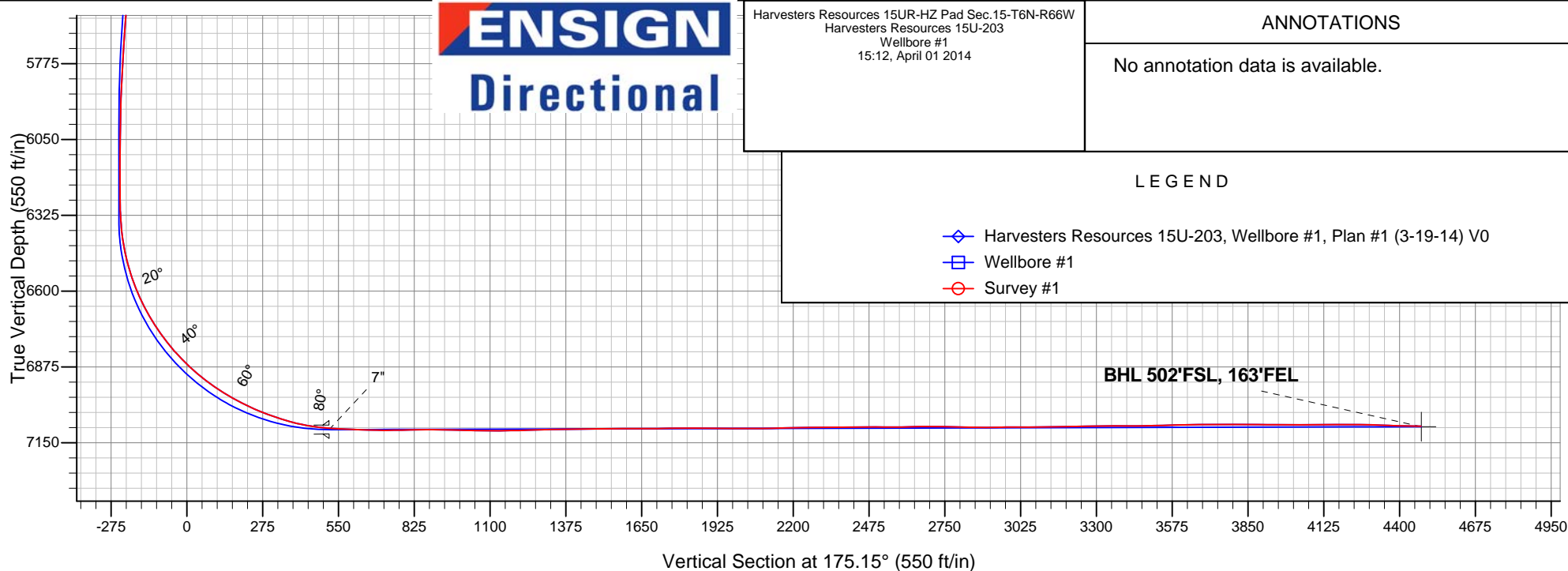
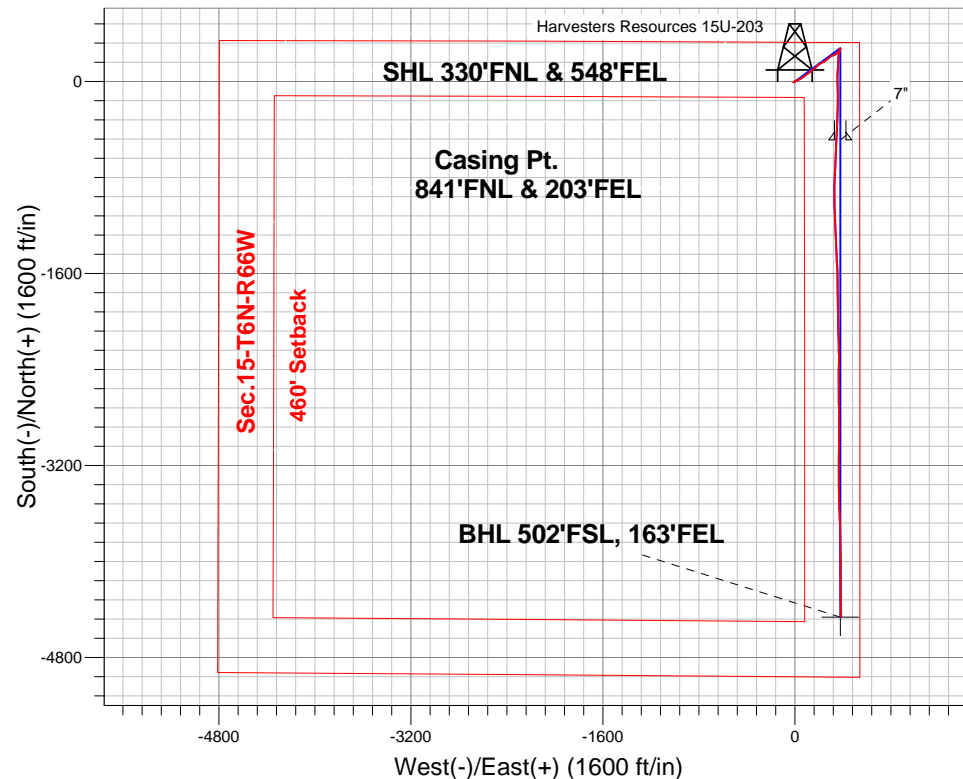


