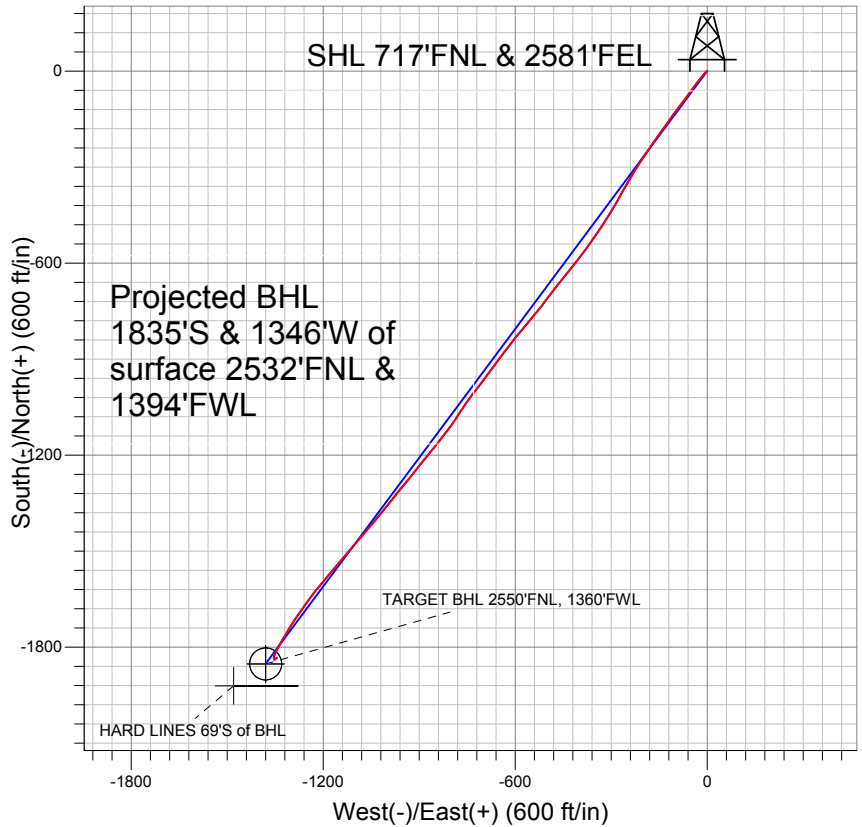


Anadarko, Weld County CO



LEGEND

- Pierson 22-34, Wellbore #1, Plan #1 (1-11-11) V0
- Wellbore #1
- Survey #1

Final Survey Plot

Projected Final Survey -
 8355'MD & 7857'TVD @ 2275'VS
 0.3 deg Inc 231.2 deg AZ

Project: SEC.34-T4N-R66W
 Site: Pierson 21-34 Pad Sec.34-T4N-R66W
 Well: Pierson 22-34
 Plan: Wellbore #1



Directional

Anadarko, Weld County CO

SEC.34-T4N-R66W

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

Pierson 22-34

Wellbore #1

Survey: Survey #1

Standard Survey Report

01 April, 2011

Company:	Anadarko, Weld County CO	Local Co-ordinate Reference:	Well Pierson 22-34
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 22-34	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 22-34		
Well Position	+N/-S	0.0 ft	Northing:
	+E/-W	0.0 ft	Easting:
Position Uncertainty	0.0 ft	Wellhead Elevation:	ft
		Latitude:	40° 16' 24.549 N
		Longitude:	104° 45' 47.214 W
		Ground Level:	4,783.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	1/11/2011	8.91	66.96	53,110

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	216.68	

Survey Program	Date	4/1/2011			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
114.0	8,355.0	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	
114.0	0.40	32.80	114.0	0.3	0.2	-0.4	0.35	0.35	0.00	
207.0	1.30	228.50	207.0	-0.1	-0.4	0.3	1.82	0.97	-176.67	
300.0	4.30	227.90	299.9	-3.1	-3.8	4.8	3.23	3.23	-0.65	
408.0	6.30	218.60	407.4	-10.5	-10.5	14.7	2.01	1.85	-8.61	
497.0	7.60	219.30	495.7	-18.8	-17.3	25.4	1.46	1.46	0.79	
597.0	9.20	219.60	594.7	-30.1	-26.5	40.0	1.60	1.60	0.30	
688.0	11.70	216.90	684.2	-43.1	-36.7	56.5	2.80	2.75	-2.97	
776.0	13.40	216.10	770.1	-58.5	-48.1	75.6	1.94	1.93	-0.91	
865.0	15.10	215.90	856.3	-76.2	-61.0	97.5	1.91	1.91	-0.22	
954.0	16.80	216.90	941.9	-95.9	-75.5	122.0	1.93	1.91	1.12	
1,042.0	19.60	217.60	1,025.5	-117.8	-92.1	149.5	3.19	3.18	0.80	
1,131.0	22.20	215.30	1,108.6	-143.3	-111.0	181.2	3.06	2.92	-2.58	

