

Denver Division- Colorado

DJ - Hereford Ranch

Greasewood 10-20H

Greasewood 10-20H

Original Wellbore

Plan: APD Directional Plan

Standard Planning Report

16 March, 2011

EOG Resources Inc

Planning Report

Database:	EDM	Local Co-ordinate Reference:	Site Greasewood 10-20H
Company:	Denver Division- Colorado	TVD Reference:	RIG @ 4685.00ft (TBD)
Project:	DJ - Hereford Ranch	MD Reference:	RIG @ 4685.00ft (TBD)
Site:	Greasewood 10-20H	North Reference:	True
Well:	Greasewood 10-20H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Wellbore		
Design:	APD Directional Plan		

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	Greasewood 10-20H		
Site Position:		Northing:	419,977.76 ft
From:	Lat/Long	Easting:	2,350,358.08 ft
Position Uncertainty:	0.00 ft	Slot Radius:	"
		Latitude:	40° 28' 45.952 N
		Longitude:	104° 14' 25.958 W
		Grid Convergence:	0.81 deg

Well	Greasewood 10-20H		
Well Position	+N/-S	0.00 ft	Northing:
	+E/-W	0.00 ft	Easting:
Position Uncertainty	0.00 ft	Wellhead Elevation:	ft
		Latitude:	40° 28' 45.952 N
		Longitude:	104° 14' 25.958 W
		Ground Level:	4,663.00 ft

Wellbore	Original Wellbore				
Magnetics	Model Name	Sample Date	Declination (deg)	Dip Angle (deg)	Field Strength (nT)
	IGRF200510	3/16/2011	8.58	67.22	53,276

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 (deg)
	0.00	0.00	0.00	152.78

Plan Sections										
Measured Depth (ft)	Inclination (deg)	Azimuth (deg)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (?/100ft)	Build Rate (?/100ft)	Turn Rate (?/100ft)	TFO (deg)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
5,747.53	0.00	0.00	5,747.53	0.00	0.00	0.00	0.00	0.00	0.00	
6,497.54	90.00	152.78	6,225.00	-424.59	218.40	12.00	12.00	0.00	152.78	
10,673.39	90.00	152.78	6,225.00	-4,137.97	2,128.53	0.00	0.00	0.00	0.00	Greasewood 10-20H

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Well:	Greasewood 10-20H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Wellbore		
Design:	APD Directional Plan		

Planned Survey

Measured Depth (ft)	Inclination (deg)	Azimuth (deg)	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
9-5/8"									
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
1,700.00	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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Site:	Greasewood 10-20H	North Reference:	True
Well:	Greasewood 10-20H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Wellbore		
Design:	APD Directional Plan		

