

PETROLEUM DEVELOPMENT CORP Weld County CO

Well Name: Maxey 24Q-302

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

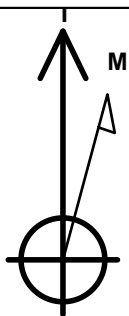
Ground Elevation: 4635.0

+N/-S +E/-W Northing Easting Latitude Longitude Slot
0.0 0.0 1381916.22 3247807.14 40.378350 -104.610510

RKB - 15' WELL @ 4650.0ft (RKB - 15')

WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
BHL 78'FSL, 2140'FWL, SEC.19	6770.0	-287.4	4530.3	Point



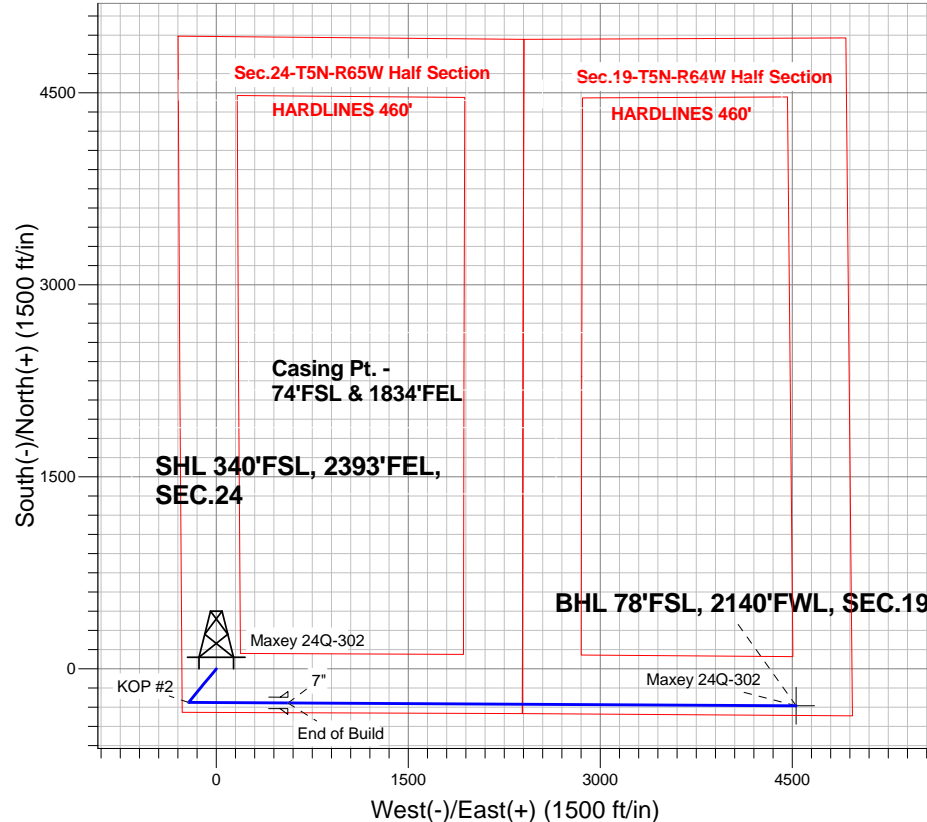
Azimuths to True North
Magnetic North: 8.55°

Magnetic Field
Strength: 52956.0srT
Dip Angle: 67.00°
Date: 3/7/2013
Model: IGRF2010

ANNOTATIONS

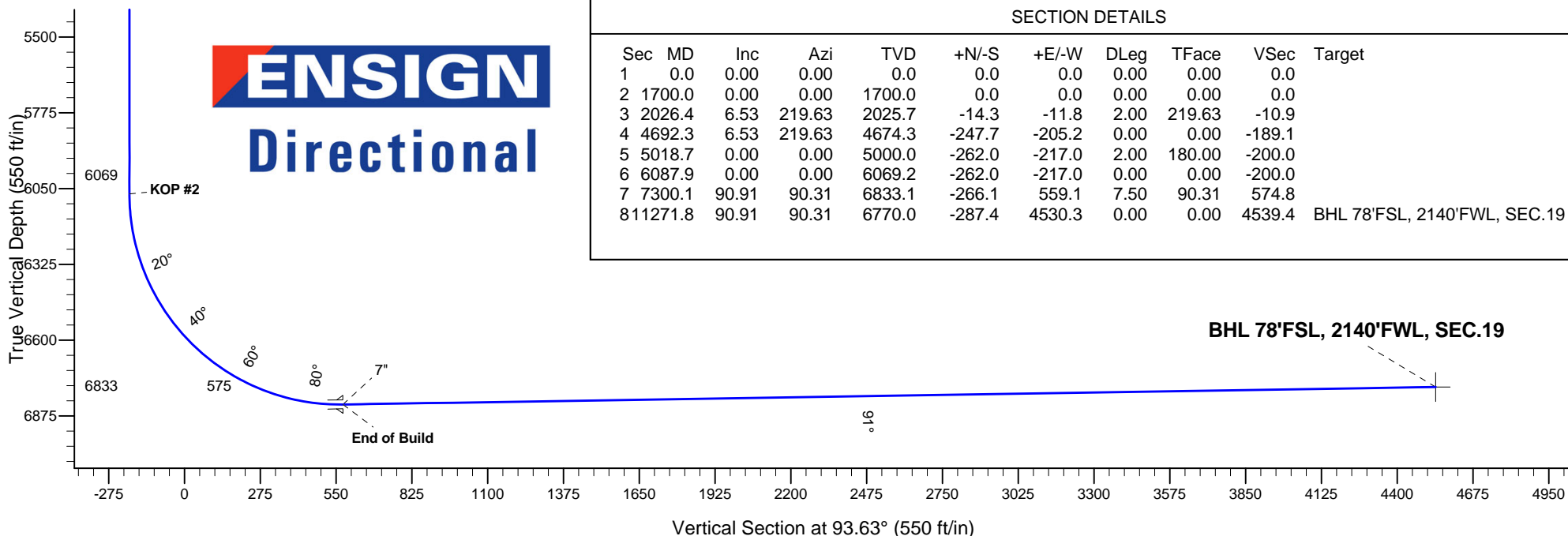
TVD	MD	Annotation
1700.0	1700.0	KOP #1
6069.2	6087.9	KOP #2
6833.1	7300.1	End of Build

Maxey 24Q-HZ Pad Sec.24-T5N-R65W
Maxey 24Q-302
Plan #1 (3-07-13)



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	1700.0	0.00	0.00	1700.0	0.0	0.0	0.00	0.00	0.0	
3	2026.4	6.53	219.63	2025.7	-14.3	-11.8	2.00	219.63	-10.9	
4	4692.3	6.53	219.63	4674.3	-247.7	-205.2	0.00	0.00	-189.1	
5	5018.7	0.00	0.00	5000.0	-262.0	-217.0	2.00	180.00	-200.0	
6	6087.9	0.00	0.00	6069.2	-262.0	-217.0	0.00	0.00	-200.0	
7	7300.1	90.91	90.31	6833.1	-266.1	559.1	7.50	90.31	574.8	
8	11271.8	90.91	90.31	6770.0	-287.4	4530.3	0.00	0.00	4539.4	BHL 78'FSL, 2140'FWL, SEC.19



Directional

PETROLEUM DEVELOPMENT CORP Weld County CO

SEC.24-T5N-R65W

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

Maxey 24Q-302

Wellbore #1

Plan: Plan #1 (3-07-13)

Standard Planning Report

18 March, 2013

Database:	Landmark	Local Co-ordinate Reference:	Well Maxey 24Q-302
Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	TVD Reference:	WELL @ 4650.0ft (RKB - 15')
Project:	SEC.24-T5N-R65W	MD Reference:	WELL @ 4650.0ft (RKB - 15')
Site:	Maxey 24Q-HZ Pad Sec.24-T5N-R65W	North Reference:	True
Well:	Maxey 24Q-302	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (3-07-13)		

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 24Q-HZ Pad Sec.24-T5N-R65W											
Site Position:						Northing:			1,381,915.64 ft			Latitude:			40.378350		
From:			Lat/Long			Easting:			3,247,745.85 ft			Longitude:			-104.610730		
Position Uncertainty:			0.0 ft			Slot Radius:			"			Grid Convergence:			0.57 °		

Well	Maxey 24Q-302					
Well Position	+N-S	0.0 ft	Northing:	1,381,916.22 ft	Latitude:	40.378350
	+E-W	61.3 ft	Easting:	3,247,807.14 ft	Longitude:	-104.610510
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,635.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	3/7/2013	8.55	67.00	52,956

Design	Plan #1 (3-07-13)			
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	93.63

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,026.4	6.53	219.63	2,025.7	-14.3	-11.8	2.00	2.00	0.00	219.63	
4,692.3	6.53	219.63	4,674.3	-247.7	-205.2	0.00	0.00	0.00	0.00	
5,018.7	0.00	0.00	5,000.0	-262.0	-217.0	2.00	-2.00	0.00	180.00	
6,087.9	0.00	0.00	6,069.2	-262.0	-217.0	0.00	0.00	0.00	0.00	
7,300.1	90.91	90.31	6,833.1	-266.1	559.1	7.50	7.50	0.00	90.31	
11,271.8	90.91	90.31	6,770.0	-287.4	4,530.3	0.00	0.00	0.00	0.00	BHL 78'FSL, 2140'F

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Project:	SEC.24-T5N-R65W	MD Reference:	WELL @ 4650.0ft (RKB - 15')
Site:	Maxey 24Q-HZ Pad Sec.24-T5N-R65W	North Reference:	True
Well:	Maxey 24Q-302	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (3-07-13)		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
40.0	0.00	0.00	40.0	0.0	0.0	0.0	0.00	0.00	0.00
80.0	0.00	0.00	80.0	0.0	0.0	0.0	0.00	0.00	0.00
120.0	0.00	0.00	120.0	0.0	0.0	0.0	0.00	0.00	0.00
160.0	0.00	0.00	160.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
240.0	0.00	0.00	240.0	0.0	0.0	0.0	0.00	0.00	0.00
280.0	0.00	0.00	280.0	0.0	0.0	0.0	0.00	0.00	0.00
320.0	0.00	0.00	320.0	0.0	0.0	0.0	0.00	0.00	0.00
360.0	0.00	0.00	360.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
440.0	0.00	0.00	440.0	0.0	0.0	0.0	0.00	0.00	0.00
480.0	0.00	0.00	480.0	0.0	0.0	0.0	0.00	0.00	0.00
520.0	0.00	0.00	520.0	0.0	0.0	0.0	0.00	0.00	0.00
560.0	0.00	0.00	560.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
640.0	0.00	0.00	640.0	0.0	0.0	0.0	0.00	0.00	0.00
680.0	0.00	0.00	680.0	0.0	0.0	0.0	0.00	0.00	0.00
720.0	0.00	0.00	720.0	0.0	0.0	0.0	0.00	0.00	0.00
760.0	0.00	0.00	760.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
840.0	0.00	0.00	840.0	0.0	0.0	0.0	0.00	0.00	0.00
880.0	0.00	0.00	880.0	0.0	0.0	0.0	0.00	0.00	0.00
920.0	0.00	0.00	920.0	0.0	0.0	0.0	0.00	0.00	0.00
960.0	0.00	0.00	960.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,040.0	0.00	0.00	1,040.0	0.0	0.0	0.0	0.00	0.00	0.00
1,080.0	0.00	0.00	1,080.0	0.0	0.0	0.0	0.00	0.00	0.00
1,120.0	0.00	0.00	1,120.0	0.0	0.0	0.0	0.00	0.00	0.00
1,160.0	0.00	0.00	1,160.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,240.0	0.00	0.00	1,240.0	0.0	0.0	0.0	0.00	0.00	0.00
1,280.0	0.00	0.00	1,280.0	0.0	0.0	0.0	0.00	0.00	0.00
1,320.0	0.00	0.00	1,320.0	0.0	0.0	0.0	0.00	0.00	0.00
1,360.0	0.00	0.00	1,360.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,440.0	0.00	0.00	1,440.0	0.0	0.0	0.0	0.00	0.00	0.00
1,480.0	0.00	0.00	1,480.0	0.0	0.0	0.0	0.00	0.00	0.00
1,520.0	0.00	0.00	1,520.0	0.0	0.0	0.0	0.00	0.00	0.00
1,560.0	0.00	0.00	1,560.0	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
1,640.0	0.00	0.00	1,640.0	0.0	0.0	0.0	0.00	0.00	0.00
1,680.0	0.00	0.00	1,680.0	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
KOP #1									
1,720.0	0.40	219.63	1,720.0	-0.1	0.0	0.0	2.00	2.00	0.00
1,760.0	1.20	219.63	1,760.0	-0.5	-0.4	-0.4	2.00	2.00	0.00
1,800.0	2.00	219.63	1,800.0	-1.3	-1.1	-1.0	2.00	2.00	0.00
1,840.0	2.80	219.63	1,839.9	-2.6	-2.2	-2.0	2.00	2.00	0.00
1,880.0	3.60	219.63	1,879.9	-4.4	-3.6	-3.3	2.00	2.00	0.00
1,920.0	4.40	219.63	1,919.8	-6.5	-5.4	-5.0	2.00	2.00	0.00
1,960.0	5.20	219.63	1,959.6	-9.1	-7.5	-6.9	2.00	2.00	0.00
2,000.0	6.00	219.63	1,999.5	-12.1	-10.0	-9.2	2.00	2.00	0.00

