

PETROLEUM DEVELOPMENT CORP Weld County CO

Well Name: **Maxey 24O-402**

Surface Location: Maxey 24O-HZ Pad Sec.24-T5N-R65W
North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone

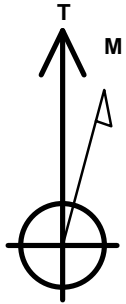
Ground Elevation: 4636.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1383919.36	3247745.25	40.383850	-104.610660	

Original Well Elev WELL @ 4651.0ft (Original Well Elev)

WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
BHL 2406'FSL & 2081'FWL, Sec.19	6912.0	36.9	4518.3	Point



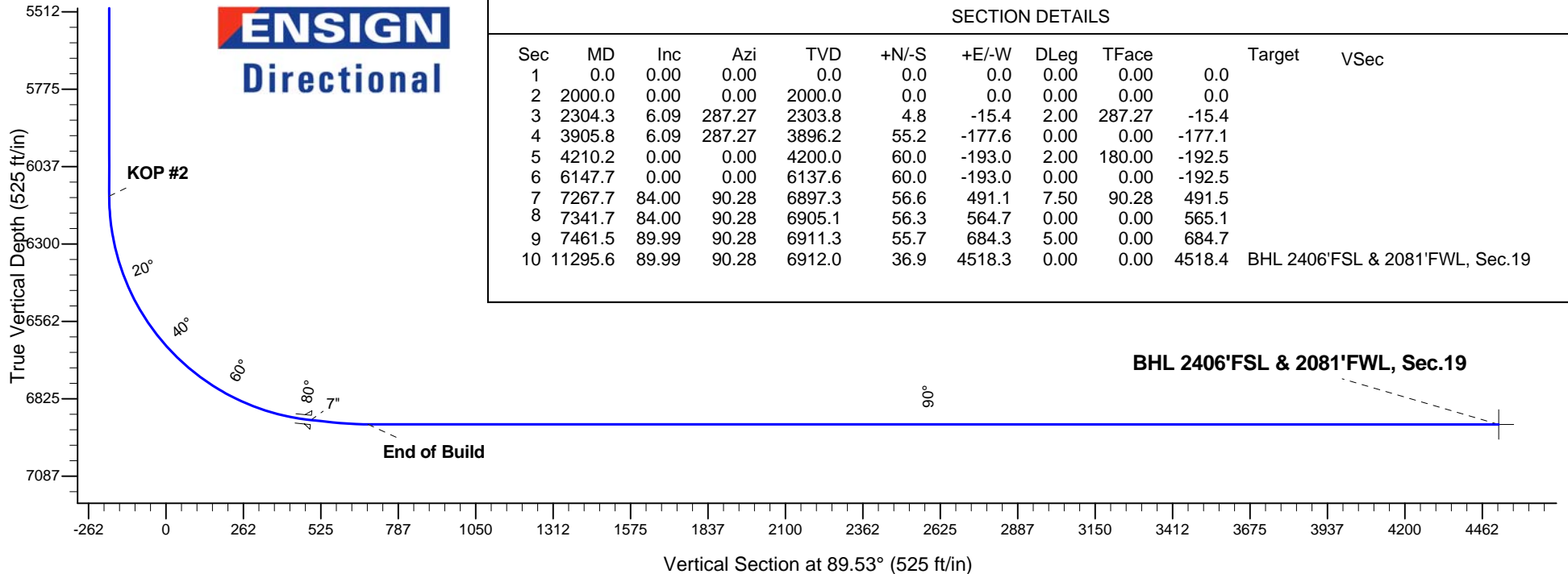
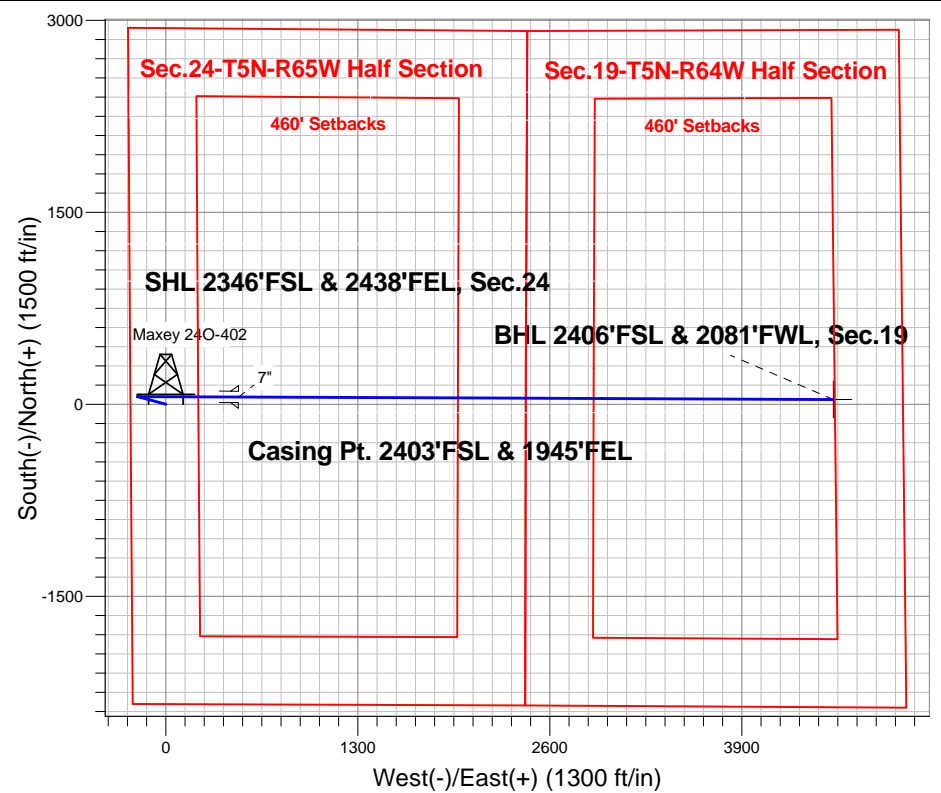
Azimuths to True North
Magnetic North: 8.49°

Magnetic Field
Strength: 52914.0snT
Dip Angle: 66.99°
Date: 8/9/2013
Model: IGRF2010

ANNOTATIONS

TVD	MD	Annotation
2000.0	2000.0	KOP #1
6137.5	6147.7	KOP #2
6911.3	7461.5	End of Build

Maxey 24O-HZ Pad Sec.24-T5N-R65W
Maxey 24O-402
Plan #2 (8-9-13)
11:06, August 12 2013





PETROLEUM DEVELOPMENT CORP Weld County CO

SEC.24-T5N-R65W

Maxey 24O-HZ Pad Sec.24-T5N-R65W

Maxey 24O-402

Wellbore #1

Plan: Plan #2 (8-9-13)

Standard Planning Report

12 August, 2013

Database:	Landmark	Local Co-ordinate Reference:	Well Maxey 24O-402
Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	TVD Reference:	WELL @ 4651.0ft (Original Well Elev)
Project:	SEC.24-T5N-R65W	MD Reference:	WELL @ 4651.0ft (Original Well Elev)
Site:	Maxey 24O-HZ Pad Sec.24-T5N-R65W	North Reference:	True
Well:	Maxey 24O-402	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2 (8-9-13)		

Project	SEC.24-T5N-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	Maxey 24O-HZ Pad Sec.24-T5N-R65W		
Site Position:		Northing:	1,383,922.11 ft
From:	Lat/Long	Easting:	3,247,656.08 ft
Position Uncertainty:	0.0 ft	Slot Radius:	"
		Latitude:	40.383860
		Longitude:	-104.610980
		Grid Convergence:	0.57 °

Well	Maxey 24O-402		
Well Position	+N/-S	-3.7 ft	Northing:
	+E/-W	89.1 ft	Easting:
Position Uncertainty		0.0 ft	Wellhead Elevation:
			Latitude:
			Longitude:
			Ground Level:

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	8/9/2013	8.49	66.99	52,914

Design	Plan #2 (8-9-13)			
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	89.53

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	
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,304.3	6.09	287.27	2,303.8	4.8	-15.4	2.00	2.00	0.00	287.27	
3,905.8	6.09	287.27	3,896.2	55.2	-177.6	0.00	0.00	0.00	0.00	
4,210.2	0.00	0.00	4,200.0	60.0	-193.0	2.00	-2.00	0.00	180.00	
6,147.7	0.00	0.00	6,137.6	60.0	-193.0	0.00	0.00	0.00	0.00	
7,267.7	84.00	90.28	6,897.3	56.6	491.1	7.50	7.50	0.00	90.28	
7,341.7	84.00	90.28	6,905.1	56.3	564.7	0.00	0.00	0.00	0.00	
7,461.5	89.99	90.28	6,911.3	55.7	684.3	5.00	5.00	0.00	0.00	
11,295.6	89.99	90.28	6,912.0	36.9	4,518.3	0.00	0.00	0.00	0.00	BHL 2406'FSL & 2C

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Project:	SEC.24-T5N-R65W	MD Reference:	WELL @ 4651.0ft (Original Well Elev)
Site:	Maxey 24O-HZ Pad Sec.24-T5N-R65W	North Reference:	True
Well:	Maxey 24O-402	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2 (8-9-13)		

