

PETROLEUM DEVELOPMENT CORP Weld County CO

Well Name: O Investment Properties 6Y-401

Surface Location: O Investment Properties 6Y-HZ Pad Sec.6-T6N-R65W
North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone

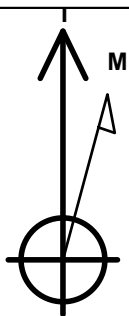
Ground Elevation: 4777.0

+N/-S +E/-W Northing Easting Latitude Longitude Slot
0.0 0.0 1430039.82 3223079.65 40.511090 -104.697700

RKB - 15' WELL @ 4792.0ft (RKB - 15')

WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape Point
BHL 500'FNL, 150'FEL	7182.0	4299.0	86.2	Point



Azimuths to True North
Magnetic North: 8.62°

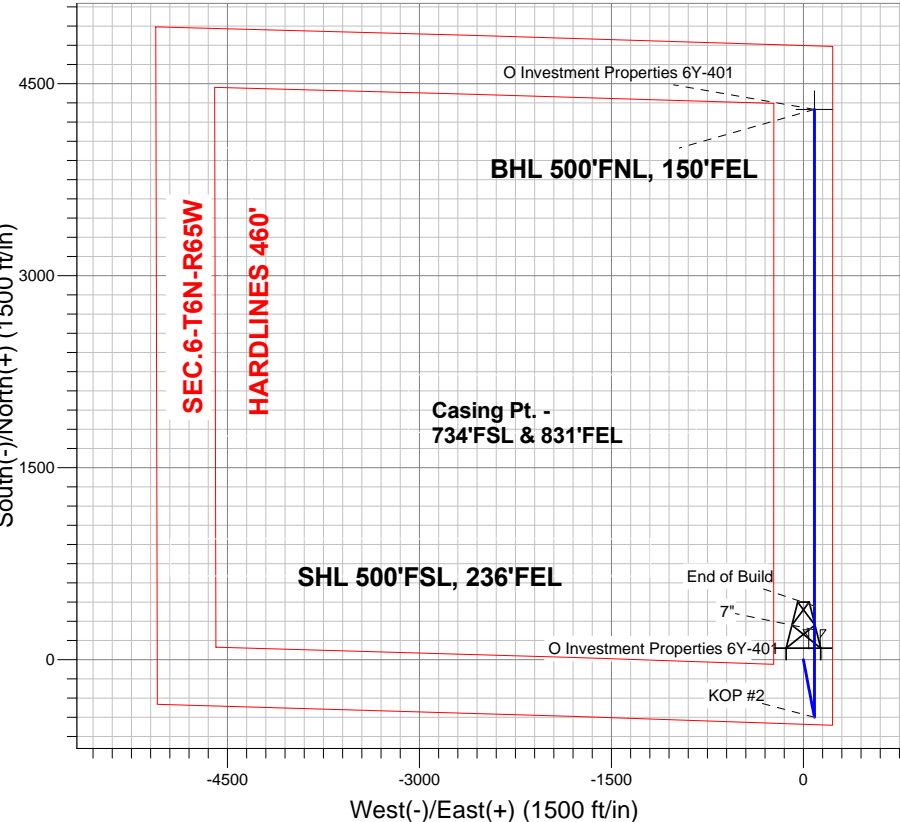
Magnetic Field
Strength: 53023.1nT
Dip Angle: 67.09°
Date: 2/7/2013
Model: IGRF2010

ANNOTATIONS

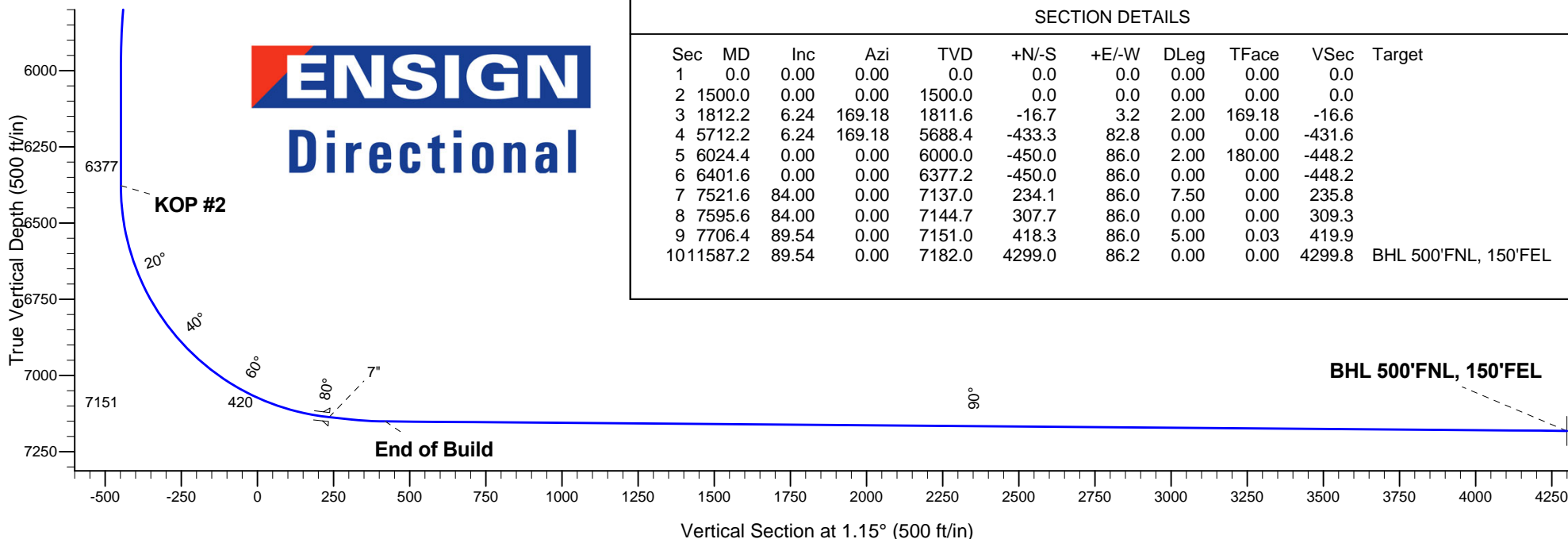
TVD	MD	Annotation
1500.0	1500.0	KOP #1
6377.2	6401.6	KOP #2
7151.0	7706.4	End of Build

O Investment Properties 6Y-HZ Pad Sec.6-T6N-R65W
O Investment Properties 6Y-401
Plan #1 (2-07-13)

South(-)/North(+) (1500 ft/in)



ENSIGN
Directional



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	1500.0	0.00	0.00	1500.0	0.0	0.0	0.00	0.00	0.0	
3	1812.2	6.24	169.18	1811.6	-16.7	3.2	2.00	169.18	-16.6	
4	5712.2	6.24	169.18	5688.4	-433.3	82.8	0.00	0.00	-431.6	
5	6024.4	0.00	0.00	6000.0	-450.0	86.0	2.00	180.00	-448.2	
6	6401.6	0.00	0.00	6377.2	-450.0	86.0	0.00	0.00	-448.2	
7	7521.6	84.00	0.00	7137.0	234.1	86.0	7.50	0.00	235.8	
8	7595.6	84.00	0.00	7144.7	307.7	86.0	0.00	0.00	309.3	
9	7706.4	89.54	0.00	7151.0	418.3	86.0	5.00	0.03	419.9	
10	11587.2	89.54	0.00	7182.0	4299.0	86.2	0.00	0.00	4299.8	BHL 500'FNL, 150'FEL



Directional

PETROLEUM DEVELOPMENT CORP Weld County CO

SEC.6-T6N-R65W

O Investment Properties 6Y-HZ Pad Sec.6-T6N-R65W

O Investment Properties 6Y-401

Wellbore #1

Plan: Plan #1 (2-07-13)

Standard Planning Report

21 February, 2013

Database:	Landmark	Local Co-ordinate Reference:	Well O Investment Properties 6Y-401
Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	TVD Reference:	WELL @ 4792.0ft (RKB - 15')
Project:	SEC.6-T6N-R65W	MD Reference:	WELL @ 4792.0ft (RKB - 15')
Site:	O Investment Properties 6Y-HZ Pad Sec.6-T6N-R65W	North Reference:	True
Well:	O Investment Properties 6Y-401	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (2-07-13)		

Project	SEC.6-T6N-R65W, Weld County, Colorado		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		Using Well Reference Point
Map Zone:	Colorado Northern Zone		Using geodetic scale factor

Site						O Investment Properties 6Y-HZ Pad Sec.6-T6N-R65W											
Site Position:						Northing:			1,430,039.28 ft			Latitude:			40.511090		
From:			Lat/Long			Easting:			3,223,018.48 ft			Longitude:			-104.697920		
Position Uncertainty:			0.0 ft			Slot Radius:			"			Grid Convergence:			0.52 °		

Well	O Investment Properties 6Y-401					
Well Position	+N/-S	0.0 ft	Northing:	1,430,039.82 ft	Latitude:	40.511090
	+E/-W	61.2 ft	Easting:	3,223,079.65 ft	Longitude:	-104.697700
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,777.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	2/7/2013	8.62	67.09	53,023

Design	Plan #1 (2-07-13)			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	1.15

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,812.2	6.24	169.18	1,811.6	-16.7	3.2	2.00	2.00	0.00	169.18	
5,712.2	6.24	169.18	5,688.4	-433.3	82.8	0.00	0.00	0.00	0.00	
6,024.4	0.00	0.00	6,000.0	-450.0	86.0	2.00	-2.00	0.00	180.00	
6,401.6	0.00	0.00	6,377.2	-450.0	86.0	0.00	0.00	0.00	0.00	
7,521.6	84.00	0.00	7,137.0	234.1	86.0	7.50	7.50	0.00	0.00	
7,595.6	84.00	0.00	7,144.7	307.7	86.0	0.00	0.00	0.00	0.00	
7,706.4	89.54	0.00	7,151.0	418.3	86.0	5.00	5.00	0.00	0.03	
11,587.2	89.54	0.00	7,182.0	4,299.0	86.2	0.00	0.00	0.00	0.00	BHL 500'FNL, 150'f

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Project:	SEC.6-T6N-R65W	MD Reference:	WELL @ 4792.0ft (RKB - 15')
Site:	O Investment Properties 6Y-HZ Pad Sec.6-T6N-R65W	North Reference:	True
Well:	O Investment Properties 6Y-401	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (2-07-13)		

