

Project: SEC.9-T1S-R67W  
Site: Talon View 18-9 Pad Sec.9-T1S-R67W  
Well: Talon View 12-9  
Plan: Wellbore #1



# **Anadarko, Adams County CO**

**SEC.9-T1S-R67W**

**Talon View 18-9 Pad Sec.9-T1S-R67W**

**Talon View 12-9**

**Wellbore #1**

**Survey: Survey #1**

## **Standard Survey Report**

**04 November, 2010**

<b>Company:</b>	Anadarko, Adams County CO	<b>Local Co-ordinate Reference:</b>	Well Talon View 12-9
<b>Project:</b>	SEC.9-T1S-R67W	<b>TVD Reference:</b>	WELL @ 5170.0ft (Original Well Elev)
<b>Site:</b>	Talon View 18-9 Pad Sec.9-T1S-R67W	<b>MD Reference:</b>	WELL @ 5170.0ft (Original Well Elev)
<b>Well:</b>	Talon View 12-9	<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.9-T1S-R67W, Adams 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>	Talon View 18-9 Pad Sec.9-T1S-R67W		
<b>Site Position:</b>		<b>Northing:</b>	1,236,908.77 ft
<b>From:</b>	Lat/Long	<b>Easting:</b>	3,168,530.03 ft
<b>Position Uncertainty:</b>	0.0 ft	<b>Slot Radius:</b>	"
		<b>Latitude:</b>	39° 58' 55.668 N
		<b>Longitude:</b>	104° 53' 54.924 W
		<b>Grid Convergence:</b>	0.39 °

<b>Well</b>	Talon View 12-9		
<b>Well Position</b>	<b>+N/-S</b>	0.0 ft	<b>Northing:</b> 1,236,923.32 ft
	<b>+E/-W</b>	0.0 ft	<b>Easting:</b> 3,168,529.93 ft
<b>Position Uncertainty</b>	0.0 ft	<b>Wellhead Elevation:</b>	ft
		<b>Latitude:</b>	39° 58' 55.812 N
		<b>Longitude:</b>	104° 53' 54.924 W
		<b>Ground Level:</b>	5,155.0 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	7/23/2010	9.02	66.72	52,988

<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	200.14	

<b>Survey Program</b>	<b>Date</b>	11/4/2010			
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
177.0	8,860.0	Survey #1 (Wellbore #1)			

<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	
177.0	0.40	112.90	177.0	-0.2	0.6	0.0	0.23	0.23	0.00	
270.0	0.30	214.20	270.0	-0.6	0.7	0.3	0.59	-0.11	108.92	
365.0	1.50	271.70	365.0	-0.7	-0.7	0.9	1.43	1.26	60.53	
455.0	2.00	275.10	454.9	-0.6	-3.4	1.7	0.57	0.56	3.78	
545.0	2.90	269.20	544.9	-0.5	-7.2	2.9	1.04	1.00	-6.56	
634.0	4.30	270.40	633.7	-0.5	-12.8	4.8	1.58	1.57	1.35	
721.0	5.70	265.00	720.3	-0.8	-20.4	7.8	1.70	1.61	-6.21	
812.0	7.10	255.80	810.8	-2.6	-30.3	12.9	1.90	1.54	-10.11	
902.0	8.30	246.40	900.0	-6.6	-41.7	20.5	1.93	1.33	-10.44	
993.0	9.80	240.20	989.8	-13.0	-54.4	31.0	1.96	1.65	-6.81	
1,081.0	10.50	234.60	1,076.5	-21.4	-67.5	43.3	1.37	0.80	-6.36	
1,152.0	10.50	229.90	1,146.3	-29.3	-77.7	54.3	1.21	0.00	-6.62	

