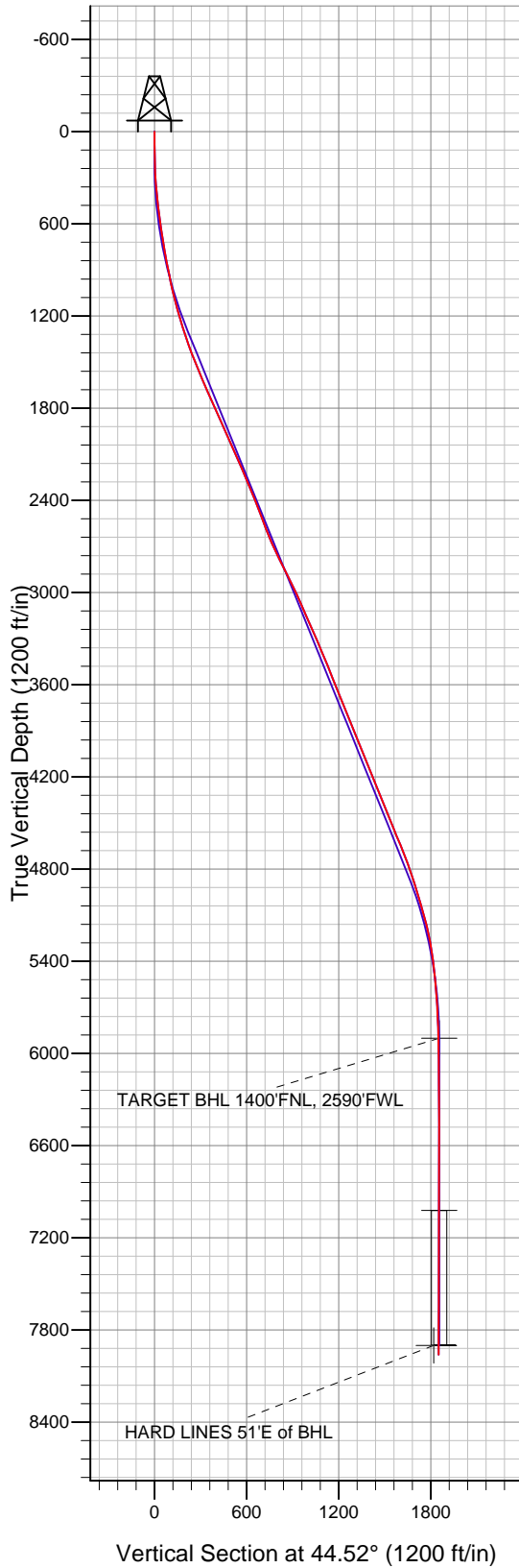
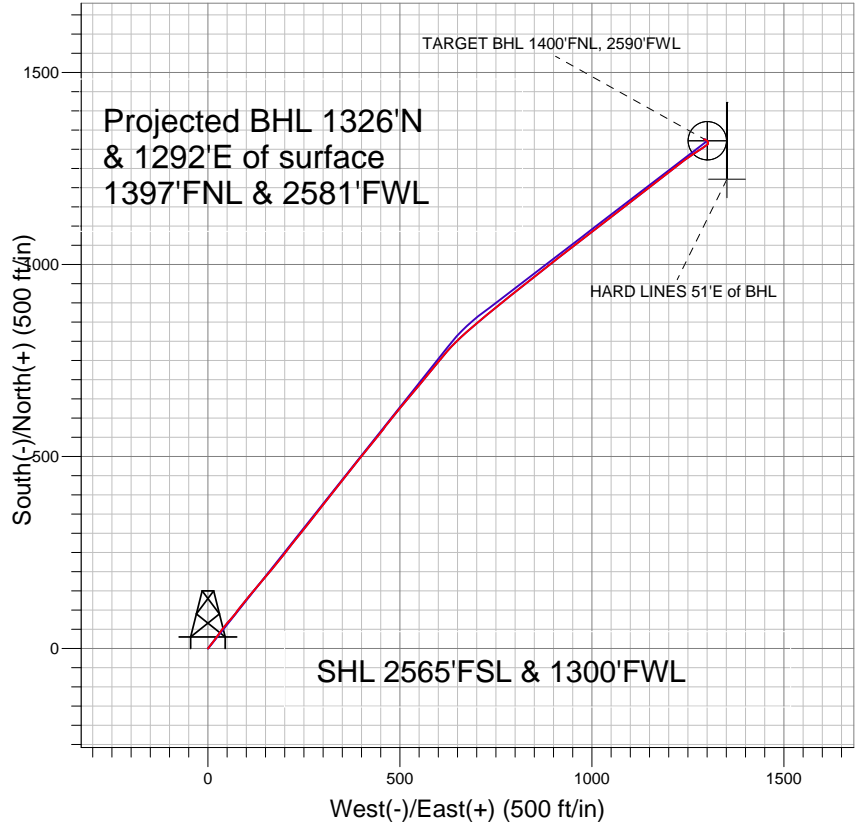


