194.0	-85.9	55.9	-50.2	0.00	0.00	0.00
2,300.0	7.17	146.91	2,293.3	-96.3	62.8	-56.3	0.00	0.00	0.00
2,400.0	7.17	146.91	2,392.5	-106.8	69.6	-62.4	0.00	0.00	0.00
2,500.0	7.17	146.91	2,491.7	-117.2	76.4	-68.5	0.00	0.00	0.00
2,600.0	7.17	146.91	2,590.9	-127.7	83.2	-74.6	0.00	0.00	0.00
2,700.0	7.17	146.91	2,690.1	-138.1	90.0	-80.7	0.00	0.00	0.00
2,800.0	7.17	146.91	2,789.4	-148.6	96.8	-86.8	0.00	0.00	0.00
2,900.0	7.17	146.91	2,888.6	-159.1	103.6	-92.9	0.00	0.00	0.00
3,000.0	7.17	146.91	2,987.8	-169.5	110.5	-99.0	0.00	0.00	0.00
3,100.0	7.17	146.91	3,087.0	-180.0	117.3	-105.1	0.00	0.00	0.00
3,200.0	7.17	146.91	3,186.2	-190.4	124.1	-111.3	0.00	0.00	0.00
3,300.0	7.17	146.91	3,285.4	-200.9	130.9	-117.4	0.00	0.00	0.00
3,400.0	7.17	146.91	3,384.7	-211.4	137.7	-123.5	0.00	0.00	0.00
3,500.0	7.17	146.91	3,483.9	-221.8	144.5	-129.6	0.00	0.00	0.00
3,600.0	7.17	146.91	3,583.1	-232.3	151.3	-135.7	0.00	0.00	0.00
3,700.0	7.17	146.91	3,682.3	-242.7	158.2	-141.8	0.00	0.00	0.00
3,727.9	7.17	146.91	3,710.0	-245.6	160.1	-143.5	0.00	0.00	0.00
<b>Parkman</b>									
3,800.0	7.17	146.91	3,781.5	-253.2	165.0	-147.9	0.00	0.00	0.00
3,900.0	7.17	146.91	3,880.8	-263.6	171.8	-154.0	0.00	0.00	0.00
4,000.0	7.17	146.91	3,980.0	-274.1	178.6	-160.1	0.00	0.00	0.00
4,100.0	7.17	146.91	4,079.2	-284.6	185.4	-166.2	0.00	0.00	0.00
4,200.0	7.17	146.91	4,178.4	-295.0	192.2	-172.4	0.00	0.00	0.00
4,300.0	7.17	146.91	4,277.6	-305.5	199.0	-178.5	0.00	0.00	0.00
4,400.0	7.17	146.91	4,376.8	-315.9	205.9	-184.6	0.00	0.00	0.00
4,413.3	7.17	146.91	4,390.0	-317.3	206.8	-185.4	0.00	0.00	0.00
<b>Sussex</b>									

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well Tarin 32Y-214
<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>TVD Reference:</b>	WELL @ 4790.0ft (RKB - 15')
<b>Project:</b>	SEC.32-T4N-R66W	<b>MD Reference:</b>	WELL @ 4790.0ft (RKB - 15')
<b>Site:</b>	Tarin 32X-HZ Pad Sec.32-T4N-R66W	<b>North Reference:</b>	True
<b>Well:</b>	Tarin 32Y-214	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #3 (12-18-14)		

## 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)
4,500.0	7.17	146.91	4,476.1	-326.4	212.7	-190.7	0.00	0.00	0.00
4,600.0	7.17	146.91	4,575.3	-336.8	219.5	-196.8	0.00	0.00	0.00
4,700.0	7.17	146.91	4,674.5	-347.3	226.3	-202.9	0.00	0.00	0.00
4,800.0	7.17	146.91	4,773.7	-357.8	233.1	-209.0	0.00	0.00	0.00
4,826.5	7.17	146.91	4,800.0	-360.5	234.9	-210.6	0.00	0.00	0.00
<b>Shannon</b>									
4,900.0	7.17	146.91	4,872.9	-368.2	239.9	-215.1	0.00	0.00	0.00
5,000.0	7.17	146.91	4,972.2	-378.7	246.7	-221.2	0.00	0.00	0.00
5,100.0	7.17	146.91	5,071.4	-389.1	253.6	-227.3	0.00	0.00	0.00
5,200.0	7.17	146.91	5,170.6	-399.6	260.4	-233.4	0.00	0.00	0.00
5,300.0	7.17	146.91	5,269.8	-410.1	267.2	-239.6	0.00	0.00	0.00
5,400.0	7.17	146.91	5,369.0	-420.5	274.0	-245.7	0.00	0.00	0.00
5,500.0	7.17	146.91	5,468.2	-431.0	280.8	-251.8	0.00	0.00	0.00
5,600.0	7.17	146.91	5,567.5	-441.4	287.6	-257.9	0.00	0.00	0.00
5,675.5	7.17	146.91	5,642.4	-449.3	292.8	-262.5	0.00	0.00	0.00
5,700.0	6.68	146.91	5,666.7	-451.8	294.4	-263.9	2.00	-2.00	0.00
5,800.0	4.68	146.91	5,766.2	-460.1	299.8	-268.8	2.00	-2.00	0.00
5,900.0	2.68	146.91	5,866.0	-465.5	303.3	-271.9	2.00	-2.00	0.00
6,000.0	0.68	146.91	5,965.9	-467.9	304.9	-273.4	2.00	-2.00	0.00
6,034.1	0.00	0.00	6,000.0	-468.1	305.0	-273.5	2.00	-2.00	0.00
6,100.0	0.00	0.00	6,065.9	-468.1	305.0	-273.5	0.00	0.00	0.00
6,200.0	0.00	0.00	6,165.9	-468.1	305.0	-273.5	0.00	0.00	0.00
6,300.0	0.00	0.00	6,265.9	-468.1	305.0	-273.5	0.00	0.00	0.00
6,339.0	0.00	0.00	6,304.9	-468.1	305.0	-273.5	0.00	0.00	0.00
<b>KOP #2</b>									
6,400.0	4.58	270.00	6,365.9	-468.1	302.6	-271.0	7.50	7.50	0.00
6,500.0	12.08	270.00	6,464.7	-468.1	288.1	-256.6	7.50	7.50	0.00
6,600.0	19.58	270.00	6,560.9	-468.1	260.8	-229.4	7.50	7.50	0.00
6,700.0	27.08	270.00	6,652.6	-468.1	221.3	-189.9	7.50	7.50	0.00
6,800.0	34.58	270.00	6,738.5	-468.1	170.1	-138.8	7.50	7.50	0.00
6,900.0	42.08	270.00	6,816.9	-468.1	108.1	-77.0	7.50	7.50	0.00
6,979.5	48.04	270.00	6,873.0	-468.1	51.8	-20.9	7.50	7.50	0.00
<b>Sharon Springs</b>									
7,000.0	49.58	270.00	6,886.5	-468.1	36.4	-5.5	7.50	7.50	0.00
7,100.0	57.08	270.00	6,946.2	-468.1	-43.7	74.5	7.50	7.50	0.00
7,179.9	63.06	270.00	6,986.0	-468.1	-112.9	143.5	7.50	7.50	0.00
<b>Niobrara A</b>									
7,200.0	64.58	270.00	6,994.9	-468.1	-131.0	161.5	7.50	7.50	0.00
7,300.0	72.08	270.00	7,031.8	-468.1	-223.8	254.2	7.50	7.50	0.00
7,373.4	77.58	270.00	7,051.0	-468.1	-294.7	324.9	7.50	7.50	0.00
<b>Niobrara B</b>									
7,400.0	79.58	270.00	7,056.3	-468.1	-320.7	350.9	7.50	7.50	0.00
7,500.0	87.08	270.00	7,067.9	-468.1	-420.0	449.9	7.50	7.50	0.00
7,540.6	90.12	270.00	7,068.9	-468.1	-460.5	490.4	7.50	7.50	0.00
<b>End of Build - 7"</b>									
7,600.0	90.12	270.00	7,068.7	-468.1	-519.9	549.7	0.00	0.00	0.00
7,700.0	90.12	270.00	7,068.5	-468.1	-619.9	649.5	0.00	0.00	0.00
7,800.0	90.12	270.00	7,068.3	-468.1	-719.9	749.2	0.00	0.00	0.00
7,900.0	90.12	270.00	7,068.1	-468.1	-819.9	849.0	0.00	0.00	0.00
8,000.0	90.12	270.00	7,067.9	-468.1	-919.9	948.8	0.00	0.00	0.00
8,100.0	90.12	270.00	7,067.7	-468.1	-1,019.9	1,048.6	0.00	0.00	0.00
8,200.0	90.12	270.00	7,067.5	-468.1	-1,119.9	1,148.4	0.00	0.00	0.00

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well Tarin 32Y-214
<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>TVD Reference:</b>	WELL @ 4790.0ft (RKB - 15')
<b>Project:</b>	SEC.32-T4N-R66W	<b>MD Reference:</b>	WELL @ 4790.0ft (RKB - 15')
<b>Site:</b>	Tarin 32X-HZ Pad Sec.32-T4N-R66W	<b>North Reference:</b>	True
<b>Well:</b>	Tarin 32Y-214	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #3 (12-18-14)		

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)
8,300.0	90.12	270.00	7,067.3	-468.1	-1,219.9	1,248.2	0.00	0.00	0.00
8,400.0	90.12	270.00	7,067.1	-468.1	-1,319.9	1,347.9	0.00	0.00	0.00
8,500.0	90.12	270.00	7,066.9	-468.1	-1,419.9	1,447.7	0.00	0.00	0.00
8,600.0	90.12	270.00	7,066.7	-468.1	-1,519.9	1,547.5	0.00	0.00	0.00
8,700.0	90.12	270.00	7,066.4	-468.1	-1,619.9	1,647.3	0.00	0.00	0.00
8,800.0	90.12	270.00	7,066.2	-468.1	-1,719.9	1,747.1	0.00	0.00	0.00
8,900.0	90.12	270.00	7,066.0	-468.1	-1,819.9	1,846.9	0.00	0.00	0.00
9,000.0	90.12	270.00	7,065.8	-468.1	-1,919.9	1,946.6	0.00	0.00	0.00
9,100.0	90.12	270.00	7,065.6	-468.1	-2,019.9	2,046.4	0.00	0.00	0.00
9,200.0	90.12	270.00	7,065.4	-468.1	-2,119.9	2,146.2	0.00	0.00	0.00
9,300.0	90.12	270.00	7,065.2	-468.1	-2,219.9	2,246.0	0.00	0.00	0.00
9,400.0	90.12	270.00	7,065.0	-468.1	-2,319.9	2,345.8	0.00	0.00	0.00
9,500.0	90.12	270.00	7,064.8	-468.1	-2,419.9	2,445.5	0.00	0.00	0.00
9,600.0	90.12	270.00	7,064.6	-468.1	-2,519.9	2,545.3	0.00	0.00	0.00
9,700.0	90.12	270.00	7,064.3	-468.1	-2,619.9	2,645.1	0.00	0.00	0.00
9,800.0	90.12	270.00	7,064.1	-468.1	-2,719.9	2,744.9	0.00	0.00	0.00
9,900.0	90.12	270.00	7,063.9	-468.1	-2,819.9	2,844.7	0.00	0.00	0.00
10,000.0	90.12	270.00	7,063.7	-468.1	-2,919.9	2,944.5	0.00	0.00	0.00
10,100.0	90.12	270.00	7,063.5	-468.1	-3,019.9	3,044.2	0.00	0.00	0.00
10,200.0	90.12	270.00	7,063.3	-468.1	-3,119.9	3,144.0	0.00	0.00	0.00
10,300.0	90.12	270.00	7,063.1	-468.1	-3,219.9	3,243.8	0.00	0.00	0.00
10,400.0	90.12	270.00	7,062.9	-468.1	-3,319.9	3,343.6	0.00	0.00	0.00
10,500.0	90.12	270.00	7,062.7	-468.1	-3,419.9	3,443.4	0.00	0.00	0.00
10,600.0	90.12	270.00	7,062.5	-468.1	-3,519.9	3,543.1	0.00	0.00	0.00
10,700.0	90.12	270.00	7,062.3	-468.1	-3,619.9	3,642.9	0.00	0.00	0.00
10,800.0	90.12	270.00	7,062.0	-468.1	-3,719.9	3,742.7	0.00	0.00	0.00
10,900.0	90.12	270.00	7,061.8	-468.1	-3,819.9	3,842.5	0.00	0.00	0.00
11,000.0	90.12	270.00	7,061.6	-468.1	-3,919.9	3,942.3	0.00	0.00	0.00
11,100.0	90.12	270.00	7,061.4	-468.1	-4,019.9	4,042.1	0.00	0.00	0.00
11,200.0	90.12	270.00	7,061.2	-468.1	-4,119.9	4,141.8	0.00	0.00	0.00
11,300.0	90.12	270.00	7,061.0	-468.1	-4,219.9	4,241.6	0.00	0.00	0.00
11,400.0	90.12	270.00	7,060.8	-468.1	-4,319.9	4,341.4	0.00	0.00	0.00
11,500.0	90.12	270.00	7,060.6	-468.1	-4,419.9	4,441.2	0.00	0.00	0.00
11,600.0	90.12	270.00	7,060.4	-468.1	-4,519.9	4,541.0	0.00	0.00	0.00
11,700.0	90.12	270.00	7,060.2	-468.1	-4,619.9	4,640.8	0.00	0.00	0.00
11,800.0	90.12	270.00	7,059.9	-468.1	-4,719.9	4,740.5	0.00	0.00	0.00
11,900.0	90.12	270.00	7,059.7	-468.1	-4,819.9	4,840.3	0.00	0.00	0.00
12,000.0	90.12	270.00	7,059.5	-468.1	-4,919.9	4,940.1	0.00	0.00	0.00
12,100.0	90.12	270.00	7,059.3	-468.1	-5,019.9	5,039.9	0.00	0.00	0.00
12,200.0	90.12	270.00	7,059.1	-468.1	-5,119.9	5,139.7	0.00	0.00	0.00
12,300.0	90.12	270.00	7,058.9	-468.1	-5,219.9	5,239.4	0.00	0.00	0.00
12,400.0	90.12	270.00	7,058.7	-468.1	-5,319.9	5,339.2	0.00	0.00	0.00
12,500.0	90.12	270.00	7,058.5	-468.1	-5,419.9	5,439.0	0.00	0.00	0.00
12,600.0	90.12	270.00	7,058.3	-468.1	-5,519.9	5,538.8	0.00	0.00	0.00
12,700.0	90.12	270.00	7,058.1	-468.1	-5,619.9	5,638.6	0.00	0.00	0.00
12,800.0	90.12	270.00	7,057.9	-468.1	-5,719.9	5,738.4	0.00	0.00	0.00
12,900.0	90.12	270.00	7,057.6	-468.1	-5,819.9	5,838.1	0.00	0.00	0.00
13,000.0	90.12	270.00	7,057.4	-468.1	-5,919.9	5,937.9	0.00	0.00	0.00
13,100.0	90.12	270.00	7,057.2	-468.1	-6,019.9	6,037.7	0.00	0.00	0.00
13,200.0	90.12	270.00	7,057.0	-468.1	-6,119.9	6,137.5	0.00	0.00	0.00
13,300.0	90.12	270.00	7,056.8	-468.1	-6,219.9	6,237.3	0.00	0.00	0.00
13,400.0	90.12	270.00	7,056.6	-468.1	-6,319.9	6,337.0	0.00	0.00	0.00
13,500.0	90.12	270.00	7,056.4	-468.1	-6,419.9	6,436.8	0.00	0.00	0.00

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well Tarin 32Y-214
<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>TVD Reference:</b>	WELL @ 4790.0ft (RKB - 15')
<b>Project:</b>	SEC.32-T4N-R66W	<b>MD Reference:</b>	WELL @ 4790.0ft (RKB - 15')
<b>Site:</b>	Tarin 32X-HZ Pad Sec.32-T4N-R66W	<b>North Reference:</b>	True
<b>Well:</b>	Tarin 32Y-214	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #3 (12-18-14)		

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)
13,600.0	90.12	270.00	7,056.2	-468.1	-6,519.9	6,536.6	0.00	0.00	0.00
13,700.0	90.12	270.00	7,056.0	-468.1	-6,619.9	6,636.4	0.00	0.00	0.00
13,800.0	90.12	270.00	7,055.8	-468.1	-6,719.9	6,736.2	0.00	0.00	0.00
13,900.0	90.12	270.00	7,055.6	-468.1	-6,819.9	6,836.0	0.00	0.00	0.00
14,000.0	90.12	270.00	7,055.3	-468.1	-6,919.9	6,935.7	0.00	0.00	0.00
14,100.0	90.12	270.00	7,055.1	-468.1	-7,019.9	7,035.5	0.00	0.00	0.00
14,163.3	90.12	270.00	7,055.0	-468.1	-7,083.3	7,098.7	0.00	0.00	0.00
BHL 485'FSL & 2143'FEL, Sec.31									

Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- hit/miss target									
- Shape									
SHL 913'FSL & 355'F	0.00	0.00	1.0	0.0	0.0	1,339,584.30	3,197,254.04	40.263400	-104.793170
- plan hits target center									
- Point									
BHL 485'FSL & 2143'I	0.00	0.00	7,055.0	-468.1	-7,083.3	1,339,059.76	3,190,175.07	40.262112	-104.818550
- plan hits target center									
- Point									

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
7,540.6	7,068.9	7"	7	7-1/2	

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,727.9	3,710.0	Parkman		0.00	
4,413.3	4,390.0	Sussex		0.00	
4,826.5	4,800.0	Shannon		0.00	
6,979.5	6,873.0	Sharon Springs		0.00	
7,179.9	6,986.0	Niobrara A		0.00	
7,373.4	7,051.0	Niobrara B		0.00	
	7,141.0	Niobrara C		0.00	
	7,264.0	Ft Hays		0.00	
	7,288.0	Codell		0.00	

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well Tarin 32Y-214
<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>TVD Reference:</b>	WELL @ 4790.0ft (RKB - 15')
<b>Project:</b>	SEC.32-T4N-R66W	<b>MD Reference:</b>	WELL @ 4790.0ft (RKB - 15')
<b>Site:</b>	Tarin 32X-HZ Pad Sec.32-T4N-R66W	<b>North Reference:</b>	True
<b>Well:</b>	Tarin 32Y-214	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #3 (12-18-14)		

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
1,200.0	1,200.0	0.0	0.0	KOP #1
6,339.0	6,304.9	-468.1	305.0	KOP #2
7,540.6	7,068.9	-468.1	-460.5	End of Build



# **PETROLEUM DEVELOPMENT CORP Weld County CO**

**SEC.32-T4N-R66W**

**Tarin 32X-HZ Pad Sec.32-T4N-R66W**

**Tarin 32Y-214**

**Wellbore #1**

**Plan #3 (12-18-14)**

## **Anticollision Report**

**18 December, 2014**



<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Tarin 32Y-214
<b>Project:</b>	SEC.32-T4N-R66W	<b>TVD Reference:</b>	WELL @ 4790.0ft (RKB - 15')
<b>Reference Site:</b>	Tarin 32X-HZ Pad Sec.32-T4N-R66W	<b>MD Reference:</b>	WELL @ 4790.0ft (RKB - 15')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Tarin 32Y-214	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #3 (12-18-14)	<b>Offset TVD Reference:</b>	Offset Datum

<b>Reference</b>	Plan #3 (12-18-14)
<b>Filter type:</b>	NO GLOBAL FILTER: Using user defined selection & filtering criteria
<b>Interpolation Method:</b>	MD Interval 100.0ft
<b>Depth Range:</b>	Unlimited
<b>Results Limited by:</b>	Maximum center-center distance of 1,000.0ft
<b>Warning Levels Evaluated at:</b>	2.00 Sigma
<b>Error Model:</b>	ISCWSA
<b>Scan Method:</b>	Closest Approach 3D
<b>Error Surface:</b>	Elliptical Conic

Survey Tool Program		Date	12/18/2014		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
0.0	14,163.3	Plan #3 (12-18-14) (Wellbore #1)	MWD	MWD - Standard	

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Existing Wells Sec.32-T4N-R66W						
Benjamin 5 (Existing) - Wellbore #1 - Wellbore #1						Out of range
Farr Farms 1 (Existing) - Wellbore #1 - Wellbore #1	14,127.7	7,044.7	101.7	-113.5	0.473	Level 1, CC, ES, SF
Floyd 5 (Existing) - Wellbore #1 - Wellbore #1	7,762.6	7,050.8	490.9	358.3	3.703	CC, ES
Floyd 5 (Existing) - Wellbore #1 - Wellbore #1	7,800.0	7,050.0	492.3	358.9	3.690	SF
Glen 1 (Existing) - Wellbore #1 - Wellbore #1	8,696.9	7,044.2	233.4	169.2	3.632	CC
Glen 1 (Existing) - Wellbore #1 - Wellbore #1	8,700.0	7,044.1	233.5	169.1	3.628	ES, SF
Glen 44-32 (Existing) - Wellbore #1 - Wellbore #1	2,380.5	2,363.9	229.2	217.9	20.273	CC
Glen 44-32 (Existing) - Wellbore #1 - Wellbore #1	2,400.0	2,382.7	229.2	217.8	20.107	ES
Glen 44-32 (Existing) - Wellbore #1 - Wellbore #1	7,300.0	7,019.0	320.2	287.8	9.887	SF
Wolf 44-31 (Existing) - Wellbore #1 - Wellbore #1	12,825.6	7,038.7	500.0	321.1	2.795	CC, ES
Wolf 44-31 (Existing) - Wellbore #1 - Wellbore #1	12,900.0	7,039.2	505.5	324.5	2.793	SF
Wolfe 1 (Existing) - Wellbore #1 - Wellbore #1	9,973.1	7,049.9	381.9	282.5	3.845	CC, ES
Wolfe 1 (Existing) - Wellbore #1 - Wellbore #1	10,000.0	7,049.8	382.8	282.7	3.826	SF
Wolfe 14-32 (Existing) - Wellbore #1 - Wellbore #1	11,234.6	7,047.7	441.1	306.0	3.265	CC, ES
Wolfe 14-32 (Existing) - Wellbore #1 - Wellbore #1	11,300.0	7,048.4	445.9	309.0	3.257	SF
Wolfe 5 (Existing) - Wellbore #1 - Wellbore #1						Out of range
Wolfe 6I (Existing) - Wellbore #1 - Wellbore #1	9,453.5	7,109.4	930.3	841.7	10.500	CC
Wolfe 6I (Existing) - Wellbore #1 - Wellbore #1	9,500.0	7,110.3	931.5	841.6	10.364	ES
Wolfe 6I (Existing) - Wellbore #1 - Wellbore #1	9,700.0	7,114.2	962.4	867.1	10.092	SF

<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Tarin 32Y-214
<b>Project:</b>	SEC.32-T4N-R66W	<b>TVD Reference:</b>	WELL @ 4790.0ft (RKB - 15')
<b>Reference Site:</b>	Tarin 32X-HZ Pad Sec.32-T4N-R66W	<b>MD Reference:</b>	WELL @ 4790.0ft (RKB - 15')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Tarin 32Y-214	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #3 (12-18-14)	<b>Offset TVD Reference:</b>	Offset Datum