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
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
KOP #1									
2,100.0	2.00	287.27	2,100.0	0.5	-1.7	-1.7	2.00	2.00	0.00
2,200.0	4.00	287.27	2,199.8	2.1	-6.7	-6.6	2.00	2.00	0.00
2,300.0	6.00	287.27	2,299.5	4.7	-15.0	-14.9	2.00	2.00	0.00
2,304.3	6.09	287.27	2,303.8	4.8	-15.4	-15.4	2.00	2.00	0.00
2,400.0	6.09	287.27	2,398.9	7.8	-25.1	-25.0	0.00	0.00	0.00
2,500.0	6.09	287.27	2,498.3	11.0	-35.2	-35.1	0.00	0.00	0.00
2,600.0	6.09	287.27	2,597.8	14.1	-45.4	-45.2	0.00	0.00	0.00
2,700.0	6.09	287.27	2,697.2	17.2	-55.5	-55.3	0.00	0.00	0.00
2,800.0	6.09	287.27	2,796.6	20.4	-65.6	-65.4	0.00	0.00	0.00
2,900.0	6.09	287.27	2,896.1	23.5	-75.7	-75.5	0.00	0.00	0.00
3,000.0	6.09	287.27	2,995.5	26.7	-85.9	-85.6	0.00	0.00	0.00
3,100.0	6.09	287.27	3,094.9	29.8	-96.0	-95.7	0.00	0.00	0.00
3,200.0	6.09	287.27	3,194.4	33.0	-106.1	-105.8	0.00	0.00	0.00
3,300.0	6.09	287.27	3,293.8	36.1	-116.2	-115.9	0.00	0.00	0.00
3,400.0	6.09	287.27	3,393.3	39.3	-126.4	-126.0	0.00	0.00	0.00
3,500.0	6.09	287.27	3,492.7	42.4	-136.5	-136.1	0.00	0.00	0.00
3,600.0	6.09	287.27	3,592.1	45.6	-146.6	-146.2	0.00	0.00	0.00
3,700.0	6.09	287.27	3,691.6	48.7	-156.7	-156.3	0.00	0.00	0.00
3,800.0	6.09	287.27	3,791.0	51.9	-166.9	-166.4	0.00	0.00	0.00
3,900.0	6.09	287.27	3,890.4	55.0	-177.0	-176.5	0.00	0.00	0.00
3,905.8	6.09	287.27	3,896.2	55.2	-177.6	-177.1	0.00	0.00	0.00
4,000.0	4.20	287.27	3,990.0	57.7	-185.6	-185.2	2.00	-2.00	0.00
4,100.0	2.20	287.27	4,089.9	59.4	-191.0	-190.5	2.00	-2.00	0.00
4,200.0	0.20	287.27	4,189.8	60.0	-193.0	-192.5	2.00	-2.00	0.00
4,210.2	0.00	0.00	4,200.0	60.0	-193.0	-192.5	2.00	-2.00	0.00
4,300.0	0.00	0.00	4,289.8	60.0	-193.0	-192.5	0.00	0.00	0.00
4,400.0	0.00	0.00	4,389.8	60.0	-193.0	-192.5	0.00	0.00	0.00
4,500.0	0.00	0.00	4,489.8	60.0	-193.0	-192.5	0.00	0.00	0.00
4,600.0	0.00	0.00	4,589.8	60.0	-193.0	-192.5	0.00	0.00	0.00
4,700.0	0.00	0.00	4,689.8	60.0	-193.0	-192.5	0.00	0.00	0.00
4,800.0	0.00	0.00	4,789.8	60.0	-193.0	-192.5	0.00	0.00	0.00

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Wellbore:	Wellbore #1		
Design:	Plan #2 (8-9-13)		

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)
4,900.0	0.00	0.00	4,889.8	60.0	-193.0	-192.5	0.00	0.00	0.00
5,000.0	0.00	0.00	4,989.8	60.0	-193.0	-192.5	0.00	0.00	0.00
5,100.0	0.00	0.00	5,089.8	60.0	-193.0	-192.5	0.00	0.00	0.00
5,200.0	0.00	0.00	5,189.8	60.0	-193.0	-192.5	0.00	0.00	0.00
5,300.0	0.00	0.00	5,289.8	60.0	-193.0	-192.5	0.00	0.00	0.00
5,400.0	0.00	0.00	5,389.8	60.0	-193.0	-192.5	0.00	0.00	0.00
5,500.0	0.00	0.00	5,489.8	60.0	-193.0	-192.5	0.00	0.00	0.00
5,600.0	0.00	0.00	5,589.8	60.0	-193.0	-192.5	0.00	0.00	0.00
5,700.0	0.00	0.00	5,689.8	60.0	-193.0	-192.5	0.00	0.00	0.00
5,800.0	0.00	0.00	5,789.8	60.0	-193.0	-192.5	0.00	0.00	0.00
5,900.0	0.00	0.00	5,889.8	60.0	-193.0	-192.5	0.00	0.00	0.00
6,000.0	0.00	0.00	5,989.8	60.0	-193.0	-192.5	0.00	0.00	0.00
6,100.0	0.00	0.00	6,089.8	60.0	-193.0	-192.5	0.00	0.00	0.00
6,147.7	0.00	0.00	6,137.5	60.0	-193.0	-192.5	0.00	0.00	0.00
KOP #2									
6,200.0	3.92	90.28	6,189.8	60.0	-191.2	-190.7	7.50	7.50	0.00
6,300.0	11.42	90.28	6,288.8	59.9	-177.9	-177.4	7.50	7.50	0.00
6,400.0	18.92	90.28	6,385.3	59.8	-151.7	-151.2	7.50	7.50	0.00
6,500.0	26.42	90.28	6,477.5	59.6	-113.2	-112.7	7.50	7.50	0.00
6,600.0	33.92	90.28	6,563.9	59.4	-63.0	-62.5	7.50	7.50	0.00
6,700.0	41.42	90.28	6,643.0	59.1	-1.9	-1.4	7.50	7.50	0.00
6,800.0	48.92	90.28	6,713.4	58.7	68.9	69.4	7.50	7.50	0.00
6,900.0	56.42	90.28	6,774.0	58.3	148.4	148.9	7.50	7.50	0.00
7,000.0	63.92	90.28	6,823.7	57.9	235.1	235.6	7.50	7.50	0.00
7,100.0	71.42	90.28	6,861.7	57.4	327.5	328.0	7.50	7.50	0.00
7,200.0	78.92	90.28	6,887.3	57.0	424.1	424.6	7.50	7.50	0.00
7,267.7	84.00	90.28	6,897.3	56.6	491.1	491.5	7.50	7.50	0.00
7"									
7,300.0	84.00	90.28	6,900.7	56.5	523.2	523.6	0.01	0.01	0.00
7,341.7	84.00	90.28	6,905.1	56.3	564.7	565.1	0.00	0.00	0.00
7,400.0	86.91	90.28	6,909.7	56.0	622.8	623.2	5.00	5.00	0.00
7,461.5	89.99	90.28	6,911.3	55.7	684.2	684.7	5.00	5.00	0.00
End of Build									
7,500.0	89.99	90.28	6,911.3	55.5	722.7	723.2	0.00	0.00	0.00
7,600.0	89.99	90.28	6,911.4	55.0	822.7	823.1	0.00	0.00	0.00
7,700.0	89.99	90.28	6,911.4	54.5	922.7	923.1	0.00	0.00	0.00
7,800.0	89.99	90.28	6,911.4	54.0	1,022.7	1,023.1	0.00	0.00	0.00
7,900.0	89.99	90.28	6,911.4	53.5	1,122.7	1,123.1	0.00	0.00	0.00
8,000.0	89.99	90.28	6,911.4	53.0	1,222.7	1,223.1	0.00	0.00	0.00
8,100.0	89.99	90.28	6,911.4	52.6	1,322.7	1,323.1	0.00	0.00	0.00
8,200.0	89.99	90.28	6,911.5	52.1	1,422.7	1,423.1	0.00	0.00	0.00
8,300.0	89.99	90.28	6,911.5	51.6	1,522.7	1,523.1	0.00	0.00	0.00
8,400.0	89.99	90.28	6,911.5	51.1	1,622.7	1,623.1	0.00	0.00	0.00
8,500.0	89.99	90.28	6,911.5	50.6	1,722.7	1,723.1	0.00	0.00	0.00
8,600.0	89.99	90.28	6,911.5	50.1	1,822.7	1,823.1	0.00	0.00	0.00
8,700.0	89.99	90.28	6,911.5	49.6	1,922.7	1,923.0	0.00	0.00	0.00
8,800.0	89.99	90.28	6,911.6	49.1	2,022.7	2,023.0	0.00	0.00	0.00
8,900.0	89.99	90.28	6,911.6	48.6	2,122.7	2,123.0	0.00	0.00	0.00
9,000.0	89.99	90.28	6,911.6	48.1	2,222.7	2,223.0	0.00	0.00	0.00
9,100.0	89.99	90.28	6,911.6	47.6	2,322.7	2,323.0	0.00	0.00	0.00
9,200.0	89.99	90.28	6,911.6	47.2	2,422.7	2,423.0	0.00	0.00	0.00
9,300.0	89.99	90.28	6,911.7	46.7	2,522.7	2,523.0	0.00	0.00	0.00
9,400.0	89.99	90.28	6,911.7	46.2	2,622.7	2,623.0	0.00	0.00	0.00

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Site:	Maxey 24O-HZ Pad Sec.24-T5N-R65W	North Reference:	True
Well:	Maxey 24O-402	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2 (8-9-13)		

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)
9,500.0	89.99	90.28	6,911.7	45.7	2,722.7	2,723.0	0.00	0.00	0.00
9,600.0	89.99	90.28	6,911.7	45.2	2,822.7	2,823.0	0.00	0.00	0.00
9,700.0	89.99	90.28	6,911.7	44.7	2,922.7	2,923.0	0.00	0.00	0.00
9,800.0	89.99	90.28	6,911.7	44.2	3,022.7	3,023.0	0.00	0.00	0.00
9,900.0	89.99	90.28	6,911.8	43.7	3,122.7	3,122.9	0.00	0.00	0.00
10,000.0	89.99	90.28	6,911.8	43.2	3,222.7	3,222.9	0.00	0.00	0.00
10,100.0	89.99	90.28	6,911.8	42.7	3,322.7	3,322.9	0.00	0.00	0.00
10,200.0	89.99	90.28	6,911.8	42.2	3,422.7	3,422.9	0.00	0.00	0.00
10,300.0	89.99	90.28	6,911.8	41.8	3,522.7	3,522.9	0.00	0.00	0.00
10,400.0	89.99	90.28	6,911.8	41.3	3,622.7	3,622.9	0.00	0.00	0.00
10,500.0	89.99	90.28	6,911.9	40.8	3,722.7	3,722.9	0.00	0.00	0.00
10,600.0	89.99	90.28	6,911.9	40.3	3,822.7	3,822.9	0.00	0.00	0.00
10,700.0	89.99	90.28	6,911.9	39.8	3,922.7	3,922.9	0.00	0.00	0.00
10,800.0	89.99	90.28	6,911.9	39.3	4,022.7	4,022.9	0.00	0.00	0.00
10,900.0	89.99	90.28	6,911.9	38.8	4,122.7	4,122.9	0.00	0.00	0.00
11,000.0	89.99	90.28	6,911.9	38.3	4,222.7	4,222.9	0.00	0.00	0.00
11,100.0	89.99	90.28	6,912.0	37.8	4,322.7	4,322.8	0.00	0.00	0.00
11,200.0	89.99	90.28	6,912.0	37.3	4,422.7	4,422.8	0.00	0.00	0.00
11,295.6	89.99	90.28	6,912.0	36.9	4,518.3	4,518.4	0.00	0.00	0.00
BHL 2406'FSL & 2081'FWL, Sec.19									

