

PETROLEUM DEVELOPMENT CORP Weld County CO

Well Name: O Investment Properties 6T-421

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

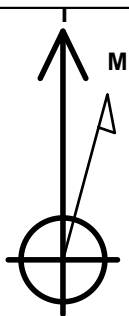
Ground Elevation: 4777.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1430039.27	3223018.49	40.511090	-104.697920	

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

WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape Point
BHL 500'FNL, 831'FEL	7182.0	4320.8	-533.8	Point



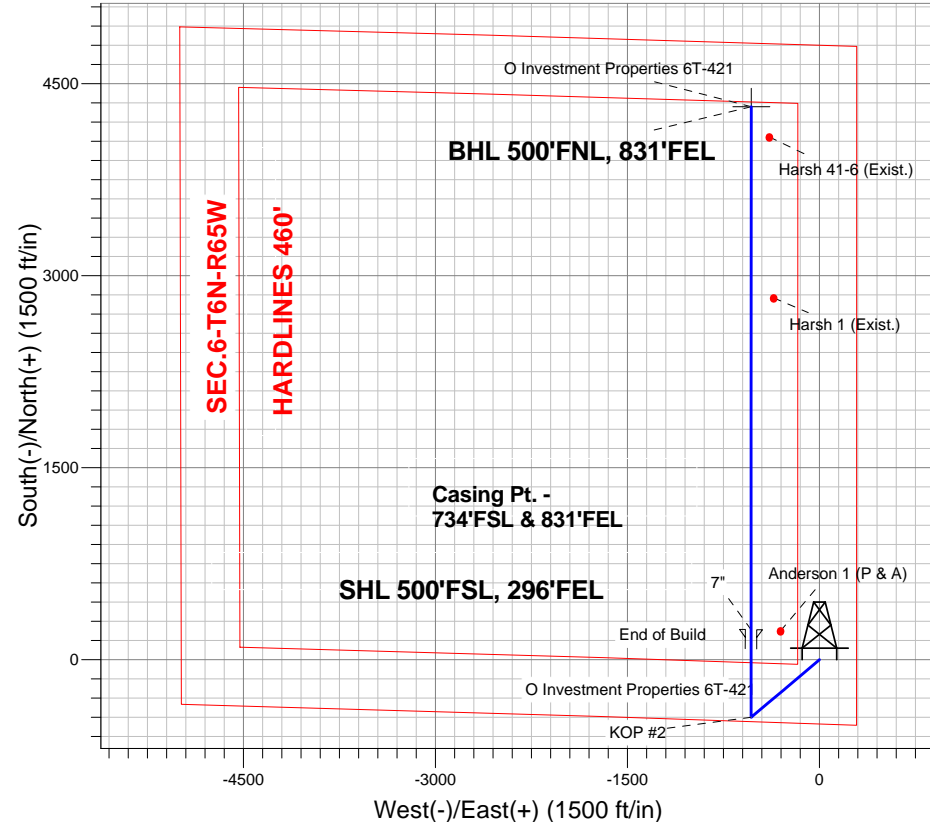
Azimuths to True North
Magnetic North: 8.62°

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

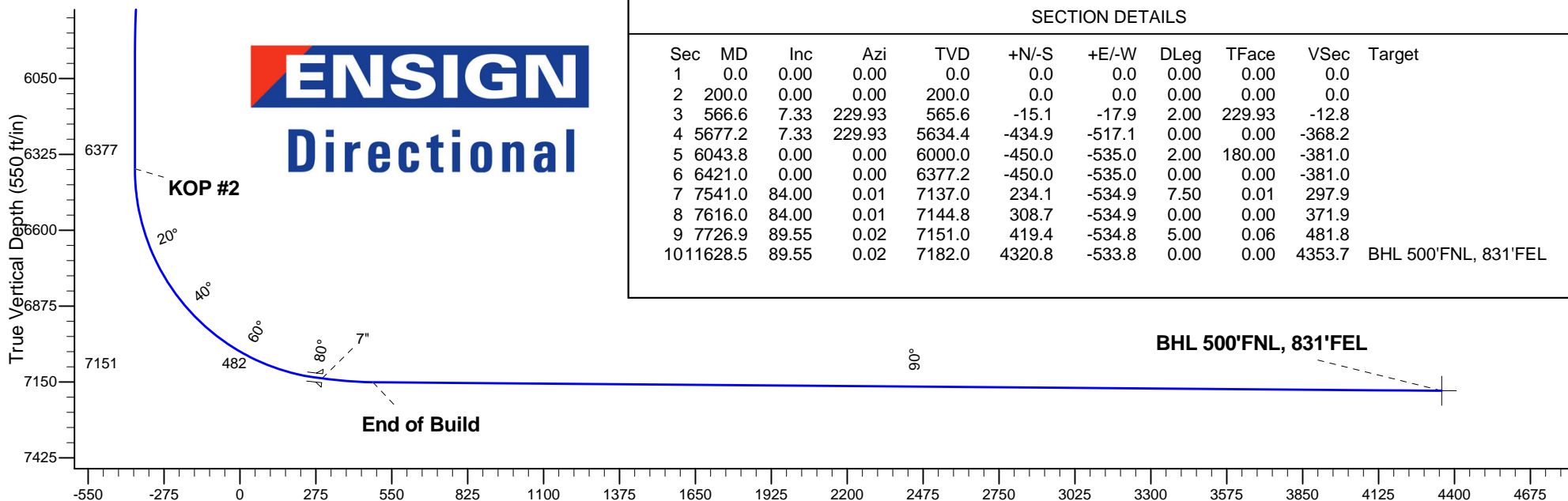
ANNOTATIONS

TVD	MD	Annotation
200.0	200.0	KOP #1
6377.2	6421.0	KOP #2
7151.0	7726.9	End of Build

O Investment Properties 6Y-HZ Pad Sec.6-T6N-R65W
O Investment Properties 6T-421
Plan #1 (2-07-13)



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	200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.0	
3	566.6	7.33	229.93	565.6	-15.1	-17.9	2.00	229.93	-12.8	
4	5677.2	7.33	229.93	5634.4	-434.9	-517.1	0.00	0.00	-368.2	
5	6043.8	0.00	0.00	6000.0	-450.0	-535.0	2.00	180.00	-381.0	
6	6421.0	0.00	0.00	6377.2	-450.0	-535.0	0.00	0.00	-381.0	
7	7541.0	84.00	0.01	7137.0	234.1	-534.9	7.50	0.01	297.9	
8	7616.0	84.00	0.01	7144.8	308.7	-534.9	0.00	0.00	371.9	
9	7726.9	89.55	0.02	7151.0	419.4	-534.8	5.00	0.06	481.8	
10	11628.5	89.55	0.02	7182.0	4320.8	-533.8	0.00	0.00	4353.7	BHL 500'FNL, 831'FEL

Vertical Section at 352.96° (550 ft/in)



Directional

PETROLEUM DEVELOPMENT CORP Weld County CO

SEC.6-T6N-R65W

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

O Investment Properties 6T-421

Wellbore #1

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

Standard Planning Report

22 February, 2013

Database:	Landmark	Local Co-ordinate Reference:	Well O Investment Properties 6T-421
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 6T-421	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 6T-421					
Well Position	+N/-S	0.0 ft	Northing:	1,430,039.27 ft	Latitude:	40.511090
	+E/-W	0.0 ft	Easting:	3,223,018.49 ft	Longitude:	-104.697920
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	352.96

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	
200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.00	0.00	
566.6	7.33	229.93	565.6	-15.1	-17.9	2.00	2.00	0.00	229.93	
5,677.2	7.33	229.93	5,634.4	-434.9	-517.1	0.00	0.00	0.00	0.00	
6,043.8	0.00	0.00	6,000.0	-450.0	-535.0	2.00	-2.00	0.00	180.00	
6,421.0	0.00	0.00	6,377.2	-450.0	-535.0	0.00	0.00	0.00	0.00	
7,541.0	84.00	0.01	7,137.0	234.1	-534.9	7.50	7.50	0.00	0.01	
7,616.0	84.00	0.01	7,144.8	308.7	-534.9	0.00	0.00	0.00	0.00	
7,726.9	89.55	0.02	7,151.0	419.4	-534.8	5.00	5.00	0.00	0.06	
11,628.5	89.55	0.02	7,182.0	4,320.8	-533.8	0.00	0.00	0.00	0.00	BHL 500'FNL, 831'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 6T-421	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
KOP #1									
240.0	0.80	229.93	240.0	-0.2	-0.2	-0.2	2.00	2.00	0.00
280.0	1.60	229.93	280.0	-0.7	-0.9	-0.6	2.00	2.00	0.00
320.0	2.40	229.93	320.0	-1.6	-1.9	-1.4	2.00	2.00	0.00
360.0	3.20	229.93	359.9	-2.9	-3.4	-2.4	2.00	2.00	0.00
400.0	4.00	229.93	399.8	-4.5	-5.3	-3.8	2.00	2.00	0.00
440.0	4.80	229.93	439.7	-6.5	-7.7	-5.5	2.00	2.00	0.00
480.0	5.60	229.93	479.6	-8.8	-10.5	-7.5	2.00	2.00	0.00
520.0	6.40	229.93	519.3	-11.5	-13.7	-9.7	2.00	2.00	0.00
560.0	7.20	229.93	559.1	-14.5	-17.3	-12.3	2.00	2.00	0.00
566.6	7.33	229.93	565.6	-15.1	-17.9	-12.8	2.00	2.00	0.00
600.0	7.33	229.93	598.7	-17.8	-21.2	-15.1	0.00	0.00	0.00
640.0	7.33	229.93	638.4	-21.1	-25.1	-17.9	0.00	0.00	0.00
680.0	7.33	229.93	678.1	-24.4	-29.0	-20.7	0.00	0.00	0.00
720.0	7.33	229.93	717.7	-27.7	-32.9	-23.4	0.00	0.00	0.00
760.0	7.33	229.93	757.4	-31.0	-36.8	-26.2	0.00	0.00	0.00
800.0	7.33	229.93	797.1	-34.3	-40.7	-29.0	0.00	0.00	0.00
840.0	7.33	229.93	836.8	-37.5	-44.6	-31.8	0.00	0.00	0.00
880.0	7.33	229.93	876.4	-40.8	-48.5	-34.6	0.00	0.00	0.00
920.0	7.33	229.93	916.1	-44.1	-52.4	-37.3	0.00	0.00	0.00
960.0	7.33	229.93	955.8	-47.4	-56.3	-40.1	0.00	0.00	0.00
1,000.0	7.33	229.93	995.5	-50.7	-60.3	-42.9	0.00	0.00	0.00
1,040.0	7.33	229.93	1,035.1	-54.0	-64.2	-45.7	0.00	0.00	0.00
1,080.0	7.33	229.93	1,074.8	-57.3	-68.1	-48.5	0.00	0.00	0.00
1,120.0	7.33	229.93	1,114.5	-60.5	-72.0	-51.3	0.00	0.00	0.00
1,160.0	7.33	229.93	1,154.1	-63.8	-75.9	-54.0	0.00	0.00	0.00
1,200.0	7.33	229.93	1,193.8	-67.1	-79.8	-56.8	0.00	0.00	0.00
1,240.0	7.33	229.93	1,233.5	-70.4	-83.7	-59.6	0.00	0.00	0.00
1,280.0	7.33	229.93	1,273.2	-73.7	-87.6	-62.4	0.00	0.00	0.00
1,320.0	7.33	229.93	1,312.8	-77.0	-91.5	-65.2	0.00	0.00	0.00
1,360.0	7.33	229.93	1,352.5	-80.3	-95.4	-68.0	0.00	0.00	0.00
1,400.0	7.33	229.93	1,392.2	-83.5	-99.3	-70.7	0.00	0.00	0.00
1,440.0	7.33	229.93	1,431.9	-86.8	-103.2	-73.5	0.00	0.00	0.00
1,480.0	7.33	229.93	1,471.5	-90.1	-107.1	-76.3	0.00	0.00	0.00
1,520.0	7.33	229.93	1,511.2	-93.4	-111.0	-79.1	0.00	0.00	0.00
1,560.0	7.33	229.93	1,550.9	-96.7	-115.0	-81.9	0.00	0.00	0.00
1,600.0	7.33	229.93	1,590.5	-100.0	-118.9	-84.6	0.00	0.00	0.00
1,640.0	7.33	229.93	1,630.2	-103.3	-122.8	-87.4	0.00	0.00	0.00
1,680.0	7.33	229.93	1,669.9	-106.5	-126.7	-90.2	0.00	0.00	0.00
1,720.0	7.33	229.93	1,709.6	-109.8	-130.6	-93.0	0.00	0.00	0.00
1,760.0	7.33	229.93	1,749.2	-113.1	-134.5	-95.8	0.00	0.00	0.00
1,800.0	7.33	229.93	1,788.9	-116.4	-138.4	-98.6	0.00	0.00	0.00
1,840.0	7.33	229.93	1,828.6	-119.7	-142.3	-101.3	0.00	0.00	0.00
1,880.0	7.33	229.93	1,868.3	-123.0	-146.2	-104.1	0.00	0.00	0.00
1,920.0	7.33	229.93	1,907.9	-126.3	-150.1	-106.9	0.00	0.00	0.00
1,960.0	7.33	229.93	1,947.6	-129.5	-154.0	-109.7	0.00	0.00	0.00