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Project:	SEC.24-T5N-R65W	MD Reference:	WELL @ 4650.0ft (RKB - 15')
Site:	Maxey 24Q-HZ Pad Sec.24-T5N-R65W	North Reference:	True
Well:	Maxey 24Q-302	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (3-07-13)		

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)
2,026.4	6.53	219.63	2,025.7	-14.3	-11.8	-10.9	2.00	2.00	0.00
2,040.0	6.53	219.63	2,039.2	-15.5	-12.8	-11.8	0.00	0.00	0.00
2,080.0	6.53	219.63	2,078.9	-19.0	-15.7	-14.5	0.00	0.00	0.00
2,120.0	6.53	219.63	2,118.7	-22.5	-18.6	-17.2	0.00	0.00	0.00
2,160.0	6.53	219.63	2,158.4	-26.0	-21.5	-19.8	0.00	0.00	0.00
2,200.0	6.53	219.63	2,198.2	-29.5	-24.4	-22.5	0.00	0.00	0.00
2,240.0	6.53	219.63	2,237.9	-33.0	-27.3	-25.2	0.00	0.00	0.00
2,280.0	6.53	219.63	2,277.7	-36.5	-30.2	-27.9	0.00	0.00	0.00
2,320.0	6.53	219.63	2,317.4	-40.0	-33.1	-30.5	0.00	0.00	0.00
2,360.0	6.53	219.63	2,357.1	-43.5	-36.0	-33.2	0.00	0.00	0.00
2,400.0	6.53	219.63	2,396.9	-47.0	-38.9	-35.9	0.00	0.00	0.00
2,440.0	6.53	219.63	2,436.6	-50.5	-41.8	-38.6	0.00	0.00	0.00
2,480.0	6.53	219.63	2,476.4	-54.0	-44.7	-41.2	0.00	0.00	0.00
2,520.0	6.53	219.63	2,516.1	-57.5	-47.6	-43.9	0.00	0.00	0.00
2,560.0	6.53	219.63	2,555.8	-61.0	-50.5	-46.6	0.00	0.00	0.00
2,600.0	6.53	219.63	2,595.6	-64.5	-53.4	-49.2	0.00	0.00	0.00
2,640.0	6.53	219.63	2,635.3	-68.0	-56.3	-51.9	0.00	0.00	0.00
2,680.0	6.53	219.63	2,675.1	-71.5	-59.2	-54.6	0.00	0.00	0.00
2,720.0	6.53	219.63	2,714.8	-75.0	-62.1	-57.3	0.00	0.00	0.00
2,760.0	6.53	219.63	2,754.5	-78.5	-65.0	-59.9	0.00	0.00	0.00
2,800.0	6.53	219.63	2,794.3	-82.0	-67.9	-62.6	0.00	0.00	0.00
2,840.0	6.53	219.63	2,834.0	-85.5	-70.8	-65.3	0.00	0.00	0.00
2,880.0	6.53	219.63	2,873.8	-89.0	-73.7	-68.0	0.00	0.00	0.00
2,920.0	6.53	219.63	2,913.5	-92.5	-76.6	-70.6	0.00	0.00	0.00
2,960.0	6.53	219.63	2,953.2	-96.0	-79.5	-73.3	0.00	0.00	0.00
3,000.0	6.53	219.63	2,993.0	-99.5	-82.4	-76.0	0.00	0.00	0.00
3,040.0	6.53	219.63	3,032.7	-103.0	-85.3	-78.7	0.00	0.00	0.00
3,080.0	6.53	219.63	3,072.5	-106.5	-88.2	-81.3	0.00	0.00	0.00
3,120.0	6.53	219.63	3,112.2	-110.0	-91.1	-84.0	0.00	0.00	0.00
3,160.0	6.53	219.63	3,151.9	-113.5	-94.0	-86.7	0.00	0.00	0.00
3,200.0	6.53	219.63	3,191.7	-117.0	-96.9	-89.3	0.00	0.00	0.00
3,240.0	6.53	219.63	3,231.4	-120.6	-99.8	-92.0	0.00	0.00	0.00
3,280.0	6.53	219.63	3,271.2	-124.1	-102.7	-94.7	0.00	0.00	0.00
3,320.0	6.53	219.63	3,310.9	-127.6	-105.6	-97.4	0.00	0.00	0.00
3,360.0	6.53	219.63	3,350.6	-131.1	-108.5	-100.0	0.00	0.00	0.00
3,400.0	6.53	219.63	3,390.4	-134.6	-111.4	-102.7	0.00	0.00	0.00
3,440.0	6.53	219.63	3,430.1	-138.1	-114.3	-105.4	0.00	0.00	0.00
3,480.0	6.53	219.63	3,469.9	-141.6	-117.2	-108.1	0.00	0.00	0.00
3,520.0	6.53	219.63	3,509.6	-145.1	-120.1	-110.7	0.00	0.00	0.00
3,560.0	6.53	219.63	3,549.4	-148.6	-123.0	-113.4	0.00	0.00	0.00
3,600.0	6.53	219.63	3,589.1	-152.1	-125.9	-116.1	0.00	0.00	0.00
3,640.0	6.53	219.63	3,628.8	-155.6	-128.9	-118.7	0.00	0.00	0.00
3,680.0	6.53	219.63	3,668.6	-159.1	-131.8	-121.4	0.00	0.00	0.00
3,720.0	6.53	219.63	3,708.3	-162.6	-134.7	-124.1	0.00	0.00	0.00
3,760.0	6.53	219.63	3,748.1	-166.1	-137.6	-126.8	0.00	0.00	0.00
3,800.0	6.53	219.63	3,787.8	-169.6	-140.5	-129.4	0.00	0.00	0.00
3,840.0	6.53	219.63	3,827.5	-173.1	-143.4	-132.1	0.00	0.00	0.00
3,880.0	6.53	219.63	3,867.3	-176.6	-146.3	-134.8	0.00	0.00	0.00
3,920.0	6.53	219.63	3,907.0	-180.1	-149.2	-137.5	0.00	0.00	0.00
3,960.0	6.53	219.63	3,946.8	-183.6	-152.1	-140.1	0.00	0.00	0.00
4,000.0	6.53	219.63	3,986.5	-187.1	-155.0	-142.8	0.00	0.00	0.00
4,040.0	6.53	219.63	4,026.2	-190.6	-157.9	-145.5	0.00	0.00	0.00
4,080.0	6.53	219.63	4,066.0	-194.1	-160.8	-148.1	0.00	0.00	0.00

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Wellbore:	Wellbore #1		
Design:	Plan #1 (3-07-13)		

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)
4,120.0	6.53	219.63	4,105.7	-197.6	-163.7	-150.8	0.00	0.00	0.00
4,160.0	6.53	219.63	4,145.5	-201.1	-166.6	-153.5	0.00	0.00	0.00
4,200.0	6.53	219.63	4,185.2	-204.6	-169.5	-156.2	0.00	0.00	0.00
4,240.0	6.53	219.63	4,224.9	-208.1	-172.4	-158.8	0.00	0.00	0.00
4,280.0	6.53	219.63	4,264.7	-211.6	-175.3	-161.5	0.00	0.00	0.00
4,320.0	6.53	219.63	4,304.4	-215.1	-178.2	-164.2	0.00	0.00	0.00
4,360.0	6.53	219.63	4,344.2	-218.6	-181.1	-166.9	0.00	0.00	0.00
4,400.0	6.53	219.63	4,383.9	-222.1	-184.0	-169.5	0.00	0.00	0.00
4,440.0	6.53	219.63	4,423.6	-225.6	-186.9	-172.2	0.00	0.00	0.00
4,480.0	6.53	219.63	4,463.4	-229.1	-189.8	-174.9	0.00	0.00	0.00
4,520.0	6.53	219.63	4,503.1	-232.6	-192.7	-177.5	0.00	0.00	0.00
4,560.0	6.53	219.63	4,542.9	-236.1	-195.6	-180.2	0.00	0.00	0.00
4,600.0	6.53	219.63	4,582.6	-239.6	-198.5	-182.9	0.00	0.00	0.00
4,640.0	6.53	219.63	4,622.4	-243.1	-201.4	-185.6	0.00	0.00	0.00
4,680.0	6.53	219.63	4,662.1	-246.6	-204.3	-188.2	0.00	0.00	0.00
4,692.3	6.53	219.63	4,674.3	-247.7	-205.2	-189.1	0.00	0.00	0.00
4,720.0	5.97	219.63	4,701.8	-250.0	-207.1	-190.8	2.00	-2.00	0.00
4,760.0	5.17	219.63	4,741.7	-253.0	-209.6	-193.1	2.00	-2.00	0.00
4,800.0	4.37	219.63	4,781.5	-255.6	-211.7	-195.1	2.00	-2.00	0.00
4,840.0	3.57	219.63	4,821.4	-257.7	-213.4	-196.7	2.00	-2.00	0.00
4,880.0	2.77	219.63	4,861.4	-259.4	-214.9	-198.0	2.00	-2.00	0.00
4,920.0	1.97	219.63	4,901.3	-260.7	-215.9	-199.0	2.00	-2.00	0.00
4,960.0	1.17	219.63	4,941.3	-261.5	-216.6	-199.6	2.00	-2.00	0.00
5,000.0	0.37	219.63	4,981.3	-262.0	-217.0	-199.9	2.00	-2.00	0.00
5,018.7	0.00	0.00	5,000.0	-262.0	-217.0	-200.0	2.00	-2.00	0.00
5,040.0	0.00	0.00	5,021.3	-262.0	-217.0	-200.0	0.00	0.00	0.00
5,080.0	0.00	0.00	5,061.3	-262.0	-217.0	-200.0	0.00	0.00	0.00
5,120.0	0.00	0.00	5,101.3	-262.0	-217.0	-200.0	0.00	0.00	0.00
5,160.0	0.00	0.00	5,141.3	-262.0	-217.0	-200.0	0.00	0.00	0.00
5,200.0	0.00	0.00	5,181.3	-262.0	-217.0	-200.0	0.00	0.00	0.00
5,240.0	0.00	0.00	5,221.3	-262.0	-217.0	-200.0	0.00	0.00	0.00
5,280.0	0.00	0.00	5,261.3	-262.0	-217.0	-200.0	0.00	0.00	0.00
5,320.0	0.00	0.00	5,301.3	-262.0	-217.0	-200.0	0.00	0.00	0.00
5,360.0	0.00	0.00	5,341.3	-262.0	-217.0	-200.0	0.00	0.00	0.00
5,400.0	0.00	0.00	5,381.3	-262.0	-217.0	-200.0	0.00	0.00	0.00
5,440.0	0.00	0.00	5,421.3	-262.0	-217.0	-200.0	0.00	0.00	0.00
5,480.0	0.00	0.00	5,461.3	-262.0	-217.0	-200.0	0.00	0.00	0.00
5,520.0	0.00	0.00	5,501.3	-262.0	-217.0	-200.0	0.00	0.00	0.00
5,560.0	0.00	0.00	5,541.3	-262.0	-217.0	-200.0	0.00	0.00	0.00
5,600.0	0.00	0.00	5,581.3	-262.0	-217.0	-200.0	0.00	0.00	0.00
5,640.0	0.00	0.00	5,621.3	-262.0	-217.0	-200.0	0.00	0.00	0.00
5,680.0	0.00	0.00	5,661.3	-262.0	-217.0	-200.0	0.00	0.00	0.00
5,720.0	0.00	0.00	5,701.3	-262.0	-217.0	-200.0	0.00	0.00	0.00
5,760.0	0.00	0.00	5,741.3	-262.0	-217.0	-200.0	0.00	0.00	0.00
5,800.0	0.00	0.00	5,781.3	-262.0	-217.0	-200.0	0.00	0.00	0.00
5,840.0	0.00	0.00	5,821.3	-262.0	-217.0	-200.0	0.00	0.00	0.00
5,880.0	0.00	0.00	5,861.3	-262.0	-217.0	-200.0	0.00	0.00	0.00
5,920.0	0.00	0.00	5,901.3	-262.0	-217.0	-200.0	0.00	0.00	0.00
5,960.0	0.00	0.00	5,941.3	-262.0	-217.0	-200.0	0.00	0.00	0.00
6,000.0	0.00	0.00	5,981.3	-262.0	-217.0	-200.0	0.00	0.00	0.00
6,040.0	0.00	0.00	6,021.3	-262.0	-217.0	-200.0	0.00	0.00	0.00
6,080.0	0.00	0.00	6,061.3	-262.0	-217.0	-200.0	0.00	0.00	0.00
6,087.9	0.00	0.00	6,069.2	-262.0	-217.0	-200.0	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well Maxey 24Q-302
Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	TVD Reference:	WELL @ 4650.0ft (RKB - 15')
Project:	SEC.24-T5N-R65W	MD Reference:	WELL @ 4650.0ft (RKB - 15')
Site:	Maxey 24Q-HZ Pad Sec.24-T5N-R65W	North Reference:	True
Well:	Maxey 24Q-302	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (3-07-13)		

