

Denver Division- Colorado

DJ - Hereford Ranch

Gravel Draw 07-07H

Gravel Draw 07-07H

Original Wellbore

Plan: APD Directional Plan

Standard Planning Report

11 January, 2011

EOG Resources Inc

Planning Report

Database:	EDM	Local Co-ordinate Reference:	Site Gravel Draw 07-07H
Company:	Denver Division- Colorado	TVD Reference:	RIG @ 5000.00ft (TBD)
Project:	DJ - Hereford Ranch	MD Reference:	RIG @ 5000.00ft (TBD)
Site:	Gravel Draw 07-07H	North Reference:	True
Well:	Gravel Draw 07-07H	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	Gravel Draw 07-07H		
Site Position:		Northing:	493,707.91 ft
From:	Lat/Long	Easting:	2,345,076.78 ft
Position Uncertainty:	0.00 ft	Slot Radius:	"
		Latitude:	40° 40' 55.200 N
		Longitude:	104° 15' 20.909 W
		Grid Convergence:	0.80 deg

Well	Gravel Draw 07-07H					
Well Position	+N/-S	0.00 ft	Northing:	493,707.91 ft	Latitude:	40° 40' 55.200 N
	+E/-W	0.00 ft	Easting:	2,345,076.78 ft	Longitude:	104° 15' 20.909 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	4,978.00 ft

Wellbore	Original Wellbore				
Magnetics	Model Name	Sample Date	Declination (deg)	Dip Angle (deg)	Field Strength (nT)
	IGRF200510	1/11/2011	8.63	67.38	53,396

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	153.37	

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	
6,177.53	0.00	0.00	6,177.53	0.00	0.00	0.00	0.00	0.00	0.00	
6,927.54	90.00	153.37	6,655.00	-426.83	213.98	12.00	12.00	0.00	153.37	
11,126.46	90.00	153.37	6,655.00	-4,180.46	2,095.81	0.00	0.00	0.00	0.00	Gravel Draw 07-07H

