

PETROLEUM DEVELOPMENT CORP Weld County CO

Well Name: **Peterson 14W-234**

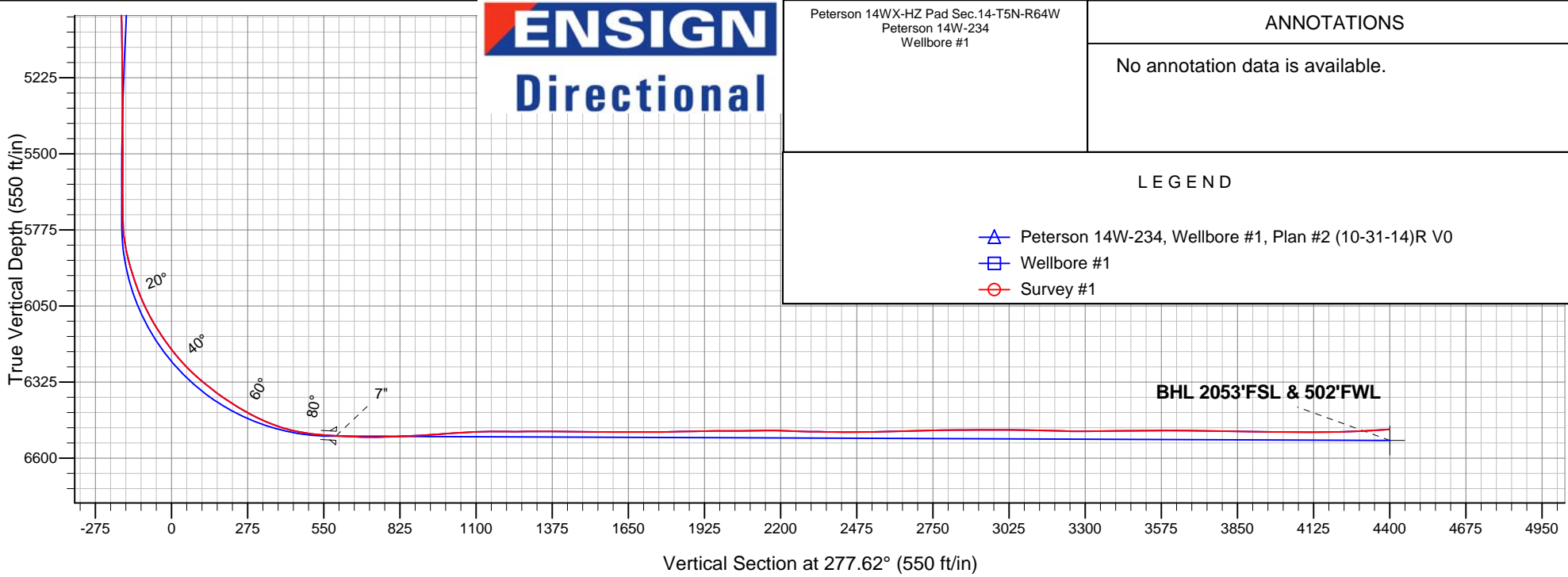
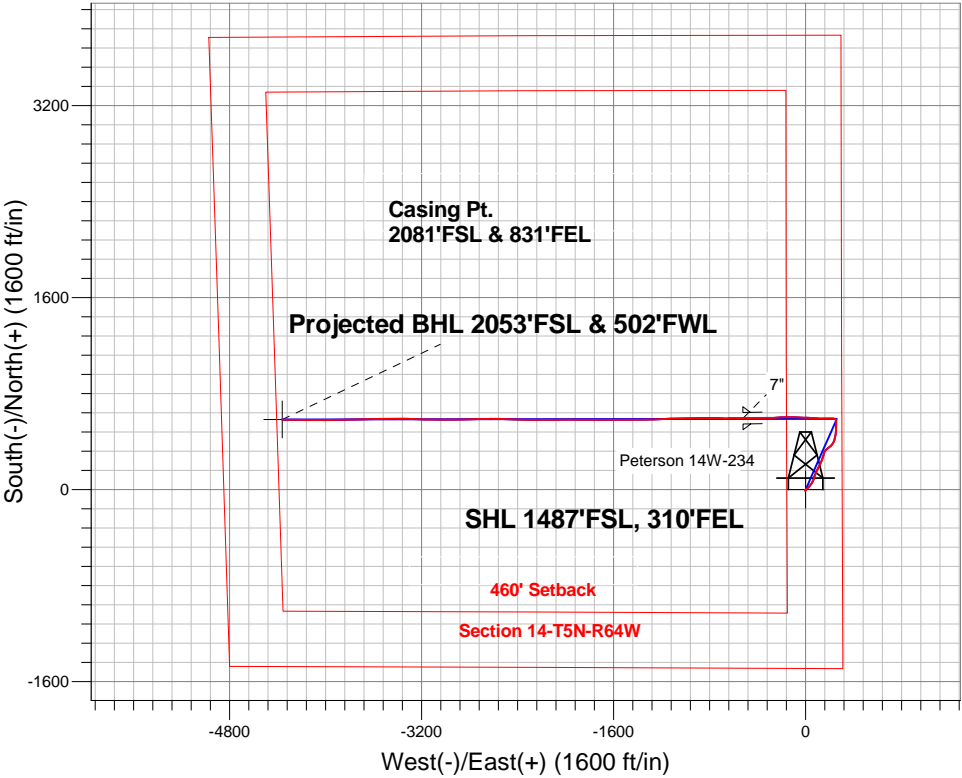
Surface Location: Peterson 14WX-HZ Pad Sec.14-T5N-R64W  
North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone

Ground Elevation: 4571.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1388684.95	3275955.37	40.396110	-104.509210	
Ensign Rig - RKB - 15' WELL @ 4586.0ft (Ensign Rig - RKB - 15')						

FINAL SURVEY

Projected Bottom Hole Location  
10840'MD 6496'TVD 582'N & 4360'W of SHL  
93.6 degree Incl @ 270.7 degree AZM



Peterson 14WX-HZ Pad Sec.14-T5N-R64W  
Peterson 14W-234  
Wellbore #1

ANNOTATIONS

No annotation data is available.

LEGEND

- Peterson 14W-234, Wellbore #1, Plan #2 (10-31-14)R V0
- Wellbore #1
- Survey #1

BHL 2053'FSL & 502'FWL



# **PETROLEUM DEVELOPMENT CORP Weld County CO**

**SEC.14-T5N-R64W**

**Peterson 14WX-HZ Pad Sec.14-T5N-R64W**

**Peterson 14W-234**

**Wellbore #1**

**Survey: Survey #1**

## **Standard Survey Report**

**20 November, 2014**

<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Peterson 14W-234
<b>Project:</b>	SEC.14-T5N-R64W	<b>TVD Reference:</b>	WELL @ 4586.0ft (Ensign Rig - RKB - 15')
<b>Site:</b>	Peterson 14WX-HZ Pad Sec.14-T5N-R64W	<b>MD Reference:</b>	WELL @ 4586.0ft (Ensign Rig - RKB - 15')
<b>Well:</b>	Peterson 14W-234	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	Landmark

<b>Project</b>	SEC.14-T5N-R64W, Weld County, CO		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		Using Well Reference Point
<b>Map Zone:</b>	Colorado Northern Zone		Using geodetic scale factor

Site		Peterson 14WX-HZ Pad Sec.14-T5N-R64W			
Site Position:		Northing:	1,388,684.96 ft	Latitude:	40.396110
From:	Lat/Long	Easting:	3,275,955.37 ft	Longitude:	-104.509210
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	0.64 °

Well	Peterson 14W-234					
Well Position	+N-S	0.0 ft	Northing:	1,388,684.95 ft	Latitude:	40.396110
	+E-W	0.0 ft	Easting:	3,275,955.37 ft	Longitude:	-104.509210
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,571.0 ft

<b>Wellbore</b>	Wellbore #1				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	10/31/2014	8.27	66.97	52,802

<b>Design</b>	Wellbore #1				
<b>Audit Notes:</b>					
<b>Version:</b>	1.0	<b>Phase:</b>	ACTUAL	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>	
	0.0	0.0	0.0	277.62	

<b>Survey Program</b>	<b>Date</b>	11/20/2014			
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
86.0	10,840.0	Survey #1 (Wellbore #1)	MWD	MWD - Standard	

