

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

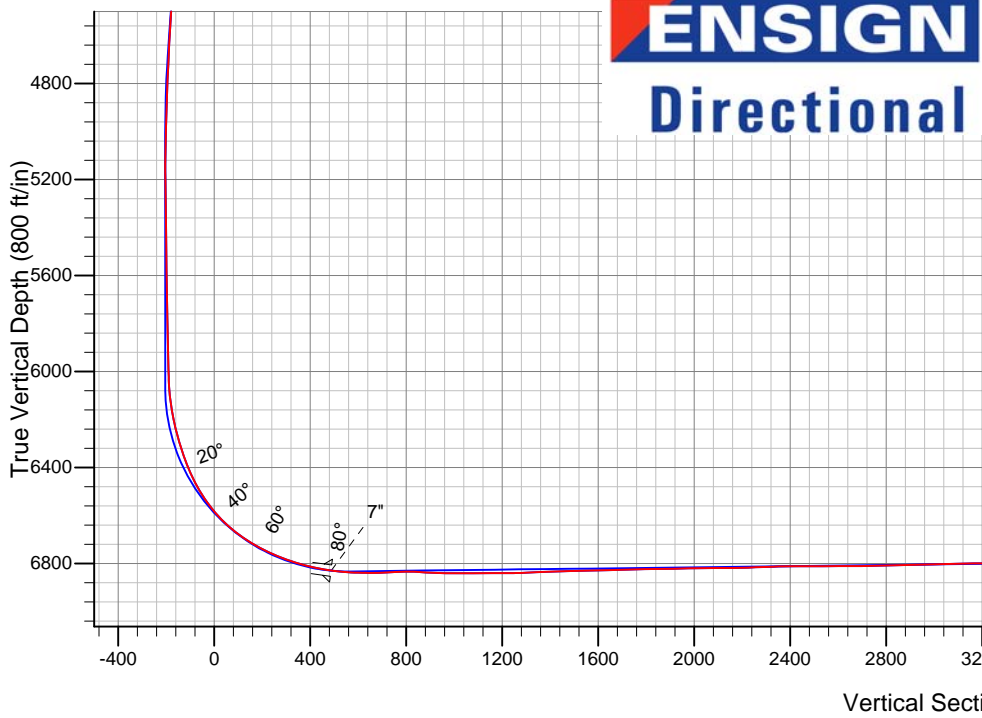
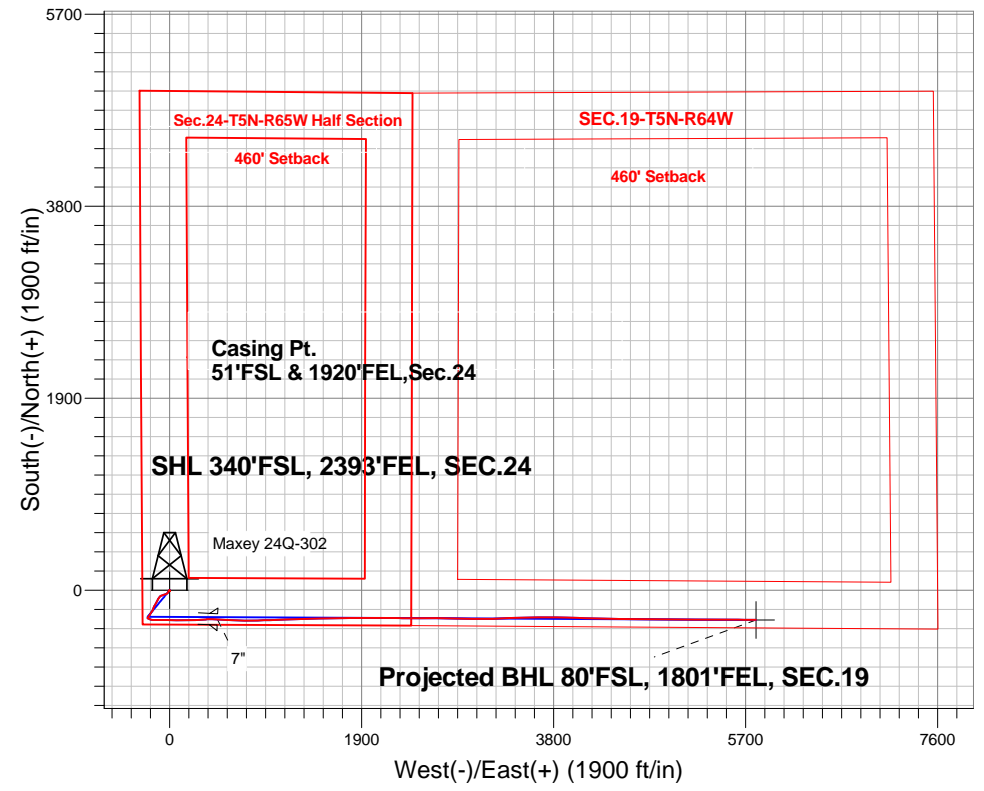
Ground Elevation: 4635.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1381916.21	3247807.14	40.378350	-104.610510	

