

Well Name: **Pierson 29-34**

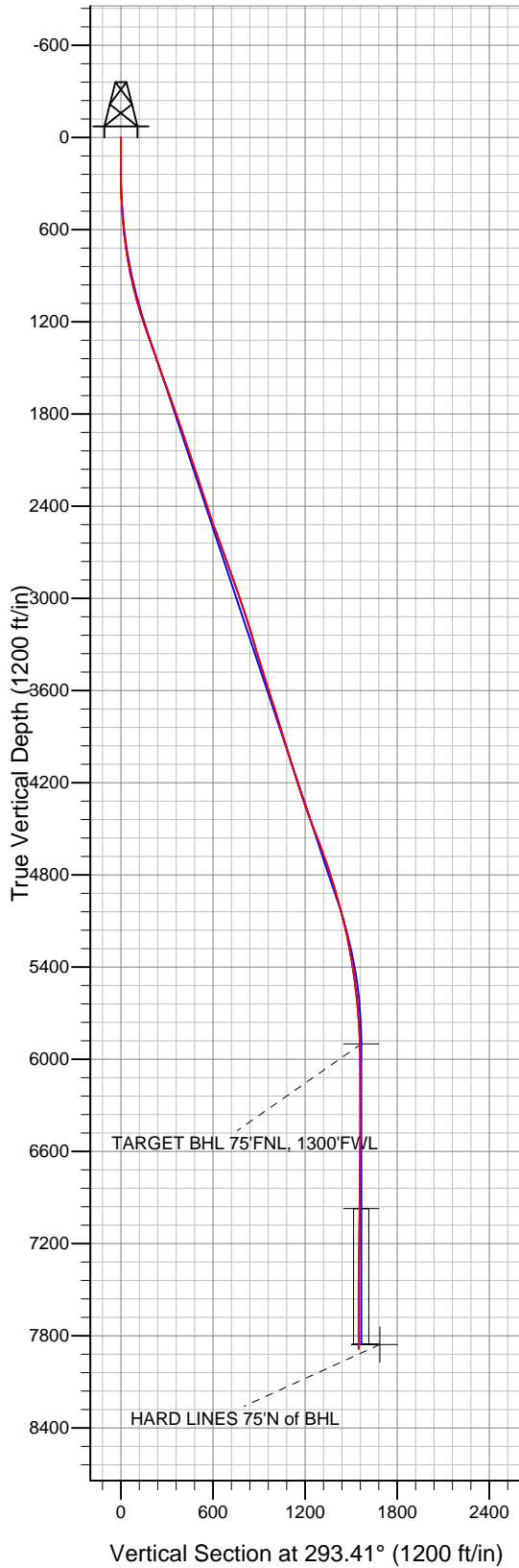
Surface Location: Pierson 21-34 Pad Sec.34-T4N-R66W
 North American Datum 1983 US State Plane 1983 Colorado Northern Zone

Ground Elevation: 4783.0

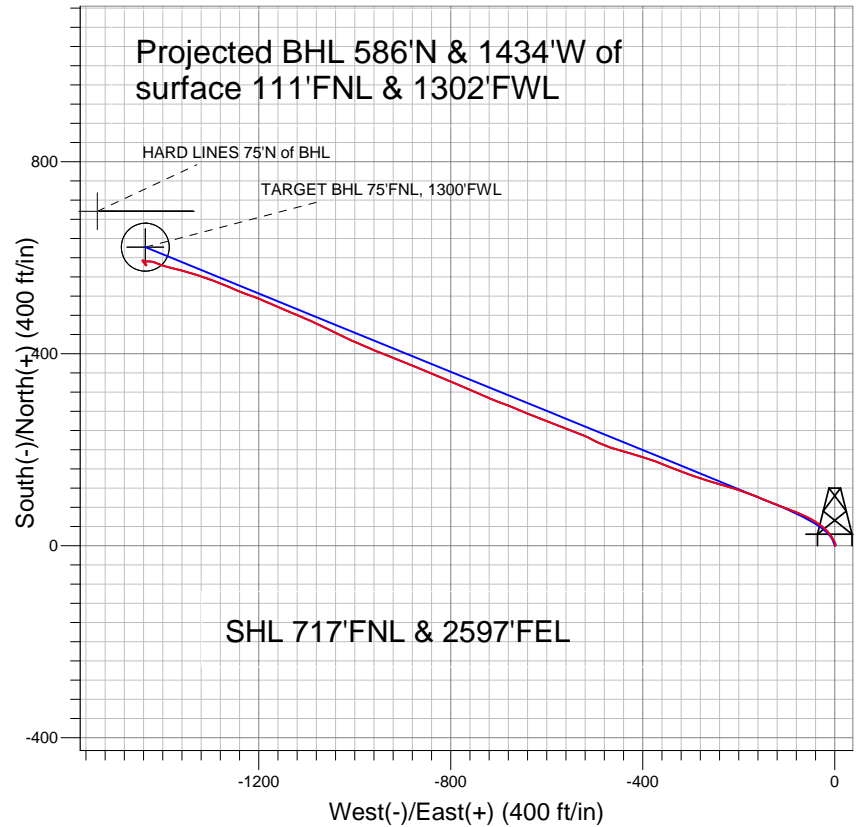
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	1343326.50	3205594.82	40° 16' 24.549 N	104° 45' 47.419 W

