

Well Name: **Barron Federal 24-18**

Surface Location: Barron Federal 10-18 Pad Sec.18-T3N-R66W
North American Datum 1983 US State Plane 1983 Colorado Northern Zone

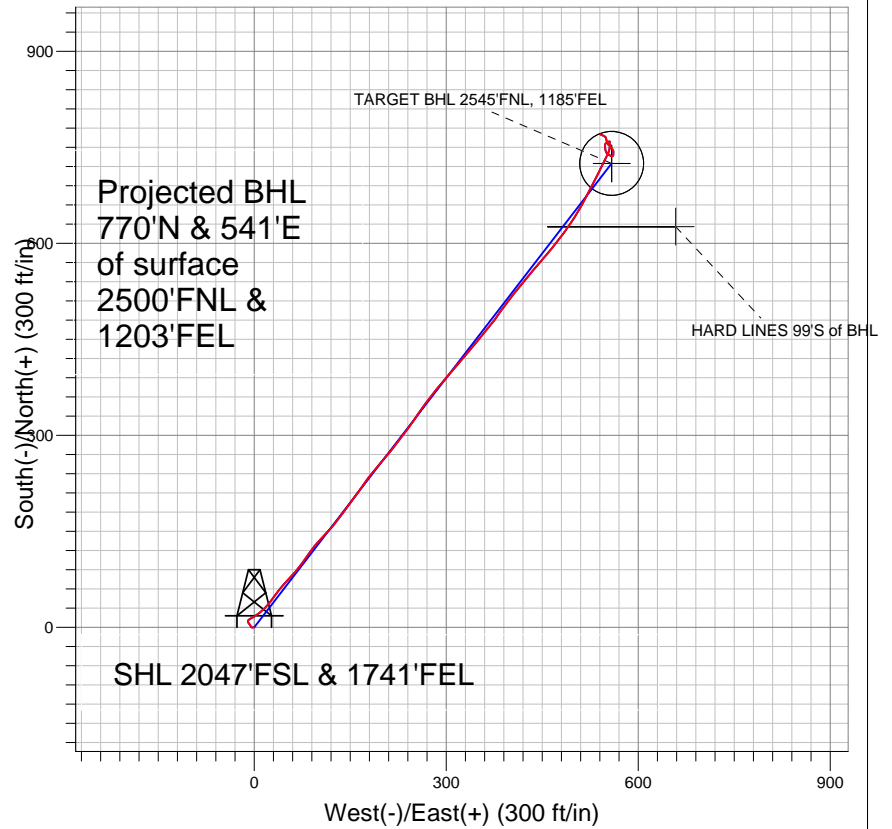
Ground Elevation: 4826.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	1324804.53	3190717.41	40° 13' 22.692 N	104° 49' 1.200 W

Original Well Elev WELL @ 4840.0ft (Original Well Elev)