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Site:	O Investment Properties 6Y-HZ Pad Sec.6-T6N-R65W	North Reference:	True
Well:	O Investment Properties 6T-421	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)
2,000.0	7.33	229.93	1,987.3	-132.8	-157.9	-112.5	0.00	0.00	0.00
2,040.0	7.33	229.93	2,027.0	-136.1	-161.8	-115.3	0.00	0.00	0.00
2,080.0	7.33	229.93	2,066.6	-139.4	-165.7	-118.0	0.00	0.00	0.00
2,120.0	7.33	229.93	2,106.3	-142.7	-169.6	-120.8	0.00	0.00	0.00
2,160.0	7.33	229.93	2,146.0	-146.0	-173.6	-123.6	0.00	0.00	0.00
2,200.0	7.33	229.93	2,185.6	-149.3	-177.5	-126.4	0.00	0.00	0.00
2,240.0	7.33	229.93	2,225.3	-152.6	-181.4	-129.2	0.00	0.00	0.00
2,280.0	7.33	229.93	2,265.0	-155.8	-185.3	-131.9	0.00	0.00	0.00
2,320.0	7.33	229.93	2,304.7	-159.1	-189.2	-134.7	0.00	0.00	0.00
2,360.0	7.33	229.93	2,344.3	-162.4	-193.1	-137.5	0.00	0.00	0.00
2,400.0	7.33	229.93	2,384.0	-165.7	-197.0	-140.3	0.00	0.00	0.00
2,440.0	7.33	229.93	2,423.7	-169.0	-200.9	-143.1	0.00	0.00	0.00
2,480.0	7.33	229.93	2,463.4	-172.3	-204.8	-145.9	0.00	0.00	0.00
2,520.0	7.33	229.93	2,503.0	-175.6	-208.7	-148.6	0.00	0.00	0.00
2,560.0	7.33	229.93	2,542.7	-178.8	-212.6	-151.4	0.00	0.00	0.00
2,600.0	7.33	229.93	2,582.4	-182.1	-216.5	-154.2	0.00	0.00	0.00
2,640.0	7.33	229.93	2,622.0	-185.4	-220.4	-157.0	0.00	0.00	0.00
2,680.0	7.33	229.93	2,661.7	-188.7	-224.3	-159.8	0.00	0.00	0.00
2,720.0	7.33	229.93	2,701.4	-192.0	-228.2	-162.6	0.00	0.00	0.00
2,760.0	7.33	229.93	2,741.1	-195.3	-232.2	-165.3	0.00	0.00	0.00
2,800.0	7.33	229.93	2,780.7	-198.6	-236.1	-168.1	0.00	0.00	0.00
2,840.0	7.33	229.93	2,820.4	-201.8	-240.0	-170.9	0.00	0.00	0.00
2,880.0	7.33	229.93	2,860.1	-205.1	-243.9	-173.7	0.00	0.00	0.00
2,920.0	7.33	229.93	2,899.8	-208.4	-247.8	-176.5	0.00	0.00	0.00
2,960.0	7.33	229.93	2,939.4	-211.7	-251.7	-179.2	0.00	0.00	0.00
3,000.0	7.33	229.93	2,979.1	-215.0	-255.6	-182.0	0.00	0.00	0.00
3,040.0	7.33	229.93	3,018.8	-218.3	-259.5	-184.8	0.00	0.00	0.00
3,080.0	7.33	229.93	3,058.4	-221.6	-263.4	-187.6	0.00	0.00	0.00
3,120.0	7.33	229.93	3,098.1	-224.8	-267.3	-190.4	0.00	0.00	0.00
3,160.0	7.33	229.93	3,137.8	-228.1	-271.2	-193.2	0.00	0.00	0.00
3,200.0	7.33	229.93	3,177.5	-231.4	-275.1	-195.9	0.00	0.00	0.00
3,240.0	7.33	229.93	3,217.1	-234.7	-279.0	-198.7	0.00	0.00	0.00
3,280.0	7.33	229.93	3,256.8	-238.0	-282.9	-201.5	0.00	0.00	0.00
3,320.0	7.33	229.93	3,296.5	-241.3	-286.8	-204.3	0.00	0.00	0.00
3,360.0	7.33	229.93	3,336.2	-244.6	-290.8	-207.1	0.00	0.00	0.00
3,400.0	7.33	229.93	3,375.8	-247.8	-294.7	-209.8	0.00	0.00	0.00
3,440.0	7.33	229.93	3,415.5	-251.1	-298.6	-212.6	0.00	0.00	0.00
3,480.0	7.33	229.93	3,455.2	-254.4	-302.5	-215.4	0.00	0.00	0.00
3,520.0	7.33	229.93	3,494.8	-257.7	-306.4	-218.2	0.00	0.00	0.00
3,560.0	7.33	229.93	3,534.5	-261.0	-310.3	-221.0	0.00	0.00	0.00
3,600.0	7.33	229.93	3,574.2	-264.3	-314.2	-223.8	0.00	0.00	0.00
3,640.0	7.33	229.93	3,613.9	-267.6	-318.1	-226.5	0.00	0.00	0.00
3,680.0	7.33	229.93	3,653.5	-270.8	-322.0	-229.3	0.00	0.00	0.00
3,720.0	7.33	229.93	3,693.2	-274.1	-325.9	-232.1	0.00	0.00	0.00
3,760.0	7.33	229.93	3,732.9	-277.4	-329.8	-234.9	0.00	0.00	0.00
3,800.0	7.33	229.93	3,772.6	-280.7	-333.7	-237.7	0.00	0.00	0.00
3,840.0	7.33	229.93	3,812.2	-284.0	-337.6	-240.5	0.00	0.00	0.00
3,880.0	7.33	229.93	3,851.9	-287.3	-341.5	-243.2	0.00	0.00	0.00
3,920.0	7.33	229.93	3,891.6	-290.6	-345.5	-246.0	0.00	0.00	0.00
3,960.0	7.33	229.93	3,931.3	-293.9	-349.4	-248.8	0.00	0.00	0.00
4,000.0	7.33	229.93	3,970.9	-297.1	-353.3	-251.6	0.00	0.00	0.00
4,040.0	7.33	229.93	4,010.6	-300.4	-357.2	-254.4	0.00	0.00	0.00

