



Denver Division- Colorado

DJ - Hereford Ranch

Fox Creek 05-28H

Fox Creek 5-28H

Original Wellbore

Plan: APD

Standard Planning Report

21 January, 2010

Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Site Fox Creek 05-28H
Company:	Denver Division- Colorado	TVD Reference:	RIG @ 5488.0ft (TBD)
Project:	DJ - Hereford Ranch	MD Reference:	RIG @ 5488.0ft (TBD)
Site:	Fox Creek 05-28H	North Reference:	True
Well:	Fox Creek 5-28H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Wellbore		
Design:	APD		

Project	DJ - Hereford Ranch, Weld County		
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		Fox Creek 05-28H			
Site Position:		Northing:	599,646.97 ft	Latitude:	40° 58' 28.290 N
From:	Lat/Long	Easting:	2,295,474.25 ft	Longitude:	104° 25' 48.090 W
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	0.69 °

Well	Fox Creek 5-28H					
Well Position	+N/-S	0.0 ft	Northing:	599,646.97 ft	Latitude:	40° 58' 28.290 N
	+E/-W	0.0 ft	Easting:	2,295,474.25 ft	Longitude:	104° 25' 48.090 W
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	5,463.0 ft

Wellbore	Original Wellbore				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	1/21/2010	8.88	67.63	53,626

Design	APD			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	308.28

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
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
7,070.5	0.00	0.00	7,070.5	0.0	0.0	0.00	0.00	0.00	0.00	
7,820.5	90.00	306.00	7,548.0	280.6	-386.3	12.00	12.00	0.00	306.00	
9,748.1	90.00	306.00	7,548.0	1,413.6	-1,945.7	0.00	0.00	0.00	0.00	Fox Creek 5-28H (Tar
11,681.7	90.00	314.53	7,548.0	2,662.3	-3,419.8	0.44	0.00	0.44	90.00	Fox Creek 5-28H (Tar
12,531.7	90.00	305.93	7,548.0	3,210.7	-4,068.1	1.01	0.00	-1.01	-90.00	Fox Creek 5-28H (BH

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Project:	DJ - Hereford Ranch	MD Reference:	RIG @ 5488.0ft (TBD)
Site:	Fox Creek 05-28H	North Reference:	True
Well:	Fox Creek 5-28H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Wellbore		
Design:	APD		

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)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,620.0	0.00	0.00	1,620.0	0.0	0.0	0.0	0.00	0.00	0.00
9 5/8"									
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
3,100.0	0.00	0.00	3,100.0	0.0	0.0	0.0	0.00	0.00	0.00
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.0	0.00	0.00	0.00
3,300.0	0.00	0.00	3,300.0	0.0	0.0	0.0	0.00	0.00	0.00
3,400.0	0.00	0.00	3,400.0	0.0	0.0	0.0	0.00	0.00	0.00
3,500.0	0.00	0.00	3,500.0	0.0	0.0	0.0	0.00	0.00	0.00
3,600.0	0.00	0.00	3,600.0	0.0	0.0	0.0	0.00	0.00	0.00
3,700.0	0.00	0.00	3,700.0	0.0	0.0	0.0	0.00	0.00	0.00
3,800.0	0.00	0.00	3,800.0	0.0	0.0	0.0	0.00	0.00	0.00
3,900.0	0.00	0.00	3,900.0	0.0	0.0	0.0	0.00	0.00	0.00
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.0	0.00	0.00	0.00
4,100.0	0.00	0.00	4,100.0	0.0	0.0	0.0	0.00	0.00	0.00
4,200.0	0.00	0.00	4,200.0	0.0	0.0	0.0	0.00	0.00	0.00
4,300.0	0.00	0.00	4,300.0	0.0	0.0	0.0	0.00	0.00	0.00
4,400.0	0.00	0.00	4,400.0	0.0	0.0	0.0	0.00	0.00	0.00
4,500.0	0.00	0.00	4,500.0	0.0	0.0	0.0	0.00	0.00	0.00
4,600.0	0.00	0.00	4,600.0	0.0	0.0	0.0	0.00	0.00	0.00
4,700.0	0.00	0.00	4,700.0	0.0	0.0	0.0	0.00	0.00	0.00
4,800.0	0.00	0.00	4,800.0	0.0	0.0	0.0	0.00	0.00	0.00
4,900.0	0.00	0.00	4,900.0	0.0	0.0	0.0	0.00	0.00	0.00
5,000.0	0.00	0.00	5,000.0	0.0	0.0	0.0	0.00	0.00	0.00
5,100.0	0.00	0.00	5,100.0	0.0	0.0	0.0	0.00	0.00	0.00

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Site:	Fox Creek 05-28H	North Reference:	True
Well:	Fox Creek 5-28H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Wellbore		
Design:	APD		

