

EOG Resources, Inc.

DJ-Hereford Ranch

Chaulk Bluffs 08-31H

Chaulk Bluffs 08-31H

Original Wellbore

Plan: APD Directional Plan

Standard Planning Report

08 November, 2010

Halliburton Company

Planning Report

Database:	EOG Database	Local Co-ordinate Reference:	Well Chaulk Bluffs 08-31H
Company:	EOG Resources, Inc.	TVD Reference:	Rig @ 5447.00ft (TBD)
Project:	DJ-Hereford Ranch	MD Reference:	Rig @ 5447.00ft (TBD)
Site:	Chaulk Bluffs 08-31H	North Reference:	True
Well:	Chaulk Bluffs 08-31H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Wellbore		
Design:	APD Directional Plan		

Project	DJ-Hereford Ranch		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	Colorado North 501		

Site		Chaulk Bluffs 08-31H, Section 31 T11N R65W			
Site Position:		Northing:	561,313.46 usft	Latitude:	40° 52' 17.227 N
From:	Map	Easting:	2,221,878.40 usft	Longitude:	104° 41' 51.972 W
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	Grid Convergence:	0.52 °

Well	Chaulk Bluffs 08-31H					
Well Position	+N/-S	0.00 ft	Northing:	561,313.46 usft	Latitude:	40° 52' 17.227 N
	+E/-W	0.00 ft	Easting:	2,221,878.40 usft	Longitude:	104° 41' 51.972 W
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	5,425.00 ft

Wellbore	Original Wellbore				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	11/2/2010	8.91	67.47	53,465

Design	APD Directional Plan				
Audit Notes:					
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.00	
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.00	0.00	0.00	333.42	

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7,607.53	0.00	0.00	7,607.53	0.00	0.00	0.00	0.00	0.00	0.00	
8,357.54	90.00	333.42	8,085.00	427.01	-213.63	12.00	12.00	0.00	333.42	
12,565.17	90.00	333.42	8,085.00	4,190.00	-2,096.20	0.00	0.00	0.00	0.00	Chaulk Bluffs 08-31H

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Well:	Chaulk Bluffs 08-31H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Wellbore		
Design:	APD Directional Plan		

Planned 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)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,625.00	0.00	0.00	1,625.00	0.00	0.00	0.00	0.00	0.00	0.00
9 5/8"									
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00
3,600.00	0.00	0.00	3,600.00	0.00	0.00	0.00	0.00	0.00	0.00
3,700.00	0.00	0.00	3,700.00	0.00	0.00	0.00	0.00	0.00	0.00
3,800.00	0.00	0.00	3,800.00	0.00	0.00	0.00	0.00	0.00	0.00
3,900.00	0.00	0.00	3,900.00	0.00	0.00	0.00	0.00	0.00	0.00
4,000.00	0.00	0.00	4,000.00	0.00	0.00	0.00	0.00	0.00	0.00
4,100.00	0.00	0.00	4,100.00	0.00	0.00	0.00	0.00	0.00	0.00
4,200.00	0.00	0.00	4,200.00	0.00	0.00	0.00	0.00	0.00	0.00
4,300.00	0.00	0.00	4,300.00	0.00	0.00	0.00	0.00	0.00	0.00
4,400.00	0.00	0.00	4,400.00	0.00	0.00	0.00	0.00	0.00	0.00
4,500.00	0.00	0.00	4,500.00	0.00	0.00	0.00	0.00	0.00	0.00
4,600.00	0.00	0.00	4,600.00	0.00	0.00	0.00	0.00	0.00	0.00
4,700.00	0.00	0.00	4,700.00	0.00	0.00	0.00	0.00	0.00	0.00
4,800.00	0.00	0.00	4,800.00	0.00	0.00	0.00	0.00	0.00	0.00
4,900.00	0.00	0.00	4,900.00	0.00	0.00	0.00	0.00	0.00	0.00
5,000.00	0.00	0.00	5,000.00	0.00	0.00	0.00	0.00	0.00	0.00
5,100.00	0.00	0.00	5,100.00	0.00	0.00	0.00	0.00	0.00	0.00

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Design:	APD Directional Plan		