Company:	Anadarko, Weld County CO	Local Co-ordinate Reference:	Well Pierson 22-34
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 22-34	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)
1,220.0	24.20	215.80	1,190.4	-171.8	-131.3	216.3	2.26	2.25	0.56
1,308.0	26.30	215.20	1,270.0	-202.4	-153.1	253.8	2.40	2.39	-0.68
1,397.0	27.70	214.70	1,349.3	-235.5	-176.3	294.2	1.59	1.57	-0.56
1,486.0	27.70	214.60	1,428.1	-269.5	-199.8	335.5	0.05	0.00	-0.11
1,574.0	27.10	212.00	1,506.2	-303.4	-222.0	375.9	1.52	-0.68	-2.95
1,663.0	27.80	209.30	1,585.2	-338.7	-242.9	416.7	1.60	0.79	-3.03
1,751.0	27.60	209.30	1,663.1	-374.3	-263.0	457.3	0.23	-0.23	0.00
1,840.0	26.40	209.50	1,742.4	-409.5	-282.8	497.4	1.35	-1.35	0.22
1,929.0	25.90	211.40	1,822.3	-443.4	-302.7	536.4	1.10	-0.56	2.13
2,017.0	26.10	213.50	1,901.4	-475.9	-323.4	574.8	1.07	0.23	2.39
2,106.0	26.60	215.20	1,981.2	-508.5	-345.6	614.3	1.02	0.56	1.91
2,195.0	27.10	214.70	2,060.6	-541.5	-368.7	654.5	0.62	0.56	-0.56
2,283.0	26.90	216.90	2,139.0	-573.9	-392.0	694.4	1.16	-0.23	2.50
2,372.0	25.80	218.50	2,218.7	-605.1	-416.2	733.9	1.47	-1.24	1.80
2,461.0	26.20	219.30	2,298.7	-635.5	-440.7	772.9	0.60	0.45	0.90
2,549.0	28.00	220.10	2,377.1	-666.3	-466.3	812.9	2.09	2.05	0.91
2,638.0	27.50	214.40	2,455.8	-699.3	-491.4	854.3	3.03	-0.56	-6.40
2,726.0	27.90	219.20	2,533.8	-732.0	-515.9	895.2	2.58	0.45	5.45
2,815.0	30.60	219.30	2,611.4	-765.7	-543.4	938.6	3.03	3.03	0.11
2,904.0	32.00	219.50	2,687.4	-801.4	-572.7	984.8	1.58	1.57	0.22
2,992.0	31.30	218.90	2,762.4	-837.2	-601.9	1,030.9	0.87	-0.80	-0.68
3,081.0	31.10	217.70	2,838.5	-873.3	-630.5	1,077.0	0.73	-0.22	-1.35
3,170.0	27.90	216.30	2,915.9	-908.3	-656.9	1,120.8	3.68	-3.60	-1.57
3,258.0	29.50	215.70	2,993.1	-942.5	-681.7	1,163.1	1.85	1.82	-0.68
3,347.0	28.90	218.70	3,070.8	-977.1	-707.9	1,206.5	1.78	-0.67	3.37
3,436.0	26.80	216.60	3,149.5	-1,010.0	-733.4	1,248.1	2.60	-2.36	-2.36
3,524.0	24.60	215.30	3,228.8	-1,040.9	-755.8	1,286.2	2.58	-2.50	-1.48
3,613.0	24.30	211.90	3,309.8	-1,071.5	-776.2	1,323.0	1.62	-0.34	-3.82
3,702.0	25.00	214.80	3,390.7	-1,102.5	-796.6	1,360.0	1.57	0.79	3.26
3,790.0	25.60	218.60	3,470.3	-1,132.7	-819.0	1,397.6	1.97	0.68	4.32
3,879.0	25.70	218.50	3,550.5	-1,162.8	-843.0	1,436.1	0.12	0.11	-0.11
3,967.0	24.80	219.80	3,630.1	-1,191.9	-866.7	1,473.6	1.20	-1.02	1.48
4,056.0	24.10	217.10	3,711.1	-1,220.7	-889.6	1,510.4	1.48	-0.79	-3.03
4,145.0	25.80	218.30	3,791.8	-1,250.4	-912.6	1,548.0	1.99	1.91	1.35
4,233.0	26.60	220.20	3,870.8	-1,280.5	-937.2	1,586.8	1.32	0.91	2.16
4,322.0	26.10	219.60	3,950.5	-1,310.8	-962.5	1,626.2	0.64	-0.56	-0.67
4,411.0	25.00	217.70	4,030.8	-1,340.8	-986.5	1,664.6	1.54	-1.24	-2.13
4,499.0	23.30	218.60	4,111.1	-1,369.1	-1,008.8	1,700.6	1.98	-1.93	1.02
4,588.0	24.20	219.10	4,192.6	-1,397.0	-1,031.2	1,736.4	1.04	1.01	0.56
4,677.0	24.70	221.40	4,273.6	-1,425.1	-1,055.0	1,773.1	1.21	0.56	2.58
4,765.0	23.80	220.10	4,353.8	-1,452.5	-1,078.6	1,809.2	1.19	-1.02	-1.48
4,854.0	25.70	220.60	4,434.7	-1,480.9	-1,102.8	1,846.4	2.15	2.13	0.56
4,942.0	27.50	220.80	4,513.3	-1,510.7	-1,128.5	1,885.7	2.05	2.05	0.23
5,029.0	26.90	220.20	4,590.7	-1,541.0	-1,154.3	1,925.4	0.76	-0.69	-0.69
5,118.0	26.10	219.60	4,670.4	-1,571.4	-1,179.8	1,965.0	0.95	-0.90	-0.67
5,206.0	24.80	220.90	4,749.8	-1,600.3	-1,204.2	2,002.7	1.61	-1.48	1.48
5,295.0	23.80	218.40	4,830.9	-1,628.5	-1,227.6	2,039.3	1.61	-1.12	-2.81
5,384.0	22.40	214.80	4,912.8	-1,656.5	-1,248.4	2,074.2	2.23	-1.57	-4.04
5,472.0	21.10	215.60	4,994.5	-1,683.1	-1,267.2	2,106.8	1.52	-1.48	0.91
5,561.0	19.30	214.00	5,078.1	-1,708.4	-1,284.7	2,137.5	2.12	-2.02	-1.80
5,650.0	16.60	212.40	5,162.7	-1,731.3	-1,299.8	2,164.9	3.08	-3.03	-1.80
5,738.0	14.00	208.60	5,247.6	-1,751.3	-1,311.6	2,188.0	3.17	-2.95	-4.32
5,827.0	13.10	212.10	5,334.1	-1,769.3	-1,322.1	2,208.7	1.37	-1.01	3.93
5,915.0	10.90	210.00	5,420.2	-1,784.9	-1,331.6	2,226.9	2.55	-2.50	-2.39