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)
5,200.0	0.00	0.00	5,200.0	0.0	0.0	0.0	0.00	0.00	0.00
5,300.0	0.00	0.00	5,300.0	0.0	0.0	0.0	0.00	0.00	0.00
5,400.0	0.00	0.00	5,400.0	0.0	0.0	0.0	0.00	0.00	0.00
5,500.0	0.00	0.00	5,500.0	0.0	0.0	0.0	0.00	0.00	0.00
5,600.0	0.00	0.00	5,600.0	0.0	0.0	0.0	0.00	0.00	0.00
5,700.0	0.00	0.00	5,700.0	0.0	0.0	0.0	0.00	0.00	0.00
5,800.0	0.00	0.00	5,800.0	0.0	0.0	0.0	0.00	0.00	0.00
5,900.0	0.00	0.00	5,900.0	0.0	0.0	0.0	0.00	0.00	0.00
6,000.0	0.00	0.00	6,000.0	0.0	0.0	0.0	0.00	0.00	0.00
6,100.0	0.00	0.00	6,100.0	0.0	0.0	0.0	0.00	0.00	0.00
6,200.0	0.00	0.00	6,200.0	0.0	0.0	0.0	0.00	0.00	0.00
6,300.0	0.00	0.00	6,300.0	0.0	0.0	0.0	0.00	0.00	0.00
6,400.0	0.00	0.00	6,400.0	0.0	0.0	0.0	0.00	0.00	0.00
6,500.0	0.00	0.00	6,500.0	0.0	0.0	0.0	0.00	0.00	0.00
6,600.0	0.00	0.00	6,600.0	0.0	0.0	0.0	0.00	0.00	0.00
6,700.0	0.00	0.00	6,700.0	0.0	0.0	0.0	0.00	0.00	0.00
6,800.0	0.00	0.00	6,800.0	0.0	0.0	0.0	0.00	0.00	0.00
6,900.0	0.00	0.00	6,900.0	0.0	0.0	0.0	0.00	0.00	0.00
7,000.0	0.00	0.00	7,000.0	0.0	0.0	0.0	0.00	0.00	0.00
7,070.5	0.00	0.00	7,070.5	0.0	0.0	0.0	0.00	0.00	0.00
7,100.0	3.54	306.00	7,100.0	0.5	-0.7	0.9	12.00	12.00	0.00
7,200.0	15.54	306.00	7,198.4	10.3	-14.1	17.4	12.00	12.00	0.00
7,300.0	27.54	306.00	7,291.3	31.8	-43.8	54.0	12.00	12.00	0.00
7,400.0	39.54	306.00	7,374.5	64.2	-88.4	109.1	12.00	12.00	0.00
7,500.0	51.54	306.00	7,444.4	106.1	-146.0	180.3	12.00	12.00	0.00
7,600.0	63.54	306.00	7,498.0	155.6	-214.1	264.5	12.00	12.00	0.00
7,700.0	75.54	306.00	7,532.9	210.5	-289.8	357.9	12.00	12.00	0.00
7,800.0	87.54	306.00	7,547.6	268.6	-369.7	456.6	12.00	12.00	0.00
7,820.5	90.00	306.00	7,548.0	280.6	-386.2	477.1	12.00	12.00	0.00
7"									
7,900.0	90.00	306.00	7,548.0	327.4	-450.6	556.5	0.01	0.01	0.00
8,000.0	90.00	306.00	7,548.0	386.1	-531.5	656.4	0.00	0.00	0.00
8,100.0	90.00	306.00	7,548.0	444.9	-612.4	756.3	0.00	0.00	0.00
8,200.0	90.00	306.00	7,548.0	503.7	-693.3	856.3	0.00	0.00	0.00
8,300.0	90.00	306.00	7,548.0	562.5	-774.2	956.2	0.00	0.00	0.00
8,400.0	90.00	306.00	7,548.0	621.2	-855.1	1,056.1	0.00	0.00	0.00
8,500.0	90.00	306.00	7,548.0	680.0	-936.0	1,156.0	0.00	0.00	0.00
8,600.0	90.00	306.00	7,548.0	738.8	-1,016.9	1,255.9	0.00	0.00	0.00
8,700.0	90.00	306.00	7,548.0	797.6	-1,097.8	1,355.9	0.00	0.00	0.00
8,800.0	90.00	306.00	7,548.0	856.4	-1,178.7	1,455.8	0.00	0.00	0.00
8,900.0	90.00	306.00	7,548.0	915.1	-1,259.6	1,555.7	0.00	0.00	0.00
9,000.0	90.00	306.00	7,548.0	973.9	-1,340.5	1,655.6	0.00	0.00	0.00
9,100.0	90.00	306.00	7,548.0	1,032.7	-1,421.4	1,755.5	0.00	0.00	0.00
9,200.0	90.00	306.00	7,548.0	1,091.5	-1,502.3	1,855.5	0.00	0.00	0.00
9,300.0	90.00	306.00	7,548.0	1,150.3	-1,583.2	1,955.4	0.00	0.00	0.00
9,400.0	90.00	306.00	7,548.0	1,209.0	-1,664.1	2,055.3	0.00	0.00	0.00
9,500.0	90.00	306.00	7,548.0	1,267.8	-1,745.0	2,155.2	0.00	0.00	0.00
9,600.0	90.00	306.00	7,548.0	1,326.6	-1,825.9	2,255.1	0.00	0.00	0.00
9,700.0	90.00	306.00	7,548.0	1,385.4	-1,906.8	2,355.1	0.00	0.00	0.00
9,748.1	90.00	306.00	7,548.0	1,413.6	-1,945.7	2,403.1	0.00	0.00	0.00
Fox Creek 5-28H (Target 1)									
9,800.0	90.00	306.23	7,548.0	1,444.2	-1,987.6	2,455.0	0.44	0.00	0.44
9,900.0	90.00	306.67	7,548.0	1,503.6	-2,068.1	2,554.9	0.44	0.00	0.44
10,000.0	90.00	307.11	7,548.0	1,563.7	-2,148.1	2,654.9	0.44	0.00	0.44