Well Name: **Harvesters Resources 15U-203**
 Surface Location: Harvesters Resources 15UR-HZ Pad Sec.15-T6N-R66W
 North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone
 Ground Elevation: 4815.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1423920.23	3206894.85	40.494680	-104.756090	

RKB - 15' WELL @ 4830.0ft (RKB - 15')

Projected Bottom Hole Location
11512'MD 7090'TVD 4461'S & 385'E of SHL
88.9 degree Incl @ 179.1 degree AZM





PETROLEUM DEVELOPMENT CORP Weld County CO

SEC.15-T6N-R66W

Harvesters Resources 15UR-HZ Pad Sec.15-T6N-R66W

Harvesters Resources 15U-203

Wellbore #1

Survey: Survey #1

Standard Survey Report

01 April, 2014

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well Harvesters Resources 15U-203
Project:	SEC.15-T6N-R66W	TVD Reference:	WELL @ 4830.0ft (RKB - 15')
Site:	Harvesters Resources 15UR-HZ Pad Sec.15-T6N-R66W	MD Reference:	WELL @ 4830.0ft (RKB - 15')
Well:	Harvesters Resources 15U-203	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

Project	SEC.15-T6N-R66W, Weld County, CO		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		Using geodetic scale factor

Site	Harvesters Resources 15UR-HZ Pad Sec.15-T6N-R66W				
Site Position:		Northing:	1,423,919.73 ft	Latitude:	40.494680
From:	Lat/Long	Easting:	3,206,833.67 ft	Longitude:	-104.756310
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	0.48 °

Well	Harvesters Resources 15U-203					
Well Position	+N-S	0.0 ft	Northing:	1,423,920.23 ft	Latitude:	40.494680
	+E-W	0.0 ft	Easting:	3,206,894.85 ft	Longitude:	-104.756090
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,815.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	3/19/2014	8.50	67.03	52,891

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	175.15	

Survey Program	Date	4/1/2014			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
146.0	11,512.0	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
146.0	0.60	248.70	146.0	-0.3	-0.7	0.2	0.41	0.41	0.00
238.0	0.90	243.30	238.0	-0.8	-1.8	0.6	0.33	0.33	-5.87
330.0	1.10	246.60	330.0	-1.5	-3.3	1.2	0.23	0.22	3.59
422.0	0.60	228.60	422.0	-2.1	-4.4	1.7	0.61	-0.54	-19.57
513.0	0.40	202.70	513.0	-2.7	-4.9	2.3	0.33	-0.22	-28.46
605.0	0.60	249.10	605.0	-3.2	-5.5	2.7	0.47	0.22	50.43
697.0	0.90	222.30	697.0	-3.9	-6.4	3.3	0.49	0.33	-29.13
789.0	1.10	242.50	788.9	-4.8	-7.7	4.2	0.44	0.22	21.96
881.0	0.80	263.70	880.9	-5.3	-9.1	4.5	0.50	-0.33	23.04
940.0	0.90	303.50	939.9	-5.1	-9.9	4.3	0.99	0.17	67.46