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
40.0	0.00	0.00	40.0	0.0	0.0	0.0	0.00	0.00	0.00
80.0	0.00	0.00	80.0	0.0	0.0	0.0	0.00	0.00	0.00
120.0	0.00	0.00	120.0	0.0	0.0	0.0	0.00	0.00	0.00
160.0	0.00	0.00	160.0	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
240.0	0.00	0.00	240.0	0.0	0.0	0.0	0.00	0.00	0.00
280.0	0.00	0.00	280.0	0.0	0.0	0.0	0.00	0.00	0.00
320.0	0.00	0.00	320.0	0.0	0.0	0.0	0.00	0.00	0.00
360.0	0.00	0.00	360.0	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
440.0	0.00	0.00	440.0	0.0	0.0	0.0	0.00	0.00	0.00
480.0	0.00	0.00	480.0	0.0	0.0	0.0	0.00	0.00	0.00
520.0	0.00	0.00	520.0	0.0	0.0	0.0	0.00	0.00	0.00
560.0	0.00	0.00	560.0	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
640.0	0.00	0.00	640.0	0.0	0.0	0.0	0.00	0.00	0.00
680.0	0.00	0.00	680.0	0.0	0.0	0.0	0.00	0.00	0.00
720.0	0.00	0.00	720.0	0.0	0.0	0.0	0.00	0.00	0.00
760.0	0.00	0.00	760.0	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
840.0	0.00	0.00	840.0	0.0	0.0	0.0	0.00	0.00	0.00
880.0	0.00	0.00	880.0	0.0	0.0	0.0	0.00	0.00	0.00
920.0	0.00	0.00	920.0	0.0	0.0	0.0	0.00	0.00	0.00
960.0	0.00	0.00	960.0	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
1,040.0	0.00	0.00	1,040.0	0.0	0.0	0.0	0.00	0.00	0.00
1,080.0	0.00	0.00	1,080.0	0.0	0.0	0.0	0.00	0.00	0.00
1,120.0	0.00	0.00	1,120.0	0.0	0.0	0.0	0.00	0.00	0.00
1,160.0	0.00	0.00	1,160.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,240.0	0.00	0.00	1,240.0	0.0	0.0	0.0	0.00	0.00	0.00
1,280.0	0.00	0.00	1,280.0	0.0	0.0	0.0	0.00	0.00	0.00
1,320.0	0.00	0.00	1,320.0	0.0	0.0	0.0	0.00	0.00	0.00
1,360.0	0.00	0.00	1,360.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,440.0	0.00	0.00	1,440.0	0.0	0.0	0.0	0.00	0.00	0.00
1,480.0	0.00	0.00	1,480.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
KOP #1									
1,520.0	0.40	169.18	1,520.0	-0.1	0.0	-0.1	2.00	2.00	0.00
1,560.0	1.20	169.18	1,560.0	-0.6	0.1	-0.6	2.00	2.00	0.00
1,600.0	2.00	169.18	1,600.0	-1.7	0.3	-1.7	2.00	2.00	0.00
1,640.0	2.80	169.18	1,639.9	-3.4	0.6	-3.3	2.00	2.00	0.00
1,680.0	3.60	169.18	1,679.9	-5.6	1.1	-5.5	2.00	2.00	0.00
1,720.0	4.40	169.18	1,719.8	-8.3	1.6	-8.3	2.00	2.00	0.00
1,760.0	5.20	169.18	1,759.6	-11.6	2.2	-11.5	2.00	2.00	0.00
1,800.0	6.00	169.18	1,799.5	-15.4	2.9	-15.4	2.00	2.00	0.00
1,812.2	6.24	169.18	1,811.6	-16.7	3.2	-16.6	2.00	2.00	0.00
1,840.0	6.24	169.18	1,839.2	-19.7	3.8	-19.6	0.00	0.00	0.00
1,880.0	6.24	169.18	1,879.0	-23.9	4.6	-23.8	0.00	0.00	0.00
1,920.0	6.24	169.18	1,918.7	-28.2	5.4	-28.1	0.00	0.00	0.00

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Project:	SEC.6-T6N-R65W	MD Reference:	WELL @ 4792.0ft (RKB - 15')
Site:	O Investment Properties 6Y-HZ Pad Sec.6-T6N-R65W	North Reference:	True
Well:	O Investment Properties 6Y-401	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (2-07-13)		

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)
1,960.0	6.24	169.18	1,958.5	-32.5	6.2	-32.4	0.00	0.00	0.00
2,000.0	6.24	169.18	1,998.3	-36.8	7.0	-36.6	0.00	0.00	0.00
2,040.0	6.24	169.18	2,038.0	-41.0	7.8	-40.9	0.00	0.00	0.00
2,080.0	6.24	169.18	2,077.8	-45.3	8.7	-45.1	0.00	0.00	0.00
2,120.0	6.24	169.18	2,117.6	-49.6	9.5	-49.4	0.00	0.00	0.00
2,160.0	6.24	169.18	2,157.3	-53.8	10.3	-53.6	0.00	0.00	0.00
2,200.0	6.24	169.18	2,197.1	-58.1	11.1	-57.9	0.00	0.00	0.00
2,240.0	6.24	169.18	2,236.8	-62.4	11.9	-62.1	0.00	0.00	0.00
2,280.0	6.24	169.18	2,276.6	-66.7	12.7	-66.4	0.00	0.00	0.00
2,320.0	6.24	169.18	2,316.4	-70.9	13.6	-70.7	0.00	0.00	0.00
2,360.0	6.24	169.18	2,356.1	-75.2	14.4	-74.9	0.00	0.00	0.00
2,400.0	6.24	169.18	2,395.9	-79.5	15.2	-79.2	0.00	0.00	0.00
2,440.0	6.24	169.18	2,435.7	-83.8	16.0	-83.4	0.00	0.00	0.00
2,480.0	6.24	169.18	2,475.4	-88.0	16.8	-87.7	0.00	0.00	0.00
2,520.0	6.24	169.18	2,515.2	-92.3	17.6	-91.9	0.00	0.00	0.00
2,560.0	6.24	169.18	2,554.9	-96.6	18.5	-96.2	0.00	0.00	0.00
2,600.0	6.24	169.18	2,594.7	-100.8	19.3	-100.4	0.00	0.00	0.00
2,640.0	6.24	169.18	2,634.5	-105.1	20.1	-104.7	0.00	0.00	0.00
2,680.0	6.24	169.18	2,674.2	-109.4	20.9	-109.0	0.00	0.00	0.00
2,720.0	6.24	169.18	2,714.0	-113.7	21.7	-113.2	0.00	0.00	0.00
2,760.0	6.24	169.18	2,753.8	-117.9	22.5	-117.5	0.00	0.00	0.00
2,800.0	6.24	169.18	2,793.5	-122.2	23.4	-121.7	0.00	0.00	0.00
2,840.0	6.24	169.18	2,833.3	-126.5	24.2	-126.0	0.00	0.00	0.00
2,880.0	6.24	169.18	2,873.0	-130.8	25.0	-130.2	0.00	0.00	0.00
2,920.0	6.24	169.18	2,912.8	-135.0	25.8	-134.5	0.00	0.00	0.00
2,960.0	6.24	169.18	2,952.6	-139.3	26.6	-138.7	0.00	0.00	0.00
3,000.0	6.24	169.18	2,992.3	-143.6	27.4	-143.0	0.00	0.00	0.00
3,040.0	6.24	169.18	3,032.1	-147.9	28.3	-147.3	0.00	0.00	0.00
3,080.0	6.24	169.18	3,071.9	-152.1	29.1	-151.5	0.00	0.00	0.00
3,120.0	6.24	169.18	3,111.6	-156.4	29.9	-155.8	0.00	0.00	0.00
3,160.0	6.24	169.18	3,151.4	-160.7	30.7	-160.0	0.00	0.00	0.00
3,200.0	6.24	169.18	3,191.2	-164.9	31.5	-164.3	0.00	0.00	0.00
3,240.0	6.24	169.18	3,230.9	-169.2	32.3	-168.5	0.00	0.00	0.00
3,280.0	6.24	169.18	3,270.7	-173.5	33.2	-172.8	0.00	0.00	0.00
3,320.0	6.24	169.18	3,310.4	-177.8	34.0	-177.0	0.00	0.00	0.00
3,360.0	6.24	169.18	3,350.2	-182.0	34.8	-181.3	0.00	0.00	0.00
3,400.0	6.24	169.18	3,390.0	-186.3	35.6	-185.6	0.00	0.00	0.00
3,440.0	6.24	169.18	3,429.7	-190.6	36.4	-189.8	0.00	0.00	0.00
3,480.0	6.24	169.18	3,469.5	-194.9	37.2	-194.1	0.00	0.00	0.00
3,520.0	6.24	169.18	3,509.3	-199.1	38.1	-198.3	0.00	0.00	0.00
3,560.0	6.24	169.18	3,549.0	-203.4	38.9	-202.6	0.00	0.00	0.00
3,600.0	6.24	169.18	3,588.8	-207.7	39.7	-206.8	0.00	0.00	0.00
3,640.0	6.24	169.18	3,628.5	-211.9	40.5	-211.1	0.00	0.00	0.00
3,680.0	6.24	169.18	3,668.3	-216.2	41.3	-215.3	0.00	0.00	0.00
3,720.0	6.24	169.18	3,708.1	-220.5	42.1	-219.6	0.00	0.00	0.00
3,760.0	6.24	169.18	3,747.8	-224.8	43.0	-223.9	0.00	0.00	0.00
3,800.0	6.24	169.18	3,787.6	-229.0	43.8	-228.1	0.00	0.00	0.00
3,840.0	6.24	169.18	3,827.4	-233.3	44.6	-232.4	0.00	0.00	0.00
3,880.0	6.24	169.18	3,867.1	-237.6	45.4	-236.6	0.00	0.00	0.00
3,920.0	6.24	169.18	3,906.9	-241.9	46.2	-240.9	0.00	0.00	0.00
3,960.0	6.24	169.18	3,946.6	-246.1	47.0	-245.1	0.00	0.00	0.00
4,000.0	6.24	169.18	3,986.4	-250.4	47.9	-249.4	0.00	0.00	0.00