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Site:	Fox Creek 05-28H	North Reference:	True
Well:	Fox Creek 5-28H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Wellbore		
Design:	APD		

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)
10,100.0	90.00	307.55	7,548.0	1,624.3	-2,227.6	2,754.9	0.44	0.00	0.44
10,200.0	90.00	307.99	7,548.0	1,685.6	-2,306.6	2,854.9	0.44	0.00	0.44
10,300.0	90.00	308.44	7,548.0	1,747.4	-2,385.2	2,954.9	0.44	0.00	0.44
10,400.0	90.00	308.88	7,548.0	1,809.9	-2,463.3	3,054.9	0.44	0.00	0.44
10,500.0	90.00	309.32	7,548.0	1,873.0	-2,540.9	3,154.9	0.44	0.00	0.44
10,600.0	90.00	309.76	7,548.0	1,936.6	-2,618.0	3,254.8	0.44	0.00	0.44
10,700.0	90.00	310.20	7,548.0	2,000.9	-2,694.6	3,354.8	0.44	0.00	0.44
10,800.0	90.00	310.64	7,548.0	2,065.7	-2,770.8	3,454.7	0.44	0.00	0.44
10,900.0	90.00	311.08	7,548.0	2,131.1	-2,846.4	3,554.6	0.44	0.00	0.44
11,000.0	90.00	311.52	7,548.0	2,197.1	-2,921.5	3,654.5	0.44	0.00	0.44
11,100.0	90.00	311.96	7,548.0	2,263.7	-2,996.1	3,754.3	0.44	0.00	0.44
11,200.0	90.00	312.41	7,548.0	2,330.9	-3,070.2	3,854.1	0.44	0.00	0.44
11,300.0	90.00	312.85	7,548.0	2,398.6	-3,143.8	3,953.8	0.44	0.00	0.44
11,400.0	90.00	313.29	7,548.0	2,466.9	-3,216.9	4,053.4	0.44	0.00	0.44
11,500.0	90.00	313.73	7,548.0	2,535.7	-3,289.4	4,153.0	0.44	0.00	0.44
11,600.0	90.00	314.17	7,548.0	2,605.1	-3,361.4	4,252.5	0.44	0.00	0.44
11,681.7	90.00	314.53	7,548.0	2,662.3	-3,419.8	4,333.8	0.44	0.00	0.44
Fox Creek 5-28H (Target 2)									
11,700.0	90.00	314.35	7,548.0	2,675.0	-3,432.9	4,352.0	1.01	0.00	-1.01
11,800.0	90.00	313.33	7,548.0	2,744.3	-3,505.0	4,451.5	1.01	0.00	-1.01
11,900.0	90.00	312.32	7,548.0	2,812.3	-3,578.3	4,551.2	1.01	0.00	-1.01
12,000.0	90.00	311.31	7,548.0	2,879.0	-3,652.9	4,651.0	1.01	0.00	-1.01
12,100.0	90.00	310.30	7,548.0	2,944.3	-3,728.5	4,750.9	1.01	0.00	-1.01
12,200.0	90.00	309.29	7,548.0	3,008.3	-3,805.4	4,850.9	1.01	0.00	-1.01
12,300.0	90.00	308.27	7,548.0	3,070.9	-3,883.3	4,950.9	1.01	0.00	-1.01
12,400.0	90.00	307.26	7,548.0	3,132.2	-3,962.4	5,050.9	1.01	0.00	-1.01
12,500.0	90.00	306.25	7,548.0	3,192.0	-4,042.5	5,150.8	1.01	0.00	-1.01
12,531.7	90.00	305.93	7,548.0	3,210.7	-4,068.1	5,182.5	1.01	0.00	-1.01
Fox Creek 5-28H (BHL)									

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
1,620.0	1,620.0	9 5/8"	9-5/8	12-1/4	
7,820.5	7,548.0	7"	7	8-3/4	
12,531.7	7,548.0	4 1/2"	4-1/2	6-1/4	