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Site:	Gravel Draw 07-07H	North Reference:	True
Well:	Gravel Draw 07-07H	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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Well:	Gravel Draw 07-07H	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
5,800.00	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
6,177.53	0.00	0.00	6,177.53	0.00	0.00	0.00	0.00	0.00	0.00
6,200.00	2.70	153.37	6,199.99	-0.47	0.24	0.53	12.00	12.00	0.00
6,300.00	14.70	153.37	6,298.66	-13.96	7.00	15.62	12.00	12.00	0.00
6,400.00	26.70	153.37	6,392.04	-45.50	22.81	50.90	12.00	12.00	0.00
6,500.00	38.70	153.37	6,476.04	-93.70	46.97	104.82	12.00	12.00	0.00
6,600.00	50.70	153.37	6,546.99	-156.46	78.44	175.02	12.00	12.00	0.00
6,700.00	62.70	153.37	6,601.80	-231.04	115.83	258.44	12.00	12.00	0.00
6,800.00	74.70	153.37	6,638.07	-314.17	157.50	351.44	12.00	12.00	0.00
6,900.00	86.70	153.37	6,654.21	-402.23	201.65	449.95	12.00	12.00	0.00
6,927.54	90.00	153.37	6,655.00	-426.83	213.99	477.47	12.00	12.00	0.00
7"									
7,000.00	90.00	153.37	6,655.00	-491.61	246.46	549.93	0.00	0.00	0.00
7,100.00	90.00	153.37	6,655.00	-581.00	291.28	649.93	0.00	0.00	0.00
7,200.00	90.00	153.37	6,655.00	-670.40	336.09	749.93	0.00	0.00	0.00
7,300.00	90.00	153.37	6,655.00	-759.79	380.91	849.93	0.00	0.00	0.00
7,400.00	90.00	153.37	6,655.00	-849.19	425.73	949.93	0.00	0.00	0.00
7,500.00	90.00	153.37	6,655.00	-938.58	470.54	1,049.93	0.00	0.00	0.00
7,600.00	90.00	153.37	6,655.00	-1,027.98	515.36	1,149.93	0.00	0.00	0.00
7,700.00	90.00	153.37	6,655.00	-1,117.37	560.18	1,249.93	0.00	0.00	0.00
7,800.00	90.00	153.37	6,655.00	-1,206.77	605.00	1,349.93	0.00	0.00	0.00
7,900.00	90.00	153.37	6,655.00	-1,296.16	649.81	1,449.93	0.00	0.00	0.00
8,000.00	90.00	153.37	6,655.00	-1,385.56	694.63	1,549.93	0.00	0.00	0.00
8,100.00	90.00	153.37	6,655.00	-1,474.95	739.45	1,649.93	0.00	0.00	0.00
8,200.00	90.00	153.37	6,655.00	-1,564.35	784.26	1,749.93	0.00	0.00	0.00
8,300.00	90.00	153.37	6,655.00	-1,653.74	829.08	1,849.93	0.00	0.00	0.00
8,400.00	90.00	153.37	6,655.00	-1,743.14	873.90	1,949.93	0.00	0.00	0.00
8,500.00	90.00	153.37	6,655.00	-1,832.53	918.71	2,049.93	0.00	0.00	0.00
8,600.00	90.00	153.37	6,655.00	-1,921.93	963.53	2,149.93	0.00	0.00	0.00
8,700.00	90.00	153.37	6,655.00	-2,011.32	1,008.35	2,249.93	0.00	0.00	0.00
8,800.00	90.00	153.37	6,655.00	-2,100.72	1,053.16	2,349.93	0.00	0.00	0.00
8,900.00	90.00	153.37	6,655.00	-2,190.11	1,097.98	2,449.93	0.00	0.00	0.00
9,000.00	90.00	153.37	6,655.00	-2,279.51	1,142.80	2,549.93	0.00	0.00	0.00
9,100.00	90.00	153.37	6,655.00	-2,368.90	1,187.61	2,649.93	0.00	0.00	0.00
9,200.00	90.00	153.37	6,655.00	-2,458.30	1,232.43	2,749.93	0.00	0.00	0.00
9,300.00	90.00	153.37	6,655.00	-2,547.69	1,277.25	2,849.93	0.00	0.00	0.00
9,400.00	90.00	153.37	6,655.00	-2,637.09	1,322.06	2,949.93	0.00	0.00	0.00
9,500.00	90.00	153.37	6,655.00	-2,726.48	1,366.88	3,049.93	0.00	0.00	0.00
9,600.00	90.00	153.37	6,655.00	-2,815.88	1,411.70	3,149.93	0.00	0.00	0.00
9,700.00	90.00	153.37	6,655.00	-2,905.27	1,456.51	3,249.93	0.00	0.00	0.00
9,800.00	90.00	153.37	6,655.00	-2,994.67	1,501.33	3,349.93	0.00	0.00	0.00
9,900.00	90.00	153.37	6,655.00	-3,084.06	1,546.15	3,449.93	0.00	0.00	0.00
10,000.00	90.00	153.37	6,655.00	-3,173.46	1,590.96	3,549.93	0.00	0.00	0.00
10,100.00	90.00	153.37	6,655.00	-3,262.85	1,635.78	3,649.93	0.00	0.00	0.00

EOG Resources Inc

Planning Report

Database:	EDM	Local Co-ordinate Reference:	Site Gravel Draw 07-07H
Company:	Denver Division- Colorado	TVD Reference:	RIG @ 5000.00ft (TBD)
Project:	DJ - Hereford Ranch	MD Reference:	RIG @ 5000.00ft (TBD)
Site:	Gravel Draw 07-07H	North Reference:	True
Well:	Gravel Draw 07-07H	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	153.37	6,655.00	-3,352.25	1,680.60	3,749.93	0.00	0.00	0.00
10,300.00	90.00	153.37	6,655.00	-3,441.64	1,725.42	3,849.93	0.00	0.00	0.00
10,400.00	90.00	153.37	6,655.00	-3,531.04	1,770.23	3,949.93	0.00	0.00	0.00
10,500.00	90.00	153.37	6,655.00	-3,620.43	1,815.05	4,049.93	0.00	0.00	0.00
10,600.00	90.00	153.37	6,655.00	-3,709.83	1,859.87	4,149.93	0.00	0.00	0.00
10,700.00	90.00	153.37	6,655.00	-3,799.22	1,904.68	4,249.93	0.00	0.00	0.00
10,800.00	90.00	153.37	6,655.00	-3,888.62	1,949.50	4,349.93	0.00	0.00	0.00
10,900.00	90.00	153.37	6,655.00	-3,978.01	1,994.32	4,449.93	0.00	0.00	0.00
11,000.00	90.00	153.37	6,655.00	-4,067.41	2,039.13	4,549.93	0.00	0.00	0.00
11,100.00	90.00	153.37	6,655.00	-4,156.80	2,083.95	4,649.93	0.00	0.00	0.00
11,126.46	90.00	153.37	6,655.00	-4,180.46	2,095.81	4,676.39	0.00	0.00	0.00
4 1/2" - Gravel Draw 07-07H (BHL)									