Rig 14 - RKB 15' WELL @ 4650.0ft (Rig 14 - RKB 15')

FINAL SURVEY

Projected Bottom Hole Location
 12538'MD 6767'TVD 293'S & 5803'E of SHL
 89.3 degree Incl @ 90.0 degree AZM



Maxey 24Q-HZ Pad Sec.24-T5N-R65W
 Maxey 24Q-302
 Wellbore #1
 13:28, June 30 2014

ANNOTATIONS

No annotation data is available.

LEGEND

- △ Maxey 24Q-302, Wellbore #1, Plan #3 (6-12-14)R V0
- Wellbore #1
- Survey #1

BHL 80'FSL, 1801'FEL, SEC.19



PETROLEUM DEVELOPMENT CORP Weld County CO

SEC.24-T5N-R65W

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

Maxey 24Q-302

Wellbore #1

Survey: Survey #1

Standard Survey Report

30 June, 2014



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 (Rig 14 - RKB 15')
Site:	Maxey 24Q-HZ Pad Sec.24-T5N-R65W	MD Reference:	WELL @ 4650.0ft (Rig 14 - RKB 15')
Well:	Maxey 24Q-302	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

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:	1,381,916.21 ft	Latitude:	40.378350
	+E/-W	0.0 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	6/12/2014	8.38	66.95	52,822

Design	Wellbore #1				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:		Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
		0.0	0.0	0.0	92.90

Survey Program	Date 6/30/2014			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
126.0	12,538.0	Survey #1 (Wellbore #1)	MWD	MWD - Standard

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00	
1.0	0.01	320.90	1.0	0.0	0.0	0.0	0.87	0.87	0.00	
SHL 340°FSL, 2393°FEL, SEC.24										
126.0	1.10	320.90	126.0	0.9	-0.8	-0.8	0.87	0.87	0.00	
190.0	1.20	291.60	190.0	1.7	-1.8	-1.9	0.92	0.16	-45.78	
285.0	1.10	160.60	285.0	1.2	-2.4	-2.5	2.20	-0.11	-137.90	
380.0	1.10	159.20	380.0	-0.5	-1.8	-1.7	0.03	0.00	-1.47	
506.0	1.20	137.80	505.9	-2.7	-0.5	-0.3	0.35	0.08	-16.98	
631.0	1.70	145.10	630.9	-5.1	1.5	1.7	0.43	0.40	5.84	
757.0	0.40	293.30	756.9	-6.5	2.2	2.5	1.63	-1.03	117.62	
848.0	0.90	307.20	847.9	-5.9	1.3	1.6	0.57	0.55	15.27	
972.0	2.00	1.20	971.8	-3.2	0.6	0.7	1.32	0.89	43.55	