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Site:	O Investment Properties 6Y-HZ Pad Sec.6-T6N-R65W	North Reference:	True
Well:	O Investment Properties 6T-421	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)
4,080.0	7.33	229.93	4,050.3	-303.7	-361.1	-257.1	0.00	0.00	0.00
4,120.0	7.33	229.93	4,089.9	-307.0	-365.0	-259.9	0.00	0.00	0.00
4,160.0	7.33	229.93	4,129.6	-310.3	-368.9	-262.7	0.00	0.00	0.00
4,200.0	7.33	229.93	4,169.3	-313.6	-372.8	-265.5	0.00	0.00	0.00
4,240.0	7.33	229.93	4,209.0	-316.9	-376.7	-268.3	0.00	0.00	0.00
4,280.0	7.33	229.93	4,248.6	-320.1	-380.6	-271.1	0.00	0.00	0.00
4,320.0	7.33	229.93	4,288.3	-323.4	-384.5	-273.8	0.00	0.00	0.00
4,360.0	7.33	229.93	4,328.0	-326.7	-388.4	-276.6	0.00	0.00	0.00
4,400.0	7.33	229.93	4,367.7	-330.0	-392.3	-279.4	0.00	0.00	0.00
4,440.0	7.33	229.93	4,407.3	-333.3	-396.2	-282.2	0.00	0.00	0.00
4,480.0	7.33	229.93	4,447.0	-336.6	-400.1	-285.0	0.00	0.00	0.00
4,520.0	7.33	229.93	4,486.7	-339.9	-404.1	-287.8	0.00	0.00	0.00
4,560.0	7.33	229.93	4,526.3	-343.1	-408.0	-290.5	0.00	0.00	0.00
4,600.0	7.33	229.93	4,566.0	-346.4	-411.9	-293.3	0.00	0.00	0.00
4,640.0	7.33	229.93	4,605.7	-349.7	-415.8	-296.1	0.00	0.00	0.00
4,680.0	7.33	229.93	4,645.4	-353.0	-419.7	-298.9	0.00	0.00	0.00
4,720.0	7.33	229.93	4,685.0	-356.3	-423.6	-301.7	0.00	0.00	0.00
4,760.0	7.33	229.93	4,724.7	-359.6	-427.5	-304.4	0.00	0.00	0.00
4,800.0	7.33	229.93	4,764.4	-362.9	-431.4	-307.2	0.00	0.00	0.00
4,840.0	7.33	229.93	4,804.1	-366.1	-435.3	-310.0	0.00	0.00	0.00
4,880.0	7.33	229.93	4,843.7	-369.4	-439.2	-312.8	0.00	0.00	0.00
4,920.0	7.33	229.93	4,883.4	-372.7	-443.1	-315.6	0.00	0.00	0.00
4,960.0	7.33	229.93	4,923.1	-376.0	-447.0	-318.4	0.00	0.00	0.00
5,000.0	7.33	229.93	4,962.7	-379.3	-450.9	-321.1	0.00	0.00	0.00
5,040.0	7.33	229.93	5,002.4	-382.6	-454.8	-323.9	0.00	0.00	0.00
5,080.0	7.33	229.93	5,042.1	-385.9	-458.7	-326.7	0.00	0.00	0.00
5,120.0	7.33	229.93	5,081.8	-389.1	-462.7	-329.5	0.00	0.00	0.00
5,160.0	7.33	229.93	5,121.4	-392.4	-466.6	-332.3	0.00	0.00	0.00
5,200.0	7.33	229.93	5,161.1	-395.7	-470.5	-335.1	0.00	0.00	0.00
5,240.0	7.33	229.93	5,200.8	-399.0	-474.4	-337.8	0.00	0.00	0.00
5,280.0	7.33	229.93	5,240.5	-402.3	-478.3	-340.6	0.00	0.00	0.00
5,320.0	7.33	229.93	5,280.1	-405.6	-482.2	-343.4	0.00	0.00	0.00
5,360.0	7.33	229.93	5,319.8	-408.9	-486.1	-346.2	0.00	0.00	0.00
5,400.0	7.33	229.93	5,359.5	-412.2	-490.0	-349.0	0.00	0.00	0.00
5,440.0	7.33	229.93	5,399.1	-415.4	-493.9	-351.7	0.00	0.00	0.00
5,480.0	7.33	229.93	5,438.8	-418.7	-497.8	-354.5	0.00	0.00	0.00
5,520.0	7.33	229.93	5,478.5	-422.0	-501.7	-357.3	0.00	0.00	0.00
5,560.0	7.33	229.93	5,518.2	-425.3	-505.6	-360.1	0.00	0.00	0.00
5,600.0	7.33	229.93	5,557.8	-428.6	-509.5	-362.9	0.00	0.00	0.00
5,640.0	7.33	229.93	5,597.5	-431.9	-513.4	-365.7	0.00	0.00	0.00
5,677.2	7.33	229.93	5,634.4	-434.9	-517.1	-368.2	0.00	0.00	0.00
5,680.0	7.28	229.93	5,637.2	-435.2	-517.3	-368.4	2.00	-2.00	0.00
5,720.0	6.48	229.93	5,676.9	-438.2	-521.0	-371.0	2.00	-2.00	0.00
5,760.0	5.68	229.93	5,716.7	-441.0	-524.3	-373.4	2.00	-2.00	0.00
5,800.0	4.88	229.93	5,756.5	-443.3	-527.1	-375.4	2.00	-2.00	0.00
5,840.0	4.08	229.93	5,796.4	-445.3	-529.5	-377.1	2.00	-2.00	0.00
5,880.0	3.28	229.93	5,836.3	-447.0	-531.4	-378.5	2.00	-2.00	0.00
5,920.0	2.48	229.93	5,876.2	-448.3	-533.0	-379.6	2.00	-2.00	0.00
5,960.0	1.68	229.93	5,916.2	-449.2	-534.1	-380.3	2.00	-2.00	0.00
6,000.0	0.88	229.93	5,956.2	-449.8	-534.7	-380.8	2.00	-2.00	0.00
6,040.0	0.08	229.93	5,996.2	-450.0	-535.0	-381.0	2.00	-2.00	0.00
6,043.8	0.00	0.00	6,000.0	-450.0	-535.0	-381.0	2.00	-2.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well O Investment Properties 6T-421
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 6T-421	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)
6,080.0	0.00	0.00	6,036.2	-450.0	-535.0	-381.0	0.00	0.00	0.00
6,120.0	0.00	0.00	6,076.2	-450.0	-535.0	-381.0	0.00	0.00	0.00
6,160.0	0.00	0.00	6,116.2	-450.0	-535.0	-381.0	0.00	0.00	0.00
6,200.0	0.00	0.00	6,156.2	-450.0	-535.0	-381.0	0.00	0.00	0.00
6,240.0	0.00	0.00	6,196.2	-450.0	-535.0	-381.0	0.00	0.00	0.00
6,280.0	0.00	0.00	6,236.2	-450.0	-535.0	-381.0	0.00	0.00	0.00
6,320.0	0.00	0.00	6,276.2	-450.0	-535.0	-381.0	0.00	0.00	0.00
6,360.0	0.00	0.00	6,316.2	-450.0	-535.0	-381.0	0.00	0.00	0.00
6,400.0	0.00	0.00	6,356.2	-450.0	-535.0	-381.0	0.00	0.00	0.00
6,421.0	0.00	0.00	6,377.2	-450.0	-535.0	-381.0	0.00	0.00	0.00
KOP #2									
6,440.0	1.42	0.01	6,396.2	-449.8	-535.0	-380.8	7.50	7.50	0.00
6,480.0	4.42	0.01	6,436.1	-447.7	-535.0	-378.8	7.50	7.50	0.00
6,520.0	7.42	0.01	6,475.9	-443.6	-535.0	-374.7	7.50	7.50	0.00
6,560.0	10.42	0.01	6,515.4	-437.4	-535.0	-368.5	7.50	7.50	0.00
6,600.0	13.42	0.01	6,554.6	-429.1	-535.0	-360.3	7.50	7.50	0.00
6,640.0	16.42	0.01	6,593.2	-418.8	-535.0	-350.1	7.50	7.50	0.00
6,680.0	19.42	0.01	6,631.3	-406.5	-535.0	-337.9	7.50	7.50	0.00
6,720.0	22.42	0.01	6,668.6	-392.2	-535.0	-323.7	7.50	7.50	0.00
6,760.0	25.42	0.01	6,705.2	-376.0	-535.0	-307.6	7.50	7.50	0.00
6,800.0	28.42	0.01	6,740.9	-357.9	-535.0	-289.6	7.50	7.50	0.00
6,840.0	31.42	0.01	6,775.5	-337.9	-535.0	-269.8	7.50	7.50	0.00
6,880.0	34.42	0.01	6,809.1	-316.2	-535.0	-248.2	7.50	7.50	0.00
6,920.0	37.42	0.01	6,841.5	-292.7	-535.0	-224.9	7.50	7.50	0.00
6,960.0	40.42	0.01	6,872.6	-267.6	-535.0	-200.0	7.50	7.50	0.00
7,000.0	43.42	0.01	6,902.3	-240.9	-535.0	-173.5	7.50	7.50	0.00
7,040.0	46.42	0.01	6,930.7	-212.6	-535.0	-145.5	7.50	7.50	0.00
7,080.0	49.42	0.01	6,957.5	-183.0	-535.0	-116.0	7.50	7.50	0.00
7,120.0	52.42	0.01	6,982.7	-151.9	-534.9	-85.2	7.50	7.50	0.00
7,160.0	55.42	0.01	7,006.2	-119.6	-534.9	-53.1	7.50	7.50	0.00
7,200.0	58.42	0.01	7,028.1	-86.1	-534.9	-19.8	7.50	7.50	0.00
7,240.0	61.42	0.01	7,048.1	-51.5	-534.9	14.5	7.50	7.50	0.00
7,280.0	64.42	0.01	7,066.3	-15.8	-534.9	49.9	7.50	7.50	0.00
7,320.0	67.42	0.01	7,082.6	20.7	-534.9	86.1	7.50	7.50	0.00
7,360.0	70.42	0.01	7,097.0	58.0	-534.9	123.1	7.50	7.50	0.00
7,400.0	73.42	0.01	7,109.4	96.0	-534.9	160.9	7.50	7.50	0.00
7,440.0	76.42	0.01	7,119.8	134.6	-534.9	199.2	7.50	7.50	0.00
7,480.0	79.42	0.01	7,128.2	173.7	-534.9	238.0	7.50	7.50	0.00
7,520.0	82.42	0.01	7,134.5	213.2	-534.9	277.2	7.50	7.50	0.00
7,541.0	84.00	0.01	7,137.0	234.1	-534.9	297.9	7.50	7.50	0.00
7"									
7,560.0	84.00	0.01	7,139.0	253.0	-534.9	316.7	0.00	0.00	0.00
7,600.0	84.00	0.01	7,143.1	292.8	-534.9	356.1	0.00	0.00	0.00
7,616.0	84.00	0.01	7,144.8	308.7	-534.9	371.9	0.00	0.00	0.00
7,640.0	85.20	0.01	7,147.1	332.6	-534.9	395.6	5.00	5.00	0.00
7,680.0	87.20	0.01	7,149.7	372.5	-534.9	435.2	5.00	5.00	0.00
7,720.0	89.20	0.02	7,151.0	412.5	-534.8	474.9	5.00	5.00	0.00
7,726.9	89.54	0.02	7,151.0	419.4	-534.8	481.8	5.00	5.00	0.00
End of Build									
7,760.0	89.55	0.02	7,151.3	452.5	-534.8	514.6	0.00	0.00	0.00
7,800.0	89.55	0.02	7,151.6	492.5	-534.8	554.3	0.00	0.00	0.00
7,840.0	89.55	0.02	7,151.9	532.5	-534.8	594.0	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well O Investment Properties 6T-421
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 6T-421	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)
7,880.0	89.55	0.02	7,152.3	572.5	-534.8	633.7	0.00	0.00	0.00
7,920.0	89.55	0.02	7,152.6	612.5	-534.8	673.4	0.00	0.00	0.00
7,960.0	89.55	0.02	7,152.9	652.5	-534.8	713.1	0.00	0.00	0.00
8,000.0	89.55	0.02	7,153.2	692.5	-534.8	752.8	0.00	0.00	0.00
8,040.0	89.55	0.02	7,153.5	732.4	-534.8	792.5	0.00	0.00	0.00
8,080.0	89.55	0.02	7,153.9	772.4	-534.7	832.2	0.00	0.00	0.00
8,120.0	89.55	0.02	7,154.2	812.4	-534.7	871.9	0.00	0.00	0.00
8,160.0	89.55	0.02	7,154.5	852.4	-534.7	911.6	0.00	0.00	0.00
8,200.0	89.55	0.02	7,154.8	892.4	-534.7	951.3	0.00	0.00	0.00
8,240.0	89.55	0.02	7,155.1	932.4	-534.7	991.0	0.00	0.00	0.00
8,280.0	89.55	0.02	7,155.4	972.4	-534.7	1,030.7	0.00	0.00	0.00
8,320.0	89.55	0.02	7,155.8	1,012.4	-534.7	1,070.4	0.00	0.00	0.00
8,360.0	89.55	0.02	7,156.1	1,052.4	-534.7	1,110.1	0.00	0.00	0.00
8,400.0	89.55	0.02	7,156.4	1,092.4	-534.7	1,149.7	0.00	0.00	0.00
8,440.0	89.55	0.02	7,156.7	1,132.4	-534.7	1,189.4	0.00	0.00	0.00
8,480.0	89.55	0.02	7,157.0	1,172.4	-534.6	1,229.1	0.00	0.00	0.00
8,520.0	89.55	0.02	7,157.3	1,212.4	-534.6	1,268.8	0.00	0.00	0.00
8,560.0	89.55	0.02	7,157.7	1,252.4	-534.6	1,308.5	0.00	0.00	0.00
8,600.0	89.55	0.02	7,158.0	1,292.4	-534.6	1,348.2	0.00	0.00	0.00
8,640.0	89.55	0.02	7,158.3	1,332.4	-534.6	1,387.9	0.00	0.00	0.00
8,680.0	89.55	0.02	7,158.6	1,372.4	-534.6	1,427.6	0.00	0.00	0.00
8,720.0	89.55	0.02	7,158.9	1,412.4	-534.6	1,467.3	0.00	0.00	0.00
8,760.0	89.55	0.02	7,159.2	1,452.4	-534.6	1,507.0	0.00	0.00	0.00
8,800.0	89.55	0.02	7,159.6	1,492.4	-534.6	1,546.7	0.00	0.00	0.00
8,840.0	89.55	0.02	7,159.9	1,532.4	-534.5	1,586.4	0.00	0.00	0.00
8,880.0	89.55	0.02	7,160.2	1,572.4	-534.5	1,626.1	0.00	0.00	0.00
8,920.0	89.55	0.02	7,160.5	1,612.4	-534.5	1,665.8	0.00	0.00	0.00
8,960.0	89.55	0.02	7,160.8	1,652.4	-534.5	1,705.5	0.00	0.00	0.00
9,000.0	89.55	0.02	7,161.1	1,692.4	-534.5	1,745.2	0.00	0.00	0.00
9,040.0	89.55	0.02	7,161.5	1,732.4	-534.5	1,784.9	0.00	0.00	0.00
9,080.0	89.55	0.02	7,161.8	1,772.4	-534.5	1,824.6	0.00	0.00	0.00
9,120.0	89.55	0.02	7,162.1	1,812.4	-534.5	1,864.3	0.00	0.00	0.00
9,160.0	89.55	0.02	7,162.4	1,852.4	-534.5	1,904.0	0.00	0.00	0.00
9,200.0	89.55	0.02	7,162.7	1,892.4	-534.4	1,943.7	0.00	0.00	0.00
9,240.0	89.55	0.02	7,163.1	1,932.4	-534.4	1,983.4	0.00	0.00	0.00
9,280.0	89.55	0.02	7,163.4	1,972.4	-534.4	2,023.1	0.00	0.00	0.00
9,320.0	89.55	0.02	7,163.7	2,012.4	-534.4	2,062.7	0.00	0.00	0.00
9,360.0	89.55	0.02	7,164.0	2,052.4	-534.4	2,102.4	0.00	0.00	0.00
9,400.0	89.55	0.02	7,164.3	2,092.4	-534.4	2,142.1	0.00	0.00	0.00
9,440.0	89.55	0.02	7,164.6	2,132.4	-534.4	2,181.8	0.00	0.00	0.00
9,480.0	89.55	0.02	7,165.0	2,172.4	-534.4	2,221.5	0.00	0.00	0.00
9,520.0	89.55	0.02	7,165.3	2,212.4	-534.4	2,261.2	0.00	0.00	0.00
9,560.0	89.55	0.02	7,165.6	2,252.4	-534.3	2,300.9	0.00	0.00	0.00
9,600.0	89.55	0.02	7,165.9	2,292.4	-534.3	2,340.6	0.00	0.00	0.00
9,640.0	89.55	0.02	7,166.2	2,332.4	-534.3	2,380.3	0.00	0.00	0.00
9,680.0	89.55	0.02	7,166.5	2,372.4	-534.3	2,420.0	0.00	0.00	0.00
9,720.0	89.55	0.02	7,166.9	2,412.4	-534.3	2,459.7	0.00	0.00	0.00
9,760.0	89.55	0.02	7,167.2	2,452.4	-534.3	2,499.4	0.00	0.00	0.00
9,800.0	89.55	0.02	7,167.5	2,492.4	-534.3	2,539.1	0.00	0.00	0.00
9,840.0	89.55	0.02	7,167.8	2,532.4	-534.3	2,578.8	0.00	0.00	0.00
9,880.0	89.55	0.02	7,168.1	2,572.4	-534.3	2,618.5	0.00	0.00	0.00
9,920.0	89.55	0.02	7,168.4	2,612.4	-534.3	2,658.2	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well O Investment Properties 6T-421
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 6T-421	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)
9,960.0	89.55	0.02	7,168.8	2,652.4	-534.2	2,697.9	0.00	0.00	0.00
10,000.0	89.55	0.02	7,169.1	2,692.4	-534.2	2,737.6	0.00	0.00	0.00
10,040.0	89.55	0.02	7,169.4	2,732.4	-534.2	2,777.3	0.00	0.00	0.00
10,080.0	89.55	0.02	7,169.7	2,772.4	-534.2	2,817.0	0.00	0.00	0.00
10,120.0	89.55	0.02	7,170.0	2,812.4	-534.2	2,856.7	0.00	0.00	0.00
10,160.0	89.55	0.02	7,170.4	2,852.4	-534.2	2,896.4	0.00	0.00	0.00
10,200.0	89.55	0.02	7,170.7	2,892.4	-534.2	2,936.1	0.00	0.00	0.00
10,240.0	89.55	0.02	7,171.0	2,932.4	-534.2	2,975.7	0.00	0.00	0.00
10,280.0	89.55	0.02	7,171.3	2,972.4	-534.2	3,015.4	0.00	0.00	0.00
10,320.0	89.55	0.02	7,171.6	3,012.4	-534.1	3,055.1	0.00	0.00	0.00
10,360.0	89.55	0.02	7,171.9	3,052.4	-534.1	3,094.8	0.00	0.00	0.00
10,400.0	89.55	0.02	7,172.3	3,092.4	-534.1	3,134.5	0.00	0.00	0.00
10,440.0	89.55	0.02	7,172.6	3,132.4	-534.1	3,174.2	0.00	0.00	0.00
10,480.0	89.55	0.02	7,172.9	3,172.4	-534.1	3,213.9	0.00	0.00	0.00
10,520.0	89.55	0.02	7,173.2	3,212.4	-534.1	3,253.6	0.00	0.00	0.00
10,560.0	89.55	0.02	7,173.5	3,252.4	-534.1	3,293.3	0.00	0.00	0.00
10,600.0	89.55	0.02	7,173.8	3,292.4	-534.1	3,333.0	0.00	0.00	0.00
10,640.0	89.55	0.02	7,174.2	3,332.4	-534.1	3,372.7	0.00	0.00	0.00
10,680.0	89.55	0.02	7,174.5	3,372.4	-534.0	3,412.4	0.00	0.00	0.00
10,720.0	89.55	0.02	7,174.8	3,412.4	-534.0	3,452.1	0.00	0.00	0.00
10,760.0	89.55	0.02	7,175.1	3,452.4	-534.0	3,491.8	0.00	0.00	0.00
10,800.0	89.55	0.02	7,175.4	3,492.4	-534.0	3,531.5	0.00	0.00	0.00
10,840.0	89.55	0.02	7,175.7	3,532.4	-534.0	3,571.2	0.00	0.00	0.00
10,880.0	89.55	0.02	7,176.1	3,572.4	-534.0	3,610.9	0.00	0.00	0.00
10,920.0	89.55	0.02	7,176.4	3,612.4	-534.0	3,650.6	0.00	0.00	0.00
10,960.0	89.55	0.02	7,176.7	3,652.4	-534.0	3,690.3	0.00	0.00	0.00
11,000.0	89.55	0.02	7,177.0	3,692.4	-534.0	3,730.0	0.00	0.00	0.00
11,040.0	89.55	0.02	7,177.3	3,732.4	-533.9	3,769.7	0.00	0.00	0.00
11,080.0	89.55	0.02	7,177.6	3,772.4	-533.9	3,809.4	0.00	0.00	0.00
11,120.0	89.55	0.02	7,178.0	3,812.4	-533.9	3,849.1	0.00	0.00	0.00
11,160.0	89.55	0.02	7,178.3	3,852.4	-533.9	3,888.7	0.00	0.00	0.00
11,200.0	89.55	0.02	7,178.6	3,892.3	-533.9	3,928.4	0.00	0.00	0.00
11,240.0	89.55	0.02	7,178.9	3,932.3	-533.9	3,968.1	0.00	0.00	0.00
11,280.0	89.55	0.02	7,179.2	3,972.3	-533.9	4,007.8	0.00	0.00	0.00
11,320.0	89.55	0.02	7,179.6	4,012.3	-533.9	4,047.5	0.00	0.00	0.00
11,360.0	89.55	0.02	7,179.9	4,052.3	-533.9	4,087.2	0.00	0.00	0.00
11,400.0	89.55	0.02	7,180.2	4,092.3	-533.9	4,126.9	0.00	0.00	0.00
11,440.0	89.55	0.02	7,180.5	4,132.3	-533.8	4,166.6	0.00	0.00	0.00
11,480.0	89.55	0.02	7,180.8	4,172.3	-533.8	4,206.3	0.00	0.00	0.00
11,520.0	89.55	0.02	7,181.1	4,212.3	-533.8	4,246.0	0.00	0.00	0.00
11,560.0	89.55	0.02	7,181.5	4,252.3	-533.8	4,285.7	0.00	0.00	0.00
11,600.0	89.55	0.02	7,181.8	4,292.3	-533.8	4,325.4	0.00	0.00	0.00
11,628.5	89.55	0.02	7,182.0	4,320.8	-533.8	4,353.7	0.00	0.00	0.00