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well Harvesters Resources 15U-203
Project:	SEC.15-T6N-R66W	TVD Reference:	WELL @ 4830.0ft (RKB - 15')
Site:	Harvesters Resources 15UR-HZ Pad Sec.15-T6N-R66W	MD Reference:	WELL @ 4830.0ft (RKB - 15')
Well:	Harvesters Resources 15U-203	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)
1,032.0	1.10	322.70	1,031.9	-4.0	-11.0	3.1	0.42	0.22	20.87
1,124.0	1.30	61.40	1,123.9	-2.8	-10.7	1.9	1.98	0.22	107.28
1,221.0	4.00	64.80	1,220.8	-0.8	-6.6	0.3	2.79	2.78	3.51
1,316.0	5.00	70.30	1,315.5	2.0	0.3	-1.9	1.15	1.05	5.79
1,411.0	6.40	66.00	1,410.0	5.5	9.0	-4.7	1.54	1.47	-4.53
1,506.0	6.60	65.00	1,504.4	10.0	18.8	-8.4	0.24	0.21	-1.05
1,602.0	6.30	62.00	1,599.8	14.8	28.4	-12.3	0.47	-0.31	-3.13
1,697.0	6.20	62.50	1,694.2	19.6	37.6	-16.3	0.12	-0.11	0.53
1,791.0	5.30	64.20	1,787.8	23.8	46.0	-19.9	0.97	-0.96	1.81
1,886.0	6.10	58.60	1,882.3	28.4	54.2	-23.7	1.02	0.84	-5.89
1,981.0	6.00	54.30	1,976.8	33.9	62.6	-28.5	0.49	-0.11	-4.53
2,076.0	5.80	52.10	2,071.3	39.7	70.4	-33.7	0.32	-0.21	-2.32
2,172.0	5.80	54.00	2,166.8	45.6	78.2	-38.8	0.20	0.00	1.98
2,268.0	6.10	58.20	2,262.2	51.1	86.4	-43.6	0.55	0.31	4.38
2,363.0	6.90	50.50	2,356.6	57.4	95.1	-49.2	1.24	0.84	-8.11
2,458.0	6.70	52.30	2,451.0	64.4	103.9	-55.4	0.31	-0.21	1.89
2,553.0	5.70	49.70	2,545.4	70.9	111.9	-61.2	1.09	-1.05	-2.74
2,648.0	5.90	51.10	2,639.9	77.0	119.3	-66.6	0.26	0.21	1.47
2,743.0	6.20	51.70	2,734.4	83.2	127.1	-72.2	0.32	0.32	0.63
2,838.0	6.20	52.20	2,828.8	89.5	135.2	-77.8	0.06	0.00	0.53
2,932.0	6.30	52.60	2,922.3	95.8	143.3	-83.3	0.12	0.11	0.43
3,027.0	5.70	54.90	3,016.8	101.7	151.3	-88.5	0.68	-0.63	2.42
3,122.0	6.20	54.70	3,111.3	107.3	159.3	-93.5	0.53	0.53	-0.21
3,217.0	5.60	53.00	3,205.7	113.1	167.2	-98.6	0.66	-0.63	-1.79
3,313.0	5.40	46.30	3,301.3	119.0	174.2	-103.9	0.70	-0.21	-6.98
3,408.0	5.50	44.60	3,395.9	125.4	180.7	-109.7	0.20	0.11	-1.79
3,503.0	5.50	47.40	3,490.4	131.7	187.2	-115.4	0.28	0.00	2.95
3,598.0	4.90	51.40	3,585.0	137.3	193.7	-120.4	0.74	-0.63	4.21
3,693.0	4.30	53.00	3,679.7	142.0	199.8	-124.6	0.65	-0.63	1.68
3,788.0	5.10	57.80	3,774.4	146.4	206.2	-128.4	0.94	0.84	5.05
3,883.0	5.90	61.10	3,869.0	151.0	214.0	-132.4	0.91	0.84	3.47
3,978.0	6.20	59.50	3,963.5	155.9	222.7	-136.6	0.36	0.32	-1.68
4,072.0	6.70	60.40	4,056.9	161.2	231.9	-141.1	0.54	0.53	0.96
4,168.0	6.50	59.80	4,152.2	166.7	241.4	-145.7	0.22	-0.21	-0.63
4,263.0	6.50	54.80	4,246.6	172.5	250.5	-150.8	0.60	0.00	-5.26
4,358.0	6.40	55.00	4,341.0	178.7	259.2	-156.1	0.11	-0.11	0.21
4,453.0	6.90	50.20	4,435.4	185.4	267.9	-162.1	0.79	0.53	-5.05
4,548.0	6.30	49.10	4,529.7	192.4	276.2	-168.4	0.65	-0.63	-1.16
4,643.0	5.80	48.50	4,624.2	199.0	283.8	-174.3	0.53	-0.53	-0.63
4,738.0	5.20	42.90	4,718.8	205.4	290.3	-180.1	0.85	-0.63	-5.89
4,833.0	5.60	58.70	4,813.4	210.9	297.2	-185.1	1.62	0.42	16.63
4,928.0	5.90	68.80	4,907.9	215.1	305.7	-188.5	1.11	0.32	10.63
5,024.0	7.30	70.60	5,003.2	218.9	316.1	-191.4	1.47	1.46	1.88
5,118.0	7.50	64.20	5,096.5	223.6	327.2	-195.1	0.90	0.21	-6.81
5,213.0	7.70	59.00	5,190.6	229.5	338.3	-200.1	0.75	0.21	-5.47
5,309.0	6.00	55.50	5,285.9	235.7	347.9	-205.5	1.82	-1.77	-3.65
5,404.0	4.70	53.10	5,380.5	240.8	355.1	-210.0	1.39	-1.37	-2.53
5,499.0	4.30	39.00	5,475.2	245.9	360.5	-214.6	1.23	-0.42	-14.84
5,594.0	3.70	26.30	5,570.0	251.5	364.1	-219.8	1.12	-0.63	-13.37
5,688.0	5.30	34.80	5,663.7	257.7	367.9	-225.7	1.84	1.70	9.04
5,783.0	3.90	24.20	5,758.4	264.3	371.7	-231.9	1.72	-1.47	-11.16
5,878.0	3.10	26.50	5,853.2	269.5	374.2	-237.0	0.85	-0.84	2.42
5,973.0	1.50	24.00	5,948.2	273.0	375.8	-240.2	1.69	-1.68	-2.63