Original Well Elev WELL @ 4797.0ft (Original Well Elev)

Slot



Anadarko, Weld County CO



LEGEND

- Pierson 29-34, Wellbore #1, Plan #1 (1-11-11) V0
- Wellbore #1
- Survey #1

Final Survey Plot

Projected Final Survey -
 8125'MD & 7886'TVD @ 1549'VS
 0.4 deg Inc 16.7 deg AZ

Project: SEC.34-T4N-R66W
 Site: Pierson 21-34 Pad Sec.34-T4N-R66W
 Well: Pierson 29-34
 Plan: Wellbore #1



Anadarko, Weld County CO

SEC.34-T4N-R66W

Pierson 21-34 Pad Sec.34-T4N-R66W

Pierson 29-34

Wellbore #1

Survey: Survey #1

Standard Survey Report

06 May, 2011



Company:	Anadarko, Weld County CO	Local Co-ordinate Reference:	Well Pierson 29-34
Project:	SEC.34-T4N-R66W	TVD Reference:	WELL @ 4797.0ft (Original Well Elev)
Site:	Pierson 21-34 Pad Sec.34-T4N-R66W	MD Reference:	WELL @ 4797.0ft (Original Well Elev)
Well:	Pierson 29-34	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

Project	SEC.34-T4N-R66W		
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	Pierson 21-34 Pad Sec.34-T4N-R66W		
Site Position:		Northing:	1,343,327.65 ft
From:	Lat/Long	Easting:	3,205,642.81 ft
Position Uncertainty:	0.0 ft	Slot Radius:	"
		Latitude:	40° 16' 24.557 N
		Longitude:	104° 45' 46.800 W
		Grid Convergence:	0.48 °

Well	Pierson 29-34		
Well Position	+N/-S	0.0 ft	Northing:
	+E/-W	0.0 ft	Easting:
Position Uncertainty		0.0 ft	Wellhead Elevation:
			Latitude:
			Longitude:
			Ground Level:

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	3/30/2011	8.88	66.96	53,088

Design	Wellbore #1			
Audit Notes:				
Version:	1.0	Phase:	ACTUAL	Tie On Depth:
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	293.41

Survey Program	Date 5/6/2011			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
145.0	8,125.0	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	
145.0	0.60	60.10	145.0	0.4	0.7	-0.5	0.41	0.41	0.00	
238.0	0.90	33.80	238.0	1.2	1.5	-0.9	0.48	0.32	-28.28	
331.0	2.90	334.20	330.9	4.0	0.9	0.8	2.76	2.15	-64.09	
452.0	5.00	334.60	451.6	11.5	-2.7	7.1	1.74	1.74	0.33	
594.0	5.90	323.20	593.0	22.9	-9.8	18.1	0.99	0.63	-8.03	
685.0	7.80	315.80	683.4	31.1	-16.9	27.8	2.30	2.09	-8.13	
774.0	9.50	309.50	771.3	40.1	-26.7	40.5	2.18	1.91	-7.08	
863.0	10.90	302.90	858.9	49.3	-39.5	55.8	2.05	1.57	-7.42	
952.0	13.10	297.50	946.0	58.6	-55.5	74.2	2.77	2.47	-6.07	
1,040.0	15.00	292.40	1,031.4	67.5	-74.9	95.5	2.58	2.16	-5.80	
1,129.0	17.20	291.10	1,116.9	76.6	-97.8	120.2	2.50	2.47	-1.46	
1,217.0	18.20	290.20	1,200.7	86.1	-122.8	146.9	1.18	1.14	-1.02	