Planned 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)
5,200.00	0.00	0.00	5,200.00	0.00	0.00	0.00	0.00	0.00	0.00
5,300.00	0.00	0.00	5,300.00	0.00	0.00	0.00	0.00	0.00	0.00
5,400.00	0.00	0.00	5,400.00	0.00	0.00	0.00	0.00	0.00	0.00
5,500.00	0.00	0.00	5,500.00	0.00	0.00	0.00	0.00	0.00	0.00
5,600.00	0.00	0.00	5,600.00	0.00	0.00	0.00	0.00	0.00	0.00
5,700.00	0.00	0.00	5,700.00	0.00	0.00	0.00	0.00	0.00	0.00
5,800.00	0.00	0.00	5,800.00	0.00	0.00	0.00	0.00	0.00	0.00
5,900.00	0.00	0.00	5,900.00	0.00	0.00	0.00	0.00	0.00	0.00
6,000.00	0.00	0.00	6,000.00	0.00	0.00	0.00	0.00	0.00	0.00
6,100.00	0.00	0.00	6,100.00	0.00	0.00	0.00	0.00	0.00	0.00
6,200.00	0.00	0.00	6,200.00	0.00	0.00	0.00	0.00	0.00	0.00
6,300.00	0.00	0.00	6,300.00	0.00	0.00	0.00	0.00	0.00	0.00
6,400.00	0.00	0.00	6,400.00	0.00	0.00	0.00	0.00	0.00	0.00
6,500.00	0.00	0.00	6,500.00	0.00	0.00	0.00	0.00	0.00	0.00
6,600.00	0.00	0.00	6,600.00	0.00	0.00	0.00	0.00	0.00	0.00
6,700.00	0.00	0.00	6,700.00	0.00	0.00	0.00	0.00	0.00	0.00
6,800.00	0.00	0.00	6,800.00	0.00	0.00	0.00	0.00	0.00	0.00
6,900.00	0.00	0.00	6,900.00	0.00	0.00	0.00	0.00	0.00	0.00
7,000.00	0.00	0.00	7,000.00	0.00	0.00	0.00	0.00	0.00	0.00
7,100.00	0.00	0.00	7,100.00	0.00	0.00	0.00	0.00	0.00	0.00
7,200.00	0.00	0.00	7,200.00	0.00	0.00	0.00	0.00	0.00	0.00
7,300.00	0.00	0.00	7,300.00	0.00	0.00	0.00	0.00	0.00	0.00
7,400.00	0.00	0.00	7,400.00	0.00	0.00	0.00	0.00	0.00	0.00
7,500.00	0.00	0.00	7,500.00	0.00	0.00	0.00	0.00	0.00	0.00
7,600.00	0.00	0.00	7,600.00	0.00	0.00	0.00	0.00	0.00	0.00
7,607.53	0.00	0.00	7,607.53	0.00	0.00	0.00	0.00	0.00	0.00
7,700.00	11.10	333.42	7,699.42	7.98	-3.99	8.93	12.00	12.00	0.00
7,800.00	23.10	333.42	7,794.83	34.22	-17.12	38.27	12.00	12.00	0.00
7,900.00	35.10	333.42	7,882.05	77.63	-38.84	86.81	12.00	12.00	0.00
8,000.00	47.10	333.42	7,957.27	136.31	-68.20	152.42	12.00	12.00	0.00
8,100.00	59.10	333.42	8,017.21	207.70	-103.91	232.24	12.00	12.00	0.00
8,200.00	71.10	333.42	8,059.25	288.66	-144.41	322.77	12.00	12.00	0.00
8,300.00	83.10	333.42	8,081.54	375.68	-187.95	420.07	12.00	12.00	0.00
8,357.54	90.00	333.42	8,085.00	427.01	-213.63	477.47	12.00	12.00	0.00
7"									
8,400.00	90.00	333.42	8,085.00	464.99	-232.63	519.93	0.00	0.00	0.00
8,500.00	90.00	333.42	8,085.00	554.42	-277.37	619.93	0.00	0.00	0.00
8,600.00	90.00	333.42	8,085.00	643.85	-322.11	719.93	0.00	0.00	0.00
8,700.00	90.00	333.42	8,085.00	733.28	-366.85	819.93	0.00	0.00	0.00
8,800.00	90.00	333.42	8,085.00	822.72	-411.59	919.93	0.00	0.00	0.00
8,900.00	90.00	333.42	8,085.00	912.15	-456.34	1,019.93	0.00	0.00	0.00
9,000.00	90.00	333.42	8,085.00	1,001.58	-501.08	1,119.93	0.00	0.00	0.00
9,100.00	90.00	333.42	8,085.00	1,091.01	-545.82	1,219.93	0.00	0.00	0.00
9,200.00	90.00	333.42	8,085.00	1,180.45	-590.56	1,319.93	0.00	0.00	0.00
9,300.00	90.00	333.42	8,085.00	1,269.88	-635.30	1,419.93	0.00	0.00	0.00
9,400.00	90.00	333.42	8,085.00	1,359.31	-680.05	1,519.93	0.00	0.00	0.00
9,500.00	90.00	333.42	8,085.00	1,448.74	-724.79	1,619.93	0.00	0.00	0.00
9,600.00	90.00	333.42	8,085.00	1,538.18	-769.53	1,719.93	0.00	0.00	0.00
9,700.00	90.00	333.42	8,085.00	1,627.61	-814.27	1,819.93	0.00	0.00	0.00
9,800.00	90.00	333.42	8,085.00	1,717.04	-859.01	1,919.93	0.00	0.00	0.00
9,900.00	90.00	333.42	8,085.00	1,806.47	-903.75	2,019.93	0.00	0.00	0.00
10,000.00	90.00	333.42	8,085.00	1,895.91	-948.50	2,119.93	0.00	0.00	0.00
10,100.00	90.00	333.42	8,085.00	1,985.34	-993.24	2,219.93	0.00	0.00	0.00

