

PETROLEUM DEVELOPMENT CORP Weld County CO

Well Name: **Chesnut 28R-403**

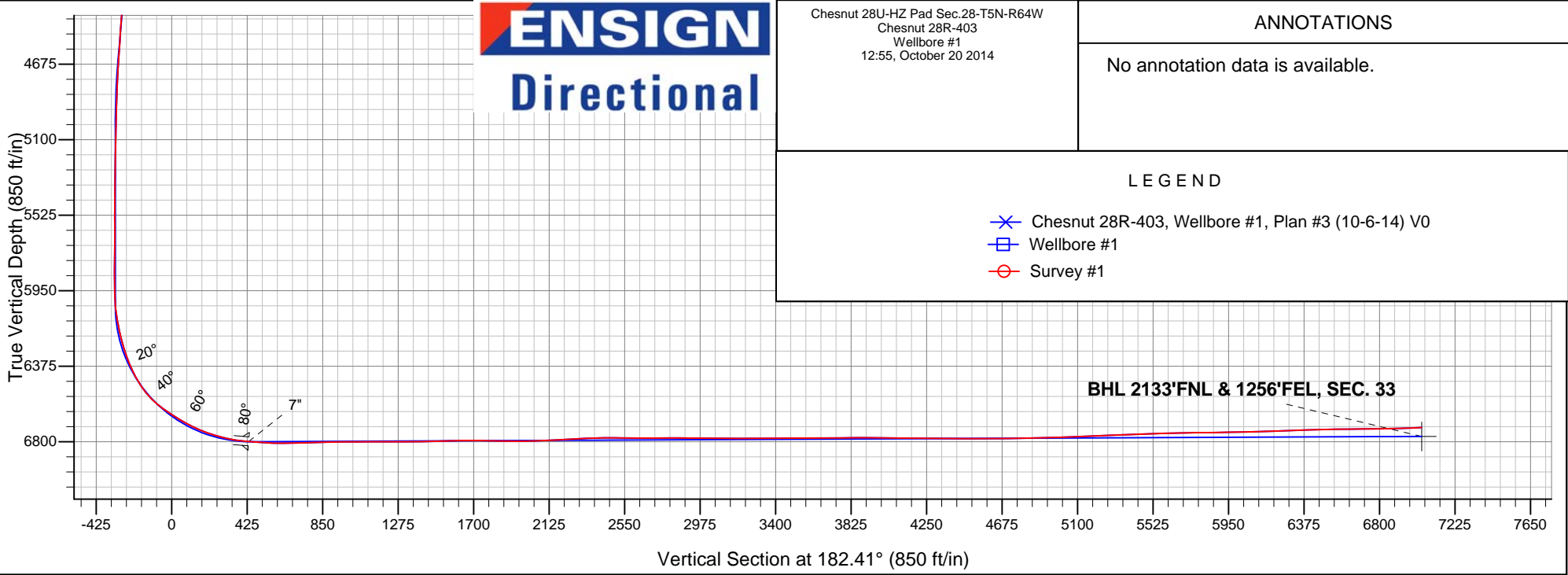
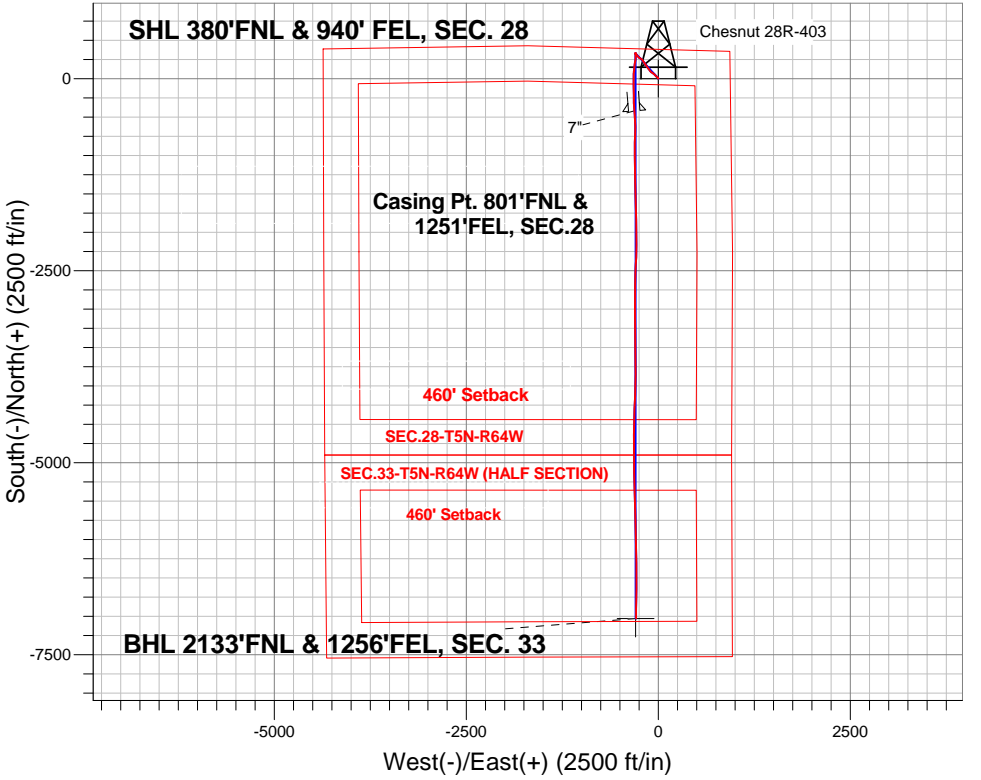
Surface Location: Chesnut 28U-HZ Pad Sec.28-T5N-R64W
North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone

Ground Elevation: 4620.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1381414.02	3265056.03	40.376480	-104.548620	
Ensign Rig #121 - RKB - 13.5' WELL @ 4633ft (Ensign Rig #121 - RKB - 13')						

FINAL SURVEY

Projected Bottom Hole Location
13857'MD 6720'TVD 7031'S & 291'W of SHL
92.2 degree Incl @ 180.9 degree AZM





PETROLEUM DEVELOPMENT CORP Weld County CO

SEC.28-T5N-R64W

Chesnut 28U-HZ Pad Sec.28-T5N-R64W

Chesnut 28R-403

Wellbore #1

Survey: Survey #1

Standard Survey Report

20 October, 2014

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well Chesnut 28R-403
Project:	SEC.28-T5N-R64W	TVD Reference:	WELL @ 4633ft (Ensign Rig #121 - RKB -13')
Site:	Chesnut 28U-HZ Pad Sec.28-T5N-R64W	MD Reference:	WELL @ 4633ft (Ensign Rig #121 - RKB -13')
Well:	Chesnut 28R-403	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

Project	SEC.28-T5N-R64W, 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		Chesnut 28U-HZ Pad Sec.28-T5N-R64W			
Site Position:		Northing:	1,381,414.04ft	Latitude:	40.376480
From:	Lat/Long	Easting:	3,265,056.03ft	Longitude:	-104.548620
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	0.61 °

Well	Chesnut 28R-403					
Well Position	+N-S	0.0 ft	Northing:	1,381,414.02 ft	Latitude:	40.376480
	+E-W	0.0 ft	Easting:	3,265,056.03 ft	Longitude:	-104.548620
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,620.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	10/6/2014	8.30	66.95	52,794

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	182.41	

Survey Program	Date	10/20/2014			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
71.0	13,857.0	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	352.50	1.0	0.0	0.0	0.0	0.85	0.85	0.00	
SHL 380'FNL & 940' FEL, SEC. 28										
71.0	0.60	352.50	71.0	0.4	0.0	-0.4	0.85	0.85	0.00	
166.0	0.50	327.20	166.0	1.2	-0.3	-1.2	0.27	-0.11	-26.63	
261.0	0.40	36.60	261.0	1.8	-0.4	-1.8	0.55	-0.11	73.05	
356.0	0.40	344.20	356.0	2.4	-0.3	-2.4	0.37	0.00	-55.16	
451.0	0.40	34.50	451.0	3.0	-0.2	-3.0	0.36	0.00	52.95	
547.0	0.50	22.00	547.0	3.7	0.2	-3.7	0.15	0.10	-13.02	
642.0	0.20	22.70	642.0	4.2	0.4	-4.2	0.32	-0.32	0.74	