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well Maxey 24Q-302
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Site:	Maxey 24Q-HZ Pad Sec.24-T5N-R65W	MD Reference:	WELL @ 4650.0ft (Rig 14 - RKB 15')
Well:	Maxey 24Q-302	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
1,035.0	0.80	304.40	1,034.8	-1.8	0.2	0.3	2.70	-1.90	-90.16
1,129.0	0.30	213.50	1,128.8	-1.7	-0.5	-0.4	0.91	-0.53	-96.70
1,256.0	0.40	233.20	1,255.8	-2.2	-1.0	-0.9	0.12	0.08	15.51
1,410.0	0.10	223.20	1,409.8	-2.6	-1.5	-1.4	0.20	-0.19	-6.49
1,590.0	0.40	190.90	1,589.8	-3.4	-1.7	-1.6	0.18	0.17	-17.94
1,651.0	1.80	242.90	1,650.8	-4.0	-2.6	-2.4	2.60	2.30	85.25
1,741.0	2.80	220.90	1,740.7	-6.3	-5.3	-5.0	1.46	1.11	-24.44
1,863.0	3.30	226.70	1,862.5	-11.0	-9.8	-9.3	0.48	0.41	4.75
2,015.0	3.50	199.50	2,014.3	-18.4	-14.6	-13.6	1.06	0.13	-17.89
2,167.0	4.00	222.10	2,166.0	-26.7	-19.7	-18.3	1.02	0.33	14.87
2,319.0	3.90	230.60	2,317.6	-33.9	-27.2	-25.5	0.39	-0.07	5.59
2,443.0	4.60	249.40	2,441.3	-38.3	-35.1	-33.2	1.25	0.56	15.16
2,566.0	6.10	254.00	2,563.7	-41.8	-46.0	-43.9	1.27	1.22	3.74
2,692.0	8.90	252.70	2,688.6	-46.6	-61.8	-59.3	2.23	2.22	-1.03
2,850.0	6.80	248.90	2,845.2	-53.6	-82.2	-79.4	1.37	-1.33	-2.41
2,976.0	6.90	230.40	2,970.3	-61.1	-95.0	-91.8	1.75	0.08	-14.68
3,103.0	6.90	209.50	3,096.4	-72.6	-104.6	-100.8	1.97	0.00	-16.46
3,260.0	6.10	208.40	3,252.4	-88.2	-113.2	-108.6	0.52	-0.51	-0.70
3,387.0	7.00	210.90	3,378.5	-100.7	-120.4	-115.1	0.74	0.71	1.97
3,513.0	7.20	208.10	3,503.6	-114.3	-128.1	-122.1	0.32	0.16	-2.22
3,640.0	9.80	207.00	3,629.2	-130.9	-136.7	-129.9	2.05	2.05	-0.87
3,766.0	10.00	213.90	3,753.3	-149.6	-147.7	-139.9	0.95	0.16	5.48
3,893.0	9.40	198.90	3,878.5	-168.5	-157.2	-148.5	2.04	-0.47	-11.81
4,020.0	7.90	194.90	4,004.0	-186.8	-162.8	-153.1	1.27	-1.18	-3.15
4,115.0	6.90	208.10	4,098.3	-198.1	-167.2	-156.9	2.07	-1.05	13.89
