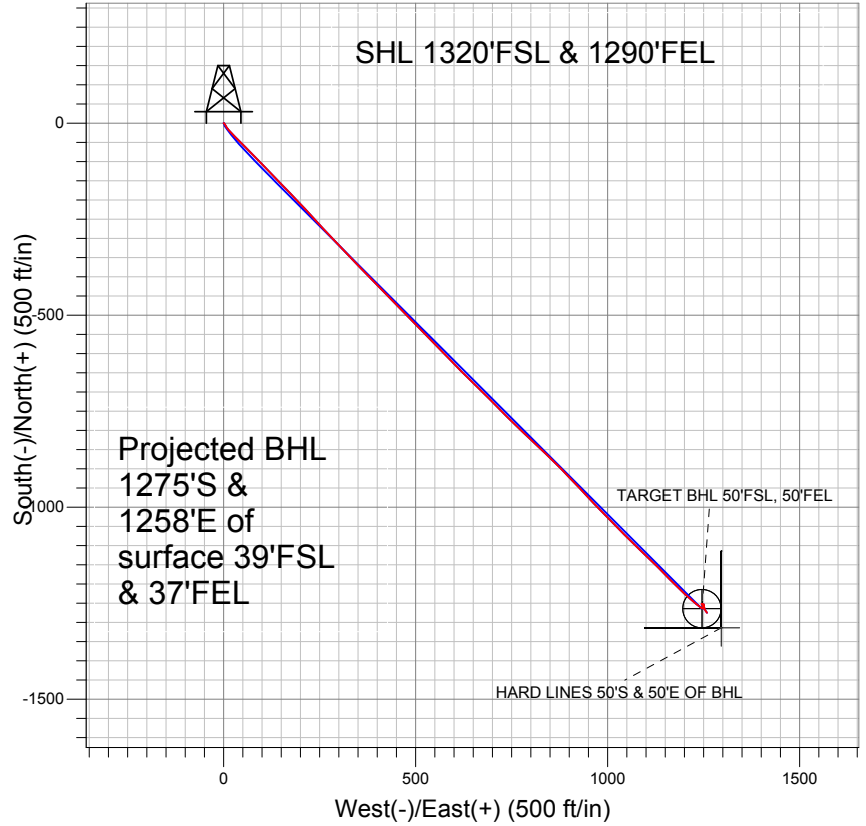


**Anadarko, Weld County CO**



LEGEND

- ◆ Badding 38-26, Wellbore #1, Plan #1 (3-17-11) V0
- Wellbore #1
- Survey #1

**Final Survey Plot**

Projected Final Survey -  
8468'MD & 8141'TVD @ 1792'VS  
0.3 deg Inc 148.4 deg AZ

Project: SEC.26-T2N-R66W  
Site: Badding 20-26 Pad Sec.26-T2N-R66W  
Well: Badding 38-26  
Plan: Wellbore #1



## Directional

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

**SEC.26-T2N-R66W**

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

**Badding 38-26**

**Wellbore #1**

**Survey: Survey #1**

### **Standard Survey Report**

**29 April, 2011**



<b>Company:</b>	Anadarko, Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Badding 38-26
<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 38-26	<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>Latitude:</b>	40.105658
<b>From:</b>	Lat/Long	<b>Easting:</b>	3,212,676.00 ft	<b>Longitude:</b>	-104.739672
<b>Position Uncertainty:</b>	0.0 ft	<b>Slot Radius:</b>	"	<b>Grid Convergence:</b>	0.49 °

<b>Well</b>	Badding 38-26					
<b>Well Position</b>	<b>+N/-S</b>	0.0 ft	<b>Northing:</b>	1,282,247.68 ft	<b>Latitude:</b>	40.105658
	<b>+E/-W</b>	0.0 ft	<b>Easting:</b>	3,212,725.79 ft	<b>Longitude:</b>	-104.739494
<b>Position Uncertainty</b>		0.0 ft	<b>Wellhead Elevation:</b>	ft	<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	135.44	

<b>Survey Program</b>	<b>Date</b>	4/29/2011			
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
118.0	8,468.0	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	118.40	118.0	-0.3	0.6	0.7	0.59	0.59	0.00	
210.0	2.60	149.40	210.0	-2.4	2.2	3.3	2.21	2.07	33.70	
303.0	4.70	149.40	302.8	-7.5	5.2	9.0	2.26	2.26	0.00	
413.0	6.80	141.40	412.2	-16.5	11.6	19.8	2.04	1.91	-7.27	
501.0	8.50	137.20	499.4	-25.3	19.2	31.5	2.03	1.93	-4.77	
590.0	10.30	134.60	587.2	-35.7	29.4	46.1	2.08	2.02	-2.92	
679.0	12.20	134.90	674.5	-48.0	41.7	63.4	2.14	2.13	0.34	
767.0	14.10	135.80	760.2	-62.2	55.8	83.4	2.17	2.16	1.02	
856.0	16.00	134.70	846.1	-78.6	72.0	106.6	2.16	2.13	-1.24	
945.0	17.90	136.20	931.3	-97.1	90.2	132.5	2.19	2.13	1.69	
1,033.0	19.90	136.20	1,014.5	-117.7	109.9	161.0	2.27	2.27	0.00	
1,122.0	20.40	136.10	1,098.1	-139.8	131.2	191.7	0.56	0.56	-0.11	