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well Harvesters Resources 15U-203
Project:	SEC.15-T6N-R66W	TVD Reference:	WELL @ 4830.0ft (RKB - 15')
Site:	Harvesters Resources 15UR-HZ Pad Sec.15-T6N-R66W	MD Reference:	WELL @ 4830.0ft (RKB - 15')
Well:	Harvesters Resources 15U-203	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)
6,068.0	1.00	28.40	6,043.1	274.8	376.7	-242.0	0.54	-0.53	4.63
6,163.0	0.40	77.60	6,138.1	275.6	377.4	-242.8	0.84	-0.63	51.79
6,257.0	0.40	113.90	6,232.1	275.6	378.1	-242.7	0.27	0.00	38.62
6,289.0	0.50	127.50	6,264.1	275.4	378.3	-242.5	0.46	0.31	42.50
6,321.0	1.20	182.00	6,296.1	275.0	378.4	-242.1	3.11	2.19	170.31
6,353.0	3.30	195.30	6,328.1	273.8	378.1	-240.9	6.72	6.56	41.56
6,384.0	5.10	199.70	6,359.0	271.6	377.4	-238.8	5.89	5.81	14.19
6,416.0	7.50	200.90	6,390.8	268.4	376.2	-235.6	7.51	7.50	3.75
6,447.0	9.90	200.20	6,421.4	264.0	374.6	-231.4	7.75	7.74	-2.26
6,479.0	12.30	198.00	6,452.8	258.1	372.6	-225.7	7.61	7.50	-6.88
6,511.0	14.40	194.00	6,484.0	251.0	370.5	-218.8	7.17	6.56	-12.50
6,542.0	16.70	190.80	6,513.8	242.9	368.8	-210.9	7.92	7.42	-10.32
6,574.0	18.70	190.70	6,544.3	233.4	367.0	-201.5	6.25	6.25	-0.31
6,606.0	20.90	188.60	6,574.4	222.7	365.2	-191.0	7.22	6.88	-6.56
6,637.0	23.10	186.80	6,603.2	211.2	363.6	-179.7	7.42	7.10	-5.81
6,669.0	25.50	184.10	6,632.3	198.1	362.4	-166.7	8.26	7.50	-8.44
6,701.0	27.90	182.00	6,660.9	183.7	361.6	-152.5	8.06	7.50	-6.56
6,732.0	30.20	181.60	6,688.0	168.7	361.1	-137.6	7.45	7.42	-1.29
6,764.0	32.40	182.90	6,715.4	152.1	360.5	-121.1	7.19	6.88	4.06
6,796.0	34.50	183.60	6,742.1	134.4	359.5	-103.6	6.67	6.56	2.19
6,827.0	37.00	183.70	6,767.2	116.4	358.3	-85.7	8.07	8.06	0.32
6,859.0	39.00	183.60	6,792.4	96.7	357.1	-66.2	6.25	6.25	-0.31
6,890.0	41.40	182.60	6,816.1	76.7	356.0	-46.4	8.02	7.74	-3.23
6,922.0	43.40	181.30	6,839.7	55.2	355.3	-25.0	6.82	6.25	-4.06
6,954.0	45.80	179.80	6,862.5	32.7	355.1	-2.6	8.19	7.50	-4.69
6,986.0	48.10	179.00	6,884.4	9.3	355.3	20.7	7.42	7.19	-2.50
7,018.0	50.50	178.70	6,905.2	-14.9	355.8	44.9	7.53	7.50	-0.94
7,050.0	52.70	178.70	6,925.1	-40.0	356.4	70.0	6.88	6.88	0.00
7,081.0	54.80	178.40	6,943.4	-65.0	357.0	94.9	6.82	6.77	-0.97
7,112.0	57.20	178.40	6,960.8	-90.7	357.7	120.6	7.74	7.74	0.00
7,144.0	59.60	179.00	6,977.5	-117.9	358.3	147.8	7.67	7.50	1.88
7,177.0	61.40	180.80	6,993.8	-146.6	358.4	176.4	7.23	5.45	5.45
7,208.0	63.60	181.50	7,008.1	-174.1	357.8	203.7	7.37	7.10	2.26
7,240.0	65.50	181.80	7,021.9	-203.0	357.0	232.4	6.00	5.94	0.94
7,272.0	67.40	182.10	7,034.6	-232.3	356.0	261.6	6.00	5.94	0.94
7,303.0	69.80	182.20	7,046.0	-261.2	354.9	290.2	7.75	7.74	0.32
7,335.0	71.00	182.10	7,056.7	-291.3	353.8	320.1	3.76	3.75	-0.31
7,367.0	73.10	181.90	7,066.5	-321.7	352.7	350.4	6.59	6.56	-0.63
7,398.0	75.20	181.30	7,075.0	-351.5	351.9	380.0	7.03	6.77	-1.94
7,430.0	77.80	181.60	7,082.5	-382.6	351.1	410.9	8.18	8.13	0.94
7,462.0	80.30	182.10	7,088.6	-414.0	350.1	442.1	7.96	7.81	1.56
7,489.0	82.60	182.70	7,092.6	-440.7	349.0	468.6	8.80	8.52	2.22
7,560.0	86.90	183.50	7,099.1	-511.3	345.1	538.6	6.16	6.06	1.13
7,591.0	87.30	183.50	7,100.6	-542.2	343.3	569.2	1.29	1.29	0.00
7,621.0	87.70	183.30	7,101.9	-572.1	341.5	598.9	1.49	1.33	-0.67
7,652.0	88.30	182.90	7,103.0	-603.0	339.8	629.6	2.33	1.94	-1.29
7,682.0	88.40	182.20	7,103.9	-633.0	338.5	659.3	2.36	0.33	-2.33
7,713.0	89.10	181.90	7,104.6	-664.0	337.4	690.1	2.46	2.26	-0.97
7,743.0	89.80	181.90	7,104.9	-694.0	336.4	719.9	2.33	2.33	0.00
7,774.0	90.50	182.10	7,104.8	-724.9	335.3	750.7	2.35	2.26	0.65
7,804.0	91.40	182.40	7,104.3	-754.9	334.1	780.4	3.16	3.00	1.00
7,834.0	91.30	182.10	7,103.6	-784.9	332.9	810.2	1.05	-0.33	-1.00