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)
KOP #2									
6,120.0	2.41	90.31	6,101.3	-262.0	-216.3	-199.3	7.49	7.49	0.00
6,160.0	5.41	90.31	6,141.2	-262.0	-213.6	-196.6	7.50	7.50	0.00
6,200.0	8.41	90.31	6,180.9	-262.0	-208.8	-191.8	7.50	7.50	0.00
6,240.0	11.41	90.31	6,220.3	-262.1	-201.9	-184.9	7.50	7.50	0.00
6,280.0	14.41	90.31	6,259.3	-262.1	-193.0	-176.0	7.50	7.50	0.00
6,320.0	17.41	90.31	6,297.8	-262.2	-182.0	-165.1	7.50	7.50	0.00
6,360.0	20.41	90.31	6,335.6	-262.3	-169.1	-152.1	7.50	7.50	0.00
6,400.0	23.41	90.31	6,372.7	-262.3	-154.1	-137.2	7.50	7.50	0.00
6,440.0	26.41	90.31	6,409.0	-262.4	-137.3	-120.4	7.50	7.50	0.00
6,480.0	29.41	90.31	6,444.3	-262.5	-118.6	-101.7	7.50	7.50	0.00
6,520.0	32.41	90.31	6,478.6	-262.6	-98.0	-81.2	7.50	7.50	0.00
6,560.0	35.41	90.31	6,511.8	-262.8	-75.7	-58.9	7.50	7.50	0.00
6,600.0	38.41	90.31	6,543.8	-262.9	-51.7	-35.0	7.50	7.50	0.00
6,640.0	41.41	90.31	6,574.5	-263.0	-26.1	-9.3	7.50	7.50	0.00
6,680.0	44.41	90.31	6,603.8	-263.2	1.2	17.8	7.50	7.50	0.00
6,720.0	47.41	90.31	6,631.6	-263.3	29.9	46.5	7.50	7.50	0.00
6,760.0	50.41	90.31	6,657.9	-263.5	60.0	76.6	7.50	7.50	0.00
6,800.0	53.41	90.31	6,682.6	-263.6	91.5	108.0	7.50	7.50	0.00
6,840.0	56.41	90.31	6,705.6	-263.8	124.2	140.7	7.50	7.50	0.00
6,880.0	59.41	90.31	6,726.8	-264.0	158.1	174.5	7.50	7.50	0.00
6,920.0	62.41	90.31	6,746.3	-264.2	193.1	209.4	7.50	7.50	0.00
6,960.0	65.41	90.31	6,763.9	-264.4	229.0	245.3	7.50	7.50	0.00
7,000.0	68.41	90.31	6,779.6	-264.6	265.8	282.0	7.50	7.50	0.00
7,040.0	71.41	90.31	6,793.3	-264.8	303.3	319.5	7.50	7.50	0.00
7,080.0	74.41	90.31	6,805.1	-265.0	341.6	357.7	7.50	7.50	0.00
7,120.0	77.41	90.31	6,814.8	-265.2	380.4	396.4	7.50	7.50	0.00
7,160.0	80.41	90.31	6,822.5	-265.4	419.6	435.6	7.50	7.50	0.00
7,200.0	83.41	90.31	6,828.1	-265.6	459.2	475.1	7.50	7.50	0.00
7,240.0	86.41	90.31	6,831.7	-265.8	499.0	514.9	7.50	7.50	0.00
7,280.0	89.41	90.31	6,833.1	-266.0	539.0	554.8	7.50	7.50	0.00
7,300.1	90.91	90.31	6,833.1	-266.1	559.1	574.8	7.48	7.48	0.00
End of Build - 7"									
7,320.0	90.91	90.31	6,832.8	-266.3	579.0	594.7	0.00	0.00	0.00
7,360.0	90.91	90.31	6,832.1	-266.5	619.0	634.6	0.00	0.00	0.00
7,400.0	90.91	90.31	6,831.5	-266.7	659.0	674.6	0.00	0.00	0.00
7,440.0	90.91	90.31	6,830.9	-266.9	699.0	714.5	0.00	0.00	0.00
7,480.0	90.91	90.31	6,830.2	-267.1	739.0	754.4	0.00	0.00	0.00
7,520.0	90.91	90.31	6,829.6	-267.3	779.0	794.3	0.00	0.00	0.00
7,560.0	90.91	90.31	6,829.0	-267.5	819.0	834.3	0.00	0.00	0.00
7,600.0	90.91	90.31	6,828.3	-267.7	859.0	874.2	0.00	0.00	0.00
7,640.0	90.91	90.31	6,827.7	-268.0	899.0	914.1	0.00	0.00	0.00
7,680.0	90.91	90.31	6,827.0	-268.2	939.0	954.0	0.00	0.00	0.00
7,720.0	90.91	90.31	6,826.4	-268.4	979.0	994.0	0.00	0.00	0.00
7,760.0	90.91	90.31	6,825.8	-268.6	1,018.9	1,033.9	0.00	0.00	0.00
7,800.0	90.91	90.31	6,825.1	-268.8	1,058.9	1,073.8	0.00	0.00	0.00
7,840.0	90.91	90.31	6,824.5	-269.0	1,098.9	1,113.8	0.00	0.00	0.00
7,880.0	90.91	90.31	6,823.9	-269.2	1,138.9	1,153.7	0.00	0.00	0.00
7,920.0	90.91	90.31	6,823.2	-269.5	1,178.9	1,193.6	0.00	0.00	0.00
7,960.0	90.91	90.31	6,822.6	-269.7	1,218.9	1,233.5	0.00	0.00	0.00
8,000.0	90.91	90.31	6,822.0	-269.9	1,258.9	1,273.5	0.00	0.00	0.00
8,040.0	90.91	90.31	6,821.3	-270.1	1,298.9	1,313.4	0.00	0.00	0.00
8,080.0	90.91	90.31	6,820.7	-270.3	1,338.9	1,353.3	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well Maxey 24Q-302
Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	TVD Reference:	WELL @ 4650.0ft (RKB - 15')
Project:	SEC.24-T5N-R65W	MD Reference:	WELL @ 4650.0ft (RKB - 15')
Site:	Maxey 24Q-HZ Pad Sec.24-T5N-R65W	North Reference:	True
Well:	Maxey 24Q-302	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (3-07-13)		

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)
8,120.0	90.91	90.31	6,820.1	-270.5	1,378.9	1,393.3	0.00	0.00	0.00
8,160.0	90.91	90.31	6,819.4	-270.7	1,418.9	1,433.2	0.00	0.00	0.00
8,200.0	90.91	90.31	6,818.8	-271.0	1,458.9	1,473.1	0.00	0.00	0.00
8,240.0	90.91	90.31	6,818.2	-271.2	1,498.9	1,513.0	0.00	0.00	0.00
8,280.0	90.91	90.31	6,817.5	-271.4	1,538.9	1,553.0	0.00	0.00	0.00
8,320.0	90.91	90.31	6,816.9	-271.6	1,578.9	1,592.9	0.00	0.00	0.00
8,360.0	90.91	90.31	6,816.2	-271.8	1,618.9	1,632.8	0.00	0.00	0.00
8,400.0	90.91	90.31	6,815.6	-272.0	1,658.9	1,672.7	0.00	0.00	0.00
8,440.0	90.91	90.31	6,815.0	-272.2	1,698.8	1,712.7	0.00	0.00	0.00
8,480.0	90.91	90.31	6,814.3	-272.4	1,738.8	1,752.6	0.00	0.00	0.00
8,520.0	90.91	90.31	6,813.7	-272.7	1,778.8	1,792.5	0.00	0.00	0.00
8,560.0	90.91	90.31	6,813.1	-272.9	1,818.8	1,832.5	0.00	0.00	0.00
8,600.0	90.91	90.31	6,812.4	-273.1	1,858.8	1,872.4	0.00	0.00	0.00
8,640.0	90.91	90.31	6,811.8	-273.3	1,898.8	1,912.3	0.00	0.00	0.00
8,680.0	90.91	90.31	6,811.2	-273.5	1,938.8	1,952.2	0.00	0.00	0.00
8,720.0	90.91	90.31	6,810.5	-273.7	1,978.8	1,992.2	0.00	0.00	0.00
8,760.0	90.91	90.31	6,809.9	-273.9	2,018.8	2,032.1	0.00	0.00	0.00
8,800.0	90.91	90.31	6,809.3	-274.2	2,058.8	2,072.0	0.00	0.00	0.00
8,840.0	90.91	90.31	6,808.6	-274.4	2,098.8	2,112.0	0.00	0.00	0.00
8,880.0	90.91	90.31	6,808.0	-274.6	2,138.8	2,151.9	0.00	0.00	0.00
8,920.0	90.91	90.31	6,807.4	-274.8	2,178.8	2,191.8	0.00	0.00	0.00
8,960.0	90.91	90.31	6,806.7	-275.0	2,218.8	2,231.7	0.00	0.00	0.00
9,000.0	90.91	90.31	6,806.1	-275.2	2,258.8	2,271.7	0.00	0.00	0.00
9,040.0	90.91	90.31	6,805.4	-275.4	2,298.8	2,311.6	0.00	0.00	0.00
9,080.0	90.91	90.31	6,804.8	-275.6	2,338.8	2,351.5	0.00	0.00	0.00
9,120.0	90.91	90.31	6,804.2	-275.9	2,378.8	2,391.4	0.00	0.00	0.00
9,160.0	90.91	90.31	6,803.5	-276.1	2,418.7	2,431.4	0.00	0.00	0.00
9,200.0	90.91	90.31	6,802.9	-276.3	2,458.7	2,471.3	0.00	0.00	0.00
9,240.0	90.91	90.31	6,802.3	-276.5	2,498.7	2,511.2	0.00	0.00	0.00
9,280.0	90.91	90.31	6,801.6	-276.7	2,538.7	2,551.2	0.00	0.00	0.00
9,320.0	90.91	90.31	6,801.0	-276.9	2,578.7	2,591.1	0.00	0.00	0.00
9,360.0	90.91	90.31	6,800.4	-277.1	2,618.7	2,631.0	0.00	0.00	0.00
9,400.0	90.91	90.31	6,799.7	-277.4	2,658.7	2,670.9	0.00	0.00	0.00
9,440.0	90.91	90.31	6,799.1	-277.6	2,698.7	2,710.9	0.00	0.00	0.00
9,480.0	90.91	90.31	6,798.5	-277.8	2,738.7	2,750.8	0.00	0.00	0.00
9,520.0	90.91	90.31	6,797.8	-278.0	2,778.7	2,790.7	0.00	0.00	0.00
9,560.0	90.91	90.31	6,797.2	-278.2	2,818.7	2,830.7	0.00	0.00	0.00
9,600.0	90.91	90.31	6,796.6	-278.4	2,858.7	2,870.6	0.00	0.00	0.00
9,640.0	90.91	90.31	6,795.9	-278.6	2,898.7	2,910.5	0.00	0.00	0.00
9,680.0	90.91	90.31	6,795.3	-278.9	2,938.7	2,950.4	0.00	0.00	0.00
9,720.0	90.91	90.31	6,794.6	-279.1	2,978.7	2,990.4	0.00	0.00	0.00
9,760.0	90.91	90.31	6,794.0	-279.3	3,018.7	3,030.3	0.00	0.00	0.00
9,800.0	90.91	90.31	6,793.4	-279.5	3,058.7	3,070.2	0.00	0.00	0.00
9,840.0	90.91	90.31	6,792.7	-279.7	3,098.7	3,110.1	0.00	0.00	0.00
9,880.0	90.91	90.31	6,792.1	-279.9	3,138.6	3,150.1	0.00	0.00	0.00
9,920.0	90.91	90.31	6,791.5	-280.1	3,178.6	3,190.0	0.00	0.00	0.00
9,960.0	90.91	90.31	6,790.8	-280.3	3,218.6	3,229.9	0.00	0.00	0.00
10,000.0	90.91	90.31	6,790.2	-280.6	3,258.6	3,269.9	0.00	0.00	0.00
10,040.0	90.91	90.31	6,789.6	-280.8	3,298.6	3,309.8	0.00	0.00	0.00
10,080.0	90.91	90.31	6,788.9	-281.0	3,338.6	3,349.7	0.00	0.00	0.00
10,120.0	90.91	90.31	6,788.3	-281.2	3,378.6	3,389.6	0.00	0.00	0.00
10,160.0	90.91	90.31	6,787.7	-281.4	3,418.6	3,429.6	0.00	0.00	0.00
10,200.0	90.91	90.31	6,787.0	-281.6	3,458.6	3,469.5	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well Maxey 24Q-302
Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	TVD Reference:	WELL @ 4650.0ft (RKB - 15')
Project:	SEC.24-T5N-R65W	MD Reference:	WELL @ 4650.0ft (RKB - 15')
Site:	Maxey 24Q-HZ Pad Sec.24-T5N-R65W	North Reference:	True
Well:	Maxey 24Q-302	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (3-07-13)		