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well Chesnut 28R-403
Project:	SEC.28-T5N-R64W	TVD Reference:	WELL @ 4633ft (Ensign Rig #121 - RKB -13')
Site:	Chesnut 28U-HZ Pad Sec.28-T5N-R64W	MD Reference:	WELL @ 4633ft (Ensign Rig #121 - RKB -13')
Well:	Chesnut 28R-403	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)
737.0	0.20	247.70	737.0	4.3	0.3	-4.3	0.39	0.00	-142.11
863.0	0.70	276.40	863.0	4.3	-0.7	-4.3	0.42	0.40	22.78
927.0	0.40	344.10	927.0	4.6	-1.1	-4.5	1.03	-0.47	105.78
1,022.0	2.60	335.40	1,021.9	6.8	-2.1	-6.7	2.32	2.32	-9.16
1,117.0	3.90	327.40	1,116.8	11.5	-4.7	-11.3	1.45	1.37	-8.42
1,212.0	4.70	298.50	1,211.5	16.1	-9.9	-15.7	2.40	0.84	-30.42
1,307.0	5.60	310.70	1,306.1	21.0	-16.8	-20.2	1.49	0.95	12.84
1,402.0	6.30	316.80	1,400.6	27.8	-23.9	-26.8	0.99	0.74	6.42
1,498.0	6.60	314.70	1,496.0	35.5	-31.4	-34.2	0.40	0.31	-2.19
1,593.0	7.10	316.80	1,590.3	43.6	-39.3	-41.9	0.59	0.53	2.21
1,688.0	6.60	307.80	1,684.7	51.3	-47.7	-49.2	1.24	-0.53	-9.47
1,783.0	7.60	313.60	1,778.9	58.9	-56.5	-56.5	1.29	1.05	6.11
1,876.0	7.10	308.00	1,871.2	66.7	-65.5	-63.9	0.94	-0.54	-6.02
1,971.0	6.30	299.80	1,965.5	72.9	-74.7	-69.7	1.31	-0.84	-8.63
2,066.0	7.70	305.90	2,059.8	79.2	-84.3	-75.6	1.67	1.47	6.42
2,161.0	6.80	309.40	2,154.1	86.6	-93.8	-82.5	1.05	-0.95	3.68
2,256.0	6.50	316.30	2,248.4	94.0	-101.9	-89.6	0.90	-0.32	7.26
2,351.0	6.80	321.00	2,342.8	102.3	-109.2	-97.6	0.65	0.32	4.95
2,446.0	7.50	326.10	2,437.0	111.8	-116.2	-106.8	0.99	0.74	5.37
2,542.0	6.90	322.40	2,532.3	121.6	-123.2	-116.3	0.79	-0.63	-3.85
2,637.0	8.90	325.20	2,626.4	132.1	-130.8	-126.5	2.14	2.11	2.95
2,732.0	9.00	324.50	2,720.2	144.2	-139.4	-138.2	0.16	0.11	-0.74
2,827.0	8.40	318.40	2,814.1	155.4	-148.3	-149.1	1.16	-0.63	-6.42
2,922.0	8.30	331.00	2,908.1	166.6	-156.2	-159.9	1.93	-0.11	13.26
3,019.0	7.20	323.50	3,004.3	177.6	-163.2	-170.6	1.54	-1.13	-7.73
3,114.0	5.50	321.60	3,098.7	186.0	-169.6	-178.7	1.80	-1.79	-2.00
3,208.0	6.90	327.50	3,192.1	194.3	-175.4	-186.7	1.63	1.49	6.28
3,303.0	6.50	329.80	3,286.5	203.7	-181.2	-196.0	0.51	-0.42	2.42
3,397.0	6.40	326.30	3,379.9	212.7	-186.8	-204.7	0.43	-0.11	-3.72
3,491.0	6.20	328.60	3,473.3	221.4	-192.3	-213.1	0.34	-0.21	2.45
3,585.0	8.30	326.30	3,566.5	231.4	-198.7	-222.8	2.25	2.23	-2.45
3,680.0	8.80	314.30	3,660.5	242.1	-207.7	-233.2	1.95	0.53	-12.63
3,774.0	8.60	313.30	3,753.4	252.0	-218.0	-242.6	0.27	-0.21	-1.06
3,869.0	6.90	306.40	3,847.5	260.2	-227.8	-250.5	2.04	-1.79	-7.26
3,963.0	5.90	283.20	3,941.0	264.7	-237.0	-254.5	2.92	-1.06	-24.68
4,057.0	6.20	301.30	4,034.5	268.4	-246.1	-257.9	2.05	0.32	19.26
4,151.0	5.90	319.80	4,127.9	274.8	-253.5	-263.9	2.09	-0.32	19.68
4,245.0	5.00	321.00	4,221.5	281.6	-259.2	-270.5	0.97	-0.96	1.28
4,339.0	5.50	311.90	4,315.1	287.8	-265.1	-276.5	1.03	0.53	-9.68
4,433.0	5.50	322.80	4,408.7	294.4	-271.2	-282.8	1.11	0.00	11.60
4,528.0	4.80	320.30	4,503.3	301.1	-276.5	-289.2	0.77	-0.74	-2.63
4,623.0	6.00	317.90	4,597.9	307.9	-282.4	-295.7	1.29	1.26	-2.53
4,718.0	5.40	305.70	4,692.4	314.2	-289.3	-301.7	1.42	-0.63	-12.84
4,813.0	3.50	318.90	4,787.1	318.9	-294.9	-306.3	2.26	-2.00	13.89
4,907.0	2.30	333.50	4,881.0	322.8	-297.6	-310.0	1.49	-1.28	15.53
5,001.0	1.80	325.10	4,975.0	325.7	-299.3	-312.8	0.62	-0.53	-8.94
5,095.0	1.10	326.80	5,068.9	327.7	-300.6	-314.8	0.75	-0.74	1.81
5,190.0	1.00	349.10	5,163.9	329.2	-301.3	-316.3	0.44	-0.11	23.47
5,285.0	1.10	30.80	5,258.9	330.8	-301.0	-317.9	0.79	0.11	43.89
5,380.0	1.50	55.80	5,353.9	332.3	-299.5	-319.5	0.72	0.42	26.32
5,475.0	0.80	68.30	5,448.9	333.3	-297.8	-320.5	0.78	-0.74	13.16