## Summary

Site Name Offset Well - Wellbore - Design	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Tarin 32X-HZ Pad Sec.32-T4N-R66W						
Tarin 32W-234 - Wellbore #1 - Plan #1 (4-14-14)	200.0	199.0	149.4	148.7	222.291	CC, ES
Tarin 32W-234 - Wellbore #1 - Plan #1 (4-14-14)	1,200.0	1,141.4	299.2	293.8	54.932	SF
Tarin 32W-434 - Wellbore #1 - Plan #1 (12-18-14)	400.0	399.0	120.2	118.7	76.524	CC, ES
Tarin 32W-434 - Wellbore #1 - Plan #1 (12-18-14)	1,200.0	1,169.1	211.6	206.4	40.335	SF
Tarin 32X-204 - Wellbore #1 - Plan #2 (12-18-14)	1,000.0	1,000.0	61.9	57.7	14.504	CC, ES
Tarin 32X-204 - Wellbore #1 - Plan #2 (12-18-14)	14,163.3	14,158.9	811.6	407.1	2.006	SF
Tarin 32X-304 - Wellbore #1 - Plan #3 (12-18-14)	1,200.0	1,200.0	29.1	24.0	5.638	CC, ES
Tarin 32X-304 - Wellbore #1 - Plan #3 (12-18-14)	14,163.3	14,248.2	751.5	349.8	1.871	SF
Tarin 32X-314 - Wellbore #1 - Plan #1 (4-14-14)	600.0	600.0	91.1	88.6	36.842	CC, ES
Tarin 32X-314 - Wellbore #1 - Plan #1 (4-14-14)	1,000.0	986.4	116.3	112.0	27.299	SF
Tarin 32Y-314 - Wellbore #1 - Plan #3 (12-18-14)	966.3	967.3	29.1	25.0	7.069	CC
Tarin 32Y-314 - Wellbore #1 - Plan #3 (12-18-14)	14,163.3	14,299.4	272.8	-113.9	0.705	Level 1, ES, SF
Tarin 32Y-404 - Wellbore #1 - Plan #2 (7-15-14)	466.3	467.3	58.3	56.4	31.105	CC
Tarin 32Y-404 - Wellbore #1 - Plan #2 (7-15-14)	500.0	501.0	58.3	56.3	28.785	ES
Tarin 32Y-404 - Wellbore #1 - Plan #2 (7-15-14)	14,163.3	14,399.1	468.1	111.9	1.314	Level 3, SF

<b>Offset Design</b> Existing Wells Sec.32-T4N-R66W - Farr Farms 1 (Existing) - Wellbore #1 - Wellbore #1												<b>Offset Site Error:</b>	0.0 ft
<b>Survey Program:</b> 100-NS-GYRO-MS												<b>Offset Well Error:</b>	0.0 ft
Reference	Offset	Semi Major Axis		Distance		Minimum		Separation		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	Warning
13,200.0	7,057.0	7,040.6	7,039.5	175.3	14.1	88.00	-366.3	-7,047.6	933.3	744.1	189.20	4.933	
13,300.0	7,056.8	7,041.0	7,040.0	178.1	14.1	88.26	-366.3	-7,047.6	833.9	641.9	192.02	4.343	
13,400.0	7,056.6	7,041.4	7,040.4	180.9	14.1	88.51	-366.3	-7,047.6	734.8	539.9	194.84	3.771	
13,500.0	7,056.4	7,041.9	7,040.9	183.7	14.1	88.76	-366.3	-7,047.6	635.9	438.2	197.66	3.217	
13,600.0	7,056.2	7,042.3	7,041.3	186.5	14.1	89.01	-366.3	-7,047.6	537.4	337.0	200.48	2.681	
13,700.0	7,056.0	7,042.8	7,041.8	189.3	14.1	89.26	-366.3	-7,047.6	439.6	236.4	203.29	2.163	
13,800.0	7,055.8	7,043.2	7,042.2	192.1	14.1	89.51	-366.3	-7,047.6	343.1	137.0	206.10	1.665	
13,900.0	7,055.6	7,043.7	7,042.7	194.9	14.1	89.77	-366.3	-7,047.6	249.4	40.5	208.91	1.194	Level 2
14,000.0	7,055.3	7,044.1	7,043.1	197.7	14.1	90.02	-366.4	-7,047.6	163.3	-48.4	211.71	0.771	Level 1
14,100.0	7,055.1	7,044.6	7,043.6	200.5	14.1	90.27	-366.4	-7,047.7	105.5	-109.1	214.51	0.492	Level 1
14,127.7	7,055.1	7,044.7	7,043.7	201.3	14.1	90.34	-366.4	-7,047.7	101.7	-113.5	215.29	0.473	Level 1, CC, ES, SF
14,163.3	7,055.0	7,044.9	7,043.8	202.3	14.1	90.43	-366.4	-7,047.7	107.8	-108.5	216.28	0.498	Level 1

<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Tarin 32Y-214
<b>Project:</b>	SEC.32-T4N-R66W	<b>TVD Reference:</b>	WELL @ 4790.0ft (RKB - 15')
<b>Reference Site:</b>	Tarin 32X-HZ Pad Sec.32-T4N-R66W	<b>MD Reference:</b>	WELL @ 4790.0ft (RKB - 15')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Tarin 32Y-214	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #3 (12-18-14)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design Existing Wells Sec.32-T4N-R66W - Floyd 5 (Existing) - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 ft
Survey Program: 100-UNKNOWN													Offset Well Error:	0.0 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-85.40	-85.40	51.0	-633.5	635.9				
100.0	100.0	85.4	85.4	0.1	1.7	-85.40	-85.40	50.9	-633.2	635.3	633.5	1.82	348.859	
200.0	200.0	181.1	181.1	0.3	3.8	-85.43	-85.43	50.6	-632.8	634.8	630.7	4.14	153.520	
300.0	300.0	284.0	284.0	0.6	5.4	-85.44	-85.44	50.4	-632.7	634.7	628.7	6.00	105.708	
380.5	380.5	361.5	361.5	0.7	6.5	-85.44	-85.44	50.4	-632.4	634.4	627.2	7.26	87.331	
400.0	400.0	379.9	379.9	0.8	6.8	-85.45	-85.45	50.3	-632.5	634.5	626.9	7.56	83.909	
500.0	500.0	481.3	481.3	1.0	9.3	-85.52	-85.52	49.6	-632.7	634.6	624.3	10.30	61.612	
600.0	600.0	581.4	581.4	1.2	13.0	-85.59	-85.59	48.8	-632.7	634.5	620.3	14.20	44.697	
625.4	625.4	606.4	606.4	1.3	13.9	-85.60	-85.60	48.7	-632.6	634.5	619.3	15.19	41.759	
700.0	700.0	678.3	678.3	1.5	16.4	-85.64	-85.64	48.3	-632.8	634.7	616.8	17.83	35.595	
800.0	800.0	780.5	780.5	1.7	20.0	-85.75	-85.75	47.1	-633.3	635.0	613.4	21.66	29.318	
900.0	900.0	881.8	881.7	1.9	23.9	-85.86	-85.86	45.9	-633.3	635.0	609.1	25.83	24.579	
951.8	951.8	932.8	932.8	2.0	25.9	-85.91	-85.91	45.3	-633.3	634.9	607.0	27.95	22.718	
1,000.0	1,000.0	979.8	979.8	2.1	27.7	-85.96	-85.96	44.7	-633.4	635.0	605.1	29.88	21.252	
1,100.0	1,100.0	1,080.9	1,080.8	2.4	31.7	-86.06	-86.06	43.6	-633.7	635.2	601.1	34.03	18.663	
1,200.0	1,200.0	1,181.3	1,181.3	2.6	35.7	-86.14	-86.14	42.8	-633.7	635.1	596.9	38.25	16.604	
1,202.2	1,202.2	1,183.5	1,183.4	2.6	35.8	126.95	126.95	42.8	-633.7	635.1	596.8	38.35	16.563	
1,300.0	1,300.0	1,278.2	1,278.2	2.8	38.0	127.02	127.02	42.5	-633.8	636.3	595.5	40.82	15.590	
1,400.0	1,399.8	1,376.1	1,376.0	3.0	39.7	127.31	127.31	42.3	-634.5	640.1	597.5	42.59	15.029	
1,500.0	1,499.5	1,476.3	1,476.3	3.2	40.7	127.79	127.79	41.9	-635.2	646.2	602.5	43.72	14.779	
1,600.0	1,598.7	1,575.2	1,575.1	3.4	41.6	128.53	128.53	41.9	-635.9	654.2	609.3	44.86	14.583	
1,700.0	1,698.0	1,670.8	1,670.7	3.6	43.9	129.29	129.29	41.4	-636.8	663.0	615.7	47.27	14.025	
1,800.0	1,797.2	1,767.8	1,767.7	3.9	45.7	130.06	130.06	41.2	-638.3	672.5	623.1	49.37	13.622	
1,900.0	1,896.4	1,865.2	1,865.2	4.1	46.6	130.86	130.86	41.6	-639.9	682.3	631.9	50.41	13.535	
2,000.0	1,995.6	1,961.5	1,961.4	4.4	46.9	131.67	131.67	42.4	-641.7	692.5	641.5	51.02	13.573	
2,100.0	2,094.8	2,057.9	2,057.8	4.7	47.4	132.46	132.46	43.5	-643.8	703.3	651.6	51.74	13.594	
2,200.0	2,194.0	2,150.9	2,150.7	4.9	48.2	133.23	133.23	44.8	-646.3	714.7	662.0	52.74	13.550	
2,300.0	2,293.3	2,247.3	2,247.1	5.2	49.7	133.98	133.98	46.2	-649.8	727.2	672.7	54.43	13.360	
2,400.0	2,392.5	2,347.6	2,347.3	5.5	52.0	134.67	134.67	46.8	-653.3	739.4	682.4	57.01	12.971	
2,500.0	2,491.7	2,445.7	2,445.4	5.8	55.0	135.30	135.30	47.0	-656.9	751.9	691.8	60.13	12.505	
2,600.0	2,590.9	2,548.7	2,548.2	6.1	58.4	135.89	135.89	46.6	-660.6	764.3	700.5	63.82	11.976	
2,700.0	2,690.1	2,648.0	2,647.5	6.4	62.0	136.45	136.45	46.1	-663.7	776.2	708.6	67.63	11.477	
2,800.0	2,789.4	2,745.3	2,744.8	6.7	65.7	136.93	136.93	45.2	-667.2	788.6	717.1	71.51	11.028	
2,900.0	2,888.6	2,849.6	2,848.9	7.1	69.7	137.43	137.43	44.0	-670.7	800.8	725.0	75.78	10.567	
3,000.0	2,987.8	2,955.0	2,954.4	7.4	73.9	137.93	137.93	42.7	-673.4	812.2	732.0	80.16	10.132	
3,100.0	3,087.0	3,055.5	3,054.7	7.7	77.9	138.35	138.35	40.9	-675.5	823.1	738.7	84.36	9.757	
3,200.0	3,186.2	3,160.3	3,159.6	8.0	81.9	138.80	138.80	39.1	-677.6	834.0	745.3	88.68	9.404	
3,300.0	3,285.4	3,267.7	3,266.9	8.3	85.6	139.30	139.30	37.7	-678.4	843.8	751.1	92.62	9.110	
3,400.0	3,384.7	3,370.0	3,369.2	8.6	88.3	139.74	139.74	36.0	-678.6	853.0	757.4	95.58	8.924	
3,500.0	3,483.9	3,458.9	3,458.1	8.9	90.8	140.15	140.15	35.0	-678.9	862.6	764.3	98.29	8.775	
3,600.0	3,583.1	3,553.4	3,552.6	9.3	94.1	140.56	140.56	34.1	-680.5	873.6	771.7	101.83	8.579	
3,700.0	3,682.3	3,651.8	3,651.0	9.6	98.0	140.95	140.95	32.7	-682.2	884.4	778.5	105.92	8.350	
3,800.0	3,781.5	3,749.2	3,748.3	9.9	101.8	141.33	141.33	31.6	-684.3	895.8	785.8	109.98	8.145	
3,900.0	3,880.8	3,851.6	3,850.7	10.2	105.9	141.69	141.69	29.8	-686.4	907.0	792.7	114.28	7.936	
4,000.0	3,980.0	3,951.6	3,950.6	10.5	109.8	142.05	142.05	28.3	-688.1	918.0	799.5	118.50	7.746	
4,100.0	4,079.2	4,055.1	4,054.1	10.9	113.9	142.39	142.39	26.2	-689.9	928.9	806.2	122.74	7.568	
4,200.0	4,178.4	4,158.7	4,157.8	11.2	117.7	142.75	142.75	24.4	-690.9	939.1	812.3	126.82	7.405	
4,300.0	4,277.6	4,254.2	4,253.2	11.5	121.3	143.12	143.12	23.4	-691.5	949.4	818.7	130.65	7.267	
4,400.0	4,376.8	4,352.2	4,351.2	11.8	125.1	143.48	143.48	22.4	-692.7	960.2	825.5	134.74	7.126	
4,500.0	4,476.1	4,450.6	4,449.6	12.2	129.1	143.86	143.86	21.8	-693.6	970.9	832.0	138.90	6.990	
4,600.0	4,575.3	4,546.9	4,545.9	12.5	132.8	144.20	144.20	20.9	-695.0	982.0	839.1	142.89	6.873	

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

<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Tarin 32Y-214
<b>Project:</b>	SEC.32-T4N-R66W	<b>TVD Reference:</b>	WELL @ 4790.0ft (RKB - 15')
<b>Reference Site:</b>	Tarin 32X-HZ Pad Sec.32-T4N-R66W	<b>MD Reference:</b>	WELL @ 4790.0ft (RKB - 15')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Tarin 32Y-214	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #3 (12-18-14)	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> Existing Wells Sec.32-T4N-R66W - Floyd 5 (Existing) - Wellbore #1 - Wellbore #1												<b>Offset Site Error:</b>	0.0 ft
Survey Program: 100-UNKNOWN												<b>Offset Well Error:</b>	0.0 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
4,700.0	4,674.5	4,637.9	4,636.9	12.8	136.1	144.54	20.6	-696.3	993.4	847.1	146.36	6.788	
6,800.0	6,738.5	6,738.7	6,737.2	17.3	112.8	35.26	24.3	-688.1	989.6	875.7	113.87	8.691	
6,900.0	6,816.9	6,814.5	6,813.0	17.3	111.2	40.31	23.9	-686.9	935.1	826.2	108.86	8.590	
7,000.0	6,886.5	6,887.1	6,885.6	17.3	109.7	47.24	23.3	-685.7	873.7	766.8	106.88	8.174	
7,100.0	6,946.2	6,943.7	6,942.2	17.3	108.4	55.63	22.9	-684.6	807.5	698.7	108.82	7.420	
7,200.0	6,994.9	6,988.4	6,986.9	17.2	107.3	65.14	22.7	-683.7	739.3	625.3	114.01	6.485	
7,300.0	7,031.8	7,022.7	7,021.2	18.4	106.3	74.80	22.8	-683.1	672.3	552.4	119.82	5.611	
7,400.0	7,056.3	7,045.3	7,043.7	20.0	105.6	83.13	22.8	-682.6	609.9	485.8	124.12	4.914	
7,500.0	7,067.9	7,055.1	7,053.5	21.9	105.3	88.98	22.8	-682.5	556.7	429.9	126.84	4.389	
7,600.0	7,068.7	7,054.1	7,052.6	23.9	105.3	90.37	22.8	-682.5	517.1	388.1	128.97	4.010	
7,700.0	7,068.5	7,052.0	7,050.5	26.0	105.4	90.13	22.8	-682.5	494.9	363.7	131.14	3.774	
7,762.6	7,068.4	7,050.8	7,049.2	27.4	105.4	89.98	22.8	-682.5	490.9	358.3	132.57	3.703 CC, ES	
7,800.0	7,068.3	7,050.0	7,048.5	28.2	105.4	89.89	22.8	-682.6	492.3	358.9	133.42	3.690 SF	
7,900.0	7,068.1	7,047.9	7,046.4	30.6	105.5	89.65	22.8	-682.6	509.8	374.0	135.80	3.754	
8,000.0	7,067.9	7,045.8	7,044.3	33.0	105.5	89.40	22.8	-682.6	545.3	407.0	138.26	3.944	
8,100.0	7,067.7	7,043.7	7,042.2	35.5	105.6	89.16	22.8	-682.7	595.6	454.9	140.77	4.231	
8,200.0	7,067.5	7,041.6	7,040.1	38.0	105.7	88.91	22.8	-682.7	657.4	514.1	143.32	4.587	
8,300.0	7,067.3	7,039.5	7,037.9	40.5	105.7	88.66	22.8	-682.8	727.8	581.9	145.91	4.988	
8,400.0	7,067.1	7,037.3	7,035.8	43.1	105.8	88.41	22.8	-682.8	804.4	655.9	148.53	5.416	
8,500.0	7,066.9	7,035.1	7,033.6	45.7	105.9	88.16	22.8	-682.8	885.7	734.6	151.17	5.859	
8,600.0	7,066.7	7,033.0	7,031.4	48.3	105.9	87.90	22.8	-682.9	970.5	816.7	153.83	6.309	

<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Tarin 32Y-214
<b>Project:</b>	SEC.32-T4N-R66W	<b>TVD Reference:</b>	WELL @ 4790.0ft (RKB - 15')
<b>Reference Site:</b>	Tarin 32X-HZ Pad Sec.32-T4N-R66W	<b>MD Reference:</b>	WELL @ 4790.0ft (RKB - 15')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Tarin 32Y-214	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #3 (12-18-14)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design Existing Wells Sec.32-T4N-R66W - Glen 1 (Existing) - 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)		
7,800.0	7,068.3	7,057.6	7,057.4	28.2	13.6	92.19	-234.4	-1,616.7	926.7	885.1	41.65	22.249	
7,900.0	7,068.1	7,056.1	7,055.8	30.6	13.6	91.81	-234.5	-1,616.7	830.4	786.4	43.99	18.878	
8,000.0	7,067.9	7,054.6	7,054.3	33.0	13.6	91.44	-234.5	-1,616.8	734.9	688.5	46.39	15.842	
8,100.0	7,067.7	7,053.1	7,052.8	35.5	13.6	91.07	-234.5	-1,616.8	640.9	592.1	48.86	13.118	
8,200.0	7,067.5	7,051.6	7,051.3	38.0	13.6	90.70	-234.6	-1,616.8	549.0	497.6	51.37	10.688	
8,300.0	7,067.3	7,050.1	7,049.8	40.5	13.6	90.33	-234.6	-1,616.8	460.5	406.6	53.91	8.541	
8,400.0	7,067.1	7,048.6	7,048.3	43.1	13.6	89.97	-234.6	-1,616.8	377.7	321.2	56.49	6.686	
8,500.0	7,066.9	7,047.1	7,046.8	45.7	13.6	89.60	-234.6	-1,616.9	305.4	246.3	59.09	5.168	
8,600.0	7,066.7	7,045.6	7,045.4	48.3	13.5	89.24	-234.7	-1,616.9	252.8	191.1	61.71	4.096	
8,696.9	7,066.4	7,044.2	7,043.9	50.9	13.5	88.89	-234.7	-1,616.9	233.4	169.2	64.27	3.632 CC	
8,700.0	7,066.4	7,044.1	7,043.9	51.0	13.5	88.88	-234.7	-1,616.9	233.5	169.1	64.35	3.628 ES, SF	
8,800.0	7,066.2	7,042.7	7,042.4	53.7	13.5	88.52	-234.7	-1,616.9	255.2	188.2	67.00	3.808	
8,900.0	7,066.0	7,041.2	7,041.0	56.3	13.5	88.17	-234.8	-1,616.9	309.4	239.7	69.66	4.441	
9,000.0	7,065.8	7,039.8	7,039.5	59.0	13.5	87.81	-234.8	-1,616.9	382.5	310.2	72.33	5.288	
9,100.0	7,065.6	7,038.4	7,038.1	61.7	13.5	87.46	-234.8	-1,617.0	465.7	390.7	75.01	6.209	
9,200.0	7,065.4	7,036.9	7,036.7	64.4	13.5	87.11	-234.8	-1,617.0	554.5	476.8	77.69	7.137	
9,300.0	7,065.2	7,035.5	7,035.3	67.1	13.5	86.76	-234.9	-1,617.0	646.6	566.2	80.38	8.044	
9,400.0	7,065.0	7,034.1	7,033.8	69.9	13.5	86.42	-234.9	-1,617.0	740.7	657.7	83.07	8.917	
9,500.0	7,064.8	7,032.7	7,032.4	72.6	13.5	86.07	-234.9	-1,617.0	836.2	750.5	85.76	9.751	
9,600.0	7,064.6	7,031.3	7,031.0	75.3	13.5	85.73	-235.0	-1,617.0	932.6	844.2	88.45	10.545	

<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Tarin 32Y-214
<b>Project:</b>	SEC.32-T4N-R66W	<b>TVD Reference:</b>	WELL @ 4790.0ft (RKB - 15')
<b>Reference Site:</b>	Tarin 32X-HZ Pad Sec.32-T4N-R66W	<b>MD Reference:</b>	WELL @ 4790.0ft (RKB - 15')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Tarin 32Y-214	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #3 (12-18-14)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design Existing Wells Sec.32-T4N-R66W - Glen 44-32 (Existing) - 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		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (ft)	Separation Factor	Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset		+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)			
0.0	0.0	0.0	0.0	0.0	0.0	-154.41	-233.1	-111.6	258.8				
100.0	100.0	85.8	85.8	0.1	0.1	-154.32	-233.1	-112.1	258.7	258.5	0.23	1,142.303	
200.0	200.0	184.8	184.8	0.3	0.4	-154.07	-233.2	-113.4	259.4	258.7	0.69	373.640	
300.0	300.0	287.4	287.3	0.6	0.6	-153.81	-233.2	-114.7	259.8	258.7	1.17	221.350	
400.0	400.0	387.7	387.7	0.8	0.9	-153.53	-232.3	-115.7	259.6	257.9	1.65	157.764	
444.0	444.0	431.0	431.0	0.9	1.0	-153.39	-232.0	-116.2	259.5	257.6	1.85	139.973	
500.0	500.0	485.8	485.7	1.0	1.1	-153.23	-231.8	-116.9	259.6	257.5	2.12	122.456	
600.0	600.0	587.2	587.1	1.2	1.4	-152.94	-231.5	-118.3	259.9	257.3	2.61	99.715	
700.0	700.0	689.5	689.5	1.5	1.6	-152.63	-230.4	-119.3	259.4	256.4	3.06	84.700	
800.0	800.0	787.5	787.4	1.7	1.8	-152.44	-229.4	-119.8	258.8	255.3	3.51	73.693	
900.0	900.0	888.5	888.4	1.9	2.1	-152.14	-228.5	-120.8	258.5	254.5	4.00	64.707	
1,000.0	1,000.0	987.8	987.7	2.1	2.3	-151.84	-227.5	-121.8	258.1	253.6	4.48	57.652	
1,100.0	1,100.0	1,088.6	1,088.5	2.4	2.6	-151.66	-226.8	-122.3	257.7	252.7	4.95	52.025	
1,200.0	1,200.0	1,188.3	1,188.2	2.6	2.8	-151.46	-225.9	-122.9	257.1	251.7	5.43	47.382	
1,300.0	1,300.0	1,287.9	1,287.8	2.8	3.1	62.25	-225.0	-123.7	255.9	250.0	5.88	43.488	
1,400.0	1,399.8	1,388.8	1,388.6	3.0	3.4	63.69	-223.8	-124.7	253.1	246.7	6.33	39.993	
1,500.0	1,499.5	1,487.5	1,487.4	3.2	3.6	65.98	-222.3	-126.0	248.7	242.0	6.78	36.700	
1,600.0	1,598.7	1,586.7	1,586.5	3.4	3.9	68.96	-221.1	-127.2	243.8	236.6	7.25	33.625	
1,700.0	1,698.0	1,684.9	1,684.7	3.6	4.1	72.12	-219.9	-128.6	239.5	231.8	7.74	30.926	
1,800.0	1,797.2	1,783.7	1,783.5	3.9	4.4	75.47	-218.8	-130.3	236.2	228.0	8.25	28.616	
1,900.0	1,896.4	1,883.2	1,883.0	4.1	4.7	78.94	-217.5	-132.0	233.7	224.9	8.78	26.614	
2,000.0	1,995.6	1,981.8	1,981.6	4.4	4.9	82.50	-215.9	-133.7	231.9	222.6	9.31	24.900	
2,100.0	2,094.8	2,081.7	2,081.5	4.7	5.2	86.22	-214.1	-135.7	231.0	221.2	9.86	23.439	
2,200.0	2,194.0	2,182.4	2,182.1	4.9	5.5	90.02	-211.8	-137.2	230.5	220.1	10.40	22.170	
2,300.0	2,293.3	2,285.1	2,284.7	5.2	5.7	93.76	-209.2	-137.3	229.8	218.9	10.91	21.065	
2,380.5	2,373.2	2,363.9	2,363.5	5.5	5.8	96.71	-206.7	-137.0	229.2	217.9	11.31	20.273 CC	
2,400.0	2,392.5	2,382.7	2,382.3	5.5	5.9	97.45	-206.1	-137.0	229.2	217.8	11.40	20.107 ES	
2,500.0	2,491.7	2,483.8	2,483.3	5.8	6.1	101.41	-202.3	-137.1	229.8	217.9	11.90	19.314	
2,600.0	2,590.9	2,582.2	2,581.6	6.1	6.3	105.15	-198.8	-136.3	230.8	218.4	12.38	18.638	
2,700.0	2,690.1	2,680.6	2,680.1	6.4	6.5	108.78	-195.5	-135.8	233.1	220.2	12.86	18.116	
2,800.0	2,789.4	2,779.1	2,778.4	6.7	6.7	112.30	-192.4	-135.4	236.4	223.0	13.35	17.710	
2,900.0	2,888.6	2,879.3	2,878.6	7.1	6.9	115.83	-189.1	-135.0	240.5	226.7	13.82	17.404	
3,000.0	2,987.8	2,979.2	2,978.4	7.4	7.2	119.12	-186.1	-133.9	244.9	230.6	14.27	17.157	
3,100.0	3,087.0	3,081.1	3,080.2	7.7	7.3	122.34	-183.0	-132.1	249.4	234.7	14.70	16.970	
3,200.0	3,186.2	3,180.8	3,180.0	8.0	7.5	125.14	-181.1	-129.4	253.7	238.6	15.07	16.834	
3,300.0	3,285.4	3,276.8	3,275.9	8.3	7.6	127.54	-180.1	-127.3	259.0	243.6	15.44	16.780	
3,400.0	3,384.7	3,372.0	3,371.1	8.6	7.8	129.75	-179.4	-126.7	266.3	250.5	15.85	16.798	
3,500.0	3,483.9	3,466.8	3,465.9	8.9	8.0	131.73	-178.9	-127.6	275.5	259.2	16.30	16.898	
3,600.0	3,583.1	3,561.6	3,560.7	9.3	8.2	133.49	-178.6	-130.0	286.6	269.8	16.74	17.114	
3,700.0	3,682.3	3,659.1	3,658.1	9.6	8.4	135.03	-178.8	-133.7	299.0	281.8	17.17	17.412	
3,800.0	3,781.5	3,755.3	3,754.2	9.9	8.6	136.38	-179.2	-137.7	311.9	294.3	17.60	17.726	
3,900.0	3,880.8	3,850.8	3,849.6	10.2	8.8	137.61	-179.2	-142.9	326.3	308.3	18.03	18.099	
4,000.0	3,980.0	3,950.7	3,949.3	10.5	9.0	138.74	-179.5	-148.7	341.2	322.7	18.47	18.472	
4,100.0	4,079.2	4,048.9	4,047.4	10.9	9.2	139.72	-180.1	-154.0	355.6	336.7	18.91	18.804	
4,200.0	4,178.4	4,145.2	4,143.4	11.2	9.4	140.65	-180.3	-159.9	371.0	351.6	19.35	19.169	
4,300.0	4,277.6	4,244.3	4,242.4	11.5	9.6	141.61	-179.8	-165.8	386.5	366.7	19.81	19.511	
4,400.0	4,376.8	4,343.5	4,341.4	11.8	9.8	142.53	-179.2	-171.6	402.1	381.8	20.27	19.832	
4,500.0	4,476.1	4,442.7	4,440.4	12.2	10.1	143.47	-178.2	-177.0	417.5	396.8	20.74	20.127	
4,600.0	4,575.3	4,541.8	4,539.4	12.5	10.3	144.43	-176.4	-182.0	433.0	411.8	21.22	20.406	
4,700.0	4,674.5	4,643.4	4,640.9	12.8	10.6	145.51	-173.7	-186.4	448.3	426.6	21.70	20.655	
4,800.0	4,773.7	4,744.3	4,741.7	13.1	10.8	146.56	-170.8	-189.8	462.8	440.6	22.19	20.859	