Slot

Anadarko, Weld County CO

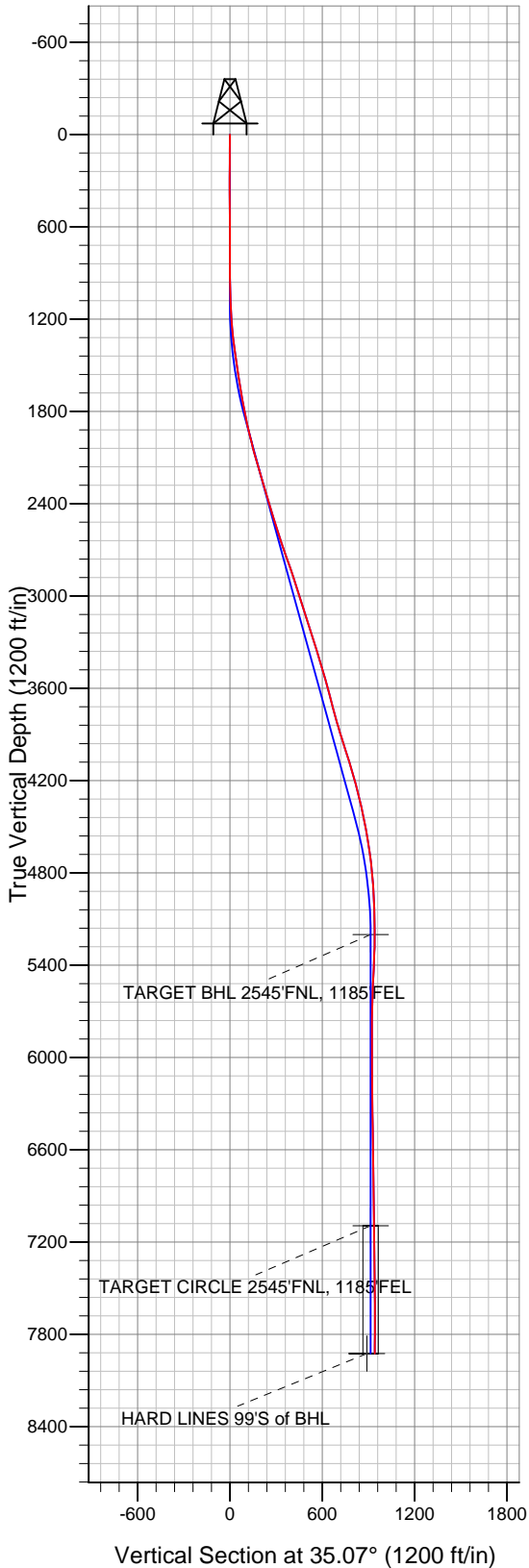


LEGEND

- Barron Federal 24-18, Wellbore #1, Plan #1 (10-12-10) V0
- Wellbore #1
- Survey #1

Final Survey Plot

Projected Final Survey -
8050'MD & 7924'TVD @ 940' VS
1.5 deg Inc 289.3 deg AZ



Project: SEC.18-T3N-R66W
Site: Barron Federal 10-18 Pad Sec.18-T3N-R66W
Well: Barron Federal 24-18
Plan: Wellbore #1



Directional

Anadarko, Weld County CO

SEC.18-T3N-R66W

Barron Federal 10-18 Pad Sec.18-T3N-R66W

Barron Federal 24-18

Wellbore #1

Design: Wellbore #1

Standard Survey Report

04 November, 2010

Company:	Anadarko, Weld County CO	Local Co-ordinate Reference:	Well Barron Federal 24-18
Project:	SEC.18-T3N-R66W	TVD Reference:	WELL @ 4840.0ft (Original Well Elev)
Site:	Barron Federal 10-18 Pad Sec.18-T3N-R66W	MD Reference:	WELL @ 4840.0ft (Original Well Elev)
Well:	Barron Federal 24-18	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

Project	SEC.18-T3N-R66W, Weld County, Colorado		
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	Barron Federal 10-18 Pad Sec.18-T3N-R66W		
Site Position:		Northing:	1,324,804.29 ft
From:	Lat/Long	Easting:	3,190,683.90 ft
Position Uncertainty:	0.0 ft	Slot Radius:	"
		Latitude:	40° 13' 22.692 N
		Longitude:	104° 49' 1.632 W
		Grid Convergence:	0.44 °

Well	Barron Federal 24-18		
Well Position	+N-S	0.0 ft	Northing: 1,324,804.53 ft
	+E-W	0.0 ft	Easting: 3,190,717.41 ft
Position Uncertainty		0.0 ft	Wellhead Elevation: ft
			Latitude: 40° 13' 22.692 N
			Longitude: 104° 49' 1.200 W
			Ground Level: 4,826.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	10/26/2010	8.96	66.92	53,100

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	35.07	

Survey Program	Date	11/4/2010			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
188.0	8,050.0	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	
188.0	1.20	261.30	188.0	-0.3	-1.9	-1.4	0.64	0.64	0.00	
278.0	1.10	288.00	278.0	-0.2	-3.7	-2.3	0.60	-0.11	29.67	
370.0	0.90	325.00	370.0	0.7	-5.0	-2.3	0.72	-0.22	40.22	
463.0	0.60	352.00	462.9	1.8	-5.4	-1.7	0.49	-0.32	29.03	
676.0	0.80	319.50	675.9	4.0	-6.6	-0.5	0.20	0.09	-15.26	
794.0	1.20	310.20	793.9	5.4	-8.0	-0.2	0.36	0.34	-7.88	
875.0	1.10	346.70	874.9	6.7	-8.9	0.4	0.90	-0.12	45.06	
970.0	1.10	326.10	969.9	8.4	-9.6	1.4	0.41	0.00	-21.68	
1,065.0	2.00	26.50	1,064.9	10.6	-9.4	3.3	1.83	0.95	63.58	
1,160.0	3.70	60.50	1,159.7	13.6	-5.9	7.7	2.45	1.79	35.79	
1,255.0	5.20	59.80	1,254.4	17.3	0.4	14.4	1.58	1.58	-0.74	
1,351.0	7.70	51.30	1,349.8	23.5	9.2	24.5	2.78	2.60	-8.85	