4,241.0	5.60	215.60	4,223.5	-209.8	-174.3	-163.5	1.22	-1.03	5.95
4,367.0	6.60	215.50	4,348.8	-220.7	-182.1	-170.7	0.79	0.79	-0.08
4,494.0	5.90	216.50	4,475.0	-231.9	-190.2	-178.2	0.56	-0.55	0.79
4,620.0	6.90	209.70	4,600.3	-243.7	-197.8	-185.2	0.99	0.79	-5.40
4,683.0	5.70	206.30	4,662.9	-249.8	-201.1	-188.2	1.99	-1.90	-5.40
4,746.0	4.90	217.90	4,725.6	-254.7	-204.1	-191.0	2.12	-1.27	18.41
4,873.0	3.80	212.50	4,852.2	-262.5	-209.7	-196.2	0.92	-0.87	-4.25
4,999.0	2.50	233.00	4,978.1	-267.7	-214.2	-200.3	1.35	-1.03	16.27
5,157.0	2.60	190.50	5,135.9	-273.3	-217.6	-203.4	1.17	0.06	-26.90
5,220.0	1.60	142.30	5,198.9	-275.4	-217.3	-203.1	3.08	-1.59	-76.51
5,411.0	1.00	153.10	5,389.8	-279.0	-214.9	-200.5	0.34	-0.31	5.65
5,601.0	1.40	62.20	5,579.8	-279.4	-212.1	-197.7	0.91	0.21	-47.84
5,790.0	1.00	133.70	5,768.8	-279.4	-208.9	-194.4	0.76	-0.21	37.83
6,011.0	1.70	124.90	5,989.7	-282.7	-204.8	-190.2	0.33	0.32	-3.98
6,043.0	1.50	132.70	6,021.7	-283.2	-204.1	-189.5	0.92	-0.63	24.38
6,074.0	3.30	117.90	6,052.7	-283.9	-203.0	-188.4	6.09	5.81	-47.74
6,106.0	5.70	115.10	6,084.6	-285.0	-200.7	-186.0	7.53	7.50	-8.75
6,137.0	7.60	113.50	6,115.3	-286.5	-197.5	-182.7	6.16	6.13	-5.16
6,169.0	9.00	113.00	6,147.0	-288.3	-193.2	-178.4	4.38	4.38	-1.56
6,201.0	10.90	109.50	6,178.5	-290.3	-188.1	-173.1	6.23	5.94	-10.94
6,233.0	12.90	105.40	6,209.8	-292.3	-181.8	-166.7	6.78	6.25	-12.81
6,265.0	14.20	98.70	6,240.9	-293.8	-174.4	-159.3	6.36	4.06	-20.94
6,296.0	15.30	93.60	6,270.9	-294.6	-166.6	-151.5	5.49	3.55	-16.45
6,327.0	16.80	88.50	6,300.7	-294.8	-158.0	-142.9	6.64	4.84	-16.45
6,359.0	17.90	88.90	6,331.3	-294.5	-148.5	-133.4	3.46	3.44	1.25
6,391.0	19.60	90.10	6,361.6	-294.5	-138.2	-123.1	5.45	5.31	3.75
6,422.0	21.70	91.50	6,390.6	-294.6	-127.3	-112.2	6.96	6.77	4.52
6,454.0	23.90	91.90	6,420.1	-295.0	-114.9	-99.8	6.89	6.88	1.25
6,486.0	26.50	90.70	6,449.0	-295.3	-101.3	-86.2	8.28	8.13	-3.75