Halliburton Company

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Well:	Chaulk Bluffs 08-31H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Wellbore		
Design:	APD Directional Plan		

Planned 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)	
10,200.00	90.00	333.42	8,085.00	2,074.77	-1,037.98	2,319.93	0.00	0.00	0.00	
10,300.00	90.00	333.42	8,085.00	2,164.20	-1,082.72	2,419.93	0.00	0.00	0.00	
10,400.00	90.00	333.42	8,085.00	2,253.64	-1,127.46	2,519.93	0.00	0.00	0.00	
10,500.00	90.00	333.42	8,085.00	2,343.07	-1,172.21	2,619.93	0.00	0.00	0.00	
10,600.00	90.00	333.42	8,085.00	2,432.50	-1,216.95	2,719.93	0.00	0.00	0.00	
10,700.00	90.00	333.42	8,085.00	2,521.93	-1,261.69	2,819.93	0.00	0.00	0.00	
10,800.00	90.00	333.42	8,085.00	2,611.37	-1,306.43	2,919.93	0.00	0.00	0.00	
10,900.00	90.00	333.42	8,085.00	2,700.80	-1,351.17	3,019.93	0.00	0.00	0.00	
11,000.00	90.00	333.42	8,085.00	2,790.23	-1,395.92	3,119.93	0.00	0.00	0.00	
11,100.00	90.00	333.42	8,085.00	2,879.66	-1,440.66	3,219.93	0.00	0.00	0.00	
11,200.00	90.00	333.42	8,085.00	2,969.09	-1,485.40	3,319.93	0.00	0.00	0.00	
11,300.00	90.00	333.42	8,085.00	3,058.53	-1,530.14	3,419.93	0.00	0.00	0.00	
11,400.00	90.00	333.42	8,085.00	3,147.96	-1,574.88	3,519.93	0.00	0.00	0.00	
11,500.00	90.00	333.42	8,085.00	3,237.39	-1,619.63	3,619.93	0.00	0.00	0.00	
11,600.00	90.00	333.42	8,085.00	3,326.82	-1,664.37	3,719.93	0.00	0.00	0.00	
11,700.00	90.00	333.42	8,085.00	3,416.26	-1,709.11	3,819.93	0.00	0.00	0.00	
11,800.00	90.00	333.42	8,085.00	3,505.69	-1,753.85	3,919.93	0.00	0.00	0.00	
11,900.00	90.00	333.42	8,085.00	3,595.12	-1,798.59	4,019.93	0.00	0.00	0.00	
12,000.00	90.00	333.42	8,085.00	3,684.55	-1,843.33	4,119.93	0.00	0.00	0.00	
12,100.00	90.00	333.42	8,085.00	3,773.99	-1,888.08	4,219.93	0.00	0.00	0.00	
12,200.00	90.00	333.42	8,085.00	3,863.42	-1,932.82	4,319.93	0.00	0.00	0.00	
12,300.00	90.00	333.42	8,085.00	3,952.85	-1,977.56	4,419.93	0.00	0.00	0.00	
12,400.00	90.00	333.42	8,085.00	4,042.28	-2,022.30	4,519.93	0.00	0.00	0.00	
12,500.00	90.00	333.42	8,085.00	4,131.72	-2,067.04	4,619.93	0.00	0.00	0.00	
12,565.17	90.00	333.42	8,085.00	4,190.00	-2,096.20	4,685.10	0.00	0.00	0.00	
4 1/2" - Chaulk Bluffs 08-31H(BHL)										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
Chaulk Bluffs 08-31H(BHL)	0.00	0.00	8,085.00	4,190.00	-2,096.20	565,484.32	2,219,744.38	40° 52' 58.626 N	104° 42' 19.261 W	
- hit/miss target										
- Shape										
- plan hits target center										
- Point										