<b>Survey</b>										
<b>Measured Depth (ft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Vertical Section (ft)</b>	<b>Dogleg Rate (°/100ft)</b>	<b>Build Rate (°/100ft)</b>	<b>Turn Rate (°/100ft)</b>	
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00	
1.0	0.00	214.30	1.0	0.0	0.0	0.0	0.23	0.23	0.00	
<b>SHL 1487'FSL, 310'FEL</b>										
86.0	0.20	214.30	86.0	-0.1	-0.1	0.1	0.23	0.23	0.00	
210.0	0.20	220.80	210.0	-0.5	-0.3	0.3	0.02	0.00	5.24	
334.0	0.60	157.80	334.0	-1.2	-0.2	0.1	0.44	0.32	-50.81	
458.0	0.20	174.70	458.0	-2.0	0.0	-0.3	0.33	-0.32	13.63	
583.0	1.10	210.80	583.0	-3.3	-0.6	0.1	0.76	0.72	28.88	
707.0	1.20	207.10	707.0	-5.5	-1.8	1.0	0.10	0.08	-2.98	
832.0	1.10	214.10	831.9	-7.6	-3.0	2.0	0.14	-0.08	5.60	
898.0	0.30	247.70	897.9	-8.2	-3.6	2.4	1.31	-1.21	50.91	
958.0	0.60	223.80	957.9	-8.5	-3.9	2.8	0.58	0.50	-39.83	