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
7,541.0	7,137.0	7"	7	8-3/4	

Database:	Landmark	Local Co-ordinate Reference:	Well O Investment Properties 6T-421
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 6T-421	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (2-07-13)		

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
200.0	200.0	0.0	0.0	KOP #1
6,421.0	6,377.2	-450.0	-535.0	KOP #2
7,726.9	7,151.0	419.4	-534.8	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 6T-421

Wellbore #1

Plan #1 (2-07-13)

Anticollision Report

22 February, 2013



Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well O Investment Properties 6T-421
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 6T-421	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 2/21/2013			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.0	11,628.5	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						
Diana 6T-HZ Pad Sec.6-T6N-R65W						
Anderson 1 (P & A) - Wellbore #1 - Wellbore #1	7,532.8	7,142.5	229.0	68.1	1.423	Level 3, CC, ES, SF
Harsh 1 (Exist.) - Wellbore #1 - Wellbore #1	10,134.8	7,201.2	175.5	-27.5	0.865	Level 1, CC, ES, SF
Harsh 41-6 (Exist.) - Wellbore #1 - Wellbore #1	11,391.7	7,225.1	141.8	-85.1	0.625	Level 1, CC, ES, SF
O Investment Properties 6Y-HZ Pad Sec.6-T6N-R65W						
O Investment Properties 6Y-241 - Wellbore #1 - Plan #1	200.0	200.0	30.6	29.9	45.361	CC, ES
O Investment Properties 6Y-241 - Wellbore #1 - Plan #1	11,628.5	11,449.9	394.0	237.1	2.512	SF
O Investment Properties 6Y-401 - Wellbore #1 - Plan #1	200.0	200.0	61.2	60.5	90.722	CC, ES
O Investment Properties 6Y-401 - Wellbore #1 - Plan #1	11,628.5	11,587.2	681.5	507.9	3.925	SF

Offset Design	Diana 6T-HZ Pad Sec.6-T6N-R65W - Anderson 1 (P & A) - Wellbore #1 - Wellbore #1											Offset Site Error:	0.0ft
Survey Program:	7300-UNKNOWN											Offset Well Error:	0.0ft
Reference	Offset	Semi Major Axis		Distance		Minimum Separation		Separation Factor		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
0.0	0.0	6.0	6.0	0.0	0.1	-53.55	225.9	-305.9	380.2	380.1	0.12	3,163.333	
100.0	100.0	106.0	106.0	0.1	2.1	-53.55	225.9	-305.9	380.2	378.0	2.23	170.311	
200.0	200.0	206.0	206.0	0.3	4.1	-53.55	225.9	-305.9	380.2	375.8	4.46	85.305	
300.0	300.0	306.0	306.0	0.5	6.1	76.78	225.9	-305.9	379.8	373.2	6.66	57.008	
400.0	399.8	405.8	405.8	0.8	8.1	77.57	225.9	-305.9	378.7	369.8	8.87	42.679	
500.0	499.5	505.5	505.5	1.0	10.1	78.89	225.9	-305.9	376.9	365.8	11.11	33.919	
600.0	598.7	604.7	604.7	1.3	12.1	80.71	225.9	-305.9	374.7	361.4	13.38	28.000	
700.0	697.9	703.9	703.9	1.6	14.1	82.63	225.9	-305.9	372.9	357.2	15.68	23.784	
800.0	797.1	803.1	803.1	1.9	16.1	84.57	225.9	-305.9	371.4	353.5	17.98	20.657	
900.0	896.3	902.3	902.3	2.2	18.0	86.52	225.9	-305.9	370.4	350.2	20.29	18.257	
1,000.0	995.5	1,001.5	1,001.5	2.6	20.0	88.47	225.9	-305.9	369.9	347.3	22.60	16.365	
1,077.9	1,072.7	1,078.7	1,078.7	2.8	21.6	90.00	225.9	-305.9	369.7	345.3	24.40	15.151	
1,100.0	1,094.6	1,100.6	1,100.6	2.9	22.0	90.43	225.9	-305.9	369.8	344.8	24.92	14.841	
1,200.0	1,193.8	1,199.8	1,199.8	3.2	24.0	92.39	225.9	-305.9	370.1	342.8	27.23	13.592	
1,300.0	1,293.0	1,299.0	1,299.0	3.6	26.0	94.35	225.9	-305.9	370.8	341.3	29.54	12.554	
1,400.0	1,392.2	1,398.2	1,398.2	3.9	28.0	96.29	225.9	-305.9	372.0	340.2	31.85	11.682	
1,500.0	1,491.4	1,497.4	1,497.4	4.2	29.9	98.22	225.9	-305.9	373.7	339.5	34.15	10.941	

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 6T-421
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 6T-421	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: 7300-UNKNOWN													Offset Well Error:	0.0 ft
Reference														
Offset														
Semi Major Axis														
Distance														
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
1,600.0	1,590.5	1,596.5	1,596.5	4.6	31.9	100.13	225.9	-305.9	375.7	339.3	36.45	10.307		
1,700.0	1,689.7	1,695.7	1,695.7	4.9	33.9	102.02	225.9	-305.9	378.2	339.4	38.75	9.760		
1,800.0	1,788.9	1,794.9	1,794.9	5.2	35.9	103.89	225.9	-305.9	381.1	340.0	41.04	9.285		
1,900.0	1,888.1	1,894.1	1,894.1	5.6	37.9	105.72	225.9	-305.9	384.3	341.0	43.33	8.871		
2,000.0	1,987.3	1,993.3	1,993.3	5.9	39.9	107.52	225.9	-305.9	388.0	342.4	45.61	8.507		
2,100.0	2,086.5	2,092.5	2,092.5	6.2	41.8	109.29	225.9	-305.9	392.1	344.2	47.89	8.188		
2,200.0	2,185.6	2,191.6	2,191.6	6.6	43.8	111.01	225.9	-305.9	396.5	346.4	50.16	7.905		
2,300.0	2,284.8	2,290.8	2,290.8	6.9	45.8	112.70	225.9	-305.9	401.3	348.9	52.42	7.655		
2,400.0	2,384.0	2,390.0	2,390.0	7.2	47.8	114.35	225.9	-305.9	406.4	351.7	54.68	7.433		
2,500.0	2,483.2	2,489.2	2,489.2	7.6	49.8	115.96	225.9	-305.9	411.9	355.0	56.94	7.234		
2,600.0	2,582.4	2,588.4	2,588.4	7.9	51.8	117.52	225.9	-305.9	417.7	358.5	59.18	7.057		
2,700.0	2,681.6	2,687.6	2,687.6	8.2	53.8	119.04	225.9	-305.9	423.8	362.3	61.43	6.898		
2,800.0	2,780.7	2,786.7	2,786.7	8.6	55.7	120.52	225.9	-305.9	430.1	366.5	63.67	6.756		
2,900.0	2,879.9	2,885.9	2,885.9	8.9	57.7	121.96	225.9	-305.9	436.8	370.9	65.90	6.628		
3,000.0	2,979.1	2,985.1	2,985.1	9.3	59.7	123.35	225.9	-305.9	443.7	375.6	68.13	6.513		
3,100.0	3,078.3	3,084.3	3,084.3	9.6	61.7	124.69	225.9	-305.9	450.9	380.5	70.36	6.409		
3,200.0	3,177.5	3,183.5	3,183.5	9.9	63.7	126.00	225.9	-305.9	458.3	385.8	72.58	6.315		
3,300.0	3,276.6	3,282.6	3,282.6	10.3	65.7	127.26	225.9	-305.9	466.0	391.2	74.80	6.230		
3,400.0	3,375.8	3,381.8	3,381.8	10.6	67.6	128.48	225.9	-305.9	473.9	396.8	77.01	6.153		
3,500.0	3,475.0	3,481.0	3,481.0	10.9	69.6	129.67	225.9	-305.9	481.9	402.7	79.22	6.083		
3,600.0	3,574.2	3,580.2	3,580.2	11.3	71.6	130.81	225.9	-305.9	490.2	408.8	81.43	6.020		
3,700.0	3,673.4	3,679.4	3,679.4	11.6	73.6	131.91	225.9	-305.9	498.7	415.1	83.64	5.963		
3,800.0	3,772.6	3,778.6	3,778.6	11.9	75.6	132.98	225.9	-305.9	507.4	421.5	85.84	5.910		
3,900.0	3,871.7	3,877.7	3,877.7	12.3	77.6	134.01	225.9	-305.9	516.2	428.1	88.05	5.863		
4,000.0	3,970.9	3,976.9	3,976.9	12.6	79.5	135.01	225.9	-305.9	525.2	434.9	90.25	5.819		
4,100.0	4,070.1	4,076.1	4,076.1	12.9	81.5	135.97	225.9	-305.9	534.3	441.9	92.44	5.780		
4,200.0	4,169.3	4,175.3	4,175.3	13.3	83.5	136.91	225.9	-305.9	543.6	448.9	94.64	5.744		
4,300.0	4,268.5	4,274.5	4,274.5	13.6	85.5	137.81	225.9	-305.9	553.0	456.2	96.84	5.711		
4,400.0	4,367.7	4,373.7	4,373.7	14.0	87.5	138.68	225.9	-305.9	562.6	463.5	99.03	5.681		
4,500.0	4,466.8	4,472.8	4,472.8	14.3	89.5	139.52	225.9	-305.9	572.2	471.0	101.23	5.653		
4,600.0	4,566.0	4,572.0	4,572.0	14.6	91.4	140.33	225.9	-305.9	582.0	478.6	103.42	5.628		
4,700.0	4,665.2	4,671.2	4,671.2	15.0	93.4	141.12	225.9	-305.9	592.0	486.3	105.61	5.605		
4,800.0	4,764.4	4,770.4	4,770.4	15.3	95.4	141.88	225.9	-305.9	602.0	494.2	107.80	5.584		
4,900.0	4,863.6	4,869.6	4,869.6	15.6	97.4	142.61	225.9	-305.9	612.1	502.1	110.00	5.565		
5,000.0	4,962.7	4,968.7	4,968.7	16.0	99.4	143.32	225.9	-305.9	622.3	510.1	112.19	5.547		
5,100.0	5,061.9	5,067.9	5,067.9	16.3	101.4	144.01	225.9	-305.9	632.6	518.2	114.38	5.531		
5,200.0	5,161.1	5,167.1	5,167.1	16.6	103.3	144.68	225.9	-305.9	643.0	526.5	116.57	5.516		
5,300.0	5,260.3	5,266.3	5,266.3	17.0	105.3	145.32	225.9	-305.9	653.5	534.7	118.76	5.503		
5,400.0	5,359.5	5,365.5	5,365.5	17.3	107.3	145.95	225.9	-305.9	664.1	543.1	120.95	5.491		
5,500.0	5,458.7	5,464.7	5,464.7	17.7	109.3	146.55	225.9	-305.9	674.7	551.6	123.14	5.479		
5,600.0	5,557.8	5,563.8	5,563.8	18.0	111.3	147.14	225.9	-305.9	685.4	560.1	125.33	5.469		
5,700.0	5,657.0	5,663.0	5,663.0	18.3	113.3	147.73	225.9	-305.9	696.1	568.5	127.59	5.456		
5,800.0	5,756.5	5,762.5	5,762.5	18.5	115.3	148.27	225.9	-305.9	704.8	574.8	130.00	5.421		
5,900.0	5,856.3	5,862.3	5,862.3	18.7	117.2	148.61	225.9	-305.9	710.6	578.2	132.33	5.370		
6,000.0	5,956.2	5,962.2	5,962.2	18.8	119.2	148.78	225.9	-305.9	713.4	578.8	134.56	5.302		
6,100.0	6,056.2	6,062.2	6,062.2	19.0	121.2	18.73	225.9	-305.9	713.7	576.9	136.72	5.220		
6,200.0	6,156.2	6,162.2	6,162.2	19.1	123.2	18.73	225.9	-305.9	713.7	574.8	138.88	5.139		
6,300.0	6,256.2	6,262.2	6,262.2	19.2	125.2	18.73	225.9	-305.9	713.7	572.6	141.04	5.060		
6,400.0	6,356.2	6,362.2	6,362.2	19.4	127.2	18.73	225.9	-305.9	713.7	570.5	143.21	4.983		
6,500.0	6,456.1	6,462.1	6,462.1	19.5	129.2	18.92	225.9	-305.9	709.8	565.2	144.56	4.910		
6,600.0	6,554.6	6,560.6	6,560.6	19.5	131.2	19.77	225.9	-305.9	693.9	550.3	143.66	4.830		