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well Chesnut 28R-403
Project:	SEC.28-T5N-R64W	TVD Reference:	WELL @ 4633ft (Ensign Rig #121 - RKB -13')
Site:	Chesnut 28U-HZ Pad Sec.28-T5N-R64W	MD Reference:	WELL @ 4633ft (Ensign Rig #121 - RKB -13')
Well:	Chesnut 28R-403	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)
5,569.0	0.70	73.90	5,542.8	333.7	-296.7	-320.9	0.13	-0.11	5.96
5,663.0	0.40	92.30	5,636.8	333.8	-295.8	-321.1	0.37	-0.32	19.57
5,758.0	0.60	114.80	5,731.8	333.6	-295.0	-320.9	0.29	0.21	23.68
5,852.0	0.40	99.00	5,825.8	333.3	-294.2	-320.7	0.26	-0.21	-16.81
5,946.0	0.90	34.70	5,919.8	333.9	-293.5	-321.3	0.86	0.53	-68.40
6,041.0	3.80	177.20	6,014.8	331.4	-292.9	-318.8	4.79	3.05	150.00
6,135.0	9.80	187.80	6,108.1	320.3	-293.9	-307.7	6.49	6.38	11.28
6,229.0	13.50	181.30	6,200.1	301.4	-295.2	-288.7	4.17	3.94	-6.91
6,324.0	17.80	178.60	6,291.6	275.8	-295.1	-263.2	4.59	4.53	-2.84
6,419.0	23.90	189.20	6,380.3	242.2	-297.8	-229.5	7.53	6.42	11.16
6,514.0	30.90	188.50	6,464.6	199.1	-304.5	-186.1	7.38	7.37	-0.74
6,609.0	41.70	186.20	6,541.1	143.3	-311.5	-130.1	11.46	11.37	-2.42
6,704.0	53.80	184.80	6,604.8	73.5	-318.2	-60.1	12.78	12.74	-1.47
6,751.0	55.70	181.50	6,632.0	35.2	-320.3	-21.7	7.01	4.04	-7.02
6,799.0	57.40	180.60	6,658.4	-4.9	-321.0	18.3	3.87	3.54	-1.88
6,846.0	59.90	179.90	6,682.9	-45.0	-321.2	58.5	5.47	5.32	-1.49
6,894.0	62.60	179.50	6,706.0	-87.1	-321.0	100.5	5.67	5.63	-0.83
6,941.0	65.90	178.80	6,726.4	-129.4	-320.3	142.7	7.15	7.02	-1.49
6,989.0	69.60	178.80	6,744.6	-173.8	-319.4	187.1	7.71	7.71	0.00
7,036.0	72.80	179.00	6,759.7	-218.3	-318.5	231.5	6.82	6.81	0.43
7,084.0	74.80	179.30	6,773.1	-264.4	-317.9	277.5	4.21	4.17	0.63
7,131.0	78.30	178.80	6,784.0	-310.1	-317.1	323.1	7.52	7.45	-1.06
7,180.0	82.20	177.20	6,792.3	-358.3	-315.4	371.3	8.58	7.96	-3.27