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well Harvesters Resources 15U-203
Project:	SEC.15-T6N-R66W	TVD Reference:	WELL @ 4830.0ft (RKB - 15')
Site:	Harvesters Resources 15UR-HZ Pad Sec.15-T6N-R66W	MD Reference:	WELL @ 4830.0ft (RKB - 15')
Well:	Harvesters Resources 15U-203	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)
7,864.0	91.20	181.40	7,102.9	-814.9	332.0	840.0	2.36	-0.33	-2.33
7,895.0	90.70	181.50	7,102.4	-845.8	331.2	870.8	1.64	-1.61	0.32
7,925.0	89.90	182.00	7,102.2	-875.8	330.3	900.6	3.14	-2.67	1.67
7,955.0	88.50	181.80	7,102.7	-905.8	329.3	930.4	4.71	-4.67	-0.67
7,986.0	87.70	181.00	7,103.7	-936.8	328.6	961.2	3.65	-2.58	-2.58
8,017.0	87.80	180.00	7,104.9	-967.8	328.3	992.0	3.24	0.32	-3.23
8,047.0	88.60	179.40	7,105.9	-997.7	328.4	1,021.9	3.33	2.67	-2.00
8,078.0	89.50	178.40	7,106.4	-1,028.7	329.0	1,052.8	4.34	2.90	-3.23
8,108.0	90.30	178.30	7,106.4	-1,058.7	329.9	1,082.8	2.69	2.67	-0.33
8,140.0	90.10	177.40	7,106.3	-1,090.7	331.1	1,114.8	2.88	-0.63	-2.81
8,170.0	90.40	177.20	7,106.2	-1,120.7	332.5	1,144.7	1.20	1.00	-0.67
8,201.0	90.70	177.20	7,105.9	-1,151.6	334.0	1,175.7	0.97	0.97	0.00
8,231.0	91.00	177.00	7,105.4	-1,181.6	335.5	1,205.7	1.20	1.00	-0.67
8,262.0	91.40	176.90	7,104.8	-1,212.5	337.2	1,236.7	1.33	1.29	-0.32
8,292.0	92.00	176.80	7,103.9	-1,242.5	338.8	1,266.7	2.03	2.00	-0.33
8,324.0	92.00	176.90	7,102.8	-1,274.4	340.6	1,298.6	0.31	0.00	0.31
8,355.0	90.90	177.70	7,102.0	-1,305.4	342.1	1,329.6	4.39	-3.55	2.58
8,387.0	90.90	177.80	7,101.5	-1,337.3	343.3	1,361.5	0.31	0.00	0.31
8,419.0	91.30	177.70	7,100.9	-1,369.3	344.6	1,393.5	1.29	1.25	-0.31
8,451.0	91.20	178.20	7,100.2	-1,401.3	345.7	1,425.5	1.59	-0.31	1.56
8,482.0	90.50	178.30	7,099.7	-1,432.3	346.7	1,456.4	2.28	-2.26	0.32
8,513.0	89.90	177.70	7,099.6	-1,463.2	347.7	1,487.4	2.74	-1.94	-1.94
8,545.0	90.10	177.30	7,099.6	-1,495.2	349.1	1,519.3	1.40	0.63	-1.25
8,577.0	90.50	176.90	7,099.4	-1,527.2	350.8	1,551.3	1.77	1.25	-1.25