Company:	Anadarko, Weld County CO	Local Co-ordinate Reference:	Well Pierson 29-34
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Site:	Pierson 21-34 Pad Sec.34-T4N-R66W	MD Reference:	WELL @ 4797.0ft (Original Well Elev)
Well:	Pierson 29-34	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)
1,306.0	19.20	293.10	1,285.0	96.6	-149.3	175.4	1.53	1.12	3.26
1,395.0	20.30	290.70	1,368.8	107.8	-177.2	205.5	1.54	1.24	-2.70
1,483.0	19.10	287.40	1,451.6	117.5	-205.3	235.0	1.86	-1.36	-3.75
1,572.0	19.50	286.80	1,535.6	126.1	-233.4	264.3	0.50	0.45	-0.67
1,661.0	20.50	287.10	1,619.2	135.0	-262.5	294.5	1.13	1.12	0.34
1,749.0	20.10	288.90	1,701.8	144.5	-291.5	324.9	0.84	-0.45	2.05
1,838.0	18.70	290.50	1,785.7	154.4	-319.4	354.4	1.68	-1.57	1.80
1,927.0	18.80	292.50	1,870.0	164.9	-346.0	383.0	0.73	0.11	2.25
2,015.0	18.70	289.80	1,953.3	175.1	-372.3	411.3	0.99	-0.11	-3.07
2,104.0	19.10	287.40	2,037.5	184.3	-399.7	440.0	0.98	0.45	-2.70
2,193.0	18.90	286.70	2,121.7	192.8	-427.4	468.8	0.34	-0.22	-0.79
2,281.0	18.70	286.00	2,205.0	200.8	-454.6	496.9	0.34	-0.23	-0.80
2,370.0	18.40	291.70	2,289.4	209.9	-481.3	525.1	2.06	-0.34	6.40
2,458.0	17.80	298.20	2,373.0	221.4	-506.1	552.4	2.39	-0.68	7.39
2,547.0	18.30	290.40	2,457.7	232.7	-531.2	579.9	2.77	0.56	-8.76
2,636.0	20.00	291.40	2,541.7	243.1	-558.5	609.1	1.95	1.91	1.12
2,724.0	20.60	291.60	2,624.3	254.3	-586.9	639.6	0.69	0.68	0.23
2,813.0	20.10	291.50	2,707.7	265.7	-615.7	670.5	0.56	-0.56	-0.11
2,902.0	19.70	292.60	2,791.4	277.0	-643.7	700.8	0.62	-0.45	1.24
2,990.0	19.70	292.30	2,874.2	288.4	-671.2	730.5	0.11	0.00	-0.34
3,079.0	18.40	289.60	2,958.4	298.8	-698.3	759.5	1.76	-1.46	-3.03
3,168.0	20.00	293.90	3,042.4	309.6	-725.4	788.7	2.40	1.80	4.83
3,256.0	17.50	293.00	3,125.7	320.9	-751.4	817.0	2.86	-2.84	-1.02
3,345.0	16.70	294.00	3,210.8	331.3	-775.4	843.2	0.96	-0.90	1.12
3,433.0	16.40	293.00	3,295.2	341.3	-798.3	868.2	0.47	-0.34	-1.14
3,522.0	17.50	292.40	3,380.3	351.4	-822.3	894.2	1.25	1.24	-0.67
3,611.0	16.90	292.10	3,465.3	361.3	-846.6	920.5	0.68	-0.67	-0.34
3,699.0	17.40	292.60	3,549.4	371.2	-870.6	946.4	0.59	0.57	0.57
3,788.0	17.80	292.70	3,634.2	381.6	-895.5	973.4	0.45	0.45	0.11
3,877.0	17.80	291.50	3,719.0	391.8	-920.7	1,000.6	0.41	0.00	-1.35
3,965.0	17.00	291.10	3,802.9	401.3	-945.2	1,026.9	0.92	-0.91	-0.45
4,054.0	17.50	294.30	3,887.9	411.5	-969.5	1,053.2	1.20	0.56	3.60
4,143.0	16.70	292.10	3,973.0	421.9	-993.6	1,079.4	1.16	-0.90	-2.47
4,231.0	17.70	296.00	4,057.1	432.5	-1,017.3	1,105.4	1.73	1.14	4.43
4,320.0	17.10	296.00	4,142.0	444.1	-1,041.2	1,132.0	0.67	-0.67	0.00
4,409.0	18.50	295.80	4,226.7	456.0	-1,065.7	1,159.2	1.57	1.57	-0.22
4,497.0	18.80	294.40	4,310.1	468.0	-1,091.2	1,187.3	0.61	0.34	-1.59
4,586.0	19.70	292.30	4,394.1	479.6	-1,118.1	1,216.6	1.28	1.01	-2.36
4,674.0	20.40	293.90	4,476.8	491.4	-1,145.9	1,246.8	1.01	0.80	1.82
4,763.0	22.30	293.10	4,559.7	504.3	-1,175.6	1,279.2	2.16	2.13	-0.90
4,858.0	19.40	291.10	4,648.5	517.1	-1,206.9	1,313.0	3.14	-3.05	-2.11
4,940.0	18.80	290.40	4,726.0	526.6	-1,232.0	1,339.8	0.78	-0.73	-0.85
5,029.0	17.10	293.20	4,810.6	536.7	-1,257.5	1,367.2	2.14	-1.91	3.15
5,118.0	16.60	292.40	4,895.8	546.7	-1,281.2	1,393.0	0.62	-0.56	-0.90
5,206.0	16.30	290.40	4,980.2	555.8	-1,304.4	1,417.9	0.73	-0.34	-2.27
5,295.0	14.60	287.40	5,066.0	563.5	-1,326.9	1,441.5	2.11	-1.91	-3.37
5,384.0	12.90	284.20	5,152.4	569.3	-1,347.2	1,462.5	2.09	-1.91	-3.60
5,472.0	11.50	284.50	5,238.4	573.9	-1,365.2	1,480.9	1.59	-1.59	0.34
5,561.0	10.20	285.90	5,325.8	578.3	-1,381.4	1,497.4	1.49	-1.46	1.57
5,649.0	9.00	286.40	5,412.6	582.4	-1,395.5	1,512.0	1.37	-1.36	0.57
5,738.0	7.00	291.80	5,500.7	586.4	-1,407.2	1,524.3	2.40	-2.25	6.07
5,827.0	6.10	289.10	5,589.2	589.9	-1,416.7	1,534.5	1.07	-1.01	-3.03
5,915.0	5.10	278.10	5,676.7	592.0	-1,425.0	1,542.9	1.66	-1.14	-12.50
6,004.0	4.60	266.10	5,765.4	592.3	-1,432.5	1,549.9	1.27	-0.56	-13.48