7,227.0	85.40	175.80	6,797.4	-405.0	-312.6	417.7	7.42	6.81	-2.98
7,243.0	85.40	175.63	6,798.7	-420.9	-311.4	433.6	1.08	0.00	-1.09
7"									
7,273.0	85.40	175.30	6,801.1	-450.7	-309.0	463.3	1.08	0.00	-1.09
7,367.0	87.40	177.10	6,807.0	-544.3	-302.8	556.5	2.86	2.13	1.91
7,462.0	91.40	180.60	6,808.0	-639.2	-300.9	651.3	5.59	4.21	3.68
7,556.0	91.90	181.10	6,805.3	-733.2	-302.3	745.2	0.75	0.53	0.53
7,651.0	90.70	180.80	6,803.1	-828.1	-303.8	840.2	1.30	-1.26	-0.32
7,745.0	90.70	180.80	6,802.0	-922.1	-305.2	934.1	0.00	0.00	0.00
7,839.0	90.80	179.50	6,800.7	-1,016.1	-305.4	1,028.0	1.39	0.11	-1.38
7,933.0	90.30	179.00	6,799.8	-1,110.1	-304.2	1,121.9	0.75	-0.53	-0.53
8,028.0	89.80	179.30	6,799.8	-1,205.1	-302.8	1,216.7	0.61	-0.53	0.32
8,123.0	90.00	178.60	6,799.9	-1,300.1	-301.0	1,311.6	0.77	0.21	-0.74
8,217.0	90.90	179.30	6,799.2	-1,394.0	-299.3	1,405.4	1.21	0.96	0.74
8,311.0	91.50	178.60	6,797.2	-1,488.0	-297.6	1,499.2	0.98	0.64	-0.74
8,405.0	91.90	177.90	6,794.4	-1,581.9	-294.7	1,592.9	0.86	0.43	-0.74
8,499.0	90.00	178.80	6,792.9	-1,675.9	-292.0	1,686.6	2.24	-2.02	0.96
8,593.0	88.20	178.50	6,794.3	-1,769.8	-289.8	1,780.4	1.94	-1.91	-0.32
8,687.0	89.10	178.80	6,796.6	-1,863.8	-287.6	1,874.2	1.01	0.96	0.32
8,782.0	90.20	179.20	6,797.1	-1,958.7	-285.9	1,969.0	1.23	1.16	0.42
8,877.0	92.90	179.90	6,794.6	-2,053.7	-285.2	2,063.9	2.94	2.84	0.74
8,962.0	92.90	179.70	6,790.3	-2,138.6	-284.9	2,148.7	0.23	0.00	-0.24
9,057.0	93.20	180.60	6,785.2	-2,233.5	-285.1	2,243.5	1.00	0.32	0.95
9,152.0	92.20	183.20	6,780.7	-2,328.3	-288.3	2,338.3	2.93	-1.05	2.74
9,247.0	90.10	182.90	6,778.8	-2,423.1	-293.3	2,433.3	2.23	-2.21	-0.32
9,342.0	90.00	182.50	6,778.7	-2,518.0	-297.8	2,528.3	0.43	-0.11	-0.42
9,438.0	89.50	180.00	6,779.2	-2,614.0	-299.9	2,624.3	2.66	-0.52	-2.60
9,533.0	90.00	180.60	6,779.6	-2,709.0	-300.4	2,719.2	0.82	0.53	0.63