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 6T-421
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 6T-421	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 Diana 6T-HZ Pad Sec.6-T6N-R65W - Anderson 1 (P & A) - Wellbore #1 - Wellbore #1														Offset Site Error:	0.0 ft
Survey Program: 7300-UNKNOWN														Offset Well Error:	0.0 ft
Reference	Offset	Semi Major Axis		Distance		Warning									
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
6,700.0	6,650.0	6,656.0	6,656.0	19.5	133.1	21.40	225.9	-305.9	666.1	525.5	140.60	4.738			
6,800.0	6,740.9	6,746.9	6,746.9	19.4	134.9	24.04	225.9	-305.9	627.1	491.3	135.82	4.617			
6,900.0	6,825.4	6,831.4	6,831.4	19.2	136.6	28.06	225.9	-305.9	577.9	447.5	130.38	4.433			
7,000.0	6,902.3	6,908.3	6,908.3	19.1	138.2	34.04	225.9	-305.9	520.0	393.5	126.42	4.113			
7,100.0	6,970.3	6,976.3	6,976.3	18.9	139.5	42.72	225.9	-305.9	455.3	327.9	127.43	3.573			
7,200.0	7,028.1	7,034.1	7,034.1	18.7	140.7	54.50	225.9	-305.9	387.0	251.0	136.02	2.845			
7,300.0	7,074.7	7,080.7	7,080.7	18.5	141.6	68.28	225.9	-305.9	320.1	171.4	148.66	2.153			
7,400.0	7,109.4	7,115.4	7,115.4	18.4	142.3	80.81	225.9	-305.9	263.3	105.9	157.43	1.672			
7,500.0	7,131.6	7,137.6	7,137.6	18.3	142.8	88.72	225.9	-305.9	231.3	70.8	160.48	1.441 Level 3			
7,532.8	7,136.5	7,142.5	7,142.5	18.4	142.8	90.00	225.9	-305.9	229.0	68.1	160.89	1.423 Level 3, CC, ES, SF			
7,600.0	7,143.1	7,149.1	7,149.1	18.9	143.0	91.75	225.9	-305.9	238.6	77.1	161.50	1.477 Level 3			
7,700.0	7,150.5	7,156.5	7,156.5	19.8	143.1	91.31	225.9	-305.9	283.2	120.6	162.56	1.742			
7,800.0	7,151.6	7,157.6	7,157.6	20.9	143.2	90.53	225.9	-305.9	351.4	187.8	163.62	2.148			
7,900.0	7,152.4	7,158.4	7,158.4	22.1	143.2	90.73	225.9	-305.9	432.2	267.4	164.79	2.623			
8,000.0	7,153.2	7,159.2	7,159.2	23.4	143.2	90.93	225.9	-305.9	519.7	353.6	166.06	3.130			
8,100.0	7,154.0	7,160.0	7,160.0	24.8	143.2	91.12	225.9	-305.9	611.1	443.6	167.41	3.650			
8,200.0	7,154.8	7,160.8	7,160.8	26.2	143.2	91.32	225.9	-305.9	704.8	535.9	168.84	4.174			
8,300.0	7,155.6	7,161.6	7,161.6	27.7	143.2	91.52	225.9	-305.9	800.0	629.7	170.33	4.697			
8,400.0	7,156.4	7,162.4	7,162.4	29.2	143.2	91.72	225.9	-305.9	896.3	724.4	171.87	5.215			
8,500.0	7,157.2	7,163.2	7,163.2	30.8	143.3	91.92	225.9	-305.9	993.3	819.8	173.45	5.727			

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well O Investment Properties 6T-421
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 6T-421	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 Diana 6T-HZ Pad Sec.6-T6N-R65W - Harsh 1 (Exist.) - Wellbore #1 - Wellbore #1													Offset Site Error: 0.0 ft
Survey Program: 7300-UNKNOWN													Offset Well Error: 0.0 ft
Reference	Offset	Semi Major Axis		Distance		Warning							
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
9,200.0	7,162.7	7,193.7	7,193.7	42.6	143.9	87.58	2,827.1	-358.7	951.1	765.4	185.71	5.122	
9,300.0	7,163.5	7,194.5	7,194.5	44.3	143.9	87.84	2,827.1	-358.7	853.0	665.5	187.53	4.549	
9,400.0	7,164.3	7,195.3	7,195.3	46.1	143.9	88.10	2,827.1	-358.7	755.4	566.1	189.36	3.989	
9,500.0	7,165.1	7,196.1	7,196.1	47.9	143.9	88.36	2,827.1	-358.7	658.6	467.4	191.21	3.444	
9,600.0	7,165.9	7,196.9	7,196.9	49.7	143.9	88.62	2,827.1	-358.7	562.8	369.8	193.06	2.915	
9,700.0	7,166.7	7,197.7	7,197.7	51.5	144.0	88.87	2,827.1	-358.7	468.9	274.0	194.91	2.406	
9,800.0	7,167.5	7,198.5	7,198.5	53.3	144.0	89.13	2,827.1	-358.7	378.0	181.2	196.77	1.921	
9,900.0	7,168.3	7,199.3	7,199.3	55.1	144.0	89.39	2,827.1	-358.7	293.1	94.5	198.63	1.476	Level 3
10,000.0	7,169.1	7,200.1	7,200.1	56.9	144.0	89.65	2,827.1	-358.7	221.3	20.8	200.49	1.104	Level 2
10,100.0	7,169.9	7,200.9	7,200.9	58.7	144.0	89.91	2,827.1	-358.7	178.9	-23.4	202.36	0.884	Level 1
10,134.8	7,170.2	7,201.2	7,201.2	59.4	144.0	90.00	2,827.1	-358.7	175.5	-27.5	203.01	0.865	Level 1, CC, ES, SF
10,200.0	7,170.7	7,201.7	7,201.7	60.6	144.0	90.17	2,827.1	-358.7	187.3	-17.0	204.23	0.917	Level 1
10,300.0	7,171.5	7,202.5	7,202.5	62.4	144.0	90.43	2,827.1	-358.7	241.1	35.0	206.09	1.170	Level 2
10,400.0	7,172.3	7,203.3	7,203.3	64.3	144.1	90.69	2,827.1	-358.7	318.0	110.1	207.96	1.529	
10,500.0	7,173.0	7,204.0	7,204.0	66.1	144.1	90.95	2,827.1	-358.7	405.2	195.4	209.83	1.931	
10,600.0	7,173.8	7,204.8	7,204.8	68.0	144.1	91.20	2,827.1	-358.7	497.2	285.5	211.70	2.349	
10,700.0	7,174.6	7,205.6	7,205.6	69.8	144.1	91.46	2,827.1	-358.7	591.8	378.3	213.56	2.771	
10,800.0	7,175.4	7,206.4	7,206.4	71.7	144.1	91.72	2,827.1	-358.7	688.0	472.5	215.43	3.193	
10,900.0	7,176.2	7,207.2	7,207.2	73.5	144.1	91.98	2,827.1	-358.7	785.1	567.8	217.29	3.613	
11,000.0	7,177.0	7,208.0	7,208.0	75.4	144.2	92.24	2,827.1	-358.7	882.8	663.7	219.15	4.028	
11,100.0	7,177.8	7,208.8	7,208.8	77.3	144.2	92.50	2,827.1	-358.7	981.0	760.0	221.01	4.439	

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well O Investment Properties 6T-421
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 6T-421	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 Diana 6T-HZ Pad Sec.6-T6N-R65W - Harsh 41-6 (Exist.) - Wellbore #1 - Wellbore #1													Offset Site Error: 0.0 ft
Survey Program: 7300-UNKNOWN													Offset Well Error: 0.0 ft
Reference	Offset	Semi Major Axis		Distance									Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
10,500.0	7,173.0	7,218.0	7,218.0	66.1	144.4	87.15	4,084.0	-392.0	902.9	693.1	209.78	4.304	
10,600.0	7,173.8	7,218.8	7,218.8	68.0	144.4	87.46	4,084.0	-392.0	804.3	592.6	211.71	3.799	
10,700.0	7,174.6	7,219.6	7,219.6	69.8	144.4	87.78	4,084.0	-392.0	706.1	492.4	213.65	3.305	
10,800.0	7,175.4	7,220.4	7,220.4	71.7	144.4	88.10	4,084.0	-392.0	608.5	392.9	215.58	2.822	
10,900.0	7,176.2	7,221.2	7,221.2	73.5	144.4	88.42	4,084.0	-392.0	511.8	294.2	217.51	2.353	
11,000.0	7,177.0	7,222.0	7,222.0	75.4	144.4	88.75	4,084.0	-392.0	416.6	197.2	219.44	1.898	
11,100.0	7,177.8	7,222.8	7,222.8	77.3	144.5	89.07	4,084.0	-392.0	324.4	103.0	221.36	1.465	Level 3
11,200.0	7,178.6	7,223.6	7,223.6	79.1	144.5	89.39	4,084.0	-392.0	238.5	15.2	223.28	1.068	Level 2
11,300.0	7,179.4	7,224.4	7,224.4	81.0	144.5	89.71	4,084.0	-392.0	168.9	-56.3	225.20	0.750	Level 1
11,391.7	7,180.1	7,225.1	7,225.1	82.7	144.5	90.00	4,084.0	-392.0	141.8	-85.1	226.95	0.625	Level 1, CC, ES, SF
11,400.0	7,180.2	7,225.2	7,225.2	82.9	144.5	90.03	4,084.0	-392.0	142.1	-85.0	227.10	0.626	Level 1
11,500.0	7,181.0	7,226.0	7,226.0	84.8	144.5	90.35	4,084.0	-392.0	178.4	-50.6	229.01	0.779	Level 1
11,600.0	7,181.8	7,226.8	7,226.8	86.7	144.5	90.67	4,084.0	-392.0	252.0	21.1	230.91	1.091	Level 2
11,628.5	7,182.0	7,227.0	7,227.0	87.2	144.5	90.76	4,084.0	-392.0	276.0	44.6	231.45	1.193	Level 2