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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)
4,040.0	6.24	169.18	4,026.2	-254.7	48.7	-253.7	0.00	0.00	0.00
4,080.0	6.24	169.18	4,065.9	-259.0	49.5	-257.9	0.00	0.00	0.00
4,120.0	6.24	169.18	4,105.7	-263.2	50.3	-262.2	0.00	0.00	0.00
4,160.0	6.24	169.18	4,145.5	-267.5	51.1	-266.4	0.00	0.00	0.00
4,200.0	6.24	169.18	4,185.2	-271.8	51.9	-270.7	0.00	0.00	0.00
4,240.0	6.24	169.18	4,225.0	-276.0	52.8	-274.9	0.00	0.00	0.00
4,280.0	6.24	169.18	4,264.7	-280.3	53.6	-279.2	0.00	0.00	0.00
4,320.0	6.24	169.18	4,304.5	-284.6	54.4	-283.4	0.00	0.00	0.00
4,360.0	6.24	169.18	4,344.3	-288.9	55.2	-287.7	0.00	0.00	0.00
4,400.0	6.24	169.18	4,384.0	-293.1	56.0	-292.0	0.00	0.00	0.00
4,440.0	6.24	169.18	4,423.8	-297.4	56.8	-296.2	0.00	0.00	0.00
4,480.0	6.24	169.18	4,463.6	-301.7	57.7	-300.5	0.00	0.00	0.00
4,520.0	6.24	169.18	4,503.3	-306.0	58.5	-304.7	0.00	0.00	0.00
4,560.0	6.24	169.18	4,543.1	-310.2	59.3	-309.0	0.00	0.00	0.00
4,600.0	6.24	169.18	4,582.8	-314.5	60.1	-313.2	0.00	0.00	0.00
4,640.0	6.24	169.18	4,622.6	-318.8	60.9	-317.5	0.00	0.00	0.00
4,680.0	6.24	169.18	4,662.4	-323.0	61.7	-321.7	0.00	0.00	0.00
4,720.0	6.24	169.18	4,702.1	-327.3	62.6	-326.0	0.00	0.00	0.00
4,760.0	6.24	169.18	4,741.9	-331.6	63.4	-330.3	0.00	0.00	0.00
4,800.0	6.24	169.18	4,781.7	-335.9	64.2	-334.5	0.00	0.00	0.00
4,840.0	6.24	169.18	4,821.4	-340.1	65.0	-338.8	0.00	0.00	0.00
4,880.0	6.24	169.18	4,861.2	-344.4	65.8	-343.0	0.00	0.00	0.00
4,920.0	6.24	169.18	4,900.9	-348.7	66.6	-347.3	0.00	0.00	0.00
4,960.0	6.24	169.18	4,940.7	-353.0	67.5	-351.5	0.00	0.00	0.00
5,000.0	6.24	169.18	4,980.5	-357.2	68.3	-355.8	0.00	0.00	0.00
5,040.0	6.24	169.18	5,020.2	-361.5	69.1	-360.0	0.00	0.00	0.00
5,080.0	6.24	169.18	5,060.0	-365.8	69.9	-364.3	0.00	0.00	0.00
5,120.0	6.24	169.18	5,099.8	-370.0	70.7	-368.6	0.00	0.00	0.00
5,160.0	6.24	169.18	5,139.5	-374.3	71.5	-372.8	0.00	0.00	0.00
5,200.0	6.24	169.18	5,179.3	-378.6	72.4	-377.1	0.00	0.00	0.00
5,240.0	6.24	169.18	5,219.0	-382.9	73.2	-381.3	0.00	0.00	0.00
5,280.0	6.24	169.18	5,258.8	-387.1	74.0	-385.6	0.00	0.00	0.00
5,320.0	6.24	169.18	5,298.6	-391.4	74.8	-389.8	0.00	0.00	0.00
5,360.0	6.24	169.18	5,338.3	-395.7	75.6	-394.1	0.00	0.00	0.00
5,400.0	6.24	169.18	5,378.1	-400.0	76.4	-398.3	0.00	0.00	0.00
5,440.0	6.24	169.18	5,417.9	-404.2	77.3	-402.6	0.00	0.00	0.00
5,480.0	6.24	169.18	5,457.6	-408.5	78.1	-406.9	0.00	0.00	0.00
5,520.0	6.24	169.18	5,497.4	-412.8	78.9	-411.1	0.00	0.00	0.00
5,560.0	6.24	169.18	5,537.2	-417.1	79.7	-415.4	0.00	0.00	0.00
5,600.0	6.24	169.18	5,576.9	-421.3	80.5	-419.6	0.00	0.00	0.00
5,640.0	6.24	169.18	5,616.7	-425.6	81.3	-423.9	0.00	0.00	0.00
5,680.0	6.24	169.18	5,656.4	-429.9	82.2	-428.1	0.00	0.00	0.00
5,712.2	6.24	169.18	5,688.4	-433.3	82.8	-431.6	0.00	0.00	0.00
5,720.0	6.09	169.18	5,696.2	-434.1	83.0	-432.4	2.00	-2.00	0.00
5,760.0	5.29	169.18	5,736.0	-438.0	83.7	-436.3	2.00	-2.00	0.00
5,800.0	4.49	169.18	5,775.9	-441.4	84.4	-439.6	2.00	-2.00	0.00
5,840.0	3.69	169.18	5,815.8	-444.2	84.9	-442.4	2.00	-2.00	0.00
5,880.0	2.89	169.18	5,855.7	-446.4	85.3	-444.6	2.00	-2.00	0.00
5,920.0	2.09	169.18	5,895.7	-448.1	85.6	-446.3	2.00	-2.00	0.00
5,960.0	1.29	169.18	5,935.6	-449.3	85.9	-447.5	2.00	-2.00	0.00
6,000.0	0.49	169.18	5,975.6	-449.9	86.0	-448.1	2.00	-2.00	0.00
6,024.4	0.00	0.00	6,000.0	-450.0	86.0	-448.2	2.00	-2.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well O Investment Properties 6Y-401
Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	TVD Reference:	WELL @ 4792.0ft (RKB - 15')
Project:	SEC.6-T6N-R65W	MD Reference:	WELL @ 4792.0ft (RKB - 15')
Site:	O Investment Properties 6Y-HZ Pad Sec.6-T6N-R65W	North Reference:	True
Well:	O Investment Properties 6Y-401	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (2-07-13)		

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)
6,040.0	0.00	0.00	6,015.6	-450.0	86.0	-448.2	0.00	0.00	0.00
6,080.0	0.00	0.00	6,055.6	-450.0	86.0	-448.2	0.00	0.00	0.00
6,120.0	0.00	0.00	6,095.6	-450.0	86.0	-448.2	0.00	0.00	0.00
6,160.0	0.00	0.00	6,135.6	-450.0	86.0	-448.2	0.00	0.00	0.00
6,200.0	0.00	0.00	6,175.6	-450.0	86.0	-448.2	0.00	0.00	0.00
6,240.0	0.00	0.00	6,215.6	-450.0	86.0	-448.2	0.00	0.00	0.00
6,280.0	0.00	0.00	6,255.6	-450.0	86.0	-448.2	0.00	0.00	0.00
6,320.0	0.00	0.00	6,295.6	-450.0	86.0	-448.2	0.00	0.00	0.00
6,360.0	0.00	0.00	6,335.6	-450.0	86.0	-448.2	0.00	0.00	0.00
6,400.0	0.00	0.00	6,375.6	-450.0	86.0	-448.2	0.00	0.00	0.00
6,401.6	0.00	0.00	6,377.2	-450.0	86.0	-448.2	0.00	0.00	0.00
KOP #2									
6,440.0	2.88	0.00	6,415.6	-449.0	86.0	-447.2	7.50	7.50	0.00
6,480.0	5.88	0.00	6,455.5	-446.0	86.0	-444.2	7.50	7.50	0.00
6,520.0	8.88	0.00	6,495.2	-440.8	86.0	-439.0	7.50	7.50	0.00
6,560.0	11.88	0.00	6,534.5	-433.6	86.0	-431.8	7.50	7.50	0.00
6,600.0	14.88	0.00	6,573.4	-424.4	86.0	-422.6	7.50	7.50	0.00
6,640.0	17.88	0.00	6,611.8	-413.1	86.0	-411.3	7.50	7.50	0.00
6,680.0	20.88	0.00	6,649.5	-399.8	86.0	-398.0	7.50	7.50	0.00
6,720.0	23.88	0.00	6,686.5	-384.6	86.0	-382.8	7.50	7.50	0.00
6,760.0	26.88	0.00	6,722.6	-367.5	86.0	-365.7	7.50	7.50	0.00
6,800.0	29.88	0.00	6,757.8	-348.4	86.0	-346.7	7.50	7.50	0.00
6,840.0	32.88	0.00	6,792.0	-327.6	86.0	-325.8	7.50	7.50	0.00
6,880.0	35.88	0.00	6,825.0	-305.0	86.0	-303.3	7.50	7.50	0.00
6,920.0	38.88	0.00	6,856.8	-280.8	86.0	-279.0	7.50	7.50	0.00
6,960.0	41.88	0.00	6,887.2	-254.8	86.0	-253.1	7.50	7.50	0.00
7,000.0	44.88	0.00	6,916.3	-227.4	86.0	-225.6	7.50	7.50	0.00
7,040.0	47.88	0.00	6,943.9	-198.4	86.0	-196.7	7.50	7.50	0.00
7,080.0	50.88	0.00	6,969.9	-168.1	86.0	-166.3	7.50	7.50	0.00
7,120.0	53.88	0.00	6,994.3	-136.4	86.0	-134.6	7.50	7.50	0.00
7,160.0	56.88	0.00	7,017.1	-103.5	86.0	-101.7	7.50	7.50	0.00
7,200.0	59.88	0.00	7,038.0	-69.4	86.0	-67.7	7.50	7.50	0.00
7,240.0	62.88	0.00	7,057.2	-34.3	86.0	-32.6	7.50	7.50	0.00
7,280.0	65.88	0.00	7,074.5	1.8	86.0	3.5	7.50	7.50	0.00
7,320.0	68.88	0.00	7,089.9	38.7	86.0	40.4	7.50	7.50	0.00
7,360.0	71.88	0.00	7,103.3	76.4	86.0	78.1	7.50	7.50	0.00
7,400.0	74.88	0.00	7,114.7	114.7	86.0	116.4	7.50	7.50	0.00
7,440.0	77.88	0.00	7,124.1	153.5	86.0	155.2	7.50	7.50	0.00
7,480.0	80.88	0.00	7,131.5	192.9	86.0	194.5	7.50	7.50	0.00
7,520.0	83.88	0.00	7,136.8	232.5	86.0	234.2	7.50	7.50	0.00
7,521.6	84.00	0.00	7,137.0	234.1	86.0	235.8	7.50	7.50	0.00
7"									
7,560.0	84.00	0.00	7,141.0	272.3	86.0	273.9	0.00	0.00	0.00
7,595.6	84.00	0.00	7,144.7	307.7	86.0	309.3	0.00	0.00	0.00
7,600.0	84.22	0.00	7,145.2	312.1	86.0	313.7	5.00	5.00	0.00
7,640.0	86.22	0.00	7,148.5	351.9	86.0	353.6	5.00	5.00	0.00
7,680.0	88.22	0.00	7,150.5	391.9	86.0	393.5	5.00	5.00	0.00
7,706.4	89.54	0.00	7,151.0	418.3	86.0	419.9	5.00	5.00	0.00
End of Build									
7,720.0	89.54	0.00	7,151.1	431.9	86.0	433.5	0.01	0.01	0.00
7,760.0	89.54	0.00	7,151.4	471.9	86.0	473.5	0.00	0.00	0.00
7,800.0	89.54	0.00	7,151.7	511.9	86.0	513.5	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well O Investment Properties 6Y-401
Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	TVD Reference:	WELL @ 4792.0ft (RKB - 15')
Project:	SEC.6-T6N-R65W	MD Reference:	WELL @ 4792.0ft (RKB - 15')
Site:	O Investment Properties 6Y-HZ Pad Sec.6-T6N-R65W	North Reference:	True
Well:	O Investment Properties 6Y-401	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (2-07-13)		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
7,840.0	89.54	0.00	7,152.0	551.9	86.0	553.5	0.00	0.00	0.00
7,880.0	89.54	0.00	7,152.4	591.9	86.0	593.5	0.00	0.00	0.00
7,920.0	89.54	0.00	7,152.7	631.9	86.0	633.5	0.00	0.00	0.00
7,960.0	89.54	0.00	7,153.0	671.9	86.0	673.4	0.00	0.00	0.00
8,000.0	89.54	0.00	7,153.3	711.9	86.0	713.4	0.00	0.00	0.00
8,040.0	89.54	0.00	7,153.6	751.9	86.0	753.4	0.00	0.00	0.00
8,080.0	89.54	0.00	7,154.0	791.9	86.0	793.4	0.00	0.00	0.00
8,120.0	89.54	0.00	7,154.3	831.9	86.0	833.4	0.00	0.00	0.00
8,160.0	89.54	0.00	7,154.6	871.9	86.0	873.4	0.00	0.00	0.00
8,200.0	89.54	0.00	7,154.9	911.8	86.0	913.4	0.00	0.00	0.00
8,240.0	89.54	0.00	7,155.2	951.8	86.0	953.4	0.00	0.00	0.00
8,280.0	89.54	0.00	7,155.6	991.8	86.0	993.4	0.00	0.00	0.00
8,320.0	89.54	0.00	7,155.9	1,031.8	86.0	1,033.4	0.00	0.00	0.00
8,360.0	89.54	0.00	7,156.2	1,071.8	86.0	1,073.4	0.00	0.00	0.00
8,400.0	89.54	0.00	7,156.5	1,111.8	86.0	1,113.3	0.00	0.00	0.00
8,440.0	89.54	0.00	7,156.8	1,151.8	86.0	1,153.3	0.00	0.00	0.00
8,480.0	89.54	0.00	7,157.2	1,191.8	86.0	1,193.3	0.00	0.00	0.00
8,520.0	89.54	0.00	7,157.5	1,231.8	86.0	1,233.3	0.00	0.00	0.00
8,560.0	89.54	0.00	7,157.8	1,271.8	86.0	1,273.3	0.00	0.00	0.00
8,600.0	89.54	0.00	7,158.1	1,311.8	86.0	1,313.3	0.00	0.00	0.00
8,640.0	89.54	0.00	7,158.4	1,351.8	86.0	1,353.3	0.00	0.00	0.00
8,680.0	89.54	0.00	7,158.8	1,391.8	86.0	1,393.3	0.00	0.00	0.00
8,720.0	89.54	0.00	7,159.1	1,431.8	86.1	1,433.3	0.00	0.00	0.00
8,760.0	89.54	0.00	7,159.4	1,471.8	86.1	1,473.3	0.00	0.00	0.00
8,800.0	89.54	0.00	7,159.7	1,511.8	86.1	1,513.3	0.00	0.00	0.00
8,840.0	89.54	0.00	7,160.0	1,551.8	86.1	1,553.2	0.00	0.00	0.00
8,880.0	89.54	0.00	7,160.4	1,591.8	86.1	1,593.2	0.00	0.00	0.00
8,920.0	89.54	0.00	7,160.7	1,631.8	86.1	1,633.2	0.00	0.00	0.00
8,960.0	89.54	0.00	7,161.0	1,671.8	86.1	1,673.2	0.00	0.00	0.00
9,000.0	89.54	0.00	7,161.3	1,711.8	86.1	1,713.2	0.00	0.00	0.00
9,040.0	89.54	0.00	7,161.6	1,751.8	86.1	1,753.2	0.00	0.00	0.00
9,080.0	89.54	0.00	7,162.0	1,791.8	86.1	1,793.2	0.00	0.00	0.00
9,120.0	89.54	0.00	7,162.3	1,831.8	86.1	1,833.2	0.00	0.00	0.00
9,160.0	89.54	0.00	7,162.6	1,871.8	86.1	1,873.2	0.00	0.00	0.00
9,200.0	89.54	0.00	7,162.9	1,911.8	86.1	1,913.2	0.00	0.00	0.00
9,240.0	89.54	0.00	7,163.2	1,951.8	86.1	1,953.1	0.00	0.00	0.00
9,280.0	89.54	0.00	7,163.6	1,991.8	86.1	1,993.1	0.00	0.00	0.00
9,320.0	89.54	0.00	7,163.9	2,031.8	86.1	2,033.1	0.00	0.00	0.00
9,360.0	89.54	0.00	7,164.2	2,071.8	86.1	2,073.1	0.00	0.00	0.00
9,400.0	89.54	0.00	7,164.5	2,111.8	86.1	2,113.1	0.00	0.00	0.00
9,440.0	89.54	0.00	7,164.8	2,151.8	86.1	2,153.1	0.00	0.00	0.00
9,480.0	89.54	0.00	7,165.1	2,191.8	86.1	2,193.1	0.00	0.00	0.00
9,520.0	89.54	0.00	7,165.5	2,231.8	86.1	2,233.1	0.00	0.00	0.00
9,560.0	89.54	0.00	7,165.8	2,271.8	86.1	2,273.1	0.00	0.00	0.00
9,600.0	89.54	0.00	7,166.1	2,311.8	86.1	2,313.1	0.00	0.00	0.00
9,640.0	89.54	0.00	7,166.4	2,351.8	86.1	2,353.1	0.00	0.00	0.00
9,680.0	89.54	0.00	7,166.7	2,391.8	86.1	2,393.0	0.00	0.00	0.00
9,720.0	89.54	0.00	7,167.1	2,431.8	86.1	2,433.0	0.00	0.00	0.00
9,760.0	89.54	0.00	7,167.4	2,471.8	86.1	2,473.0	0.00	0.00	0.00
9,800.0	89.54	0.00	7,167.7	2,511.8	86.1	2,513.0	0.00	0.00	0.00
9,840.0	89.54	0.00	7,168.0	2,551.8	86.1	2,553.0	0.00	0.00	0.00
9,880.0	89.54	0.00	7,168.3	2,591.8	86.1	2,593.0	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well O Investment Properties 6Y-401
Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	TVD Reference:	WELL @ 4792.0ft (RKB - 15')
Project:	SEC.6-T6N-R65W	MD Reference:	WELL @ 4792.0ft (RKB - 15')
Site:	O Investment Properties 6Y-HZ Pad Sec.6-T6N-R65W	North Reference:	True
Well:	O Investment Properties 6Y-401	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (2-07-13)		