Well Name: **Rural 21-31**
 Surface Location: Rural 22-31 Pad Sec.31-T4N-R65W
 North American Datum 1983 US State Plane 1983 Colorado Northern Zone
 Ground Elevation: 4880.0
 +N/-S +E/-W Northing Easting Latitude Longitude Slot
 0.0 0.0 1341708.51 3220186.89 40° 16' 7.320 N 104° 42' 39.348 W
 Original Well Elev WELL @ 4894.0ft (Original Well Elev)



Anadarko, Weld County CO



LEGEND

- +— Rural 21-31, Wellbore #1, Plan #2 (1-12-11) V0
- +— Wellbore #1
- Survey #1

Final Survey Plot

Projected Final Survey -
 8303'MD & 7960'TVD @ 1851' VS
 0.3 deg Inc 233.5 deg AZ

Project: SEC.31-T4N-R65W
 Site: Rural 22-31 Pad Sec.31-T4N-R65W
 Well: Rural 21-31
 Plan: Wellbore #1



Directional

Anadarko, Weld County CO

SEC.31-T4N-R65W

Rural 22-31 Pad Sec.31-T4N-R65W

Rural 21-31

Wellbore #1

Survey: Survey #1

Standard Survey Report

27 January, 2011

Company:	Anadarko, Weld County CO	Local Co-ordinate Reference:	Well Rural 21-31
Project:	SEC.31-T4N-R65W	TVD Reference:	WELL @ 4894.0ft (Original Well Elev)
Site:	Rural 22-31 Pad Sec.31-T4N-R65W	MD Reference:	WELL @ 4894.0ft (Original Well Elev)
Well:	Rural 21-31	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

Project	SEC.31-T4N-R65W		
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	Rural 22-31 Pad Sec.31-T4N-R65W		
Site Position:		Northing:	1,341,693.95 ft
From:	Lat/Long	Easting:	3,220,187.02 ft
Position Uncertainty:	0.0 ft	Slot Radius:	"
		Latitude:	40° 16' 7.176 N
		Longitude:	104° 42' 39.348 W
		Grid Convergence:	0.51 °

Well	Rural 21-31		
Well Position	+N/-S	0.0 ft	Northing:
	+E/-W	0.0 ft	Easting:
Position Uncertainty		0.0 ft	Wellhead Elevation:
			Latitude:
			Longitude:
			Ground Level:

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	1/11/2011	8.88	66.97	53,113

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	44.52	

Survey Program	Date	1/27/2011			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
82.0	8,303.0	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	
82.0	0.60	44.70	82.0	0.3	0.3	0.4	0.73	0.73	0.00	
175.0	1.30	35.50	175.0	1.5	1.3	2.0	0.77	0.75	-9.89	
268.0	2.70	36.90	267.9	4.1	3.2	5.2	1.51	1.51	1.51	
363.0	4.60	36.20	362.7	9.0	6.8	11.2	2.00	2.00	-0.74	
452.0	6.40	37.00	451.3	15.8	11.9	19.6	2.02	2.02	0.90	
540.0	7.80	36.70	538.6	24.5	18.4	30.4	1.59	1.59	-0.34	
604.0	8.50	35.70	602.0	31.9	23.7	39.4	1.12	1.09	-1.56	
688.0	8.40	35.90	685.1	41.9	31.0	51.6	0.12	-0.12	0.24	
779.0	9.50	38.70	775.0	53.1	39.6	65.6	1.30	1.21	3.08	
854.0	11.20	40.70	848.7	63.5	48.2	79.0	2.32	2.27	2.67	
942.0	11.90	39.90	935.0	76.9	59.6	96.6	0.82	0.80	-0.91	
1,031.0	12.90	39.20	1,021.9	91.6	71.7	115.6	1.14	1.12	-0.79	