<b>Company:</b>	Anadarko, Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Badding 38-26
<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 38-26	<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)	
1,203.0	19.90	135.90	1,174.1	-159.9	150.6	219.6	0.62	-0.62	-0.25	
1,292.0	19.10	135.50	1,258.0	-181.1	171.3	249.3	0.91	-0.90	-0.45	
1,380.0	19.50	136.40	1,341.1	-202.0	191.5	278.3	0.57	0.45	1.02	
1,467.0	20.20	137.40	1,422.9	-223.6	211.7	307.9	0.89	0.80	1.15	
1,556.0	21.10	137.10	1,506.2	-246.6	233.0	339.2	1.02	1.01	-0.34	
1,644.0	21.20	137.60	1,588.2	-270.0	254.5	371.0	0.23	0.11	0.57	
1,733.0	23.20	137.00	1,670.6	-294.7	277.3	404.6	2.26	2.25	-0.67	
1,820.0	24.20	136.00	1,750.3	-320.1	301.4	439.5	1.24	1.15	-1.15	
1,908.0	25.20	136.10	1,830.3	-346.5	326.9	476.3	1.14	1.14	0.11	
1,997.0	25.10	135.80	1,910.8	-373.7	353.2	514.1	0.18	-0.11	-0.34	
2,085.0	24.40	136.00	1,990.7	-400.2	378.9	551.0	0.80	-0.80	0.23	
2,174.0	24.20	135.60	2,071.8	-426.4	404.4	587.6	0.29	-0.22	-0.45	
2,263.0	22.90	136.20	2,153.4	-452.0	429.2	623.2	1.49	-1.46	0.67	
2,351.0	23.30	136.00	2,234.4	-476.9	453.1	657.7	0.46	0.45	-0.23	
2,440.0	22.30	136.50	2,316.4	-501.8	477.0	692.2	1.14	-1.12	0.56	
2,529.0	21.80	135.50	2,398.9	-525.8	500.2	725.6	0.70	-0.56	-1.12	
2,615.0	21.70	134.50	2,478.8	-548.3	522.7	757.4	0.45	-0.12	-1.16	
2,704.0	21.30	135.00	2,561.6	-571.3	545.9	790.1	0.49	-0.45	0.56	
2,793.0	22.70	136.30	2,644.1	-595.1	569.2	823.4	1.67	1.57	1.46	
2,881.0	22.50	135.90	2,725.4	-619.5	592.6	857.2	0.29	-0.23	-0.45	
2,970.0	22.80	135.30	2,807.5	-644.0	616.6	891.5	0.43	0.34	-0.67	
3,058.0	22.90	134.30	2,888.6	-668.1	640.8	925.7	0.46	0.11	-1.14	
3,147.0	23.90	135.10	2,970.3	-692.9	666.0	961.0	1.18	1.12	0.90	
3,236.0	25.10	134.50	3,051.3	-718.9	692.1	997.9	1.38	1.35	-0.67	
3,324.0	25.90	135.40	3,130.7	-745.7	718.9	1,035.8	1.01	0.91	1.02	
3,413.0	25.60	134.30	3,210.8	-773.0	746.4	1,074.4	0.63	-0.34	-1.24	
3,502.0	25.30	133.90	3,291.2	-799.6	773.8	1,112.7	0.39	-0.34	-0.45	
3,590.0	25.10	134.10	3,370.8	-825.6	800.8	1,150.1	0.25	-0.23	0.23	
3,679.0	24.20	133.20	3,451.7	-851.2	827.6	1,187.2	1.10	-1.01	-1.01	
3,768.0	24.00	134.00	3,533.0	-876.3	853.9	1,223.6	0.43	-0.22	0.90	
3,856.0	22.60	135.20	3,613.8	-900.7	878.7	1,258.4	1.68	-1.59	1.36	
3,945.0	22.30	136.20	3,696.0	-925.1	902.5	1,292.3	0.55	-0.34	1.12	
4,034.0	22.50	137.00	3,778.3	-949.7	925.8	1,326.3	0.41	0.22	0.90	
4,122.0	22.90	137.00	3,859.5	-974.5	948.9	1,360.2	0.45	0.45	0.00	
4,211.0	21.40	136.10	3,941.9	-998.9	972.0	1,393.7	1.73	-1.69	-1.01	
4,299.0	20.60	135.50	4,024.1	-1,021.5	994.0	1,425.3	0.94	-0.91	-0.68	
4,388.0	20.40	135.50	4,107.5	-1,043.7	1,015.8	1,456.5	0.22	-0.22	0.00	
4,477.0	20.80	135.50	4,190.8	-1,066.1	1,037.8	1,487.8	0.45	0.45	0.00	
4,565.0	21.30	135.10	4,272.9	-1,088.5	1,060.0	1,519.4	0.59	0.57	-0.45	
4,654.0	20.60	133.90	4,356.0	-1,110.9	1,082.7	1,551.2	0.92	-0.79	-1.35	
4,743.0	20.30	133.40	4,439.4	-1,132.3	1,105.2	1,582.3	0.39	-0.34	-0.56	
4,831.0	18.10	134.00	4,522.5	-1,152.3	1,126.1	1,611.2	2.51	-2.50	0.68	
4,920.0	16.70	136.20	4,607.4	-1,171.1	1,144.9	1,637.8	1.74	-1.57	2.47	
5,009.0	15.50	135.70	4,692.9	-1,188.9	1,162.1	1,662.5	1.36	-1.35	-0.56	
5,097.0	13.40	134.40	4,778.1	-1,204.4	1,177.6	1,684.4	2.41	-2.39	-1.48	
5,186.0	12.10	131.70	4,865.0	-1,217.9	1,191.9	1,704.1	1.61	-1.46	-3.03	
5,274.0	11.10	132.30	4,951.2	-1,229.7	1,205.1	1,721.7	1.14	-1.14	0.68	
5,363.0	9.60	132.90	5,038.7	-1,240.5	1,216.8	1,737.7	1.69	-1.69	0.67	
5,452.0	7.60	130.80	5,126.7	-1,249.4	1,226.7	1,751.0	2.27	-2.25	-2.36	
5,540.0	5.80	129.70	5,214.1	-1,256.0	1,234.6	1,761.2	2.05	-2.05	-1.25	
5,629.0	4.00	123.20	5,302.8	-1,260.6	1,240.6	1,768.7	2.11	-2.02	-7.30	
5,718.0	2.30	118.30	5,391.6	-1,263.2	1,244.8	1,773.4	1.93	-1.91	-5.51	
5,806.0	1.10	101.00	5,479.6	-1,264.2	1,247.2	1,775.8	1.47	-1.36	-19.66	
5,895.0	1.00	16.70	5,568.6	-1,263.6	1,248.2	1,776.2	1.59	-0.11	-94.72	