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)
10,240.0	90.91	90.31	6,786.4	-281.8	3,498.6	3,509.4	0.00	0.00	0.00
10,280.0	90.91	90.31	6,785.8	-282.1	3,538.6	3,549.3	0.00	0.00	0.00
10,320.0	90.91	90.31	6,785.1	-282.3	3,578.6	3,589.3	0.00	0.00	0.00
10,360.0	90.91	90.31	6,784.5	-282.5	3,618.6	3,629.2	0.00	0.00	0.00
10,400.0	90.91	90.31	6,783.8	-282.7	3,658.6	3,669.1	0.00	0.00	0.00
10,440.0	90.91	90.31	6,783.2	-282.9	3,698.6	3,709.1	0.00	0.00	0.00
10,480.0	90.91	90.31	6,782.6	-283.1	3,738.6	3,749.0	0.00	0.00	0.00
10,520.0	90.91	90.31	6,781.9	-283.3	3,778.6	3,788.9	0.00	0.00	0.00
10,560.0	90.91	90.31	6,781.3	-283.6	3,818.6	3,828.8	0.00	0.00	0.00
10,600.0	90.91	90.31	6,780.7	-283.8	3,858.5	3,868.8	0.00	0.00	0.00
10,640.0	90.91	90.31	6,780.0	-284.0	3,898.5	3,908.7	0.00	0.00	0.00
10,680.0	90.91	90.31	6,779.4	-284.2	3,938.5	3,948.6	0.00	0.00	0.00
10,720.0	90.91	90.31	6,778.8	-284.4	3,978.5	3,988.6	0.00	0.00	0.00
10,760.0	90.91	90.31	6,778.1	-284.6	4,018.5	4,028.5	0.00	0.00	0.00
10,800.0	90.91	90.31	6,777.5	-284.8	4,058.5	4,068.4	0.00	0.00	0.00
10,840.0	90.91	90.31	6,776.9	-285.0	4,098.5	4,108.3	0.00	0.00	0.00
10,880.0	90.91	90.31	6,776.2	-285.3	4,138.5	4,148.3	0.00	0.00	0.00
10,920.0	90.91	90.31	6,775.6	-285.5	4,178.5	4,188.2	0.00	0.00	0.00
10,960.0	90.91	90.31	6,775.0	-285.7	4,218.5	4,228.1	0.00	0.00	0.00
11,000.0	90.91	90.31	6,774.3	-285.9	4,258.5	4,268.0	0.00	0.00	0.00
11,040.0	90.91	90.31	6,773.7	-286.1	4,298.5	4,308.0	0.00	0.00	0.00
11,080.0	90.91	90.31	6,773.0	-286.3	4,338.5	4,347.9	0.00	0.00	0.00
11,120.0	90.91	90.31	6,772.4	-286.5	4,378.5	4,387.8	0.00	0.00	0.00
11,160.0	90.91	90.31	6,771.8	-286.8	4,418.5	4,427.8	0.00	0.00	0.00
11,200.0	90.91	90.31	6,771.1	-287.0	4,458.5	4,467.7	0.00	0.00	0.00
11,240.0	90.91	90.31	6,770.5	-287.2	4,498.5	4,507.6	0.00	0.00	0.00
11,271.8	90.91	90.31	6,770.0	-287.4	4,530.3	4,539.4	0.00	0.00	0.00

Casing Points				
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
7,300.1	6,833.1	7"	7	7-1/2

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Comment
1,700.0	1,700.0	0.0	0.0	KOP #1
6,087.9	6,069.2	-262.0	-217.0	KOP #2
7,300.1	6,833.1	-266.1	559.1	End of Build



Directional

PETROLEUM DEVELOPMENT CORP Weld County CO

SEC.24-T5N-R65W

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

Maxey 24Q-302

Wellbore #1

Plan #1 (3-07-13)

Anticollision Report

18 March, 2013



Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well Maxey 24Q-302
Project:	SEC.24-T5N-R65W	TVD Reference:	WELL @ 4650.0ft (RKB - 15')
Reference Site:	Maxey 24Q-HZ Pad Sec.24-T5N-R65W	MD Reference:	WELL @ 4650.0ft (RKB - 15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Maxey 24Q-302	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 (3-07-13)	Offset TVD Reference:	Offset Datum

Reference	Plan #1 (3-07-13)		
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 3/18/2013			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.0	11,271.8	Plan #1 (3-07-13) (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						
Maxey 24Q-HZ Pad Sec.24-T5N-R65W						
Maxey 24P-232 - Wellbore #1 - Plan #1 (3-07-13)	200.0	200.0	91.9	91.3	136.352	CC
Maxey 24P-232 - Wellbore #1 - Plan #1 (3-07-13)	300.0	299.4	92.3	91.1	82.162	ES
Maxey 24P-232 - Wellbore #1 - Plan #1 (3-07-13)	1,700.0	1,680.7	234.4	225.8	27.291	SF
Maxey 24P-332 - Wellbore #1 - Plan #1 (03-07-13)	1,000.0	1,000.0	61.3	57.0	14.353	CC, ES
Maxey 24P-332 - Wellbore #1 - Plan #1 (03-07-13)	11,271.8	11,283.6	659.4	400.0	2.542	SF
Maxey 24Q-112 - Wellbore #1 - Plan #1 (3-07-13)	1,500.0	1,500.0	30.6	24.1	4.702	CC, ES
Maxey 24Q-112 - Wellbore #1 - Plan #1 (3-07-13)	11,271.8	11,064.9	372.6	139.8	1.601	SF

Offset Design												Maxey 24Q-HZ Pad Sec.24-T5N-R65W - Maxey 24P-232 - Wellbore #1 - Plan #1 (3-07-13)		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		Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning				
							+N/-S (ft)	+E/-W (ft)									
0.0	0.0	0.0	0.0	0.0	0.0	-90.00	0.0	-91.9	91.9								
100.0	100.0	100.0	100.0	0.1	0.1	-90.00	0.0	-91.9	91.9	91.7	0.22	409.055					
200.0	200.0	200.0	200.0	0.3	0.3	-90.00	0.0	-91.9	91.9	91.3	0.67	136.352	CC				
300.0	300.0	299.4	299.4	0.6	0.6	-88.95	1.7	-92.3	92.3	91.1	1.12	82.162	ES				
400.0	400.0	398.5	398.4	0.8	0.8	-85.85	6.8	-93.2	93.4	91.9	1.58	59.200					
500.0	500.0	497.2	496.7	1.0	1.0	-80.91	15.1	-94.7	96.0	93.9	2.05	46.841					
600.0	600.0	595.2	593.9	1.2	1.3	-74.55	26.8	-96.8	100.6	98.1	2.55	39.508					
700.0	700.0	693.1	690.7	1.5	1.6	-67.43	41.3	-99.5	108.1	105.0	3.08	35.068					
800.0	800.0	791.8	788.2	1.7	2.0	-61.03	56.6	-102.2	117.5	113.8	3.64	32.255					
900.0	900.0	890.6	885.8	1.9	2.3	-55.62	71.8	-105.0	128.0	123.8	4.20	30.457					
1,000.0	1,000.0	989.4	983.3	2.1	2.6	-51.06	87.1	-107.8	139.6	134.8	4.77	29.294					
1,100.0	1,100.0	1,088.1	1,080.8	2.4	3.0	-47.21	102.4	-110.6	151.9	146.6	5.32	28.536					
1,200.0	1,200.0	1,186.9	1,178.4	2.6	3.3	-43.95	117.6	-113.4	164.8	158.9	5.88	28.041					
1,300.0	1,300.0	1,285.6	1,275.9	2.8	3.7	-41.16	132.9	-116.1	178.1	171.7	6.42	27.719					
1,400.0	1,400.0	1,384.4	1,373.5	3.0	4.1	-38.76	148.1	-118.9	191.8	184.8	6.97	27.515					
1,500.0	1,500.0	1,483.2	1,471.0	3.3	4.4	-36.68	163.4	-121.7	205.8	198.2	7.51	27.391					
1,600.0	1,600.0	1,581.9	1,568.5	3.5	4.8	-34.87	178.6	-124.5	220.0	211.9	8.05	27.322					
1,700.0	1,700.0	1,680.7	1,666.1	3.7	5.1	-33.28	193.9	-127.2	234.4	225.8	8.59	27.291	SF				
1,800.0	1,800.0	1,779.3	1,763.4	3.9	5.5	108.59	209.1	-130.0	249.5	241.2	8.24	30.284					
1,900.0	1,899.8	1,877.3	1,860.3	4.1	5.8	110.56	224.2	-132.8	266.0	257.4	8.63	30.807					

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 24Q-302
Project:	SEC.24-T5N-R65W	TVD Reference:	WELL @ 4650.0ft (RKB - 15')
Reference Site:	Maxey 24Q-HZ Pad Sec.24-T5N-R65W	MD Reference:	WELL @ 4650.0ft (RKB - 15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Maxey 24Q-302	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 (3-07-13)	Offset TVD Reference:	Offset Datum