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)
9,920.0	89.54	0.00	7,168.7	2,631.8	86.1	2,633.0	0.00	0.00	0.00
9,960.0	89.54	0.00	7,169.0	2,671.8	86.1	2,673.0	0.00	0.00	0.00
10,000.0	89.54	0.00	7,169.3	2,711.8	86.1	2,713.0	0.00	0.00	0.00
10,040.0	89.54	0.00	7,169.6	2,751.8	86.1	2,753.0	0.00	0.00	0.00
10,080.0	89.54	0.00	7,169.9	2,791.8	86.1	2,793.0	0.00	0.00	0.00
10,120.0	89.54	0.00	7,170.3	2,831.8	86.1	2,832.9	0.00	0.00	0.00
10,160.0	89.54	0.00	7,170.6	2,871.8	86.1	2,872.9	0.00	0.00	0.00
10,200.0	89.54	0.00	7,170.9	2,911.8	86.1	2,912.9	0.00	0.00	0.00
10,240.0	89.54	0.00	7,171.2	2,951.8	86.1	2,952.9	0.00	0.00	0.00
10,280.0	89.54	0.00	7,171.5	2,991.8	86.1	2,992.9	0.00	0.00	0.00
10,320.0	89.54	0.00	7,171.9	3,031.8	86.1	3,032.9	0.00	0.00	0.00
10,360.0	89.54	0.00	7,172.2	3,071.8	86.1	3,072.9	0.00	0.00	0.00
10,400.0	89.54	0.00	7,172.5	3,111.8	86.1	3,112.9	0.00	0.00	0.00
10,440.0	89.54	0.00	7,172.8	3,151.8	86.1	3,152.9	0.00	0.00	0.00
10,480.0	89.54	0.00	7,173.1	3,191.8	86.1	3,192.9	0.00	0.00	0.00
10,520.0	89.54	0.00	7,173.5	3,231.8	86.1	3,232.9	0.00	0.00	0.00
10,560.0	89.54	0.00	7,173.8	3,271.8	86.1	3,272.8	0.00	0.00	0.00
10,600.0	89.54	0.00	7,174.1	3,311.8	86.1	3,312.8	0.00	0.00	0.00
10,640.0	89.54	0.00	7,174.4	3,351.8	86.1	3,352.8	0.00	0.00	0.00
10,680.0	89.54	0.00	7,174.7	3,391.8	86.1	3,392.8	0.00	0.00	0.00
10,720.0	89.54	0.00	7,175.1	3,431.8	86.1	3,432.8	0.00	0.00	0.00
10,760.0	89.54	0.00	7,175.4	3,471.8	86.1	3,472.8	0.00	0.00	0.00
10,800.0	89.54	0.00	7,175.7	3,511.8	86.1	3,512.8	0.00	0.00	0.00
10,840.0	89.54	0.00	7,176.0	3,551.8	86.1	3,552.8	0.00	0.00	0.00
10,880.0	89.54	0.00	7,176.3	3,591.8	86.2	3,592.8	0.00	0.00	0.00
10,920.0	89.54	0.00	7,176.7	3,631.8	86.2	3,632.8	0.00	0.00	0.00
10,960.0	89.54	0.00	7,177.0	3,671.8	86.2	3,672.7	0.00	0.00	0.00
11,000.0	89.54	0.00	7,177.3	3,711.8	86.2	3,712.7	0.00	0.00	0.00
11,040.0	89.54	0.00	7,177.6	3,751.8	86.2	3,752.7	0.00	0.00	0.00
11,080.0	89.54	0.00	7,177.9	3,791.8	86.2	3,792.7	0.00	0.00	0.00
11,120.0	89.54	0.00	7,178.3	3,831.8	86.2	3,832.7	0.00	0.00	0.00
11,160.0	89.54	0.00	7,178.6	3,871.8	86.2	3,872.7	0.00	0.00	0.00
11,200.0	89.54	0.00	7,178.9	3,911.8	86.2	3,912.7	0.00	0.00	0.00
11,240.0	89.54	0.00	7,179.2	3,951.8	86.2	3,952.7	0.00	0.00	0.00
11,280.0	89.54	0.00	7,179.5	3,991.8	86.2	3,992.7	0.00	0.00	0.00
11,320.0	89.54	0.00	7,179.9	4,031.7	86.2	4,032.7	0.00	0.00	0.00
11,360.0	89.54	0.00	7,180.2	4,071.7	86.2	4,072.7	0.00	0.00	0.00
11,400.0	89.54	0.00	7,180.5	4,111.7	86.2	4,112.6	0.00	0.00	0.00
11,440.0	89.54	0.00	7,180.8	4,151.7	86.2	4,152.6	0.00	0.00	0.00
11,480.0	89.54	0.00	7,181.1	4,191.7	86.2	4,192.6	0.00	0.00	0.00
11,520.0	89.54	0.00	7,181.5	4,231.7	86.2	4,232.6	0.00	0.00	0.00
11,560.0	89.54	0.00	7,181.8	4,271.7	86.2	4,272.6	0.00	0.00	0.00
11,587.2	89.54	0.00	7,182.0	4,299.0	86.2	4,299.8	0.00	0.00	0.00

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
7,521.6	7,137.0	7"	7	8-3/4	

Database:	Landmark	Local Co-ordinate Reference:	Well O Investment Properties 6Y-401
Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	TVD Reference:	WELL @ 4792.0ft (RKB - 15')
Project:	SEC.6-T6N-R65W	MD Reference:	WELL @ 4792.0ft (RKB - 15')
Site:	O Investment Properties 6Y-HZ Pad Sec.6-T6N-R65W	North Reference:	True
Well:	O Investment Properties 6Y-401	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (2-07-13)		

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
1,500.0	1,500.0	0.0	0.0	KOP #1	
6,401.6	6,377.2	-450.0	86.0	KOP #2	
7,706.4	7,151.0	418.3	86.0	End of Build	



Directional

PETROLEUM DEVELOPMENT CORP Weld County CO

SEC.6-T6N-R65W

O Investment Properties 6Y-HZ Pad Sec.6-T6N-R65W

O Investment Properties 6Y-401

Wellbore #1

Plan #1 (2-07-13)

Anticollision Report

21 February, 2013



Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well O Investment Properties 6Y-401
Project:	SEC.6-T6N-R65W	TVD Reference:	WELL @ 4792.0ft (RKB - 15')
Reference Site:	O Investment Properties 6Y-HZ Pad Sec.6-T6N-R65W	MD Reference:	WELL @ 4792.0ft (RKB - 15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	O Investment Properties 6Y-401	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (2-07-13)	Offset TVD Reference:	Offset Datum