Company:	Anadarko, Weld County CO	Local Co-ordinate Reference:	Well Barron Federal 24-18
Project:	SEC.18-T3N-R66W	TVD Reference:	WELL @ 4840.0ft (Original Well Elev)
Site:	Barron Federal 10-18 Pad Sec.18-T3N-R66W	MD Reference:	WELL @ 4840.0ft (Original Well Elev)
Well:	Barron Federal 24-18	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)
1,446.0	8.00	43.20	1,443.9	32.3	18.7	37.2	1.21	0.32	-8.53
1,541.0	9.10	35.70	1,537.9	43.2	27.6	51.2	1.65	1.16	-7.89
1,636.0	9.10	36.60	1,631.7	55.4	36.5	66.3	0.15	0.00	0.95
1,731.0	9.90	42.50	1,725.4	67.4	46.5	81.9	1.33	0.84	6.21
1,826.0	11.00	42.50	1,818.8	80.1	58.1	99.0	1.16	1.16	0.00
1,922.0	13.20	38.80	1,912.7	95.4	71.2	119.0	2.43	2.29	-3.85
2,017.0	14.50	33.40	2,004.9	113.8	84.5	141.7	1.93	1.37	-5.68
2,112.0	15.60	42.50	2,096.7	133.1	99.7	166.3	2.74	1.16	9.58
2,207.0	17.10	42.70	2,187.8	152.8	117.8	192.8	1.58	1.58	0.21
2,302.0	16.50	34.90	2,278.8	174.2	135.0	220.1	2.45	-0.63	-8.21
2,397.0	16.20	38.50	2,369.9	195.6	151.0	246.8	1.11	-0.32	3.79
2,492.0	16.70	33.20	2,461.1	217.4	166.7	273.7	1.66	0.53	-5.58
2,588.0	17.70	39.90	2,552.8	240.1	183.6	302.0	2.31	1.04	6.98
2,683.0	19.50	40.30	2,642.8	263.3	203.1	332.2	1.90	1.89	0.42
2,778.0	18.50	37.70	2,732.6	287.3	222.6	363.1	1.38	-1.05	-2.74
2,873.0	19.20	36.20	2,822.5	311.8	241.0	393.7	0.90	0.74	-1.58
2,968.0	17.40	34.40	2,912.7	336.2	258.3	423.6	1.99	-1.89	-1.89
3,064.0	17.60	36.80	3,004.3	359.6	275.1	452.4	0.78	0.21	2.50
3,159.0	18.90	40.80	3,094.5	382.8	293.8	482.1	1.90	1.37	4.21
3,254.0	17.60	40.90	3,184.7	405.3	313.2	511.7	1.37	-1.37	0.11
3,349.0	17.30	40.00	3,275.4	427.0	331.7	540.0	0.42	-0.32	-0.95
3,444.0	16.60	39.60	3,366.2	448.2	349.4	567.6	0.75	-0.74	-0.42
3,539.0	17.10	39.40	3,457.2	469.5	367.0	595.1	0.53	0.53	-0.21
3,634.0	15.60	34.80	3,548.3	490.8	383.1	621.8	2.08	-1.58	-4.84
3,729.0	14.80	36.80	3,640.0	511.0	397.7	646.7	1.01	-0.84	2.11
3,825.0	15.30	39.80	3,732.7	530.5	413.1	671.6	0.96	0.52	3.13
3,920.0	15.60	39.50	3,824.3	550.0	429.3	696.8	0.33	0.32	-0.32
4,015.0	18.00	41.10	3,915.2	570.9	447.0	724.1	2.57	2.53	1.68
4,110.0	17.20	38.90	4,005.8	592.9	465.5	752.8	1.10	-0.84	-2.32
4,205.0	17.60	36.60	4,096.4	615.4	482.9	781.1	0.84	0.42	-2.42
4,300.0	15.20	32.70	4,187.5	637.4	498.2	807.9	2.78	-2.53	-4.11
4,395.0	14.30	30.00	4,279.4	658.1	510.8	832.1	1.19	-0.95	-2.84
4,491.0	12.80	26.50	4,372.7	677.8	521.5	854.4	1.78	-1.56	-3.65
4,586.0	11.30	27.20	4,465.6	695.5	530.4	874.0	1.59	-1.58	0.74
4,681.0	10.20	26.00	4,559.0	711.4	538.4	891.6	1.18	-1.16	-1.26
4,776.0	8.10	28.50	4,652.8	724.8	545.2	906.5	2.25	-2.21	2.63
4,871.0	6.50	22.70	4,747.0	735.7	550.5	918.4	1.85	-1.68	-6.11
4,966.0	5.00	22.70	4,841.5	744.4	554.2	927.7	1.58	-1.58	0.00
5,061.0	3.60	356.90	4,936.3	751.2	555.6	934.1	2.48	-1.47	-27.16
5,156.0	1.80	349.70	5,031.1	755.7	555.2	937.5	1.92	-1.89	-7.58
5,251.0	1.20	36.20	5,126.1	758.0	555.5	939.5	1.37	-0.63	48.95
5,346.0	0.70	304.20	5,221.1	759.1	555.6	940.5	1.48	-0.53	-96.84
5,441.0	2.40	247.40	5,316.1	758.6	553.3	938.8	2.21	1.79	-59.79
5,537.0	2.40	237.10	5,412.0	756.8	549.8	935.3	0.45	0.00	-10.73
5,632.0	3.60	179.00	5,506.9	752.7	548.1	931.0	3.26	1.26	-61.16
5,727.0	3.80	170.90	5,601.7	746.6	548.7	926.3	0.59	0.21	-8.53
5,822.0	2.20	147.40	5,696.5	742.0	550.2	923.4	2.09	-1.68	-24.74
5,917.0	2.10	124.20	5,791.5	739.5	552.6	922.7	0.92	-0.11	-24.42
6,013.0	1.60	128.20	5,887.4	737.7	555.1	922.7	0.54	-0.52	4.17
6,108.0	1.10	117.40	5,982.4	736.4	556.9	922.7	0.59	-0.53	-11.37
6,203.0	1.00	89.60	6,077.4	736.0	558.6	923.3	0.54	-0.11	-29.26
6,298.0	0.80	72.80	6,172.4	736.2	560.1	924.3	0.35	-0.21	-17.68
6,393.0	1.00	9.30	6,267.4	737.2	560.8	925.6	1.01	0.21	-66.84
6,488.0	0.80	1.20	6,362.4	738.7	561.0	926.9	0.25	-0.21	-8.53