<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Peterson 14W-234
<b>Project:</b>	SEC.14-T5N-R64W	<b>TVD Reference:</b>	WELL @ 4586.0ft (Ensign Rig - RKB - 15')
<b>Site:</b>	Peterson 14WX-HZ Pad Sec.14-T5N-R64W	<b>MD Reference:</b>	WELL @ 4586.0ft (Ensign Rig - RKB - 15')
<b>Well:</b>	Peterson 14W-234	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	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)
1,019.0	1.30	21.10	1,018.9	-8.1	-3.9	2.8	3.06	1.15	257.87
1,113.0	4.60	28.80	1,112.8	-3.8	-1.7	1.2	3.53	3.51	8.19
1,206.0	6.60	55.70	1,205.4	2.5	4.5	-4.2	3.49	2.15	28.92
1,330.0	9.00	51.70	1,328.2	12.5	18.0	-16.2	1.98	1.94	-3.23
1,451.0	9.90	39.00	1,447.6	26.5	32.0	-28.2	1.87	0.74	-10.50
1,572.0	9.10	34.50	1,566.9	42.4	44.0	-38.0	0.90	-0.66	-3.72
1,694.0	10.90	29.40	1,687.1	60.4	55.1	-46.6	1.64	1.48	-4.18
1,815.0	10.00	22.00	1,806.0	80.1	64.6	-53.4	1.33	-0.74	-6.12
1,935.0	10.80	10.80	1,924.1	100.9	70.7	-56.7	1.81	0.67	-9.33
2,057.0	8.70	26.70	2,044.3	120.3	76.9	-60.3	2.78	-1.72	13.03
2,179.0	8.70	23.00	2,164.9	137.1	84.7	-65.8	0.46	0.00	-3.03
2,300.0	8.90	26.90	2,284.5	153.8	92.5	-71.3	0.52	0.17	3.22
2,422.0	10.30	27.60	2,404.8	171.9	101.8	-78.1	1.15	1.15	0.57
2,547.0	9.40	20.00	2,528.0	191.4	110.5	-84.2	1.26	-0.72	-6.08
2,673.0	10.70	28.10	2,652.0	211.4	119.5	-90.5	1.52	1.03	6.43
2,800.0	10.50	25.00	2,776.9	232.3	130.0	-98.0	0.48	-0.16	-2.44
2,926.0	9.90	21.80	2,900.9	252.8	138.8	-104.1	0.65	-0.48	-2.54
3,052.0	7.90	12.50	3,025.4	271.3	144.7	-107.5	1.95	-1.59	-7.38
3,179.0	8.90	14.10	3,151.0	289.3	149.0	-109.4	0.81	0.79	1.26
3,305.0	8.40	18.50	3,275.6	307.5	154.3	-112.2	0.66	-0.40	3.49
3,432.0	8.30	38.90	3,401.2	323.4	163.0	-118.7	2.32	-0.08	16.06
3,558.0	10.50	51.00	3,525.6	337.7	177.7	-131.3	2.34	1.75	9.60
3,685.0	10.40	51.70	3,650.5	352.1	195.6	-147.2	0.13	-0.08	0.55
3,812.0	9.90	46.20	3,775.5	366.8	212.5	-162.0	0.86	-0.39	-4.33
3,938.0	10.20	32.00	3,899.6	383.8	226.3	-173.4	1.98	0.24	-11.27
4,064.0	10.20	20.00	4,023.6	403.7	236.0	-180.4	1.68	0.00	-9.52
4,191.0	8.60	14.40	4,148.9	423.5	242.2	-183.9	1.45	-1.26	-4.41
4,317.0	8.90	12.70	4,273.4	442.1	246.7	-185.9	0.31	0.24	-1.35
4,445.0	7.00	5.60	4,400.2	459.5	249.6	-186.5	1.67	-1.48	-5.55
4,571.0	7.90	4.60	4,525.1	475.8	251.1	-185.8	0.72	0.71	-0.79
4,698.0	7.60	4.40	4,650.9	492.9	252.4	-184.8	0.24	-0.24	-0.16
4,823.0	8.30	5.80	4,774.7	510.1	253.9	-184.1	0.58	0.56	1.12
4,949.0	7.30	0.00	4,899.6	527.1	254.9	-182.7	1.01	-0.79	-4.60
5,075.0	6.10	357.00	5,024.7	541.8	254.5	-180.5	0.99	-0.95	-2.38
5,201.0	5.00	358.60	5,150.1	554.0	254.0	-178.4	0.88	-0.87	1.27
5,327.0	4.00	7.70	5,275.7	563.8	254.5	-177.5	0.97	-0.79	7.22
5,454.0	3.20	357.70	5,402.5	571.8	254.9	-176.9	0.80	-0.63	-7.87
5,549.0	0.80	18.30	5,497.4	575.1	255.0	-176.6	2.60	-2.53	21.68
5,675.0	0.40	341.00	5,623.4	576.3	255.2	-176.5	0.43	-0.32	-29.60
5,739.0	0.40	290.40	5,687.4	576.6	254.9	-176.2	0.53	0.00	-79.06
5,770.0	0.60	329.90	5,718.4	576.8	254.7	-176.0	1.25	0.65	127.42
5,802.0	2.30	321.00	5,750.4	577.4	254.2	-175.4	5.34	5.31	-27.81
5,834.0	6.40	317.30	5,782.3	579.2	252.6	-173.6	12.84	12.81	-11.56
5,865.0	9.90	309.70	5,813.0	582.2	249.4	-170.0	11.79	11.29	-24.52
5,896.0	12.30	302.40	5,843.4	585.7	244.5	-164.8	8.96	7.74	-23.55
5,928.0	14.40	292.20	5,874.5	589.0	238.0	-157.8	9.84	6.56	-31.88
5,959.0	15.50	279.30	5,904.5	591.1	230.3	-149.9	11.28	3.55	-41.61
5,991.0	17.50	271.40	5,935.2	591.9	221.3	-140.9	9.38	6.25	-24.69
6,023.0	19.30	269.50	5,965.5	592.0	211.2	-130.9	5.93	5.63	-5.94
6,054.0	21.10	269.00	5,994.6	591.9	200.5	-120.3	5.83	5.81	-1.61
6,086.0	23.20	270.00	6,024.3	591.8	188.4	-108.3	6.67	6.56	3.13
6,117.0	25.40	271.90	6,052.5	592.0	175.7	-95.7	7.53	7.10	6.13
6,149.0	28.10	271.20	6,081.1	592.4	161.3	-81.3	8.49	8.44	-2.19
6,181.0	30.50	268.80	6,109.0	592.4	145.6	-65.8	8.35	7.50	-7.50