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
7,267.7	6,897.3	7"	7	7-1/2

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
2,000.0	2,000.0	0.0	0.0	KOP #1
6,147.7	6,137.5	60.0	-193.0	KOP #2
7,461.5	6,911.3	55.7	684.2	End of Build



PETROLEUM DEVELOPMENT CORP Weld County CO

SEC.24-T5N-R65W

Maxey 24O-HZ Pad Sec.24-T5N-R65W

Maxey 24O-402

Wellbore #1

Plan #2 (8-9-13)

Anticollision Report

12 August, 2013



Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well Maxey 24O-402
Project:	SEC.24-T5N-R65W	TVD Reference:	WELL @ 4651.0ft (Original Well Elev)
Reference Site:	Maxey 24O-HZ Pad Sec.24-T5N-R65W	MD Reference:	WELL @ 4651.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Maxey 24O-402	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 #2 (8-9-13)	Offset TVD Reference:	Offset Datum

Reference	Plan #2 (8-9-13)
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria
Interpolation Method:	MD Interval 100.0ft
Depth Range:	Unlimited
Results Limited by:	Maximum center-center distance of 1,000.0ft
Warning Levels Evaluated at:	2.00 Sigma
Error Model:	ISCWSA
Scan Method:	Closest Approach 3D
Error Surface:	Elliptical Conic

Survey Tool Program		Date	8/9/2013		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
0.0	11,295.6	Plan #2 (8-9-13) (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						
Maxey 24O-HZ Pad Sec.24-T5N-R65W						
Maxey 24O-232 - Wellbore #1 - Plan #2 (8-9-13)	1,500.0	1,500.0	28.1	21.6	4.310	CC, ES
Maxey 24O-232 - Wellbore #1 - Plan #2 (8-9-13)	11,295.6	11,134.9	392.9	163.9	1.716	SF
Maxey 24P-312 - Wellbore #1 - Plan #2 (8-9-13)	966.3	967.3	58.6	54.5	14.222	CC
Maxey 24P-312 - Wellbore #1 - Plan #2 (8-9-13)	1,100.0	1,100.7	58.9	54.2	12.551	ES
Maxey 24P-312 - Wellbore #1 - Plan #2 (8-9-13)	11,295.6	11,240.8	687.1	432.6	2.700	SF
Maxey 24P-402 - Wellbore #1 - Plan #2 (8-9-13)	166.3	167.3	89.2	88.7	169.887	CC
Maxey 24P-402 - Wellbore #1 - Plan #2 (8-9-13)	300.0	300.8	89.3	88.2	80.934	ES
Maxey 24P-402 - Wellbore #1 - Plan #2 (8-9-13)	11,295.6	11,346.5	976.3	718.4	3.785	SF

Offset Design Maxey 24O-HZ Pad Sec.24-T5N-R65W - Maxey 24O-232 - Wellbore #1 - Plan #2 (8-9-13)													
Survey Program: 0-MWD													
Reference													
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-82.56	3.6	-27.9	28.1				
100.0	100.0	100.0	100.0	0.1	0.1	-82.56	3.6	-27.9	28.1	27.9	0.22	124.999	
200.0	200.0	200.0	200.0	0.3	0.3	-82.56	3.6	-27.9	28.1	27.4	0.67	41.666	
300.0	300.0	300.0	300.0	0.6	0.6	-82.56	3.6	-27.9	28.1	27.0	1.12	25.000	
400.0	400.0	400.0	400.0	0.8	0.8	-82.56	3.6	-27.9	28.1	26.5	1.57	17.857	
500.0	500.0	500.0	500.0	1.0	1.0	-82.56	3.6	-27.9	28.1	26.1	2.02	13.889	
600.0	600.0	600.0	600.0	1.2	1.2	-82.56	3.6	-27.9	28.1	25.6	2.47	11.364	
700.0	700.0	700.0	700.0	1.5	1.5	-82.56	3.6	-27.9	28.1	25.2	2.92	9.615	
800.0	800.0	800.0	800.0	1.7	1.7	-82.56	3.6	-27.9	28.1	24.7	3.37	8.333	
900.0	900.0	900.0	900.0	1.9	1.9	-82.56	3.6	-27.9	28.1	24.3	3.82	7.353	
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	-82.56	3.6	-27.9	28.1	23.8	4.27	6.579	
1,100.0	1,100.0	1,100.0	1,100.0	2.4	2.4	-82.56	3.6	-27.9	28.1	23.4	4.72	5.952	
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	-82.56	3.6	-27.9	28.1	22.9	5.17	5.435	
1,300.0	1,300.0	1,300.0	1,300.0	2.8	2.8	-82.56	3.6	-27.9	28.1	22.5	5.62	5.000	
1,400.0	1,400.0	1,400.0	1,400.0	3.0	3.0	-82.56	3.6	-27.9	28.1	22.0	6.07	4.630	
1,500.0	1,500.0	1,500.0	1,500.0	3.3	3.3	-82.56	3.6	-27.9	28.1	21.6	6.52	4.310	CC, ES
1,600.0	1,600.0	1,599.6	1,599.6	3.5	3.5	-85.77	2.1	-28.7	28.8	21.8	6.94	4.146	
1,700.0	1,700.0	1,699.0	1,698.8	3.7	3.6	-94.43	-2.4	-31.2	31.3	24.0	7.34	4.263	

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 Maxey 24O-402
Project:	SEC.24-T5N-R65W	TVD Reference:	WELL @ 4651.0ft (Original Well Elev)
Reference Site:	Maxey 24O-HZ Pad Sec.24-T5N-R65W	MD Reference:	WELL @ 4651.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Maxey 24O-402	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 #2 (8-9-13)	Offset TVD Reference:	Offset Datum

Offset Design Maxey 24O-HZ Pad Sec.24-T5N-R65W - Maxey 24O-232 - Wellbore #1 - Plan #2 (8-9-13)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
1,800.0	1,800.0	1,797.9	1,797.3	3.9	3.8	-105.70	-105.70	-9.9	-35.3	36.8	29.0	7.75	4.744	
1,900.0	1,900.0	1,897.1	1,896.0	4.2	4.0	-115.60	-115.60	-19.4	-40.5	45.1	36.9	8.17	5.515	
2,000.0	2,000.0	1,996.5	1,994.8	4.4	4.2	-122.32	-122.32	-28.9	-45.7	54.4	45.7	8.61	6.312	
2,100.0	2,100.0	2,095.9	2,093.6	4.6	4.5	-55.46	-55.46	-38.5	-51.0	63.2	54.2	8.99	7.029	
2,200.0	2,199.8	2,195.3	2,192.4	4.8	4.7	-62.26	-62.26	-48.0	-56.2	70.8	61.4	9.39	7.542	
2,300.0	2,299.5	2,294.5	2,291.0	5.0	4.9	-70.01	-70.01	-57.5	-61.4	78.0	68.2	9.80	7.961	
2,400.0	2,398.9	2,393.6	2,389.5	5.3	5.2	-77.66	-77.66	-67.0	-66.6	86.1	75.8	10.24	8.408	
2,500.0	2,498.3	2,492.7	2,488.0	5.5	5.4	-83.93	-83.93	-76.5	-71.8	95.4	84.7	10.68	8.926	
2,600.0	2,597.8	2,591.7	2,586.4	5.7	5.7	-89.06	-89.06	-86.0	-77.0	105.6	94.5	11.15	9.475	
2,700.0	2,697.2	2,690.8	2,684.9	6.0	6.0	-93.25	-93.25	-95.5	-82.2	116.5	104.9	11.62	10.031	
2,800.0	2,796.6	2,789.9	2,783.4	6.2	6.2	-96.72	-96.72	-105.0	-87.5	128.0	115.9	12.10	10.578	
2,900.0	2,896.1	2,888.9	2,881.9	6.5	6.5	-99.61	-99.61	-114.5	-92.7	139.8	127.2	12.59	11.107	
3,000.0	2,995.5	2,988.0	2,980.3	6.7	6.8	-102.04	-102.04	-124.0	-97.9	151.9	138.8	13.08	11.614	
3,100.0	3,094.9	3,087.1	3,078.8	7.0	7.1	-104.12	-104.12	-133.5	-103.1	164.3	150.7	13.58	12.096	
3,200.0	3,194.4	3,186.1	3,177.3	7.3	7.3	-105.90	-105.90	-143.0	-108.3	176.8	162.7	14.09	12.552	
3,300.0	3,293.8	3,285.2	3,275.8	7.5	7.6	-107.45	-107.45	-152.5	-113.5	189.5	174.9	14.60	12.983	
3,400.0	3,393.3	3,384.3	3,374.2	7.8	7.9	-108.80	-108.80	-162.0	-118.7	202.3	187.2	15.11	13.389	
3,500.0	3,492.7	3,483.4	3,472.7	8.1	8.2	-109.99	-109.99	-171.5	-123.9	215.2	199.6	15.63	13.772	
3,600.0	3,592.1	3,582.4	3,571.2	8.4	8.5	-111.04	-111.04	-181.0	-129.1	228.2	212.1	16.15	14.133	
3,700.0	3,691.6	3,681.5	3,669.7	8.6	8.8	-111.99	-111.99	-190.5	-134.4	241.3	224.6	16.67	14.473	
3,800.0	3,791.0	3,780.6	3,768.1	8.9	9.0	-112.83	-112.83	-200.0	-139.6	254.4	237.2	17.19	14.794	
3,900.0	3,890.4	3,879.6	3,866.6	9.2	9.3	-113.59	-113.59	-209.5	-144.8	267.5	249.8	17.72	15.097	
4,000.0	3,990.0	3,978.8	3,965.2	9.4	9.6	-114.21	-114.21	-219.0	-150.0	280.1	261.9	18.22	15.370	
4,100.0	4,089.9	4,078.2	4,064.0	9.6	9.9	-114.15	-114.15	-228.5	-155.2	291.3	272.6	18.67	15.598	
4,200.0	4,189.8	4,177.6	4,162.8	9.8	10.2	-113.48	-113.48	-238.1	-160.5	301.0	281.9	19.10	15.764	
4,300.0	4,289.8	4,277.0	4,261.6	10.0	10.5	174.92	174.92	-247.6	-165.7	310.1	290.6	19.48	15.917	
4,400.0	4,389.8	4,376.4	4,360.4	10.2	10.8	176.02	176.02	-257.1	-170.9	319.2	299.3	19.99	15.970	
4,500.0	4,489.8	4,475.8	4,459.2	10.4	11.1	177.05	177.05	-266.6	-176.1	328.5	308.0	20.50	16.024	
4,600.0	4,589.8	4,583.3	4,566.2	10.6	11.4	178.00	178.00	-276.0	-181.3	337.0	316.0	21.01	16.042	
4,700.0	4,689.8	4,694.5	4,677.1	10.8	11.6	178.59	178.59	-282.0	-184.6	342.4	320.9	21.47	15.950	
4,800.0	4,789.8	4,806.0	4,788.6	11.0	11.8	178.81	178.81	-284.3	-185.8	344.4	322.5	21.89	15.732	
4,900.0	4,889.8	4,907.2	4,889.8	11.2	12.0	178.81	178.81	-284.4	-185.9	344.4	322.1	22.29	15.450	
5,000.0	4,989.8	5,007.2	4,989.8	11.5	12.2	178.81	178.81	-284.4	-185.9	344.4	321.7	22.69	15.182	
5,100.0	5,089.8	5,107.2	5,089.8	11.7	12.4	178.81	178.81	-284.4	-185.9	344.4	321.4	23.08	14.923	
5,200.0	5,189.8	5,207.2	5,189.8	11.9	12.5	178.81	178.81	-284.4	-185.9	344.4	321.0	23.48	14.671	
5,300.0	5,289.8	5,307.2	5,289.8	12.1	12.7	178.81	178.81	-284.4	-185.9	344.4	320.6	23.88	14.426	
5,400.0	5,389.8	5,407.2	5,389.8	12.3	12.9	178.81	178.81	-284.4	-185.9	344.4	320.2	24.28	14.188	
5,500.0	5,489.8	5,507.2	5,489.8	12.5	13.1	178.81	178.81	-284.4	-185.9	344.4	319.8	24.68	13.957	
5,600.0	5,589.8	5,607.2	5,589.8	12.7	13.2	178.81	178.81	-284.4	-185.9	344.4	319.4	25.08	13.733	
5,700.0	5,689.8	5,707.2	5,689.8	12.9	13.4	178.81	178.81	-284.4	-185.9	344.4	318.9	25.49	13.515	
5,800.0	5,789.8	5,807.2	5,789.8	13.1	13.6	178.81	178.81	-284.4	-185.9	344.4	318.5	25.89	13.303	
5,900.0	5,889.8	5,907.2	5,889.8	13.4	13.8	178.81	178.81	-284.4	-185.9	344.4	318.1	26.30	13.097	
5,963.0	5,952.8	5,970.2	5,952.8	13.5	13.9	178.81	178.81	-284.4	-185.9	344.4	317.9	26.56	12.970	
6,000.0	5,989.8	6,007.1	5,989.7	13.6	14.0	178.80	178.80	-284.4	-185.8	344.4	317.7	26.71	12.897	
6,100.0	6,089.8	6,105.2	6,087.5	13.8	14.1	177.55	177.55	-284.4	-178.3	344.7	317.6	27.09	12.726	
6,200.0	6,189.8	6,200.0	6,180.2	14.0	14.2	84.30	84.30	-284.5	-159.1	346.1	318.8	27.33	12.666	
6,300.0	6,288.8	6,293.0	6,268.3	14.1	14.3	81.20	81.20	-284.7	-129.3	348.6	321.0	27.60	12.630	
6,400.0	6,385.3	6,383.8	6,350.1	14.3	14.4	78.31	78.31	-284.9	-90.2	351.9	324.1	27.82	12.647	
6,500.0	6,477.5	6,472.9	6,425.4	14.4	14.5	75.67	75.67	-285.1	-42.5	355.7	327.7	28.04	12.686	
6,600.0	6,563.9	6,560.6	6,493.6	14.6	14.6	73.30	73.30	-285.4	12.6	359.9	331.6	28.32	12.708	
6,700.0	6,643.0	6,650.0	6,556.1	14.9	14.7	71.16	71.16	-285.7	76.4	364.1	335.3	28.80	12.645	