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)	
1,625.00	1,625.00	9 5/8"	9.625	13.500	
8,357.54	8,085.00	7"	7.000	8.750	
12,565.17	8,085.00	4 1/2"	4.500	6.000	

Halliburton Company

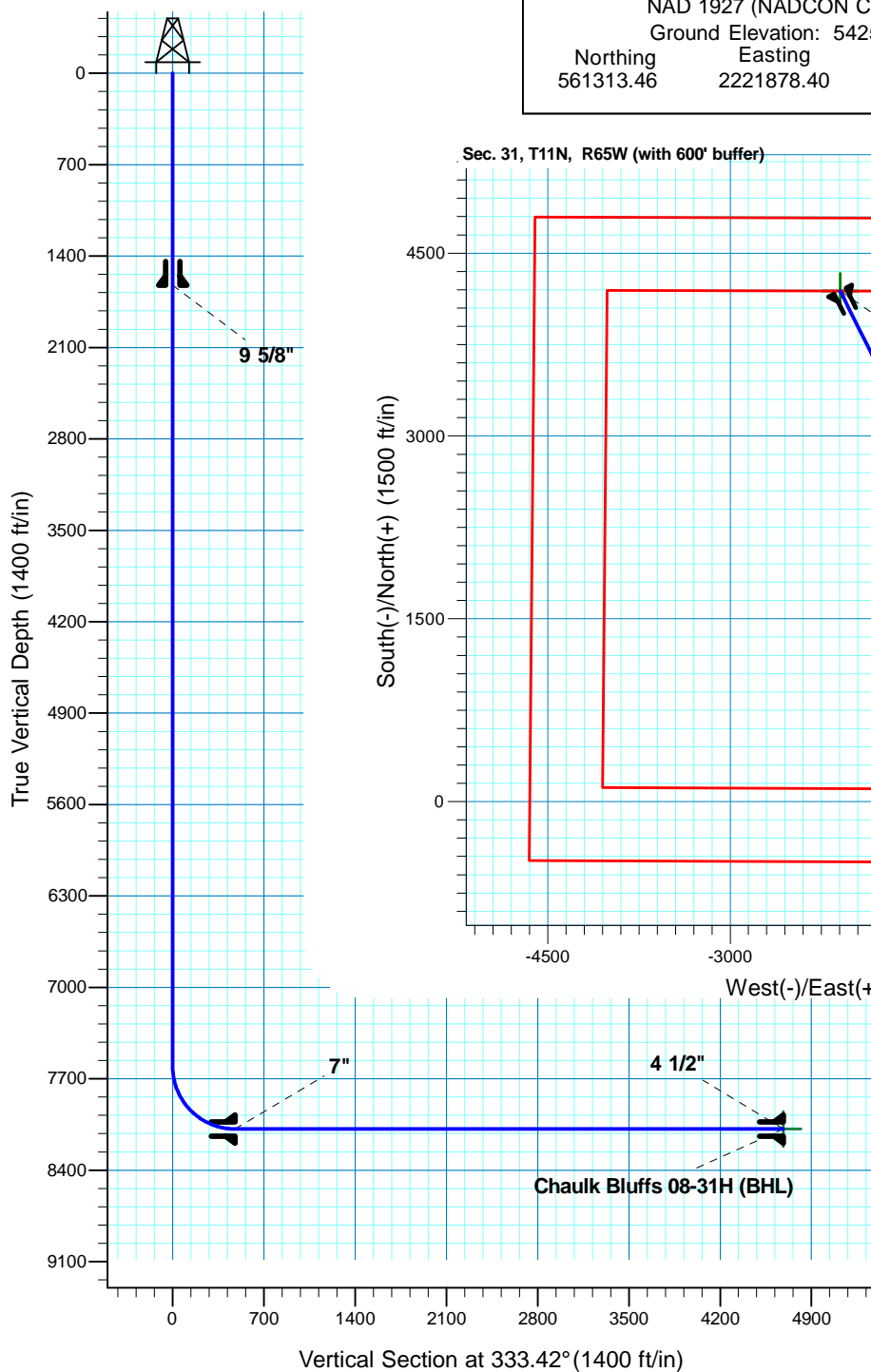
Planning Report

Database:	EOG Database	Local Co-ordinate Reference:	Well Chaulk Bluffs 08-31H
Company:	EOG Resources, Inc.	TVD Reference:	Rig @ 5447.00ft (TBD)
Project:	DJ-Hereford Ranch	MD Reference:	Rig @ 5447.00ft (TBD)
Site:	Chaulk Bluffs 08-31H	North Reference:	True
Well:	Chaulk Bluffs 08-31H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Wellbore		
Design:	APD Directional Plan		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
0.00	0.00	White River		0.00		
1,105.00	1,105.00	Fox Hills	Sandstone	0.00		
1,495.00	1,495.00	Pierre Shale	Shale	0.00		
4,465.00	4,465.00	Terry SS	Sandstone	0.00		
4,665.00	4,665.00	Hygiene	Sandstone	0.00		
7,996.67	7,955.00	Sharon Springs		0.00		
8,077.13	8,005.00	Niobrara	Shale	0.00		
8,115.59	8,025.00	B1 Chalk	Chalk	0.00		
8,237.54	8,070.00	B-Chalk	Chalk	0.00		