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6,584.0	1.10	2.30	6,458.3	740.3	561.0	928.2	0.31	0.31	1.15	
6,679.0	1.60	1.60	6,553.3	742.5	561.1	930.1	0.53	0.53	-0.74	
6,774.0	1.20	339.00	6,648.3	744.8	560.8	931.8	0.71	-0.42	-23.79	
6,869.0	1.80	324.80	6,743.3	746.9	559.6	932.8	0.74	0.63	-14.95	
6,964.0	1.90	335.70	6,838.2	749.6	558.0	934.1	0.38	0.11	11.47	
7,059.0	1.80	311.00	6,933.2	752.0	556.3	935.1	0.84	-0.11	-26.00	
7,155.0	1.50	299.00	7,029.1	753.6	554.0	935.1	0.48	-0.31	-12.50	
7,250.0	1.50	339.00	7,124.1	755.4	552.5	935.7	1.08	0.00	42.11	
7,345.0	1.60	336.30	7,219.1	757.7	551.5	937.1	0.13	0.11	-2.84	
7,440.0	2.00	342.20	7,314.0	760.5	550.5	938.7	0.46	0.42	6.21	
7,535.0	1.50	353.10	7,409.0	763.3	549.8	940.7	0.63	-0.53	11.47	
7,630.0	1.30	335.70	7,503.9	765.6	549.2	942.1	0.49	-0.21	-18.32	
7,726.0	1.40	297.50	7,599.9	767.1	547.7	942.5	0.93	0.10	-39.79	
7,821.0	1.50	295.50	7,694.9	768.2	545.6	942.2	0.12	0.11	-2.11	
7,916.0	1.10	294.10	7,789.9	769.1	543.6	941.8	0.42	-0.42	-1.47	
7,999.0	1.50	289.30	7,872.8	769.8	541.9	941.4	0.50	0.48	-5.78	
8,050.0	1.50	289.30	7,923.8	770.2	540.6	941.0	0.00	0.00	0.00	

Checked By: _____	Approved By: _____	Date: _____
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