



Lea County, NM (NAD 83 NME)

Ruby 2 State Com #604H

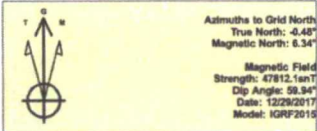
Plan #0.1

PROJECT DETAILS: Lea County, NM (NAD 83 NME)

Geodetic System: US State Plane 1983
 Datum: North American Datum 1983
 Ellipsoid: GRS 1980
 Zone: New Mexico Eastern Zone
 System Datum: Mean Sea Level

WELL DETAILS: #604H

3294.0
 KB = 25' @ 3319.0uoft
 Northing 393585.00 Easting 819254.80 Latitude 32°47' 43.923 N Longitude 102°26' 9.748 W



To convert a Magnetic Direction to a True Direction, Add 6.35°
 To convert a Magnetic Direction to a Grid Direction, Subtract 0.48°
 To convert a True Direction to a Grid Direction, Subtract 0.48°

SECTION DETAILS

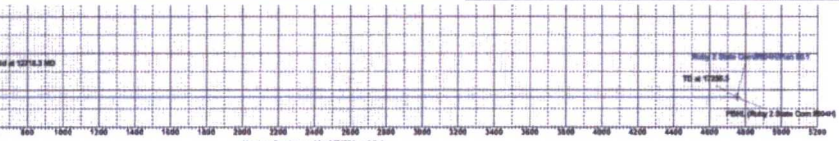
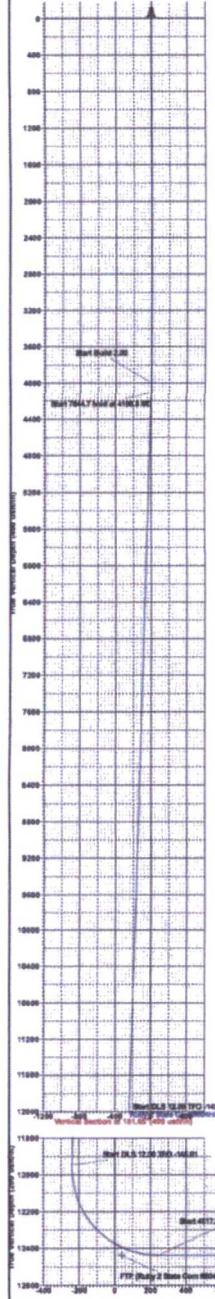
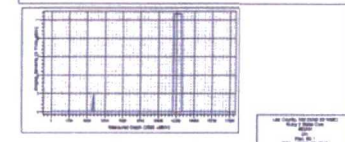
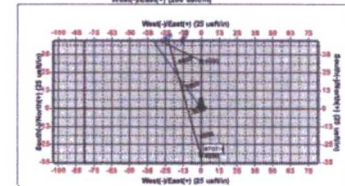
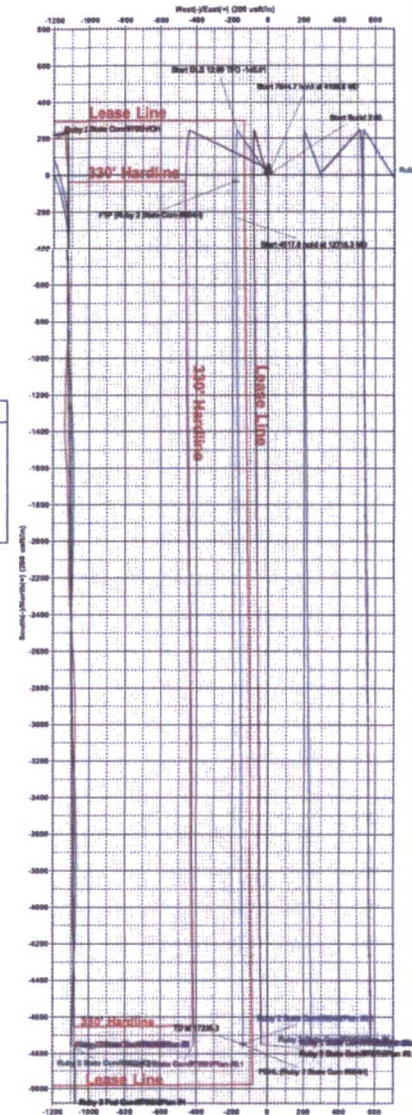
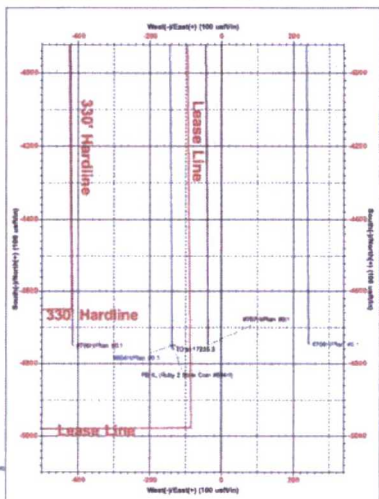
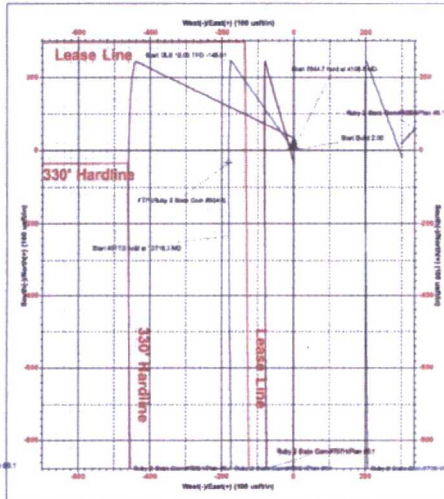
Sec	MD	Inc	Azi	TVD	+N-S	+E-W	Dleg	Tface	Vsect	Target
1	0.0	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.0	
2	4000.0	0.00	0.00	4000.0	0.0	0.0	0.00	0.00	0.0	
3	4108.8	2.18	324.48	4108.8	1.7	-1.2	2.00	324.48	-1.6	
4	11953.5	2.18	324.48	11947.8	244.1	-174.2	0.00	0.00	-239.0	
5	12718.3	90.00	179.45	12440.0	-233.2	-180.4	12.00	-145.01	238.3	
6	17235.3	90.00	179.45	12440.0	-4750.0	-137.0	0.00	0.00	4752.0	PBHL (Ruby 2 State Com #604H)