8,357.54	8,085.00	Target Zone	Chalk	0.00		

Chaulk Bluffs 08-31H Section 31 T11N R65W Weld County, CO

Surface Location			
NAD 1927 (NADCON CONUS)		Colorado North 501	
Ground Elevation: 5425.00		Rig @ 5447.00ft (TBD)	
Northing	Easting	Latitude	Longitude
561313.46	2221878.40	40°52' 17.227 N	104°41' 51.972 W



7" Casing Shoe
927' FSL
714' FEL

Project: DJ-Hereford Ranch
Site: Chaulk Bluffs 08-31H
Well: Chaulk Bluffs 08-31H
Plan: APD Directional Plan

T M
Azimuths to True North
Magnetic North: 8.91°
Magnetic Field
Strength: 53464.6snT
Dip Angle: 67.47°
Date: 11/2/2010
Model: IGRF200510

SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	7607.53	0.00	0.00	7607.53	0.00	0.00	0.00	0.00	0.00	
3	8357.54	90.00	333.42	8085.00	427.01	-213.63	12.00	333.42	477.47	
4	12565.17	90.00	333.42	8085.00	4190.00	-2096.20	0.00	0.00	4685.10	Chaulk Bluffs 08-31H(BHL)
TARGET DETAILS										
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape		
Chaulk Bluffs 08-31H(BHL)	8085.00	4190.00	-2096.20	565484.32	2219744.38	40°52' 58.626 N	104°42' 19.261 W	Point		