Offset Design Maxey 24Q-HZ Pad Sec.24-T5N-R65W - Maxey 24P-232 - Wellbore #1 - Plan #1 (3-07-13)												Offset Site Error: 0.0 ft	
Survey Program: 0-MWD												Offset Well Error: 0.0 ft	
Reference		Offset		Semi Major Axis			Distance						
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor	Warning
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)		
2,000.0	1,999.5	1,974.8	1,956.6	4.3	6.2	112.88	239.3	-135.5	284.2	275.2	9.03	31.486	
2,100.0	2,098.8	2,071.8	2,052.4	4.5	6.5	115.55	254.3	-138.2	304.0	294.6	9.43	32.256	
2,200.0	2,198.2	2,168.8	2,148.1	4.7	6.9	118.00	269.2	-141.0	324.5	314.7	9.84	32.978	
2,300.0	2,297.5	2,265.8	2,243.9	4.9	7.3	120.16	284.2	-143.7	345.6	335.3	10.27	33.647	
2,400.0	2,396.9	2,362.8	2,339.7	5.2	7.6	122.08	299.2	-146.4	367.0	356.3	10.71	34.267	
2,500.0	2,496.2	2,459.7	2,435.4	5.4	8.0	123.78	314.2	-149.1	388.8	377.6	11.16	34.840	
2,600.0	2,595.6	2,556.7	2,531.2	5.7	8.3	125.31	329.1	-151.9	410.9	399.2	11.62	35.371	
2,700.0	2,694.9	2,653.7	2,627.0	5.9	8.7	126.68	344.1	-154.6	433.2	421.1	12.08	35.863	
2,800.0	2,794.3	2,750.6	2,722.8	6.2	9.0	127.91	359.1	-157.3	455.7	443.2	12.55	36.319	
2,900.0	2,893.6	2,847.6	2,818.5	6.4	9.4	129.03	374.1	-160.0	478.5	465.4	13.02	36.744	
3,000.0	2,993.0	2,944.6	2,914.3	6.7	9.7	130.05	389.0	-162.8	501.4	487.9	13.50	37.139	
3,100.0	3,092.3	3,041.6	3,010.1	7.0	10.1	130.98	404.0	-165.5	524.4	510.4	13.98	37.508	
3,200.0	3,191.7	3,138.5	3,105.8	7.3	10.4	131.83	419.0	-168.2	547.5	533.1	14.46	37.853	
3,300.0	3,291.0	3,235.5	3,201.6	7.6	10.8	132.62	434.0	-171.0	570.8	555.8	14.95	38.176	
3,400.0	3,390.4	3,332.5	3,297.4	7.8	11.1	133.34	448.9	-173.7	594.1	578.7	15.44	38.479	
3,500.0	3,489.7	3,429.5	3,393.1	8.1	11.5	134.01	463.9	-176.4	617.6	601.6	15.93	38.764	
3,600.0	3,589.1	3,526.4	3,488.9	8.4	11.9	134.63	478.9	-179.1	641.1	624.7	16.42	39.031	
3,700.0	3,688.4	3,623.4	3,584.7	8.7	12.2	135.20	493.9	-181.9	664.7	647.7	16.92	39.284	
3,800.0	3,787.8	3,720.4	3,680.5	9.0	12.6	135.74	508.8	-184.6	688.3	670.9	17.41	39.523	
3,900.0	3,887.1	3,817.3	3,776.2	9.3	12.9	136.24	523.8	-187.3	712.0	694.1	17.91	39.748	
4,000.0	3,986.5	3,914.3	3,872.0	9.6	13.3	136.71	538.8	-190.0	735.7	717.3	18.41	39.961	
4,100.0	4,085.9	4,011.3	3,967.8	9.9	13.6	137.15	553.8	-192.8	759.5	740.6	18.91	40.164	
4,200.0	4,185.2	4,108.3	4,063.5	10.2	14.0	137.56	568.8	-195.5	783.3	763.9	19.41	40.356	
4,300.0	4,284.6	4,205.2	4,159.3	10.5	14.3	137.95	583.7	-198.2	807.1	787.2	19.91	40.538	
4,400.0	4,383.9	4,302.2	4,255.1	10.8	14.7	138.31	598.7	-200.9	831.0	810.6	20.41	40.712	
4,500.0	4,483.3	4,399.2	4,350.8	11.1	15.0	138.66	613.7	-203.7	854.9	834.0	20.92	40.877	
4,600.0	4,582.6	4,496.1	4,446.6	11.4	15.4	138.99	628.7	-206.4	878.9	857.5	21.42	41.035	
4,700.0	4,682.0	4,593.1	4,542.4	11.7	15.7	139.32	643.6	-209.1	902.9	880.9	21.93	41.178	
4,800.0	4,781.5	4,690.5	4,638.6	11.9	16.1	139.83	658.7	-211.9	925.4	902.9	22.45	41.218	
4,900.0	4,881.3	4,788.5	4,735.3	12.1	16.5	140.16	673.8	-214.6	945.3	922.3	22.95	41.182	
5,000.0	4,981.3	4,887.0	4,832.6	12.3	16.8	140.30	689.0	-217.4	962.5	939.1	23.43	41.080	
5,100.0	5,081.3	4,985.7	4,930.1	12.5	17.2	-0.19	704.3	-220.2	978.0	949.1	28.88	33.864	
5,200.0	5,181.3	5,084.5	5,027.7	12.7	17.5	-0.35	719.5	-222.9	993.5	964.1	29.42	33.768	

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well Maxey 24Q-302
Project:	SEC.24-T5N-R65W	TVD Reference:	WELL @ 4650.0ft (RKB - 15')
Reference Site:	Maxey 24Q-HZ Pad Sec.24-T5N-R65W	MD Reference:	WELL @ 4650.0ft (RKB - 15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Maxey 24Q-302	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 (3-07-13)	Offset TVD Reference:	Offset Datum

Offset Design Maxey 24Q-HZ Pad Sec.24-T5N-R65W - Maxey 24P-332 - Wellbore #1 - Plan #1 (03-07-13)													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)	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	-89.98	-89.98	0.0	-61.3	61.3				
100.0	100.0	100.0	100.0	0.1	0.1	-89.98	-89.98	0.0	-61.3	61.3	61.1	0.22	272.703	
200.0	200.0	200.0	200.0	0.3	0.3	-89.98	-89.98	0.0	-61.3	61.3	60.6	0.67	90.901	
300.0	300.0	300.0	300.0	0.6	0.6	-89.98	-89.98	0.0	-61.3	61.3	60.2	1.12	54.541	
400.0	400.0	400.0	400.0	0.8	0.8	-89.98	-89.98	0.0	-61.3	61.3	59.7	1.57	38.958	
500.0	500.0	500.0	500.0	1.0	1.0	-89.98	-89.98	0.0	-61.3	61.3	59.3	2.02	30.300	
600.0	600.0	600.0	600.0	1.2	1.2	-89.98	-89.98	0.0	-61.3	61.3	58.8	2.47	24.791	
700.0	700.0	700.0	700.0	1.5	1.5	-89.98	-89.98	0.0	-61.3	61.3	58.4	2.92	20.977	
800.0	800.0	800.0	800.0	1.7	1.7	-89.98	-89.98	0.0	-61.3	61.3	57.9	3.37	18.180	
900.0	900.0	900.0	900.0	1.9	1.9	-89.98	-89.98	0.0	-61.3	61.3	57.5	3.82	16.041	
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	-89.98	-89.98	0.0	-61.3	61.3	57.0	4.27	14.353 CC, ES	
1,100.0	1,100.0	1,099.2	1,099.1	2.4	2.4	-88.51	-88.51	1.6	-61.9	62.0	57.3	4.72	13.137	
1,200.0	1,200.0	1,198.1	1,197.9	2.6	2.6	-84.32	-84.32	6.4	-63.9	64.2	59.1	5.16	12.439	
1,300.0	1,300.0	1,296.6	1,296.1	2.8	2.8	-78.03	-78.03	14.2	-67.1	68.7	63.1	5.61	12.231	
1,400.0	1,400.0	1,396.1	1,395.0	3.0	3.0	-71.60	-71.60	23.6	-70.9	74.9	68.8	6.08	12.317	
1,500.0	1,500.0	1,495.6	1,494.0	3.3	3.3	-66.20	-66.20	32.9	-74.7	81.9	75.3	6.55	12.499	
1,600.0	1,600.0	1,595.1	1,593.0	3.5	3.5	-61.68	-61.68	42.3	-78.5	89.5	82.4	7.02	12.735	
1,700.0	1,700.0	1,694.5	1,691.9	3.7	3.8	-57.89	-57.89	51.7	-82.3	97.5	90.0	7.50	12.999	
1,800.0	1,800.0	1,793.9	1,790.8	3.9	4.1	-86.46	-86.46	61.0	-86.1	105.8	98.0	7.87	13.451	
1,900.0	1,899.8	1,893.0	1,889.4	4.1	4.3	91.53	91.53	70.3	-89.9	114.7	106.4	8.27	13.863	
2,000.0	1,999.5	1,991.7	1,987.6	4.3	4.6	97.37	97.37	79.6	-93.7	124.7	116.0	8.68	14.370	
2,100.0	2,098.8	2,090.0	2,085.4	4.5	4.9	103.43	103.43	88.9	-97.5	136.5	127.4	9.10	15.007	
2,200.0	2,198.2	2,188.3	2,183.1	4.7	5.1	108.59	108.59	98.1	-101.2	149.7	140.2	9.53	15.708	
2,300.0	2,297.5	2,286.6	2,280.9	4.9	5.4	112.90	112.90	107.4	-105.0	163.9	153.9	9.97	16.433	
2,400.0	2,396.9	2,384.9	2,378.7	5.2	5.7	116.51	116.51	116.6	-108.8	178.8	168.4	10.42	17.157	
2,500.0	2,496.2	2,483.2	2,476.5	5.4	6.0	119.56	119.56	125.9	-112.5	194.4	183.5	10.88	17.865	
2,600.0	2,595.6	2,581.5	2,574.3	5.7	6.2	122.16	122.16	135.1	-116.3	210.4	199.0	11.34	18.547	
2,700.0	2,694.9	2,679.7	2,672.1	5.9	6.5	124.39	124.39	144.4	-120.0	226.7	214.9	11.81	19.200	
2,800.0	2,794.3	2,778.0	2,769.8	6.2	6.8	126.32	126.32	153.6	-123.8	243.4	231.1	12.28	19.821	
2,900.0	2,893.6	2,876.3	2,867.6	6.4	7.1	128.00	128.00	162.9	-127.6	260.3	247.5	12.75	20.410	
3,000.0	2,993.0	2,974.6	2,965.4	6.7	7.3	129.48	129.48	172.1	-131.3	277.4	264.2	13.23	20.967	
3,100.0	3,092.3	3,072.9	3,063.2	7.0	7.6	130.78	130.78	181.3	-135.1	294.6	280.9	13.71	21.493	
3,200.0	3,191.7	3,171.2	3,161.0	7.3	7.9	131.94	131.94	190.6	-138.9	312.0	297.8	14.19	21.990	
3,300.0	3,291.0	3,269.5	3,258.8	7.6	8.2	132.98	132.98	199.8	-142.6	329.5	314.8	14.67	22.459	
3,400.0	3,390.4	3,367.8	3,356.5	7.8	8.5	133.91	133.91	209.1	-146.4	347.1	331.9	15.15	22.902	
3,500.0	3,489.7	3,466.1	3,454.3	8.1	8.8	134.76	134.76	218.3	-150.2	364.7	349.1	15.64	23.321	
3,600.0	3,589.1	3,564.4	3,552.1	8.4	9.0	135.52	135.52	227.6	-153.9	382.5	366.4	16.13	23.717	
3,700.0	3,688.4	3,662.7	3,649.9	8.7	9.3	136.22	136.22	236.8	-157.7	400.3	383.7	16.61	24.091	
3,800.0	3,787.8	3,761.0	3,747.7	9.0	9.6	136.86	136.86	246.1	-161.5	418.1	401.0	17.10	24.446	
3,900.0	3,887.1	3,859.2	3,845.5	9.3	9.9	137.44	137.44	255.3	-165.2	436.0	418.4	17.59	24.783	
4,000.0	3,986.5	3,957.5	3,943.2	9.6	10.2	137.98	137.98	264.6	-169.0	454.0	435.9	18.08	25.102	
4,100.0	4,085.9	4,055.8	4,041.0	9.9	10.4	138.48	138.48	273.8	-172.7	471.9	453.3	18.58	25.405	
4,200.0	4,185.2	4,154.1	4,138.8	10.2	10.7	138.95	138.95	283.1	-176.5	489.9	470.9	19.07	25.693	
4,300.0	4,284.6	4,252.4	4,236.6	10.5	11.0	139.38	139.38	292.3	-180.3	508.0	488.4	19.56	25.968	
4,400.0	4,383.9	4,350.7	4,334.4	10.8	11.3	139.78	139.78	301.6	-184.0	526.0	506.0	20.05	26.229	
4,500.0	4,483.3	4,449.0	4,432.2	11.1	11.6	140.15	140.15	310.8	-187.8	544.1	523.5	20.55	26.478	
4,600.0	4,582.6	4,547.3	4,529.9	11.4	11.9	140.50	140.50	320.1	-191.6	562.2	541.2	21.04	26.716	
4,700.0	4,682.0	4,645.6	4,627.7	11.7	12.1	140.84	140.84	329.3	-195.3	580.3	558.8	21.54	26.940	
4,800.0	4,781.5	4,744.2	4,725.8	11.9	12.4	141.24	141.24	338.6	-199.1	596.9	574.9	22.04	27.088	
4,900.0	4,881.3	4,843.2	4,824.3	12.1	12.7	141.38	141.38	347.9	-202.9	610.8	588.3	22.51	27.136	
5,000.0	4,981.3	4,942.5	4,923.1	12.3	13.0	141.29	141.29	357.3	-206.7	622.0	599.1	22.96	27.093	