CASINO DETAILS

No casing data is available

WELLSBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N-S	+E-W	Northing	Easting
PBHL (Ruby 2 State Com #604H)	12440.0	-4750.0	-137.0	393585.00	819117.00
FTP (Ruby 2 State Com #604H)	12440.0	-34.0	-182.0	393581.00	819072.00



Scale: 1" = 1000'



EOG Resources - Midland

Lea County, NM (NAD 83 NME)

Ruby 2 State Com

#604H

OH

Plan: Plan #0.1

Standard Planning Report

02 January, 2018



Planning Report

Database: EDM 5000.14
 Company: EOG Resources - Midland
 Project: Lea County, NM (NAD 83 NME)
 Site: Ruby 2 State Com
 Well: #604H
 Wellbore: OH
 Design: Plan #0.1

Local Co-ordinate Reference: Well #604H
 TVD Reference: KB = 25' @ 3319.0usft
 MD Reference: KB = 25' @ 3319.0usft
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature

Project	Lea County, NM (NAD 83 NME)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Ruby 2 State Com				
Site Position:		Northing:	393,589.99 usft	Latitude:	32° 4' 47.315 N
From:	Map	Easting:	775,148.00 usft	Longitude:	103° 34' 42.355 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.40 °

Well	#604H					
Well Position	+N/-S	-5.0 usft	Northing:	393,585.00 usft	Latitude:	32° 4' 43.923 N
	+E/-W	44,106.0 usft	Easting:	819,254.00 usft	Longitude:	103° 26' 9.748 W
Position Uncertainty	0.0 usft		Wellhead Elevation:		Ground Level:	3,294.0 usft

Wellbore	OH					
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength	
	IGRF2015	12/29/2017	(°)	(°)	(nT)	
			6.82	59.94	47,812.09125958	

Design	Plan #0.1					
Audit Notes:						
Version:	Phase:	PLAN		Tie On Depth:	0.0	
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction		
	(usft)	(usft)	(usft)	(°)		
	0.0	0.0	0.0	181.65		

Plan Survey Tool Program	Date		1/2/2018			
Depth From	Depth To	Survey (Wellbore)	Tool Name	Remarks		
(usft)	(usft)					
1	0.0	17,235.3	Plan #0.1 (OH)	MWD		
				MWD - Standard		