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Well:	Maxey 24Q-302	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
6,517.0	28.80	88.50	6,476.5	-295.2	-86.9	-71.8	8.12	7.42	-7.10
6,548.0	31.40	88.00	6,503.3	-294.7	-71.4	-56.3	8.43	8.39	-1.61
6,580.0	34.10	89.10	6,530.2	-294.3	-54.1	-39.1	8.64	8.44	3.44
6,611.0	36.80	90.30	6,555.5	-294.2	-36.1	-21.1	8.99	8.71	3.87
6,643.0	39.40	92.20	6,580.6	-294.6	-16.3	-1.4	8.91	8.13	5.94
6,675.0	42.20	92.90	6,604.9	-295.6	4.5	19.5	8.87	8.75	2.19
6,706.0	45.50	92.20	6,627.2	-296.5	26.0	41.0	10.76	10.65	-2.26
6,738.0	49.10	91.20	6,648.9	-297.2	49.5	64.5	11.48	11.25	-3.13
6,770.0	52.50	90.10	6,669.1	-297.5	74.3	89.3	10.95	10.63	-3.44
6,801.0	55.10	90.30	6,687.4	-297.6	99.3	114.3	8.40	8.39	0.65
6,833.0	57.20	90.70	6,705.3	-297.8	125.9	140.8	6.64	6.56	1.25
6,865.0	59.70	90.10	6,722.0	-298.0	153.1	168.0	7.97	7.81	-1.88
6,896.0	62.10	88.70	6,737.1	-297.7	180.2	195.1	8.69	7.74	-4.52
6,928.0	65.20	87.70	6,751.3	-296.8	208.9	223.7	10.08	9.69	-3.13
6,960.0	67.50	86.40	6,764.1	-295.3	238.2	252.8	8.09	7.19	-4.06
6,992.0	69.40	86.40	6,775.9	-293.4	267.9	282.4	5.94	5.94	0.00
7,024.0	70.80	86.00	6,786.8	-291.4	297.9	312.3	4.53	4.38	-1.25
7,056.0	72.50	87.30	6,796.8	-289.6	328.2	342.5	6.56	5.31	4.06
7,088.0	74.40	88.00	6,806.0	-288.4	358.8	373.0	6.30	5.94	2.19
7,119.0	76.20	89.20	6,813.8	-287.7	388.8	402.9	6.91	5.81	3.87
7,151.0	78.40	90.30	6,820.9	-287.5	420.0	434.1	7.65	6.88	3.44
7,180.0	80.50	91.70	6,826.2	-288.0	448.5	462.6	8.66	7.24	4.83
7,205.0	82.47	92.55	6,829.9	-288.9	473.2	487.3	8.59	7.90	3.41
7"									
7,242.0	85.40	93.80	6,833.8	-291.0	510.0	524.1	8.59	7.91	3.37
7,273.0	86.30	93.50	6,836.0	-293.0	540.8	555.0	3.06	2.90	-0.97
7,303.0	87.50	93.10	6,837.6	-294.7	570.7	584.9	4.22	4.00	-1.33
7,333.0	88.50	92.60	6,838.7	-296.2	600.7	614.9	3.73	3.33	-1.67
7,364.0	89.60	92.40	6,839.2	-297.5	631.6	645.9	3.61	3.55	-0.65
7,394.0	90.90	91.90	6,839.1	-298.6	661.6	675.9	4.64	4.33	-1.67
7,425.0	92.30	91.70	6,838.2	-299.6	692.6	706.9	4.56	4.52	-0.65
7,455.0	93.50	91.90	6,836.7	-300.6	722.5	736.8	4.06	4.00	0.67
7,485.0	92.80	90.80	6,835.0	-301.3	752.5	766.8	4.34	-2.33	-3.67
7,515.0	90.70	89.80	6,834.1	-301.4	782.5	796.7	7.75	-7.00	-3.33
7,575.0	86.90	88.00	6,835.4	-300.3	842.4	856.6	7.01	-6.33	-3.00
7,606.0	86.40	88.20	6,837.2	-299.2	873.4	887.4	1.74	-1.61	0.65
7,636.0	87.00	88.50	6,838.9	-298.4	903.3	917.3	2.24	2.00	1.00
7,666.0	88.00	88.40	6,840.2	-297.6	933.3	947.1	3.35	3.33	-0.33
7,697.0	89.20	88.40	6,841.0	-296.7	964.2	978.0	3.87	3.87	0.00
7,727.0	90.40	88.50	6,841.1	-295.9	994.2	1,007.9	4.01	4.00	0.33
7,758.0	90.70	88.50	6,840.8	-295.1	1,025.2	1,038.9	0.97	0.97	0.00
7,819.0	90.30	87.70	6,840.3	-293.1	1,086.2	1,099.6	1.47	-0.66	-1.31
7,879.0	89.80	87.10	6,840.2	-290.3	1,146.1	1,159.4	1.30	-0.83	-1.00
7,939.0	89.90	87.70	6,840.4	-287.6	1,206.1	1,219.1	1.01	0.17	1.00
7,969.0	90.70	87.70	6,840.2	-286.4	1,236.0	1,249.0	2.67	2.67	0.00
7,999.0	92.00	88.90	6,839.5	-285.5	1,266.0	1,278.8	5.90	4.33	4.00
8,029.0	93.30	89.10	6,838.1	-285.0	1,296.0	1,308.7	4.38	4.33	0.67
8,060.0	93.20	89.10	6,836.4	-284.5	1,326.9	1,339.6	0.32	-0.32	0.00
8,090.0	92.40	88.70	6,834.9	-283.9	1,356.9	1,369.5	2.98	-2.67	-1.33
8,120.0	91.70	88.40	6,833.8	-283.2	1,386.8	1,399.4	2.54	-2.33	-1.00
8,151.0	91.50	88.00	6,833.0	-282.2	1,417.8	1,430.3	1.44	-0.65	-1.29
8,211.0	91.40	88.20	6,831.4	-280.2	1,477.8	1,490.1	0.37	-0.17	0.33
8,272.0	91.30	88.70	6,830.0	-278.6	1,538.7	1,550.9	0.84	-0.16	0.82