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<b>Site:</b>	Peterson 14WX-HZ Pad Sec.14-T5N-R64W	<b>MD Reference:</b>	WELL @ 4586.0ft (Ensign Rig - RKB - 15')
<b>Well:</b>	Peterson 14W-234	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	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)
6,212.0	32.60	268.10	6,135.4	591.9	129.4	-49.8	6.88	6.77	-2.26
6,244.0	34.30	270.70	6,162.1	591.7	111.8	-32.4	6.95	5.31	8.13
6,275.0	35.70	274.10	6,187.5	592.5	94.0	-14.7	7.74	4.52	10.97
6,307.0	37.90	275.80	6,213.1	594.2	74.9	4.5	7.58	6.88	5.31
6,338.0	40.20	274.80	6,237.2	596.0	55.5	24.0	7.69	7.42	-3.23
6,370.0	43.20	272.10	6,261.1	597.2	34.2	45.2	10.93	9.38	-8.44
6,402.0	46.40	271.20	6,283.8	597.9	11.7	67.7	10.19	10.00	-2.81
6,433.0	48.90	271.40	6,304.7	598.4	-11.2	90.4	8.08	8.06	0.65
6,465.0	50.20	272.10	6,325.5	599.1	-35.5	114.6	4.39	4.06	2.19
6,496.0	51.50	272.50	6,345.0	600.1	-59.6	138.6	4.31	4.19	1.29
6,528.0	53.10	272.80	6,364.6	601.3	-84.9	163.8	5.05	5.00	0.94
6,559.0	55.70	272.80	6,382.6	602.5	-110.0	188.9	8.39	8.39	0.00
6,591.0	57.50	270.90	6,400.3	603.4	-136.7	215.5	7.50	5.63	-5.94
6,623.0	59.00	268.30	6,417.1	603.2	-163.9	242.4	8.35	4.69	-8.13
6,654.0	61.20	266.50	6,432.5	601.9	-190.8	268.9	8.70	7.10	-5.81
6,686.0	63.40	265.80	6,447.4	600.0	-219.0	296.6	7.14	6.88	-2.19
6,717.0	65.70	266.30	6,460.7	598.1	-247.0	324.1	7.56	7.42	1.61
6,749.0	68.20	267.50	6,473.3	596.5	-276.4	353.0	8.54	7.81	3.75
6,781.0	71.20	269.50	6,484.4	595.7	-306.4	382.6	11.06	9.38	6.25
6,812.0	74.20	270.70	6,493.6	595.8	-336.0	412.0	10.36	9.68	3.87
6,844.0	77.40	271.00	6,501.4	596.3	-367.0	442.8	10.04	10.00	0.94
6,875.0	80.50	270.20	6,507.4	596.6	-397.4	473.0	10.32	10.00	-2.58
6,907.0	82.70	269.00	6,512.1	596.4	-429.0	504.3	7.81	6.88	-3.75
6,939.0	84.70	268.10	6,515.6	595.5	-460.8	535.7	6.85	6.25	-2.81
6,968.0	86.50	267.90	6,517.8	594.5	-489.7	564.2	6.24	6.21	-0.69
6,999.0	86.85	269.25	6,519.6	593.8	-520.7	594.8	4.48	1.13	4.34
7"									
7,021.0	87.10	270.20	6,520.7	593.7	-542.6	616.5	4.48	1.13	4.34
7,052.0	87.10	269.50	6,522.3	593.6	-573.6	647.2	2.26	0.00	-2.26
7,082.0	88.20	269.10	6,523.5	593.2	-603.6	676.9	3.90	3.67	-1.33
7,115.0	89.80	269.30	6,524.1	592.8	-636.6	709.5	4.89	4.85	0.61
7,178.0	91.50	270.40	6,523.4	592.6	-699.6	771.9	3.21	2.70	1.75
7,241.0	92.50	271.10	6,521.2	593.4	-762.5	834.4	1.94	1.59	1.11
7,305.0	93.20	271.10	6,518.0	594.6	-826.4	897.9	1.09	1.09	0.00
7,368.0	93.90	269.70	6,514.1	595.1	-889.3	960.3	2.48	1.11	-2.22
7,400.0	94.60	269.00	6,511.8	594.7	-921.2	991.9	3.09	2.19	-2.19
7,432.0	94.40	269.00	6,509.2	594.2	-953.1	1,023.4	0.63	-0.63	0.00
7,463.0	93.10	269.00	6,507.2	593.6	-984.0	1,054.0	4.19	-4.19	0.00
7,495.0	92.50	269.00	6,505.7	593.1	-1,016.0	1,085.6	1.88	-1.88	0.00
7,526.0	91.50	268.80	6,504.6	592.5	-1,047.0	1,116.3	3.29	-3.23	-0.65
7,558.0	90.60	268.40	6,504.0	591.7	-1,078.9	1,147.9	3.08	-2.81	-1.25
7,590.0	89.50	267.50	6,504.0	590.5	-1,110.9	1,179.4	4.44	-3.44	-2.81
7,621.0	89.50	267.50	6,504.2	589.2	-1,141.9	1,209.9	0.00	0.00	0.00
7,653.0	89.90	267.50	6,504.4	587.8	-1,173.9	1,241.4	1.25	1.25	0.00
7,685.0	90.40	267.50	6,504.3	586.4	-1,205.8	1,272.9	1.56	1.56	0.00
7,716.0	90.60	268.40	6,504.0	585.3	-1,236.8	1,303.5	2.97	0.65	2.90
7,748.0	90.70	269.00	6,503.7	584.6	-1,268.8	1,335.1	1.90	0.31	1.88
7,780.0	90.20	268.30	6,503.4	583.8	-1,300.8	1,366.7	2.69	-1.56	-2.19
7,811.0	90.00	268.10	6,503.4	582.8	-1,331.8	1,397.3	0.91	-0.65	-0.65
7,843.0	89.40	268.30	6,503.5	581.8	-1,363.8	1,428.8	1.98	-1.88	0.63
7,874.0	88.50	269.50	6,504.1	581.2	-1,394.7	1,459.5	4.84	-2.90	3.87
7,906.0	88.60	269.80	6,504.9	581.0	-1,426.7	1,491.2	0.99	0.31	0.94
7,938.0	89.40	270.40	6,505.5	581.1	-1,458.7	1,522.9	3.12	2.50	1.88