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

<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Tarin 32Y-214
<b>Project:</b>	SEC.32-T4N-R66W	<b>TVD Reference:</b>	WELL @ 4790.0ft (RKB - 15')
<b>Reference Site:</b>	Tarin 32X-HZ Pad Sec.32-T4N-R66W	<b>MD Reference:</b>	WELL @ 4790.0ft (RKB - 15')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Tarin 32Y-214	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #3 (12-18-14)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design Existing Wells Sec.32-T4N-R66W - Glen 44-32 (Existing) - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 ft
Survey Program: 100-NS-GYRO-MS													Offset Well Error:	0.0 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
4,900.0	4,872.9	4,843.1	4,840.4	13.5	11.1	147.65		-167.2	-192.7	477.5	454.8	22.66	21.070	
5,000.0	4,972.2	4,946.5	4,943.6	13.8	11.4	148.72		-163.5	-195.3	491.8	468.7	23.15	21.249	
5,100.0	5,071.4	5,053.3	5,050.4	14.1	11.6	149.69		-161.0	-196.9	504.9	481.3	23.64	21.361	
5,200.0	5,170.6	5,159.9	5,157.0	14.4	11.9	150.57		-159.6	-197.1	516.6	492.5	24.10	21.438	
5,300.0	5,269.8	5,256.8	5,253.9	14.8	12.1	151.39		-158.2	-196.4	527.5	503.0	24.51	21.521	
5,400.0	5,369.0	5,355.3	5,352.4	15.1	12.3	152.17		-156.6	-196.5	539.5	514.5	24.94	21.628	
5,500.0	5,468.2	5,458.3	5,455.4	15.4	12.5	153.01		-154.7	-195.7	550.8	525.5	25.36	21.719	
5,600.0	5,567.5	5,561.3	5,558.4	15.8	12.6	153.80		-153.2	-194.5	561.7	536.0	25.74	21.820	
5,700.0	5,666.7	5,663.9	5,661.0	16.1	12.8	154.58		-152.1	-192.6	571.8	545.7	26.08	21.926	
5,800.0	5,766.2	5,770.5	5,767.5	16.3	12.8	155.18		-152.3	-190.5	579.1	552.7	26.36	21.971	
5,900.0	5,866.0	5,869.2	5,866.2	16.5	12.9	155.54		-153.1	-187.9	582.3	555.7	26.59	21.902	
6,000.0	5,965.9	5,964.5	5,961.5	16.7	12.9	155.64		-154.3	-186.6	583.1	556.3	26.78	21.770	
6,100.0	6,065.9	6,062.1	6,059.1	16.8	12.9	-57.49		-155.3	-185.8	582.1	552.9	29.17	19.955	
6,200.0	6,165.9	6,161.9	6,158.8	17.0	13.0	-57.47		-155.7	-184.9	581.1	551.7	29.38	19.779	
6,300.0	6,265.9	6,261.4	6,258.4	17.1	13.0	-57.57		-157.1	-184.6	580.1	550.5	29.58	19.609	
6,400.0	6,365.9	6,362.2	6,359.1	17.2	13.1	32.52		-158.8	-184.6	577.1	549.5	27.59	20.913	
6,500.0	6,464.7	6,463.9	6,460.8	17.3	13.1	33.80		-160.3	-184.0	563.6	536.2	27.38	20.588	
6,600.0	6,560.9	6,558.8	6,555.7	17.4	13.2	36.49		-161.0	-182.5	539.4	512.5	26.90	20.051	
6,700.0	6,652.6	6,648.1	6,644.9	17.4	13.3	40.87		-160.4	-180.8	506.3	479.9	26.37	19.201	
6,800.0	6,738.5	6,730.1	6,726.9	17.3	13.4	47.21		-158.9	-178.6	466.1	440.0	26.09	17.866	
6,900.0	6,816.9	6,802.7	6,799.4	17.3	13.6	55.44		-156.7	-176.9	422.1	395.7	26.42	15.976	
7,000.0	6,886.5	6,870.4	6,867.1	17.3	13.7	65.58		-154.5	-175.7	378.6	351.0	27.61	13.714	
7,100.0	6,946.2	6,930.7	6,927.4	17.3	13.8	76.40		-153.0	-175.1	341.5	312.2	29.31	11.651	
7,200.0	6,994.9	6,981.3	6,978.0	17.2	13.9	85.96		-152.1	-174.8	319.0	288.1	30.95	10.308	
7,246.4	7,013.5	7,000.7	6,997.4	17.7	14.0	89.40		-151.9	-174.7	316.2	284.6	31.67	9.986	
7,300.0	7,031.8	7,019.0	7,015.7	18.4	14.0	92.22		-151.7	-174.6	320.2	287.8	32.39	9.887 SF	
7,400.0	7,056.3	7,043.2	7,039.9	20.0	14.0	94.18		-151.5	-174.5	348.8	314.8	33.94	10.274	
7,500.0	7,067.9	7,054.2	7,050.9	21.9	14.1	91.55		-151.4	-174.4	400.8	365.0	35.79	11.197	
7,600.0	7,068.7	7,054.4	7,051.0	23.9	14.1	89.02		-151.4	-174.4	468.7	431.0	37.73	12.424	
7,700.0	7,068.5	7,053.4	7,050.1	26.0	14.1	88.85		-151.4	-174.4	546.6	506.8	39.84	13.719	
7,800.0	7,068.3	7,052.5	7,049.2	28.2	14.1	88.69		-151.4	-174.4	630.8	588.7	42.08	14.991	
7,900.0	7,068.1	7,051.6	7,048.3	30.6	14.1	88.53		-151.5	-174.4	719.1	674.6	44.41	16.191	
8,000.0	7,067.9	7,050.8	7,047.5	33.0	14.1	88.37		-151.5	-174.4	810.0	763.2	46.81	17.303	
8,100.0	7,067.7	7,049.9	7,046.6	35.5	14.1	88.21		-151.5	-174.4	902.9	853.6	49.27	18.324	
8,200.0	7,067.5	7,049.0	7,045.7	38.0	14.1	88.05		-151.5	-174.4	997.2	945.4	51.78	19.257	

<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Tarin 32Y-214
<b>Project:</b>	SEC.32-T4N-R66W	<b>TVD Reference:</b>	WELL @ 4790.0ft (RKB - 15')
<b>Reference Site:</b>	Tarin 32X-HZ Pad Sec.32-T4N-R66W	<b>MD Reference:</b>	WELL @ 4790.0ft (RKB - 15')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Tarin 32Y-214	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #3 (12-18-14)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design Existing Wells Sec.32-T4N-R66W - Wolf 44-31 (Existing) - 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	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)		
12,000.0	7,059.5	7,032.9	7,031.7	141.8	14.1	88.73	31.8	-5,745.4	965.2	809.3	155.83	6.194	
12,100.0	7,059.3	7,033.6	7,032.4	144.6	14.1	88.81	31.8	-5,745.4	881.2	722.5	158.62	5.555	
12,200.0	7,059.1	7,034.4	7,033.2	147.4	14.1	88.89	31.9	-5,745.4	800.8	639.4	161.42	4.961	
12,300.0	7,058.9	7,035.1	7,033.9	150.2	14.1	88.98	31.9	-5,745.4	725.4	561.2	164.21	4.417	
12,400.0	7,058.7	7,035.8	7,034.6	153.0	14.1	89.06	31.9	-5,745.5	656.6	489.6	167.01	3.931	
12,500.0	7,058.5	7,036.5	7,035.3	155.8	14.1	89.14	31.9	-5,745.5	596.7	426.9	169.81	3.514	
12,600.0	7,058.3	7,037.2	7,036.0	158.6	14.1	89.22	31.9	-5,745.5	548.5	375.9	172.61	3.178	
12,700.0	7,058.1	7,037.9	7,036.7	161.4	14.1	89.30	31.9	-5,745.5	515.6	340.1	175.41	2.939	
12,800.0	7,057.9	7,038.6	7,037.4	164.2	14.1	89.38	31.9	-5,745.5	500.7	322.5	178.20	2.810	
12,825.6	7,057.8	7,038.7	7,037.5	164.9	14.1	89.40	31.9	-5,745.5	500.0	321.1	178.92	2.795 CC, ES	
12,900.0	7,057.6	7,039.2	7,038.0	166.9	14.1	89.46	31.9	-5,745.5	505.5	324.5	181.00	2.793 SF	
13,000.0	7,057.4	7,039.9	7,038.7	169.7	14.1	89.53	31.9	-5,745.5	529.6	345.8	183.80	2.881	
13,100.0	7,057.2	7,040.6	7,039.4	172.5	14.1	89.61	31.9	-5,745.5	570.4	383.8	186.60	3.057	
13,200.0	7,057.0	7,041.2	7,040.0	175.3	14.1	89.68	31.9	-5,745.5	624.7	435.3	189.40	3.298	
13,300.0	7,056.8	7,041.9	7,040.7	178.1	14.1	89.76	31.9	-5,745.5	689.3	497.1	192.20	3.586	
13,400.0	7,056.6	7,042.5	7,041.3	180.9	14.1	89.83	31.9	-5,745.5	761.6	566.6	195.00	3.906	
13,500.0	7,056.4	7,043.1	7,041.9	183.7	14.1	89.90	31.9	-5,745.5	839.6	641.8	197.79	4.245	
13,600.0	7,056.2	7,043.8	7,042.6	186.5	14.1	89.97	32.0	-5,745.5	921.8	721.2	200.59	4.596	

<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Tarin 32Y-214
<b>Project:</b>	SEC.32-T4N-R66W	<b>TVD Reference:</b>	WELL @ 4790.0ft (RKB - 15')
<b>Reference Site:</b>	Tarin 32X-HZ Pad Sec.32-T4N-R66W	<b>MD Reference:</b>	WELL @ 4790.0ft (RKB - 15')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Tarin 32Y-214	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #3 (12-18-14)	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> Existing Wells Sec.32-T4N-R66W - Wolfe 1 (Existing) - Wellbore #1 - Wellbore #1												<b>Offset Site Error:</b>	0.0 ft
Survey Program: 100-NS-GYRO-MS												<b>Offset Well Error:</b>	0.0 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)					
9,100.0	7,065.6	7,052.1	7,050.9	61.7	13.8	90.92	-86.3	-2,893.0	952.9	877.5	75.43	12.633	
9,200.0	7,065.4	7,051.9	7,050.6	64.4	13.8	90.88	-86.3	-2,893.0	862.3	784.1	78.15	11.034	
9,300.0	7,065.2	7,051.6	7,050.4	67.1	13.8	90.84	-86.3	-2,893.0	773.9	693.0	80.87	9.570	
9,400.0	7,065.0	7,051.4	7,050.1	69.9	13.8	90.81	-86.3	-2,893.0	688.7	605.1	83.59	8.238	
9,500.0	7,064.8	7,051.1	7,049.9	72.6	13.8	90.77	-86.3	-2,893.0	608.0	521.6	86.33	7.043	
9,600.0	7,064.6	7,050.9	7,049.6	75.3	13.8	90.73	-86.3	-2,893.0	533.9	444.8	89.07	5.994	
9,700.0	7,064.3	7,050.6	7,049.4	78.1	13.8	90.69	-86.3	-2,893.0	469.5	377.7	91.81	5.114	
9,800.0	7,064.1	7,050.3	7,049.1	80.8	13.8	90.65	-86.3	-2,893.0	419.3	324.7	94.56	4.434	
9,900.0	7,063.9	7,050.1	7,048.8	83.6	13.8	90.61	-86.3	-2,893.0	388.8	291.5	97.31	3.995	
9,973.1	7,063.8	7,049.9	7,048.6	85.6	13.8	90.58	-86.3	-2,893.0	381.9	282.5	99.32	3.845 CC, ES	
10,000.0	7,063.7	7,049.8	7,048.6	86.3	13.8	90.57	-86.3	-2,893.0	382.8	282.7	100.06	3.826 SF	
10,100.0	7,063.5	7,049.5	7,048.3	89.1	13.8	90.53	-86.2	-2,893.0	402.4	299.6	102.82	3.914	
10,200.0	7,063.3	7,049.3	7,048.0	91.8	13.8	90.49	-86.2	-2,893.0	444.2	338.6	105.58	4.207	
10,300.0	7,063.1	7,049.0	7,047.7	94.6	13.8	90.45	-86.2	-2,893.0	502.7	394.3	108.35	4.639	
10,400.0	7,062.9	7,048.7	7,047.5	97.4	13.8	90.40	-86.2	-2,893.0	572.8	461.7	111.12	5.155	
10,500.0	7,062.7	7,048.4	7,047.2	100.1	13.8	90.36	-86.2	-2,893.0	650.7	536.8	113.88	5.714	
10,600.0	7,062.5	7,048.1	7,046.9	102.9	13.8	90.32	-86.2	-2,893.0	734.1	617.4	116.66	6.292	
10,700.0	7,062.3	7,047.8	7,046.6	105.7	13.8	90.28	-86.2	-2,893.0	821.1	701.7	119.43	6.875	
10,800.0	7,062.0	7,047.6	7,046.3	108.4	13.8	90.23	-86.2	-2,893.0	910.8	788.6	122.20	7.453	

<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Tarin 32Y-214
<b>Project:</b>	SEC.32-T4N-R66W	<b>TVD Reference:</b>	WELL @ 4790.0ft (RKB - 15')
<b>Reference Site:</b>	Tarin 32X-HZ Pad Sec.32-T4N-R66W	<b>MD Reference:</b>	WELL @ 4790.0ft (RKB - 15')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Tarin 32Y-214	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #3 (12-18-14)	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> Existing Wells Sec.32-T4N-R66W - Wolfe 14-32 (Existing) - Wellbore #1 - Wellbore #1												<b>Offset Site Error:</b>	0.0 ft
<b>Survey Program:</b> 100-NS-GYRO-MS												<b>Offset Well Error:</b>	0.0 ft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
10,400.0	7,062.9	7,038.2	7,037.5	97.4	14.6	89.26	-27.0	-4,154.4	943.9	832.0	111.88	8.437	
10,500.0	7,062.7	7,039.4	7,038.6	100.1	14.6	89.41	-27.0	-4,154.4	856.8	742.1	114.66	7.472	
10,600.0	7,062.5	7,040.5	7,039.7	102.9	14.6	89.56	-27.0	-4,154.4	772.8	655.4	117.44	6.580	
10,700.0	7,062.3	7,041.6	7,040.9	105.7	14.6	89.70	-27.0	-4,154.5	693.0	572.8	120.22	5.765	
10,800.0	7,062.0	7,042.8	7,042.0	108.4	14.6	89.85	-27.0	-4,154.5	619.2	496.2	123.00	5.034	
10,900.0	7,061.8	7,043.9	7,043.1	111.2	14.6	90.00	-27.0	-4,154.5	553.6	427.8	125.78	4.401	
11,000.0	7,061.6	7,045.0	7,044.2	114.0	14.6	90.14	-27.0	-4,154.5	499.6	371.0	128.56	3.886	
11,100.0	7,061.4	7,046.1	7,045.4	116.8	14.6	90.29	-27.0	-4,154.5	461.2	329.8	131.34	3.511	
11,200.0	7,061.2	7,047.3	7,046.5	119.6	14.6	90.44	-27.0	-4,154.5	442.4	308.3	134.13	3.299	
11,234.6	7,061.1	7,047.7	7,046.9	120.5	14.6	90.49	-27.0	-4,154.5	441.1	306.0	135.09	3.265 CC, ES	
11,300.0	7,061.0	7,048.4	7,047.6	122.3	14.7	90.58	-27.0	-4,154.6	445.9	309.0	136.91	3.257 SF	
11,400.0	7,060.8	7,049.5	7,048.8	125.1	14.7	90.73	-27.1	-4,154.6	471.1	331.4	139.69	3.372	
11,500.0	7,060.6	7,050.7	7,049.9	127.9	14.7	90.88	-27.1	-4,154.6	514.8	372.3	142.48	3.613	
11,600.0	7,060.4	7,051.8	7,051.0	130.7	14.7	91.03	-27.1	-4,154.6	572.8	427.5	145.26	3.943	
11,700.0	7,060.2	7,052.9	7,052.2	133.5	14.7	91.17	-27.1	-4,154.6	641.2	493.1	148.04	4.331	
11,800.0	7,059.9	7,054.1	7,053.3	136.3	14.7	91.32	-27.1	-4,154.6	717.1	566.2	150.82	4.754	
11,900.0	7,059.7	7,055.2	7,054.4	139.0	14.7	91.47	-27.1	-4,154.6	798.3	644.7	153.61	5.197	
12,000.0	7,059.5	7,056.3	7,055.5	141.8	14.7	91.61	-27.1	-4,154.7	883.4	727.0	156.39	5.648	
12,100.0	7,059.3	7,057.5	7,056.7	144.6	14.7	91.76	-27.1	-4,154.7	971.3	812.1	159.17	6.102	

<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Tarin 32Y-214
<b>Project:</b>	SEC.32-T4N-R66W	<b>TVD Reference:</b>	WELL @ 4790.0ft (RKB - 15')
<b>Reference Site:</b>	Tarin 32X-HZ Pad Sec.32-T4N-R66W	<b>MD Reference:</b>	WELL @ 4790.0ft (RKB - 15')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Tarin 32Y-214	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #3 (12-18-14)	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> Existing Wells Sec.32-T4N-R66W - Wolfe 6I (Existing) - Wellbore #1 - Wellbore #1												<b>Offset Site Error:</b>	0.0 ft
Survey Program: 668-NS-GYRO-MS												<b>Offset Well Error:</b>	0.0 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)					
9,100.0	7,065.6	7,102.7	7,034.5	61.7	18.7	89.24	462.2	-2,373.2	995.2	916.2	78.98	12.601	
9,200.0	7,065.4	7,104.6	7,036.4	64.4	18.7	89.35	462.2	-2,373.3	964.2	882.5	81.69	11.803	
9,300.0	7,065.2	7,106.5	7,038.3	67.1	18.7	89.47	462.2	-2,373.3	942.9	858.5	84.42	11.170	
9,400.0	7,065.0	7,108.4	7,040.2	69.9	18.7	89.59	462.2	-2,373.4	931.9	844.7	87.14	10.693	
9,453.5	7,064.9	7,109.4	7,041.2	71.3	18.7	89.65	462.2	-2,373.4	930.3	841.7	88.61	10.500 CC	
9,500.0	7,064.8	7,110.3	7,042.1	72.6	18.7	89.71	462.2	-2,373.4	931.5	841.6	89.88	10.364 ES	
9,600.0	7,064.6	7,112.3	7,044.1	75.3	18.7	89.83	462.2	-2,373.4	941.8	849.2	92.62	10.169	
9,700.0	7,064.3	7,114.2	7,046.0	78.1	18.7	89.95	462.2	-2,373.5	962.4	867.1	95.36	10.092 SF	
9,800.0	7,064.1	7,116.2	7,048.0	80.8	18.7	90.07	462.3	-2,373.5	992.8	894.6	98.11	10.119	