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well O Investment Properties 6T-421
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 6T-421	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 CC, ES		
300.0	300.0	300.0	300.0	0.5	0.6	-141.92	0.0	30.6	31.9	30.8	1.11	28.800		
400.0	399.8	399.8	399.8	0.8	0.8	-146.98	0.0	30.6	36.2	34.7	1.55	23.384		
500.0	499.5	499.5	499.5	1.0	1.0	-153.14	0.0	30.6	43.8	41.8	2.00	21.849		
600.0	598.7	598.7	598.7	1.3	1.2	-158.76	0.0	30.6	54.8	52.3	2.46	22.246		
700.0	697.9	699.6	699.6	1.6	1.4	-161.77	-1.6	29.8	65.6	62.7	2.89	22.699		
800.0	797.1	801.1	800.9	1.9	1.6	-162.12	-6.4	27.6	73.8	70.5	3.31	22.329		
900.0	896.3	902.9	902.3	2.2	1.8	-160.65	-14.5	23.7	79.5	75.8	3.76	21.158		
1,000.0	995.5	1,002.9	1,001.8	2.6	2.1	-158.44	-24.2	19.1	83.9	79.6	4.24	19.785		
1,100.0	1,094.6	1,102.8	1,101.0	2.9	2.3	-156.44	-33.9	14.5	88.3	83.6	4.74	18.621		
1,200.0	1,193.8	1,202.6	1,200.3	3.2	2.6	-154.63	-43.7	9.8	92.9	87.6	5.26	17.640		
1,300.0	1,293.0	1,302.5	1,299.6	3.6	2.9	-153.00	-53.4	5.2	97.5	91.7	5.80	16.808		
1,400.0	1,392.2	1,402.3	1,398.8	3.9	3.1	-151.51	-63.1	0.6	102.2	95.8	6.35	16.099		
1,500.0	1,491.4	1,502.2	1,498.1	4.2	3.4	-150.16	-72.9	-4.1	106.9	100.0	6.90	15.489		
1,600.0	1,590.5	1,602.0	1,597.4	4.6	3.7	-148.92	-82.6	-8.7	111.7	104.3	7.47	14.961		
1,700.0	1,689.7	1,701.9	1,696.7	4.9	4.0	-147.79	-92.3	-13.3	116.6	108.6	8.04	14.502		
1,800.0	1,788.9	1,801.8	1,795.9	5.2	4.3	-146.74	-102.1	-17.9	121.5	112.9	8.62	14.098		
1,900.0	1,888.1	1,901.6	1,895.2	5.6	4.6	-145.78	-111.8	-22.6	126.4	117.2	9.20	13.742		
2,000.0	1,987.3	2,001.5	1,994.5	5.9	4.9	-144.89	-121.5	-27.2	131.4	121.6	9.79	13.427		
2,100.0	2,086.5	2,101.3	2,093.8	6.2	5.2	-144.06	-131.3	-31.8	136.4	126.0	10.38	13.145		
2,200.0	2,185.6	2,201.2	2,193.0	6.6	5.5	-143.29	-141.0	-36.5	141.4	130.5	10.97	12.892		
2,300.0	2,284.8	2,301.0	2,292.3	6.9	5.8	-142.58	-150.7	-41.1	146.5	134.9	11.57	12.664		
2,400.0	2,384.0	2,400.9	2,391.6	7.2	6.1	-141.91	-160.5	-45.7	151.6	139.4	12.17	12.458		
2,500.0	2,483.2	2,500.7	2,490.8	7.6	6.4	-141.29	-170.2	-50.3	156.6	143.9	12.77	12.271		
2,600.0	2,582.4	2,600.6	2,590.1	7.9	6.7	-140.71	-179.9	-55.0	161.8	148.4	13.37	12.100		
2,700.0	2,681.6	2,700.5	2,689.4	8.2	7.0	-140.16	-189.7	-59.6	166.9	152.9	13.97	11.944		
2,800.0	2,780.7	2,800.3	2,788.7	8.6	7.3	-139.64	-199.4	-64.2	172.0	157.4	14.58	11.801		
2,900.0	2,879.9	2,900.2	2,887.9	8.9	7.6	-139.16	-209.1	-68.9	177.2	162.0	15.18	11.669		
3,000.0	2,979.1	3,000.0	2,987.2	9.3	7.9	-138.70	-218.9	-73.5	182.3	166.5	15.79	11.547		
3,100.0	3,078.3	3,099.9	3,086.5	9.6	8.2	-138.27	-228.6	-78.1	187.5	171.1	16.40	11.434		
3,200.0	3,177.5	3,199.7	3,185.8	9.9	8.5	-137.86	-238.3	-82.7	192.7	175.7	17.01	11.329		
3,300.0	3,276.6	3,299.6	3,285.0	10.3	8.8	-137.47	-248.1	-87.4	197.9	180.3	17.62	11.232		
3,400.0	3,375.8	3,399.5	3,384.3	10.6	9.1	-137.10	-257.8	-92.0	203.1	184.9	18.23	11.141		
3,500.0	3,475.0	3,499.3	3,483.6	10.9	9.4	-136.75	-267.5	-96.6	208.3	189.5	18.84	11.056		
3,600.0	3,574.2	3,599.2	3,582.9	11.3	9.7	-136.42	-277.2	-101.3	213.5	194.1	19.45	10.976		
3,700.0	3,673.4	3,699.0	3,682.1	11.6	10.1	-136.10	-287.0	-105.9	218.7	198.7	20.06	10.901		
3,800.0	3,772.6	3,798.9	3,781.4	11.9	10.4	-135.80	-296.7	-110.5	224.0	203.3	20.68	10.831		
3,900.0	3,871.7	3,898.7	3,880.7	12.3	10.7	-135.51	-306.4	-115.1	229.2	207.9	21.29	10.765		
4,000.0	3,970.9	3,998.6	3,979.9	12.6	11.0	-135.23	-316.2	-119.8	234.4	212.5	21.90	10.703		
4,100.0	4,070.1	4,098.4	4,079.2	12.9	11.3	-134.97	-325.9	-124.4	239.7	217.2	22.52	10.644		
4,200.0	4,169.3	4,198.3	4,178.5	13.3	11.6	-134.72	-335.6	-129.0	244.9	221.8	23.13	10.588		
4,300.0	4,268.5	4,298.2	4,277.8	13.6	11.9	-134.48	-345.4	-133.7	250.2	226.4	23.75	10.535		
4,400.0	4,367.7	4,398.0	4,377.0	14.0	12.2	-134.24	-355.1	-138.3	255.5	231.1	24.36	10.485		
4,500.0	4,466.8	4,497.9	4,476.3	14.3	12.5	-134.02	-364.8	-142.9	260.7	235.7	24.98	10.438		
4,600.0	4,566.0	4,597.7	4,575.6	14.6	12.8	-133.81	-374.6	-147.5	266.0	240.4	25.59	10.392		
4,700.0	4,665.2	4,697.6	4,674.9	15.0	13.1	-133.60	-384.3	-152.2	271.3	245.1	26.21	10.349		
4,800.0	4,764.4	4,797.4	4,774.1	15.3	13.4	-133.41	-394.0	-156.8	276.5	249.7	26.83	10.308		
4,900.0	4,863.6	4,897.3	4,873.4	15.6	13.7	-133.22	-403.8	-161.4	281.8	254.4	27.44	10.269		
5,000.0	4,962.7	4,997.2	4,972.7	16.0	14.0	-133.03	-413.5	-166.1	287.1	259.0	28.06	10.232		

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 6T-421
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 6T-421	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								
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		
5,100.0	5,061.9	5,097.0	5,071.9	16.3	14.3	-132.86	-423.2	-170.7	292.4	263.7	28.68	10.196			
5,200.0	5,161.1	5,196.9	5,171.2	16.6	14.7	-132.69	-433.0	-175.3	297.7	268.4	29.29	10.162			
5,300.0	5,260.3	5,294.1	5,268.0	17.0	14.9	-132.72	-441.5	-179.4	303.3	273.5	29.84	10.164			
5,400.0	5,359.5	5,390.6	5,364.3	17.3	15.1	-133.30	-447.1	-182.0	310.0	279.7	30.26	10.246			
5,500.0	5,458.7	5,486.5	5,460.2	17.7	15.2	-134.42	-449.8	-183.3	317.8	287.3	30.59	10.392			
5,600.0	5,557.8	5,584.2	5,557.8	18.0	15.4	-135.94	-450.0	-183.4	326.8	296.0	30.87	10.588			
5,700.0	5,657.0	5,683.4	5,657.0	18.3	15.5	-137.46	-450.0	-183.4	336.1	305.0	31.12	10.798			
5,800.0	5,756.5	5,782.9	5,756.5	18.5	15.7	-138.72	-450.0	-183.4	343.7	312.4	31.32	10.974			
5,900.0	5,856.3	5,882.6	5,856.3	18.7	15.8	-139.51	-450.0	-183.4	348.8	317.3	31.54	11.060			
6,000.0	5,956.2	5,982.6	5,956.2	18.8	16.0	-139.89	-450.0	-183.4	351.3	319.6	31.78	11.056			
6,100.0	6,056.2	6,082.6	6,056.2	19.0	16.1	90.00	-450.0	-183.4	351.6	319.5	32.07	10.964			
6,200.0	6,156.2	6,182.6	6,156.2	19.1	16.3	90.00	-450.0	-183.4	351.6	319.2	32.37	10.863			
6,261.3	6,217.5	6,243.8	6,217.5	19.2	16.4	90.00	-450.0	-183.4	351.6	319.0	32.55	10.802			
6,300.0	6,256.2	6,282.6	6,256.2	19.2	16.4	89.91	-449.5	-183.4	351.6	318.9	32.65	10.768			
6,400.0	6,356.2	6,381.4	6,354.4	19.4	16.5	88.27	-439.4	-183.4	351.8	319.1	32.69	10.761			
6,500.0	6,456.1	6,477.1	6,447.6	19.5	16.5	85.28	-417.7	-183.4	352.8	320.4	32.46	10.871			
6,600.0	6,554.6	6,570.6	6,535.3	19.5	16.4	82.36	-385.3	-183.4	354.8	322.7	32.09	11.056			
6,700.0	6,650.0	6,662.3	6,616.8	19.5	16.3	79.62	-343.4	-183.4	357.6	325.9	31.66	11.294			
6,800.0	6,740.9	6,750.0	6,689.5	19.4	16.2	77.15	-294.5	-183.4	360.9	329.7	31.22	11.560			
6,900.0	6,825.4	6,840.9	6,758.5	19.2	16.1	74.81	-235.4	-183.4	364.5	333.7	30.80	11.836			
7,000.0	6,902.3	6,928.2	6,817.7	19.1	16.0	72.80	-171.3	-183.4	368.2	337.8	30.47	12.084			
7,100.0	6,970.3	7,014.5	6,868.6	18.9	16.0	71.07	-101.7	-183.4	371.8	341.5	30.29	12.274			
7,200.0	7,028.1	7,100.0	6,911.0	18.7	16.1	69.64	-27.5	-183.4	375.1	344.8	30.31	12.374			
7,300.0	7,074.7	7,184.7	6,944.6	18.5	16.3	68.51	50.2	-183.4	377.9	347.3	30.59	12.351			
7,400.0	7,109.4	7,268.9	6,969.2	18.4	16.7	67.68	130.7	-183.4	380.0	348.8	31.17	12.192			
7,500.0	7,131.6	7,350.0	6,984.5	18.3	17.2	67.17	210.3	-183.4	381.4	349.4	32.04	11.905			
7,600.0	7,143.1	7,436.3	6,991.3	18.9	17.9	66.70	296.3	-183.4	382.8	349.6	33.25	11.513			
7,700.0	7,150.5	7,532.9	6,991.7	19.8	18.9	65.69	392.9	-183.4	385.6	351.0	34.65	11.130			
7,800.0	7,151.6	7,632.9	6,992.0	20.9	20.0	65.57	492.9	-183.4	386.0	349.4	36.54	10.562			
7,900.0	7,152.4	7,732.9	6,992.3	22.1	21.2	65.50	592.9	-183.4	386.1	347.5	38.69	9.979			
8,000.0	7,153.2	7,832.9	6,992.5	23.4	22.5	65.42	692.9	-183.4	386.3	345.3	41.04	9.415			
8,100.0	7,154.0	7,932.9	6,992.8	24.8	23.9	65.35	792.9	-183.4	386.5	343.0	43.54	8.878			
8,200.0	7,154.8	8,032.9	6,993.1	26.2	25.4	65.28	892.9	-183.4	386.7	340.6	46.17	8.376			
8,300.0	7,155.6	8,132.9	6,993.3	27.7	26.9	65.20	992.9	-183.4	386.9	338.0	48.92	7.910			
8,400.0	7,156.4	8,232.9	6,993.6	29.2	28.5	65.13	1,092.9	-183.4	387.1	335.4	51.76	7.480			
8,500.0	7,157.2	8,332.9	6,993.8	30.8	30.1	65.06	1,192.9	-183.4	387.3	332.7	54.67	7.085			
8,600.0	7,158.0	8,432.9	6,994.1	32.4	31.7	64.98	1,292.9	-183.4	387.5	329.9	57.65	6.722			
8,700.0	7,158.8	8,532.9	6,994.4	34.0	33.4	64.91	1,392.9	-183.4	387.7	327.0	60.69	6.389			
8,800.0	7,159.6	8,632.9	6,994.6	35.7	35.1	64.84	1,492.9	-183.4	387.9	324.2	63.77	6.083			
8,900.0	7,160.4	8,732.9	6,994.9	37.4	36.8	64.77	1,592.9	-183.4	388.1	321.2	66.89	5.803			
9,000.0	7,161.1	8,832.9	6,995.1	39.1	38.6	64.69	1,692.9	-183.4	388.3	318.3	70.04	5.544			
9,100.0	7,161.9	8,932.9	6,995.4	40.8	40.3	64.62	1,792.9	-183.4	388.5	315.3	73.22	5.306			
9,200.0	7,162.7	9,032.9	6,995.7	42.6	42.1	64.55	1,892.9	-183.4	388.7	312.3	76.43	5.086			
9,300.0	7,163.5	9,132.9	6,995.9	44.3	43.9	64.47	1,992.9	-183.4	388.9	309.3	79.66	4.883			
9,400.0	7,164.3	9,232.9	6,996.2	46.1	45.7	64.40	2,092.9	-183.5	389.1	306.2	82.90	4.694			
9,500.0	7,165.1	9,332.9	6,996.5	47.9	47.5	64.33	2,192.8	-183.5	389.3	303.2	86.17	4.519			
9,600.0	7,165.9	9,432.9	6,996.7	49.7	49.3	64.26	2,292.8	-183.5	389.5	300.1	89.44	4.355			
9,700.0	7,166.7	9,532.9	6,997.0	51.5	51.1	64.19	2,392.8	-183.5	389.7	297.0	92.73	4.203			
9,800.0	7,167.5	9,632.9	6,997.2	53.3	52.9	64.11	2,492.8	-183.5	390.0	293.9	96.02	4.061			
9,900.0	7,168.3	9,732.9	6,997.5	55.1	54.8	64.04	2,592.8	-183.5	390.2	290.8	99.33	3.928			