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well Chesnut 28R-403
Project:	SEC.28-T5N-R64W	TVD Reference:	WELL @ 4633ft (Ensign Rig #121 - RKB -13')
Site:	Chesnut 28U-HZ Pad Sec.28-T5N-R64W	MD Reference:	WELL @ 4633ft (Ensign Rig #121 - RKB -13')
Well:	Chesnut 28R-403	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)
9,628.0	90.70	181.30	6,779.0	-2,804.0	-302.0	2,814.2	1.04	0.74	0.74
9,723.0	89.00	180.40	6,779.3	-2,899.0	-303.4	2,909.1	2.02	-1.79	-0.95
9,818.0	89.50	180.20	6,780.5	-2,993.9	-303.9	3,004.1	0.57	0.53	-0.21
9,913.0	89.80	179.90	6,781.1	-3,088.9	-304.0	3,099.0	0.45	0.32	-0.32
10,008.0	90.10	179.50	6,781.2	-3,183.9	-303.5	3,193.9	0.53	0.32	-0.42
10,103.0	90.00	179.30	6,781.1	-3,278.9	-302.5	3,288.7	0.24	-0.11	-0.21
10,198.0	90.90	179.30	6,780.3	-3,373.9	-301.3	3,383.6	0.95	0.95	0.00
10,293.0	89.80	179.20	6,779.7	-3,468.9	-300.1	3,478.5	1.16	-1.16	-0.11
10,389.0	89.80	178.80	6,780.1	-3,564.9	-298.4	3,574.3	0.42	0.00	-0.42
10,484.0	90.00	178.80	6,780.2	-3,659.9	-296.4	3,669.1	0.21	0.21	0.00
10,579.0	91.40	179.70	6,779.1	-3,754.9	-295.2	3,763.9	1.75	1.47	0.95
10,674.0	90.70	180.80	6,777.3	-3,849.8	-295.6	3,858.9	1.37	-0.74	1.16
10,769.0	89.10	181.60	6,777.5	-3,944.8	-297.6	3,953.8	1.88	-1.68	0.84
10,863.0	89.30	181.60	6,778.8	-4,038.8	-300.2	4,047.8	0.21	0.21	0.00
10,958.0	89.60	181.80	6,779.7	-4,133.7	-303.0	4,142.8	0.38	0.32	0.21
11,052.0	89.30	182.20	6,780.6	-4,227.7	-306.3	4,236.8	0.53	-0.32	0.43
11,147.0	89.00	180.90	6,782.0	-4,322.6	-308.9	4,331.8	1.40	-0.32	-1.37
11,242.0	89.90	182.20	6,783.0	-4,417.6	-311.4	4,426.8	1.66	0.95	1.37
11,356.0	90.50	181.80	6,782.6	-4,531.5	-315.4	4,540.8	0.63	0.53	-0.35
11,451.0	90.70	181.10	6,781.6	-4,626.5	-317.8	4,635.7	0.77	0.21	-0.74
11,546.0	90.50	179.90	6,780.6	-4,721.5	-318.6	4,730.7	1.28	-0.21	-1.26
11,641.0	91.10	179.70	6,779.2	-4,816.4	-318.3	4,825.6	0.67	0.63	-0.21
11,736.0	91.10	179.20	6,777.4	-4,911.4	-317.4	4,920.4	0.53	0.00	-0.53
11,832.0	92.10	179.00	6,774.7	-5,007.4	-315.9	5,016.2	1.06	1.04	-0.21
11,927.0	92.30	179.00	6,771.1	-5,102.3	-314.2	5,111.0	0.21	0.21	0.00