<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Tarin 32Y-214
<b>Project:</b>	SEC.32-T4N-R66W	<b>TVD Reference:</b>	WELL @ 4790.0ft (RKB - 15')
<b>Reference Site:</b>	Tarin 32X-HZ Pad Sec.32-T4N-R66W	<b>MD Reference:</b>	WELL @ 4790.0ft (RKB - 15')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Tarin 32Y-214	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #3 (12-18-14)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Tarin 32X-HZ Pad Sec.32-T4N-R66W - Tarin 32W-234 - Wellbore #1 - Plan #1 (4-14-14)													Offset Well Error:	0.0 ft
Survey Program: 0-MWD														
Reference		Offset		Semi Major Axis			Distance							
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
0.0	0.0	0.0	0.0	0.0	0.0	-1.07	149.4	-2.8	149.4					
100.0	100.0	99.0	99.0	0.1	0.1	-1.07	149.4	-2.8	149.4	149.2	0.22	667.983		
200.0	200.0	199.0	199.0	0.3	0.3	-1.07	149.4	-2.8	149.4	148.7	0.67	222.291 CC, ES		
300.0	300.0	294.2	294.2	0.6	0.6	-0.92	150.9	-2.4	151.0	149.9	1.11	135.665		
400.0	400.0	389.2	389.0	0.8	0.8	-0.50	155.4	-1.3	155.8	154.2	1.56	99.793		
500.0	500.0	483.7	483.2	1.0	1.0	0.16	163.0	0.5	163.8	161.8	2.01	81.364		
600.0	600.0	577.6	576.5	1.2	1.3	0.98	173.5	3.0	175.0	172.5	2.47	70.843		
700.0	700.0	670.7	668.6	1.5	1.6	1.88	186.9	6.1	189.5	186.5	2.93	64.554		
800.0	800.0	762.8	759.2	1.7	1.9	2.81	203.0	10.0	207.1	203.7	3.41	60.744		
900.0	900.0	853.8	848.1	1.9	2.2	3.71	221.6	14.4	227.8	224.0	3.90	58.496		
1,000.0	1,000.0	947.3	938.9	2.1	2.7	4.59	243.3	19.5	251.3	246.9	4.40	57.123		
1,100.0	1,100.0	1,044.3	1,033.1	2.4	3.1	5.36	266.1	24.9	275.3	270.3	4.92	55.938		
1,200.0	1,200.0	1,141.4	1,127.3	2.6	3.6	6.00	288.9	30.4	299.2	293.8	5.45	54.932 SF		
1,300.0	1,300.0	1,238.1	1,221.1	2.8	4.0	-140.23	311.6	35.8	324.5	318.8	5.73	56.643		
1,400.0	1,399.8	1,334.1	1,314.3	3.0	4.5	-139.94	334.2	41.1	352.4	346.2	6.15	57.263		
1,500.0	1,499.5	1,429.3	1,406.7	3.2	5.0	-139.95	356.6	46.5	382.8	376.3	6.58	58.175		
1,600.0	1,598.7	1,523.7	1,498.3	3.4	5.4	-140.35	378.8	51.7	415.6	408.6	7.02	59.193		
1,700.0	1,698.0	1,617.9	1,589.7	3.6	5.9	-140.96	400.9	57.0	448.9	441.4	7.49	59.966		
1,800.0	1,797.2	1,712.1	1,681.1	3.9	6.4	-141.49	423.1	62.3	482.2	474.3	7.96	60.578		
1,900.0	1,896.4	1,806.3	1,772.5	4.1	6.8	-141.94	445.2	67.5	515.6	507.1	8.44	61.065		
2,000.0	1,995.6	1,900.5	1,863.9	4.4	7.3	-142.35	467.4	72.8	549.0	540.0	8.93	61.455		
2,100.0	2,094.8	1,994.7	1,955.3	4.7	7.8	-142.70	489.5	78.0	582.4	572.9	9.43	61.770		
2,200.0	2,194.0	2,088.9	2,046.7	4.9	8.2	-143.02	511.6	83.3	615.8	605.8	9.93	62.025		
2,300.0	2,293.3	2,183.1	2,138.1	5.2	8.7	-143.30	533.8	88.6	649.2	638.8	10.43	62.233		
2,400.0	2,392.5	2,277.3	2,229.5	5.5	9.2	-143.56	555.9	93.8	682.6	671.7	10.94	62.403		
2,500.0	2,491.7	2,371.5	2,320.9	5.8	9.6	-143.79	578.1	99.1	716.1	704.7	11.45	62.542		
2,600.0	2,590.9	2,465.7	2,412.3	6.1	10.1	-144.01	600.2	104.4	749.6	737.6	11.96	62.657		
2,700.0	2,690.1	2,559.9	2,503.8	6.4	10.6	-144.20	622.4	109.6	783.0	770.6	12.48	62.752		
2,800.0	2,789.4	2,654.1	2,595.2	6.7	11.0	-144.38	644.5	114.9	816.5	803.5	13.00	62.830		
2,900.0	2,888.6	2,748.3	2,686.6	7.1	11.5	-144.54	666.7	120.1	850.0	836.5	13.51	62.895		
3,000.0	2,987.8	2,842.5	2,778.0	7.4	12.0	-144.69	688.8	125.4	883.5	869.5	14.04	62.948		
3,100.0	3,087.0	2,936.7	2,869.4	7.7	12.4	-144.84	711.0	130.7	917.0	902.4	14.56	62.992		
3,200.0	3,186.2	3,030.9	2,960.8	8.0	12.9	-144.97	733.1	135.9	950.5	935.4	15.08	63.028		
3,300.0	3,285.4	3,125.1	3,052.2	8.3	13.4	-145.09	755.2	141.2	984.0	968.4	15.60	63.057		

<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Tarin 32Y-214
<b>Project:</b>	SEC.32-T4N-R66W	<b>TVD Reference:</b>	WELL @ 4790.0ft (RKB - 15')
<b>Reference Site:</b>	Tarin 32X-HZ Pad Sec.32-T4N-R66W	<b>MD Reference:</b>	WELL @ 4790.0ft (RKB - 15')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Tarin 32Y-214	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #3 (12-18-14)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference														
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Semi Major Axis 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	
0.0	0.0	0.0	0.0	0.0	0.0	0.00	120.2	0.0	120.2					
100.0	100.0	99.0	99.0	0.1	0.1	0.00	120.2	0.0	120.2	120.0	0.22	537.588		
200.0	200.0	199.0	199.0	0.3	0.3	0.00	120.2	0.0	120.2	119.6	0.67	178.898		
300.0	300.0	299.0	299.0	0.6	0.6	0.00	120.2	0.0	120.2	119.1	1.12	107.195		
400.0	400.0	399.0	399.0	0.8	0.8	0.00	120.2	0.0	120.2	118.7	1.57	76.524 CC, ES		
500.0	500.0	495.2	495.2	1.0	1.0	0.23	121.7	0.5	121.8	119.8	2.01	60.515		
600.0	600.0	591.1	590.9	1.2	1.2	0.90	126.3	2.0	126.6	124.1	2.46	51.475		
700.0	700.0	686.6	686.1	1.5	1.4	1.91	133.8	4.5	134.5	131.6	2.91	46.268		
800.0	800.0	781.4	780.3	1.7	1.7	3.13	144.3	7.9	145.7	142.4	3.36	43.364		
900.0	900.0	875.4	873.3	1.9	2.0	4.44	157.6	12.2	160.2	156.4	3.82	41.938		
1,000.0	1,000.0	972.2	968.6	2.1	2.3	5.75	173.6	17.5	177.2	172.9	4.29	41.298		
1,100.0	1,100.0	1,070.7	1,065.5	2.4	2.6	6.86	190.1	22.9	194.4	189.6	4.77	40.783		
1,200.0	1,200.0	1,169.1	1,162.4	2.6	3.0	7.79	206.5	28.3	211.6	206.4	5.25	40.335 SF		
1,300.0	1,300.0	1,267.4	1,259.1	2.8	3.3	-138.38	222.9	33.6	230.2	224.6	5.65	40.762		
1,400.0	1,399.8	1,365.1	1,355.3	3.0	3.7	-138.21	239.2	39.0	251.4	245.3	6.06	41.455		
1,500.0	1,499.5	1,462.2	1,450.9	3.2	4.1	-138.49	255.5	44.3	275.1	268.6	6.49	42.413		
1,600.0	1,598.7	1,558.6	1,545.8	3.4	4.4	-139.20	271.6	49.5	301.2	294.3	6.92	43.515		
1,700.0	1,698.0	1,654.9	1,640.7	3.6	4.8	-140.03	287.6	54.8	327.8	320.4	7.38	44.432		
1,800.0	1,797.2	1,751.2	1,735.5	3.9	5.2	-140.75	303.7	60.1	354.4	346.6	7.84	45.193		
1,900.0	1,896.4	1,847.5	1,830.3	4.1	5.5	-141.36	319.8	65.3	381.1	372.8	8.31	45.830		
2,000.0	1,995.6	1,943.8	1,925.1	4.4	5.9	-141.89	335.9	70.6	407.8	399.0	8.79	46.368		
2,100.0	2,094.8	2,040.1	2,019.9	4.7	6.3	-142.36	351.9	75.9	434.5	425.2	9.28	46.827		
2,200.0	2,194.0	2,136.4	2,114.7	4.9	6.7	-142.77	368.0	81.1	461.3	451.5	9.77	47.220		
2,300.0	2,293.3	2,232.7	2,209.5	5.2	7.0	-143.14	384.1	86.4	488.1	477.8	10.26	47.560		
2,400.0	2,392.5	2,329.0	2,304.3	5.5	7.4	-143.47	400.2	91.7	514.9	504.1	10.76	47.855		
2,500.0	2,491.7	2,425.3	2,399.1	5.8	7.8	-143.77	416.3	96.9	541.7	530.4	11.26	48.114		
2,600.0	2,590.9	2,521.6	2,493.9	6.1	8.2	-144.04	432.3	102.2	568.5	556.8	11.76	48.342		
2,700.0	2,690.1	2,617.9	2,588.7	6.4	8.5	-144.28	448.4	107.4	595.4	583.1	12.26	48.544		
2,800.0	2,789.4	2,714.2	2,683.5	6.7	8.9	-144.50	464.5	112.7	622.2	609.4	12.77	48.723		
2,900.0	2,888.6	2,810.5	2,778.3	7.1	9.3	-144.71	480.6	118.0	649.1	635.8	13.28	48.883		
3,000.0	2,987.8	2,906.8	2,873.1	7.4	9.7	-144.90	496.7	123.2	675.9	662.1	13.79	49.027		
3,100.0	3,087.0	3,003.1	2,967.9	7.7	10.0	-145.07	512.7	128.5	702.8	688.5	14.30	49.156		
3,200.0	3,186.2	3,099.4	3,062.7	8.0	10.4	-145.23	528.8	133.8	729.7	714.9	14.81	49.273		
3,300.0	3,285.4	3,195.7	3,157.5	8.3	10.8	-145.38	544.9	139.0	756.6	741.2	15.32	49.379		
3,400.0	3,384.7	3,292.0	3,252.3	8.6	11.2	-145.52	561.0	144.3	783.5	767.6	15.83	49.476		
3,500.0	3,483.9	3,388.3	3,347.1	8.9	11.5	-145.65	577.1	149.6	810.3	794.0	16.35	49.564		
3,600.0	3,583.1	3,484.6	3,441.9	9.3	11.9	-145.78	593.1	154.8	837.2	820.4	16.86	49.645		
3,700.0	3,682.3	3,580.9	3,536.7	9.6	12.3	-145.89	609.2	160.1	864.1	846.7	17.38	49.719		
3,800.0	3,781.5	3,677.2	3,631.5	9.9	12.7	-146.00	625.3	165.4	891.0	873.1	17.90	49.787		
3,900.0	3,880.8	3,773.6	3,726.3	10.2	13.0	-146.10	641.4	170.6	917.9	899.5	18.41	49.850		
4,000.0	3,980.0	3,869.9	3,821.1	10.5	13.4	-146.20	657.5	175.9	944.8	925.9	18.93	49.908		
4,100.0	4,079.2	3,966.2	3,915.9	10.9	13.8	-146.29	673.5	181.1	971.7	952.3	19.45	49.962		
4,200.0	4,178.4	4,062.5	4,010.7	11.2	14.2	-146.37	689.6	186.4	998.7	978.7	19.97	50.012		

<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Tarin 32Y-214
<b>Project:</b>	SEC.32-T4N-R66W	<b>TVD Reference:</b>	WELL @ 4790.0ft (RKB - 15')
<b>Reference Site:</b>	Tarin 32X-HZ Pad Sec.32-T4N-R66W	<b>MD Reference:</b>	WELL @ 4790.0ft (RKB - 15')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Tarin 32Y-214	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #3 (12-18-14)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference														
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Distance Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	61.9	0.0	61.9				
100.0	100.0	100.0	100.0	0.1	0.1	0.00	0.00	61.9	0.0	61.9	61.7	0.22	275.575	
200.0	200.0	200.0	200.0	0.3	0.3	0.00	0.00	61.9	0.0	61.9	61.3	0.67	91.858	
300.0	300.0	300.0	300.0	0.6	0.6	0.00	0.00	61.9	0.0	61.9	60.8	1.12	55.115	
400.0	400.0	400.0	400.0	0.8	0.8	0.00	0.00	61.9	0.0	61.9	60.4	1.57	39.368	
500.0	500.0	500.0	500.0	1.0	1.0	0.00	0.00	61.9	0.0	61.9	59.9	2.02	30.619	
600.0	600.0	600.0	600.0	1.2	1.2	0.00	0.00	61.9	0.0	61.9	59.5	2.47	25.052	
700.0	700.0	700.0	700.0	1.5	1.5	0.00	0.00	61.9	0.0	61.9	59.0	2.92	21.198	
800.0	800.0	800.0	800.0	1.7	1.7	0.00	0.00	61.9	0.0	61.9	58.6	3.37	18.372	
900.0	900.0	900.0	900.0	1.9	1.9	0.00	0.00	61.9	0.0	61.9	58.1	3.82	16.210	
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	0.00	0.00	61.9	0.0	61.9	57.7	4.27	14.504 CC, ES	
1,100.0	1,100.0	1,098.4	1,098.4	2.4	2.4	1.06	1.06	63.2	1.2	63.2	58.5	4.71	13.407	
1,200.0	1,200.0	1,196.6	1,196.5	2.6	2.6	3.99	3.99	66.8	4.7	67.1	61.9	5.16	13.008	
1,300.0	1,300.0	1,294.3	1,293.8	2.8	2.8	-139.51	-139.51	72.9	10.4	75.2	69.6	5.58	13.471	
1,400.0	1,399.8	1,392.2	1,391.1	3.0	3.0	-137.13	-137.13	81.0	18.3	88.5	82.5	5.99	14.772	
1,500.0	1,499.5	1,490.9	1,489.0	3.2	3.3	-136.48	-136.48	89.6	26.4	104.8	98.4	6.41	16.351	
1,600.0	1,598.7	1,589.1	1,586.5	3.4	3.5	-137.06	-137.06	98.1	34.6	123.4	116.5	6.84	18.032	
1,700.0	1,698.0	1,687.3	1,684.0	3.6	3.8	-137.76	-137.76	106.6	42.7	142.4	135.1	7.29	19.525	
1,800.0	1,797.2	1,785.5	1,781.4	3.9	4.1	-138.30	-138.30	115.1	50.8	161.4	153.7	7.75	20.814	
1,900.0	1,896.4	1,883.6	1,878.9	4.1	4.4	-138.72	-138.72	123.6	59.0	180.5	172.2	8.23	21.932	
2,000.0	1,995.6	1,981.8	1,976.4	4.4	4.6	-139.07	-139.07	132.1	67.1	199.5	190.8	8.71	22.908	
2,100.0	2,094.8	2,079.9	2,073.8	4.7	4.9	-139.35	-139.35	140.6	75.2	218.6	209.4	9.20	23.765	
2,200.0	2,194.0	2,178.1	2,171.3	4.9	5.2	-139.59	-139.59	149.1	83.4	237.6	227.9	9.69	24.521	
2,300.0	2,293.3	2,276.3	2,268.7	5.2	5.5	-139.79	-139.79	157.6	91.5	256.7	246.5	10.19	25.191	
2,400.0	2,392.5	2,374.4	2,366.2	5.5	5.8	-139.97	-139.97	166.1	99.6	275.8	265.1	10.69	25.789	
2,500.0	2,491.7	2,472.6	2,463.6	5.8	6.1	-140.12	-140.12	174.6	107.7	294.8	283.6	11.20	26.325	
2,600.0	2,590.9	2,570.7	2,561.1	6.1	6.4	-140.25	-140.25	183.1	115.9	313.9	302.2	11.71	26.807	
2,700.0	2,690.1	2,668.9	2,658.5	6.4	6.7	-140.37	-140.37	191.6	124.0	333.0	320.8	12.22	27.243	
2,800.0	2,789.4	2,767.1	2,756.0	6.7	7.0	-140.47	-140.47	200.1	132.1	352.1	339.3	12.74	27.638	
2,900.0	2,888.6	2,865.2	2,853.4	7.1	7.3	-140.57	-140.57	208.6	140.3	371.2	357.9	13.26	27.999	
3,000.0	2,987.8	2,963.4	2,950.9	7.4	7.6	-140.65	-140.65	217.1	148.4	390.2	376.5	13.78	28.328	
3,100.0	3,087.0	3,061.6	3,048.3	7.7	7.9	-140.73	-140.73	225.6	156.5	409.3	395.0	14.30	28.630	
3,200.0	3,186.2	3,159.7	3,145.8	8.0	8.2	-140.80	-140.80	234.1	164.7	428.4	413.6	14.82	28.907	
3,300.0	3,285.4	3,257.9	3,243.3	8.3	8.5	-140.87	-140.87	242.6	172.8	447.5	432.1	15.34	29.164	
3,400.0	3,384.7	3,356.0	3,340.7	8.6	8.8	-140.93	-140.93	251.1	180.9	466.6	450.7	15.87	29.401	
3,500.0	3,483.9	3,454.2	3,438.2	8.9	9.1	-140.98	-140.98	259.6	189.1	485.6	469.2	16.40	29.621	
3,600.0	3,583.1	3,552.4	3,535.6	9.3	9.4	-141.03	-141.03	268.1	197.2	504.7	487.8	16.92	29.825	
3,700.0	3,682.3	3,650.5	3,633.1	9.6	9.7	-141.08	-141.08	276.6	205.3	523.8	506.4	17.45	30.015	
3,800.0	3,781.5	3,748.7	3,730.5	9.9	10.0	-141.12	-141.12	285.1	213.5	542.9	524.9	17.98	30.193	
3,900.0	3,880.8	3,846.8	3,828.0	10.2	10.3	-141.16	-141.16	293.6	221.6	562.0	543.5	18.51	30.360	
4,000.0	3,980.0	3,945.0	3,925.4	10.5	10.6	-141.20	-141.20	302.1	229.7	581.1	562.0	19.04	30.516	
4,100.0	4,079.2	4,043.2	4,022.9	10.9	10.9	-141.24	-141.24	310.6	237.8	600.1	580.6	19.57	30.662	
4,200.0	4,178.4	4,141.3	4,120.3	11.2	11.2	-141.27	-141.27	319.1	246.0	619.2	599.1	20.10	30.800	
4,300.0	4,277.6	4,239.5	4,217.8	11.5	11.5	-141.30	-141.30	327.6	254.1	638.3	617.7	20.64	30.930	
4,400.0	4,376.8	4,337.7	4,315.3	11.8	11.8	-141.33	-141.33	336.1	262.2	657.4	636.2	21.17	31.053	
4,500.0	4,476.1	4,435.8	4,412.7	12.2	12.1	-141.36	-141.36	344.6	270.4	676.5	654.8	21.70	31.169	
4,600.0	4,575.3	4,534.0	4,510.2	12.5	12.4	-141.38	-141.38	353.1	278.5	695.6	673.3	22.24	31.278	
4,700.0	4,674.5	4,632.1	4,607.6	12.8	12.7	-141.41	-141.41	361.6	286.6	714.6	691.9	22.77	31.382	
4,800.0	4,773.7	4,742.5	4,717.2	13.1	13.0	-141.47	-141.47	370.7	295.3	733.3	710.0	23.30	31.471	
4,900.0	4,872.9	4,866.1	4,840.5	13.5	13.3	-141.75	-141.75	377.6	301.9	749.1	725.3	23.80	31.475	
5,000.0	4,972.2	4,990.7	4,964.9	13.8	13.5	-142.28	-142.28	380.7	304.9	761.6	737.3	24.28	31.372	

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

<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Tarin 32Y-214
<b>Project:</b>	SEC.32-T4N-R66W	<b>TVD Reference:</b>	WELL @ 4790.0ft (RKB - 15')
<b>Reference Site:</b>	Tarin 32X-HZ Pad Sec.32-T4N-R66W	<b>MD Reference:</b>	WELL @ 4790.0ft (RKB - 15')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Tarin 32Y-214	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #3 (12-18-14)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference														
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
5,100.0	5,071.4	5,097.1	5,071.4	14.1	13.7	-142.87	380.8	305.0	771.7	747.0	24.72	31.214		
5,200.0	5,170.6	5,196.3	5,170.6	14.4	13.9	-143.42	380.8	305.0	781.7	756.5	25.18	31.044		
5,300.0	5,269.8	5,295.5	5,269.8	14.8	14.0	-143.96	380.8	305.0	791.8	766.2	25.64	30.883		
5,400.0	5,369.0	5,394.7	5,369.0	15.1	14.2	-144.48	380.8	305.0	802.0	775.9	26.10	30.732		
5,500.0	5,468.2	5,493.9	5,468.2	15.4	14.4	-144.99	380.8	305.0	812.2	785.6	26.55	30.589		
5,600.0	5,567.5	5,593.2	5,567.5	15.8	14.6	-145.49	380.8	305.0	822.5	795.4	27.01	30.454		
5,700.0	5,666.7	5,692.4	5,666.7	16.1	14.8	-146.00	380.8	305.0	832.7	805.2	27.47	30.314		
5,800.0	5,766.2	5,791.9	5,766.2	16.3	14.9	-146.47	380.8	305.0	840.9	813.0	27.92	30.124		
5,900.0	5,866.0	5,891.7	5,866.0	16.5	15.1	-146.77	380.8	305.0	846.3	818.0	28.33	29.869		
6,000.0	5,965.9	5,991.6	5,965.9	16.7	15.3	-146.90	380.8	305.0	848.8	820.0	28.72	29.551		
6,100.0	6,065.9	6,091.6	6,065.9	16.8	15.5	0.00	380.8	305.0	848.9	818.5	30.45	27.876		
6,200.0	6,165.9	6,191.6	6,165.9	17.0	15.7	0.00	380.8	305.0	848.9	818.1	30.81	27.557		
6,300.0	6,265.9	6,291.6	6,265.9	17.1	15.9	0.00	380.8	305.0	848.9	817.8	31.16	27.243		
6,400.0	6,365.9	6,392.0	6,366.2	17.2	16.0	90.00	380.8	302.5	848.9	818.7	30.19	28.119		
6,500.0	6,464.7	6,492.5	6,465.6	17.3	16.1	90.00	380.8	287.9	848.9	818.5	30.39	27.936		
6,600.0	6,560.9	6,593.1	6,562.2	17.4	16.2	89.99	380.6	260.3	848.7	818.2	30.48	27.847		
6,700.0	6,652.6	6,693.6	6,654.3	17.4	16.2	89.99	380.4	220.3	848.5	818.0	30.53	27.790		
6,800.0	6,738.5	6,794.0	6,740.4	17.3	16.2	89.99	380.2	168.6	848.3	817.6	30.65	27.674		
6,900.0	6,816.9	6,894.5	6,818.9	17.3	16.1	89.99	379.8	106.0	847.9	817.0	30.97	27.378		
7,000.0	6,886.5	6,994.8	6,888.5	17.3	16.2	89.99	379.5	33.8	847.6	815.9	31.66	26.773		
7,100.0	6,946.2	7,095.1	6,948.0	17.3	16.6	89.99	379.1	-46.9	847.2	814.3	32.86	25.778		
7,200.0	6,994.9	7,195.4	6,996.3	17.2	17.6	89.98	378.6	-134.6	846.7	812.0	34.70	24.403		
7,300.0	7,031.8	7,295.6	7,032.8	18.4	18.8	89.98	378.1	-227.8	846.3	809.1	37.19	22.756		
7,400.0	7,056.3	7,395.7	7,056.8	20.0	20.4	89.98	377.7	-324.9	845.8	805.5	40.28	20.995		
7,500.0	7,067.9	7,495.7	7,067.8	21.9	22.2	89.98	377.2	-424.2	845.3	801.4	43.86	19.272		
7,600.0	7,068.7	7,595.7	7,068.6	23.9	24.2	89.99	376.6	-524.2	844.8	797.0	47.79	17.678		
7,700.0	7,068.5	7,695.7	7,068.5	26.0	26.3	90.00	376.1	-624.2	844.3	792.2	52.02	16.230		
7,800.0	7,068.3	7,795.7	7,068.4	28.2	28.5	90.01	375.6	-724.2	843.7	787.3	56.49	14.937		
7,900.0	7,068.1	7,895.7	7,068.4	30.6	30.8	90.02	375.1	-824.2	843.2	782.1	61.15	13.790		
8,000.0	7,067.9	7,995.7	7,068.3	33.0	33.2	90.03	374.6	-924.2	842.7	776.8	65.96	12.777		
8,100.0	7,067.7	8,095.7	7,068.2	35.5	35.7	90.04	374.1	-1,024.2	842.2	771.3	70.88	11.882		
8,200.0	7,067.5	8,195.7	7,068.2	38.0	38.2	90.05	373.6	-1,124.2	841.7	765.8	75.91	11.089		
8,300.0	7,067.3	8,295.7	7,068.1	40.5	40.7	90.06	373.1	-1,224.2	841.2	760.2	81.01	10.385		
8,400.0	7,067.1	8,395.7	7,068.0	43.1	43.3	90.07	372.6	-1,324.2	840.7	754.5	86.17	9.756		
8,500.0	7,066.9	8,495.7	7,068.0	45.7	45.9	90.08	372.1	-1,424.2	840.2	748.8	91.39	9.194		
8,600.0	7,066.7	8,595.7	7,067.9	48.3	48.5	90.08	371.6	-1,524.2	839.7	743.1	96.65	8.688		
8,700.0	7,066.4	8,695.7	7,067.8	51.0	51.2	90.09	371.1	-1,624.2	839.2	737.3	101.95	8.232		
8,800.0	7,066.2	8,795.7	7,067.7	53.7	53.8	90.10	370.6	-1,724.2	838.7	731.4	107.28	7.818		
8,900.0	7,066.0	8,895.7	7,067.7	56.3	56.5	90.11	370.1	-1,824.2	838.2	725.6	112.64	7.442		
9,000.0	7,065.8	8,995.7	7,067.6	59.0	59.2	90.12	369.6	-1,924.2	837.7	719.7	118.02	7.098		
9,100.0	7,065.6	9,095.7	7,067.5	61.7	61.9	90.13	369.1	-2,024.2	837.2	713.8	123.42	6.783		
9,200.0	7,065.4	9,195.7	7,067.5	64.4	64.6	90.14	368.6	-2,124.2	836.7	707.8	128.84	6.494		
9,300.0	7,065.2	9,295.7	7,067.4	67.1	67.3	90.15	368.1	-2,224.2	836.2	701.9	134.28	6.227		
9,400.0	7,065.0	9,395.7	7,067.3	69.9	70.0	90.16	367.6	-2,324.2	835.7	695.9	139.73	5.981		
9,500.0	7,064.8	9,495.7	7,067.3	72.6	72.8	90.17	367.0	-2,424.2	835.2	690.0	145.19	5.752		
9,600.0	7,064.6	9,595.6	7,067.2	75.3	75.5	90.18	366.5	-2,524.2	834.7	684.0	150.66	5.540		
9,700.0	7,064.3	9,695.6	7,067.1	78.1	78.2	90.19	366.0	-2,624.2	834.2	678.0	156.15	5.342		
9,800.0	7,064.1	9,795.6	7,067.0	80.8	81.0	90.20	365.5	-2,724.2	833.6	672.0	161.64	5.157		
9,900.0	7,063.9	9,895.6	7,067.0	83.6	83.7	90.21	365.0	-2,824.2	833.1	666.0	167.14	4.985		
10,000.0	7,063.7	9,995.6	7,066.9	86.3	86.5	90.22	364.5	-2,924.2	832.6	660.0	172.65	4.823		
10,100.0	7,063.5	10,095.6	7,066.8	89.1	89.2	90.23	364.0	-3,024.1	832.1	654.0	178.16	4.671		