<b>Company:</b>	Anadarko, Adams County CO	<b>Local Co-ordinate Reference:</b>	Well Talon View 12-9
<b>Project:</b>	SEC.9-T1S-R67W	<b>TVD Reference:</b>	WELL @ 5170.0ft (Original Well Elev)
<b>Site:</b>	Talon View 18-9 Pad Sec.9-T1S-R67W	<b>MD Reference:</b>	WELL @ 5170.0ft (Original Well Elev)
<b>Well:</b>	Talon View 12-9	<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)	
1,213.0	10.60	225.50	1,206.2	-36.8	-85.9	64.2	1.33	0.16	-7.21	
1,303.0	12.20	222.70	1,294.5	-49.6	-98.3	80.4	1.88	1.78	-3.11	
1,394.0	14.00	216.40	1,383.1	-65.5	-111.3	99.9	2.52	1.98	-6.92	
1,482.0	16.00	209.90	1,468.1	-84.6	-123.7	122.0	2.97	2.27	-7.39	
1,571.0	17.00	207.00	1,553.4	-106.9	-135.7	147.1	1.46	1.12	-3.26	
1,662.0	18.90	205.30	1,640.0	-132.0	-148.1	174.9	2.17	2.09	-1.87	
1,750.0	20.00	199.00	1,723.0	-159.2	-159.1	204.2	2.69	1.25	-7.16	
1,841.0	21.30	197.80	1,808.1	-189.6	-169.2	236.3	1.50	1.43	-1.32	
1,929.0	22.90	196.10	1,889.7	-221.3	-178.8	269.3	1.96	1.82	-1.93	
2,018.0	22.90	196.40	1,971.7	-254.5	-188.5	303.9	0.13	0.00	0.34	
2,108.0	23.20	197.70	2,054.5	-288.2	-198.8	339.1	0.66	0.33	1.44	
2,199.0	23.20	197.00	2,138.1	-322.4	-209.5	374.9	0.30	0.00	-0.77	
2,290.0	22.50	198.10	2,222.0	-356.1	-220.2	410.2	0.90	-0.77	1.21	
2,379.0	21.40	198.10	2,304.5	-387.7	-230.5	443.4	1.24	-1.24	0.00	
2,468.0	21.50	195.60	2,387.4	-418.9	-240.0	475.9	1.03	0.11	-2.81	
2,558.0	22.00	198.00	2,471.0	-450.8	-249.6	509.2	1.13	0.56	2.67	
2,647.0	21.90	195.50	2,553.5	-482.7	-259.2	542.4	1.06	-0.11	-2.81	
2,735.0	22.10	196.20	2,635.1	-514.4	-268.2	575.3	0.37	0.23	0.80	
2,824.0	22.50	195.20	2,717.4	-546.9	-277.3	608.9	0.62	0.45	-1.12	
2,914.0	23.80	194.70	2,800.2	-581.1	-286.4	644.2	1.46	1.44	-0.56	
3,005.0	24.00	196.10	2,883.4	-616.6	-296.2	680.9	0.66	0.22	1.54	
3,094.0	23.10	196.70	2,965.0	-650.7	-306.3	716.4	1.05	-1.01	0.67	
3,184.0	22.00	198.00	3,048.1	-683.7	-316.6	750.9	1.34	-1.22	1.44	
3,273.0	22.80	196.80	3,130.4	-716.0	-326.7	784.7	1.04	0.90	-1.35	
3,362.0	22.40	198.10	3,212.5	-748.7	-336.9	818.9	0.72	-0.45	1.46	