12,022.0	92.20	178.80	6,767.4	-5,197.2	-312.4	5,205.7	0.24	-0.11	-0.21
12,117.0	92.70	179.20	6,763.3	-5,292.1	-310.7	5,300.5	0.67	0.53	0.42
12,212.0	92.50	177.90	6,759.0	-5,387.0	-308.3	5,395.2	1.38	-0.21	-1.37
12,307.0	91.50	178.40	6,755.7	-5,481.9	-305.3	5,489.8	1.18	-1.05	0.53
12,402.0	92.20	178.30	6,752.6	-5,576.8	-302.5	5,584.6	0.74	0.74	-0.11
12,497.0	90.50	178.50	6,750.4	-5,671.7	-299.9	5,679.3	1.80	-1.79	0.21
12,592.0	90.70	178.50	6,749.4	-5,766.7	-297.4	5,774.1	0.21	0.21	0.00
12,686.0	91.10	179.00	6,747.9	-5,860.6	-295.4	5,867.9	0.68	0.43	0.53
12,782.0	91.10	178.80	6,746.1	-5,956.6	-293.5	5,963.7	0.21	0.00	-0.21
12,875.0	90.90	178.10	6,744.4	-6,049.5	-291.0	6,056.4	0.78	-0.22	-0.75
12,971.0	91.40	177.90	6,742.5	-6,145.5	-287.6	6,152.1	0.56	0.52	-0.21
13,065.0	93.20	180.60	6,738.7	-6,239.4	-286.4	6,245.9	3.45	1.91	2.87
13,160.0	91.90	179.20	6,734.5	-6,334.3	-286.3	6,340.7	2.01	-1.37	-1.47
13,255.0	90.40	180.20	6,732.6	-6,429.2	-285.8	6,435.6	1.90	-1.58	1.05
13,350.0	90.90	179.50	6,731.5	-6,524.2	-285.5	6,530.5	0.91	0.53	-0.74
13,445.0	91.30	179.70	6,729.7	-6,619.2	-284.8	6,625.3	0.47	0.42	0.21
13,540.0	90.60	180.60	6,728.1	-6,714.2	-285.1	6,720.3	1.20	-0.74	0.95
13,635.0	91.00	181.60	6,726.8	-6,809.2	-286.9	6,815.2	1.13	0.42	1.05
13,729.0	91.50	180.90	6,724.8	-6,903.1	-289.0	6,909.2	0.91	0.53	-0.74
13,800.0	92.20	180.90	6,722.5	-6,974.1	-290.1	6,980.1	0.99	0.99	0.00
13,855.3	92.20	180.90	6,720.3	-7,029.3	-290.9	7,035.3	0.00	0.00	0.00
BHL 2133'FNL & 1260'FEL, SEC. 33									
13,857.0	92.20	180.90	6,720.3	-7,031.0	-291.0	7,037.1	0.00	0.00	0.00

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well Chesnut 28R-403
Project:	SEC.28-T5N-R64W	TVD Reference:	WELL @ 4633ft (Ensign Rig #121 - RKB -13')
Site:	Chesnut 28U-HZ Pad Sec.28-T5N-R64W	MD Reference:	WELL @ 4633ft (Ensign Rig #121 - RKB -13')
Well:	Chesnut 28R-403	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
7,243.0	6,798.7	7"	7	7-1/2	

Checked By: _____	Approved By: _____	Date: _____
-------------------	--------------------	-------------