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

<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Tarin 32Y-214
<b>Project:</b>	SEC.32-T4N-R66W	<b>TVD Reference:</b>	WELL @ 4790.0ft (RKB - 15')
<b>Reference Site:</b>	Tarin 32X-HZ Pad Sec.32-T4N-R66W	<b>MD Reference:</b>	WELL @ 4790.0ft (RKB - 15')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Tarin 32Y-214	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #3 (12-18-14)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design Tarin 32X-HZ Pad Sec.32-T4N-R66W - Tarin 32X-204 - Wellbore #1 - Plan #2 (12-18-14)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
10,200.0	7,063.3	10,195.6	7,066.8	91.8	92.0	90.24	363.5	-3,124.1	831.6	647.9	183.68	4.528		
10,300.0	7,063.1	10,295.6	7,066.7	94.6	94.7	90.25	363.0	-3,224.1	831.1	641.9	189.21	4.393		
10,400.0	7,062.9	10,395.6	7,066.6	97.4	97.5	90.26	362.5	-3,324.1	830.6	635.9	194.74	4.265		
10,500.0	7,062.7	10,495.6	7,066.6	100.1	100.3	90.27	362.0	-3,424.1	830.1	629.8	200.27	4.145		
10,600.0	7,062.5	10,595.6	7,066.5	102.9	103.0	90.28	361.5	-3,524.1	829.6	623.8	205.81	4.031		
10,700.0	7,062.3	10,695.6	7,066.4	105.7	105.8	90.29	361.0	-3,624.1	829.1	617.7	211.36	3.923		
10,800.0	7,062.0	10,795.6	7,066.3	108.4	108.6	90.30	360.5	-3,724.1	828.6	611.7	216.90	3.820		
10,900.0	7,061.8	10,895.6	7,066.3	111.2	111.3	90.31	360.0	-3,824.1	828.1	605.6	222.45	3.723		
11,000.0	7,061.6	10,995.6	7,066.2	114.0	114.1	90.32	359.5	-3,924.1	827.6	599.6	228.01	3.630		
11,100.0	7,061.4	11,095.6	7,066.1	116.8	116.9	90.33	359.0	-4,024.1	827.1	593.5	233.56	3.541		
11,200.0	7,061.2	11,195.6	7,066.1	119.6	119.7	90.34	358.5	-4,124.1	826.6	587.5	239.12	3.457		
11,300.0	7,061.0	11,295.6	7,066.0	122.3	122.4	90.35	358.0	-4,224.1	826.1	581.4	244.68	3.376		
11,400.0	7,060.8	11,395.6	7,065.9	125.1	125.2	90.36	357.4	-4,324.1	825.6	575.3	250.25	3.299		
11,500.0	7,060.6	11,495.6	7,065.9	127.9	128.0	90.37	356.9	-4,424.1	825.1	569.3	255.81	3.225		
11,600.0	7,060.4	11,595.6	7,065.8	130.7	130.8	90.38	356.4	-4,524.1	824.6	563.2	261.38	3.155		
11,700.0	7,060.2	11,695.6	7,065.7	133.5	133.6	90.39	355.9	-4,624.1	824.1	557.1	266.95	3.087		
11,800.0	7,059.9	11,795.6	7,065.7	136.3	136.4	90.40	355.4	-4,724.1	823.6	551.0	272.52	3.022		
11,900.0	7,059.7	11,895.6	7,065.6	139.0	139.1	90.41	354.9	-4,824.1	823.1	545.0	278.09	2.960		
12,000.0	7,059.5	11,995.6	7,065.5	141.8	141.9	90.42	354.4	-4,924.1	822.5	538.9	283.67	2.900		
12,100.0	7,059.3	12,095.6	7,065.4	144.6	144.7	90.43	353.9	-5,024.1	822.0	532.8	289.24	2.842		
12,200.0	7,059.1	12,195.6	7,065.4	147.4	147.5	90.44	353.4	-5,124.1	821.5	526.7	294.82	2.787		
12,300.0	7,058.9	12,295.6	7,065.3	150.2	150.3	90.45	352.9	-5,224.1	821.0	520.6	300.40	2.733		
12,400.0	7,058.7	12,395.6	7,065.2	153.0	153.1	90.46	352.4	-5,324.1	820.5	514.6	305.98	2.682		
12,500.0	7,058.5	12,495.6	7,065.2	155.8	155.9	90.47	351.9	-5,424.1	820.0	508.5	311.56	2.632		
12,600.0	7,058.3	12,595.6	7,065.1	158.6	158.7	90.48	351.4	-5,524.1	819.5	502.4	317.14	2.584		
12,700.0	7,058.1	12,695.6	7,065.0	161.4	161.4	90.49	350.9	-5,624.1	819.0	496.3	322.72	2.538		
12,800.0	7,057.9	12,795.6	7,065.0	164.2	164.2	90.50	350.4	-5,724.1	818.5	490.2	328.31	2.493		
12,900.0	7,057.6	12,895.6	7,064.9	166.9	167.0	90.51	349.9	-5,824.1	818.0	484.1	333.89	2.450		
13,000.0	7,057.4	12,995.6	7,064.8	169.7	169.8	90.52	349.4	-5,924.1	817.5	478.0	339.48	2.408		
13,100.0	7,057.2	13,095.6	7,064.7	172.5	172.6	90.53	348.9	-6,024.1	817.0	471.9	345.06	2.368		
13,200.0	7,057.0	13,195.6	7,064.7	175.3	175.4	90.54	348.4	-6,124.1	816.5	465.8	350.65	2.329		
13,300.0	7,056.8	13,295.6	7,064.6	178.1	178.2	90.55	347.8	-6,224.1	816.0	459.8	356.24	2.291		
13,400.0	7,056.6	13,395.6	7,064.5	180.9	181.0	90.56	347.3	-6,324.1	815.5	453.7	361.83	2.254		
13,500.0	7,056.4	13,495.6	7,064.5	183.7	183.8	90.57	346.8	-6,424.1	815.0	447.6	367.42	2.218		
13,600.0	7,056.2	13,595.6	7,064.4	186.5	186.6	90.58	346.3	-6,524.1	814.5	441.5	373.01	2.184		
13,700.0	7,056.0	13,695.6	7,064.3	189.3	189.4	90.59	345.8	-6,624.1	814.0	435.4	378.60	2.150		
13,800.0	7,055.8	13,795.6	7,064.3	192.1	192.2	90.60	345.3	-6,724.1	813.5	429.3	384.19	2.117		
13,900.0	7,055.6	13,895.6	7,064.2	194.9	195.0	90.61	344.8	-6,824.0	813.0	423.2	389.78	2.086		
14,000.0	7,055.3	13,995.6	7,064.1	197.7	197.8	90.62	344.3	-6,924.0	812.5	417.1	395.37	2.055		
14,100.0	7,055.1	14,095.6	7,064.0	200.5	200.6	90.63	343.8	-7,024.0	812.0	411.0	400.97	2.025		
14,163.3	7,055.0	14,158.9	7,064.0	202.3	202.3	90.64	343.5	-7,087.4	811.6	407.1	404.51	2.006 SF		

<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Tarin 32Y-214
<b>Project:</b>	SEC.32-T4N-R66W	<b>TVD Reference:</b>	WELL @ 4790.0ft (RKB - 15')
<b>Reference Site:</b>	Tarin 32X-HZ Pad Sec.32-T4N-R66W	<b>MD Reference:</b>	WELL @ 4790.0ft (RKB - 15')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Tarin 32Y-214	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #3 (12-18-14)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference														
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Distance Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	29.1	0.0	29.1				
100.0	100.0	100.0	100.0	0.1	0.1	0.00	0.00	29.1	0.0	29.1	28.9	0.22	129.683	
200.0	200.0	200.0	200.0	0.3	0.3	0.00	0.00	29.1	0.0	29.1	28.5	0.67	43.228	
300.0	300.0	300.0	300.0	0.6	0.6	0.00	0.00	29.1	0.0	29.1	28.0	1.12	25.937	
400.0	400.0	400.0	400.0	0.8	0.8	0.00	0.00	29.1	0.0	29.1	27.6	1.57	18.526	
500.0	500.0	500.0	500.0	1.0	1.0	0.00	0.00	29.1	0.0	29.1	27.1	2.02	14.409	
600.0	600.0	600.0	600.0	1.2	1.2	0.00	0.00	29.1	0.0	29.1	26.7	2.47	11.789	
700.0	700.0	700.0	700.0	1.5	1.5	0.00	0.00	29.1	0.0	29.1	26.2	2.92	9.976	
800.0	800.0	800.0	800.0	1.7	1.7	0.00	0.00	29.1	0.0	29.1	25.8	3.37	8.646	
900.0	900.0	900.0	900.0	1.9	1.9	0.00	0.00	29.1	0.0	29.1	25.3	3.82	7.628	
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	0.00	0.00	29.1	0.0	29.1	24.9	4.27	6.825	
1,100.0	1,100.0	1,100.0	1,100.0	2.4	2.4	0.00	0.00	29.1	0.0	29.1	24.4	4.72	6.175	
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	0.00	0.00	29.1	0.0	29.1	24.0	5.17	5.638 CC, ES	
1,300.0	1,300.0	1,300.0	1,300.0	2.8	2.8	-148.68	0.00	29.1	0.0	30.6	25.0	5.59	5.476	
1,400.0	1,399.8	1,399.8	1,399.8	3.0	3.0	-153.07	0.00	29.1	0.0	35.2	29.2	5.99	5.876	
1,500.0	1,499.5	1,499.5	1,499.5	3.2	3.3	-158.26	0.00	29.1	0.0	43.2	36.8	6.39	6.753	
1,600.0	1,598.7	1,598.0	1,597.9	3.4	3.5	-161.22	0.00	30.2	1.3	55.1	48.3	6.79	8.109	
1,700.0	1,698.0	1,696.1	1,695.9	3.6	3.7	-160.70	0.00	33.4	5.2	69.1	61.8	7.21	9.579	
1,800.0	1,797.2	1,793.6	1,793.1	3.9	3.9	-158.29	0.00	38.7	11.6	84.6	76.9	7.64	11.067	
1,900.0	1,896.4	1,892.0	1,890.9	4.1	4.1	-155.60	0.00	45.3	19.7	101.2	93.1	8.09	12.509	
2,000.0	1,995.6	1,990.5	1,988.9	4.4	4.4	-153.65	0.00	52.0	27.8	118.0	109.5	8.55	13.803	
2,100.0	2,094.8	2,089.0	2,086.8	4.7	4.6	-152.19	0.00	58.6	35.8	134.9	125.9	9.02	14.960	
2,200.0	2,194.0	2,187.5	2,184.8	4.9	4.9	-151.06	0.00	65.3	43.9	151.9	142.4	9.49	15.997	
2,300.0	2,293.3	2,286.0	2,282.7	5.2	5.1	-150.15	0.00	71.9	52.0	168.9	158.9	9.98	16.929	
2,400.0	2,392.5	2,384.5	2,380.7	5.5	5.4	-149.41	0.00	78.6	60.1	186.0	175.5	10.47	17.767	
2,500.0	2,491.7	2,483.1	2,478.6	5.8	5.6	-148.79	0.00	85.2	68.2	203.0	192.1	10.96	18.525	
2,600.0	2,590.9	2,581.6	2,576.6	6.1	5.9	-148.27	0.00	91.9	76.3	220.1	208.7	11.46	19.211	
2,700.0	2,690.1	2,680.1	2,674.5	6.4	6.2	-147.83	0.00	98.5	84.4	237.2	225.3	11.96	19.836	
2,800.0	2,789.4	2,778.6	2,772.5	6.7	6.4	-147.44	0.00	105.2	92.4	254.4	241.9	12.47	20.405	
2,900.0	2,888.6	2,877.1	2,870.4	7.1	6.7	-147.11	0.00	111.8	100.5	271.5	258.5	12.97	20.926	
3,000.0	2,987.8	2,975.6	2,968.4	7.4	7.0	-146.81	0.00	118.5	108.6	288.6	275.2	13.49	21.405	
3,100.0	3,087.0	3,074.1	3,066.3	7.7	7.3	-146.55	0.00	125.1	116.7	305.8	291.8	14.00	21.845	
3,200.0	3,186.2	3,172.6	3,164.3	8.0	7.5	-146.31	0.00	131.8	124.8	322.9	308.4	14.51	22.251	
3,300.0	3,285.4	3,271.1	3,262.2	8.3	7.8	-146.10	0.00	138.4	132.9	340.1	325.1	15.03	22.627	
3,400.0	3,384.7	3,369.6	3,360.2	8.6	8.1	-145.91	0.00	145.1	141.0	357.3	341.7	15.55	22.975	
3,500.0	3,483.9	3,468.1	3,458.2	8.9	8.4	-145.73	0.00	151.7	149.0	374.4	358.4	16.07	23.299	
3,600.0	3,583.1	3,566.7	3,556.1	9.3	8.7	-145.57	0.00	158.4	157.1	391.6	375.0	16.59	23.601	
3,700.0	3,682.3	3,665.2	3,654.1	9.6	8.9	-145.43	0.00	165.0	165.2	408.8	391.7	17.12	23.883	
3,800.0	3,781.5	3,763.7	3,752.0	9.9	9.2	-145.29	0.00	171.7	173.3	425.9	408.3	17.64	24.147	
3,900.0	3,880.8	3,862.2	3,850.0	10.2	9.5	-145.17	0.00	178.3	181.4	443.1	425.0	18.16	24.394	
4,000.0	3,980.0	3,960.7	3,947.9	10.5	9.8	-145.06	0.00	185.0	189.5	460.3	441.6	18.69	24.627	
4,100.0	4,079.2	4,059.2	4,045.9	10.9	10.1	-144.95	0.00	191.6	197.6	477.5	458.3	19.22	24.845	
4,200.0	4,178.4	4,157.7	4,143.8	11.2	10.4	-144.85	0.00	198.3	205.6	494.7	474.9	19.75	25.051	
4,300.0	4,277.6	4,256.2	4,241.8	11.5	10.6	-144.76	0.00	204.9	213.7	511.8	491.6	20.28	25.245	
4,400.0	4,376.8	4,354.7	4,339.7	11.8	10.9	-144.68	0.00	211.5	221.8	529.0	508.2	20.80	25.428	
4,500.0	4,476.1	4,453.2	4,437.7	12.2	11.2	-144.59	0.00	218.2	229.9	546.2	524.9	21.33	25.602	
4,600.0	4,575.3	4,551.8	4,535.6	12.5	11.5	-144.52	0.00	224.8	238.0	563.4	541.5	21.87	25.767	
4,700.0	4,674.5	4,650.3	4,633.6	12.8	11.8	-144.45	0.00	231.5	246.1	580.6	558.2	22.40	25.923	
4,800.0	4,773.7	4,748.8	4,731.5	13.1	12.1	-144.38	0.00	238.1	254.2	597.8	574.8	22.93	26.071	
4,900.0	4,872.9	4,847.3	4,829.5	13.5	12.4	-144.32	0.00	244.8	262.2	615.0	591.5	23.46	26.212	
5,000.0	4,972.2	4,945.8	4,927.4	13.8	12.6	-144.26	0.00	251.4	270.3	632.1	608.2	23.99	26.347	

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

<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Tarin 32Y-214
<b>Project:</b>	SEC.32-T4N-R66W	<b>TVD Reference:</b>	WELL @ 4790.0ft (RKB - 15')
<b>Reference Site:</b>	Tarin 32X-HZ Pad Sec.32-T4N-R66W	<b>MD Reference:</b>	WELL @ 4790.0ft (RKB - 15')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Tarin 32Y-214	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #3 (12-18-14)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference														
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,100.0	5,071.4	5,044.3	5,025.4	14.1	12.9	-144.20		258.1	278.4	649.3	624.8	24.53	26.475	
5,200.0	5,170.6	5,142.8	5,123.3	14.4	13.2	-144.15		264.7	286.5	666.5	641.5	25.06	26.597	
5,300.0	5,269.8	5,246.2	5,226.2	14.8	13.5	-144.10		271.6	294.9	683.6	658.0	25.60	26.709	
5,400.0	5,369.0	5,364.0	5,343.6	15.1	13.8	-144.27		277.2	301.7	698.8	672.7	26.10	26.773	
5,500.0	5,468.2	5,482.5	5,462.0	15.4	14.0	-144.73		279.8	304.8	711.2	684.6	26.56	26.776	
5,600.0	5,567.5	5,587.9	5,567.5	15.8	14.2	-145.32		279.9	305.0	721.6	694.6	27.00	26.730	
5,700.0	5,666.7	5,687.2	5,666.7	16.1	14.3	-145.90		279.9	305.0	731.8	704.4	27.45	26.662	
5,800.0	5,766.2	5,786.7	5,766.2	16.3	14.5	-146.42		279.9	305.0	740.1	712.2	27.89	26.539	
5,900.0	5,866.0	5,886.4	5,866.0	16.5	14.7	-146.75		279.9	305.0	745.4	717.1	28.30	26.344	
6,000.0	5,965.9	5,986.4	5,965.9	16.7	14.9	-146.90		279.9	305.0	747.9	719.2	28.68	26.078	
6,100.0	6,065.9	6,086.4	6,065.9	16.8	15.1	0.00		279.9	305.0	748.0	718.0	30.01	24.924	
6,200.0	6,165.9	6,186.4	6,165.9	17.0	15.3	0.00		279.9	305.0	748.0	717.7	30.37	24.630	
6,300.0	6,265.9	6,286.4	6,265.9	17.1	15.5	0.00		279.9	305.0	748.0	717.3	30.73	24.340	
6,346.5	6,312.4	6,332.9	6,312.4	17.2	15.6	90.07		279.9	305.0	748.0	718.1	29.98	24.949	
6,400.0	6,365.9	6,386.3	6,365.9	17.2	15.7	90.19		279.9	305.0	748.1	717.9	30.18	24.786	
6,500.0	6,464.7	6,486.5	6,465.9	17.3	15.9	91.09		279.9	302.4	748.2	717.7	30.47	24.555	
6,600.0	6,560.9	6,588.5	6,566.7	17.4	16.0	92.05		279.9	287.2	748.5	717.9	30.63	24.436	
6,700.0	6,652.6	6,692.3	6,666.3	17.4	16.0	92.99		279.9	258.2	749.1	718.4	30.72	24.386	
6,800.0	6,738.5	6,797.8	6,762.6	17.3	16.0	93.88		279.9	215.0	749.8	719.0	30.81	24.339	
6,900.0	6,816.9	6,905.2	6,853.4	17.3	16.0	94.70		279.9	158.0	750.6	719.5	31.03	24.191	
7,000.0	6,886.5	7,014.3	6,936.7	17.3	16.1	95.45		279.9	87.6	751.4	719.9	31.55	23.814	
7,100.0	6,946.2	7,125.0	7,010.0	17.3	16.4	96.10		279.9	4.8	752.2	719.7	32.57	23.093	
7,200.0	6,994.9	7,237.1	7,071.2	17.2	17.2	96.63		279.8	-88.9	753.0	718.8	34.25	21.986	
7,300.0	7,031.8	7,350.3	7,118.5	18.4	18.5	97.05		279.8	-191.6	753.6	716.9	36.67	20.553	
7,400.0	7,056.3	7,464.3	7,150.3	20.0	20.1	97.32		279.8	-301.0	754.0	714.2	39.82	18.937	
7,500.0	7,067.9	7,578.9	7,165.5	21.9	22.1	97.45		279.7	-414.5	754.2	710.7	43.56	17.315	
7,600.0	7,068.7	7,684.9	7,166.6	23.9	24.2	97.46		279.7	-520.5	754.2	706.7	47.55	15.861	
7,700.0	7,068.5	7,784.9	7,166.3	26.0	26.3	97.45		279.7	-620.5	754.2	702.4	51.73	14.578	
7,800.0	7,068.3	7,884.9	7,166.0	28.2	28.5	97.44		279.7	-720.5	754.1	698.0	56.15	13.430	
7,900.0	7,068.1	7,984.9	7,165.7	30.6	30.8	97.43		279.6	-820.5	754.1	693.3	60.76	12.410	
8,000.0	7,067.9	8,084.9	7,165.4	33.0	33.2	97.43		279.6	-920.5	754.0	688.5	65.52	11.508	
8,100.0	7,067.7	8,184.9	7,165.1	35.5	35.7	97.42		279.6	-1,020.5	754.0	683.6	70.40	10.710	
8,200.0	7,067.5	8,284.9	7,164.7	38.0	38.2	97.41		279.6	-1,120.5	754.0	678.6	75.38	10.002	
8,300.0	7,067.3	8,384.9	7,164.4	40.5	40.7	97.40		279.5	-1,220.5	753.9	673.5	80.43	9.373	
8,400.0	7,067.1	8,484.9	7,164.1	43.1	43.3	97.40		279.5	-1,320.5	753.9	668.3	85.55	8.812	
8,500.0	7,066.9	8,584.9	7,163.8	45.7	45.9	97.39		279.5	-1,420.5	753.8	663.1	90.72	8.309	
8,600.0	7,066.7	8,684.9	7,163.5	48.3	48.5	97.38		279.4	-1,520.5	753.8	657.9	95.94	7.857	
8,700.0	7,066.4	8,784.9	7,163.2	51.0	51.1	97.37		279.4	-1,620.5	753.7	652.6	101.19	7.449	
8,800.0	7,066.2	8,884.9	7,162.9	53.7	53.8	97.37		279.4	-1,720.5	753.7	647.2	106.48	7.078	
8,900.0	7,066.0	8,984.9	7,162.6	56.3	56.5	97.36		279.4	-1,820.5	753.7	641.9	111.79	6.742	
9,000.0	7,065.8	9,084.9	7,162.2	59.0	59.1	97.35		279.3	-1,920.5	753.6	636.5	117.13	6.434	
9,100.0	7,065.6	9,184.9	7,161.9	61.7	61.8	97.34		279.3	-2,020.5	753.6	631.1	122.49	6.152	
9,200.0	7,065.4	9,284.9	7,161.6	64.4	64.5	97.34		279.3	-2,120.5	753.5	625.7	127.87	5.893	
9,300.0	7,065.2	9,384.9	7,161.3	67.1	67.3	97.33		279.3	-2,220.5	753.5	620.2	133.26	5.654	
9,400.0	7,065.0	9,484.9	7,161.0	69.9	70.0	97.32		279.2	-2,320.5	753.5	614.8	138.67	5.433	
9,500.0	7,064.8	9,584.9	7,160.7	72.6	72.7	97.31		279.2	-2,420.5	753.4	609.3	144.09	5.229	
9,600.0	7,064.6	9,684.9	7,160.4	75.3	75.4	97.31		279.2	-2,520.5	753.4	603.9	149.53	5.038	
9,700.0	7,064.3	9,784.9	7,160.0	78.1	78.2	97.30		279.1	-2,620.5	753.3	598.4	154.97	4.861	
9,800.0	7,064.1	9,884.9	7,159.7	80.8	80.9	97.29		279.1	-2,720.4	753.3	592.9	160.42	4.696	
9,900.0	7,063.9	9,984.9	7,159.4	83.6	83.7	97.28		279.1	-2,820.4	753.3	587.4	165.88	4.541	
10,000.0	7,063.7	10,084.9	7,159.1	86.3	86.4	97.27		279.1	-2,920.4	753.2	581.9	171.35	4.396	