Reference	Plan #1 (2-07-13)		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD Interval 100.0ft	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 1,000.0ft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma		

Survey Tool Program	Date 2/7/2013			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.0	11,587.2	Plan #1 (2-07-13) (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						
O Investment Properties 6Y-HZ Pad Sec.6-T6N-R65W						
O Investment 6T-421 - Wellbore #1 - Plan #1 (2-07-13)	200.0	200.0	61.2	60.5	90.722	CC, ES
O Investment 6T-421 - Wellbore #1 - Plan #1 (2-07-13)	11,587.2	11,606.8	681.2	507.9	3.932	SF
O Investment Properties 6Y-241 - Wellbore #1 - Plan #1	600.0	600.0	30.6	28.1	12.371	CC, ES
O Investment Properties 6Y-241 - Wellbore #1 - Plan #1	11,587.2	11,439.5	376.7	220.6	2.414	SF

Offset Design		O Investment Properties 6Y-HZ Pad Sec.6-T6N-R65W - O Investment 6T-421 - Wellbore #1 - Plan #1 (Offset Site Error:		0.0 ft
Survey Program:		0-MWD										Offset Well Error:		0.0 ft
Reference		Offset		Semi Major Axis			Distance							
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
0.0	0.0	0.0	0.0	0.0	0.0	-90.00	0.0	-61.2	61.2					
100.0	100.0	100.0	100.0	0.1	0.1	-90.00	0.0	-61.2	61.2	60.9	0.22	272.167		
200.0	200.0	200.0	200.0	0.3	0.3	-90.00	0.0	-61.2	61.2	60.5	0.67	90.722	CC, ES	
300.0	300.0	298.4	298.3	0.6	0.5	-91.00	-1.1	-62.5	62.5	61.4	1.10	56.706		
400.0	400.0	396.5	396.3	0.8	0.8	-93.74	-4.3	-66.3	66.6	65.0	1.54	43.321		
500.0	500.0	494.1	493.6	1.0	1.0	-97.61	-9.7	-72.7	73.6	71.6	1.99	36.941		
600.0	600.0	591.8	590.5	1.2	1.3	-101.87	-17.1	-81.6	83.9	81.4	2.47	33.959		
700.0	700.0	690.9	688.9	1.5	1.6	-105.49	-25.3	-91.2	95.3	92.4	2.94	32.377		
800.0	800.0	790.1	787.3	1.7	1.9	-108.33	-33.4	-100.9	107.1	103.7	3.42	31.335		
900.0	900.0	889.3	885.7	1.9	2.2	-110.60	-41.6	-110.6	119.0	115.2	3.89	30.606		
1,000.0	1,000.0	988.5	984.0	2.1	2.5	-112.46	-49.7	-120.3	131.2	126.8	4.36	30.075		
1,100.0	1,100.0	1,087.7	1,082.4	2.4	2.9	-114.00	-57.9	-130.0	143.4	138.5	4.83	29.677		
1,200.0	1,200.0	1,186.8	1,180.8	2.6	3.2	-115.30	-66.0	-139.7	155.7	150.4	5.30	29.368		
1,300.0	1,300.0	1,286.0	1,279.1	2.8	3.5	-116.41	-74.2	-149.4	168.1	162.3	5.77	29.124		
1,400.0	1,400.0	1,385.2	1,377.5	3.0	3.8	-117.37	-82.3	-159.1	180.5	174.3	6.24	28.926		
1,500.0	1,500.0	1,484.4	1,475.9	3.3	4.2	-118.20	-90.5	-168.7	193.0	186.3	6.71	28.764		
1,600.0	1,600.0	1,583.7	1,574.3	3.5	4.5	72.13	-98.6	-178.4	205.0	197.9	7.03	29.140		
1,700.0	1,699.8	1,683.0	1,672.9	3.6	4.8	72.57	-106.8	-188.1	215.9	208.4	7.45	28.963		
1,800.0	1,799.5	1,782.4	1,771.4	3.8	5.2	73.81	-115.0	-197.8	225.9	218.0	7.89	28.607		
1,900.0	1,898.9	1,881.6	1,869.9	4.0	5.5	75.61	-123.1	-207.5	235.4	227.1	8.36	28.159		
2,000.0	1,998.3	1,980.9	1,968.4	4.2	5.8	77.29	-131.3	-217.2	245.2	236.4	8.84	27.727		

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

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well O Investment Properties 6Y-401
Project:	SEC.6-T6N-R65W	TVD Reference:	WELL @ 4792.0ft (RKB - 15')
Reference Site:	O Investment Properties 6Y-HZ Pad Sec.6-T6N-R65W	MD Reference:	WELL @ 4792.0ft (RKB - 15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	O Investment Properties 6Y-401	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (2-07-13)	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
2,100.0	2,097.7	2,080.2	2,066.8	4.4	6.2	78.84	-139.4	-226.9	255.2	245.8	9.34	27.318		
2,200.0	2,197.1	2,179.5	2,165.3	4.7	6.5	80.28	-147.6	-236.6	265.3	255.5	9.85	26.931		
2,300.0	2,296.5	2,278.7	2,263.7	4.9	6.8	81.60	-155.7	-246.3	275.6	265.2	10.37	26.569		
2,400.0	2,395.9	2,378.0	2,362.2	5.2	7.2	82.84	-163.9	-256.0	286.0	275.1	10.90	26.230		
2,500.0	2,495.3	2,477.3	2,460.7	5.4	7.5	83.98	-172.0	-265.7	296.6	285.1	11.44	25.914		
2,600.0	2,594.7	2,576.6	2,559.1	5.7	7.8	85.05	-180.2	-275.4	307.2	295.3	11.99	25.620		
2,700.0	2,694.1	2,675.8	2,657.6	5.9	8.2	86.05	-188.4	-285.1	318.0	305.5	12.55	25.347		
2,800.0	2,793.5	2,775.1	2,756.0	6.2	8.5	86.98	-196.5	-294.8	328.9	315.8	13.11	25.093		
2,900.0	2,892.9	2,874.4	2,854.5	6.5	8.8	87.85	-204.7	-304.5	339.8	326.1	13.67	24.856		
3,000.0	2,992.3	2,973.6	2,953.0	6.8	9.2	88.66	-212.8	-314.2	350.8	336.6	14.24	24.637		
3,100.0	3,091.7	3,072.9	3,051.4	7.0	9.5	89.43	-221.0	-323.9	361.9	347.1	14.81	24.432		
3,200.0	3,191.2	3,172.2	3,149.9	7.3	9.8	90.15	-229.1	-333.6	373.0	357.6	15.39	24.242		
3,300.0	3,290.6	3,271.5	3,248.3	7.6	10.2	90.83	-237.3	-343.3	384.2	368.2	15.96	24.065		
3,400.0	3,390.0	3,370.7	3,346.8	7.9	10.5	91.47	-245.4	-353.0	395.4	378.9	16.55	23.899		
3,500.0	3,489.4	3,470.0	3,445.3	8.2	10.8	92.08	-253.6	-362.7	406.7	389.6	17.13	23.744		
3,600.0	3,588.8	3,569.3	3,543.7	8.5	11.2	92.65	-261.8	-372.4	418.0	400.3	17.71	23.600		
3,700.0	3,688.2	3,668.5	3,642.2	8.8	11.5	93.19	-269.9	-382.1	429.4	411.1	18.30	23.464		
3,800.0	3,787.6	3,767.8	3,740.6	9.1	11.8	93.71	-278.1	-391.8	440.8	421.9	18.89	23.337		
3,900.0	3,887.0	3,867.1	3,839.1	9.4	12.2	94.19	-286.2	-401.5	452.2	432.7	19.48	23.218		
4,000.0	3,986.4	3,966.4	3,937.6	9.6	12.5	94.66	-294.4	-411.2	463.7	443.6	20.07	23.106		
4,100.0	4,085.8	4,065.6	4,036.0	9.9	12.8	95.10	-302.5	-420.8	475.2	454.5	20.66	23.000		
4,200.0	4,185.2	4,164.9	4,134.5	10.2	13.2	95.52	-310.7	-430.5	486.7	465.4	21.25	22.900		
4,300.0	4,284.6	4,264.2	4,232.9	10.5	13.5	95.92	-318.8	-440.2	498.2	476.4	21.85	22.807		
4,400.0	4,384.0	4,363.5	4,331.4	10.8	13.8	96.31	-327.0	-449.9	509.8	487.4	22.44	22.718		
4,500.0	4,483.4	4,462.7	4,429.9	11.1	14.2	96.67	-335.2	-459.6	521.4	498.4	23.04	22.634		
4,600.0	4,582.8	4,562.0	4,528.3	11.4	14.5	97.02	-343.3	-469.3	533.0	509.4	23.63	22.554		
4,700.0	4,682.3	4,661.3	4,626.8	11.7	14.8	97.36	-351.5	-479.0	544.6	520.4	24.23	22.479		
4,800.0	4,781.7	4,760.5	4,725.2	12.0	15.2	97.68	-359.6	-488.7	556.3	531.5	24.83	22.408		
4,900.0	4,881.1	4,859.8	4,823.7	12.3	15.5	97.99	-367.8	-498.4	567.9	542.5	25.42	22.340		
5,000.0	4,980.5	4,959.1	4,922.2	12.6	15.8	98.29	-375.9	-508.1	579.6	553.6	26.02	22.275		
5,100.0	5,079.9	5,058.4	5,020.6	12.9	16.2	98.57	-384.1	-517.8	591.3	564.7	26.62	22.214		
5,200.0	5,179.3	5,157.6	5,119.1	13.2	16.5	98.84	-392.2	-527.5	603.0	575.8	27.22	22.155		
5,300.0	5,278.7	5,256.9	5,217.5	13.5	16.8	99.11	-400.4	-537.2	614.7	586.9	27.82	22.099		
5,400.0	5,378.1	5,356.2	5,316.0	13.8	17.2	99.36	-408.5	-546.9	626.5	598.1	28.42	22.046		
5,500.0	5,477.5	5,455.4	5,414.5	14.1	17.5	99.60	-416.7	-556.6	638.2	609.2	29.02	21.995		
5,600.0	5,576.9	5,554.7	5,512.9	14.4	17.8	99.84	-424.9	-566.3	650.0	620.4	29.62	21.946		
5,700.0	5,676.3	5,654.0	5,611.4	14.7	18.2	100.06	-433.0	-576.0	661.7	631.5	30.22	21.900		
5,800.0	5,775.9	5,770.0	5,726.7	15.0	18.5	100.45	-441.6	-586.2	672.3	641.6	30.77	21.852		
5,900.0	5,875.7	5,891.8	5,848.1	15.2	18.7	100.71	-447.4	-593.1	679.1	647.9	31.21	21.763		
6,000.0	5,975.6	6,014.0	5,970.2	15.4	18.9	100.82	-449.9	-596.1	682.1	650.5	31.58	21.596		
6,100.0	6,075.6	6,119.4	6,075.6	15.5	19.0	-90.00	-450.0	-596.2	682.2	650.3	31.92	21.371		
6,200.0	6,175.6	6,219.4	6,175.6	15.7	19.1	-90.00	-450.0	-596.2	682.2	650.0	32.22	21.170		
6,300.0	6,275.6	6,319.4	6,275.6	15.9	19.3	-90.00	-450.0	-596.2	682.2	649.6	32.53	20.971		
6,400.0	6,375.6	6,419.4	6,375.6	16.0	19.4	-90.00	-450.0	-596.2	682.2	649.3	32.84	20.773		
6,500.0	6,475.4	6,519.4	6,475.4	16.1	19.5	-90.00	-443.7	-596.2	682.2	649.1	33.06	20.636		
6,600.0	6,573.4	6,619.5	6,573.4	16.2	19.5	-90.00	-424.4	-596.2	682.2	649.1	33.11	20.606		
6,700.0	6,668.1	6,719.5	6,668.1	16.1	19.5	-90.00	-392.4	-596.2	682.2	649.2	33.01	20.666		
6,800.0	6,757.8	6,819.5	6,757.9	16.0	19.4	-90.00	-348.4	-596.2	682.2	649.3	32.82	20.786		
6,900.0	6,841.0	6,919.5	6,841.1	15.9	19.2	-90.00	-293.1	-596.1	682.1	649.5	32.60	20.922		
7,000.0	6,916.3	7,019.5	6,916.3	15.9	19.0	-90.00	-227.3	-596.1	682.1	649.7	32.45	21.021		
7,100.0	6,982.3	7,119.5	6,982.4	15.9	18.8	-90.00	-152.3	-596.1	682.1	649.7	32.44	21.025		