3,451.0	22.90	197.60	3,294.7	-781.3	-347.4	853.1	0.60	0.56	-0.56	
3,540.0	22.00	195.40	3,376.9	-813.9	-357.1	887.0	1.38	-1.01	-2.47	
3,630.0	21.60	192.60	3,460.5	-846.3	-365.2	920.3	1.24	-0.44	-3.11	
3,720.0	21.90	197.60	3,544.1	-878.4	-373.9	953.5	2.08	0.33	5.56	
3,811.0	21.80	198.20	3,628.6	-910.7	-384.3	987.3	0.27	-0.11	0.66	
3,901.0	21.30	195.80	3,712.3	-942.3	-394.0	1,020.3	1.13	-0.56	-2.67	
3,991.0	20.30	193.60	3,796.4	-973.2	-402.1	1,052.1	1.41	-1.11	-2.44	
4,080.0	19.90	194.00	3,880.0	-1,002.9	-409.4	1,082.5	0.48	-0.45	0.45	
4,171.0	19.60	193.20	3,965.6	-1,032.8	-416.6	1,113.1	0.44	-0.33	-0.88	
4,261.0	20.50	193.90	4,050.2	-1,062.8	-423.9	1,143.7	1.03	1.00	0.78	
4,352.0	20.90	196.30	4,135.3	-1,093.8	-432.2	1,175.8	1.03	0.44	2.64	
4,440.0	21.10	195.50	4,217.5	-1,124.1	-440.9	1,207.2	0.40	0.23	-0.91	
4,529.0	20.20	195.00	4,300.7	-1,154.4	-449.1	1,238.5	1.03	-1.01	-0.56	
4,617.0	19.80	198.40	4,383.4	-1,183.2	-457.8	1,268.5	1.40	-0.45	3.86	
4,706.0	21.40	197.50	4,466.7	-1,213.0	-467.4	1,299.8	1.83	1.80	-1.01	
4,794.0	21.80	195.50	4,548.6	-1,244.1	-476.6	1,332.1	0.95	0.45	-2.27	
4,884.0	23.90	195.10	4,631.5	-1,277.8	-485.8	1,366.9	2.34	2.33	-0.44	
4,971.0	23.40	196.00	4,711.2	-1,311.4	-495.2	1,401.7	0.71	-0.57	1.03	
5,062.0	22.50	197.40	4,795.0	-1,345.4	-505.4	1,437.1	1.16	-0.99	1.54	
5,152.0	21.80	198.80	4,878.4	-1,377.7	-515.9	1,471.1	0.97	-0.78	1.56	
5,239.0	21.80	200.30	4,959.1	-1,408.1	-526.7	1,503.4	0.64	0.00	1.72	
5,330.0	21.70	199.30	5,043.7	-1,439.8	-538.1	1,537.1	0.42	-0.11	-1.10	
5,420.0	23.80	199.70	5,126.6	-1,472.6	-549.8	1,571.9	2.34	2.33	0.44	
5,507.0	22.20	199.50	5,206.7	-1,504.7	-561.2	1,605.9	1.84	-1.84	-0.23	
5,581.3	19.75	197.19	5,276.1	-1,529.9	-569.6	1,632.5	3.48	-3.30	-3.10	
5135' MD = 179' Radius										
5,598.0	19.20	196.60	5,291.8	-1,535.2	-571.2	1,638.0	3.48	-3.27	-3.56	
5,686.0	17.50	197.20	5,375.4	-1,561.7	-579.2	1,665.7	1.94	-1.93	0.68	
5,777.0	16.90	196.70	5,462.3	-1,587.5	-587.1	1,692.5	0.68	-0.66	-0.55	