Plan Sections											
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Dogleg	Build	Turn	TFO	Target	
Depth	(°)	(°)	Depth	(usft)	(usft)	Rate	Rate	Rate	(°)		
(usft)			(usft)			(°/100usft)	(°/100usft)	(°/100usft)			
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	
4,108.8	2.18	324.48	4,108.8	1.7	-1.2	2.00	2.00	0.00	324.48		
11,953.5	2.18	324.48	11,947.8	244.1	-174.2	0.00	0.00	0.00	0.00		
12,718.3	90.00	179.45	12,440.0	-233.2	-180.4	12.00	11.48	-18.96	-145.01		
17,235.3	90.00	179.45	12,440.0	-4,750.0	-137.0	0.00	0.00	0.00	0.00	0.00	PBHL (Ruby 2 State C



Planning Report

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 MD Reference: KB = 25' @ 3319.0usft
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
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
1,700.0	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
4,108.8	2.18	324.48	4,108.8	1.7	-1.2	-1.6	2.00	2.00	0.00
4,200.0	2.18	324.48	4,199.9	4.5	-3.2	-4.4	0.00	0.00	0.00
4,300.0	2.18	324.48	4,299.8	7.6	-5.4	-7.4	0.00	0.00	0.00
4,400.0	2.18	324.48	4,399.8	10.7	-7.6	-10.5	0.00	0.00	0.00
4,500.0	2.18	324.48	4,499.7	13.8	-9.8	-13.5	0.00	0.00	0.00
4,600.0	2.18	324.48	4,599.6	16.9	-12.0	-16.5	0.00	0.00	0.00
4,700.0	2.18	324.48	4,699.5	20.0	-14.2	-19.5	0.00	0.00	0.00
4,800.0	2.18	324.48	4,799.5	23.0	-16.4	-22.6	0.00	0.00	0.00
4,900.0	2.18	324.48	4,899.4	26.1	-18.7	-25.6	0.00	0.00	0.00
5,000.0	2.18	324.48	4,999.3	29.2	-20.9	-28.6	0.00	0.00	0.00
5,100.0	2.18	324.48	5,099.3	32.3	-23.1	-31.6	0.00	0.00	0.00
5,200.0	2.18	324.48	5,199.2	35.4	-25.3	-34.7	0.00	0.00	0.00
5,300.0	2.18	324.48	5,299.1	38.5	-27.5	-37.7	0.00	0.00	0.00



Planning Report

Database: EDM 5000.14
 Company: EOG Resources - Midland
 Project: Lea County, NM (NAD 83 NME)
 Site: Ruby 2 State Com
 Well: #604H
 Wellbore: OH
 Design: Plan #0.1

Local Co-ordinate Reference:
 TVD Reference:
 MD Reference:
 North Reference:
 Survey Calculation Method:

Well #604H
 KB = 25' @ 3319.0usft
 KB = 25' @ 3319.0usft
 Grid
 Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,400.0	2.18	324.48	5,399.0	41.6	-29.7	-40.7	0.00	0.00	0.00
5,500.0	2.18	324.48	5,499.0	44.7	-31.9	-43.7	0.00	0.00	0.00
5,600.0	2.18	324.48	5,598.9	47.8	-34.1	-46.8	0.00	0.00	0.00
5,700.0	2.18	324.48	5,698.8	50.9	-36.3	-49.8	0.00	0.00	0.00
5,800.0	2.18	324.48	5,798.8	53.9	-38.5	-52.8	0.00	0.00	0.00
5,900.0	2.18	324.48	5,898.7	57.0	-40.7	-55.8	0.00	0.00	0.00
6,000.0	2.18	324.48	5,998.6	60.1	-42.9	-58.9	0.00	0.00	0.00
6,100.0	2.18	324.48	6,098.5	63.2	-45.1	-61.9	0.00	0.00	0.00
6,200.0	2.18	324.48	6,198.5	66.3	-47.3	-64.9	0.00	0.00	0.00
6,300.0	2.18	324.48	6,298.4	69.4	-49.5	-67.9	0.00	0.00	0.00
6,400.0	2.18	324.48	6,398.3	72.5	-51.7	-71.0	0.00	0.00	0.00
6,500.0	2.18	324.48	6,498.2	75.6	-53.9	-74.0	0.00	0.00	0.00
6,600.0	2.18	324.48	6,598.2	78.7	-56.1	-77.0	0.00	0.00	0.00
6,700.0	2.18	324.48	6,698.1	81.8	-58.4	-80.0	0.00	0.00	0.00
6,800.0	2.18	324.48	6,798.0	84.8	-60.6	-83.1	0.00	0.00	0.00
6,900.0	2.18	324.48	6,898.0	87.9	-62.8	-86.1	0.00	0.00	0.00
7,000.0	2.18	324.48	6,997.9	91.0	-65.0	-89.1	0.00	0.00	0.00
7,100.0	2.18	324.48	7,097.8	94.1	-67.2	-92.1	0.00	0.00	0.00
7,200.0	2.18	324.48	7,197.7	97.2	-69.4	-95.2	0.00	0.00	0.00
7,300.0	2.18	324.48	7,297.7	100.3	-71.6	-98.2	0.00	0.00	0.00
7,400.0	2.18	324.48	7,397.6	103.4	-73.8	-101.2	0.00	0.00	0.00
7,500.0	2.18	324.48	7,497.5	106.5	-76.0	-104.2	0.00	0.00	0.00
7,600.0	2.18	324.48	7,597.5	109.6	-78.2	-107.3	0.00	0.00	0.00
7,700.0	2.18	324.48	7,697.4	112.7	-80.4	-110.3	0.00	0.00	0.00
7,800.0	2.18	324.48	7,797.3	115.8	-82.6	-113.3	0.00	0.00	0.00
7,900.0	2.18	324.48	7,897.2	118.8	-84.8	-116.3	0.00	0.00	0.00
8,000.0	2.18	324.48	7,997.2	121.9	-87.0	-119.4	0.00	0.00	0.00
8,100.0	2.18	324.48	8,097.1	125.0	-89.2	-122.4	0.00	0.00	0.00
8,200.0	2.18	324.48	8,197.0	128.1	-91.4	-125.4	0.00	0.00	0.00
8,300.0	2.18	324.48	8,297.0	131.2	-93.6	-128.4	0.00	0.00	0.00
8,400.0	2.18	324.48	8,396.9	134.3	-95.8	-131.5	0.00	0.00	0.00
8,500.0	2.18	324.48	8,496.8	137.4	-98.1	-134.5	0.00	0.00	0.00
8,600.0	2.18	324.48	8,596.7	140.5	-100.3	-137.5	0.00	0.00	0.00
8,700.0	2.18	324.48	8,696.7	143.6	-102.5	-140.6	0.00	0.00	0.00
8,800.0	2.18	324.48	8,796.6	146.7	-104.7	-143.6	0.00	0.00	0.00
8,900.0	2.18	324.48	8,896.5	149.7	-106.9	-146.6	0.00	0.00	0.00
9,000.0	2.18	324.48	8,996.4	152.8	-109.1	-149.6	0.00	0.00	0.00
9,100.0	2.18	324.48	9,096.4	155.9	-111.3	-152.7	0.00	0.00	0.00
9,200.0	2.18	324.48	9,196.3	159.0	-113.5	-155.7	0.00	0.00	0.00
9,300.0	2.18	324.48	9,296.2	162.1	-115.7	-158.7	0.00	0.00	0.00
9,400.0	2.18	324.48	9,396.2	165.2	-117.9	-161.7	0.00	0.00	0.00
9,500.0	2.18	324.48	9,496.1	168.3	-120.1	-164.8	0.00	0.00	0.00
9,600.0	2.18	324.48	9,596.0	171.4	-122.3	-167.8	0.00	0.00	0.00
9,700.0	2.18	324.48	9,695.9	174.5	-124.5	-170.8	0.00	0.00	0.00
9,800.0	2.18	324.48	9,795.9	177.6	-126.7	-173.8	0.00	0.00	0.00
9,900.0	2.18	324.48	9,895.8	180.6	-128.9	-176.9	0.00	0.00	0.00
10,000.0	2.18	324.48	9,995.7	183.7	-131.1	-179.9	0.00	0.00	0.00
10,100.0	2.18	324.48	10,095.7	186.8	-133.3	-182.9	0.00	0.00	0.00
10,200.0	2.18	324.48	10,195.6	189.9	-135.5	-185.9	0.00	0.00	0.00
10,300.0	2.18	324.48	10,295.5	193.0	-137.8	-189.0	0.00	0.00	0.00
10,400.0	2.18	324.48	10,395.4	196.1	-140.0	-192.0	0.00	0.00	0.00
10,500.0	2.18	324.48	10,495.4	199.2	-142.2	-195.0	0.00	0.00	0.00
10,600.0	2.18	324.48	10,595.3	202.3	-144.4	-198.0	0.00	0.00	0.00
10,700.0	2.18	324.48	10,695.2	205.4	-146.6	-201.1	0.00	0.00	0.00