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Survey

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6,093.0	2.40	274.40	5,854.3	592.2	-1,437.9	1,554.8	2.53	-2.47	9.33
6,138.9	1.62	288.37	5,900.2	592.5	-1,439.5	1,556.4	2.00	-1.71	30.41
TARGET BHL 75'FNL, 1300'FWL									
6,181.0	1.10	317.20	5,942.2	593.0	-1,440.3	1,557.3	2.00	-1.23	68.54
6,270.0	0.60	308.80	6,031.2	593.9	-1,441.2	1,558.6	0.58	-0.56	-9.44
6,359.0	0.30	295.10	6,120.2	594.3	-1,441.8	1,559.2	0.36	-0.34	-15.39
6,492.0	0.10	191.10	6,253.2	594.3	-1,442.1	1,559.6	0.25	-0.15	-78.20
6,625.0	0.40	174.40	6,386.2	593.8	-1,442.1	1,559.3	0.23	0.23	-12.56
6,757.0	0.60	158.30	6,518.2	592.7	-1,441.8	1,558.6	0.18	0.15	-12.20
6,890.0	0.50	167.80	6,651.2	591.5	-1,441.4	1,557.8	0.10	-0.08	7.14
7,023.0	0.80	67.60	6,784.2	591.2	-1,440.5	1,556.8	0.76	0.23	-75.34
7,156.0	0.70	171.10	6,917.2	590.8	-1,439.5	1,555.7	0.89	-0.08	77.82
7,210.5	0.75	154.82	6,971.6	590.1	-1,439.3	1,555.3	0.39	0.09	-29.89
TARGET CIRCLE 75'N & 1300'FWL									
7,289.0	0.90	136.50	7,050.2	589.2	-1,438.6	1,554.3	0.39	0.20	-23.33
7,422.0	1.10	150.10	7,183.1	587.4	-1,437.3	1,552.3	0.23	0.15	10.23
7,555.0	1.00	145.20	7,316.1	585.3	-1,436.0	1,550.3	0.10	-0.08	-3.68
7,688.0	0.20	153.00	7,449.1	584.2	-1,435.2	1,549.2	0.60	-0.60	5.86
7,821.0	0.30	28.70	7,582.1	584.2	-1,434.9	1,548.9	0.33	0.08	-93.46
7,954.0	0.30	5.90	7,715.1	584.9	-1,434.7	1,549.0	0.09	0.00	-17.14
8,080.0	0.40	16.70	7,841.1	585.7	-1,434.6	1,549.2	0.09	0.08	8.57
HARD LINES 75'N of BHL									
8,125.0	0.40	16.70	7,886.1	586.0	-1,434.5	1,549.2	0.00	0.00	0.00

Checked By: _____	Approved By: _____	Date: _____
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