

Well Name: **Badding 20-26**

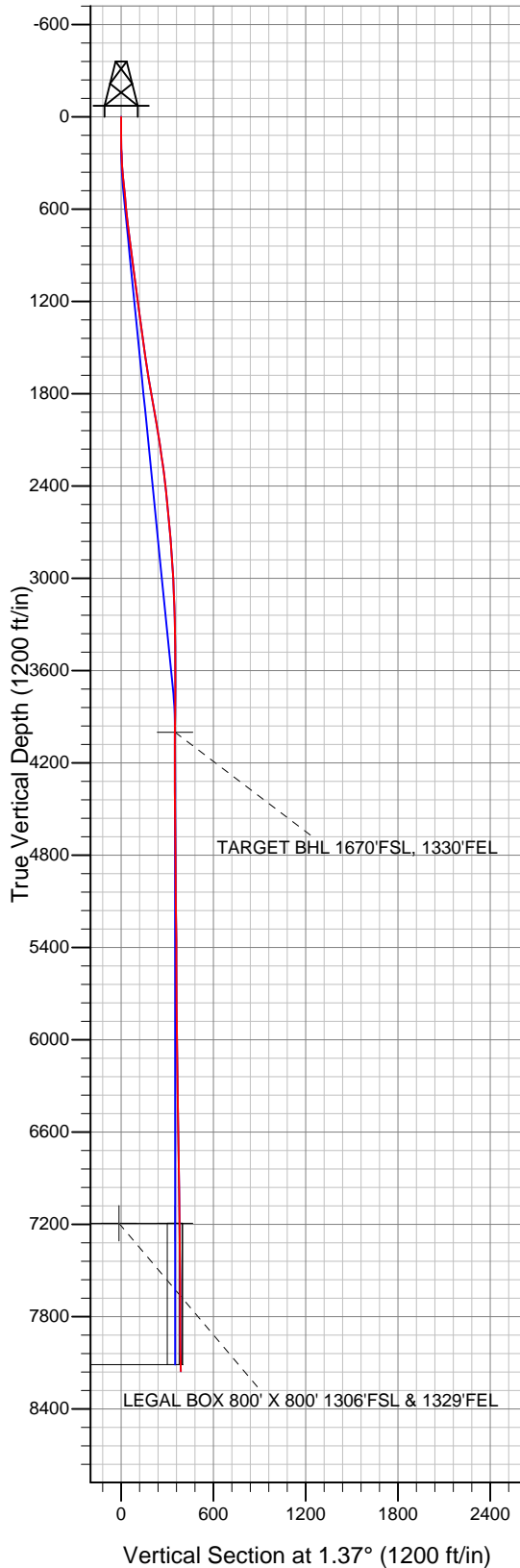
Surface Location: Badding 20-26 Pad Sec.26-T2N-R66W  
 North American Datum 1983 US State Plane 1983 Colorado Northern Zone

Ground Elevation: 5088.0

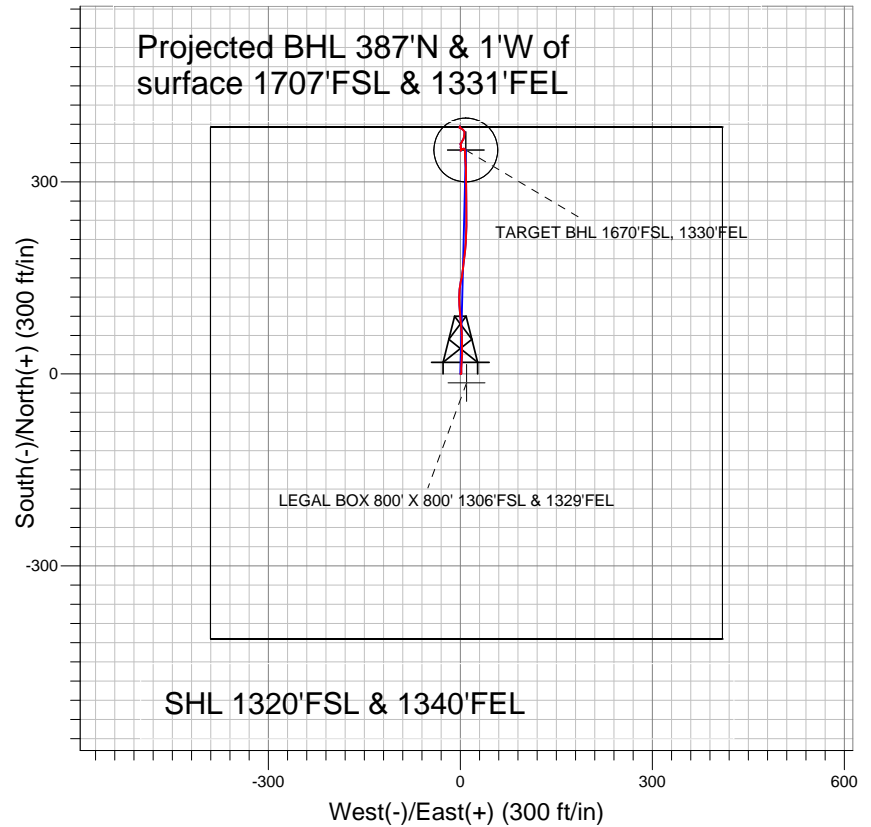
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	1282247.27	3212676.00	40.105658	-104.739672