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 Maxey 240-402
Project:	SEC.24-T5N-R65W	TVD Reference:	WELL @ 4651.0ft (Original Well Elev)
Reference Site:	Maxey 240-HZ Pad Sec.24-T5N-R65W	MD Reference:	WELL @ 4651.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Maxey 240-402	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 #2 (8-9-13)	Offset TVD Reference:	Offset Datum

Offset Design Maxey 240-HZ Pad Sec.24-T5N-R65W - Maxey 240-232 - Wellbore #1 - Plan #2 (8-9-13)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
6,800.0	6,713.4	6,732.5	6,606.8	15.4	15.3	69.45		-286.1	141.4	368.1	338.6	29.55	12.458	
6,900.0	6,774.0	6,817.1	6,651.2	16.1	16.1	68.00		-286.5	213.3	371.7	341.0	30.72	12.102	
7,000.0	6,823.7	6,900.0	6,686.7	17.2	17.2	66.87		-286.9	288.2	374.8	342.4	32.37	11.578	
7,100.0	6,861.7	6,984.4	6,714.4	18.6	18.6	66.05		-287.3	367.9	377.0	342.4	34.60	10.897	
7,200.0	6,887.3	7,067.4	6,732.9	20.3	20.1	65.56		-287.7	448.8	378.5	341.2	37.34	10.137	
7,300.0	6,900.7	7,150.0	6,742.4	22.2	21.7	65.31		-288.1	530.8	379.3	338.8	40.50	9.366	
7,400.0	6,909.7	7,239.4	6,743.7	24.3	23.7	64.32		-288.6	620.2	382.5	338.7	43.84	8.725	
7,500.0	6,911.3	7,339.4	6,743.2	26.5	25.9	64.00		-289.2	720.1	383.5	335.7	47.76	8.029	
7,600.0	6,911.4	7,439.4	6,742.8	28.8	28.2	63.94		-289.7	820.1	383.7	331.8	51.92	7.391	
7,700.0	6,911.4	7,539.4	6,742.3	31.1	30.6	63.88		-290.2	920.1	384.0	327.7	56.22	6.830	
7,800.0	6,911.4	7,639.4	6,741.9	33.6	33.1	63.82		-290.7	1,020.1	384.2	323.6	60.63	6.336	
7,900.0	6,911.4	7,739.4	6,741.4	36.1	35.6	63.76		-291.3	1,120.1	384.4	319.3	65.14	5.902	
8,000.0	6,911.4	7,839.4	6,741.0	38.6	38.2	63.70		-291.8	1,220.1	384.7	315.0	69.71	5.518	
8,100.0	6,911.4	7,939.4	6,740.5	41.2	40.8	63.64		-292.3	1,320.1	384.9	310.6	74.35	5.177	
8,200.0	6,911.5	8,039.4	6,740.1	43.8	43.4	63.58		-292.9	1,420.1	385.2	306.1	79.02	4.874	
8,300.0	6,911.5	8,139.4	6,739.6	46.4	46.1	63.52		-293.4	1,520.1	385.4	301.7	83.74	4.603	
8,400.0	6,911.5	8,239.4	6,739.2	49.1	48.7	63.46		-293.9	1,620.1	385.7	297.2	88.48	4.359	
8,500.0	6,911.5	8,339.4	6,738.7	51.8	51.4	63.40		-294.4	1,720.1	385.9	292.6	93.25	4.138	
8,600.0	6,911.5	8,439.4	6,738.2	54.4	54.1	63.34		-295.0	1,820.1	386.1	288.1	98.04	3.939	
8,700.0	6,911.5	8,539.4	6,737.8	57.1	56.8	63.28		-295.5	1,920.1	386.4	283.5	102.85	3.757	
8,800.0	6,911.6	8,639.4	6,737.3	59.8	59.5	63.22		-296.0	2,020.1	386.6	279.0	107.67	3.591	
8,900.0	6,911.6	8,739.4	6,736.9	62.5	62.3	63.16		-296.6	2,120.1	386.9	274.4	112.50	3.439	
9,000.0	6,911.6	8,839.4	6,736.4	65.3	65.0	63.10		-297.1	2,220.1	387.1	269.8	117.34	3.299	
9,100.0	6,911.6	8,939.4	6,736.0	68.0	67.7	63.04		-297.6	2,320.1	387.4	265.2	122.19	3.170	
9,200.0	6,911.6	9,039.4	6,735.5	70.7	70.5	62.98		-298.1	2,420.1	387.6	260.6	127.05	3.051	
9,300.0	6,911.7	9,139.4	6,735.1	73.5	73.2	62.92		-298.7	2,520.1	387.9	256.0	131.91	2.940	
9,400.0	6,911.7	9,239.4	6,734.6	76.2	76.0	62.86		-299.2	2,620.1	388.1	251.3	136.77	2.838	
9,500.0	6,911.7	9,339.4	6,734.2	79.0	78.7	62.80		-299.7	2,720.1	388.4	246.7	141.64	2.742	
9,600.0	6,911.7	9,439.4	6,733.7	81.7	81.5	62.74		-300.3	2,820.1	388.6	242.1	146.51	2.653	
9,700.0	6,911.7	9,539.4	6,733.3	84.5	84.2	62.68		-300.8	2,920.1	388.9	237.5	151.38	2.569	
9,800.0	6,911.7	9,639.4	6,732.8	87.2	87.0	62.62		-301.3	3,020.1	389.1	232.9	156.25	2.490	
9,900.0	6,911.8	9,739.4	6,732.3	90.0	89.8	62.56		-301.8	3,120.1	389.4	228.2	161.12	2.417	
10,000.0	6,911.8	9,839.4	6,731.9	92.8	92.5	62.50		-302.4	3,220.0	389.6	223.6	165.99	2.347	
10,100.0	6,911.8	9,939.4	6,731.4	95.5	95.3	62.44		-302.9	3,320.0	389.9	219.0	170.86	2.282	
10,200.0	6,911.8	10,039.4	6,731.0	98.3	98.1	62.39		-303.4	3,420.0	390.1	214.4	175.74	2.220	
10,300.0	6,911.8	10,139.4	6,730.5	101.1	100.9	62.33		-304.0	3,520.0	390.4	209.8	180.60	2.161	
10,400.0	6,911.8	10,239.4	6,730.1	103.9	103.6	62.27		-304.5	3,620.0	390.6	205.1	185.47	2.106	
10,500.0	6,911.9	10,339.3	6,729.6	106.6	106.4	62.21		-305.0	3,720.0	390.9	200.5	190.34	2.054	
10,600.0	6,911.9	10,439.3	6,729.2	109.4	109.2	62.15		-305.5	3,820.0	391.1	195.9	195.20	2.004	
10,700.0	6,911.9	10,539.3	6,728.7	112.2	112.0	62.09		-306.1	3,920.0	391.4	191.3	200.06	1.956	
10,800.0	6,911.9	10,639.3	6,728.3	115.0	114.8	62.03		-306.6	4,020.0	391.6	186.7	204.92	1.911	
10,900.0	6,911.9	10,739.3	6,727.8	117.8	117.6	61.98		-307.1	4,120.0	391.9	182.1	209.78	1.868	
11,000.0	6,911.9	10,839.3	6,727.4	120.5	120.3	61.92		-307.7	4,220.0	392.1	177.5	214.63	1.827	
11,100.0	6,912.0	10,939.3	6,726.9	123.3	123.1	61.86		-308.2	4,320.0	392.4	172.9	219.48	1.788	
11,200.0	6,912.0	11,039.3	6,726.4	126.1	125.9	61.80		-308.7	4,420.0	392.7	168.3	224.32	1.750	
11,295.6	6,912.0	11,134.9	6,726.0	128.8	128.6	61.75		-309.2	4,515.6	392.9	163.9	228.95	1.716 SF	