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<b>Site:</b>	Talon View 18-9 Pad Sec.9-T1S-R67W	<b>MD Reference:</b>	WELL @ 5170.0ft (Original Well Elev)
<b>Well:</b>	Talon View 12-9	<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)	
5,866.0	15.30	200.40	5,547.8	-1,610.9	-594.9	1,717.2	2.13	-1.80	4.16	
5,955.0	16.00	201.30	5,633.5	-1,633.3	-603.4	1,741.2	0.83	0.79	1.01	
6,046.0	15.40	201.70	5,721.1	-1,656.2	-612.5	1,765.8	0.67	-0.66	0.44	
6,134.0	13.90	199.00	5,806.2	-1,677.1	-620.2	1,788.1	1.87	-1.70	-3.07	
6,224.0	12.30	197.00	5,893.9	-1,696.4	-626.5	1,808.4	1.85	-1.78	-2.22	
6,313.0	10.70	198.60	5,981.1	-1,713.3	-631.9	1,826.2	1.83	-1.80	1.80	
6,402.0	9.00	200.40	6,068.8	-1,727.7	-637.0	1,841.4	1.94	-1.91	2.02	
6,490.0	6.40	200.90	6,156.0	-1,738.7	-641.2	1,853.2	2.96	-2.95	0.57	
6,580.0	4.40	206.20	6,245.6	-1,746.5	-644.5	1,861.6	2.29	-2.22	5.89	
6,669.0	2.70	201.60	6,334.4	-1,751.5	-646.8	1,867.1	1.94	-1.91	-5.17	
6,735.0	1.88	208.35	6,400.4	-1,753.9	-647.8	1,869.7	1.31	-1.25	10.22	
<b>Target BHL 1980'FSL &amp; 660'FWL</b>										
6,758.0	1.60	212.30	6,423.4	-1,754.5	-648.2	1,870.4	1.31	-1.20	17.21	
6,849.0	1.00	223.10	6,514.3	-1,756.2	-649.4	1,872.4	0.71	-0.66	11.87	
6,937.0	0.40	312.30	6,602.3	-1,756.5	-650.2	1,873.0	1.22	-0.68	101.36	
7,027.0	1.10	308.20	6,692.3	-1,755.8	-651.1	1,872.6	0.78	0.78	-4.56	
7,118.0	0.70	308.30	6,783.3	-1,754.9	-652.2	1,872.2	0.44	-0.44	0.11	
7,208.0	0.50	345.20	6,873.3	-1,754.2	-652.7	1,871.7	0.47	-0.22	41.00	
7,298.0	0.60	3.70	6,963.3	-1,753.3	-652.8	1,870.9	0.22	0.11	20.56	
7,389.0	0.90	10.80	7,054.3	-1,752.2	-652.6	1,869.7	0.34	0.33	7.80	
7,479.0	1.10	21.10	7,144.3	-1,750.7	-652.2	1,868.2	0.30	0.22	11.44	
7,568.0	1.20	14.00	7,233.3	-1,749.0	-651.7	1,866.4	0.20	0.11	-7.98	
7,747.0	1.50	10.50	7,412.2	-1,744.8	-650.8	1,862.2	0.17	0.17	-1.96	
7,826.6	1.07	29.92	7,491.7	-1,743.2	-650.2	1,860.5	0.76	-0.54	24.41	
<b>LEGAL BOX 400' X 400' 1983'FSL, 663'FWL</b>										
7,927.0	0.90	74.30	7,592.2	-1,742.1	-649.0	1,859.1	0.76	-0.17	44.19	
8,108.0	0.70	127.10	7,773.2	-1,742.4	-646.7	1,858.6	0.41	-0.11	29.17	
8,198.0	0.90	154.00	7,863.2	-1,743.4	-646.0	1,859.2	0.47	0.22	29.89	
8,289.0	1.00	136.50	7,954.1	-1,744.6	-645.1	1,860.1	0.34	0.11	-19.23	
8,469.0	0.70	130.80	8,134.1	-1,746.5	-643.2	1,861.1	0.17	-0.17	-3.17	
8,649.0	0.60	148.30	8,314.1	-1,748.0	-641.9	1,862.1	0.12	-0.06	9.72	
8,785.0	0.30	155.90	8,450.1	-1,748.9	-641.4	1,862.8	0.22	-0.22	5.59	
8,811.0	0.10	173.30	8,476.1	-1,749.0	-641.3	1,862.9	0.80	-0.77	66.92	
8,860.0	0.10	173.00	8,525.1	-1,749.1	-641.3	1,863.0	0.00	0.00	-0.61	

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