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Well:	Maxey 24Q-302	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

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)
8,333.0	91.50	88.70	6,828.5	-277.2	1,599.7	1,611.7	0.33	0.33	0.00
8,394.0	91.80	88.90	6,826.7	-275.9	1,660.7	1,672.5	0.59	0.49	0.33
8,454.0	91.80	90.30	6,824.9	-275.5	1,720.6	1,732.4	2.33	0.00	2.33
8,515.0	91.00	90.70	6,823.4	-276.0	1,781.6	1,793.3	1.47	-1.31	0.66
8,576.0	90.60	89.80	6,822.5	-276.3	1,842.6	1,854.2	1.61	-0.66	-1.48
8,636.0	90.90	89.40	6,821.7	-275.9	1,902.6	1,914.1	0.83	0.50	-0.67
8,697.0	91.00	88.90	6,820.7	-275.0	1,963.6	1,975.0	0.84	0.16	-0.82
8,758.0	91.00	88.90	6,819.7	-273.8	2,024.6	2,035.8	0.00	0.00	0.00
8,821.0	90.20	90.00	6,819.0	-273.2	2,087.5	2,098.7	2.16	-1.27	1.75
8,884.0	90.70	90.50	6,818.5	-273.5	2,150.5	2,161.6	1.12	0.79	0.79
8,948.0	92.00	91.20	6,817.0	-274.4	2,214.5	2,225.6	2.31	2.03	1.09
8,979.0	92.00	91.70	6,815.9	-275.2	2,245.5	2,256.5	1.61	0.00	1.61
9,011.0	92.50	92.10	6,814.7	-276.3	2,277.4	2,288.5	2.00	1.56	1.25
9,074.0	91.00	90.00	6,812.7	-277.4	2,340.4	2,351.4	4.10	-2.38	-3.33
9,136.0	90.40	90.10	6,812.0	-277.5	2,402.4	2,413.4	0.98	-0.97	0.16
9,200.0	90.20	90.30	6,811.6	-277.7	2,466.4	2,477.3	0.44	-0.31	0.31
9,263.0	90.20	90.00	6,811.4	-277.9	2,529.4	2,540.2	0.48	0.00	-0.48
9,326.0	90.30	89.60	6,811.1	-277.6	2,592.4	2,603.1	0.65	0.16	-0.63
9,390.0	90.00	90.00	6,811.0	-277.4	2,656.4	2,667.0	0.78	-0.47	0.63
9,453.0	91.20	90.50	6,810.3	-277.7	2,719.4	2,730.0	2.06	1.90	0.79
9,516.0	91.50	91.20	6,808.8	-278.6	2,782.4	2,792.9	1.21	0.48	1.11
9,580.0	91.50	91.40	6,807.2	-280.1	2,846.3	2,856.9	0.31	0.00	0.31
9,643.0	91.50	91.40	6,805.5	-281.6	2,909.3	2,919.8	0.00	0.00	0.00
9,706.0	91.50	91.00	6,803.9	-282.9	2,972.2	2,982.8	0.63	0.00	-0.63
9,769.0	91.50	89.80	6,802.2	-283.4	3,035.2	3,045.7	1.90	0.00	-1.90
9,833.0	91.10	90.30	6,800.8	-283.4	3,099.2	3,109.6	1.00	-0.63	0.78
9,896.0	90.50	89.80	6,799.9	-283.5	3,162.2	3,172.5	1.24	-0.95	-0.79
9,960.0	90.10	86.80	6,799.5	-281.6	3,226.2	3,236.3	4.73	-0.63	-4.69
10,023.0	90.20	87.30	6,799.4	-278.3	3,289.1	3,299.0	0.81	0.16	0.79
10,087.0	89.20	87.80	6,799.7	-275.6	3,353.0	3,362.7	1.75	-1.56	0.78
10,150.0	88.60	88.00	6,800.9	-273.3	3,416.0	3,425.4	1.00	-0.95	0.32
10,213.0	87.80	88.40	6,802.9	-271.3	3,478.9	3,488.2	1.42	-1.27	0.63
10,276.0	87.90	89.20	6,805.3	-270.0	3,541.8	3,551.0	1.28	0.16	1.27
10,338.0	88.50	89.80	6,807.2	-269.5	3,603.8	3,612.8	1.37	0.97	0.97
10,402.0	89.20	89.60	6,808.5	-269.1	3,667.8	3,676.7	1.14	1.09	-0.31
10,465.0	90.40	90.00	6,808.7	-268.9	3,730.8	3,739.6	2.01	1.90	0.63
10,528.0	91.10	90.30	6,807.9	-269.1	3,793.8	3,802.5	1.21	1.11	0.48
10,591.0	91.20	91.00	6,806.6	-269.8	3,856.8	3,865.5	1.12	0.16	1.11
10,654.0	91.10	91.20	6,805.4	-271.0	3,919.7	3,928.4	0.35	-0.16	0.32
10,718.0	90.80	91.70	6,804.3	-272.6	3,983.7	3,992.4	0.91	-0.47	0.78
10,782.0	91.30	92.20	6,803.1	-274.8	4,047.7	4,056.4	1.10	0.78	0.78
10,845.0	90.90	91.50	6,801.9	-276.8	4,110.6	4,119.4	1.28	-0.63	-1.11
10,908.0	91.60	91.50	6,800.5	-278.5	4,173.6	4,182.3	1.11	1.11	0.00
10,972.0	92.40	91.90	6,798.3	-280.4	4,237.5	4,246.3	1.40	1.25	0.63
11,034.0	92.20	90.80	6,795.8	-281.8	4,299.4	4,308.2	1.80	-0.32	-1.77
11,097.0	91.00	90.00	6,794.1	-282.3	4,362.4	4,371.1	2.29	-1.90	-1.27
11,161.0	91.40	90.70	6,792.7	-282.7	4,426.4	4,435.0	1.26	0.63	1.09
11,224.0	91.80	91.50	6,791.0	-283.9	4,489.4	4,498.0	1.42	0.63	1.27
11,287.0	92.30	91.70	6,788.7	-285.6	4,552.3	4,560.9	0.85	0.79	0.32
11,350.0	92.30	90.50	6,786.2	-286.8	4,615.2	4,623.8	1.90	0.00	-1.90
11,413.0	92.50	90.30	6,783.5	-287.3	4,678.2	4,686.7	0.45	0.32	-0.32
11,477.0	92.20	90.70	6,780.9	-287.8	4,742.1	4,750.6	0.78	-0.47	0.63
11,540.0	92.10	90.30	6,778.6	-288.4	4,805.1	4,813.5	0.65	-0.16	-0.63