Original Well Elev WELL @ 5102.0ft (Original Well Elev)

Slot



## Anadarko, Weld County CO



### LEGEND

- ◆ Badding 20-26, Wellbore #1, Plan #1 (3-17-11) V0
- Wellbore #1
- Survey #1

## Final Survey Plot

Projected Final Survey -  
 8177'MD & 8154'TVD @ 387'VS  
 0.9 deg Inc 3.76 deg AZ

Project: SEC.26-T2N-R66W  
 Site: Badding 20-26 Pad Sec.26-T2N-R66W  
 Well: Badding 20-26  
 Plan: Wellbore #1



## **Directional**

### **Anadarko, Weld County CO**

**SEC.26-T2N-R66W**

**Badding 20-26 Pad Sec.26-T2N-R66W**

**Badding 20-26**

**Wellbore #1**

**Survey: Survey #1**

### **Standard Survey Report**

**18 May, 2011**

<b>Company:</b>	Anadarko, Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Badding 20-26
<b>Project:</b>	SEC.26-T2N-R66W	<b>TVD Reference:</b>	WELL @ 5102.0ft (Original Well Elev)
<b>Site:</b>	Badding 20-26 Pad Sec.26-T2N-R66W	<b>MD Reference:</b>	WELL @ 5102.0ft (Original Well Elev)
<b>Well:</b>	Badding 20-26	<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.26-T2N-R66W, Weld County, Colorado		
<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

<b>Site</b>	Badding 20-26 Pad Sec.26-T2N-R66W		
<b>Site Position:</b>		<b>Northing:</b>	1,282,247.28 ft
<b>From:</b>	Lat/Long	<b>Easting:</b>	3,212,676.00 ft
<b>Position Uncertainty:</b>	0.0 ft	<b>Slot Radius:</b>	"
		<b>Latitude:</b>	40.105658
		<b>Longitude:</b>	-104.739672
		<b>Grid Convergence:</b>	0.49 °

<b>Well</b>	Badding 20-26		
<b>Well Position</b>	<b>+N/-S</b>	0.0 ft	<b>Northing:</b> 1,282,247.27 ft
	<b>+E/-W</b>	0.0 ft	<b>Easting:</b> 3,212,676.00 ft
<b>Position Uncertainty</b>	0.0 ft	<b>Wellhead Elevation:</b>	ft
		<b>Latitude:</b>	40.105658
		<b>Longitude:</b>	-104.739672
		<b>Ground Level:</b>	5,088.0 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	3/17/2011	8.86	66.82	53,003

<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	1.37

<b>Survey Program</b>	<b>Date</b> 5/18/2011			
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>
118.0	8,177.0	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	
118.0	0.70	112.00	118.0	-0.3	0.7	-0.3	0.59	0.59	0.00	
210.0	1.60	5.60	210.0	0.8	1.3	0.8	2.09	0.98	-115.65	
303.0	3.60	359.50	302.9	5.0	1.4	5.0	2.17	2.15	-6.56	
413.0	5.60	1.70	412.5	13.8	1.5	13.9	1.82	1.82	2.00	
501.0	5.50	6.00	500.1	22.3	2.1	22.4	0.49	-0.11	4.89	
590.0	6.20	0.40	588.6	31.4	2.6	31.4	1.01	0.79	-6.29	
679.0	6.20	358.40	677.1	41.0	2.5	41.0	0.24	0.00	-2.25	
767.0	7.40	358.40	764.5	51.4	2.2	51.4	1.36	1.36	0.00	
856.0	7.10	356.90	852.8	62.6	1.7	62.6	0.40	-0.34	-1.69	
945.0	7.10	357.70	941.1	73.6	1.2	73.6	0.11	0.00	0.90	
1,033.0	7.70	354.60	1,028.4	84.9	0.5	84.9	0.82	0.68	-3.52	
1,094.0	7.70	354.00	1,088.8	93.0	-0.4	93.0	0.13	0.00	-0.98	