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<b>Well:</b>	Peterson 14W-234	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	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)
7,969.0	90.00	270.70	6,505.6	581.4	-1,489.7	1,553.6	2.16	1.94	0.97
8,001.0	90.20	270.70	6,505.6	581.8	-1,521.7	1,585.4	0.63	0.63	0.00
8,032.0	89.90	269.80	6,505.6	581.9	-1,552.7	1,616.2	3.06	-0.97	-2.90
8,064.0	90.00	269.00	6,505.6	581.6	-1,584.7	1,647.8	2.52	0.31	-2.50
8,127.0	89.80	269.80	6,505.7	580.9	-1,647.7	1,710.2	1.31	-0.32	1.27
8,190.0	90.70	270.00	6,505.4	580.8	-1,710.7	1,772.6	1.46	1.43	0.32
8,254.0	91.40	269.80	6,504.2	580.7	-1,774.7	1,836.0	1.14	1.09	-0.31
8,317.0	91.30	270.20	6,502.8	580.7	-1,837.7	1,898.4	0.65	-0.16	0.63
8,380.0	90.40	270.90	6,501.8	581.3	-1,900.7	1,961.0	1.81	-1.43	1.11
8,443.0	89.60	269.80	6,501.8	581.7	-1,963.7	2,023.5	2.16	-1.27	-1.75
8,507.0	91.20	269.80	6,501.4	581.5	-2,027.7	2,086.9	2.50	2.50	0.00
8,570.0	90.70	270.00	6,500.3	581.4	-2,090.7	2,149.3	0.85	-0.79	0.32
8,633.0	87.50	269.50	6,501.3	581.1	-2,153.6	2,211.7	5.14	-5.08	-0.79
8,696.0	88.30	269.30	6,503.6	580.4	-2,216.6	2,274.0	1.31	1.27	-0.32
8,759.0	89.60	270.20	6,504.8	580.2	-2,279.6	2,336.4	2.51	2.06	1.43
8,823.0	89.90	271.90	6,505.1	581.3	-2,343.6	2,399.9	2.70	0.47	2.66
8,886.0	89.40	271.80	6,505.5	583.4	-2,406.5	2,462.6	0.81	-0.79	-0.16
8,949.0	90.70	271.60	6,505.4	585.2	-2,469.5	2,525.3	2.09	2.06	-0.32
9,012.0	91.70	271.40	6,504.1	586.9	-2,532.5	2,587.9	1.62	1.59	-0.32
9,075.0	91.80	270.50	6,502.2	587.9	-2,595.4	2,650.5	1.44	0.16	-1.43
9,139.0	91.60	269.10	6,500.3	587.7	-2,659.4	2,713.8	2.21	-0.31	-2.19
9,202.0	90.70	268.30	6,499.0	586.3	-2,722.4	2,776.1	1.91	-1.43	-1.27
9,266.0	90.00	269.10	6,498.6	584.8	-2,786.4	2,839.3	1.66	-1.09	1.25
9,329.0	91.00	269.00	6,498.0	583.8	-2,849.3	2,901.6	1.60	1.59	-0.16
9,393.0	89.70	269.80	6,497.7	583.1	-2,913.3	2,964.9	2.39	-2.03	1.25
9,456.0	89.70	269.30	6,498.0	582.6	-2,976.3	3,027.3	0.79	0.00	-0.79
9,519.0	88.80	270.70	6,498.8	582.6	-3,039.3	3,089.7	2.64	-1.43	2.22
9,583.0	88.50	270.90	6,500.3	583.5	-3,103.3	3,153.3	0.56	-0.47	0.31