8,608.0	90.50	176.60	7,099.2	-1,558.1	352.5	1,582.3	0.97	0.00	-0.97
8,639.0	89.80	177.40	7,099.1	-1,589.1	354.1	1,613.3	3.43	-2.26	2.58
8,671.0	89.90	177.80	7,099.2	-1,621.0	355.5	1,645.3	1.29	0.31	1.25
8,702.0	90.30	178.20	7,099.1	-1,652.0	356.6	1,676.2	1.82	1.29	1.29
8,734.0	90.60	179.90	7,098.9	-1,684.0	357.1	1,708.2	5.39	0.94	5.31
8,766.0	91.10	180.00	7,098.4	-1,716.0	357.1	1,740.0	1.59	1.56	0.31
8,797.0	91.70	180.20	7,097.6	-1,747.0	357.1	1,770.9	2.04	1.94	0.65
8,829.0	90.50	179.90	7,097.0	-1,779.0	357.0	1,802.8	3.87	-3.75	-0.94
8,861.0	89.80	179.70	7,096.9	-1,811.0	357.1	1,834.7	2.28	-2.19	-0.63
8,893.0	89.30	179.60	7,097.2	-1,843.0	357.3	1,866.6	1.59	-1.56	-0.31
8,925.0	89.10	179.30	7,097.6	-1,875.0	357.7	1,898.5	1.13	-0.63	-0.94
8,957.0	89.20	179.10	7,098.1	-1,907.0	358.1	1,930.4	0.70	0.31	-0.63
8,988.0	89.60	179.20	7,098.4	-1,938.0	358.6	1,961.3	1.33	1.29	0.32
9,020.0	90.10	178.60	7,098.5	-1,970.0	359.2	1,993.3	2.44	1.56	-1.88
9,052.0	89.80	178.40	7,098.5	-2,002.0	360.0	2,025.2	1.13	-0.94	-0.63
9,083.0	90.30	178.20	7,098.5	-2,032.9	360.9	2,056.2	1.74	1.61	-0.65
9,115.0	90.60	178.20	7,098.3	-2,064.9	361.9	2,088.1	0.94	0.94	0.00
9,147.0	91.00	178.00	7,097.8	-2,096.9	363.0	2,120.1	1.40	1.25	-0.63
9,178.0	91.60	178.10	7,097.1	-2,127.9	364.1	2,151.0	1.96	1.94	0.32
9,210.0	91.60	178.50	7,096.2	-2,159.9	365.0	2,183.0	1.25	0.00	1.25
9,242.0	91.50	178.60	7,095.4	-2,191.8	365.8	2,214.9	0.44	-0.31	0.31
9,274.0	91.40	179.30	7,094.6	-2,223.8	366.4	2,246.8	2.21	-0.31	2.19
9,305.0	90.70	179.60	7,094.0	-2,254.8	366.7	2,277.7	2.46	-2.26	0.97
9,337.0	89.90	179.60	7,093.8	-2,286.8	366.9	2,309.6	2.50	-2.50	0.00
9,369.0	89.50	180.10	7,094.0	-2,318.8	367.0	2,341.5	2.00	-1.25	1.56
9,401.0	90.80	180.80	7,093.9	-2,350.8	366.7	2,373.4	4.61	4.06	2.19
9,432.0	91.30	180.80	7,093.3	-2,381.8	366.3	2,404.2	1.61	1.61	0.00
9,464.0	90.60	180.30	7,092.8	-2,413.8	366.0	2,436.1	2.69	-2.19	-1.56
9,495.0	89.70	179.60	7,092.7	-2,444.8	366.0	2,467.0	3.68	-2.90	-2.26