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well Maxey 24O-402
Project:	SEC.24-T5N-R65W	TVD Reference:	WELL @ 4651.0ft (Original Well Elev)
Reference Site:	Maxey 24O-HZ Pad Sec.24-T5N-R65W	MD Reference:	WELL @ 4651.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Maxey 24O-402	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 #2 (8-9-13)	Offset TVD Reference:	Offset Datum

Offset Design Maxey 24O-HZ Pad Sec.24-T5N-R65W - Maxey 24P-312 - Wellbore #1 - Plan #2 (8-9-13)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	1.0	1.0	0.0	0.0	-86.44	-86.44	3.6	-58.5	58.6	58.6	0.00	N/A	
100.0	100.0	101.0	101.0	0.1	0.1	-86.44	-86.44	3.6	-58.5	58.6	58.4	0.23	258.209	
200.0	200.0	201.0	201.0	0.3	0.3	-86.44	-86.44	3.6	-58.5	58.6	57.9	0.68	86.641	
300.0	300.0	301.0	301.0	0.6	0.6	-86.44	-86.44	3.6	-58.5	58.6	57.5	1.13	52.054	
400.0	400.0	401.0	401.0	0.8	0.8	-86.44	-86.44	3.6	-58.5	58.6	57.0	1.58	37.203	
500.0	500.0	501.0	501.0	1.0	1.0	-86.44	-86.44	3.6	-58.5	58.6	56.6	2.03	28.945	
600.0	600.0	601.0	601.0	1.2	1.2	-86.44	-86.44	3.6	-58.5	58.6	56.1	2.47	23.687	
700.0	700.0	701.0	701.0	1.5	1.5	-86.44	-86.44	3.6	-58.5	58.6	55.7	2.92	20.045	
800.0	800.0	801.0	801.0	1.7	1.7	-86.44	-86.44	3.6	-58.5	58.6	55.2	3.37	17.374	
900.0	900.0	901.0	901.0	1.9	1.9	-86.44	-86.44	3.6	-58.5	58.6	54.8	3.82	15.332	
966.3	966.3	967.3	967.3	2.1	2.1	-86.44	-86.44	3.6	-58.5	58.6	54.5	4.12	14.222 CC	
1,000.0	1,000.0	1,001.0	1,001.0	2.1	2.1	-86.44	-86.44	3.6	-58.5	58.6	54.3	4.27	13.720	
1,100.0	1,100.0	1,100.7	1,100.6	2.4	2.3	-88.14	-88.14	1.9	-58.9	58.9	54.2	4.69	12.551 ES	
1,200.0	1,200.0	1,200.0	1,199.8	2.6	2.5	-93.03	-93.03	-3.2	-60.0	60.1	55.0	5.10	11.788	
1,300.0	1,300.0	1,299.0	1,298.5	2.8	2.7	-100.63	-100.63	-11.6	-61.8	62.9	57.4	5.51	11.421	
1,400.0	1,400.0	1,397.2	1,395.9	3.0	2.9	-109.87	-109.87	-23.2	-64.3	68.5	62.6	5.94	11.543	
1,500.0	1,500.0	1,496.2	1,494.0	3.3	3.1	-118.64	-118.64	-36.7	-67.2	76.9	70.5	6.39	12.024	
1,600.0	1,600.0	1,595.2	1,592.0	3.5	3.4	-125.60	-125.60	-50.2	-70.1	86.7	79.8	6.87	12.609	
1,700.0	1,700.0	1,694.3	1,690.1	3.7	3.7	-131.09	-131.09	-63.6	-73.0	97.4	90.1	7.37	13.221	
1,800.0	1,800.0	1,793.3	1,788.2	3.9	4.0	-135.46	-135.46	-77.1	-75.9	108.9	101.1	7.88	13.821	
1,900.0	1,900.0	1,892.3	1,886.2	4.2	4.3	-138.98	-138.98	-90.6	-78.8	120.9	112.5	8.40	14.390	
2,000.0	2,000.0	1,991.3	1,984.3	4.4	4.6	-141.87	-141.87	-104.0	-81.7	133.3	124.4	8.93	14.922	
2,100.0	2,100.0	2,090.3	2,082.3	4.6	4.9	-71.95	-71.95	-117.5	-84.6	145.4	136.4	9.04	16.097	
2,200.0	2,199.8	2,189.2	2,180.2	4.8	5.2	-75.51	-75.51	-130.9	-87.5	157.0	147.5	9.45	16.606	
2,300.0	2,299.5	2,287.7	2,277.8	5.0	5.5	-79.69	-79.69	-144.3	-90.4	168.5	158.6	9.88	17.062	
2,400.0	2,398.9	2,386.0	2,375.1	5.3	5.8	-84.09	-84.09	-157.7	-93.2	180.7	170.4	10.31	17.532	
2,500.0	2,498.3	2,484.4	2,472.5	5.5	6.1	-87.94	-87.94	-171.1	-96.1	193.8	183.1	10.75	18.028	
2,600.0	2,597.8	2,582.7	2,569.9	5.7	6.5	-91.29	-91.29	-184.5	-99.0	207.7	196.5	11.21	18.532	
2,700.0	2,697.2	2,681.0	2,667.3	6.0	6.8	-94.22	-94.22	-197.8	-101.9	222.2	210.5	11.68	19.030	
2,800.0	2,796.6	2,779.4	2,764.7	6.2	7.1	-96.79	-96.79	-211.2	-104.7	237.2	225.1	12.15	19.516	
2,900.0	2,896.1	2,877.7	2,862.0	6.5	7.4	-99.05	-99.05	-224.6	-107.6	252.6	240.0	12.64	19.983	
3,000.0	2,995.5	2,976.1	2,959.4	6.7	7.8	-101.05	-101.05	-238.0	-110.5	268.4	255.2	13.14	20.431	
3,100.0	3,094.9	3,074.4	3,056.8	7.0	8.1	-102.83	-102.83	-251.3	-113.4	284.4	270.8	13.64	20.856	
3,200.0	3,194.4	3,172.7	3,154.2	7.3	8.4	-104.42	-104.42	-264.7	-116.3	300.7	286.6	14.14	21.261	
3,300.0	3,293.8	3,271.1	3,251.6	7.5	8.8	-105.85	-105.85	-278.1	-119.1	317.2	302.6	14.66	21.644	
3,400.0	3,393.3	3,369.4	3,349.0	7.8	9.1	-107.13	-107.13	-291.5	-122.0	333.9	318.7	15.17	22.007	
3,500.0	3,492.7	3,467.7	3,446.3	8.1	9.4	-108.29	-108.29	-304.8	-124.9	350.7	335.0	15.69	22.350	
3,600.0	3,592.1	3,566.1	3,543.7	8.4	9.8	-109.35	-109.35	-318.2	-127.8	367.6	351.4	16.21	22.675	
3,700.0	3,691.6	3,664.4	3,641.1	8.6	10.1	-110.31	-110.31	-331.6	-130.7	384.7	367.9	16.74	22.982	
3,800.0	3,791.0	3,762.8	3,738.5	8.9	10.5	-111.20	-111.20	-345.0	-133.5	401.8	384.6	17.27	23.272	
3,900.0	3,890.4	3,861.1	3,835.9	9.2	10.8	-112.01	-112.01	-358.3	-136.4	419.1	401.3	17.80	23.548	
4,000.0	3,990.0	3,959.6	3,933.4	9.4	11.1	-112.86	-112.86	-371.7	-139.3	435.8	417.5	18.31	23.802	
4,100.0	4,089.9	4,058.4	4,031.2	9.6	11.5	-113.25	-113.25	-385.2	-142.2	451.2	432.4	18.77	24.040	
4,200.0	4,189.8	4,157.4	4,129.3	9.8	11.8	-113.21	-113.21	-398.6	-145.1	465.2	446.0	19.20	24.225	
4,300.0	4,289.8	4,256.4	4,227.3	10.0	12.2	174.55	174.55	-412.1	-148.0	478.5	457.2	21.30	22.459	
4,400.0	4,389.8	4,355.4	4,325.4	10.2	12.5	175.04	175.04	-425.6	-150.9	491.8	469.9	21.86	22.494	
4,500.0	4,489.8	4,454.4	4,423.4	10.4	12.8	175.51	175.51	-439.1	-153.8	505.1	482.7	22.42	22.527	
4,600.0	4,589.8	4,553.5	4,521.5	10.6	13.2	175.95	175.95	-452.5	-156.7	518.5	495.5	22.98	22.559	
4,700.0	4,689.8	4,652.5	4,619.6	10.8	13.5	176.36	176.36	-466.0	-159.6	531.8	508.3	23.54	22.590	
4,800.0	4,789.8	4,751.5	4,717.6	11.0	13.9	176.76	176.76	-479.5	-162.5	545.3	521.2	24.11	22.620	
4,900.0	4,889.8	4,850.6	4,815.7	11.2	14.2	177.14	177.14	-492.9	-165.4	558.7	534.0	24.67	22.649	

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 Maxey 24O-402
Project:	SEC.24-T5N-R65W	TVD Reference:	WELL @ 4651.0ft (Original Well Elev)
Reference Site:	Maxey 24O-HZ Pad Sec.24-T5N-R65W	MD Reference:	WELL @ 4651.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Maxey 24O-402	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 #2 (8-9-13)	Offset TVD Reference:	Offset Datum