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

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well O Investment Properties 6Y-401
Project:	SEC.6-T6N-R65W	TVD Reference:	WELL @ 4792.0ft (RKB - 15')
Reference Site:	O Investment Properties 6Y-HZ Pad Sec.6-T6N-R65W	MD Reference:	WELL @ 4792.0ft (RKB - 15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	O Investment Properties 6Y-401	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (2-07-13)	Offset TVD Reference:	Offset Datum

Offset Design		O Investment Properties 6Y-HZ Pad Sec.6-T6N-R65W - O Investment 6T-421 - Wellbore #1 - Plan #1 (Offset Site Error:		0.0 ft
Survey Program: 0-MWD												Offset Well Error:		0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
7,200.0	7,038.0	7,219.5	7,038.1	16.0	18.7	-90.00	-69.3	-596.1	682.1	649.4	32.67	20.876		
7,300.0	7,082.4	7,319.5	7,082.4	16.3	18.5	-90.00	20.2	-596.1	682.1	648.9	33.21	20.537		
7,400.0	7,114.7	7,419.5	7,114.7	16.8	18.3	-90.00	114.8	-596.1	682.1	648.0	34.10	20.000		
7,500.0	7,134.4	7,519.5	7,134.4	17.4	18.3	-90.00	212.8	-596.1	682.1	646.7	35.35	19.293		
7,600.0	7,145.2	7,619.5	7,145.2	18.2	19.0	-90.00	312.2	-596.0	682.0	645.1	36.94	18.461		
7,700.0	7,150.9	7,719.6	7,151.0	19.2	20.0	-90.01	412.0	-596.0	682.0	643.2	38.85	17.557		
7,800.0	7,151.7	7,819.6	7,151.8	20.3	21.2	-90.01	512.0	-596.0	682.0	641.0	41.01	16.629		
7,900.0	7,152.5	7,919.6	7,152.6	21.6	22.4	-90.01	612.0	-596.0	682.0	638.6	43.41	15.711		
8,000.0	7,153.3	8,019.6	7,153.4	22.9	23.7	-90.00	712.0	-595.9	682.0	636.0	46.00	14.825		
8,100.0	7,154.1	8,119.6	7,154.2	24.3	25.1	-90.00	812.0	-595.9	681.9	633.2	48.76	13.986		
8,200.0	7,154.9	8,219.6	7,155.0	25.8	26.5	-90.00	912.0	-595.9	681.9	630.3	51.65	13.201		
8,300.0	7,155.7	8,319.6	7,155.8	27.3	28.0	-90.00	1,012.0	-595.9	681.9	627.2	54.67	12.473		
8,400.0	7,156.5	8,419.6	7,156.5	28.8	29.5	-90.00	1,112.0	-595.8	681.9	624.1	57.78	11.800		
8,500.0	7,157.3	8,519.6	7,157.3	30.5	31.1	-90.00	1,212.0	-595.8	681.8	620.9	60.98	11.181		
8,600.0	7,158.1	8,619.6	7,158.1	32.1	32.7	-90.00	1,312.0	-595.8	681.8	617.6	64.25	10.612		
8,700.0	7,158.9	8,719.6	7,158.9	33.8	34.3	-90.00	1,412.0	-595.7	681.8	614.2	67.58	10.089		
8,800.0	7,159.7	8,819.6	7,159.7	35.5	36.0	-90.00	1,512.0	-595.7	681.8	610.8	70.96	9.608		
8,900.0	7,160.5	8,919.6	7,160.5	37.2	37.7	-90.00	1,612.0	-595.7	681.8	607.4	74.39	9.165		
9,000.0	7,161.3	9,019.6	7,161.3	39.0	39.4	-90.00	1,712.0	-595.7	681.7	603.9	77.85	8.756		
9,100.0	7,162.1	9,119.6	7,162.1	40.7	41.2	-90.00	1,812.0	-595.6	681.7	600.4	81.36	8.379		
9,200.0	7,162.9	9,219.6	7,162.9	42.5	42.9	-90.00	1,912.0	-595.6	681.7	596.8	84.89	8.031		
9,300.0	7,163.7	9,319.6	7,163.7	44.3	44.7	-90.00	2,012.0	-595.6	681.7	593.2	88.44	7.707		
9,400.0	7,164.5	9,419.6	7,164.5	46.1	46.4	-90.00	2,112.0	-595.6	681.6	589.6	92.02	7.407		
9,500.0	7,165.3	9,519.6	7,165.3	47.9	48.2	-90.00	2,212.0	-595.5	681.6	586.0	95.62	7.128		
9,600.0	7,166.1	9,619.6	7,166.1	49.7	50.0	-90.00	2,312.0	-595.5	681.6	582.4	99.24	6.868		
9,700.0	7,166.9	9,719.6	7,166.9	51.5	51.8	-90.00	2,412.0	-595.5	681.6	578.7	102.88	6.625		
9,800.0	7,167.7	9,819.6	7,167.7	53.3	53.6	-90.00	2,512.0	-595.5	681.6	575.0	106.53	6.398		
9,900.0	7,168.5	9,919.6	7,168.4	55.2	55.4	-89.99	2,612.0	-595.4	681.5	571.3	110.20	6.185		
10,000.0	7,169.3	10,019.6	7,169.2	57.0	57.3	-89.99	2,712.0	-595.4	681.5	567.6	113.87	5.985		
10,100.0	7,170.1	10,119.6	7,170.0	58.9	59.1	-89.99	2,812.0	-595.4	681.5	563.9	117.56	5.797		
10,200.0	7,170.9	10,219.6	7,170.8	60.7	60.9	-89.99	2,912.0	-595.3	681.5	560.2	121.26	5.620		
10,300.0	7,171.7	10,319.6	7,171.6	62.6	62.8	-89.99	3,012.0	-595.3	681.4	556.5	124.96	5.453		
10,400.0	7,172.5	10,419.6	7,172.4	64.4	64.6	-89.99	3,112.0	-595.3	681.4	552.7	128.68	5.296		
10,500.0	7,173.3	10,519.6	7,173.2	66.3	66.5	-89.99	3,212.0	-595.3	681.4	549.0	132.40	5.147		
10,600.0	7,174.1	10,619.6	7,174.0	68.2	68.3	-89.99	3,312.0	-595.2	681.4	545.2	136.13	5.005		
10,700.0	7,174.9	10,719.6	7,174.8	70.0	70.2	-89.99	3,412.0	-595.2	681.4	541.5	139.86	4.872		
10,800.0	7,175.7	10,819.6	7,175.6	71.9	72.0	-89.99	3,512.0	-595.2	681.3	537.7	143.60	4.745		
10,900.0	7,176.5	10,919.6	7,176.4	73.8	73.9	-89.99	3,611.9	-595.2	681.3	534.0	147.35	4.624		
11,000.0	7,177.3	11,019.6	7,177.2	75.7	75.8	-89.99	3,711.9	-595.1	681.3	530.2	151.10	4.509		
11,100.0	7,178.1	11,119.6	7,178.0	77.5	77.6	-89.99	3,811.9	-595.1	681.3	526.4	154.86	4.399		
11,200.0	7,178.9	11,219.6	7,178.8	79.4	79.5	-89.99	3,911.9	-595.1	681.2	522.6	158.62	4.295		
11,300.0	7,179.7	11,319.6	7,179.5	81.3	81.4	-89.99	4,011.9	-595.0	681.2	518.8	162.38	4.195		
11,400.0	7,180.5	11,419.6	7,180.3	83.2	83.3	-89.99	4,111.9	-595.0	681.2	515.0	166.15	4.100		
11,500.0	7,181.3	11,519.6	7,181.1	85.1	85.1	-89.99	4,211.9	-595.0	681.2	511.2	169.92	4.009		
11,587.2	7,182.0	11,606.8	7,181.8	86.7	86.8	-89.99	4,299.2	-595.0	681.2	507.9	173.22	3.932 SF		

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well O Investment Properties 6Y-401
Project:	SEC.6-T6N-R65W	TVD Reference:	WELL @ 4792.0ft (RKB - 15')
Reference Site:	O Investment Properties 6Y-HZ Pad Sec.6-T6N-R65W	MD Reference:	WELL @ 4792.0ft (RKB - 15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	O Investment Properties 6Y-401	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (2-07-13)	Offset TVD Reference:	Offset Datum