<b>Company:</b>	Anadarko, Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Badding 20-26
<b>Project:</b>	SEC.26-T2N-R66W	<b>TVD Reference:</b>	WELL @ 5102.0ft (Original Well Elev)
<b>Site:</b>	Badding 20-26 Pad Sec.26-T2N-R66W	<b>MD Reference:</b>	WELL @ 5102.0ft (Original Well Elev)
<b>Well:</b>	Badding 20-26	<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)
1,169.0	7.50	354.80	1,163.2	102.9	-1.3	102.8	0.30	-0.27	1.07
1,257.0	8.00	358.00	1,250.4	114.7	-2.1	114.7	0.75	0.57	3.64
1,346.0	7.70	4.40	1,338.5	126.9	-1.8	126.8	1.04	-0.34	7.19
1,435.0	8.10	10.70	1,426.7	139.0	-0.2	138.9	1.07	0.45	7.08
1,523.0	7.40	9.80	1,513.9	150.7	1.9	150.7	0.81	-0.80	-1.02
1,612.0	9.10	7.40	1,602.0	163.3	3.8	163.3	1.95	1.91	-2.70
1,699.0	9.10	6.80	1,687.9	176.9	5.5	177.0	0.11	0.00	-0.69
1,787.0	9.40	5.90	1,774.7	191.0	7.1	191.1	0.38	0.34	-1.02
1,876.0	10.20	2.80	1,862.4	206.1	8.2	206.2	1.08	0.90	-3.48
1,965.0	9.60	3.90	1,950.1	221.4	9.1	221.5	0.71	-0.67	1.24
2,051.0	9.60	0.30	2,034.9	235.7	9.6	235.9	0.70	0.00	-4.19
2,140.0	8.80	359.50	2,122.8	249.9	9.6	250.1	0.91	-0.90	-0.90
2,228.0	8.30	357.80	2,209.8	263.0	9.3	263.2	0.64	-0.57	-1.93
2,317.0	7.30	0.40	2,297.9	275.1	9.1	275.2	1.19	-1.12	2.92
2,406.0	6.60	358.80	2,386.3	285.9	9.0	286.0	0.82	-0.79	-1.80
2,494.0	6.20	358.80	2,473.7	295.7	8.8	295.8	0.45	-0.45	0.00
2,583.0	5.10	358.00	2,562.3	304.4	8.6	304.5	1.24	-1.24	-0.90
2,672.0	5.00	1.10	2,651.0	312.2	8.5	312.4	0.33	-0.11	3.48
2,760.0	4.60	1.00	2,738.7	319.6	8.6	319.7	0.45	-0.45	-0.11
2,847.0	3.90	356.00	2,825.4	326.1	8.5	326.2	0.91	-0.80	-5.75
2,936.0	4.10	352.70	2,914.2	332.2	7.9	332.3	0.34	0.22	-3.71
3,024.0	2.90	358.40	3,002.0	337.6	7.4	337.7	1.42	-1.36	6.48
3,113.0	2.60	359.30	3,090.9	341.8	7.3	341.9	0.34	-0.34	1.01
3,201.0	1.90	358.80	3,178.9	345.3	7.3	345.4	0.80	-0.80	-0.57
3,290.0	1.80	355.10	3,267.8	348.2	7.1	348.2	0.17	-0.11	-4.16
3,379.0	0.50	358.90	3,356.8	349.9	7.0	350.0	1.46	-1.46	4.27
3,512.0	0.60	318.90	3,489.8	351.0	6.5	351.1	0.29	0.08	-30.08
3,645.0	0.60	283.40	3,622.8	351.7	5.4	351.8	0.28	0.00	-26.69
3,778.0	0.80	244.30	3,755.8	351.5	3.9	351.5	0.38	0.15	-29.40
3,911.0	0.80	244.10	3,888.8	350.7	2.2	350.6	0.00	0.00	-0.15
4,022.2	0.79	219.15	3,999.9	349.8	1.0	349.7	0.31	-0.01	-22.44
<b>TARGET BHL 1670'FSL, 1330'FEL</b>									
4,044.0	0.80	214.40	4,021.8	349.5	0.8	349.4	0.31	0.07	-21.76
4,177.0	0.09	195.90	4,154.7	348.6	0.3	348.6	0.54	-0.53	-13.91
4,309.0	0.20	48.70	4,286.7	348.7	0.4	348.6	0.21	0.08	-111.52
4,442.0	0.00	15.10	4,419.7	348.9	0.6	348.8	0.15	-0.15	0.00
4,575.0	0.90	34.90	4,552.7	349.7	1.2	349.6	0.68	0.68	0.00
4,708.0	1.00	338.70	4,685.7	351.6	1.4	351.6	0.68	0.08	-42.26
4,841.0	0.50	331.10	4,818.7	353.2	0.7	353.2	0.38	-0.38	-5.71
4,977.0	0.20	310.90	4,954.7	353.9	0.2	353.8	0.24	-0.22	-14.85
5,110.0	0.90	35.00	5,087.7	354.9	0.6	354.8	0.68	0.53	63.23
5,243.0	1.00	337.10	5,220.7	356.8	0.8	356.8	0.69	0.08	-43.53
5,377.0	0.30	345.70	5,354.7	358.3	0.2	358.2	0.53	-0.52	6.42
5,510.0	0.40	348.70	5,487.7	359.1	0.1	359.0	0.08	0.08	2.26
5,644.0	0.30	35.20	5,621.7	359.8	0.2	359.7	0.22	-0.07	34.70
5,777.0	0.70	51.50	5,754.7	360.6	1.0	360.5	0.32	0.30	12.26
5,909.0	1.00	28.30	5,886.7	362.1	2.2	362.1	0.34	0.23	-17.58
6,042.0	0.40	352.60	6,019.6	363.6	2.7	363.5	0.54	-0.45	-26.84
6,175.0	0.50	65.10	6,152.6	364.3	3.2	364.3	0.40	0.08	54.51
6,308.0	0.70	29.90	6,285.6	365.2	4.1	365.2	0.31	0.15	-26.47
6,441.0	0.70	12.40	6,418.6	366.7	4.7	366.7	0.16	0.00	-13.16
6,574.0	1.40	14.90	6,551.6	369.1	5.3	369.1	0.53	0.53	1.88
6,707.0	0.70	0.16	6,684.6	371.5	5.7	371.5	0.56	-0.53	-11.08
6,840.0	1.20	11.60	6,817.6	373.7	6.0	373.7	0.40	0.38	8.60