Planned Survey

Measured Depth (ft)	Inclination (deg)	Azimuth (deg)	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
5,747.53	0.00	0.00	5,747.53	0.00	0.00	0.00	0.00	0.00	0.00
5,800.00	6.30	152.78	5,799.89	-2.56	1.32	2.88	12.00	12.00	0.00
5,900.00	18.30	152.78	5,897.42	-21.46	11.04	24.14	12.00	12.00	0.00
6,000.00	30.30	152.78	5,988.40	-57.98	29.83	65.21	12.00	12.00	0.00
6,100.00	42.30	152.78	6,068.85	-110.53	56.85	124.29	12.00	12.00	0.00
6,200.00	54.30	152.78	6,135.26	-176.80	90.94	198.82	12.00	12.00	0.00
6,300.00	66.30	152.78	6,184.72	-253.90	130.60	285.52	12.00	12.00	0.00
6,400.00	78.30	152.78	6,215.07	-338.45	174.10	380.61	12.00	12.00	0.00
6,497.54	90.00	152.78	6,225.00	-424.59	218.40	477.47	12.00	12.00	0.00
7"									
6,500.00	90.00	152.78	6,225.00	-426.78	219.53	479.93	0.00	0.00	0.00
6,600.00	90.00	152.78	6,225.00	-515.70	265.27	579.93	0.00	0.00	0.00
6,700.00	90.00	152.78	6,225.00	-604.63	311.01	679.93	0.00	0.00	0.00
6,800.00	90.00	152.78	6,225.00	-693.55	356.76	779.93	0.00	0.00	0.00
6,900.00	90.00	152.78	6,225.00	-782.48	402.50	879.93	0.00	0.00	0.00
7,000.00	90.00	152.78	6,225.00	-871.40	448.24	979.93	0.00	0.00	0.00
7,100.00	90.00	152.78	6,225.00	-960.33	493.98	1,079.93	0.00	0.00	0.00
7,200.00	90.00	152.78	6,225.00	-1,049.25	539.72	1,179.93	0.00	0.00	0.00
7,300.00	90.00	152.78	6,225.00	-1,138.18	585.47	1,279.93	0.00	0.00	0.00
7,400.00	90.00	152.78	6,225.00	-1,227.10	631.21	1,379.93	0.00	0.00	0.00
7,500.00	90.00	152.78	6,225.00	-1,316.03	676.95	1,479.93	0.00	0.00	0.00
7,600.00	90.00	152.78	6,225.00	-1,404.95	722.69	1,579.93	0.00	0.00	0.00
7,700.00	90.00	152.78	6,225.00	-1,493.88	768.44	1,679.93	0.00	0.00	0.00
7,800.00	90.00	152.78	6,225.00	-1,582.80	814.18	1,779.93	0.00	0.00	0.00
7,900.00	90.00	152.78	6,225.00	-1,671.73	859.92	1,879.93	0.00	0.00	0.00
8,000.00	90.00	152.78	6,225.00	-1,760.65	905.66	1,979.93	0.00	0.00	0.00
8,100.00	90.00	152.78	6,225.00	-1,849.58	951.40	2,079.93	0.00	0.00	0.00
8,200.00	90.00	152.78	6,225.00	-1,938.50	997.15	2,179.93	0.00	0.00	0.00
8,300.00	90.00	152.78	6,225.00	-2,027.43	1,042.89	2,279.93	0.00	0.00	0.00
8,400.00	90.00	152.78	6,225.00	-2,116.35	1,088.63	2,379.93	0.00	0.00	0.00
8,500.00	90.00	152.78	6,225.00	-2,205.28	1,134.37	2,479.93	0.00	0.00	0.00
8,600.00	90.00	152.78	6,225.00	-2,294.20	1,180.11	2,579.93	0.00	0.00	0.00
8,700.00	90.00	152.78	6,225.00	-2,383.13	1,225.86	2,679.93	0.00	0.00	0.00
8,800.00	90.00	152.78	6,225.00	-2,472.05	1,271.60	2,779.93	0.00	0.00	0.00
8,900.00	90.00	152.78	6,225.00	-2,560.98	1,317.34	2,879.93	0.00	0.00	0.00
9,000.00	90.00	152.78	6,225.00	-2,649.90	1,363.08	2,979.93	0.00	0.00	0.00
9,100.00	90.00	152.78	6,225.00	-2,738.83	1,408.82	3,079.93	0.00	0.00	0.00
9,200.00	90.00	152.78	6,225.00	-2,827.75	1,454.57	3,179.93	0.00	0.00	0.00
9,300.00	90.00	152.78	6,225.00	-2,916.68	1,500.31	3,279.93	0.00	0.00	0.00
9,400.00	90.00	152.78	6,225.00	-3,005.60	1,546.05	3,379.93	0.00	0.00	0.00
9,500.00	90.00	152.78	6,225.00	-3,094.53	1,591.79	3,479.93	0.00	0.00	0.00
9,600.00	90.00	152.78	6,225.00	-3,183.45	1,637.53	3,579.93	0.00	0.00	0.00
9,700.00	90.00	152.78	6,225.00	-3,272.38	1,683.28	3,679.93	0.00	0.00	0.00
9,800.00	90.00	152.78	6,225.00	-3,361.30	1,729.02	3,779.93	0.00	0.00	0.00
9,900.00	90.00	152.78	6,225.00	-3,450.23	1,774.76	3,879.93	0.00	0.00	0.00
10,000.00	90.00	152.78	6,225.00	-3,539.15	1,820.50	3,979.93	0.00	0.00	0.00
10,100.00	90.00	152.78	6,225.00	-3,628.08	1,866.25	4,079.93	0.00	0.00	0.00

EOG Resources Inc

Planning Report

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Project:	DJ - Hereford Ranch	MD Reference:	RIG @ 4685.00ft (TBD)
Site:	Greasewood 10-20H	North Reference:	True
Well:	Greasewood 10-20H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Wellbore		
Design:	APD Directional Plan		

Planned Survey

Measured Depth (ft)	Inclination (deg)	Azimuth (deg)	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	152.78	6,225.00	-3,717.00	1,911.99	4,179.93	0.00	0.00	0.00
10,300.00	90.00	152.78	6,225.00	-3,805.93	1,957.73	4,279.93	0.00	0.00	0.00
10,400.00	90.00	152.78	6,225.00	-3,894.85	2,003.47	4,379.93	0.00	0.00	0.00
10,500.00	90.00	152.78	6,225.00	-3,983.78	2,049.21	4,479.93	0.00	0.00	0.00
10,600.00	90.00	152.78	6,225.00	-4,072.70	2,094.96	4,579.93	0.00	0.00	0.00
10,673.39	90.00	152.78	6,225.00	-4,137.97	2,128.53	4,653.32	0.00	0.00	0.00
Greasewood 10-20H (BHL)									

Targets

Target Name	Dip Angle (deg)	Dip Dir. (deg)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- hit/miss target									
- Shape									
Greasewood 10-20H (0.00	0.00	6,225.00	-4,137.97	2,128.53	415,870.45	2,352,545.16	40° 28' 5.059 N	104° 13' 58.418 W
- plan hits target center									
- Point									