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 (Rig 14 - RKB 15')
Site:	Maxey 24Q-HZ Pad Sec.24-T5N-R65W	MD Reference:	WELL @ 4650.0ft (Rig 14 - RKB 15')
Well:	Maxey 24Q-302	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

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)	
11,603.0	91.80	90.30	6,776.4	-288.7	4,868.0	4,876.4	0.48	-0.48	0.00	
11,667.0	91.00	90.00	6,774.9	-288.9	4,932.0	4,940.3	1.33	-1.25	-0.47	
11,730.0	91.10	90.30	6,773.7	-289.0	4,995.0	5,003.2	0.50	0.16	0.48	
11,793.0	91.50	90.30	6,772.3	-289.4	5,058.0	5,066.2	0.63	0.63	0.00	
11,859.0	91.40	90.70	6,770.6	-289.9	5,124.0	5,132.1	0.62	-0.15	0.61	
11,919.0	91.40	90.70	6,769.1	-290.7	5,183.9	5,192.0	0.00	0.00	0.00	
11,982.0	91.30	90.30	6,767.7	-291.2	5,246.9	5,254.9	0.65	-0.16	-0.63	
12,046.0	89.50	89.40	6,767.2	-291.1	5,310.9	5,318.8	3.14	-2.81	-1.41	
12,109.0	88.50	89.20	6,768.3	-290.3	5,373.9	5,381.7	1.62	-1.59	-0.32	
12,172.0	92.50	90.70	6,767.8	-290.2	5,436.9	5,444.6	6.78	6.35	2.38	
12,236.0	92.90	90.80	6,764.7	-291.1	5,500.8	5,508.5	0.64	0.63	0.16	
12,299.0	89.00	90.00	6,763.7	-291.5	5,563.8	5,571.4	6.32	-6.19	-1.27	
12,362.0	89.60	90.80	6,764.5	-292.0	5,626.8	5,634.3	1.59	0.95	1.27	
12,425.0	89.10	90.30	6,765.2	-292.6	5,689.8	5,697.3	1.12	-0.79	-0.79	
12,483.0	89.30	90.00	6,766.0	-292.7	5,747.8	5,755.2	0.62	0.34	-0.52	
12,538.0	89.30	90.00	6,766.7	-292.7	5,802.8	5,810.1	0.00	0.00	0.00	
BHL 78'FSL, 1800'FEL, SEC.19										

Casing Points						
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")		
7,205.0	6,829.9	7"	7	7-1/2		

Checked By: _____ Approved By: _____ Date: _____