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Well:	Pierson 22-34	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)
6,004.0	9.10	210.10	5,507.8	-1,798.3	-1,339.3	2,242.2	2.02	-2.02	0.11
6,093.0	7.40	205.40	5,595.9	-1,809.6	-1,345.3	2,254.9	2.05	-1.91	-5.28
6,181.0	6.00	203.60	5,683.3	-1,818.9	-1,349.6	2,264.9	1.61	-1.59	-2.05
6,270.0	4.50	201.10	5,771.9	-1,826.4	-1,352.7	2,272.8	1.70	-1.69	-2.81
6,359.0	2.50	190.50	5,860.8	-1,831.6	-1,354.3	2,277.9	2.35	-2.25	-11.91
6,447.0	2.10	172.80	5,948.7	-1,835.1	-1,354.5	2,280.8	0.92	-0.45	-20.11
6,580.0	0.60	169.00	6,081.7	-1,838.2	-1,354.0	2,283.0	1.13	-1.13	-2.86
6,698.3	0.29	103.91	6,200.0	-1,838.8	-1,353.6	2,283.3	0.46	-0.26	-55.01
TARGET BHL 2550'FNL, 1360'FWL									
6,713.0	0.30	90.90	6,214.7	-1,838.9	-1,353.5	2,283.3	0.46	0.08	-88.60
6,846.0	0.50	106.40	6,347.7	-1,839.0	-1,352.6	2,282.9	0.17	0.15	11.65
6,979.0	0.70	84.10	6,480.6	-1,839.1	-1,351.3	2,282.1	0.23	0.15	-16.77
7,112.0	0.30	68.50	6,613.6	-1,838.9	-1,350.1	2,281.3	0.31	-0.30	-11.73
7,245.0	0.40	18.30	6,746.6	-1,838.3	-1,349.7	2,280.5	0.23	0.08	-37.74
7,378.0	0.60	22.00	6,879.6	-1,837.2	-1,349.3	2,279.4	0.15	0.15	2.78
7,459.1	0.46	27.68	6,960.8	-1,836.6	-1,349.0	2,278.7	0.19	-0.18	7.00
TARGET CIRCLE 2550'FNL & 1360'FWL									
7,555.0	0.30	41.20	7,056.6	-1,836.0	-1,348.6	2,278.1	0.19	-0.16	14.11
7,688.0	0.80	63.40	7,189.6	-1,835.4	-1,347.6	2,276.9	0.40	0.38	16.69
7,821.0	0.20	21.70	7,322.6	-1,834.7	-1,346.6	2,275.8	0.50	-0.45	-31.35
7,954.0	0.60	55.60	7,455.6	-1,834.1	-1,346.0	2,274.9	0.34	0.30	25.49
8,087.0	0.30	128.00	7,588.6	-1,833.9	-1,345.1	2,274.3	0.44	-0.23	54.44
8,220.0	0.30	231.20	7,721.6	-1,834.4	-1,345.1	2,274.6	0.35	0.00	77.59
8,350.2	0.30	231.20	7,851.8	-1,834.8	-1,345.7	2,275.3	0.00	0.00	0.00
HARD LINES 69'S of BHL									
8,355.0	0.30	231.20	7,856.6	-1,834.8	-1,345.7	2,275.3	0.00	0.00	0.00

Checked By: _____	Approved By: _____	Date: _____
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