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well Harvesters Resources 15U-203
Project:	SEC.15-T6N-R66W	TVD Reference:	WELL @ 4830.0ft (RKB - 15')
Site:	Harvesters Resources 15UR-HZ Pad Sec.15-T6N-R66W	MD Reference:	WELL @ 4830.0ft (RKB - 15')
Well:	Harvesters Resources 15U-203	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)
9,527.0	89.10	179.40	7,093.1	-2,476.8	366.3	2,498.9	1.98	-1.88	-0.63
9,559.0	89.20	179.80	7,093.5	-2,508.8	366.5	2,530.8	1.29	0.31	1.25
9,591.0	90.20	180.00	7,093.7	-2,540.8	366.6	2,562.7	3.19	3.13	0.63
9,622.0	91.40	180.40	7,093.3	-2,571.8	366.5	2,593.5	4.08	3.87	1.29
9,654.0	91.90	180.10	7,092.3	-2,603.8	366.3	2,625.4	1.82	1.56	-0.94
9,686.0	91.40	180.00	7,091.4	-2,635.7	366.3	2,657.3	1.59	-1.56	-0.31
9,717.0	89.90	179.70	7,091.1	-2,666.7	366.4	2,688.2	4.93	-4.84	-0.97
9,749.0	89.50	179.20	7,091.2	-2,698.7	366.7	2,720.1	2.00	-1.25	-1.56
9,781.0	88.90	179.10	7,091.7	-2,730.7	367.2	2,752.0	1.90	-1.88	-0.31
9,812.0	88.40	179.30	7,092.4	-2,761.7	367.6	2,782.9	1.74	-1.61	0.65
9,844.0	88.60	179.20	7,093.3	-2,793.7	368.0	2,814.8	0.70	0.63	-0.31
9,876.0	89.10	179.20	7,093.9	-2,825.7	368.5	2,846.7	1.56	1.56	0.00
9,907.0	89.30	179.40	7,094.3	-2,856.7	368.9	2,877.6	0.91	0.65	0.65
9,939.0	90.40	180.40	7,094.4	-2,888.7	368.9	2,909.5	4.65	3.44	3.13
9,970.0	91.00	180.50	7,094.0	-2,919.7	368.7	2,940.4	1.96	1.94	0.32
10,002.0	90.40	180.20	7,093.6	-2,951.7	368.5	2,972.3	2.10	-1.88	-0.94
10,033.0	90.20	180.60	7,093.5	-2,982.7	368.3	3,003.1	1.44	-0.65	1.29
10,065.0	89.80	180.90	7,093.5	-3,014.7	367.8	3,035.0	1.56	-1.25	0.94
10,097.0	89.70	180.90	7,093.6	-3,046.7	367.3	3,066.8	0.31	-0.31	0.00
10,129.0	90.60	180.70	7,093.5	-3,078.7	366.9	3,098.7	2.88	2.81	-0.63
10,160.0	91.50	180.80	7,093.0	-3,109.7	366.5	3,129.5	2.92	2.90	0.32
10,192.0	91.30	180.30	7,092.2	-3,141.7	366.2	3,161.4	1.68	-0.63	-1.56
10,224.0	91.30	179.90	7,091.5	-3,173.6	366.1	3,193.2	1.25	0.00	-1.25
10,255.0	91.30	180.00	7,090.8	-3,204.6	366.1	3,224.1	0.32	0.00	0.32
10,287.0	90.80	180.40	7,090.2	-3,236.6	366.0	3,256.0	2.00	-1.56	1.25
10,319.0	90.10	180.60	7,089.9	-3,268.6	365.8	3,287.8	2.28	-2.19	0.63
10,351.0	90.50	180.50	7,089.8	-3,300.6	365.5	3,319.7	1.29	1.25	-0.31
10,383.0	90.20	179.80	7,089.6	-3,332.6	365.4	3,351.6	2.38	-0.94	-2.19
10,415.0	90.60	179.60	7,089.3	-3,364.6	365.5	3,383.5	1.40	1.25	-0.63
10,446.0	90.20	178.80	7,089.1	-3,395.6	366.0	3,414.4	2.89	-1.29	-2.58
10,478.0	90.50	178.50	7,088.9	-3,427.6	366.7	3,446.3	1.33	0.94	-0.94
10,509.0	90.60	178.00	7,088.6	-3,458.6	367.7	3,477.3	1.64	0.32	-1.61
10,541.0	90.80	177.80	7,088.2	-3,490.6	368.8	3,509.3	0.88	0.63	-0.63
10,572.0	91.50	177.70	7,087.6	-3,521.5	370.1	3,540.2	2.28	2.26	-0.32
10,604.0	91.90	177.50	7,086.7	-3,553.5	371.4	3,572.2	1.40	1.25	-0.63
10,636.0	91.70	177.60	7,085.7	-3,585.5	372.8	3,604.1	0.70	-0.63	0.31
10,667.0	91.20	178.60	7,084.9	-3,616.4	373.8	3,635.1	3.61	-1.61	3.23
10,699.0	91.30	178.90	7,084.2	-3,648.4	374.5	3,667.0	0.99	0.31	0.94
10,731.0	90.80	178.60	7,083.6	-3,680.4	375.2	3,698.9	1.82	-1.56	-0.94
10,763.0	89.70	179.10	7,083.4	-3,712.4	375.8	3,730.9	3.78	-3.44	1.56
10,795.0	89.30	179.10	7,083.7	-3,744.4	376.3	3,762.8	1.25	-1.25	0.00
10,826.0	89.30	178.60	7,084.1	-3,775.4	377.0	3,793.7	1.61	0.00	-1.61
10,858.0	89.60	178.50	7,084.4	-3,807.4	377.8	3,825.7	0.99	0.94	-0.31
10,889.0	90.20	178.70	7,084.5	-3,838.4	378.5	3,856.6	2.04	1.94	0.65
10,921.0	90.10	178.90	7,084.4	-3,870.4	379.2	3,888.5	0.70	-0.31	0.63
10,952.0	89.50	179.10	7,084.5	-3,901.3	379.7	3,919.5	2.04	-1.94	0.65
10,984.0	89.80	179.80	7,084.7	-3,933.3	380.0	3,951.4	2.38	0.94	2.19
11,016.0	90.10	179.40	7,084.7	-3,965.3	380.3	3,983.3	1.56	0.94	-1.25
11,047.0	89.80	179.60	7,084.7	-3,996.3	380.5	4,014.2	1.16	-0.97	0.65
11,079.0	89.50	179.50	7,084.9	-4,028.3	380.8	4,046.1	0.99	-0.94	-0.31
11,110.0	89.80	179.70	7,085.1	-4,059.3	381.0	4,077.0	1.16	0.97	0.65
11,142.0	90.80	180.00	7,085.0	-4,091.3	381.1	4,108.9	3.26	3.13	0.94