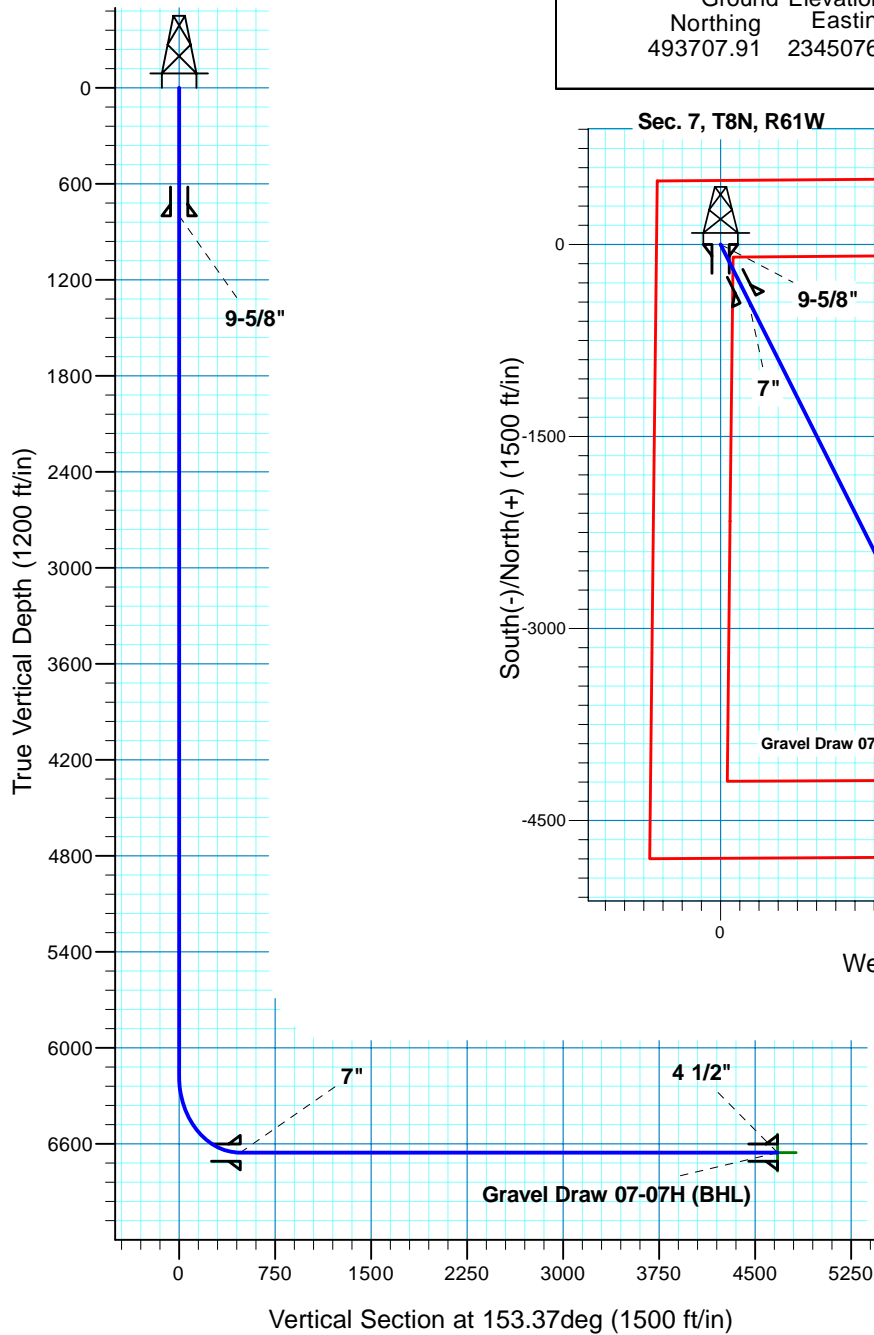
Targets									
Target Name	Dip Angle (deg)	Dip Dir. (deg)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- hit/miss target									
- Shape									
Gravel Draw 07-07H (0.00	0.00	6,655.00	-4,180.46	2,095.81	489,557.27	2,347,231.03	40° 40' 13.890 N	104° 14' 53.711 W
- plan 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	
6,927.54	6,655.00	7"	7	8-3/4	
11,126.46	6,655.00	4 1/2"	4-1/2	6-1/4	