<b>Company:</b>	Anadarko, Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Badding 38-26
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<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 38-26	<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)
6,028.0	1.20	16.00	5,701.6	-1,261.1	1,249.0	1,774.9	0.15	0.15	-0.53
6,161.0	1.20	326.00	5,834.5	-1,258.6	1,248.6	1,772.9	0.76	0.00	-37.59
6,226.4	1.20	327.33	5,899.9	-1,257.5	1,247.8	1,771.5	0.04	0.00	2.03
<b>TARGET BHL 50'FSL, 50'FEL</b>									
6,294.0	1.20	328.70	5,967.5	-1,256.3	1,247.1	1,770.1	0.04	0.00	2.03
6,427.0	1.10	353.70	6,100.5	-1,253.8	1,246.2	1,767.8	0.38	-0.08	18.80
6,560.0	0.70	281.70	6,233.5	-1,252.4	1,245.3	1,766.1	0.83	-0.30	-54.14
6,693.0	0.20	256.10	6,366.5	-1,252.3	1,244.2	1,765.3	0.40	-0.38	-19.25
6,826.0	0.40	117.80	6,499.5	-1,252.6	1,244.4	1,765.6	0.42	0.15	-103.99
6,959.0	1.20	89.20	6,632.4	-1,252.8	1,246.2	1,767.0	0.65	0.60	-21.50
7,092.0	1.10	89.60	6,765.4	-1,252.7	1,248.9	1,768.9	0.08	-0.08	0.30
7,225.0	0.70	180.70	6,898.4	-1,253.5	1,250.2	1,770.4	0.99	-0.30	68.50
7,358.0	1.00	178.80	7,031.4	-1,255.5	1,250.2	1,771.8	0.23	0.23	-1.43
7,490.0	1.80	176.20	7,163.3	-1,258.7	1,250.3	1,774.2	0.61	0.61	-1.97
7,513.8	1.79	173.38	7,187.1	-1,259.5	1,250.4	1,774.8	0.37	-0.04	-11.87
<b>TARGET CIRCLE 50'FSL &amp; 50'FEL</b>									
7,623.0	1.80	160.30	7,296.3	-1,262.8	1,251.2	1,777.7	0.37	0.01	-11.97
7,756.0	1.80	147.50	7,429.2	-1,266.5	1,253.0	1,781.6	0.30	0.00	-9.62
7,889.0	1.20	150.20	7,562.2	-1,269.5	1,254.8	1,785.0	0.45	-0.45	2.03
8,022.0	1.10	152.50	7,695.1	-1,271.8	1,256.1	1,787.6	0.08	-0.08	1.73
8,155.0	0.50	141.30	7,828.1	-1,273.4	1,257.1	1,789.3	0.46	-0.45	-8.42
8,288.0	0.50	146.10	7,961.1	-1,274.3	1,257.7	1,790.5	0.03	0.00	3.61
8,422.0	0.30	148.40	8,095.1	-1,275.1	1,258.3	1,791.4	0.15	-0.15	1.72
<b>HARD LINES 50'S &amp; 50'E OF BHL</b>									
8,468.0	0.30	148.40	8,141.1	-1,275.3	1,258.4	1,791.6	0.00	0.00	0.00

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