Offset Design Maxey 24O-HZ Pad Sec.24-T5N-R65W - Maxey 24P-312 - Wellbore #1 - Plan #2 (8-9-13)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,000.0	4,989.8	4,949.6	4,913.8	11.5	14.6	177.50	-506.4	-168.3	572.1	546.9	25.23	22.676		
5,100.0	5,089.8	5,048.6	5,011.8	11.7	14.9	177.84	-519.9	-171.2	585.6	559.8	25.79	22.703		
5,200.0	5,189.8	5,147.6	5,109.9	11.9	15.2	178.17	-533.3	-174.1	599.1	572.8	26.36	22.730		
5,300.0	5,289.8	5,246.7	5,208.0	12.1	15.6	178.49	-546.8	-177.0	612.6	585.7	26.92	22.755		
5,400.0	5,389.8	5,345.7	5,306.0	12.3	15.9	178.79	-560.3	-179.9	626.2	598.7	27.49	22.780		
5,500.0	5,489.8	5,444.7	5,404.1	12.5	16.3	179.07	-573.7	-182.8	639.7	611.7	28.05	22.803		
5,600.0	5,589.8	5,544.0	5,502.4	12.7	16.6	179.35	-587.2	-185.7	653.3	624.7	28.62	22.826		
5,700.0	5,689.8	5,672.0	5,629.6	12.9	16.9	179.64	-601.8	-188.8	664.7	635.5	29.16	22.791		
5,800.0	5,789.8	5,801.2	5,758.4	13.1	17.2	179.81	-610.9	-190.8	671.7	642.1	29.64	22.662		
5,900.0	5,889.8	5,931.0	5,888.1	13.4	17.4	179.87	-614.3	-191.5	674.3	644.3	30.07	22.428		
6,000.0	5,989.8	6,033.7	5,990.8	13.6	17.5	179.87	-614.3	-191.5	674.4	643.9	30.44	22.156		
6,050.8	6,040.6	6,084.5	6,041.6	13.7	17.6	179.87	-614.3	-191.5	674.4	643.7	30.62	22.026		
6,100.0	6,089.8	6,133.5	6,090.6	13.8	17.7	179.81	-614.4	-190.7	674.4	643.6	30.79	21.901		
6,200.0	6,189.8	6,231.7	6,188.2	14.0	17.8	88.76	-614.4	-180.1	674.5	646.5	27.98	24.110		
6,300.0	6,288.8	6,328.6	6,282.3	14.1	17.9	87.89	-614.5	-157.3	674.8	646.6	28.26	23.876		
6,400.0	6,385.3	6,424.3	6,371.7	14.3	18.0	87.06	-614.7	-123.4	675.3	646.8	28.51	23.685		
6,500.0	6,477.5	6,519.0	6,455.3	14.4	18.1	86.28	-615.0	-79.1	675.8	647.1	28.78	23.482		
6,600.0	6,563.9	6,612.6	6,532.0	14.6	18.2	85.57	-615.3	-25.4	676.5	647.3	29.17	23.190		
6,700.0	6,643.0	6,705.5	6,600.9	14.9	18.3	84.93	-615.6	36.6	677.2	647.3	29.81	22.717		
6,800.0	6,713.4	6,797.6	6,661.4	15.4	18.5	84.37	-616.0	106.0	677.8	647.0	30.83	21.983		
6,900.0	6,774.0	6,889.1	6,712.8	16.1	18.8	83.91	-616.4	181.6	678.4	646.1	32.38	20.953		
7,000.0	6,823.7	6,980.1	6,754.6	17.2	19.4	83.54	-616.9	262.4	679.0	644.5	34.51	19.674		
7,100.0	6,861.7	7,070.7	6,786.4	18.6	20.3	83.27	-617.4	347.3	679.4	642.2	37.24	18.245		
7,200.0	6,887.3	7,161.1	6,807.9	20.3	21.6	83.10	-617.9	435.0	679.7	639.2	40.50	16.784		
7,300.0	6,900.7	7,250.0	6,818.7	22.2	23.1	83.00	-618.4	523.2	679.9	635.8	44.13	15.407		
7,400.0	6,909.7	7,345.3	6,820.1	24.3	25.0	82.37	-618.9	618.5	680.9	632.8	48.16	14.138		
7,500.0	6,911.3	7,445.3	6,819.6	26.5	27.2	82.17	-619.4	718.4	681.3	628.8	52.55	12.965		
7,600.0	6,911.4	7,545.3	6,819.0	28.8	29.4	82.13	-620.0	818.4	681.5	624.3	57.12	11.930		
7,700.0	6,911.4	7,645.3	6,818.5	31.1	31.8	82.08	-620.6	918.4	681.6	619.7	61.86	11.019		
7,800.0	6,911.4	7,745.3	6,817.9	33.6	34.2	82.04	-621.1	1,018.4	681.7	615.0	66.72	10.218		
7,900.0	6,911.4	7,845.3	6,817.4	36.1	36.6	81.99	-621.7	1,118.4	681.9	610.2	71.68	9.513		
8,000.0	6,911.4	7,945.3	6,816.9	38.6	39.2	81.95	-622.3	1,218.4	682.0	605.3	76.72	8.890		
8,100.0	6,911.4	8,045.3	6,816.3	41.2	41.7	81.90	-622.8	1,318.4	682.2	600.4	81.83	8.336		
8,200.0	6,911.5	8,145.3	6,815.8	43.8	44.3	81.85	-623.4	1,418.4	682.3	595.3	87.00	7.843		
8,300.0	6,911.5	8,245.3	6,815.2	46.4	46.9	81.81	-623.9	1,518.4	682.5	590.3	92.20	7.402		
8,400.0	6,911.5	8,345.3	6,814.7	49.1	49.6	81.76	-624.5	1,618.4	682.6	585.2	97.45	7.005		
8,500.0	6,911.5	8,445.3	6,814.1	51.8	52.2	81.72	-625.1	1,718.4	682.8	580.1	102.73	6.647		
8,600.0	6,911.5	8,545.3	6,813.6	54.4	54.9	81.67	-625.6	1,818.4	682.9	574.9	108.03	6.322		
8,700.0	6,911.5	8,645.3	6,813.1	57.1	57.6	81.63	-626.2	1,918.4	683.1	569.7	113.35	6.026		
8,800.0	6,911.6	8,745.3	6,812.5	59.8	60.3	81.58	-626.7	2,018.4	683.2	564.5	118.70	5.756		
8,900.0	6,911.6	8,845.3	6,812.0	62.5	63.0	81.54	-627.3	2,118.4	683.4	559.3	124.06	5.508		
9,000.0	6,911.6	8,945.3	6,811.4	65.3	65.7	81.49	-627.9	2,218.4	683.5	554.1	129.44	5.281		
9,100.0	6,911.6	9,045.3	6,810.9	68.0	68.4	81.44	-628.4	2,318.4	683.7	548.9	134.83	5.071		
9,200.0	6,911.6	9,145.3	6,810.4	70.7	71.1	81.40	-629.0	2,418.4	683.8	543.6	140.23	4.877		
9,300.0	6,911.7	9,245.3	6,809.8	73.5	73.9	81.35	-629.5	2,518.4	684.0	538.4	145.64	4.697		
9,400.0	6,911.7	9,345.3	6,809.3	76.2	76.6	81.31	-630.1	2,618.4	684.1	533.1	151.05	4.529		
9,500.0	6,911.7	9,445.3	6,808.7	79.0	79.3	81.26	-630.7	2,718.4	684.3	527.8	156.48	4.373		
9,600.0	6,911.7	9,545.3	6,808.2	81.7	82.1	81.22	-631.2	2,818.4	684.4	522.5	161.91	4.227		
9,700.0	6,911.7	9,645.3	6,807.7	84.5	84.8	81.17	-631.8	2,918.4	684.6	517.3	167.35	4.091		
9,800.0	6,911.7	9,745.3	6,807.1	87.2	87.6	81.13	-632.3	3,018.4	684.8	512.0	172.79	3.963		
9,900.0	6,911.8	9,845.3	6,806.6	90.0	90.4	81.08	-632.9	3,118.4	684.9	506.7	178.23	3.843		

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 Maxey 24O-402
Project:	SEC.24-T5N-R65W	TVD Reference:	WELL @ 4651.0ft (Original Well Elev)
Reference Site:	Maxey 24O-HZ Pad Sec.24-T5N-R65W	MD Reference:	WELL @ 4651.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Maxey 24O-402	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 #2 (8-9-13)	Offset TVD Reference:	Offset Datum

Offset Design Maxey 24O-HZ Pad Sec.24-T5N-R65W - Maxey 24P-312 - Wellbore #1 - Plan #2 (8-9-13)												Offset Site Error:	0.0 ft
Survey Program: 0-MWD												Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)					
10,000.0	6,911.8	9,945.3	6,806.0	92.8	93.1	81.04	-633.5	3,218.3	685.1	501.4	183.69	3.730	
10,100.0	6,911.8	10,045.3	6,805.5	95.5	95.9	80.99	-634.0	3,318.3	685.2	496.1	189.14	3.623	
10,200.0	6,911.8	10,145.3	6,805.0	98.3	98.7	80.95	-634.6	3,418.3	685.4	490.8	194.60	3.522	
10,300.0	6,911.8	10,245.3	6,804.4	101.1	101.4	80.90	-635.1	3,518.3	685.5	485.5	200.06	3.427	
10,400.0	6,911.8	10,345.3	6,803.9	103.9	104.2	80.86	-635.7	3,618.3	685.7	480.2	205.52	3.336	
10,500.0	6,911.9	10,445.2	6,803.3	106.6	107.0	80.81	-636.3	3,718.3	685.8	474.9	210.98	3.251	
10,600.0	6,911.9	10,545.2	6,802.8	109.4	109.7	80.77	-636.8	3,818.3	686.0	469.6	216.45	3.169	
10,700.0	6,911.9	10,645.2	6,802.2	112.2	112.5	80.72	-637.4	3,918.3	686.2	464.3	221.91	3.092	
10,800.0	6,911.9	10,745.2	6,801.7	115.0	115.3	80.68	-637.9	4,018.3	686.3	458.9	227.38	3.018	
10,900.0	6,911.9	10,845.2	6,801.2	117.8	118.1	80.63	-638.5	4,118.3	686.5	453.6	232.85	2.948	
11,000.0	6,911.9	10,945.2	6,800.6	120.5	120.9	80.58	-639.1	4,218.3	686.6	448.3	238.32	2.881	
11,100.0	6,912.0	11,045.2	6,800.1	123.3	123.6	80.54	-639.6	4,318.3	686.8	443.0	243.79	2.817	
11,200.0	6,912.0	11,145.2	6,799.5	126.1	126.4	80.49	-640.2	4,418.3	687.0	437.7	249.26	2.756	
11,295.6	6,912.0	11,240.8	6,799.0	128.8	129.1	80.45	-640.7	4,513.8	687.1	432.6	254.49	2.700 SF	