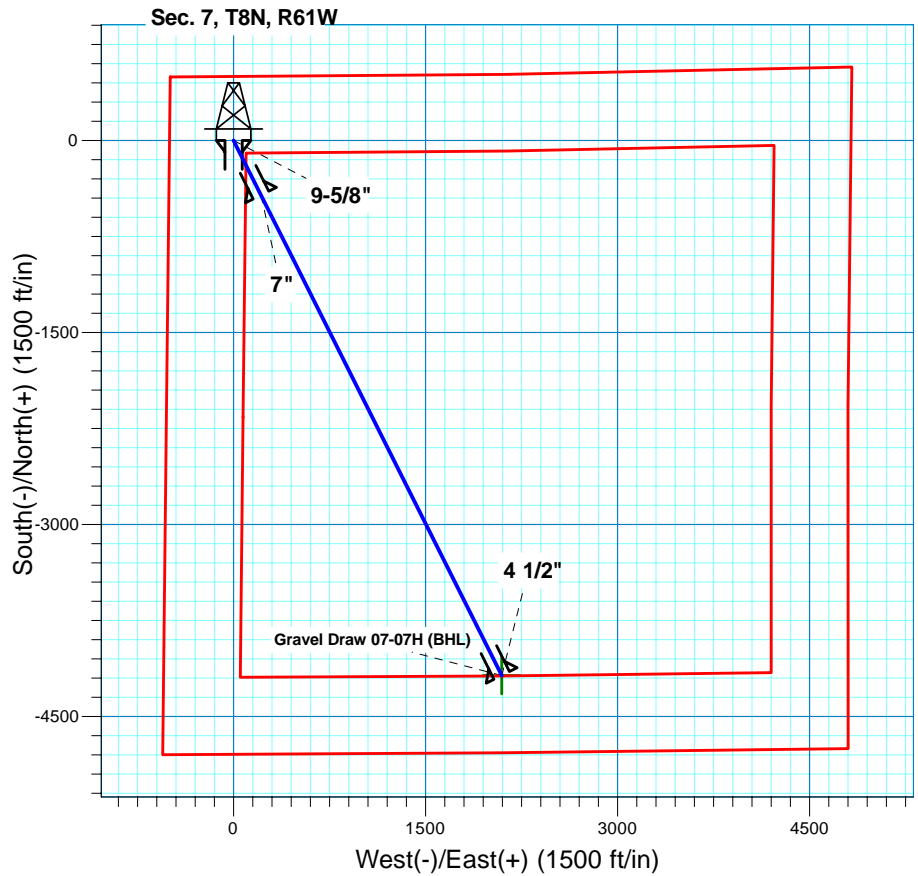
Gravel Draw 07-07H

Section 7 T8N R61W

Weld County, CO



Surface Location				
NAD 1927 (NADCON CONUS) Colorado North 501				
Ground Elevation: 4978.00 RIG @ 5000.00ft (TBD)				
Northing	Easting	Latitude	Longitude	
493707.91	2345076.78	40° 40' 55.200 N	104° 15' 20.909 W	



T M

Azimuths to True North
Magnetic North: 8.63°

Magnetic Field
Strength: 53395.7nT
Dip Angle: 67.38°
Date: 1/11/2011
Model: IGRF200510

Project: DJ - Hereford Ranch
Site: Gravel Draw 07-07H
Well: Gravel Draw 07-07H
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	6177.53	0.00	0.00	6177.53	0.00	0.00	0.00	0.00	0.00	
3	6927.54	90.00	153.37	6655.00	-426.83	213.98	12.00	153.37	477.47	
4	11126.46	90.00	153.37	6655.00	-4180.46	2095.81	0.00	0.00	4676.39	Gravel Draw 07-07H (BHL)

TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
Gravel Draw 07-07H (BHL)	6655.00	-4180.46	2095.81	489557.27	2347231.03	40° 40' 13.890 N	104° 14' 53.711 W	Point