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well Harvesters Resources 15U-203
Project:	SEC.15-T6N-R66W	TVD Reference:	WELL @ 4830.0ft (RKB - 15')
Site:	Harvesters Resources 15UR-HZ Pad Sec.15-T6N-R66W	MD Reference:	WELL @ 4830.0ft (RKB - 15')
Well:	Harvesters Resources 15U-203	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)
11,174.0	91.20	179.80	7,084.4	-4,123.3	381.1	4,140.8	1.40	1.25	-0.63
11,206.0	90.40	179.80	7,084.0	-4,155.3	381.3	4,172.7	2.50	-2.50	0.00
11,238.0	89.60	180.10	7,084.0	-4,187.3	381.3	4,204.6	2.67	-2.50	0.94
11,269.0	89.80	179.80	7,084.1	-4,218.3	381.3	4,235.5	1.16	0.65	-0.97
11,301.0	88.80	179.20	7,084.5	-4,250.3	381.6	4,267.4	3.64	-3.13	-1.88
11,333.0	87.80	178.90	7,085.5	-4,282.3	382.1	4,299.3	3.26	-3.13	-0.94
11,364.0	87.80	178.90	7,086.6	-4,313.3	382.7	4,330.2	0.00	0.00	0.00
11,395.0	88.20	179.10	7,087.7	-4,344.3	383.3	4,361.1	1.44	1.29	0.65
11,427.0	88.60	179.10	7,088.6	-4,376.2	383.8	4,393.0	1.25	1.25	0.00
11,458.0	88.90	179.10	7,089.3	-4,407.2	384.2	4,423.9	0.97	0.97	0.00
11,512.0	88.90	179.10	7,090.3	-4,461.2	385.1	4,477.8	0.00	0.00	0.00
BHL 500'FSL, 170'FEL									

Checked By: _____	Approved By: _____	Date: _____
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