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Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,800.0	2.18	324.48	10,795.1	208.5	-148.8	-204.1	0.00	0.00	0.00
10,900.0	2.18	324.48	10,895.1	211.6	-151.0	-207.1	0.00	0.00	0.00
11,000.0	2.18	324.48	10,995.0	214.6	-153.2	-210.1	0.00	0.00	0.00
11,100.0	2.18	324.48	11,094.9	217.7	-155.4	-213.2	0.00	0.00	0.00
11,200.0	2.18	324.48	11,194.9	220.8	-157.6	-216.2	0.00	0.00	0.00
11,300.0	2.18	324.48	11,294.8	223.9	-159.8	-219.2	0.00	0.00	0.00
11,400.0	2.18	324.48	11,394.7	227.0	-162.0	-222.2	0.00	0.00	0.00
11,500.0	2.18	324.48	11,494.6	230.1	-164.2	-225.3	0.00	0.00	0.00
11,600.0	2.18	324.48	11,594.6	233.2	-166.4	-228.3	0.00	0.00	0.00
11,700.0	2.18	324.48	11,694.5	236.3	-168.6	-231.3	0.00	0.00	0.00
11,800.0	2.18	324.48	11,794.4	239.4	-170.8	-234.3	0.00	0.00	0.00
11,900.0	2.18	324.48	11,894.4	242.5	-173.0	-237.4	0.00	0.00	0.00
11,953.5	2.18	324.48	11,947.8	244.1	-174.2	-239.0	0.00	0.00	0.00
11,975.0	1.48	236.78	11,969.3	244.3	-174.7	-239.1	12.00	-3.23	-407.50
12,000.0	4.00	197.60	11,994.3	243.3	-175.2	-238.1	12.00	10.07	-156.75
12,025.0	6.91	189.80	12,019.2	241.0	-175.7	-235.8	12.00	11.65	-31.21
12,050.0	9.88	186.63	12,043.9	237.4	-176.3	-232.2	12.00	11.86	-12.65
12,075.0	12.86	184.92	12,068.4	232.4	-176.7	-227.3	12.00	11.93	-6.84
12,100.0	15.85	183.85	12,092.6	226.3	-177.2	-221.1	12.00	11.95	-4.30
12,125.0	18.84	183.11	12,116.5	218.8	-177.7	-213.6	12.00	11.97	-2.96
12,150.0	21.83	182.57	12,139.9	210.2	-178.1	-204.9	12.00	11.98	-2.17
12,175.0	24.83	182.15	12,162.9	200.3	-178.5	-195.0	12.00	11.98	-1.67
12,200.0	27.83	181.81	12,185.3	189.2	-178.9	-183.9	12.00	11.99	-1.33
12,225.0	30.82	181.54	12,207.1	176.9	-179.2	-171.7	12.00	11.99	-1.09
12,250.0	33.82	181.31	12,228.2	163.6	-179.6	-158.3	12.00	11.99	-0.92
12,275.0	36.82	181.12	12,248.6	149.1	-179.9	-143.9	12.00	11.99	-0.78
12,300.0	39.82	180.95	12,268.2	133.6	-180.1	-128.4	12.00	11.99	-0.68
12,325.0	42.81	180.80	12,287.0	117.1	-180.4	-111.9	12.00	11.99	-0.60
12,350.0	45.81	180.66	12,304.9	99.7	-180.6	-94.4	12.00	11.99	-0.54
12,375.0	48.81	180.54	12,321.8	81.3	-180.8	-76.1	12.00	11.99	-0.48
12,400.0	51.81	180.43	12,337.8	62.1	-181.0	-56.8	12.00	12.00	-0.44
12,425.0	54.81	180.33	12,352.7	42.0	-181.1	-36.8	12.00	12.00	-0.41
12,450.0	57.81	180.24	12,366.6	21.2	-181.2	-16.0	12.00	12.00	-0.38
12,475.0	60.81	180.15	12,379.3	-0.3	-181.3	5.5	12.00	12.00	-0.35
12,500.0	63.81	180.06	12,391.0	-22.4	-181.3	27.6	12.00	12.00	-0.33
12,525.0	66.81	179.98	12,401.4	-45.1	-181.3	50.3	12.00	12.00	-0.32
12,550.0	69.80	179.91	12,410.6	-68.3	-181.3	73.5	12.00	12.00	-0.30
12,575.0	72.80	179.84	12,418.7	-92.0	-181.2	97.2	12.00	12.00	-0.29
12,600.0	75.80	179.77	12,425.4	-116.1	-181.2	121.3	12.00	12.00	-0.28
12,625.0	78.80	179.70	12,430.9	-140.5	-181.1	145.6	12.00	12.00	-0.27
12,650.0	81.80	179.63	12,435.1	-165.1	-180.9	170.3	12.00	12.00	-0.27
12,675.0	84.80	179.56	12,438.0	-189.9	-180.7	195.1	12.00	12.00	-0.26
12,700.0	87.80	179.50	12,439.6	-214.9	-180.5	220.0	12.00	12.00	-0.26
12,718.3	90.00	179.45	12,440.0	-233.2	-180.4	238.3	12.00	12.00	-0.26
12,800.0	90.00	179.45	12,440.0	-314.9	-179.6	319.9	0.00	0.00	0.00
12,900.0	90.00	179.45	12,440.0	-414.9	-178.6	419.8	0.00	0.00	0.00
13,000.0	90.00	179.45	12,440.0	-514.9	-177.7	519.8	0.00	0.00	0.00
13,100.0	90.00	179.45	12,440.0	-614.9	-176.7	619.7	0.00	0.00	0.00
13,200.0	90.00	179.45	12,440.0	-714.8	-175.7	719.6	0.00	0.00	0.00
13,300.0	90.00	179.45	12,440.0	-814.8	-174.8	819.5	0.00	0.00	0.00
13,400.0	90.00	179.45	12,440.0	-914.8	-173.8	919.5	0.00	0.00	0.00
13,500.0	90.00	179.45	12,440.0	-1,014.8	-172.9	1,019.4	0.00	0.00	0.00
13,600.0	90.00	179.45	12,440.0	-1,114.8	-171.9	1,119.3	0.00	0.00	0.00
13,700.0	90.00	179.45	12,440.0	-1,214.8	-170.9	1,219.2	0.00	0.00	0.00