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

<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Tarin 32Y-214
<b>Project:</b>	SEC.32-T4N-R66W	<b>TVD Reference:</b>	WELL @ 4790.0ft (RKB - 15')
<b>Reference Site:</b>	Tarin 32X-HZ Pad Sec.32-T4N-R66W	<b>MD Reference:</b>	WELL @ 4790.0ft (RKB - 15')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Tarin 32Y-214	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #3 (12-18-14)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference														
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Distance Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
10,100.0	7,063.5	10,184.9	7,158.8	89.1	89.2	97.27	97.27	279.0	-3,020.4	753.2	576.4	176.82	4.260	
10,200.0	7,063.3	10,284.9	7,158.5	91.8	91.9	97.26	97.26	279.0	-3,120.4	753.1	570.8	182.30	4.131	
10,300.0	7,063.1	10,384.9	7,158.2	94.6	94.7	97.25	97.25	279.0	-3,220.4	753.1	565.3	187.79	4.010	
10,400.0	7,062.9	10,484.9	7,157.8	97.4	97.5	97.24	97.24	278.9	-3,320.4	753.1	559.8	193.28	3.896	
10,500.0	7,062.7	10,584.9	7,157.5	100.1	100.2	97.24	97.24	278.9	-3,420.4	753.0	554.2	198.77	3.788	
10,600.0	7,062.5	10,684.9	7,157.2	102.9	103.0	97.23	97.23	278.9	-3,520.4	753.0	548.7	204.28	3.686	
10,700.0	7,062.3	10,784.9	7,156.9	105.7	105.8	97.22	97.22	278.9	-3,620.4	752.9	543.2	209.78	3.589	
10,800.0	7,062.0	10,884.9	7,156.6	108.4	108.5	97.21	97.21	278.8	-3,720.4	752.9	537.6	215.29	3.497	
10,900.0	7,061.8	10,984.9	7,156.3	111.2	111.3	97.21	97.21	278.8	-3,820.4	752.9	532.1	220.80	3.410	
11,000.0	7,061.6	11,084.9	7,156.0	114.0	114.1	97.20	97.20	278.8	-3,920.4	752.8	526.5	226.31	3.326	
11,100.0	7,061.4	11,184.9	7,155.6	116.8	116.9	97.19	97.19	278.8	-4,020.4	752.8	520.9	231.83	3.247	
11,200.0	7,061.2	11,284.9	7,155.3	119.6	119.6	97.18	97.18	278.7	-4,120.4	752.7	515.4	237.35	3.171	
11,300.0	7,061.0	11,384.9	7,155.0	122.3	122.4	97.18	97.18	278.7	-4,220.4	752.7	509.8	242.88	3.099	
11,400.0	7,060.8	11,484.9	7,154.7	125.1	125.2	97.17	97.17	278.7	-4,320.4	752.7	504.2	248.40	3.030	
11,500.0	7,060.6	11,584.9	7,154.4	127.9	128.0	97.16	97.16	278.6	-4,420.4	752.6	498.7	253.93	2.964	
11,600.0	7,060.4	11,684.9	7,154.1	130.7	130.8	97.15	97.15	278.6	-4,520.4	752.6	493.1	259.46	2.900	
11,700.0	7,060.2	11,784.9	7,153.8	133.5	133.5	97.14	97.14	278.6	-4,620.4	752.5	487.5	265.00	2.840	
11,800.0	7,059.9	11,884.9	7,153.4	136.3	136.3	97.14	97.14	278.6	-4,720.4	752.5	482.0	270.53	2.782	
11,900.0	7,059.7	11,984.9	7,153.1	139.0	139.1	97.13	97.13	278.5	-4,820.4	752.4	476.4	276.07	2.726	
12,000.0	7,059.5	12,084.9	7,152.8	141.8	141.9	97.12	97.12	278.5	-4,920.4	752.4	470.8	281.61	2.672	
12,100.0	7,059.3	12,184.9	7,152.5	144.6	144.7	97.11	97.11	278.5	-5,020.4	752.4	465.2	287.15	2.620	
12,200.0	7,059.1	12,284.9	7,152.2	147.4	147.5	97.11	97.11	278.5	-5,120.4	752.3	459.6	292.69	2.570	
12,300.0	7,058.9	12,384.9	7,151.9	150.2	150.3	97.10	97.10	278.4	-5,220.4	752.3	454.1	298.23	2.523	
12,400.0	7,058.7	12,484.9	7,151.6	153.0	153.1	97.09	97.09	278.4	-5,320.4	752.2	448.5	303.77	2.476	
12,500.0	7,058.5	12,584.9	7,151.2	155.8	155.8	97.08	97.08	278.4	-5,420.4	752.2	442.9	309.32	2.432	
12,600.0	7,058.3	12,684.9	7,150.9	158.6	158.6	97.08	97.08	278.3	-5,520.4	752.2	437.3	314.87	2.389	
12,700.0	7,058.1	12,784.9	7,150.6	161.4	161.4	97.07	97.07	278.3	-5,620.4	752.1	431.7	320.42	2.347	
12,800.0	7,057.9	12,884.9	7,150.3	164.2	164.2	97.06	97.06	278.3	-5,720.4	752.1	426.1	325.97	2.307	
12,900.0	7,057.6	12,984.9	7,150.0	166.9	167.0	97.05	97.05	278.3	-5,820.4	752.0	420.5	331.52	2.268	
13,000.0	7,057.4	13,084.9	7,149.7	169.7	169.8	97.05	97.05	278.2	-5,920.4	752.0	414.9	337.07	2.231	
13,100.0	7,057.2	13,184.9	7,149.4	172.5	172.6	97.04	97.04	278.2	-6,020.4	752.0	409.3	342.62	2.195	
13,200.0	7,057.0	13,284.9	7,149.0	175.3	175.4	97.03	97.03	278.2	-6,120.4	751.9	403.7	348.17	2.160	
13,300.0	7,056.8	13,384.9	7,148.7	178.1	178.2	97.02	97.02	278.1	-6,220.4	751.9	398.2	353.73	2.126	
13,400.0	7,056.6	13,484.9	7,148.4	180.9	181.0	97.01	97.01	278.1	-6,320.4	751.8	392.6	359.28	2.093	
13,500.0	7,056.4	13,584.9	7,148.1	183.7	183.8	97.01	97.01	278.1	-6,420.4	751.8	387.0	364.84	2.061	
13,600.0	7,056.2	13,684.9	7,147.8	186.5	186.6	97.00	97.00	278.1	-6,520.4	751.8	381.4	370.40	2.030	
13,700.0	7,056.0	13,784.9	7,147.5	189.3	189.4	96.99	96.99	278.0	-6,620.4	751.7	375.8	375.96	1.999	
13,800.0	7,055.8	13,884.9	7,147.2	192.1	192.2	96.98	96.98	278.0	-6,720.4	751.7	370.2	381.52	1.970	
13,900.0	7,055.6	13,984.9	7,146.8	194.9	195.0	96.98	96.98	278.0	-6,820.4	751.6	364.6	387.08	1.942	
14,000.0	7,055.3	14,084.9	7,146.5	197.7	197.8	96.97	96.97	278.0	-6,920.4	751.6	359.0	392.64	1.914	
14,100.0	7,055.1	14,184.9	7,146.2	200.5	200.6	96.96	96.96	277.9	-7,020.4	751.6	353.4	398.20	1.887	
14,163.3	7,055.0	14,248.2	7,146.0	202.3	202.3	96.96	96.96	277.9	-7,083.7	751.5	349.8	401.72	1.871 SF	

<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Tarin 32Y-214
<b>Project:</b>	SEC.32-T4N-R66W	<b>TVD Reference:</b>	WELL @ 4790.0ft (RKB - 15')
<b>Reference Site:</b>	Tarin 32X-HZ Pad Sec.32-T4N-R66W	<b>MD Reference:</b>	WELL @ 4790.0ft (RKB - 15')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Tarin 32Y-214	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #3 (12-18-14)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference														
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
0.0	0.0	0.0	0.0	0.0	0.0	0.00	91.1	0.0	91.1					
100.0	100.0	100.0	100.0	0.1	0.1	0.00	91.1	0.0	91.1	90.9	0.22	405.258		
200.0	200.0	200.0	200.0	0.3	0.3	0.00	91.1	0.0	91.1	90.4	0.67	135.086		
300.0	300.0	300.0	300.0	0.6	0.6	0.00	91.1	0.0	91.1	90.0	1.12	81.052		
400.0	400.0	400.0	400.0	0.8	0.8	0.00	91.1	0.0	91.1	89.5	1.57	57.894		
500.0	500.0	500.0	500.0	1.0	1.0	0.00	91.1	0.0	91.1	89.1	2.02	45.029		
600.0	600.0	600.0	600.0	1.2	1.2	0.00	91.1	0.0	91.1	88.6	2.47	36.842 CC, ES		
700.0	700.0	697.1	697.1	1.5	1.5	0.42	92.6	0.7	92.6	89.7	2.92	31.778		
800.0	800.0	794.1	793.9	1.7	1.7	1.58	97.1	2.7	97.3	94.0	3.36	28.955		
900.0	900.0	890.5	890.0	1.9	1.9	3.29	104.5	6.0	105.2	101.4	3.81	27.614		
1,000.0	1,000.0	986.4	985.2	2.1	2.1	5.28	114.8	10.6	116.3	112.0	4.26	27.299 SF		
1,100.0	1,100.0	1,084.8	1,082.7	2.4	2.4	7.25	127.4	16.2	129.5	124.8	4.72	27.468		
1,200.0	1,200.0	1,183.8	1,180.7	2.6	2.7	8.87	140.0	21.9	143.0	137.8	5.17	27.632		
1,300.0	1,300.0	1,282.7	1,278.6	2.8	3.0	-136.93	152.6	27.5	157.8	152.2	5.61	28.103		
1,400.0	1,399.8	1,381.2	1,376.1	3.0	3.3	-136.75	165.1	33.1	175.1	169.1	6.03	29.057		
1,500.0	1,499.5	1,479.1	1,473.1	3.2	3.6	-137.23	177.6	38.7	194.9	188.5	6.44	30.249		
1,600.0	1,598.7	1,576.6	1,569.6	3.4	3.9	-138.25	190.1	44.2	217.1	210.2	6.88	31.567		
1,700.0	1,698.0	1,673.9	1,666.0	3.6	4.2	-139.31	202.5	49.8	239.8	232.5	7.33	32.724		
1,800.0	1,797.2	1,771.2	1,762.3	3.9	4.6	-140.20	214.9	55.3	262.6	254.8	7.79	33.711		
1,900.0	1,896.4	1,868.5	1,858.6	4.1	4.9	-140.94	227.3	60.9	285.4	277.2	8.26	34.561		
2,000.0	1,995.6	1,965.8	1,955.0	4.4	5.2	-141.57	239.7	66.4	308.3	299.5	8.73	35.298		
2,100.0	2,094.8	2,063.1	2,051.3	4.7	5.5	-142.12	252.1	72.0	331.2	322.0	9.21	35.942		
2,200.0	2,194.0	2,160.4	2,147.7	4.9	5.8	-142.60	264.5	77.5	354.1	344.4	9.70	36.507		
2,300.0	2,293.3	2,257.7	2,244.0	5.2	6.2	-143.01	276.9	83.1	377.0	366.8	10.19	37.007		
2,400.0	2,392.5	2,355.0	2,340.4	5.5	6.5	-143.38	289.3	88.6	400.0	389.3	10.68	37.451		
2,500.0	2,491.7	2,452.3	2,436.7	5.8	6.8	-143.71	301.7	94.2	422.9	411.8	11.17	37.848		
2,600.0	2,590.9	2,549.6	2,533.1	6.1	7.1	-144.01	314.1	99.7	445.9	434.2	11.67	38.204		
2,700.0	2,690.1	2,646.9	2,629.4	6.4	7.5	-144.27	326.5	105.3	468.9	456.7	12.17	38.525		
2,800.0	2,789.4	2,744.2	2,725.8	6.7	7.8	-144.52	339.0	110.8	491.9	479.2	12.67	38.816		
2,900.0	2,888.6	2,841.5	2,822.1	7.1	8.1	-144.74	351.4	116.4	514.9	501.7	13.18	39.081		
3,000.0	2,987.8	2,938.8	2,918.5	7.4	8.4	-144.94	363.8	121.9	537.9	524.2	13.68	39.322		
3,100.0	3,087.0	3,036.1	3,014.8	7.7	8.8	-145.12	376.2	127.4	560.9	546.7	14.18	39.543		
3,200.0	3,186.2	3,133.4	3,111.1	8.0	9.1	-145.29	388.6	133.0	583.9	569.2	14.69	39.746		
3,300.0	3,285.4	3,230.7	3,207.5	8.3	9.4	-145.45	401.0	138.5	607.0	591.8	15.20	39.934		
3,400.0	3,384.7	3,328.0	3,303.8	8.6	9.7	-145.59	413.4	144.1	630.0	614.3	15.71	40.106		
3,500.0	3,483.9	3,425.3	3,400.2	8.9	10.1	-145.73	425.8	149.6	653.0	636.8	16.22	40.266		
3,600.0	3,583.1	3,522.6	3,496.5	9.3	10.4	-145.86	438.2	155.2	676.1	659.3	16.73	40.415		
3,700.0	3,682.3	3,619.9	3,592.9	9.6	10.7	-145.97	450.6	160.7	699.1	681.9	17.24	40.554		
3,800.0	3,781.5	3,717.2	3,689.2	9.9	11.1	-146.09	463.0	166.3	722.1	704.4	17.75	40.683		
3,900.0	3,880.8	3,814.5	3,785.6	10.2	11.4	-146.19	475.4	171.8	745.2	726.9	18.26	40.803		
4,000.0	3,980.0	3,911.8	3,881.9	10.5	11.7	-146.29	487.8	177.4	768.2	749.5	18.78	40.916		
4,100.0	4,079.2	4,009.1	3,978.3	10.9	12.0	-146.38	500.3	182.9	791.3	772.0	19.29	41.022		
4,200.0	4,178.4	4,106.4	4,074.6	11.2	12.4	-146.46	512.7	188.5	814.3	794.5	19.80	41.122		
4,300.0	4,277.6	4,203.7	4,171.0	11.5	12.7	-146.55	525.1	194.0	837.4	817.1	20.32	41.215		
4,400.0	4,376.8	4,301.0	4,267.3	11.8	13.0	-146.62	537.5	199.6	860.4	839.6	20.83	41.304		
4,500.0	4,476.1	4,398.3	4,363.6	12.2	13.4	-146.70	549.9	205.1	883.5	862.1	21.35	41.387		
4,600.0	4,575.3	4,495.6	4,460.0	12.5	13.7	-146.77	562.3	210.6	906.5	884.7	21.86	41.466		
4,700.0	4,674.5	4,592.9	4,556.3	12.8	14.0	-146.83	574.7	216.2	929.6	907.2	22.38	41.541		
4,800.0	4,773.7	4,690.2	4,652.7	13.1	14.3	-146.90	587.1	221.7	952.7	929.8	22.89	41.611		
4,900.0	4,872.9	4,787.5	4,749.0	13.5	14.7	-146.96	599.5	227.3	975.7	952.3	23.41	41.679		
5,000.0	4,972.2	4,884.8	4,845.4	13.8	15.0	-147.01	611.9	232.8	998.8	974.9	23.93	41.742		

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

<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Tarin 32Y-214
<b>Project:</b>	SEC.32-T4N-R66W	<b>TVD Reference:</b>	WELL @ 4790.0ft (RKB - 15')
<b>Reference Site:</b>	Tarin 32X-HZ Pad Sec.32-T4N-R66W	<b>MD Reference:</b>	WELL @ 4790.0ft (RKB - 15')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Tarin 32Y-214	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #3 (12-18-14)	<b>Offset TVD Reference:</b>	Offset Datum

<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Tarin 32Y-214
<b>Project:</b>	SEC.32-T4N-R66W	<b>TVD Reference:</b>	WELL @ 4790.0ft (RKB - 15')
<b>Reference Site:</b>	Tarin 32X-HZ Pad Sec.32-T4N-R66W	<b>MD Reference:</b>	WELL @ 4790.0ft (RKB - 15')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Tarin 32Y-214	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #3 (12-18-14)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Tarin 32X-HZ Pad Sec.32-T4N-R66W - Tarin 32Y-314 - Wellbore #1 - Plan #3 (12-18-14)														
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	1.0	1.0	0.0	0.0	180.00	180.00	-29.1	0.0	29.1	29.1	0.00	N/A	
100.0	100.0	101.0	101.0	0.1	0.1	180.00	180.00	-29.1	0.0	29.1	28.9	0.23	128.345	
200.0	200.0	201.0	201.0	0.3	0.3	180.00	180.00	-29.1	0.0	29.1	28.5	0.68	43.066	
300.0	300.0	301.0	301.0	0.6	0.6	180.00	180.00	-29.1	0.0	29.1	28.0	1.13	25.874	
400.0	400.0	401.0	401.0	0.8	0.8	180.00	180.00	-29.1	0.0	29.1	27.6	1.58	18.492	
500.0	500.0	501.0	501.0	1.0	1.0	180.00	180.00	-29.1	0.0	29.1	27.1	2.03	14.387	
600.0	600.0	601.0	601.0	1.2	1.2	180.00	180.00	-29.1	0.0	29.1	26.7	2.47	11.774	
700.0	700.0	701.0	701.0	1.5	1.5	180.00	180.00	-29.1	0.0	29.1	26.2	2.92	9.964	
800.0	800.0	801.0	801.0	1.7	1.7	180.00	180.00	-29.1	0.0	29.1	25.8	3.37	8.636	
900.0	900.0	901.0	901.0	1.9	1.9	180.00	180.00	-29.1	0.0	29.1	25.3	3.82	7.621	
966.3	966.3	967.3	967.3	2.1	2.1	180.00	180.00	-29.1	0.0	29.1	25.0	4.12	7.069 CC	
1,000.0	1,000.0	1,001.0	1,001.0	2.1	2.1	180.00	180.00	-29.1	0.0	29.1	24.9	4.27	6.819	
1,100.0	1,100.0	1,100.0	1,100.0	2.4	2.3	178.70	178.70	-30.7	0.7	30.8	26.1	4.69	6.554	
1,200.0	1,200.0	1,198.8	1,198.7	2.6	2.5	175.55	175.55	-35.5	2.8	35.6	30.5	5.10	6.993	
1,300.0	1,300.0	1,297.3	1,296.8	2.8	2.7	25.91	25.91	-43.3	6.2	42.3	36.9	5.48	7.726	
1,400.0	1,399.8	1,395.6	1,394.3	3.0	2.9	24.56	24.56	-54.1	10.9	49.2	43.4	5.84	8.424	
1,500.0	1,499.5	1,493.6	1,491.1	3.2	3.2	24.10	24.10	-68.0	17.0	56.3	50.1	6.22	9.044	
1,600.0	1,598.7	1,592.9	1,588.9	3.4	3.4	24.37	24.37	-84.3	24.0	62.8	56.1	6.62	9.474	
1,700.0	1,698.0	1,692.7	1,687.1	3.6	3.8	24.81	24.81	-100.7	31.2	68.8	61.7	7.05	9.754	
1,800.0	1,797.2	1,792.5	1,785.3	3.9	4.1	25.17	25.17	-117.1	38.4	74.8	67.3	7.50	9.984	
1,900.0	1,896.4	1,892.3	1,883.5	4.1	4.4	25.48	25.48	-133.5	45.5	80.9	72.9	7.95	10.173	
2,000.0	1,995.6	1,992.2	1,981.6	4.4	4.8	25.75	25.75	-149.9	52.7	86.9	78.5	8.41	10.331	
2,100.0	2,094.8	2,092.0	2,079.8	4.7	5.2	25.99	25.99	-166.3	59.9	93.0	84.1	8.89	10.462	
2,200.0	2,194.0	2,191.8	2,178.0	4.9	5.5	26.19	26.19	-182.8	67.0	99.0	89.6	9.37	10.572	
2,300.0	2,293.3	2,291.6	2,276.2	5.2	5.9	26.37	26.37	-199.2	74.2	105.1	95.2	9.85	10.664	
2,400.0	2,392.5	2,391.4	2,374.4	5.5	6.3	26.53	26.53	-215.6	81.3	111.1	100.8	10.34	10.742	
2,500.0	2,491.7	2,491.2	2,472.6	5.8	6.7	26.68	26.68	-232.0	88.5	117.1	106.3	10.84	10.809	
2,600.0	2,590.9	2,591.1	2,570.8	6.1	7.1	26.81	26.81	-248.4	95.7	123.2	111.9	11.34	10.866	
2,700.0	2,690.1	2,690.9	2,669.0	6.4	7.5	26.93	26.93	-264.8	102.8	129.2	117.4	11.84	10.914	
2,800.0	2,789.4	2,790.7	2,767.2	6.7	7.8	27.03	27.03	-281.3	110.0	135.3	122.9	12.35	10.956	
2,900.0	2,888.6	2,890.5	2,865.4	7.1	8.2	27.13	27.13	-297.7	117.2	141.3	128.5	12.86	10.993	
3,000.0	2,987.8	2,990.3	2,963.6	7.4	8.6	27.22	27.22	-314.1	124.3	147.4	134.0	13.37	11.024	
3,100.0	3,087.0	3,090.1	3,061.8	7.7	9.0	27.31	27.31	-330.5	131.5	153.5	139.6	13.89	11.051	
3,200.0	3,186.2	3,190.0	3,160.0	8.0	9.4	27.38	27.38	-346.9	138.6	159.5	145.1	14.40	11.075	
3,300.0	3,285.4	3,289.8	3,258.2	8.3	9.8	27.46	27.46	-363.3	145.8	165.6	150.6	14.92	11.096	
3,400.0	3,384.7	3,389.6	3,356.4	8.6	10.2	27.52	27.52	-379.8	153.0	171.6	156.2	15.44	11.115	
3,500.0	3,483.9	3,489.4	3,454.6	8.9	10.6	27.58	27.58	-396.2	160.1	177.7	161.7	15.96	11.131	
3,600.0	3,583.1	3,589.2	3,552.8	9.3	11.1	27.64	27.64	-412.6	167.3	183.7	167.2	16.48	11.145	
3,700.0	3,682.3	3,689.0	3,651.0	9.6	11.5	27.70	27.70	-429.0	174.5	189.8	172.8	17.01	11.158	
3,800.0	3,781.5	3,788.9	3,749.2	9.9	11.9	27.75	27.75	-445.4	181.6	195.8	178.3	17.53	11.169	
3,900.0	3,880.8	3,888.7	3,847.4	10.2	12.3	27.79	27.79	-461.8	188.8	201.9	183.8	18.06	11.179	
4,000.0	3,980.0	3,988.5	3,945.6	10.5	12.7	27.84	27.84	-478.3	195.9	207.9	189.3	18.59	11.188	
4,100.0	4,079.2	4,088.3	4,043.8	10.9	13.1	27.88	27.88	-494.7	203.1	214.0	194.9	19.11	11.195	
4,200.0	4,178.4	4,188.1	4,142.0	11.2	13.5	27.92	27.92	-511.1	210.3	220.0	200.4	19.64	11.202	
4,300.0	4,277.6	4,287.9	4,240.2	11.5	13.9	27.96	27.96	-527.5	217.4	226.1	205.9	20.17	11.209	
4,400.0	4,376.8	4,387.8	4,338.4	11.8	14.3	27.99	27.99	-543.9	224.6	232.1	211.4	20.70	11.214	
4,500.0	4,476.1	4,487.6	4,436.6	12.2	14.7	28.03	28.03	-560.3	231.7	238.2	217.0	21.23	11.219	
4,600.0	4,575.3	4,587.4	4,534.8	12.5	15.1	28.06	28.06	-576.8	238.9	244.2	222.5	21.76	11.223	
4,700.0	4,674.5	4,687.2	4,633.0	12.8	15.5	28.09	28.09	-593.2	246.1	250.3	228.0	22.29	11.227	
4,800.0	4,773.7	4,787.0	4,731.1	13.1	15.9	28.12	28.12	-609.6	253.2	256.4	233.5	22.83	11.231	
4,900.0	4,872.9	4,886.8	4,829.3	13.5	16.4	28.15	28.15	-626.0	260.4	262.4	239.0	23.36	11.234	