Company:	Anadarko, Weld County CO	Local Co-ordinate Reference:	Well Rural 21-31
Project:	SEC.31-T4N-R65W	TVD Reference:	WELL @ 4894.0ft (Original Well Elev)
Site:	Rural 22-31 Pad Sec.31-T4N-R65W	MD Reference:	WELL @ 4894.0ft (Original Well Elev)
Well:	Rural 21-31	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)
1,120.0	14.10	37.40	1,108.4	108.0	84.6	136.3	1.43	1.35	-2.02
1,208.0	16.20	39.00	1,193.4	126.0	98.8	159.2	2.43	2.39	1.82
1,297.0	18.10	39.20	1,278.4	146.4	115.4	185.3	2.14	2.13	0.22
1,385.0	19.40	40.30	1,361.7	168.1	133.5	213.5	1.53	1.48	1.25
1,474.0	20.70	40.60	1,445.3	191.3	153.3	243.9	1.47	1.46	0.34
1,563.0	22.50	39.70	1,528.1	216.4	174.4	276.6	2.06	2.02	-1.01
1,651.0	23.30	38.30	1,609.1	243.0	195.9	310.6	1.10	0.91	-1.59
1,740.0	23.20	37.90	1,690.9	270.6	217.6	345.6	0.21	-0.11	-0.45
1,829.0	24.30	39.10	1,772.4	298.7	239.9	381.2	1.35	1.24	1.35
1,917.0	25.10	38.40	1,852.3	327.4	263.0	417.8	0.97	0.91	-0.80
2,006.0	24.70	38.00	1,933.1	356.8	286.1	455.0	0.49	-0.45	-0.45
2,095.0	24.00	37.40	2,014.1	385.8	308.6	491.5	0.83	-0.79	-0.67
2,183.0	23.80	37.90	2,094.6	414.1	330.3	526.9	0.32	-0.23	0.57
2,272.0	22.90	38.90	2,176.3	441.7	352.3	561.9	1.10	-1.01	1.12
2,360.0	23.40	39.50	2,257.2	468.5	374.1	596.4	0.63	0.57	0.68
2,449.0	22.70	37.30	2,339.1	495.8	395.8	631.0	1.25	-0.79	-2.47
2,538.0	21.00	39.60	2,421.7	521.8	416.3	664.0	2.14	-1.91	2.58
2,626.0	21.00	39.10	2,503.9	546.2	436.3	695.4	0.20	0.00	-0.57
2,715.0	21.30	37.70	2,586.9	571.3	456.3	727.3	0.66	0.34	-1.57
2,804.0	23.80	39.20	2,669.1	598.0	477.5	761.2	2.88	2.81	1.69
2,892.0	25.50	38.90	2,749.0	626.5	500.6	797.8	1.94	1.93	-0.34
2,981.0	26.80	39.90	2,828.9	656.8	525.5	836.8	1.54	1.46	1.12
3,070.0	26.90	39.50	2,908.3	687.8	551.2	876.9	0.23	0.11	-0.45
3,158.0	25.60	39.70	2,987.3	717.8	576.0	915.7	1.48	-1.48	0.23
3,247.0	23.40	39.20	3,068.2	746.3	599.5	952.4	2.48	-2.47	-0.56
3,336.0	23.70	40.70	3,149.8	773.5	622.3	987.9	0.75	0.34	1.69
3,424.0	23.90	45.50	3,230.4	799.4	646.6	1,023.3	2.21	0.23	5.45
3,513.0	23.40	48.90	3,311.9	823.7	672.7	1,059.0	1.63	-0.56	3.82
3,601.0	23.00	49.70	3,392.8	846.3	699.0	1,093.5	0.58	-0.45	0.91
3,690.0	22.00	50.90	3,475.0	868.0	725.2	1,127.4	1.24	-1.12	1.35
3,779.0	22.40	52.30	3,557.4	888.9	751.6	1,160.8	0.75	0.45	1.57
3,867.0	22.00	51.10	3,638.9	909.5	777.7	1,193.8	0.69	-0.45	-1.36
3,956.0	22.00	50.00	3,721.4	930.7	803.4	1,226.9	0.46	0.00	-1.24
4,045.0	21.80	51.20	3,804.0	951.8	829.1	1,259.9	0.55	-0.22	1.35
4,133.0	22.10	50.80	3,885.6	972.5	854.6	1,292.6	0.38	0.34	-0.45
4,222.0	23.00	51.70	3,967.8	993.8	881.2	1,326.5	1.08	1.01	1.01
4,311.0	23.00	53.00	4,049.7	1,015.1	908.8	1,361.0	0.57	0.00	1.46
4,399.0	22.50	52.30	4,130.9	1,035.7	935.8	1,394.6	0.65	-0.57	-0.80
4,488.0	21.90	51.90	4,213.3	1,056.4	962.4	1,428.0	0.70	-0.67	-0.45
4,576.0	21.20	51.90	4,295.1	1,076.3	987.8	1,460.0	0.80	-0.80	0.00
4,665.0	23.00	52.70	4,377.6	1,096.8	1,014.3	1,493.2	2.05	2.02	0.90
4,754.0	22.10	52.70	4,459.8	1,117.5	1,041.4	1,527.0	1.01	-1.01	0.00
4,842.0	22.20	51.30	4,541.3	1,137.9	1,067.6	1,559.9	0.61	0.11	-1.59
4,931.0	23.40	52.90	4,623.3	1,159.1	1,094.8	1,594.1	1.52	1.35	1.80
5,020.0	21.60	53.30	4,705.5	1,179.5	1,122.0	1,627.7	2.03	-2.02	0.45
5,108.0	19.60	52.00	4,787.9	1,198.3	1,146.7	1,658.4	2.33	-2.27	-1.48
5,197.0	18.40	51.20	4,872.1	1,216.3	1,169.4	1,687.1	1.38	-1.35	-0.90
5,286.0	16.70	51.80	4,956.9	1,233.0	1,190.4	1,713.8	1.92	-1.91	0.67
5,374.0	16.40	51.90	5,041.3	1,248.5	1,210.1	1,738.6	0.34	-0.34	0.11
5,463.0	14.80	53.20	5,127.0	1,263.1	1,229.1	1,762.3	1.84	-1.80	1.46
5,552.0	12.50	54.40	5,213.5	1,275.5	1,246.0	1,783.1	2.60	-2.58	1.35
5,640.0	9.70	55.50	5,299.8	1,285.2	1,259.9	1,799.7	3.19	-3.18	1.25
5,729.0	8.10	56.60	5,387.7	1,292.9	1,271.3	1,813.2	1.81	-1.80	1.24
5,817.0	6.30	57.20	5,475.0	1,298.9	1,280.5	1,824.0	2.05	-2.05	0.68