Offset Design		O Investment Properties 6Y-HZ Pad Sec.6-T6N-R65W - O Investment Properties 6Y-241 - Wellbore #1										Offset Site Error:		0.0 ft
Survey Program: 0-MWD												Offset Well Error:		0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-90.02	0.0	-30.6	30.6					
100.0	100.0	100.0	100.0	0.1	0.1	-90.02	0.0	-30.6	30.6	30.4	0.22	136.084		
200.0	200.0	200.0	200.0	0.3	0.3	-90.02	0.0	-30.6	30.6	29.9	0.67	45.361		
300.0	300.0	300.0	300.0	0.6	0.6	-90.02	0.0	-30.6	30.6	29.5	1.12	27.217		
400.0	400.0	400.0	400.0	0.8	0.8	-90.02	0.0	-30.6	30.6	29.0	1.57	19.441		
500.0	500.0	500.0	500.0	1.0	1.0	-90.02	0.0	-30.6	30.6	28.6	2.02	15.120		
600.0	600.0	600.0	600.0	1.2	1.2	-90.02	0.0	-30.6	30.6	28.1	2.47	12.371	CC, ES	
700.0	700.0	699.5	699.5	1.5	1.4	-92.87	-1.6	-31.3	31.4	28.5	2.89	10.840		
800.0	800.0	798.8	798.6	1.7	1.6	-100.53	-6.2	-33.5	34.1	30.8	3.30	10.339		
900.0	900.0	897.6	897.0	1.9	1.8	-110.55	-14.0	-37.2	39.9	36.1	3.73	10.680		
1,000.0	1,000.0	996.8	995.7	2.1	2.1	-119.45	-23.6	-41.8	48.2	44.0	4.17	11.549		
1,100.0	1,100.0	1,096.3	1,094.6	2.4	2.3	-125.65	-33.3	-46.4	57.4	52.8	4.62	12.422		
1,200.0	1,200.0	1,195.7	1,193.4	2.6	2.6	-130.11	-43.0	-51.0	67.0	62.0	5.07	13.232		
1,300.0	1,300.0	1,295.1	1,292.2	2.8	2.8	-133.44	-52.7	-55.6	77.0	71.5	5.52	13.960		
1,400.0	1,400.0	1,394.5	1,391.1	3.0	3.1	-135.99	-62.4	-60.2	87.2	81.2	5.97	14.608		
1,500.0	1,500.0	1,493.9	1,489.9	3.3	3.4	-138.01	-72.1	-64.8	97.5	91.0	6.42	15.183		
1,600.0	1,600.0	1,593.5	1,588.9	3.5	3.7	51.76	-81.8	-69.5	106.8	100.0	6.80	15.705		
1,700.0	1,699.8	1,693.2	1,688.0	3.6	4.0	52.26	-91.5	-74.1	114.0	106.8	7.20	15.821		
1,800.0	1,799.5	1,793.0	1,787.2	3.8	4.3	54.05	-101.2	-78.7	119.1	111.4	7.62	15.616		
1,900.0	1,898.9	1,892.8	1,886.4	4.0	4.6	56.59	-110.9	-83.3	123.1	115.0	8.07	15.249		
2,000.0	1,998.3	1,992.5	1,985.6	4.2	4.9	58.98	-120.7	-88.0	127.4	118.8	8.54	14.915		
2,100.0	2,097.7	2,092.3	2,084.8	4.4	5.2	61.21	-130.4	-92.6	131.8	122.8	9.02	14.611		
2,200.0	2,197.1	2,192.1	2,184.0	4.7	5.5	63.30	-140.1	-97.2	136.5	127.0	9.52	14.336		
2,300.0	2,296.5	2,291.9	2,283.2	4.9	5.8	65.24	-149.8	-101.8	141.3	131.3	10.03	14.086		
2,400.0	2,395.9	2,391.6	2,382.4	5.2	6.1	67.05	-159.6	-106.5	146.3	135.7	10.55	13.860		
2,500.0	2,495.3	2,491.4	2,481.6	5.4	6.4	68.75	-169.3	-111.1	151.4	140.3	11.09	13.654		
2,600.0	2,594.7	2,591.2	2,580.8	5.7	6.7	70.33	-179.0	-115.7	156.6	145.0	11.63	13.467		
2,700.0	2,694.1	2,691.0	2,679.9	5.9	7.0	71.81	-188.7	-120.3	161.9	149.8	12.18	13.297		
2,800.0	2,793.5	2,790.7	2,779.1	6.2	7.3	73.19	-198.5	-125.0	167.4	154.6	12.74	13.143		
2,900.0	2,892.9	2,890.5	2,878.3	6.5	7.6	74.49	-208.2	-129.6	172.9	159.6	13.30	13.002		
3,000.0	2,992.3	2,990.3	2,977.5	6.8	7.9	75.70	-217.9	-134.2	178.5	164.7	13.87	12.874		
3,100.0	3,091.7	3,090.0	3,076.7	7.0	8.2	76.84	-227.6	-138.8	184.2	169.8	14.44	12.757		
3,200.0	3,191.2	3,189.8	3,175.9	7.3	8.5	77.92	-237.4	-143.5	190.0	175.0	15.02	12.650		
3,300.0	3,290.6	3,289.6	3,275.1	7.6	8.8	78.92	-247.1	-148.1	195.8	180.2	15.60	12.552		
3,400.0	3,390.0	3,389.4	3,374.3	7.9	9.1	79.87	-256.8	-152.7	201.7	185.5	16.18	12.462		
3,500.0	3,489.4	3,489.1	3,473.5	8.2	9.4	80.77	-266.5	-157.3	207.6	190.8	16.77	12.380		
3,600.0	3,588.8	3,588.9	3,572.7	8.5	9.7	81.62	-276.2	-162.0	213.6	196.2	17.36	12.304		
3,700.0	3,688.2	3,688.7	3,671.8	8.8	10.0	82.42	-286.0	-166.6	219.6	201.7	17.95	12.235		
3,800.0	3,787.6	3,788.5	3,771.0	9.1	10.3	83.17	-295.7	-171.2	225.7	207.1	18.54	12.171		
3,900.0	3,887.0	3,888.2	3,870.2	9.4	10.6	83.89	-305.4	-175.8	231.8	212.6	19.14	12.111		
4,000.0	3,986.4	3,988.0	3,969.4	9.6	10.9	84.57	-315.1	-180.5	237.9	218.2	19.73	12.056		
4,100.0	4,085.8	4,087.8	4,068.6	9.9	11.2	85.22	-324.9	-185.1	244.1	223.8	20.33	12.006		
4,200.0	4,185.2	4,187.5	4,167.8	10.2	11.6	85.83	-334.6	-189.7	250.3	229.4	20.93	11.959		
4,300.0	4,284.6	4,287.3	4,267.0	10.5	11.9	86.42	-344.3	-194.3	256.5	235.0	21.53	11.915		
4,400.0	4,384.0	4,387.1	4,366.2	10.8	12.2	86.97	-354.0	-199.0	262.8	240.6	22.13	11.874		
4,500.0	4,483.4	4,486.9	4,465.4	11.1	12.5	87.51	-363.8	-203.6	269.0	246.3	22.73	11.836		
4,600.0	4,582.8	4,586.6	4,564.6	11.4	12.8	88.01	-373.5	-208.2	275.3	252.0	23.33	11.801		
4,700.0	4,682.3	4,686.4	4,663.7	11.7	13.1	88.50	-383.2	-212.8	281.6	257.7	23.93	11.768		
4,800.0	4,781.7	4,786.2	4,762.9	12.0	13.4	88.96	-392.9	-217.5	288.0	263.4	24.54	11.737		
4,900.0	4,881.1	4,886.0	4,862.1	12.3	13.7	89.40	-402.7	-222.1	294.3	269.2	25.14	11.708		
5,000.0	4,980.5	4,985.7	4,961.3	12.6	14.0	89.83	-412.4	-226.7	300.7	275.0	25.74	11.681		

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

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well O Investment Properties 6Y-401
Project:	SEC.6-T6N-R65W	TVD Reference:	WELL @ 4792.0ft (RKB - 15')
Reference Site:	O Investment Properties 6Y-HZ Pad Sec.6-T6N-R65W	MD Reference:	WELL @ 4792.0ft (RKB - 15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	O Investment Properties 6Y-401	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (2-07-13)	Offset TVD Reference:	Offset Datum

Offset Design		O Investment Properties 6Y-HZ Pad Sec.6-T6N-R65W - O Investment Properties 6Y-241 - Wellbore #1										Offset Site Error:		0.0 ft
Survey Program: 0-MWD												Offset Well Error:		0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,100.0	5,079.9	5,085.5	5,060.5	12.9	14.3	90.23	-422.1	-231.3	307.1	280.7	26.35	11.656		
5,200.0	5,179.3	5,185.3	5,159.7	13.2	14.6	90.62	-431.8	-235.9	313.5	286.5	26.95	11.632		
5,300.0	5,278.7	5,289.7	5,263.6	13.5	14.9	91.15	-441.2	-240.4	319.4	291.9	27.54	11.598		
5,400.0	5,378.1	5,396.2	5,369.9	13.8	15.1	92.22	-447.3	-243.3	323.3	295.3	28.09	11.513		
5,500.0	5,477.5	5,502.4	5,476.1	14.1	15.3	93.84	-449.9	-244.5	325.4	296.8	28.62	11.368		
5,600.0	5,576.9	5,603.3	5,576.9	14.4	15.4	95.74	-450.0	-244.6	326.4	297.2	29.16	11.192		
5,700.0	5,676.3	5,702.7	5,676.3	14.7	15.6	97.63	-450.0	-244.6	327.6	298.0	29.67	11.043		
5,800.0	5,775.9	5,802.2	5,775.9	15.0	15.7	99.29	-450.0	-244.6	329.1	298.9	30.12	10.923		
5,900.0	5,875.7	5,902.0	5,875.7	15.2	15.8	100.35	-450.0	-244.6	330.1	299.6	30.50	10.823		
6,000.0	5,975.6	6,002.0	5,975.6	15.4	16.0	100.80	-450.0	-244.6	330.6	299.7	30.83	10.721		
6,100.0	6,075.6	6,102.0	6,075.6	15.5	16.1	-90.00	-450.0	-244.6	330.6	299.4	31.16	10.610		
6,200.0	6,175.6	6,202.0	6,175.6	15.7	16.3	-90.00	-450.0	-244.6	330.6	299.1	31.47	10.505		
6,254.1	6,229.8	6,256.1	6,229.8	15.8	16.4	-90.00	-450.0	-244.6	330.6	298.9	31.64	10.449		
6,300.0	6,275.6	6,301.9	6,275.5	15.9	16.4	-89.74	-448.5	-244.6	330.6	298.8	31.78	10.404		
6,400.0	6,375.6	6,400.0	6,372.7	16.0	16.5	-87.59	-436.1	-244.6	330.9	298.9	32.04	10.328		
6,500.0	6,475.4	6,495.4	6,465.1	16.1	16.5	-84.37	-412.2	-244.6	332.2	300.1	32.17	10.327		
6,600.0	6,573.4	6,588.6	6,551.6	16.2	16.4	-81.31	-377.9	-244.6	334.6	302.4	32.12	10.414		
6,700.0	6,668.1	6,679.9	6,631.8	16.1	16.3	-78.44	-334.3	-244.6	337.6	305.7	31.92	10.575		
6,800.0	6,757.8	6,769.6	6,705.0	16.0	16.2	-75.82	-282.5	-244.6	341.2	309.6	31.62	10.792		
6,900.0	6,841.0	6,858.0	6,770.6	15.9	16.1	-73.47	-223.4	-244.6	345.1	313.9	31.26	11.039		
7,000.0	6,916.3	6,945.1	6,828.2	15.9	16.0	-71.41	-158.2	-244.6	349.1	318.1	30.93	11.284		
7,100.0	6,982.3	7,031.2	6,877.5	15.9	16.0	-69.66	-87.6	-244.6	352.8	322.1	30.72	11.483		
7,200.0	7,038.0	7,116.4	6,918.2	16.0	16.1	-68.22	-12.7	-244.6	356.2	325.5	30.72	11.595		
7,300.0	7,082.4	7,200.0	6,949.7	16.3	16.4	-67.11	64.6	-244.6	359.0	328.0	31.00	11.581		
7,400.0	7,114.7	7,285.2	6,973.0	16.8	16.8	-66.29	146.5	-244.6	361.1	329.5	31.64	11.412		
7,500.0	7,134.4	7,369.0	6,986.8	17.4	17.4	-65.81	229.1	-244.6	362.4	329.8	32.67	11.095		
7,600.0	7,145.2	7,452.5	6,991.5	18.2	18.1	-65.18	312.5	-244.6	364.6	330.6	33.96	10.736		
7,700.0	7,150.9	7,552.3	6,991.8	19.2	19.1	-64.30	412.3	-244.6	366.9	331.3	35.61	10.302		
7,800.0	7,151.7	7,652.3	6,992.1	20.3	20.2	-64.22	512.3	-244.6	367.1	329.5	37.63	9.756		
7,900.0	7,152.5	7,752.3	6,992.3	21.6	21.5	-64.15	612.3	-244.6	367.4	327.5	39.86	9.217		
8,000.0	7,153.3	7,852.3	6,992.6	22.9	22.8	-64.07	712.3	-244.6	367.6	325.4	42.26	8.699		
8,100.0	7,154.1	7,952.3	6,992.8	24.3	24.2	-64.00	812.3	-244.6	367.9	323.1	44.80	8.211		
8,200.0	7,154.9	8,052.3	6,993.1	25.8	25.7	-63.92	912.3	-244.6	368.1	320.6	47.47	7.755		
8,300.0	7,155.7	8,152.3	6,993.4	27.3	27.2	-63.85	1,012.3	-244.6	368.3	318.1	50.23	7.334		
8,400.0	7,156.5	8,252.3	6,993.6	28.8	28.8	-63.77	1,112.3	-244.6	368.6	315.5	53.07	6.945		
8,500.0	7,157.3	8,352.3	6,993.9	30.5	30.4	-63.70	1,212.3	-244.6	368.8	312.8	55.99	6.588		
8,600.0	7,158.1	8,452.3	6,994.2	32.1	32.1	-63.63	1,312.3	-244.6	369.1	310.1	58.96	6.260		
8,700.0	7,158.9	8,552.3	6,994.4	33.8	33.7	-63.55	1,412.3	-244.6	369.3	307.3	61.99	5.958		
8,800.0	7,159.7	8,652.3	6,994.7	35.5	35.4	-63.48	1,512.3	-244.6	369.6	304.5	65.05	5.681		
8,900.0	7,160.5	8,752.3	6,994.9	37.2	37.2	-63.40	1,612.3	-244.6	369.8	301.7	68.15	5.426		
9,000.0	7,161.3	8,852.3	6,995.2	39.0	38.9	-63.33	1,712.3	-244.6	370.1	298.8	71.29	5.191		
9,100.0	7,162.1	8,952.3	6,995.5	40.7	40.7	-63.25	1,812.3	-244.6	370.3	295.9	74.45	4.974		
9,200.0	7,162.9	9,052.3	6,995.7	42.5	42.4	-63.18	1,912.2	-244.6	370.6	292.9	77.63	4.773		
9,300.0	7,163.7	9,152.3	6,996.0	44.3	44.2	-63.11	2,012.2	-244.6	370.8	290.0	80.83	4.587		
9,400.0	7,164.5	9,252.3	6,996.2	46.1	46.0	-63.03	2,112.2	-244.6	371.1	287.0	84.05	4.415		
9,500.0	7,165.3	9,352.3	6,996.5	47.9	47.8	-62.96	2,212.2	-244.6	371.3	284.0	87.28	4.254		
9,600.0	7,166.1	9,452.3	6,996.8	49.7	49.6	-62.89	2,312.2	-244.6	371.6	281.0	90.52	4.104		
9,700.0	7,166.9	9,552.3	6,997.0	51.5	51.5	-62.81	2,412.2	-244.6	371.8	278.0	93.78	3.965		
9,800.0	7,167.7	9,652.3	6,997.3	53.3	53.3	-62.74	2,512.2	-244.6	372.1	275.0	97.04	3.834		
9,900.0	7,168.5	9,752.3	6,997.6	55.2	55.1	-62.67	2,612.2	-244.6	372.3	272.0	100.32	3.711		