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

<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Tarin 32Y-214
<b>Project:</b>	SEC.32-T4N-R66W	<b>TVD Reference:</b>	WELL @ 4790.0ft (RKB - 15')
<b>Reference Site:</b>	Tarin 32X-HZ Pad Sec.32-T4N-R66W	<b>MD Reference:</b>	WELL @ 4790.0ft (RKB - 15')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Tarin 32Y-214	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #3 (12-18-14)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design Tarin 32X-HZ Pad Sec.32-T4N-R66W - Tarin 32Y-314 - Wellbore #1 - Plan #3 (12-18-14)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,000.0	4,972.2	4,986.7	4,927.5	13.8	16.8	28.18		-642.4	267.6	268.5	244.6	23.89	11.236	
5,100.0	5,071.4	5,086.5	5,025.7	14.1	17.2	28.20		-658.8	274.7	274.5	250.1	24.43	11.239	
5,200.0	5,170.6	5,186.3	5,123.9	14.4	17.6	28.23		-675.3	281.9	280.6	255.6	24.96	11.241	
5,300.0	5,269.8	5,289.9	5,226.0	14.8	18.0	28.27		-692.0	289.2	286.4	260.9	25.50	11.232	
5,400.0	5,369.0	5,400.4	5,335.2	15.1	18.3	28.53		-706.9	295.7	289.3	263.2	26.03	11.113	
5,500.0	5,468.2	5,510.9	5,445.0	15.4	18.5	29.07		-717.8	300.5	288.5	262.0	26.58	10.855	
5,600.0	5,567.5	5,621.1	5,555.0	15.8	18.7	29.90		-724.9	303.5	284.2	257.1	27.15	10.466	
5,700.0	5,666.7	5,730.7	5,664.5	16.1	18.9	31.04		-728.0	304.9	276.5	248.7	27.75	9.962	
5,800.0	5,766.2	5,833.4	5,767.2	16.3	19.0	32.06		-728.2	305.0	268.2	239.9	28.25	9.493	
5,900.0	5,866.0	5,933.2	5,867.0	16.5	19.2	32.74		-728.2	305.0	262.8	234.1	28.67	9.166	
6,000.0	5,965.9	6,033.1	5,966.9	16.7	19.3	33.06		-728.2	305.0	260.3	231.3	29.01	8.973	
6,055.6	6,021.5	6,088.7	6,022.5	16.7	19.4	33.12		-728.2	305.0	259.9	230.7	29.20	8.901	
6,100.0	6,065.9	6,133.1	6,066.9	16.8	19.4	180.00		-728.2	305.0	260.1	225.6	34.59	7.522	
6,200.0	6,165.9	6,233.1	6,166.9	17.0	19.5	180.00		-728.2	305.0	260.1	225.3	34.87	7.460	
6,300.0	6,265.9	6,333.1	6,266.9	17.1	19.7	180.00		-728.2	305.0	260.1	225.0	35.16	7.399	
6,346.5	6,312.4	6,379.6	6,313.4	17.2	19.7	-90.19		-728.2	305.0	260.1	230.0	30.16	8.626	
6,400.0	6,365.9	6,433.0	6,366.9	17.2	19.8	-90.53		-728.2	305.0	260.1	229.9	30.29	8.589	
6,500.0	6,464.7	6,533.1	6,466.9	17.3	19.9	-93.21		-728.2	302.8	260.6	230.4	30.20	8.628	
6,600.0	6,560.9	6,635.1	6,567.7	17.4	20.0	-96.10		-728.2	288.3	261.6	231.6	30.01	8.719	
6,700.0	6,652.6	6,738.9	6,667.5	17.4	20.0	-98.88		-728.2	259.8	263.3	233.5	29.81	8.835	
6,800.0	6,738.5	6,844.7	6,764.3	17.3	20.0	-101.49		-728.2	217.2	265.5	235.9	29.67	8.950	
6,900.0	6,816.9	6,952.4	6,855.7	17.3	20.0	-103.89		-728.2	160.6	268.1	238.4	29.70	9.026	
7,000.0	6,886.5	7,061.9	6,939.6	17.3	20.0	-106.02		-728.2	90.4	270.7	240.7	30.03	9.015	
7,100.0	6,946.2	7,173.1	7,013.7	17.3	19.9	-107.84		-728.2	7.6	273.4	242.5	30.81	8.871	
7,200.0	6,994.9	7,285.7	7,075.7	17.2	19.9	-109.32		-728.2	-86.4	275.7	243.5	32.18	8.569	
7,300.0	7,031.8	7,399.7	7,123.6	18.4	20.0	-110.44		-728.2	-189.6	277.7	243.5	34.20	8.119	
7,400.0	7,056.3	7,514.5	7,155.9	20.0	20.7	-111.18		-728.2	-299.7	279.0	242.1	36.89	7.562	
7,500.0	7,067.9	7,629.9	7,171.3	21.9	22.5	-111.53		-728.2	-413.9	279.7	239.5	40.16	6.963	
7,600.0	7,068.7	7,736.5	7,172.4	23.9	24.6	-111.53		-728.2	-520.5	279.6	235.8	43.86	6.376	
7,700.0	7,068.5	7,836.5	7,171.8	26.0	26.6	-111.47		-728.2	-620.5	279.5	231.7	47.82	5.846	
7,800.0	7,068.3	7,936.4	7,171.3	28.2	28.9	-111.41		-728.2	-720.5	279.4	227.4	52.01	5.373	
7,900.0	7,068.1	8,036.4	7,170.8	30.6	31.2	-111.35		-728.2	-820.5	279.3	222.9	56.39	4.953	
8,000.0	7,067.9	8,136.4	7,170.3	33.0	33.5	-111.29		-728.2	-920.5	279.2	218.3	60.91	4.583	
8,100.0	7,067.7	8,236.4	7,169.7	35.5	36.0	-111.23		-728.2	-1,020.5	279.1	213.5	65.55	4.257	
8,200.0	7,067.5	8,336.4	7,169.2	38.0	38.5	-111.17		-728.2	-1,120.5	279.0	208.7	70.29	3.969	
8,300.0	7,067.3	8,436.4	7,168.7	40.5	41.0	-111.11		-728.2	-1,220.5	278.8	203.7	75.10	3.713	
8,400.0	7,067.1	8,536.4	7,168.2	43.1	43.5	-111.05		-728.2	-1,320.5	278.7	198.8	79.98	3.485	
8,500.0	7,066.9	8,636.4	7,167.7	45.7	46.1	-110.99		-728.2	-1,420.5	278.6	193.7	84.91	3.281	
8,600.0	7,066.7	8,736.4	7,167.1	48.3	48.7	-110.93		-728.2	-1,520.5	278.5	188.6	89.89	3.098	
8,700.0	7,066.4	8,836.4	7,166.6	51.0	51.4	-110.87		-728.2	-1,620.5	278.4	183.5	94.91	2.933	
8,800.0	7,066.2	8,936.4	7,166.1	53.7	54.0	-110.81		-728.2	-1,720.5	278.3	178.3	99.96	2.784	
8,900.0	7,066.0	9,036.4	7,165.6	56.3	56.7	-110.75		-728.2	-1,820.5	278.2	173.1	105.04	2.648	
9,000.0	7,065.8	9,136.4	7,165.0	59.0	59.4	-110.68		-728.2	-1,920.5	278.1	167.9	110.15	2.524	
9,100.0	7,065.6	9,236.4	7,164.5	61.7	62.0	-110.62		-728.2	-2,020.5	278.0	162.7	115.28	2.411	
9,200.0	7,065.4	9,336.4	7,164.0	64.4	64.7	-110.56		-728.2	-2,120.5	277.8	157.4	120.43	2.307	
9,300.0	7,065.2	9,436.4	7,163.5	67.1	67.5	-110.50		-728.2	-2,220.5	277.7	152.1	125.60	2.211	
9,400.0	7,065.0	9,536.4	7,162.9	69.9	70.2	-110.44		-728.2	-2,320.5	277.6	146.8	130.78	2.123	
9,500.0	7,064.8	9,636.4	7,162.4	72.6	72.9	-110.38		-728.2	-2,420.4	277.5	141.5	135.98	2.041	
9,600.0	7,064.6	9,736.4	7,161.9	75.3	75.6	-110.32		-728.2	-2,520.4	277.4	136.2	141.20	1.965	
9,700.0	7,064.3	9,836.4	7,161.4	78.1	78.3	-110.26		-728.2	-2,620.4	277.3	130.9	146.43	1.894	
9,800.0	7,064.1	9,936.4	7,160.8	80.8	81.1	-110.20		-728.2	-2,720.4	277.2	125.5	151.66	1.828	

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

<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Tarin 32Y-214
<b>Project:</b>	SEC.32-T4N-R66W	<b>TVD Reference:</b>	WELL @ 4790.0ft (RKB - 15')
<b>Reference Site:</b>	Tarin 32X-HZ Pad Sec.32-T4N-R66W	<b>MD Reference:</b>	WELL @ 4790.0ft (RKB - 15')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Tarin 32Y-214	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #3 (12-18-14)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design Tarin 32X-HZ Pad Sec.32-T4N-R66W - Tarin 32Y-314 - Wellbore #1 - Plan #3 (12-18-14)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
9,900.0	7,063.9	10,036.4	7,160.3	83.6	83.8	-110.14		-728.2	-2,820.4	277.1	120.2	156.92	1.766	
10,000.0	7,063.7	10,136.4	7,159.8	86.3	86.6	-110.08		-728.2	-2,920.4	277.0	114.8	162.18	1.708	
10,100.0	7,063.5	10,236.4	7,159.3	89.1	89.3	-110.02		-728.2	-3,020.4	276.9	109.4	167.45	1.653	
10,200.0	7,063.3	10,336.4	7,158.7	91.8	92.1	-109.95		-728.2	-3,120.4	276.8	104.0	172.73	1.602	
10,300.0	7,063.1	10,436.4	7,158.2	94.6	94.8	-109.89		-728.2	-3,220.4	276.6	98.6	178.02	1.554	
10,400.0	7,062.9	10,536.4	7,157.7	97.4	97.6	-109.83		-728.2	-3,320.4	276.5	93.2	183.31	1.509	
10,500.0	7,062.7	10,636.4	7,157.2	100.1	100.4	-109.77		-728.2	-3,420.4	276.4	87.8	188.62	1.466 Level 3	
10,600.0	7,062.5	10,736.4	7,156.7	102.9	103.1	-109.71		-728.2	-3,520.4	276.3	82.4	193.93	1.425 Level 3	
10,700.0	7,062.3	10,836.4	7,156.1	105.7	105.9	-109.65		-728.2	-3,620.4	276.2	77.0	199.25	1.386 Level 3	
10,800.0	7,062.0	10,936.4	7,155.6	108.4	108.7	-109.59		-728.2	-3,720.4	276.1	71.5	204.58	1.350 Level 3	
10,900.0	7,061.8	11,036.4	7,155.1	111.2	111.4	-109.53		-728.2	-3,820.4	276.0	66.1	209.91	1.315 Level 3	
11,000.0	7,061.6	11,136.4	7,154.6	114.0	114.2	-109.46		-728.2	-3,920.4	275.9	60.7	215.25	1.282 Level 3	
11,100.0	7,061.4	11,236.4	7,154.0	116.8	117.0	-109.40		-728.2	-4,020.4	275.8	55.2	220.59	1.250 Level 3	
11,200.0	7,061.2	11,336.4	7,153.5	119.6	119.7	-109.34		-728.2	-4,120.4	275.7	49.8	225.95	1.220 Level 2	
11,300.0	7,061.0	11,436.4	7,153.0	122.3	122.5	-109.28		-728.2	-4,220.4	275.6	44.3	231.30	1.191 Level 2	
11,400.0	7,060.8	11,536.4	7,152.5	125.1	125.3	-109.22		-728.2	-4,320.4	275.5	38.8	236.67	1.164 Level 2	
11,500.0	7,060.6	11,636.4	7,151.9	127.9	128.1	-109.16		-728.2	-4,420.4	275.4	33.4	242.03	1.138 Level 2	
11,600.0	7,060.4	11,736.4	7,151.4	130.7	130.9	-109.09		-728.2	-4,520.4	275.3	27.9	247.41	1.113 Level 2	
11,700.0	7,060.2	11,836.4	7,150.9	133.5	133.6	-109.03		-728.2	-4,620.4	275.2	22.4	252.79	1.089 Level 2	
11,800.0	7,059.9	11,936.4	7,150.4	136.3	136.4	-108.97		-728.2	-4,720.4	275.1	16.9	258.17	1.065 Level 2	
11,900.0	7,059.7	12,036.4	7,149.8	139.0	139.2	-108.91		-728.2	-4,820.4	275.0	11.4	263.56	1.043 Level 2	
12,000.0	7,059.5	12,136.4	7,149.3	141.8	142.0	-108.85		-728.2	-4,920.4	274.9	5.9	268.95	1.022 Level 2	
12,100.0	7,059.3	12,236.4	7,148.8	144.6	144.8	-108.78		-728.2	-5,020.4	274.8	0.4	274.35	1.002 Level 2	
12,200.0	7,059.1	12,336.4	7,148.3	147.4	147.6	-108.72		-728.2	-5,120.4	274.7	-5.1	279.76	0.982 Level 1	
12,300.0	7,058.9	12,436.4	7,147.8	150.2	150.4	-108.66		-728.2	-5,220.4	274.6	-10.6	285.16	0.963 Level 1	
12,400.0	7,058.7	12,536.4	7,147.2	153.0	153.1	-108.60		-728.2	-5,320.4	274.5	-16.1	290.58	0.945 Level 1	
12,500.0	7,058.5	12,636.4	7,146.7	155.8	155.9	-108.54		-728.2	-5,420.4	274.4	-21.6	295.99	0.927 Level 1	
12,600.0	7,058.3	12,736.4	7,146.2	158.6	158.7	-108.47		-728.2	-5,520.4	274.3	-27.1	301.41	0.910 Level 1	
12,700.0	7,058.1	12,836.4	7,145.7	161.4	161.5	-108.41		-728.2	-5,620.4	274.2	-32.7	306.84	0.894 Level 1	
12,800.0	7,057.9	12,936.4	7,145.1	164.2	164.3	-108.35		-728.2	-5,720.4	274.1	-38.2	312.27	0.878 Level 1	
12,900.0	7,057.6	13,036.4	7,144.6	166.9	167.1	-108.29		-728.2	-5,820.4	274.0	-43.7	317.70	0.862 Level 1	
13,000.0	7,057.4	13,136.4	7,144.1	169.7	169.9	-108.22		-728.2	-5,920.4	273.9	-49.3	323.14	0.848 Level 1	
13,100.0	7,057.2	13,236.4	7,143.6	172.5	172.7	-108.16		-728.2	-6,020.4	273.8	-54.8	328.58	0.833 Level 1	
13,200.0	7,057.0	13,336.4	7,143.0	175.3	175.5	-108.10		-728.2	-6,120.4	273.7	-60.3	334.03	0.819 Level 1	
13,300.0	7,056.8	13,436.4	7,142.5	178.1	178.3	-108.04		-728.2	-6,220.4	273.6	-65.9	339.48	0.806 Level 1	
13,400.0	7,056.6	13,536.4	7,142.0	180.9	181.1	-107.97		-728.2	-6,320.4	273.5	-71.4	344.93	0.793 Level 1	
13,500.0	7,056.4	13,636.4	7,141.5	183.7	183.8	-107.91		-728.2	-6,420.4	273.4	-77.0	350.39	0.780 Level 1	
13,600.0	7,056.2	13,736.4	7,140.9	186.5	186.6	-107.85		-728.2	-6,520.4	273.3	-82.6	355.85	0.768 Level 1	
13,700.0	7,056.0	13,836.4	7,140.4	189.3	189.4	-107.79		-728.2	-6,620.4	273.2	-88.1	361.32	0.756 Level 1	
13,800.0	7,055.8	13,936.4	7,139.9	192.1	192.2	-107.72		-728.2	-6,720.4	273.1	-93.7	366.79	0.745 Level 1	
13,900.0	7,055.6	14,036.4	7,139.4	194.9	195.0	-107.66		-728.2	-6,820.4	273.0	-99.3	372.26	0.733 Level 1	
14,000.0	7,055.3	14,136.4	7,138.9	197.7	197.8	-107.60		-728.2	-6,920.4	272.9	-104.8	377.73	0.722 Level 1	
14,100.0	7,055.1	14,236.4	7,138.3	200.5	200.6	-107.54		-728.2	-7,020.4	272.8	-110.4	383.21	0.712 Level 1	
14,158.5	7,055.0	14,295.0	7,138.0	202.1	202.3	-107.50		-728.2	-7,078.9	272.8	-113.7	386.42	0.706 Level 1	
14,163.3	7,055.0	14,299.4	7,138.0	202.3	202.4	-107.50		-728.2	-7,083.3	272.8	-113.9	386.68	0.705 Level 1, ES, SF	

<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Tarin 32Y-214
<b>Project:</b>	SEC.32-T4N-R66W	<b>TVD Reference:</b>	WELL @ 4790.0ft (RKB - 15')
<b>Reference Site:</b>	Tarin 32X-HZ Pad Sec.32-T4N-R66W	<b>MD Reference:</b>	WELL @ 4790.0ft (RKB - 15')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Tarin 32Y-214	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #3 (12-18-14)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference														
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Distance Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	1.0	1.0	0.0	0.0	180.00	180.00	-58.3	0.0	58.3	58.3	0.00	N/A	
100.0	100.0	101.0	101.0	0.1	0.1	180.00	180.00	-58.3	0.0	58.3	58.1	0.23	256.744	
200.0	200.0	201.0	201.0	0.3	0.3	180.00	180.00	-58.3	0.0	58.3	57.6	0.68	86.150	
300.0	300.0	301.0	301.0	0.6	0.6	180.00	180.00	-58.3	0.0	58.3	57.2	1.13	51.759	
400.0	400.0	401.0	401.0	0.8	0.8	180.00	180.00	-58.3	0.0	58.3	56.7	1.58	36.992	
466.3	466.3	467.3	467.3	0.9	0.9	180.00	180.00	-58.3	0.0	58.3	56.4	1.87	31.105 CC	
500.0	500.0	501.0	501.0	1.0	1.0	180.00	180.00	-58.3	0.0	58.3	56.3	2.02	28.785 ES	
600.0	600.0	600.0	600.0	1.2	1.2	179.42	179.42	-59.9	0.6	59.9	57.5	2.45	24.494	
700.0	700.0	696.9	696.8	1.5	1.4	177.91	177.91	-64.6	2.4	64.8	62.0	2.86	22.695	
800.0	800.0	794.3	793.8	1.7	1.6	175.84	175.84	-72.4	5.3	73.0	69.7	3.29	22.216	
900.0	900.0	891.1	889.8	1.9	1.8	173.62	173.62	-83.3	9.3	84.5	80.8	3.74	22.622	
1,000.0	1,000.0	987.9	985.6	2.1	2.1	171.55	171.55	-97.0	14.4	99.2	95.0	4.21	23.575	
1,100.0	1,100.0	1,086.7	1,083.1	2.4	2.4	169.91	169.91	-111.6	19.9	114.8	110.1	4.69	24.454	
1,200.0	1,200.0	1,185.4	1,180.6	2.6	2.8	168.66	168.66	-126.3	25.3	130.4	125.2	5.19	25.150	
1,300.0	1,300.0	1,284.4	1,278.3	2.8	3.1	20.91	20.91	-141.0	30.8	144.5	139.0	5.47	26.402	
1,400.0	1,399.8	1,383.8	1,376.5	3.0	3.5	20.68	20.68	-155.8	36.3	155.3	149.4	5.88	26.424	
1,500.0	1,499.5	1,483.5	1,474.9	3.2	3.8	20.92	20.92	-170.6	41.8	162.9	156.6	6.29	25.880	
1,600.0	1,598.7	1,583.4	1,573.5	3.4	4.2	21.57	21.57	-185.4	47.4	167.5	160.8	6.73	24.902	
1,700.0	1,698.0	1,683.3	1,672.2	3.6	4.5	22.28	22.28	-200.2	52.9	171.6	164.4	7.18	23.902	
1,800.0	1,797.2	1,783.2	1,770.8	3.9	4.9	22.95	22.95	-215.1	58.4	175.7	168.1	7.64	22.996	
1,900.0	1,896.4	1,883.1	1,869.4	4.1	5.3	23.59	23.59	-229.9	63.9	179.9	171.8	8.11	22.173	
2,000.0	1,995.6	1,983.0	1,968.1	4.4	5.6	24.21	24.21	-244.7	69.5	184.1	175.5	8.59	21.425	
2,100.0	2,094.8	2,082.8	2,066.7	4.7	6.0	24.79	24.79	-259.6	75.0	188.2	179.2	9.08	20.742	
2,200.0	2,194.0	2,182.7	2,165.3	4.9	6.4	25.36	25.36	-274.4	80.5	192.4	182.9	9.57	20.117	
2,300.0	2,293.3	2,282.6	2,263.9	5.2	6.8	25.89	25.89	-289.2	86.0	196.7	186.6	10.06	19.545	
2,400.0	2,392.5	2,382.5	2,362.6	5.5	7.1	26.41	26.41	-304.1	91.6	200.9	190.3	10.56	19.018	
2,500.0	2,491.7	2,482.4	2,461.2	5.8	7.5	26.90	26.90	-318.9	97.1	205.2	194.1	11.07	18.533	
2,600.0	2,590.9	2,582.3	2,559.8	6.1	7.9	27.37	27.37	-333.7	102.6	209.4	197.8	11.58	18.085	
2,700.0	2,690.1	2,682.2	2,658.5	6.4	8.3	27.83	27.83	-348.6	108.1	213.7	201.6	12.09	17.670	
2,800.0	2,789.4	2,782.1	2,757.1	6.7	8.6	28.27	28.27	-363.4	113.7	218.0	205.4	12.61	17.284	
2,900.0	2,888.6	2,882.0	2,855.7	7.1	9.0	28.69	28.69	-378.2	119.2	222.3	209.2	13.13	16.926	
3,000.0	2,987.8	2,981.9	2,954.4	7.4	9.4	29.09	29.09	-393.1	124.7	226.6	213.0	13.66	16.592	
3,100.0	3,087.0	3,081.8	3,053.0	7.7	9.8	29.48	29.48	-407.9	130.3	231.0	216.8	14.19	16.280	
3,200.0	3,186.2	3,181.7	3,151.6	8.0	10.2	29.85	29.85	-422.7	135.8	235.3	220.6	14.72	15.988	
3,300.0	3,285.4	3,281.6	3,250.3	8.3	10.5	30.21	30.21	-437.6	141.3	239.7	224.4	15.25	15.714	
3,400.0	3,384.7	3,381.5	3,348.9	8.6	10.9	30.56	30.56	-452.4	146.8	244.0	228.2	15.79	15.457	
3,500.0	3,483.9	3,481.4	3,447.5	8.9	11.3	30.90	30.90	-467.2	152.4	248.4	232.1	16.33	15.215	
3,600.0	3,583.1	3,581.3	3,546.2	9.3	11.7	31.22	31.22	-482.1	157.9	252.8	235.9	16.87	14.986	
3,700.0	3,682.3	3,681.2	3,644.8	9.6	12.0	31.53	31.53	-496.9	163.4	257.1	239.7	17.41	14.771	
3,800.0	3,781.5	3,781.0	3,743.4	9.9	12.4	31.84	31.84	-511.7	168.9	261.5	243.6	17.95	14.568	
3,900.0	3,880.8	3,880.9	3,842.1	10.2	12.8	32.13	32.13	-526.6	174.5	265.9	247.4	18.50	14.375	
4,000.0	3,980.0	3,980.8	3,940.7	10.5	13.2	32.41	32.41	-541.4	180.0	270.3	251.3	19.05	14.193	
4,100.0	4,079.2	4,080.7	4,039.3	10.9	13.6	32.69	32.69	-556.3	185.5	274.7	255.2	19.60	14.020	
4,200.0	4,178.4	4,180.6	4,138.0	11.2	13.9	32.95	32.95	-571.1	191.0	279.2	259.0	20.15	13.855	
4,300.0	4,277.6	4,280.5	4,236.6	11.5	14.3	33.21	33.21	-585.9	196.6	283.6	262.9	20.70	13.699	
4,400.0	4,376.8	4,380.4	4,335.2	11.8	14.7	33.46	33.46	-600.8	202.1	288.0	266.8	21.26	13.550	
4,500.0	4,476.1	4,480.3	4,433.8	12.2	15.1	33.70	33.70	-615.6	207.6	292.5	270.6	21.81	13.408	
4,600.0	4,575.3	4,580.2	4,532.5	12.5	15.5	33.93	33.93	-630.4	213.2	296.9	274.5	22.37	13.273	
4,700.0	4,674.5	4,680.1	4,631.1	12.8	15.8	34.16	34.16	-645.3	218.7	301.3	278.4	22.93	13.143	
4,800.0	4,773.7	4,780.0	4,729.7	13.1	16.2	34.38	34.38	-660.1	224.2	305.8	282.3	23.49	13.020	
4,900.0	4,872.9	4,879.9	4,828.4	13.5	16.6	34.59	34.59	-674.9	229.7	310.2	286.2	24.05	12.901	