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 24Q-302
Project:	SEC.24-T5N-R65W	TVD Reference:	WELL @ 4650.0ft (RKB - 15')
Reference Site:	Maxey 24Q-HZ Pad Sec.24-T5N-R65W	MD Reference:	WELL @ 4650.0ft (RKB - 15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Maxey 24Q-302	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 (3-07-13)	Offset TVD Reference:	Offset Datum

Offset Design Maxey 24Q-HZ Pad Sec.24-T5N-R65W - Maxey 24P-332 - Wellbore #1 - Plan #1 (03-07-13)													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
5,100.0	5,081.3	5,042.0	5,022.1	12.5	13.3	0.59		366.6	-210.5	631.4	606.6	24.85	25.405	
5,200.0	5,181.3	5,141.5	5,121.1	12.7	13.6	0.24		376.0	-214.3	640.8	615.5	25.31	25.314	
5,300.0	5,281.3	5,243.9	5,223.0	12.8	13.9	-0.11		385.6	-218.2	650.2	624.4	25.78	25.221	
5,400.0	5,381.3	5,370.5	5,349.2	13.0	14.1	-0.42		394.3	-221.8	657.1	630.9	26.24	25.046	
5,500.0	5,481.3	5,497.6	5,476.2	13.2	14.4	-0.54		397.9	-223.3	660.0	633.3	26.65	24.769	
5,600.0	5,581.3	5,602.7	5,581.3	13.4	14.5	-0.55		398.0	-223.3	660.0	633.0	27.01	24.438	
5,700.0	5,681.3	5,702.7	5,681.3	13.6	14.7	-0.55		398.0	-223.3	660.0	632.7	27.39	24.101	
5,800.0	5,781.3	5,802.7	5,781.3	13.7	14.9	-0.55		398.0	-223.3	660.0	632.3	27.77	23.771	
5,900.0	5,881.3	5,902.7	5,881.3	13.9	15.1	-0.55		398.0	-223.3	660.0	631.9	28.15	23.449	
6,000.0	5,981.3	6,002.7	5,981.3	14.1	15.3	-0.55		398.0	-223.3	660.0	631.5	28.53	23.133	
6,100.0	6,081.3	6,102.8	6,081.5	14.3	15.5	-90.85		398.0	-223.2	660.0	632.5	27.54	23.968	
6,200.0	6,180.9	6,204.2	6,182.4	14.4	15.6	-90.84		398.0	-214.9	660.0	632.2	27.85	23.698	
6,300.0	6,278.6	6,305.4	6,281.2	14.5	15.7	-90.82		397.9	-193.3	660.0	631.9	28.09	23.495	
6,400.0	6,372.7	6,406.7	6,376.4	14.6	15.8	-90.79		397.7	-158.9	660.0	631.7	28.31	23.315	
6,500.0	6,461.6	6,507.8	6,466.1	14.6	15.9	-90.74		397.4	-112.2	660.0	631.4	28.59	23.089	
6,600.0	6,543.8	6,608.9	6,548.7	14.7	16.0	-90.67		397.1	-54.2	660.0	631.0	29.05	22.723	
6,700.0	6,617.9	6,709.9	6,622.9	14.8	16.1	-90.60		396.7	14.2	660.0	630.1	29.84	22.116	
6,800.0	6,682.6	6,810.8	6,687.4	15.1	16.4	-90.51		396.3	91.6	660.0	628.8	31.13	21.199	
6,900.0	6,736.8	6,911.5	6,741.1	16.0	17.3	-90.42		395.8	176.7	659.9	626.9	33.03	19.979	
7,000.0	6,779.6	7,012.0	6,783.0	17.3	18.6	-90.32		395.3	268.1	659.9	624.3	35.59	18.544	
7,100.0	6,810.2	7,112.4	6,812.6	18.9	20.2	-90.21		394.8	363.9	659.9	621.1	38.76	17.026	
7,200.0	6,828.1	7,212.7	6,829.3	20.7	22.0	-90.10		394.3	462.7	659.9	617.5	42.44	15.549	
7,300.1	6,833.1	7,312.8	6,833.1	22.8	24.0	-90.00		393.7	562.7	659.9	613.4	46.48	14.196	
7,400.0	6,831.5	7,412.7	6,831.5	24.9	26.2	-90.00		393.2	662.6	659.9	609.1	50.79	12.992	
7,500.0	6,829.9	7,512.7	6,829.9	27.2	28.4	-90.00		392.6	762.6	659.9	604.5	55.34	11.925	
7,600.0	6,828.3	7,612.7	6,828.3	29.6	30.8	-90.00		392.1	862.6	659.8	599.8	60.06	10.986	
7,700.0	6,826.7	7,712.7	6,826.7	32.0	33.2	-90.00		391.5	962.6	659.8	594.9	64.93	10.162	
7,800.0	6,825.1	7,812.7	6,825.1	34.5	35.6	-90.00		391.0	1,062.5	659.8	589.9	69.91	9.438	
7,900.0	6,823.6	7,912.7	6,823.5	37.1	38.2	-90.00		390.5	1,162.5	659.8	584.8	74.98	8.800	
8,000.0	6,822.0	8,012.7	6,821.9	39.6	40.7	-90.00		389.9	1,262.5	659.8	579.7	80.13	8.235	
8,100.0	6,820.4	8,112.7	6,820.4	42.2	43.3	-90.00		389.4	1,362.5	659.8	574.5	85.33	7.732	
8,200.0	6,818.8	8,212.7	6,818.8	44.9	45.9	-90.00		388.8	1,462.5	659.8	569.2	90.58	7.284	
8,300.0	6,817.2	8,312.7	6,817.2	47.5	48.6	-90.00		388.3	1,562.5	659.8	563.9	95.88	6.881	
8,400.0	6,815.6	8,412.7	6,815.6	50.2	51.2	-90.00		387.7	1,662.5	659.8	558.5	101.21	6.519	
8,500.0	6,814.0	8,512.7	6,814.0	52.9	53.9	-90.00		387.2	1,762.4	659.7	553.2	106.56	6.191	
8,600.0	6,812.4	8,612.7	6,812.4	55.6	56.6	-90.00		386.6	1,862.4	659.7	547.8	111.95	5.893	
8,700.0	6,810.8	8,712.7	6,810.8	58.3	59.3	-90.00		386.1	1,962.4	659.7	542.4	117.35	5.622	
8,800.0	6,809.3	8,812.7	6,809.2	61.0	62.0	-90.00		385.5	2,062.4	659.7	536.9	122.78	5.373	
8,900.0	6,807.7	8,912.7	6,807.7	63.7	64.7	-90.00		385.0	2,162.4	659.7	531.5	128.22	5.145	
9,000.0	6,806.1	9,012.7	6,806.1	66.4	67.4	-90.00		384.4	2,262.4	659.7	526.0	133.68	4.935	
9,100.0	6,804.5	9,112.7	6,804.5	69.2	70.1	-90.00		383.9	2,362.4	659.7	520.5	139.14	4.741	
9,200.0	6,802.9	9,212.7	6,802.9	71.9	72.9	-90.00		383.4	2,462.3	659.7	515.0	144.62	4.561	
9,300.0	6,801.3	9,312.7	6,801.3	74.7	75.6	-90.00		382.8	2,562.3	659.6	509.5	150.11	4.394	
9,400.0	6,799.7	9,412.7	6,799.7	77.4	78.3	-90.00		382.3	2,662.3	659.6	504.0	155.61	4.239	
9,500.0	6,798.1	9,512.7	6,798.1	80.2	81.1	-90.00		381.7	2,762.3	659.6	498.5	161.12	4.094	
9,600.0	6,796.6	9,612.7	6,796.5	82.9	83.8	-90.00		381.2	2,862.3	659.6	493.0	166.64	3.958	
9,700.0	6,795.0	9,712.7	6,794.9	85.7	86.6	-90.00		380.6	2,962.3	659.6	487.4	172.16	3.831	
9,800.0	6,793.4	9,812.7	6,793.4	88.4	89.4	-90.00		380.1	3,062.3	659.6	481.9	177.68	3.712	
9,900.0	6,791.8	9,912.7	6,791.8	91.2	92.1	-90.00		379.5	3,162.2	659.6	476.4	183.22	3.600	
10,000.0	6,790.2	10,012.7	6,790.2	94.0	94.9	-90.00		379.0	3,262.2	659.6	470.8	188.75	3.494	
10,100.0	6,788.6	10,112.7	6,788.6	96.8	97.7	-90.00		378.4	3,362.2	659.6	465.3	194.30	3.395	

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 24Q-302
Project:	SEC.24-T5N-R65W	TVD Reference:	WELL @ 4650.0ft (RKB - 15')
Reference Site:	Maxey 24Q-HZ Pad Sec.24-T5N-R65W	MD Reference:	WELL @ 4650.0ft (RKB - 15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Maxey 24Q-302	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 (3-07-13)	Offset TVD Reference:	Offset Datum

Offset Design Maxey 24Q-HZ Pad Sec.24-T5N-R65W - Maxey 24P-332 - Wellbore #1 - Plan #1 (03-07-13)												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)	Offset Wellbore Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
10,200.0	6,787.0	10,212.7	6,787.0	99.5	100.4	-90.00	377.9	3,462.2	659.5	459.7	199.84	3.300	
10,300.0	6,785.4	10,312.7	6,785.4	102.3	103.2	-90.00	377.4	3,562.2	659.5	454.1	205.39	3.211	
10,400.0	6,783.8	10,412.7	6,783.8	105.1	106.0	-90.00	376.8	3,662.2	659.5	448.6	210.95	3.126	
10,500.0	6,782.3	10,512.7	6,782.2	107.9	108.7	-90.00	376.3	3,762.2	659.5	443.0	216.50	3.046	
10,600.0	6,780.7	10,612.7	6,780.7	110.6	111.5	-90.00	375.7	3,862.1	659.5	437.4	222.06	2.970	
10,700.0	6,779.1	10,712.7	6,779.1	113.4	114.3	-90.00	375.2	3,962.1	659.5	431.9	227.63	2.897	
10,800.0	6,777.5	10,812.7	6,777.5	116.2	117.1	-90.00	374.6	4,062.1	659.5	426.3	233.19	2.828	
10,900.0	6,775.9	10,912.7	6,775.9	119.0	119.9	-90.00	374.1	4,162.1	659.5	420.7	238.76	2.762	
11,000.0	6,774.3	11,012.7	6,774.3	121.8	122.6	-90.00	373.5	4,262.1	659.4	415.1	244.33	2.699	
11,100.0	6,772.7	11,112.7	6,772.7	124.6	125.4	-90.00	373.0	4,362.1	659.4	409.5	249.90	2.639	
11,200.0	6,771.1	11,212.7	6,771.1	127.3	128.2	-90.00	372.4	4,462.1	659.4	403.9	255.48	2.581	
11,250.4	6,770.3	11,263.2	6,770.3	128.8	129.6	-90.00	372.2	4,512.5	659.4	401.1	258.29	2.553	
11,271.8	6,770.0	11,283.6	6,770.0	129.3	130.2	-90.00	372.1	4,532.9	659.4	400.0	259.45	2.542 SF	

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well Maxey 24Q-302
Project:	SEC.24-T5N-R65W	TVD Reference:	WELL @ 4650.0ft (RKB - 15')
Reference Site:	Maxey 24Q-HZ Pad Sec.24-T5N-R65W	MD Reference:	WELL @ 4650.0ft (RKB - 15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Maxey 24Q-302	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 (3-07-13)	Offset TVD Reference:	Offset Datum