Company:	Anadarko, Weld County CO	Local Co-ordinate Reference:	Well Rural 21-31
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Site:	Rural 22-31 Pad Sec.31-T4N-R65W	MD Reference:	WELL @ 4894.0ft (Original Well Elev)
Well:	Rural 21-31	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)	
5,906.0	4.80	56.50	5,563.6	1,303.6	1,287.7	1,832.4	1.69	-1.69	-0.79	
5,995.0	3.70	56.70	5,652.4	1,307.3	1,293.2	1,838.9	1.24	-1.24	0.22	
6,083.0	2.70	54.60	5,740.2	1,310.0	1,297.3	1,843.7	1.14	-1.14	-2.39	
6,172.0	2.20	52.30	5,829.2	1,312.3	1,300.4	1,847.4	0.57	-0.56	-2.58	
6,243.1	1.59	29.09	5,900.2	1,314.0	1,301.9	1,849.7	1.36	-0.86	-32.66	
TARGET BHL 1400'FNL, 2590'FWL										
6,261.0	1.50	20.70	5,918.1	1,314.4	1,302.1	1,850.2	1.36	-0.52	-46.77	
6,394.0	0.80	345.10	6,051.1	1,317.0	1,302.5	1,852.3	0.73	-0.53	-26.77	
6,527.0	0.70	348.50	6,184.1	1,318.6	1,302.1	1,853.2	0.08	-0.08	2.56	
6,660.0	0.40	349.40	6,317.1	1,319.9	1,301.8	1,853.9	0.23	-0.23	0.68	
6,792.0	0.40	329.90	6,449.1	1,320.8	1,301.5	1,854.3	0.10	0.00	-14.77	
6,925.0	0.60	317.50	6,582.1	1,321.7	1,300.8	1,854.4	0.17	0.15	-9.32	
7,058.0	0.50	287.20	6,715.1	1,322.4	1,299.8	1,854.2	0.23	-0.08	-22.78	
7,191.0	0.70	303.00	6,848.0	1,323.0	1,298.6	1,853.8	0.19	0.15	11.88	
7,324.0	0.70	304.00	6,981.0	1,323.9	1,297.2	1,853.5	0.01	0.00	0.75	
7,363.9	0.70	303.55	7,021.0	1,324.1	1,296.8	1,853.4	0.01	0.00	-1.13	
TARGET CIRCLE 1400'FNL & 2590'FWL										
7,457.0	0.70	302.50	7,114.0	1,324.8	1,295.9	1,853.2	0.01	0.00	-1.13	
7,590.0	0.40	313.70	7,247.0	1,325.5	1,294.8	1,853.0	0.24	-0.23	8.42	
7,723.0	0.40	302.10	7,380.0	1,326.1	1,294.1	1,852.9	0.06	0.00	-8.72	
7,856.0	0.20	278.80	7,513.0	1,326.4	1,293.5	1,852.6	0.17	-0.15	-17.52	
7,989.0	0.30	262.40	7,646.0	1,326.4	1,292.9	1,852.2	0.09	0.08	-12.33	
8,122.0	0.10	242.70	7,779.0	1,326.3	1,292.5	1,851.8	0.16	-0.15	-14.81	
8,243.0	0.28	233.84	7,900.0	1,326.0	1,292.1	1,851.5	0.15	0.15	-7.32	
HARD LINES 51'E of BHL										
8,257.0	0.30	233.50	7,914.0	1,326.0	1,292.1	1,851.4	0.15	0.15	-2.43	
8,303.0	0.30	233.50	7,960.0	1,325.8	1,291.9	1,851.1	0.00	0.00	0.00	

Checked By: _____	Approved By: _____	Date: _____
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