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well Maxey 240-402
Project:	SEC.24-T5N-R65W	TVD Reference:	WELL @ 4651.0ft (Original Well Elev)
Reference Site:	Maxey 240-HZ Pad Sec.24-T5N-R65W	MD Reference:	WELL @ 4651.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Maxey 240-402	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 #2 (8-9-13)	Offset TVD Reference:	Offset Datum

Offset Design Maxey 240-HZ Pad Sec.24-T5N-R65W - Maxey 24P-402 - Wellbore #1 - Plan #2 (8-9-13)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	1.0	1.0	0.0	0.0	-87.66	-87.66	3.6	-89.1	89.2	89.2	0.00	N/A	
100.0	100.0	101.0	101.0	0.1	0.1	-87.66	-87.66	3.6	-89.1	89.2	89.0	0.23	393.027	
166.3	166.3	167.3	167.3	0.3	0.3	-87.66	-87.66	3.6	-89.1	89.2	88.7	0.53	169.887 CC	
200.0	200.0	201.0	201.0	0.3	0.3	-87.66	-87.66	3.6	-89.1	89.2	88.5	0.68	131.922	
300.0	300.0	300.8	300.7	0.6	0.5	-88.80	-88.80	1.9	-89.3	89.3	88.2	1.10	80.934 ES	
400.0	400.0	400.3	400.1	0.8	0.8	-92.12	-92.12	-3.3	-89.9	89.9	88.4	1.54	58.503	
500.0	500.0	499.3	498.8	1.0	1.0	-97.48	-97.48	-11.9	-90.7	91.5	89.5	1.99	45.991	
600.0	600.0	597.7	596.4	1.2	1.3	-104.50	-104.50	-23.8	-91.9	95.1	92.6	2.47	38.528	
700.0	700.0	695.1	692.6	1.5	1.6	-112.56	-112.56	-38.8	-93.4	101.5	98.6	2.99	34.007	
800.0	800.0	793.6	789.7	1.7	2.0	-120.31	-120.31	-55.6	-95.2	110.8	107.2	3.55	31.227	
900.0	900.0	892.1	886.8	1.9	2.3	-126.78	-126.78	-72.4	-96.9	121.8	117.6	4.14	29.416	
1,000.0	1,000.0	990.7	983.8	2.1	2.7	-132.15	-132.15	-89.2	-98.6	134.0	129.3	4.75	28.221	
1,100.0	1,100.0	1,089.2	1,080.9	2.4	3.1	-136.59	-136.59	-106.0	-100.3	147.3	141.9	5.37	27.432	
1,200.0	1,200.0	1,187.7	1,178.0	2.6	3.5	-140.30	-140.30	-122.8	-102.0	161.3	155.3	5.99	26.911	
1,300.0	1,300.0	1,286.2	1,275.0	2.8	3.9	-143.40	-143.40	-139.6	-103.7	175.8	169.2	6.62	26.567	
1,400.0	1,400.0	1,384.8	1,372.1	3.0	4.2	-146.03	-146.03	-156.4	-105.4	190.8	183.5	7.24	26.344	
1,500.0	1,500.0	1,483.3	1,469.2	3.3	4.6	-148.27	-148.27	-173.2	-107.1	206.1	198.2	7.87	26.201	
1,600.0	1,600.0	1,581.8	1,566.2	3.5	5.0	-150.21	-150.21	-190.0	-108.8	221.6	213.2	8.49	26.115	
1,700.0	1,700.0	1,680.3	1,663.3	3.7	5.4	-151.89	-151.89	-206.8	-110.5	237.4	228.3	9.11	26.068	
1,800.0	1,800.0	1,778.8	1,760.4	3.9	5.8	-153.36	-153.36	-223.6	-112.2	253.4	243.7	9.73	26.047	
1,900.0	1,900.0	1,877.4	1,857.4	4.2	6.2	-154.65	-154.65	-240.4	-113.9	269.5	259.2	10.35	26.046	
2,000.0	2,000.0	1,975.9	1,954.5	4.4	6.6	-155.80	-155.80	-257.2	-115.6	285.7	274.8	10.97	26.058	
2,100.0	2,100.0	2,074.3	2,051.5	4.6	7.0	-84.10	-84.10	-273.9	-117.3	301.9	292.2	9.65	31.283	
2,200.0	2,199.8	2,172.5	2,148.2	4.8	7.4	-85.62	-85.62	-290.7	-119.0	317.9	307.8	10.08	31.529	
2,300.0	2,299.5	2,270.4	2,244.6	5.0	7.8	-87.55	-87.55	-307.4	-120.7	334.1	323.6	10.51	31.785	
2,400.0	2,398.9	2,368.0	2,340.8	5.3	8.1	-89.89	-89.89	-324.0	-122.3	350.8	339.8	10.94	32.067	
2,500.0	2,498.3	2,465.6	2,436.9	5.5	8.5	-92.03	-92.03	-340.6	-124.0	367.9	356.6	11.38	32.335	
2,600.0	2,597.8	2,563.2	2,533.1	5.7	8.9	-93.98	-93.98	-357.3	-125.7	385.6	373.8	11.83	32.586	
2,700.0	2,697.2	2,660.8	2,629.3	6.0	9.3	-95.77	-95.77	-373.9	-127.4	403.6	391.3	12.30	32.819	
2,800.0	2,796.6	2,758.4	2,725.4	6.2	9.7	-97.40	-97.40	-390.5	-129.1	422.0	409.3	12.78	33.036	
2,900.0	2,896.1	2,856.0	2,821.6	6.5	10.1	-98.89	-98.89	-407.2	-130.8	440.7	427.5	13.26	33.237	
3,000.0	2,995.5	2,953.6	2,917.7	6.7	10.5	-100.26	-100.26	-423.8	-132.5	459.7	446.0	13.75	33.423	
3,100.0	3,094.9	3,051.2	3,013.9	7.0	10.9	-101.53	-101.53	-440.5	-134.1	478.9	464.7	14.26	33.596	
3,200.0	3,194.4	3,148.8	3,110.1	7.3	11.3	-102.69	-102.69	-457.1	-135.8	498.3	483.6	14.76	33.757	
3,300.0	3,293.8	3,246.4	3,206.2	7.5	11.6	-103.78	-103.78	-473.7	-137.5	517.9	502.7	15.28	33.907	
3,400.0	3,393.3	3,344.0	3,302.4	7.8	12.0	-104.78	-104.78	-490.4	-139.2	537.7	521.9	15.79	34.047	
3,500.0	3,492.7	3,441.6	3,398.5	8.1	12.4	-105.71	-105.71	-507.0	-140.9	557.6	541.3	16.32	34.178	
3,600.0	3,592.1	3,539.2	3,494.7	8.4	12.8	-106.58	-106.58	-523.7	-142.6	577.7	560.8	16.84	34.301	
3,700.0	3,691.6	3,636.8	3,590.9	8.6	13.2	-107.39	-107.39	-540.3	-144.3	597.9	580.5	17.37	34.417	
3,800.0	3,791.0	3,734.4	3,687.0	8.9	13.6	-108.14	-108.14	-556.9	-145.9	618.1	600.2	17.90	34.526	
3,900.0	3,890.4	3,832.0	3,783.2	9.2	14.0	-108.85	-108.85	-573.6	-147.6	638.5	620.1	18.44	34.629	
4,000.0	3,990.0	3,929.8	3,879.5	9.4	14.4	-109.75	-109.75	-590.2	-149.3	658.5	639.5	18.96	34.722	
4,100.0	4,089.9	4,028.0	3,976.3	9.6	14.8	-110.33	-110.33	-607.0	-151.0	677.3	657.9	19.44	34.840	
4,200.0	4,189.8	4,126.4	4,073.2	9.8	15.2	-110.61	-110.61	-623.8	-152.7	695.0	675.1	19.90	34.930	
4,300.0	4,289.8	4,225.0	4,170.3	10.0	15.6	-110.85	-110.85	-640.5	-154.4	711.9	687.1	20.36	35.005	
4,400.0	4,389.8	4,323.5	4,267.4	10.2	15.9	-111.06	-111.06	-657.3	-156.1	728.8	703.4	20.81	35.071	
4,500.0	4,489.8	4,422.0	4,364.4	10.4	16.3	-111.24	-111.24	-674.1	-157.8	745.8	719.7	21.26	35.128	
4,600.0	4,589.8	4,520.5	4,461.5	10.6	16.7	-111.39	-111.39	-690.9	-159.5	762.7	736.1	21.70	35.178	
4,700.0	4,689.8	4,619.0	4,558.5	10.8	17.1	-111.52	-111.52	-707.7	-161.2	779.7	752.4	22.14	35.221	
4,800.0	4,789.8	4,717.6	4,655.6	11.0	17.5	-111.63	-111.63	-724.5	-162.9	796.7	768.8	22.57	35.258	
4,900.0	4,889.8	4,816.1	4,752.7	11.2	17.9	-111.72	-111.72	-741.3	-164.6	813.6	785.2	23.00	35.288	

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 Maxey 24O-402
Project:	SEC.24-T5N-R65W	TVD Reference:	WELL @ 4651.0ft (Original Well Elev)
Reference Site:	Maxey 24O-HZ Pad Sec.24-T5N-R65W	MD Reference:	WELL @ 4651.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Maxey 24O-402	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 #2 (8-9-13)	Offset TVD Reference:	Offset Datum