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<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)
6,973.0	1.10	7.80	6,950.5	376.3	6.4	376.3	0.09	-0.08	-2.86
7,106.0	0.60	338.70	7,083.5	378.2	6.3	378.2	0.49	-0.38	-21.88
7,209.6	0.99	329.60	7,187.1	379.5	5.7	379.5	0.39	0.37	-8.78
<b>LEGAL BOX 800' X 800' 1306'FSL &amp; 1329'FEL</b>									
7,214.1	1.00	329.37	7,191.6	379.5	5.6	379.6	0.39	0.38	-5.22
<b>TARGET CIRCLE 1670'FSL &amp; 1330'FEL</b>									
7,239.0	1.10	328.20	7,216.5	379.9	5.4	380.0	0.39	0.38	-4.69
7,372.0	0.80	303.40	7,349.5	381.5	4.0	381.5	0.38	-0.23	-18.65
7,505.0	1.10	307.70	7,482.5	382.8	2.2	382.8	0.23	0.23	3.23
7,638.0	0.50	296.10	7,615.5	383.9	0.6	383.8	0.46	-0.45	-8.72
7,771.0	0.40	252.90	7,748.5	384.0	-0.3	383.9	0.26	-0.08	-32.48
7,904.0	0.50	315.50	7,881.4	384.3	-1.2	384.1	0.36	0.08	47.07
8,037.0	0.50	31.00	8,014.4	385.2	-1.3	385.0	0.46	0.00	56.77
8,125.0	0.90	3.76	8,102.4	386.2	-1.0	386.1	0.58	0.45	-30.95
8,177.0	0.90	3.76	8,154.4	387.0	-1.0	386.9	0.00	0.00	0.00

Checked By: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: \_\_\_\_\_