Offset Design Maxey 24Q-HZ Pad Sec.24-T5N-R65W - Maxey 24Q-112 - Wellbore #1 - Plan #1 (3-07-13)													Offset Site Error:	0.0 ft
Survey Program: 0-MWDD													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)	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	-89.98	-89.98	0.0	-30.6	30.6				
100.0	100.0	100.0	100.0	0.1	0.1	-89.98	-89.98	0.0	-30.6	30.6	30.4	0.22	136.352	
200.0	200.0	200.0	200.0	0.3	0.3	-89.98	-89.98	0.0	-30.6	30.6	30.0	0.67	45.451	
300.0	300.0	300.0	300.0	0.6	0.6	-89.98	-89.98	0.0	-30.6	30.6	29.5	1.12	27.270	
400.0	400.0	400.0	400.0	0.8	0.8	-89.98	-89.98	0.0	-30.6	30.6	29.1	1.57	19.479	
500.0	500.0	500.0	500.0	1.0	1.0	-89.98	-89.98	0.0	-30.6	30.6	28.6	2.02	15.150	
600.0	600.0	600.0	600.0	1.2	1.2	-89.98	-89.98	0.0	-30.6	30.6	28.2	2.47	12.396	
700.0	700.0	700.0	700.0	1.5	1.5	-89.98	-89.98	0.0	-30.6	30.6	27.7	2.92	10.489	
800.0	800.0	800.0	800.0	1.7	1.7	-89.98	-89.98	0.0	-30.6	30.6	27.3	3.37	9.090	
900.0	900.0	900.0	900.0	1.9	1.9	-89.98	-89.98	0.0	-30.6	30.6	26.8	3.82	8.021	
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	-89.98	-89.98	0.0	-30.6	30.6	26.4	4.27	7.176	
1,100.0	1,100.0	1,100.0	1,100.0	2.4	2.4	-89.98	-89.98	0.0	-30.6	30.6	25.9	4.72	6.493	
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	-89.98	-89.98	0.0	-30.6	30.6	25.5	5.17	5.928	
1,300.0	1,300.0	1,300.0	1,300.0	2.8	2.8	-89.98	-89.98	0.0	-30.6	30.6	25.0	5.62	5.454	
1,400.0	1,400.0	1,400.0	1,400.0	3.0	3.0	-89.98	-89.98	0.0	-30.6	30.6	24.6	6.07	5.050	
1,500.0	1,500.0	1,500.0	1,500.0	3.3	3.3	-89.98	-89.98	0.0	-30.6	30.6	24.1	6.52	4.702 CC, ES	
1,600.0	1,600.0	1,599.0	1,598.9	3.5	3.5	-88.94	-88.94	0.6	-32.3	32.3	25.3	6.96	4.640	
1,700.0	1,700.0	1,697.7	1,697.5	3.7	3.7	-86.38	-86.38	2.3	-37.1	37.2	29.8	7.39	5.036	
1,800.0	1,800.0	1,796.0	1,795.5	3.9	3.9	-58.73	-58.73	5.2	-45.0	44.6	36.8	7.79	5.724	
1,900.0	1,899.8	1,895.1	1,894.0	4.1	4.1	65.77	65.77	9.0	-55.3	53.1	44.9	8.18	6.493	
2,000.0	1,999.5	1,994.4	1,992.7	4.3	4.4	73.86	73.86	12.7	-65.6	61.3	52.7	8.58	7.140	
2,100.0	2,098.8	2,093.6	2,091.2	4.5	4.6	82.06	82.06	16.5	-76.0	70.0	61.0	9.01	7.769	
2,200.0	2,198.2	2,192.7	2,189.8	4.7	4.9	88.49	88.49	20.3	-86.3	79.9	70.4	9.46	8.442	
2,300.0	2,297.5	2,291.9	2,288.3	4.9	5.1	93.46	93.46	24.0	-96.7	90.5	80.6	9.92	9.118	
2,400.0	2,396.9	2,391.1	2,386.9	5.2	5.4	97.37	97.37	27.8	-107.0	101.6	91.2	10.40	9.773	
2,500.0	2,496.2	2,490.2	2,485.4	5.4	5.7	100.50	100.50	31.5	-117.4	113.2	102.3	10.89	10.394	
2,600.0	2,595.6	2,589.4	2,584.0	5.7	5.9	103.04	103.04	35.3	-127.7	125.0	113.6	11.38	10.977	
2,700.0	2,694.9	2,688.6	2,682.5	5.9	6.2	105.14	105.14	39.1	-138.1	137.0	125.1	11.89	11.520	
2,800.0	2,794.3	2,787.7	2,781.1	6.2	6.5	106.91	106.91	42.8	-148.4	149.1	136.7	12.40	12.025	
2,900.0	2,893.6	2,886.9	2,879.6	6.4	6.8	108.40	108.40	46.6	-158.8	161.4	148.5	12.92	12.494	
3,000.0	2,993.0	2,986.0	2,978.2	6.7	7.1	109.69	109.69	50.4	-169.1	173.8	160.3	13.44	12.928	
3,100.0	3,092.3	3,085.2	3,076.7	7.0	7.3	110.80	110.80	54.1	-179.5	186.2	172.3	13.97	13.331	
3,200.0	3,191.7	3,184.4	3,175.3	7.3	7.6	111.77	111.77	57.9	-189.8	198.7	184.2	14.50	13.706	
3,300.0	3,291.0	3,283.5	3,273.8	7.6	7.9	112.63	112.63	61.6	-200.1	211.3	196.3	15.03	14.054	
3,400.0	3,390.4	3,388.1	3,377.9	7.8	8.2	113.72	113.72	65.1	-209.5	222.8	207.2	15.53	14.349	
3,500.0	3,489.7	3,493.5	3,483.1	8.1	8.4	115.38	115.38	67.2	-215.4	231.8	215.8	16.00	14.480	
3,600.0	3,589.1	3,598.9	3,588.4	8.4	8.6	117.58	117.58	68.0	-217.6	238.4	221.9	16.47	14.473	
3,700.0	3,688.4	3,698.9	3,688.4	8.7	8.7	119.95	119.95	68.0	-217.6	243.9	227.0	16.93	14.404	
3,800.0	3,787.8	3,798.2	3,787.8	9.0	8.9	122.20	122.20	68.0	-217.6	249.8	232.4	17.41	14.350	
3,900.0	3,887.1	3,897.6	3,887.1	9.3	9.1	124.34	124.34	68.0	-217.6	256.1	238.2	17.88	14.324	
4,000.0	3,986.5	3,996.9	3,986.5	9.6	9.3	126.38	126.38	68.0	-217.6	262.7	244.3	18.34	14.321	
4,100.0	4,085.9	4,096.3	4,085.9	9.9	9.5	128.32	128.32	68.0	-217.6	269.6	250.8	18.80	14.338	
4,200.0	4,185.2	4,195.6	4,185.2	10.2	9.7	130.16	130.16	68.0	-217.6	276.8	257.6	19.26	14.373	
4,300.0	4,284.6	4,295.0	4,284.6	10.5	9.9	131.90	131.90	68.0	-217.6	284.3	264.6	19.71	14.423	
4,400.0	4,383.9	4,394.3	4,383.9	10.8	10.2	133.56	133.56	68.0	-217.6	292.1	271.9	20.16	14.485	
4,500.0	4,483.3	4,493.7	4,483.3	11.1	10.4	135.13	135.13	68.0	-217.6	300.0	279.4	20.61	14.558	
4,600.0	4,582.6	4,593.0	4,582.6	11.4	10.6	136.61	136.61	68.0	-217.6	308.2	287.2	21.06	14.639	
4,700.0	4,682.0	4,692.4	4,682.0	11.7	10.8	138.03	138.03	68.0	-217.6	316.6	295.1	21.50	14.726	
4,800.0	4,781.5	4,791.9	4,781.5	11.9	11.0	139.23	139.23	68.0	-217.6	323.6	301.7	21.92	14.762	
4,900.0	4,881.3	4,891.8	4,881.3	12.1	11.2	139.96	139.96	68.0	-217.6	328.1	305.8	22.34	14.690	
5,000.0	4,981.3	4,991.7	4,981.3	12.3	11.4	140.25	140.25	68.0	-217.6	330.0	307.2	22.73	14.514	

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 24Q-302
Project:	SEC.24-T5N-R65W	TVD Reference:	WELL @ 4650.0ft (RKB - 15')
Reference Site:	Maxey 24Q-HZ Pad Sec.24-T5N-R65W	MD Reference:	WELL @ 4650.0ft (RKB - 15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Maxey 24Q-302	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 (3-07-13)	Offset TVD Reference:	Offset Datum