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 6T-421
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 6T-421	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	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor			
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)				
10,000.0	7,169.1	9,832.9	6,997.8	56.9	56.6	63.97	2,692.8	-183.5	390.4	287.7	102.64	3.803			
10,100.0	7,169.9	9,932.9	6,998.0	58.7	58.5	63.90	2,792.8	-183.5	390.6	284.6	105.96	3.686			
10,200.0	7,170.7	10,032.9	6,998.3	60.6	60.3	63.83	2,892.8	-183.5	390.8	281.5	109.29	3.576			
10,300.0	7,171.5	10,132.9	6,998.6	62.4	62.2	63.75	2,992.8	-183.5	391.0	278.4	112.62	3.472			
10,400.0	7,172.3	10,232.9	6,998.8	64.3	64.0	63.68	3,092.8	-183.5	391.2	275.2	115.95	3.374			
10,500.0	7,173.0	10,332.9	6,999.1	66.1	65.9	63.61	3,192.8	-183.5	391.4	272.1	119.29	3.281			
10,600.0	7,173.8	10,432.9	6,999.3	68.0	67.8	63.54	3,292.8	-183.5	391.6	269.0	122.63	3.194			
10,700.0	7,174.6	10,532.9	6,999.6	69.8	69.6	63.47	3,392.8	-183.5	391.8	265.9	125.97	3.110			
10,800.0	7,175.4	10,632.9	6,999.9	71.7	71.5	63.40	3,492.8	-183.5	392.0	262.7	129.32	3.032			
10,900.0	7,176.2	10,732.9	7,000.1	73.5	73.4	63.33	3,592.8	-183.5	392.3	259.6	132.66	2.957			
11,000.0	7,177.0	10,832.9	7,000.4	75.4	75.3	63.25	3,692.8	-183.5	392.5	256.5	136.01	2.886			
11,100.0	7,177.8	10,932.9	7,000.6	77.3	77.1	63.18	3,792.8	-183.5	392.7	253.3	139.36	2.818			
11,200.0	7,178.6	11,032.9	7,000.9	79.1	79.0	63.11	3,892.8	-183.5	392.9	250.2	142.70	2.753			
11,300.0	7,179.4	11,132.9	7,001.2	81.0	80.9	63.04	3,992.8	-183.5	393.1	247.1	146.05	2.692			
11,400.0	7,180.2	11,232.8	7,001.4	82.9	82.8	62.97	4,092.8	-183.5	393.3	243.9	149.40	2.633			
11,500.0	7,181.0	11,332.8	7,001.7	84.8	84.7	62.90	4,192.8	-183.5	393.6	240.8	152.74	2.577			
11,600.0	7,181.8	11,432.8	7,002.0	86.7	86.6	62.83	4,292.8	-183.5	393.8	237.7	156.09	2.523			
11,628.5	7,182.0	11,449.9	7,002.0	87.2	86.9	62.82	4,309.9	-183.5	394.0	237.1	156.86	2.512 SF			

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well O Investment Properties 6T-421
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 6T-421	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-401 - 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	90.00	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	300.0	300.0	0.5	0.6	-140.94	0.0	61.2	62.5	61.4	1.11	56.377		
400.0	399.8	399.8	399.8	0.8	0.8	-143.73	0.0	61.2	66.7	65.1	1.55	43.070		
500.0	499.5	499.5	499.5	1.0	1.0	-147.65	0.0	61.2	73.9	71.9	2.00	36.850		
600.0	598.7	598.7	598.7	1.3	1.2	-151.95	0.0	61.2	84.3	81.8	2.47	34.136		
700.0	697.9	697.9	697.9	1.6	1.5	-155.54	0.0	61.2	95.7	92.8	2.93	32.695		
800.0	797.1	797.1	797.1	1.9	1.7	-158.35	0.0	61.2	107.5	104.1	3.39	31.729		
900.0	896.3	896.3	896.3	2.2	1.9	-160.61	0.0	61.2	119.5	115.6	3.85	31.047		
1,000.0	995.5	995.5	995.5	2.6	2.1	-162.45	0.0	61.2	131.6	127.3	4.31	30.546		
1,100.0	1,094.6	1,094.6	1,094.6	2.9	2.3	-163.98	0.0	61.2	143.8	139.0	4.77	30.165		
1,200.0	1,193.8	1,193.8	1,193.8	3.2	2.6	-165.28	0.0	61.2	156.1	150.9	5.23	29.866		
1,300.0	1,293.0	1,293.0	1,293.0	3.6	2.8	-166.38	0.0	61.2	168.5	162.8	5.69	29.627		
1,400.0	1,392.2	1,392.2	1,392.2	3.9	3.0	-167.33	0.0	61.2	180.9	174.8	6.15	29.431		
1,500.0	1,491.4	1,491.4	1,491.4	4.2	3.2	-168.16	0.0	61.2	193.4	186.8	6.61	29.268		
1,600.0	1,590.5	1,592.6	1,592.6	4.6	3.4	-168.50	-1.5	61.5	205.5	198.4	7.05	29.147		
1,700.0	1,689.7	1,694.2	1,694.1	4.9	3.6	-167.90	-6.5	62.4	216.5	209.0	7.48	28.958		
1,800.0	1,788.9	1,795.8	1,795.3	5.2	3.8	-166.48	-15.0	64.0	226.5	218.6	7.92	28.595		
1,900.0	1,888.1	1,895.5	1,894.3	5.6	4.0	-164.67	-25.6	66.1	236.1	227.7	8.39	28.145		
2,000.0	1,987.3	1,994.7	1,993.0	5.9	4.2	-163.00	-36.2	68.1	245.9	237.0	8.87	27.712		
2,100.0	2,086.5	2,094.0	2,091.7	6.2	4.4	-161.46	-46.8	70.1	255.9	246.5	9.37	27.301		
2,200.0	2,185.6	2,193.3	2,190.4	6.6	4.7	-160.03	-57.4	72.1	266.0	256.1	9.88	26.914		
2,300.0	2,284.8	2,292.5	2,289.1	6.9	4.9	-158.71	-68.0	74.2	276.3	265.9	10.41	26.550		
2,400.0	2,384.0	2,391.8	2,387.8	7.2	5.1	-157.48	-78.6	76.2	286.8	275.8	10.94	26.211		
2,500.0	2,483.2	2,491.1	2,486.4	7.6	5.4	-156.34	-89.2	78.2	297.3	285.8	11.48	25.896		
2,600.0	2,582.4	2,590.4	2,585.1	7.9	5.7	-155.28	-99.8	80.3	308.0	296.0	12.03	25.602		
2,700.0	2,681.6	2,689.6	2,683.8	8.2	5.9	-154.29	-110.4	82.3	318.8	306.2	12.59	25.328		
2,800.0	2,780.7	2,788.9	2,782.5	8.6	6.2	-153.37	-121.0	84.3	329.6	316.5	13.15	25.075		
2,900.0	2,879.9	2,888.2	2,881.2	8.9	6.5	-152.50	-131.6	86.3	340.6	326.8	13.71	24.839		
3,000.0	2,979.1	2,987.4	2,979.9	9.3	6.7	-151.69	-142.2	88.4	351.6	337.3	14.28	24.619		
3,100.0	3,078.3	3,086.7	3,078.5	9.6	7.0	-150.92	-152.8	90.4	362.6	347.8	14.85	24.415		
3,200.0	3,177.5	3,186.0	3,177.2	9.9	7.3	-150.20	-163.4	92.4	373.8	358.3	15.43	24.225		
3,300.0	3,276.6	3,285.3	3,275.9	10.3	7.6	-149.53	-174.1	94.4	385.0	369.0	16.01	24.048		
3,400.0	3,375.8	3,384.5	3,374.6	10.6	7.9	-148.89	-184.7	96.5	396.2	379.6	16.59	23.883		
3,500.0	3,475.0	3,483.8	3,473.3	10.9	8.1	-148.29	-195.3	98.5	407.5	390.3	17.17	23.729		
3,600.0	3,574.2	3,583.1	3,572.0	11.3	8.4	-147.72	-205.9	100.5	418.8	401.1	17.76	23.585		
3,700.0	3,673.4	3,682.3	3,670.6	11.6	8.7	-147.18	-216.5	102.5	430.2	411.8	18.34	23.449		
3,800.0	3,772.6	3,781.6	3,769.3	11.9	9.0	-146.66	-227.1	104.6	441.6	422.6	18.93	23.323		
3,900.0	3,871.7	3,880.9	3,868.0	12.3	9.3	-146.18	-237.7	106.6	453.0	433.5	19.52	23.204		
4,000.0	3,970.9	3,980.2	3,966.7	12.6	9.6	-145.71	-248.3	108.6	464.5	444.4	20.11	23.092		
4,100.0	4,070.1	4,079.4	4,065.4	12.9	9.9	-145.27	-258.9	110.7	476.0	455.3	20.71	22.987		
4,200.0	4,169.3	4,178.7	4,164.1	13.3	10.2	-144.85	-269.5	112.7	487.5	466.2	21.30	22.887		
4,300.0	4,268.5	4,278.0	4,262.7	13.6	10.5	-144.45	-280.1	114.7	499.0	477.2	21.89	22.794		
4,400.0	4,367.7	4,377.3	4,361.4	14.0	10.8	-144.07	-290.7	116.7	510.6	488.1	22.49	22.705		
4,500.0	4,466.8	4,476.5	4,460.1	14.3	11.1	-143.70	-301.3	118.8	522.2	499.1	23.08	22.622		
4,600.0	4,566.0	4,575.8	4,558.8	14.6	11.4	-143.36	-311.9	120.8	533.8	510.1	23.68	22.542		
4,700.0	4,665.2	4,675.1	4,657.5	15.0	11.7	-143.02	-322.5	122.8	545.4	521.2	24.28	22.467		
4,800.0	4,764.4	4,774.3	4,756.2	15.3	11.9	-142.70	-333.1	124.8	557.1	532.2	24.87	22.396		
4,900.0	4,863.6	4,873.6	4,854.8	15.6	12.2	-142.39	-343.7	126.9	568.8	543.3	25.47	22.328		
5,000.0	4,962.7	4,972.9	4,953.5	16.0	12.5	-142.10	-354.3	128.9	580.4	554.4	26.07	22.264		