Offset Design Maxey 24O-HZ Pad Sec.24-T5N-R65W - Maxey 24P-402 - Wellbore #1 - Plan #2 (8-9-13)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,000.0	4,989.8	4,914.6	4,849.7	11.5	18.3	178.13		-758.1	-166.3	830.6	801.5	29.08	28.564	
5,100.0	5,089.8	5,013.1	4,946.8	11.7	18.7	178.29		-774.9	-168.0	847.6	817.9	29.69	28.547	
5,200.0	5,189.8	5,111.6	5,043.9	11.9	19.1	178.43		-791.7	-169.7	864.6	834.3	30.30	28.530	
5,300.0	5,289.8	5,210.2	5,140.9	12.1	19.5	178.58		-808.5	-171.4	881.6	850.7	30.92	28.514	
5,400.0	5,389.8	5,308.7	5,238.0	12.3	19.9	178.71		-825.3	-173.1	898.6	867.1	31.53	28.499	
5,500.0	5,489.8	5,407.2	5,335.1	12.5	20.3	178.85		-842.1	-174.8	915.6	883.5	32.14	28.484	
5,600.0	5,589.8	5,505.7	5,432.1	12.7	20.7	178.97		-858.9	-176.5	932.6	899.9	32.76	28.469	
5,700.0	5,689.8	5,614.2	5,539.1	12.9	21.1	179.11		-877.2	-178.4	949.5	916.2	33.38	28.446	
5,800.0	5,789.8	5,762.5	5,685.9	13.1	21.4	179.25		-897.2	-180.4	963.0	929.0	33.95	28.364	
5,900.0	5,889.8	5,912.5	5,835.4	13.4	21.7	179.33		-909.6	-181.7	971.3	936.8	34.45	28.192	
6,000.0	5,989.8	6,063.3	5,986.1	13.6	21.9	179.36		-914.3	-182.1	974.4	939.5	34.88	27.932	
6,100.0	6,089.8	6,168.0	6,090.8	13.8	22.0	179.36		-914.4	-182.1	974.4	939.2	35.22	27.667	
6,200.0	6,189.8	6,266.9	6,189.7	14.0	22.1	89.08		-914.4	-180.4	974.4	945.5	28.94	33.666	
6,300.0	6,288.8	6,364.9	6,286.7	14.1	22.2	89.09		-914.4	-167.4	974.4	945.2	29.23	33.332	
6,400.0	6,385.3	6,462.8	6,381.3	14.3	22.3	89.11		-914.6	-142.2	974.4	944.9	29.48	33.052	
6,500.0	6,477.5	6,560.9	6,472.0	14.4	22.4	89.15		-914.8	-105.1	974.4	944.7	29.74	32.763	
6,600.0	6,563.9	6,659.0	6,557.2	14.6	22.5	89.20		-915.0	-56.6	974.4	944.3	30.11	32.367	
6,700.0	6,643.0	6,757.3	6,635.6	14.9	22.7	89.27		-915.3	2.5	974.4	943.8	30.70	31.744	
6,800.0	6,713.4	6,855.7	6,705.9	15.4	22.8	89.35		-915.7	71.3	974.5	942.8	31.66	30.775	
6,900.0	6,774.0	6,954.4	6,766.9	16.1	23.1	89.44		-916.1	148.8	974.5	941.3	33.14	29.401	
7,000.0	6,823.7	7,053.2	6,817.5	17.2	23.4	89.54		-916.6	233.6	974.5	939.3	35.23	27.658	
7,100.0	6,861.7	7,152.2	6,856.8	18.6	24.0	89.64		-917.1	324.4	974.5	936.6	37.96	25.676	
7,200.0	6,887.3	7,251.5	6,884.1	20.3	24.9	89.76		-917.6	419.8	974.6	933.3	41.26	23.621	
7,300.0	6,900.7	7,351.2	6,899.0	22.2	26.1	89.85		-918.1	518.2	974.6	929.6	45.04	21.641	
7,400.0	6,909.7	7,451.1	6,908.7	24.3	27.6	89.89		-918.6	617.7	974.6	925.5	49.16	19.825	
7,500.0	6,911.3	7,551.0	6,911.3	26.5	29.4	89.94		-919.2	717.5	974.7	921.2	53.52	18.211	
7,600.0	6,911.4	7,651.0	6,911.4	28.8	31.4	89.94		-919.7	817.5	974.7	916.6	58.10	16.776	
7,700.0	6,911.4	7,751.0	6,911.4	31.1	33.5	89.94		-920.2	917.5	974.8	911.9	62.85	15.510	
7,800.0	6,911.4	7,851.0	6,911.4	33.6	35.8	89.94		-920.8	1,017.5	974.8	907.1	67.73	14.394	
7,900.0	6,911.4	7,951.0	6,911.4	36.1	38.1	89.94		-921.3	1,117.5	974.9	902.1	72.71	13.407	
8,000.0	6,911.4	8,051.0	6,911.4	38.6	40.5	89.94		-921.8	1,217.5	974.9	897.1	77.78	12.533	
8,100.0	6,911.4	8,151.0	6,911.4	41.2	43.0	89.94		-922.4	1,317.5	974.9	892.0	82.93	11.757	
8,200.0	6,911.5	8,251.0	6,911.5	43.8	45.5	89.94		-922.9	1,417.5	975.0	886.9	88.13	11.063	
8,300.0	6,911.5	8,351.0	6,911.5	46.4	48.1	89.94		-923.4	1,517.5	975.0	881.7	93.38	10.442	
8,400.0	6,911.5	8,451.0	6,911.5	49.1	50.6	89.94		-924.0	1,617.5	975.1	876.4	98.67	9.882	
8,500.0	6,911.5	8,551.0	6,911.5	51.8	53.2	89.94		-924.5	1,717.5	975.1	871.1	103.99	9.377	
8,600.0	6,911.5	8,651.0	6,911.5	54.4	55.9	89.94		-925.0	1,817.5	975.2	865.8	109.35	8.918	
8,700.0	6,911.5	8,751.0	6,911.5	57.1	58.5	89.94		-925.6	1,917.5	975.2	860.5	114.73	8.500	
8,800.0	6,911.6	8,851.0	6,911.6	59.8	61.1	89.94		-926.1	2,017.5	975.2	855.1	120.13	8.118	
8,900.0	6,911.6	8,951.0	6,911.6	62.5	63.8	89.94		-926.7	2,117.5	975.3	849.7	125.55	7.768	
9,000.0	6,911.6	9,051.0	6,911.6	65.3	66.5	89.94		-927.2	2,217.5	975.3	844.4	130.98	7.446	
9,100.0	6,911.6	9,151.0	6,911.6	68.0	69.2	89.94		-927.7	2,317.5	975.4	838.9	136.44	7.149	
9,200.0	6,911.6	9,251.0	6,911.6	70.7	71.9	89.94		-928.3	2,417.5	975.4	833.5	141.90	6.874	
9,300.0	6,911.7	9,351.0	6,911.7	73.5	74.6	89.94		-928.8	2,517.5	975.5	828.1	147.38	6.619	
9,400.0	6,911.7	9,451.0	6,911.7	76.2	77.3	89.94		-929.3	2,617.5	975.5	822.6	152.87	6.382	
9,500.0	6,911.7	9,551.0	6,911.7	79.0	80.0	89.94		-929.9	2,717.5	975.6	817.2	158.36	6.160	
9,600.0	6,911.7	9,651.0	6,911.7	81.7	82.8	89.94		-930.4	2,817.5	975.6	811.7	163.87	5.954	
9,700.0	6,911.7	9,751.0	6,911.7	84.5	85.5	89.94		-930.9	2,917.5	975.6	806.3	169.38	5.760	
9,800.0	6,911.7	9,851.0	6,911.7	87.2	88.2	89.94		-931.5	3,017.5	975.7	800.8	174.90	5.579	
9,900.0	6,911.8	9,951.0	6,911.8	90.0	91.0	89.94		-932.0	3,117.5	975.7	795.3	180.42	5.408	
10,000.0	6,911.8	10,051.0	6,911.8	92.8	93.7	89.94		-932.5	3,217.5	975.8	789.8	185.95	5.247	

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 Maxey 24O-402
Project:	SEC.24-T5N-R65W	TVD Reference:	WELL @ 4651.0ft (Original Well Elev)
Reference Site:	Maxey 24O-HZ Pad Sec.24-T5N-R65W	MD Reference:	WELL @ 4651.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Maxey 24O-402	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 #2 (8-9-13)	Offset TVD Reference:	Offset Datum

Offset Design Maxey 24O-HZ Pad Sec.24-T5N-R65W - Maxey 24P-402 - Wellbore #1 - Plan #2 (8-9-13)												Offset Site Error:	0.0 ft
Survey Program: 0-MWD												Offset Well Error:	0.0 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
10,100.0	6,911.8	10,151.0	6,911.8	95.5	96.5	89.94	-933.1	3,317.5	975.8	784.3	191.49	5.096	
10,200.0	6,911.8	10,251.0	6,911.8	98.3	99.2	89.94	-933.6	3,417.5	975.9	778.8	197.03	4.953	
10,300.0	6,911.8	10,351.0	6,911.8	101.1	102.0	89.94	-934.1	3,517.5	975.9	773.3	202.57	4.818	
10,400.0	6,911.8	10,451.0	6,911.8	103.9	104.7	89.94	-934.7	3,617.5	975.9	767.8	208.12	4.689	
10,500.0	6,911.9	10,551.0	6,911.9	106.6	107.5	89.94	-935.2	3,717.5	976.0	762.3	213.67	4.568	
10,600.0	6,911.9	10,651.0	6,911.9	109.4	110.3	89.94	-935.7	3,817.5	976.0	756.8	219.23	4.452	
10,700.0	6,911.9	10,751.0	6,911.9	112.2	113.0	89.94	-936.3	3,917.5	976.1	751.3	224.79	4.342	
10,800.0	6,911.9	10,851.0	6,911.9	115.0	115.8	89.94	-936.8	4,017.5	976.1	745.8	230.35	4.238	
10,900.0	6,911.9	10,951.0	6,911.9	117.8	118.6	89.94	-937.3	4,117.5	976.2	740.2	235.92	4.138	
11,000.0	6,911.9	11,051.0	6,911.9	120.5	121.4	89.94	-937.9	4,217.5	976.2	734.7	241.48	4.043	
11,100.0	6,912.0	11,151.0	6,912.0	123.3	124.1	89.94	-938.4	4,317.5	976.3	729.2	247.05	3.952	
11,200.0	6,912.0	11,251.0	6,912.0	126.1	126.9	89.94	-938.9	4,417.5	976.3	723.7	252.62	3.865	
11,295.6	6,912.0	11,346.5	6,912.0	128.8	129.6	89.94	-939.5	4,513.0	976.3	718.4	257.95	3.785 SF	

Reference Depths are relative to WELL @ 4651.0ft (Original Well Elev) Coordinates are relative to: Maxey 240-402
Offset Depths are relative to Offset Datum Coordinate System is US State Plane 1983, Colorado Northern Zone
Central Meridian is -105.500000 ° Grid Convergence at Surface is: 0.57°



Reference Depths are relative to WELL @ 4651.0ft (Original Well Elev)Coordinates are relative to: Maxey 240-402
Offset Depths are relative to Offset Datum Coordinate System is US State Plane 1983, Colorado Northern Zone
Central Meridian is -105.500000 ° Grid Convergence at Surface is: 0.57°