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
800.00	800.00	9-5/8"	9-5/8	13-1/2
6,497.54	6,225.00	7"	7	8-3/4
10,673.39	6,225.00	4 1/2"	4-1/2	6

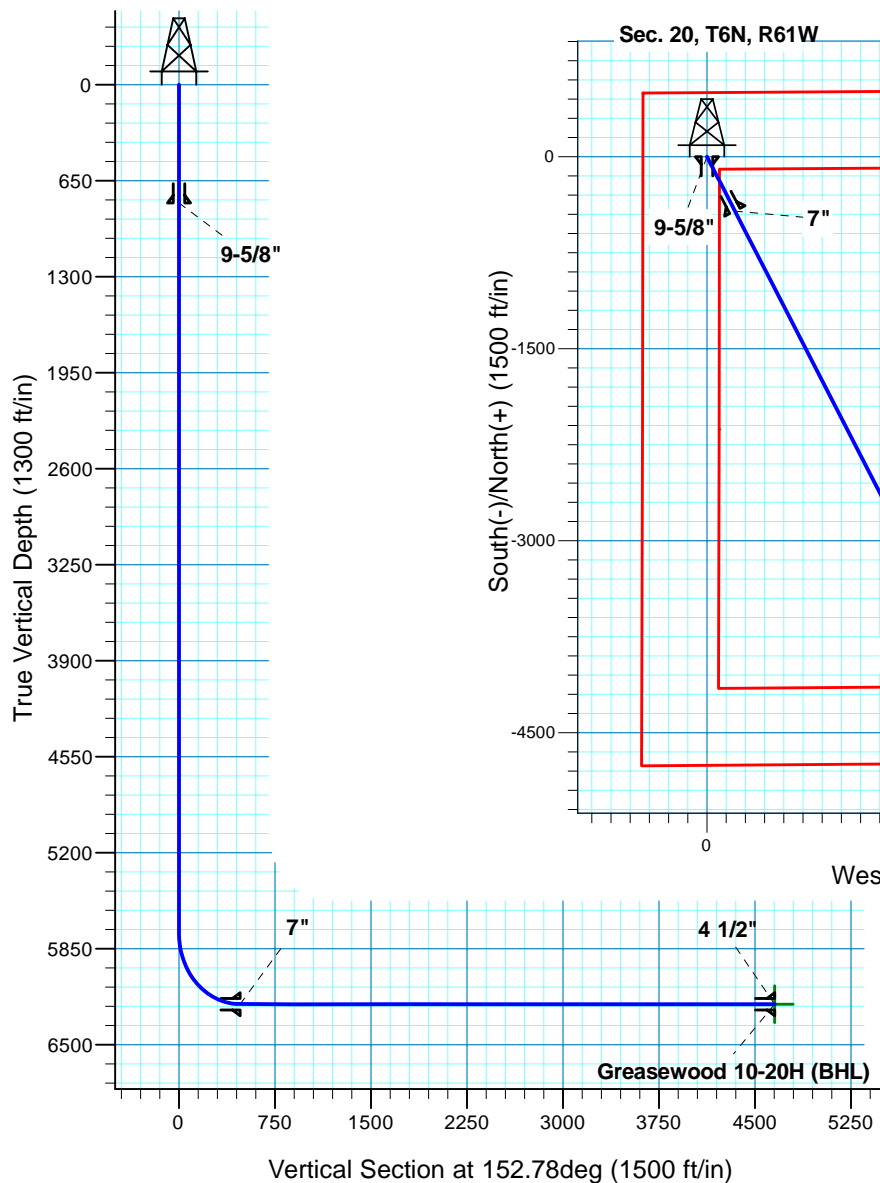
Greasewood 10-20H

Section 20 T6N R61W

Weld County, CO

Surface Location

NAD 1927 (NADCON CONUS) Colorado North 501
 Ground Elevation: 4663.00 RIG @ 4685.00ft (TBD)
 Northing Easting Latitude Longitude
 419977.76 2350358.08 40° 28' 45.952 N 104° 14' 25.958 W



T M
 Azimuths to True North
 Magnetic North: 8.58°
 Magnetic Field
 Strength: 53276.4snT
 Dip Angle: 67.22°
 Date: 3/16/2011
 Model: IGRF200510

Project: DJ - Hereford Ranch
 Site: Greasewood 10-20H
 Well: Greasewood 10-20H
 Plan: APD Directional Plan

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	5747.53	0.00	0.00	5747.53	0.00	0.00	0.00	0.00	0.00	
3	6497.54	90.00	152.78	6225.00	-424.59	218.40	12.00	152.78	477.47	
4	10673.39	90.00	152.78	6225.00	-4137.97	2128.53	0.00	0.00	4653.32	Greasewood 10-20H (BHL)

TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape Point
Greasewood 10-20H (BHL)	6225.00	-4137.97	2128.53	415870.45	2352545.16	40° 28' 5.059 N	104° 13' 58.418 W	