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 6T-421
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 6T-421	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-401 - 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	5,061.9	5,072.2	5,052.2	16.3	12.8	-141.81	-364.9	130.9	592.1	565.5	26.67	22.203		
5,200.0	5,161.1	5,171.4	5,150.9	16.6	13.1	-141.54	-375.5	132.9	603.8	576.6	27.27	22.144		
5,300.0	5,260.3	5,270.7	5,249.6	17.0	13.4	-141.28	-386.1	135.0	615.6	587.7	27.87	22.089		
5,400.0	5,359.5	5,370.0	5,348.3	17.3	13.7	-141.03	-396.8	137.0	627.3	598.8	28.47	22.035		
5,500.0	5,458.7	5,469.2	5,446.9	17.7	14.0	-140.78	-407.4	139.0	639.0	610.0	29.07	21.985		
5,600.0	5,557.8	5,568.5	5,545.6	18.0	14.3	-140.55	-418.0	141.1	650.8	621.1	29.67	21.936		
5,700.0	5,657.0	5,667.8	5,644.3	18.3	14.6	-140.35	-428.6	143.1	662.5	632.2	30.26	21.890		
5,800.0	5,756.5	5,769.7	5,745.6	18.5	14.9	-140.16	-438.9	145.1	672.2	641.4	30.78	21.843		
5,900.0	5,856.3	5,874.0	5,849.7	18.7	15.2	-140.01	-446.1	146.4	678.7	647.5	31.19	21.759		
6,000.0	5,956.2	5,978.5	5,954.2	18.8	15.3	-139.94	-449.6	147.1	681.9	650.3	31.53	21.624		
6,100.0	6,056.2	6,080.6	6,056.2	19.0	15.5	90.00	-450.0	147.2	682.2	650.3	31.86	21.412		
6,200.0	6,156.2	6,180.6	6,156.2	19.1	15.7	90.00	-450.0	147.2	682.2	650.0	32.16	21.209		
6,300.0	6,256.2	6,280.6	6,256.2	19.2	15.8	90.00	-450.0	147.2	682.2	649.7	32.47	21.010		
6,400.0	6,356.2	6,380.6	6,356.2	19.4	16.0	90.00	-450.0	147.2	682.2	649.4	32.78	20.812		
6,500.0	6,456.1	6,480.6	6,456.1	19.5	16.1	89.99	-445.9	147.2	682.2	649.1	33.03	20.654		
6,600.0	6,554.6	6,580.6	6,554.6	19.5	16.2	89.99	-429.1	147.2	682.2	649.1	33.11	20.604		
6,700.0	6,650.0	6,680.6	6,650.1	19.5	16.1	89.99	-399.6	147.2	682.2	649.1	33.04	20.649		
6,800.0	6,740.9	6,780.6	6,740.9	19.4	16.1	89.99	-357.9	147.2	682.2	649.3	32.86	20.760		
6,900.0	6,825.4	6,880.6	6,825.4	19.2	16.0	89.99	-304.7	147.2	682.1	649.5	32.64	20.896		
7,000.0	6,902.3	6,980.6	6,902.4	19.1	15.9	89.99	-240.9	147.2	682.1	649.7	32.47	21.008		
7,100.0	6,970.3	7,080.6	6,970.3	18.9	15.9	90.00	-167.6	147.2	682.1	649.7	32.43	21.034		
7,200.0	7,028.1	7,180.6	7,028.1	18.7	16.0	90.00	-86.1	147.2	682.1	649.5	32.61	20.919		
7,300.0	7,074.7	7,280.6	7,074.7	18.5	16.2	90.00	2.3	147.2	682.1	649.0	33.08	20.619		
7,400.0	7,109.4	7,380.6	7,109.4	18.4	16.7	90.00	96.0	147.2	682.1	648.2	33.90	20.119		
7,500.0	7,131.6	7,480.6	7,131.6	18.3	17.3	90.00	193.4	147.2	682.1	647.0	35.08	19.441		
7,600.0	7,143.1	7,580.6	7,143.2	18.9	18.1	90.00	292.8	147.2	682.0	645.4	36.61	18.628		
7,700.0	7,150.5	7,680.6	7,150.5	19.8	19.0	90.00	392.4	147.2	682.0	643.6	38.46	17.732		
7,800.0	7,151.6	7,780.6	7,151.6	20.9	20.1	89.99	492.4	147.2	682.0	641.4	40.57	16.810		
7,900.0	7,152.4	7,880.6	7,152.4	22.1	21.3	89.99	592.4	147.2	682.0	639.1	42.92	15.889		
8,000.0	7,153.2	7,980.6	7,153.2	23.4	22.6	90.00	692.4	147.2	682.0	636.5	45.48	14.995		
8,100.0	7,154.0	8,080.6	7,154.0	24.8	24.0	90.00	792.4	147.2	681.9	633.7	48.21	14.146		
8,200.0	7,154.8	8,180.6	7,154.8	26.2	25.5	90.00	892.4	147.2	681.9	630.8	51.08	13.350		
8,300.0	7,155.6	8,280.6	7,155.6	27.7	27.0	90.00	992.4	147.2	681.9	627.8	54.07	12.611		
8,400.0	7,156.4	8,380.6	7,156.4	29.2	28.5	90.00	1,092.4	147.2	681.9	624.7	57.17	11.928		
8,500.0	7,157.2	8,480.6	7,157.2	30.8	30.1	90.00	1,192.4	147.2	681.8	621.5	60.35	11.298		
8,600.0	7,158.0	8,580.6	7,158.0	32.4	31.8	90.00	1,292.4	147.2	681.8	618.2	63.61	10.720		
8,700.0	7,158.8	8,680.6	7,158.8	34.0	33.5	90.00	1,392.4	147.2	681.8	614.9	66.92	10.188		
8,800.0	7,159.6	8,780.6	7,159.6	35.7	35.2	90.00	1,492.4	147.2	681.8	611.5	70.30	9.699		
8,900.0	7,160.4	8,880.6	7,160.4	37.4	36.9	90.00	1,592.4	147.2	681.8	608.0	73.72	9.249		
9,000.0	7,161.1	8,980.6	7,161.2	39.1	38.6	90.00	1,692.4	147.2	681.7	604.6	77.17	8.834		
9,100.0	7,161.9	9,080.6	7,162.0	40.8	40.4	90.00	1,792.4	147.2	681.7	601.0	80.67	8.451		
9,200.0	7,162.7	9,180.6	7,162.8	42.6	42.1	90.00	1,892.4	147.2	681.7	597.5	84.19	8.097		
9,300.0	7,163.5	9,280.6	7,163.6	44.3	43.9	90.00	1,992.4	147.3	681.7	593.9	87.75	7.769		
9,400.0	7,164.3	9,380.6	7,164.4	46.1	45.7	90.00	2,092.4	147.3	681.6	590.3	91.32	7.464		
9,500.0	7,165.1	9,480.6	7,165.2	47.9	47.5	90.00	2,192.4	147.3	681.6	586.7	94.92	7.181		
9,600.0	7,165.9	9,580.6	7,166.0	49.7	49.3	90.00	2,292.4	147.3	681.6	583.1	98.54	6.917		
9,700.0	7,166.7	9,680.6	7,166.8	51.5	51.2	90.00	2,392.4	147.3	681.6	579.4	102.17	6.671		
9,800.0	7,167.5	9,780.6	7,167.6	53.3	53.0	90.00	2,492.4	147.3	681.6	575.7	105.82	6.441		
9,900.0	7,168.3	9,880.6	7,168.4	55.1	54.8	90.01	2,592.4	147.3	681.5	572.1	109.48	6.225		
10,000.0	7,169.1	9,980.6	7,169.2	56.9	56.7	90.01	2,692.4	147.3	681.5	568.4	113.15	6.023		

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

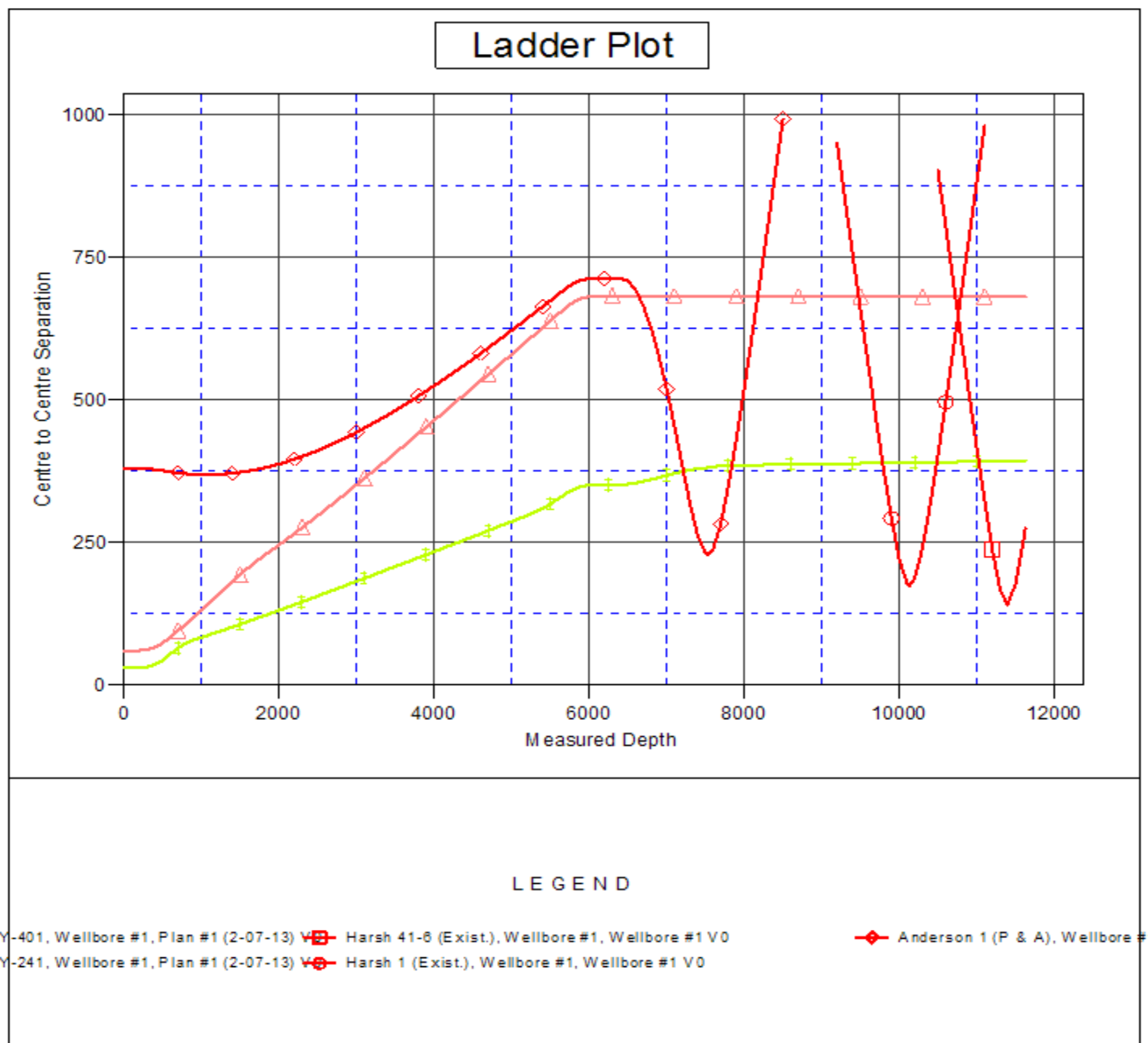
Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well O Investment Properties 6T-421
Project:	SEC.6-T6N-R65W	TVD Reference:	WELL @ 4792.0ft (RKB - 15')
Reference Site:	O Investment Properties 6Y-HZ Pad Sec.6-T6N-R65W	MD Reference:	WELL @ 4792.0ft (RKB - 15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	O Investment Properties 6T-421	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-401 - 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	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor			
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)				
10,100.0	7,169.9	10,080.6	7,170.0	58.7	58.5	90.01	2,792.4	147.3	681.5	564.7	116.84	5.833			
10,200.0	7,170.7	10,180.6	7,170.8	60.6	60.4	90.01	2,892.3	147.3	681.5	560.9	120.53	5.654			
10,300.0	7,171.5	10,280.6	7,171.6	62.4	62.2	90.01	2,992.3	147.3	681.4	557.2	124.24	5.485			
10,400.0	7,172.3	10,380.6	7,172.4	64.3	64.1	90.01	3,092.3	147.3	681.4	553.5	127.95	5.326			
10,500.0	7,173.0	10,480.6	7,173.2	66.1	65.9	90.01	3,192.3	147.3	681.4	549.7	131.67	5.175			
10,600.0	7,173.8	10,580.6	7,174.0	68.0	67.8	90.01	3,292.3	147.3	681.4	546.0	135.40	5.032			
10,700.0	7,174.6	10,680.6	7,174.7	69.8	69.7	90.01	3,392.3	147.3	681.4	542.2	139.13	4.897			
10,800.0	7,175.4	10,780.6	7,175.5	71.7	71.5	90.01	3,492.3	147.3	681.3	538.5	142.87	4.769			
10,900.0	7,176.2	10,880.6	7,176.3	73.5	73.4	90.01	3,592.3	147.3	681.3	534.7	146.62	4.647			
11,000.0	7,177.0	10,980.6	7,177.1	75.4	75.3	90.01	3,692.3	147.3	681.3	530.9	150.37	4.531			
11,100.0	7,177.8	11,080.6	7,177.9	77.3	77.2	90.01	3,792.3	147.3	681.3	527.1	154.12	4.420			
11,200.0	7,178.6	11,180.6	7,178.7	79.1	79.1	90.01	3,892.3	147.3	681.2	523.4	157.88	4.315			
11,300.0	7,179.4	11,280.6	7,179.5	81.0	80.9	90.01	3,992.3	147.3	681.2	519.6	161.65	4.214			
11,400.0	7,180.2	11,380.6	7,180.3	82.9	82.8	90.01	4,092.3	147.3	681.2	515.8	165.42	4.118			
11,500.0	7,181.0	11,480.6	7,181.1	84.8	84.7	90.01	4,192.3	147.4	681.2	512.0	169.19	4.026			
11,600.0	7,181.8	11,580.6	7,181.9	86.7	86.6	90.01	4,292.3	147.4	681.2	508.2	172.96	3.938			
11,605.6	7,181.8	11,586.2	7,182.0	86.8	86.7	90.01	4,297.9	147.4	681.2	508.0	173.17	3.933			
11,628.5	7,182.0	11,587.2	7,182.0	87.2	86.7	90.01	4,299.0	147.4	681.5	507.9	173.63	3.925 SF			

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well O Investment Properties 6T-421
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 6T-421	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 6T-421
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 6T-421
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 6T-421	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 6T-421
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.52°