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

<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Tarin 32Y-214
<b>Project:</b>	SEC.32-T4N-R66W	<b>TVD Reference:</b>	WELL @ 4790.0ft (RKB - 15')
<b>Reference Site:</b>	Tarin 32X-HZ Pad Sec.32-T4N-R66W	<b>MD Reference:</b>	WELL @ 4790.0ft (RKB - 15')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Tarin 32Y-214	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #3 (12-18-14)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference														
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,000.0	4,972.2	4,979.8	4,927.0	13.8	17.0	34.80		-689.8	235.3	314.7	290.1	24.61	12.788	
5,100.0	5,071.4	5,079.7	5,025.6	14.1	17.4	35.01		-704.6	240.8	319.2	294.0	25.17	12.679	
5,200.0	5,170.6	5,179.6	5,124.3	14.4	17.7	35.20		-719.4	246.3	323.6	297.9	25.73	12.575	
5,300.0	5,269.8	5,279.5	5,222.9	14.8	18.1	35.39		-734.3	251.8	328.1	301.8	26.30	12.475	
5,400.0	5,369.0	5,379.4	5,321.5	15.1	18.5	35.58		-749.1	257.4	332.6	305.7	26.87	12.379	
5,500.0	5,468.2	5,479.2	5,420.2	15.4	18.9	35.76		-763.9	262.9	337.0	309.6	27.43	12.287	
5,600.0	5,567.5	5,579.1	5,518.8	15.8	19.3	35.94		-778.8	268.4	341.5	313.5	28.00	12.198	
5,700.0	5,666.7	5,679.0	5,617.4	16.1	19.6	36.12		-793.6	273.9	346.1	317.5	28.56	12.118	
5,800.0	5,766.2	5,778.8	5,715.9	16.3	20.0	36.11		-808.4	279.5	352.7	323.6	29.02	12.151	
5,900.0	5,866.0	5,878.3	5,814.2	16.5	20.4	35.82		-823.2	285.0	362.1	332.6	29.41	12.309	
6,000.0	5,965.9	5,977.5	5,912.1	16.7	20.8	35.26		-837.9	290.5	374.3	344.6	29.73	12.590	
6,100.0	6,065.9	6,085.5	6,018.9	16.8	21.1	-178.68		-853.1	296.1	388.1	351.8	36.26	10.703	
6,200.0	6,165.9	6,199.5	6,132.1	17.0	21.4	-179.37		-865.2	300.6	398.6	361.9	36.75	10.847	
6,300.0	6,265.9	6,314.3	6,246.6	17.1	21.6	-179.80		-873.1	303.6	405.5	368.3	37.16	10.913	
6,400.0	6,365.9	6,429.5	6,361.7	17.2	21.8	-90.27		-876.7	304.9	408.6	377.7	30.95	13.205	
6,500.0	6,464.7	6,533.5	6,465.7	17.3	21.9	-92.32		-876.9	305.0	409.2	378.3	30.93	13.229	
6,600.0	6,560.9	6,632.7	6,564.9	17.4	22.0	-95.69		-876.9	303.0	411.0	380.3	30.69	13.392	
6,700.0	6,652.6	6,736.8	6,667.9	17.4	22.1	-99.21		-876.9	288.4	414.6	384.1	30.42	13.628	
6,800.0	6,738.5	6,845.0	6,771.8	17.3	22.1	-102.58		-876.9	258.6	419.6	389.4	30.19	13.899	
6,900.0	6,816.9	6,957.7	6,874.5	17.3	22.1	-105.74		-876.9	212.3	425.7	395.6	30.06	14.162	
7,000.0	6,886.5	7,075.2	6,972.9	17.3	22.1	-108.62		-876.9	148.5	432.5	402.3	30.13	14.351	
7,100.0	6,946.2	7,197.3	7,063.8	17.3	22.0	-111.13		-876.9	66.9	439.3	408.8	30.55	14.379	
7,200.0	6,994.9	7,324.0	7,143.0	17.2	22.0	-113.23		-876.9	-31.7	445.7	414.2	31.51	14.143	
7,300.0	7,031.8	7,454.7	7,206.5	18.4	22.0	-114.84		-876.9	-145.8	451.0	417.9	33.15	13.603	
7,400.0	7,056.3	7,588.5	7,250.4	20.0	22.3	-115.92		-876.9	-272.0	454.8	419.2	35.60	12.775	
7,500.0	7,067.9	7,724.2	7,271.7	21.9	23.5	-116.44		-876.9	-405.8	456.6	417.8	38.80	11.769	
7,600.0	7,068.7	7,838.1	7,273.7	23.9	25.4	-116.51		-876.9	-519.6	456.9	414.5	42.37	10.784	
7,700.0	7,068.5	7,938.1	7,273.9	26.0	27.3	-116.55		-876.9	-619.6	457.1	410.9	46.11	9.912	
7,800.0	7,068.3	8,038.1	7,274.0	28.2	29.5	-116.59		-876.9	-719.6	457.2	407.1	50.08	9.130	
7,900.0	7,068.1	8,138.1	7,274.2	30.6	31.7	-116.63		-876.9	-819.6	457.4	403.2	54.23	8.434	
8,000.0	7,067.9	8,238.1	7,274.3	33.0	34.0	-116.68		-876.9	-919.6	457.5	399.0	58.52	7.819	
8,100.0	7,067.7	8,338.1	7,274.5	35.5	36.4	-116.72		-876.9	-1,019.6	457.7	394.8	62.91	7.275	
8,200.0	7,067.5	8,438.1	7,274.6	38.0	38.9	-116.76		-876.9	-1,119.6	457.9	390.5	67.40	6.793	
8,300.0	7,067.3	8,538.1	7,274.8	40.5	41.4	-116.80		-876.9	-1,219.6	458.0	386.1	71.96	6.366	
8,400.0	7,067.1	8,638.1	7,275.0	43.1	43.9	-116.84		-876.9	-1,319.6	458.2	381.6	76.57	5.984	
8,500.0	7,066.9	8,738.1	7,275.1	45.7	46.4	-116.88		-876.9	-1,419.6	458.4	377.1	81.23	5.643	
8,600.0	7,066.7	8,838.1	7,275.3	48.3	49.0	-116.92		-876.9	-1,519.6	458.5	372.6	85.93	5.336	
8,700.0	7,066.4	8,938.1	7,275.4	51.0	51.6	-116.96		-876.9	-1,619.6	458.7	368.0	90.66	5.059	
8,800.0	7,066.2	9,038.1	7,275.6	53.7	54.3	-117.00		-876.9	-1,719.6	458.9	363.4	95.42	4.809	
8,900.0	7,066.0	9,138.1	7,275.7	56.3	56.9	-117.04		-876.9	-1,819.6	459.0	358.8	100.20	4.581	
9,000.0	7,065.8	9,238.1	7,275.9	59.0	59.6	-117.08		-876.9	-1,919.6	459.2	354.2	105.00	4.373	
9,100.0	7,065.6	9,338.1	7,276.1	61.7	62.3	-117.13		-876.9	-2,019.6	459.4	349.6	109.82	4.183	
9,200.0	7,065.4	9,438.1	7,276.2	64.4	64.9	-117.17		-876.9	-2,119.6	459.5	344.9	114.65	4.008	
9,300.0	7,065.2	9,538.1	7,276.4	67.1	67.6	-117.21		-876.9	-2,219.6	459.7	340.2	119.49	3.847	
9,400.0	7,065.0	9,638.1	7,276.5	69.9	70.3	-117.25		-876.9	-2,319.6	459.9	335.5	124.34	3.699	
9,500.0	7,064.8	9,738.1	7,276.7	72.6	73.1	-117.29		-876.9	-2,419.6	460.0	330.8	129.20	3.561	
9,600.0	7,064.6	9,838.1	7,276.8	75.3	75.8	-117.33		-876.9	-2,519.6	460.2	326.1	134.07	3.433	
9,700.0	7,064.3	9,938.1	7,277.0	78.1	78.5	-117.37		-876.9	-2,619.6	460.4	321.4	138.94	3.314	
9,800.0	7,064.1	10,038.1	7,277.1	80.8	81.2	-117.41		-876.9	-2,719.6	460.5	316.7	143.81	3.202	
9,900.0	7,063.9	10,138.1	7,277.3	83.6	84.0	-117.45		-876.9	-2,819.6	460.7	312.0	148.69	3.098	
10,000.0	7,063.7	10,238.1	7,277.5	86.3	86.7	-117.49		-876.9	-2,919.6	460.9	307.3	153.58	3.001	

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

<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Tarin 32Y-214
<b>Project:</b>	SEC.32-T4N-R66W	<b>TVD Reference:</b>	WELL @ 4790.0ft (RKB - 15')
<b>Reference Site:</b>	Tarin 32X-HZ Pad Sec.32-T4N-R66W	<b>MD Reference:</b>	WELL @ 4790.0ft (RKB - 15')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Tarin 32Y-214	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #3 (12-18-14)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Tarin 32X-HZ Pad Sec.32-T4N-R66W - Tarin 32Y-404 - Wellbore #1 - Plan #2 (7-15-14)		Offset Site Error:		0.0 ft
Survey Program: 0-MWD															Offset Well Error:		0.0 ft
Reference		Offset		Semi Major Axis			Distance										
Measured Depth	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)						
10,100.0	7,063.5	10,338.1	7,277.6	89.1	89.4	-117.53	-876.9	-3,019.6	461.1	302.6	158.47	2.909					
10,200.0	7,063.3	10,438.1	7,277.8	91.8	92.2	-117.57	-876.9	-3,119.6	461.2	297.9	163.35	2.823					
10,300.0	7,063.1	10,538.1	7,277.9	94.6	94.9	-117.61	-876.9	-3,219.6	461.4	293.1	168.25	2.742					
10,400.0	7,062.9	10,638.1	7,278.1	97.4	97.7	-117.65	-876.9	-3,319.6	461.6	288.4	173.14	2.666					
10,500.0	7,062.7	10,738.1	7,278.2	100.1	100.4	-117.69	-876.9	-3,419.6	461.7	283.7	178.03	2.594					
10,600.0	7,062.5	10,838.1	7,278.4	102.9	103.2	-117.73	-876.9	-3,519.6	461.9	279.0	182.92	2.525					
10,700.0	7,062.3	10,938.1	7,278.6	105.7	106.0	-117.77	-876.9	-3,619.6	462.1	274.3	187.82	2.460					
10,800.0	7,062.0	11,038.1	7,278.7	108.4	108.7	-117.81	-876.9	-3,719.6	462.2	269.5	192.71	2.399					
10,900.0	7,061.8	11,138.0	7,278.9	111.2	111.5	-117.85	-876.9	-3,819.6	462.4	264.8	197.60	2.340					
11,000.0	7,061.6	11,238.0	7,279.0	114.0	114.3	-117.89	-876.9	-3,919.6	462.6	260.1	202.50	2.284					
11,100.0	7,061.4	11,338.0	7,279.2	116.8	117.0	-117.93	-876.9	-4,019.6	462.8	255.4	207.39	2.231					
11,200.0	7,061.2	11,438.0	7,279.3	119.6	119.8	-117.97	-876.9	-4,119.6	462.9	250.7	212.28	2.181					
11,300.0	7,061.0	11,538.0	7,279.5	122.3	122.6	-118.01	-876.9	-4,219.6	463.1	245.9	217.17	2.132					
11,400.0	7,060.8	11,638.0	7,279.7	125.1	125.4	-118.05	-876.9	-4,319.6	463.3	241.2	222.06	2.086					
11,500.0	7,060.6	11,738.0	7,279.8	127.9	128.1	-118.09	-876.9	-4,419.6	463.4	236.5	226.94	2.042					
11,600.0	7,060.4	11,838.0	7,280.0	130.7	130.9	-118.13	-876.9	-4,519.6	463.6	231.8	231.83	2.000					
11,700.0	7,060.2	11,938.0	7,280.1	133.5	133.7	-118.17	-876.9	-4,619.6	463.8	227.1	236.71	1.959					
11,800.0	7,059.9	12,038.0	7,280.3	136.3	136.5	-118.21	-876.9	-4,719.6	464.0	222.4	241.59	1.920					
11,900.0	7,059.7	12,138.0	7,280.4	139.0	139.2	-118.25	-876.9	-4,819.6	464.1	217.7	246.47	1.883					
12,000.0	7,059.5	12,238.0	7,280.6	141.8	142.0	-118.29	-876.9	-4,919.6	464.3	213.0	251.35	1.847					
12,100.0	7,059.3	12,338.0	7,280.8	144.6	144.8	-118.33	-876.9	-5,019.6	464.5	208.3	256.23	1.813					
12,200.0	7,059.1	12,438.0	7,280.9	147.4	147.6	-118.37	-876.9	-5,119.6	464.7	203.6	261.10	1.780					
12,300.0	7,058.9	12,538.0	7,281.1	150.2	150.4	-118.41	-876.9	-5,219.6	464.8	198.9	265.97	1.748					
12,400.0	7,058.7	12,638.0	7,281.2	153.0	153.2	-118.45	-876.9	-5,319.6	465.0	194.2	270.84	1.717					
12,500.0	7,058.5	12,738.0	7,281.4	155.8	156.0	-118.49	-876.9	-5,419.6	465.2	189.5	275.71	1.687					
12,600.0	7,058.3	12,838.0	7,281.5	158.6	158.7	-118.53	-876.9	-5,519.6	465.4	184.8	280.57	1.659					
12,700.0	7,058.1	12,938.0	7,281.7	161.4	161.5	-118.57	-876.9	-5,619.6	465.5	180.1	285.43	1.631					
12,800.0	7,057.9	13,038.0	7,281.9	164.2	164.3	-118.61	-876.9	-5,719.6	465.7	175.4	290.29	1.604					
12,900.0	7,057.6	13,138.0	7,282.0	166.9	167.1	-118.65	-876.9	-5,819.6	465.9	170.7	295.15	1.578					
13,000.0	7,057.4	13,238.0	7,282.2	169.7	169.9	-118.69	-876.9	-5,919.6	466.1	166.1	300.00	1.554					
13,100.0	7,057.2	13,338.0	7,282.3	172.5	172.7	-118.73	-876.9	-6,019.6	466.2	161.4	304.86	1.529					
13,200.0	7,057.0	13,438.0	7,282.5	175.3	175.5	-118.77	-876.9	-6,119.6	466.4	156.7	309.70	1.506					
13,300.0	7,056.8	13,538.0	7,282.6	178.1	178.3	-118.81	-876.9	-6,219.6	466.6	152.0	314.55	1.483	Level 3				
13,400.0	7,056.6	13,638.0	7,282.8	180.9	181.1	-118.85	-876.9	-6,319.6	466.8	147.4	319.39	1.461	Level 3				
13,500.0	7,056.4	13,738.0	7,283.0	183.7	183.8	-118.89	-876.9	-6,419.6	466.9	142.7	324.23	1.440	Level 3				
13,600.0	7,056.2	13,838.0	7,283.1	186.5	186.6	-118.93	-876.9	-6,519.6	467.1	138.1	329.07	1.420	Level 3				
13,700.0	7,056.0	13,938.0	7,283.3	189.3	189.4	-118.97	-876.9	-6,619.6	467.3	133.4	333.91	1.399	Level 3				
13,800.0	7,055.8	14,038.0	7,283.4	192.1	192.2	-119.00	-876.9	-6,719.6	467.5	128.7	338.74	1.380	Level 3				
13,900.0	7,055.6	14,138.0	7,283.6	194.9	195.0	-119.04	-876.9	-6,819.6	467.7	124.1	343.57	1.361	Level 3				
14,000.0	7,055.3	14,238.0	7,283.7	197.7	197.8	-119.08	-876.9	-6,919.6	467.8	119.4	348.39	1.343	Level 3				
14,100.0	7,055.1	14,338.0	7,283.9	200.5	200.6	-119.12	-876.9	-7,019.6	468.0	114.8	353.21	1.325	Level 3				
14,163.3	7,055.0	14,399.1	7,284.0	202.3	202.3	-119.15	-876.9	-7,080.6	468.1	111.9	356.21	1.314	Level 3, SF				

<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Tarin 32Y-214
<b>Project:</b>	SEC.32-T4N-R66W	<b>TVD Reference:</b>	WELL @ 4790.0ft (RKB - 15')
<b>Reference Site:</b>	Tarin 32X-HZ Pad Sec.32-T4N-R66W	<b>MD Reference:</b>	WELL @ 4790.0ft (RKB - 15')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Tarin 32Y-214	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #3 (12-18-14)	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to WELL @ 4790.0ft (RKB - 15')

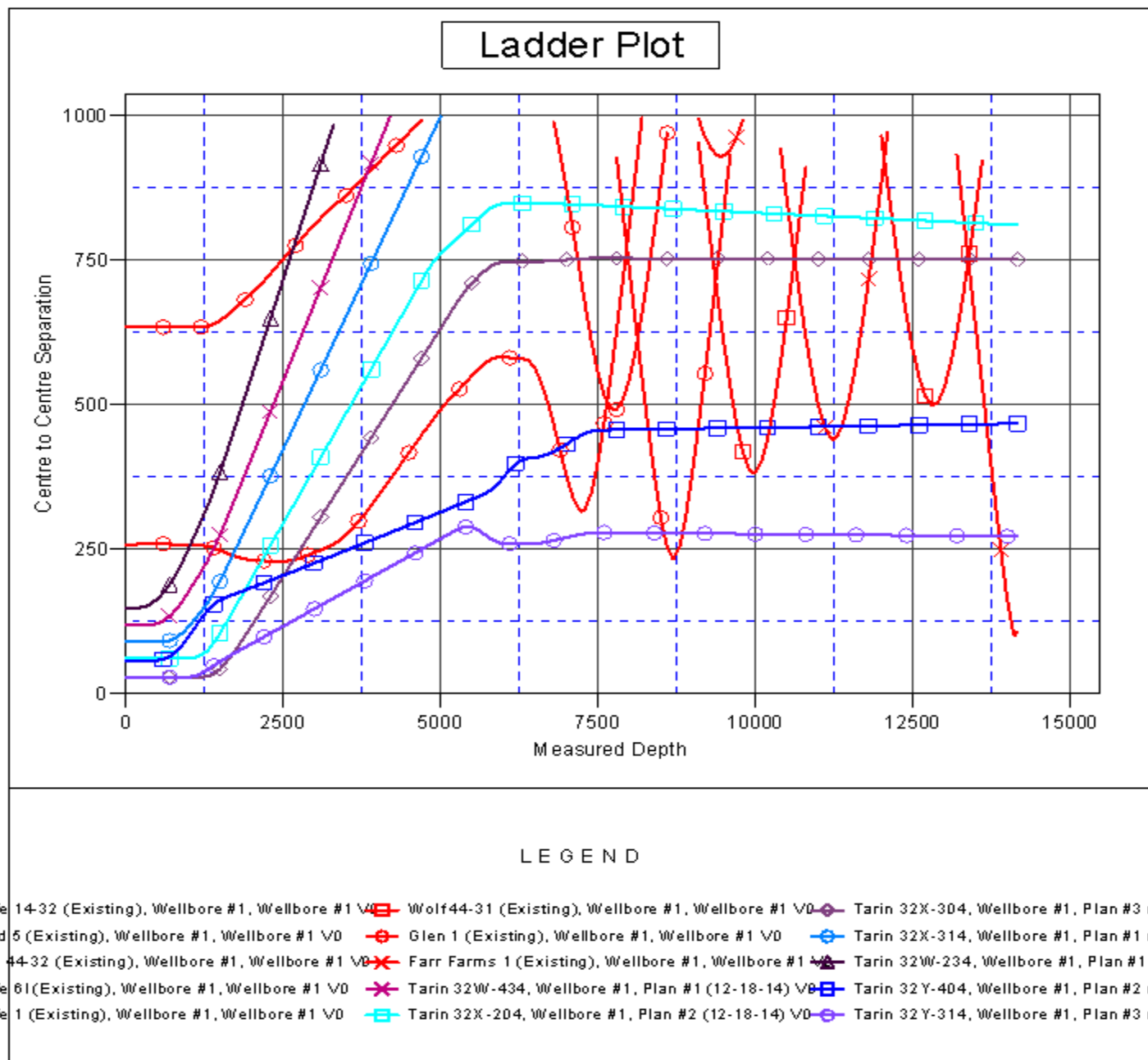
Offset Depths are relative to Offset Datum

Central Meridian is -105.500000 °

Coordinates are relative to: Tarin 32Y-214

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.46°



<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Tarin 32Y-214
<b>Project:</b>	SEC.32-T4N-R66W	<b>TVD Reference:</b>	WELL @ 4790.0ft (RKB - 15')
<b>Reference Site:</b>	Tarin 32X-HZ Pad Sec.32-T4N-R66W	<b>MD Reference:</b>	WELL @ 4790.0ft (RKB - 15')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Tarin 32Y-214	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #3 (12-18-14)	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to WELL @ 4790.0ft (RKB - 15')

Offset Depths are relative to Offset Datum

Central Meridian is -105.500000 °

Coordinates are relative to: Tarin 32Y-214

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.46°