9,646.0	88.50	270.40	6,502.0	584.2	-3,166.3	3,215.8	0.79	0.00	-0.79
9,709.0	89.70	271.40	6,503.0	585.2	-3,229.3	3,278.3	2.48	1.90	1.59
9,773.0	91.10	271.40	6,502.5	586.8	-3,293.2	3,342.0	2.19	2.19	0.00
9,836.0	90.70	271.40	6,501.5	588.3	-3,356.2	3,404.6	0.63	-0.63	0.00
9,900.0	89.90	270.20	6,501.2	589.2	-3,420.2	3,468.1	2.25	-1.25	-1.88
9,963.0	90.80	270.00	6,500.8	589.3	-3,483.2	3,530.6	1.46	1.43	-0.32
10,026.0	90.40	269.30	6,500.1	588.9	-3,546.2	3,593.0	1.28	-0.63	-1.11
10,089.0	89.20	268.80	6,500.4	587.9	-3,609.2	3,655.3	2.06	-1.90	-0.79
10,153.0	88.90	268.30	6,501.4	586.3	-3,673.2	3,718.5	0.91	-0.47	-0.78
10,216.0	89.20	267.90	6,502.5	584.2	-3,736.1	3,780.6	0.79	0.48	-0.63
10,279.0	89.30	267.70	6,503.3	581.8	-3,799.1	3,842.6	0.35	0.16	-0.32
10,342.0	89.10	269.10	6,504.2	580.0	-3,862.0	3,904.8	2.24	-0.32	2.22
10,406.0	89.40	269.50	6,505.0	579.2	-3,926.0	3,968.1	0.78	0.47	0.63
10,469.0	89.50	269.10	6,505.6	578.4	-3,989.0	4,030.5	0.65	0.16	-0.63
10,532.0	89.80	270.00	6,506.0	577.9	-4,052.0	4,092.9	1.51	0.48	1.43
10,594.0	90.30	271.10	6,505.9	578.5	-4,114.0	4,154.4	1.95	0.81	1.77
10,657.0	91.30	270.70	6,505.1	579.5	-4,177.0	4,216.9	1.71	1.59	-0.63
10,721.0	92.30	270.70	6,503.1	580.3	-4,240.9	4,280.4	1.56	1.56	0.00
10,784.0	93.60	270.70	6,499.8	581.1	-4,303.9	4,342.9	2.06	2.06	0.00
10,839.6	93.60	270.70	6,496.3	581.8	-4,359.3	4,398.0	0.00	0.00	0.00
<b>BHL 2055'FSL &amp; 500'FWL</b>									
10,840.0	93.60	270.70	6,496.3	581.8	-4,359.7	4,398.4	0.00	0.00	0.00

<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Peterson 14W-234
<b>Project:</b>	SEC.14-T5N-R64W	<b>TVD Reference:</b>	WELL @ 4586.0ft (Ensign Rig - RKB - 15')
<b>Site:</b>	Peterson 14WX-HZ Pad Sec.14-T5N-R64W	<b>MD Reference:</b>	WELL @ 4586.0ft (Ensign Rig - RKB - 15')
<b>Well:</b>	Peterson 14W-234	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	Landmark

Casing Points					
	Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
	6,999.0	6,519.6	7"	7	7-1/2

Checked By: _____	Approved By: _____	Date: _____
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