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

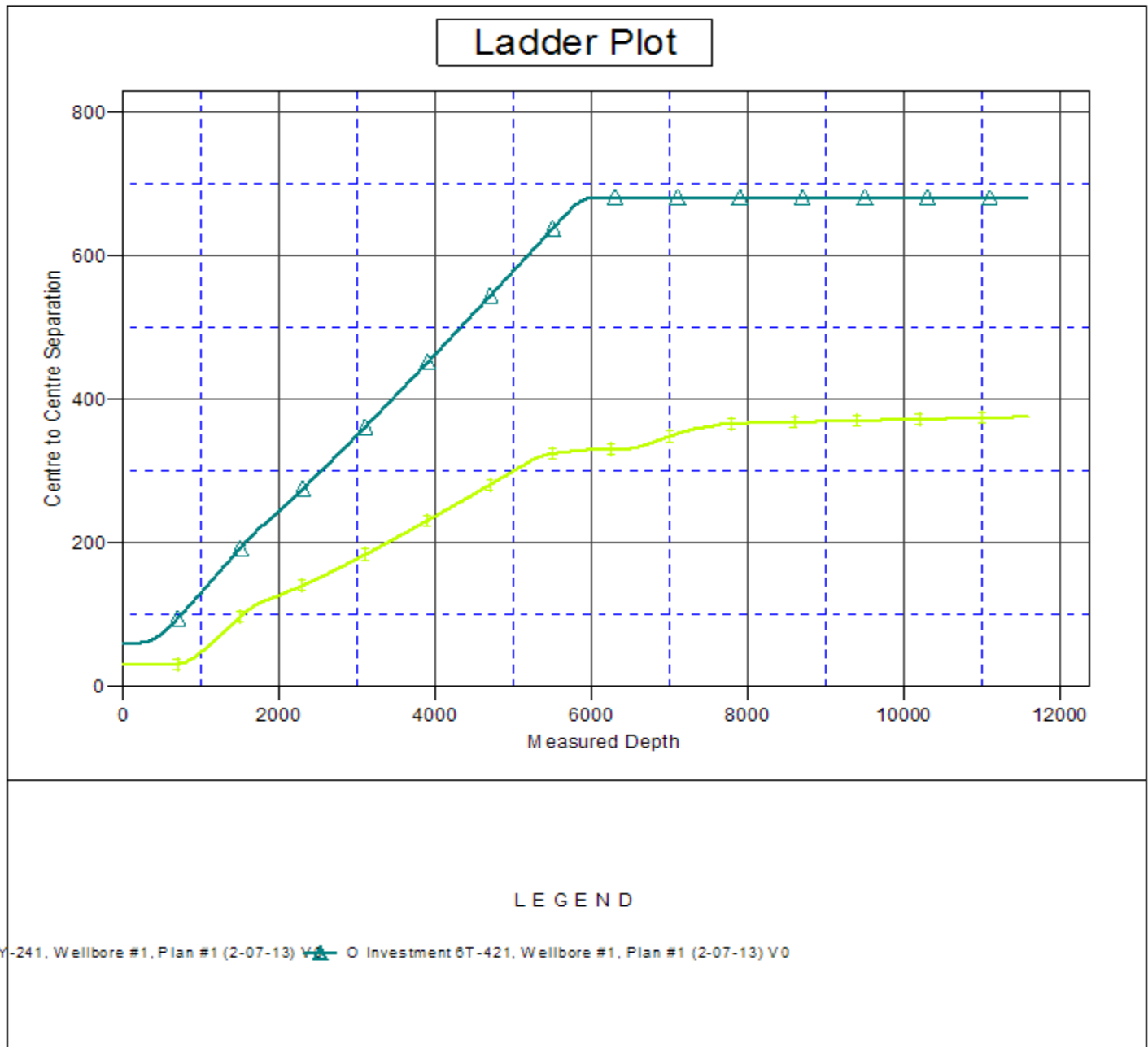
Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well O Investment Properties 6Y-401
Project:	SEC.6-T6N-R65W	TVD Reference:	WELL @ 4792.0ft (RKB - 15')
Reference Site:	O Investment Properties 6Y-HZ Pad Sec.6-T6N-R65W	MD Reference:	WELL @ 4792.0ft (RKB - 15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	O Investment Properties 6Y-401	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (2-07-13)	Offset TVD Reference:	Offset Datum

Offset Design		O Investment Properties 6Y-HZ Pad Sec.6-T6N-R65W - O Investment Properties 6Y-241 - Wellbore #1										Offset Site Error:		0.0 ft	
Survey Program: 0-MWD												Offset Well Error:		0.0 ft	
Reference		Offset		Semi Major Axis			Distance							Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
10,000.0	7,169.3	9,852.3	6,997.8	57.0	57.0	-62.59	2,712.2	-244.6	372.6	269.0	103.60	3.596			
10,100.0	7,170.1	9,952.3	6,998.1	58.9	58.8	-62.52	2,812.2	-244.6	372.8	265.9	106.88	3.488			
10,200.0	7,170.9	10,052.3	6,998.3	60.7	60.7	-62.45	2,912.2	-244.6	373.1	262.9	110.17	3.386			
10,300.0	7,171.7	10,152.3	6,998.6	62.6	62.5	-62.38	3,012.2	-244.6	373.3	259.9	113.47	3.290			
10,400.0	7,172.5	10,252.3	6,998.9	64.4	64.4	-62.30	3,112.2	-244.6	373.6	256.8	116.76	3.199			
10,500.0	7,173.3	10,352.3	6,999.1	66.3	66.3	-62.23	3,212.2	-244.6	373.8	253.8	120.06	3.114			
10,600.0	7,174.1	10,452.3	6,999.4	68.2	68.1	-62.16	3,312.2	-244.6	374.1	250.7	123.37	3.032			
10,700.0	7,174.9	10,552.3	6,999.6	70.0	70.0	-62.09	3,412.2	-244.6	374.3	247.7	126.67	2.955			
10,800.0	7,175.7	10,652.3	6,999.9	71.9	71.9	-62.01	3,512.2	-244.6	374.6	244.6	129.98	2.882			
10,900.0	7,176.5	10,752.3	7,000.2	73.8	73.7	-61.94	3,612.2	-244.6	374.9	241.6	133.28	2.813			
11,000.0	7,177.3	10,852.2	7,000.4	75.7	75.6	-61.87	3,712.2	-244.6	375.1	238.5	136.59	2.746			
11,100.0	7,178.1	10,952.2	7,000.7	77.5	77.5	-61.80	3,812.2	-244.7	375.4	235.5	139.90	2.683			
11,200.0	7,178.9	11,052.2	7,001.0	79.4	79.4	-61.72	3,912.2	-244.7	375.6	232.4	143.21	2.623			
11,300.0	7,179.7	11,152.2	7,001.2	81.3	81.3	-61.65	4,012.2	-244.7	375.9	229.4	146.51	2.566			
11,400.0	7,180.5	11,252.2	7,001.5	83.2	83.2	-61.58	4,112.2	-244.7	376.2	226.3	149.82	2.511			
11,500.0	7,181.3	11,352.2	7,001.7	85.1	85.0	-61.51	4,212.2	-244.7	376.4	223.3	153.12	2.458			
11,587.2	7,182.0	11,439.5	7,002.0	86.7	86.7	-61.45	4,299.4	-244.7	376.7	220.6	156.01	2.414 SF			

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well O Investment Properties 6Y-401
Project:	SEC.6-T6N-R65W	TVD Reference:	WELL @ 4792.0ft (RKB - 15')
Reference Site:	O Investment Properties 6Y-HZ Pad Sec.6-T6N-R65W	MD Reference:	WELL @ 4792.0ft (RKB - 15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	O Investment Properties 6Y-401	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (2-07-13)	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 4792.0ft (RKB - 15')
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000 °

Coordinates are relative to: O Investment Properties 6Y-401
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.52°



Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well O Investment Properties 6Y-401
Project:	SEC.6-T6N-R65W	TVD Reference:	WELL @ 4792.0ft (RKB - 15')
Reference Site:	O Investment Properties 6Y-HZ Pad Sec.6-T6N-R65W	MD Reference:	WELL @ 4792.0ft (RKB - 15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	O Investment Properties 6Y-401	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
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Reference Depths are relative to WELL @ 4792.0ft (RKB - 15')
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Central Meridian is -105.500000 °

Coordinates are relative to: O Investment Properties 6Y-401
Coordinate System is US State Plane 1983, Colorado Northern Zone
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