Offset Design Maxey 24Q-HZ Pad Sec.24-T5N-R65W - Maxey 24Q-112 - Wellbore #1 - Plan #1 (3-07-13)													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
5,100.0	5,081.3	5,091.7	5,081.3	12.5	11.6	-0.11	-0.11	68.0	-217.6	330.0	307.1	22.92	14.398	
5,200.0	5,181.3	5,191.7	5,181.3	12.7	11.8	-0.11	-0.11	68.0	-217.6	330.0	306.7	23.32	14.150	
5,300.0	5,281.3	5,291.7	5,281.3	12.8	12.0	-0.11	-0.11	68.0	-217.6	330.0	306.3	23.73	13.910	
5,400.0	5,381.3	5,391.7	5,381.3	13.0	12.2	-0.11	-0.11	68.0	-217.6	330.0	305.9	24.13	13.677	
5,500.0	5,481.3	5,491.7	5,481.3	13.2	12.5	-0.11	-0.11	68.0	-217.6	330.0	305.5	24.54	13.450	
5,600.0	5,581.3	5,591.7	5,581.3	13.4	12.7	-0.11	-0.11	68.0	-217.6	330.0	305.1	24.94	13.230	
5,700.0	5,681.3	5,691.7	5,681.3	13.6	12.9	-0.11	-0.11	68.0	-217.6	330.0	304.7	25.35	13.017	
5,800.0	5,781.3	5,791.7	5,781.3	13.7	13.1	-0.11	-0.11	68.0	-217.6	330.0	304.3	25.76	12.810	
5,900.0	5,881.3	5,891.8	5,881.3	13.9	13.3	-0.10	-0.10	68.0	-217.6	330.0	303.8	26.17	12.609	
5,948.1	5,929.4	5,939.9	5,929.4	14.0	13.4	0.29	0.29	68.0	-215.3	330.0	303.6	26.36	12.517	
6,000.0	5,981.3	5,991.3	5,980.5	14.1	13.5	1.28	1.28	68.0	-209.6	330.1	303.5	26.58	12.418	
6,100.0	6,081.3	6,087.2	6,074.3	14.3	13.6	-85.60	-85.60	67.9	-189.9	331.1	304.1	26.99	12.267	
6,200.0	6,180.9	6,179.4	6,161.4	14.4	13.7	-81.48	-81.48	67.7	-159.9	333.9	306.8	27.16	12.293	
6,300.0	6,278.6	6,269.2	6,242.2	14.5	13.8	-77.60	-77.60	67.5	-120.9	338.4	311.0	27.31	12.391	
6,400.0	6,372.7	6,356.9	6,316.2	14.6	14.0	-74.03	-74.03	67.3	-73.9	343.9	316.5	27.45	12.530	
6,500.0	6,461.6	6,442.7	6,382.9	14.6	14.3	-70.80	-70.80	67.0	-20.0	350.3	322.6	27.64	12.671	
6,600.0	6,543.8	6,527.0	6,442.1	14.7	14.7	-67.96	-67.96	66.7	39.9	356.9	328.9	27.96	12.764	
6,700.0	6,617.9	6,610.0	6,493.7	14.8	15.4	-65.51	-65.51	66.4	104.9	363.5	335.0	28.49	12.759	
6,800.0	6,682.6	6,691.9	6,537.3	15.1	16.2	-63.46	-63.46	66.0	174.2	369.6	340.3	29.32	12.607	
6,900.0	6,736.8	6,772.9	6,572.9	16.0	17.2	-61.80	-61.80	65.7	246.9	375.1	344.5	30.55	12.278	
7,000.0	6,779.6	6,850.0	6,599.5	17.3	18.4	-60.55	-60.55	65.3	319.2	379.6	347.4	32.18	11.795	
7,100.0	6,810.2	6,933.1	6,619.9	18.9	19.9	-59.61	-59.61	64.9	399.8	382.9	348.6	34.37	11.140	
7,200.0	6,828.1	7,012.6	6,631.0	20.7	21.4	-59.08	-59.08	64.5	478.4	385.0	348.0	36.96	10.416	
7,300.1	6,833.1	7,093.3	6,634.0	22.8	23.1	-58.91	-58.91	64.1	559.0	385.6	345.7	39.96	9.651	
7,400.0	6,831.5	7,193.2	6,633.1	24.9	25.2	-59.01	-59.01	63.6	659.0	385.3	341.6	43.72	8.812	
7,500.0	6,829.9	7,293.2	6,632.3	27.2	27.5	-59.10	-59.10	63.1	758.9	384.9	337.2	47.70	8.070	
7,600.0	6,828.3	7,393.2	6,631.4	29.6	29.9	-59.20	-59.20	62.6	858.9	384.6	332.7	51.84	7.418	
7,700.0	6,826.7	7,493.2	6,630.5	32.0	32.4	-59.30	-59.30	62.1	958.9	384.2	328.1	56.12	6.846	
7,800.0	6,825.1	7,593.2	6,629.7	34.5	34.9	-59.39	-59.39	61.6	1,058.9	383.9	323.4	60.51	6.344	
7,900.0	6,823.6	7,693.2	6,628.8	37.1	37.4	-59.49	-59.49	61.1	1,158.9	383.6	318.6	64.99	5.902	
8,000.0	6,822.0	7,793.2	6,628.0	39.6	40.0	-59.59	-59.59	60.6	1,258.9	383.2	313.7	69.54	5.511	
8,100.0	6,820.4	7,893.2	6,627.1	42.2	42.6	-59.68	-59.68	60.1	1,358.9	382.9	308.7	74.14	5.164	
8,200.0	6,818.8	7,993.2	6,626.3	44.9	45.2	-59.78	-59.78	59.6	1,458.9	382.5	303.7	78.81	4.854	
8,300.0	6,817.2	8,093.2	6,625.4	47.5	47.9	-59.88	-59.88	59.1	1,558.9	382.2	298.7	83.51	4.576	
8,400.0	6,815.6	8,193.2	6,624.6	50.2	50.6	-59.98	-59.98	58.6	1,658.9	381.8	293.6	88.26	4.326	
8,500.0	6,814.0	8,293.2	6,623.7	52.9	53.2	-60.07	-60.07	58.1	1,758.9	381.5	288.5	93.04	4.101	
8,600.0	6,812.4	8,393.2	6,622.8	55.6	55.9	-60.17	-60.17	57.6	1,858.9	381.2	283.3	97.85	3.896	
8,700.0	6,810.8	8,493.2	6,622.0	58.3	58.6	-60.27	-60.27	57.1	1,958.9	380.8	278.1	102.68	3.709	
8,800.0	6,809.3	8,593.2	6,621.1	61.0	61.4	-60.37	-60.37	56.6	2,058.9	380.5	272.9	107.55	3.538	
8,900.0	6,807.7	8,693.2	6,620.3	63.7	64.1	-60.47	-60.47	56.1	2,158.8	380.2	267.7	112.43	3.381	
9,000.0	6,806.1	8,793.2	6,619.4	66.4	66.8	-60.57	-60.57	55.6	2,258.8	379.8	262.5	117.34	3.237	
9,100.0	6,804.5	8,893.2	6,618.6	69.2	69.6	-60.66	-60.66	55.1	2,358.8	379.5	257.2	122.27	3.104	
9,200.0	6,802.9	8,993.1	6,617.7	71.9	72.3	-60.76	-60.76	54.6	2,458.8	379.2	252.0	127.22	2.981	
9,300.0	6,801.3	9,093.1	6,616.9	74.7	75.1	-60.86	-60.86	54.1	2,558.8	378.8	246.7	132.18	2.866	
9,400.0	6,799.7	9,193.1	6,616.0	77.4	77.8	-60.96	-60.96	53.6	2,658.8	378.5	241.3	137.16	2.760	
9,500.0	6,798.1	9,293.1	6,615.1	80.2	80.6	-61.06	-61.06	53.1	2,758.8	378.2	236.0	142.15	2.660	
9,600.0	6,796.6	9,393.1	6,614.3	82.9	83.3	-61.16	-61.16	52.6	2,858.8	377.9	230.7	147.16	2.568	
9,700.0	6,795.0	9,493.1	6,613.4	85.7	86.1	-61.26	-61.26	52.1	2,958.8	377.5	225.3	152.19	2.481	
9,800.0	6,793.4	9,593.1	6,612.6	88.4	88.8	-61.36	-61.36	51.6	3,058.8	377.2	220.0	157.23	2.399	
9,900.0	6,791.8	9,693.1	6,611.7	91.2	91.6	-61.46	-61.46	51.1	3,158.8	376.9	214.6	162.28	2.322	
10,000.0	6,790.2	9,793.1	6,610.9	94.0	94.4	-61.56	-61.56	50.6	3,258.8	376.6	209.2	167.34	2.250	

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

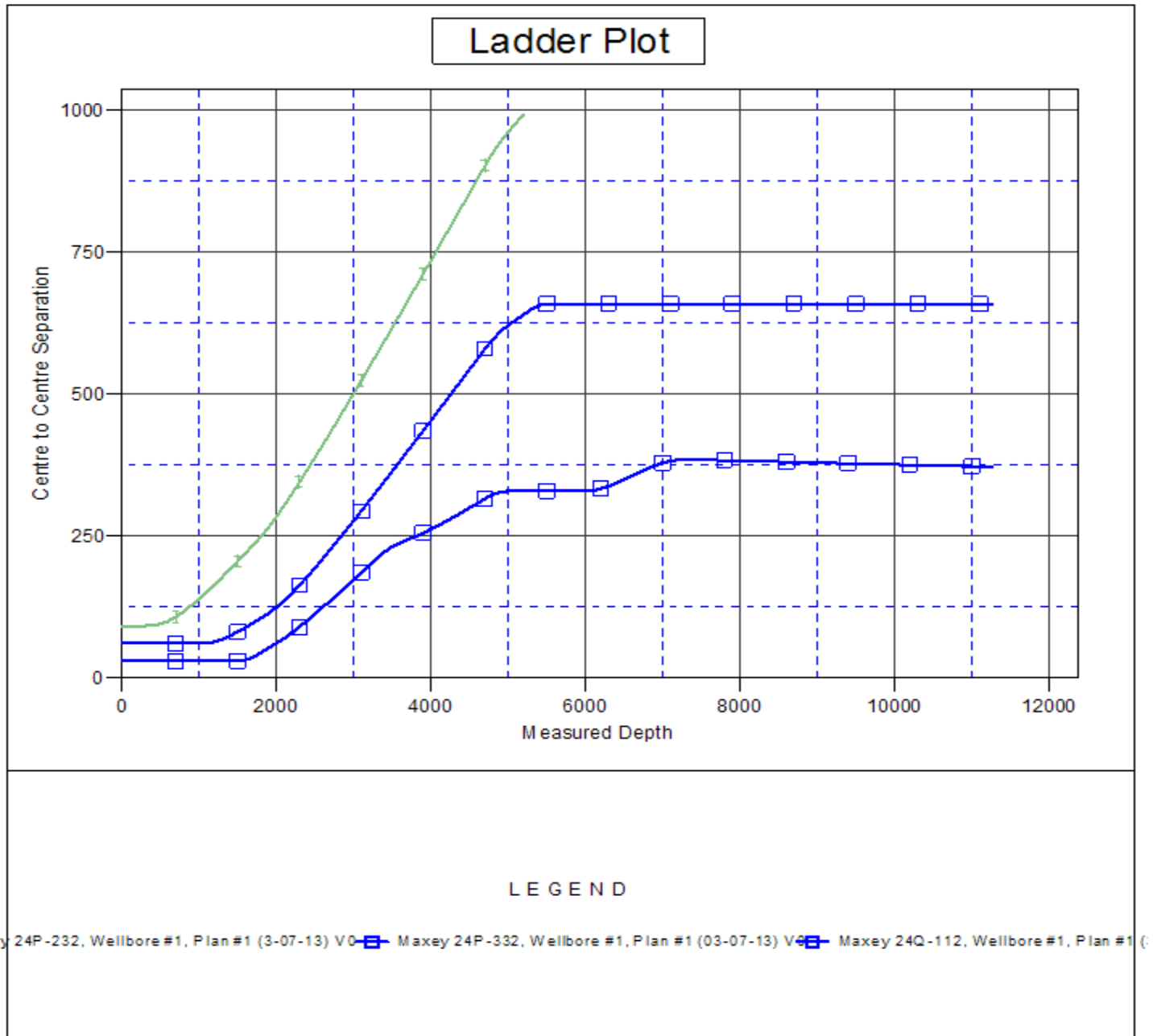
Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well Maxey 24Q-302
Project:	SEC.24-T5N-R65W	TVD Reference:	WELL @ 4650.0ft (RKB - 15')
Reference Site:	Maxey 24Q-HZ Pad Sec.24-T5N-R65W	MD Reference:	WELL @ 4650.0ft (RKB - 15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Maxey 24Q-302	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 (3-07-13)	Offset TVD Reference:	Offset Datum

Offset Design Maxey 24Q-HZ Pad Sec.24-T5N-R65W - Maxey 24Q-112 - Wellbore #1 - Plan #1 (3-07-13)												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	6,788.6	9,893.1	6,610.0	96.8	97.2	-61.66	50.1	3,358.8	376.2	203.8	172.42	2.182	
10,200.0	6,787.0	9,993.1	6,609.2	99.5	99.9	-61.76	49.6	3,458.7	375.9	198.4	177.50	2.118	
10,300.0	6,785.4	10,093.1	6,608.3	102.3	102.7	-61.86	49.1	3,558.7	375.6	193.0	182.60	2.057	
10,400.0	6,783.8	10,193.1	6,607.5	105.1	105.5	-61.96	48.6	3,658.7	375.3	187.6	187.72	1.999	
10,500.0	6,782.3	10,293.1	6,606.6	107.9	108.3	-62.06	48.0	3,758.7	375.0	182.1	192.84	1.944	
10,600.0	6,780.7	10,393.1	6,605.7	110.6	111.1	-62.17	47.5	3,858.7	374.7	176.7	197.97	1.892	
10,700.0	6,779.1	10,493.1	6,604.9	113.4	113.8	-62.27	47.0	3,958.7	374.3	171.2	203.12	1.843	
10,800.0	6,777.5	10,593.1	6,604.0	116.2	116.6	-62.37	46.5	4,058.7	374.0	165.8	208.27	1.796	
10,900.0	6,775.9	10,693.1	6,603.2	119.0	119.4	-62.47	46.0	4,158.7	373.7	160.3	213.44	1.751	
11,000.0	6,774.3	10,793.1	6,602.3	121.8	122.2	-62.57	45.5	4,258.7	373.4	154.8	218.61	1.708	
11,100.0	6,772.7	10,893.1	6,601.5	124.6	125.0	-62.68	45.0	4,358.7	373.1	149.3	223.80	1.667	
11,200.0	6,771.1	10,993.1	6,600.6	127.3	127.8	-62.78	44.5	4,458.7	372.8	143.8	228.99	1.628	
11,271.8	6,770.0	11,064.9	6,600.0	129.3	129.8	-62.85	44.2	4,530.5	372.6	139.8	232.72	1.601 SF	

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well Maxey 24Q-302
Project:	SEC.24-T5N-R65W	TVD Reference:	WELL @ 4650.0ft (RKB - 15')
Reference Site:	Maxey 24Q-HZ Pad Sec.24-T5N-R65W	MD Reference:	WELL @ 4650.0ft (RKB - 15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Maxey 24Q-302	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 (3-07-13)	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 4650.0ft (RKB - 15')
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000 °

Coordinates are relative to: Maxey 24Q-302
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.57°



Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well Maxey 24Q-302
Project:	SEC.24-T5N-R65W	TVD Reference:	WELL @ 4650.0ft (RKB - 15')
Reference Site:	Maxey 24Q-HZ Pad Sec.24-T5N-R65W	MD Reference:	WELL @ 4650.0ft (RKB - 15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Maxey 24Q-302	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
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