Planning Report

Database: EDM 5000.14
 Company: EOG Resources - Midland
 Project: Lea County, NM (NAD 83 NME)
 Site: Ruby 2 State Com
 Well: #604H
 Wellbore: OH
 Design: Plan #0.1

Local Co-ordinate Reference: Well #604H
 TVD Reference: KB = 25' @ 3319.0usft
 MD Reference: KB = 25' @ 3319.0usft
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
13,800.0	90.00	179.45	12,440.0	-1,314.8	-170.0	1,319.2	0.00	0.00	0.00
13,900.0	90.00	179.45	12,440.0	-1,414.8	-169.0	1,419.1	0.00	0.00	0.00
14,000.0	90.00	179.45	12,440.0	-1,514.8	-168.1	1,519.0	0.00	0.00	0.00
14,100.0	90.00	179.45	12,440.0	-1,614.8	-167.1	1,619.0	0.00	0.00	0.00
14,200.0	90.00	179.45	12,440.0	-1,714.8	-166.1	1,718.9	0.00	0.00	0.00
14,300.0	90.00	179.45	12,440.0	-1,814.8	-165.2	1,818.8	0.00	0.00	0.00
14,400.0	90.00	179.45	12,440.0	-1,914.8	-164.2	1,918.7	0.00	0.00	0.00
14,500.0	90.00	179.45	12,440.0	-2,014.8	-163.3	2,018.7	0.00	0.00	0.00
14,600.0	90.00	179.45	12,440.0	-2,114.8	-162.3	2,118.6	0.00	0.00	0.00
14,700.0	90.00	179.45	12,440.0	-2,214.8	-161.3	2,218.5	0.00	0.00	0.00
14,800.0	90.00	179.45	12,440.0	-2,314.8	-160.4	2,318.4	0.00	0.00	0.00
14,900.0	90.00	179.45	12,440.0	-2,414.8	-159.4	2,418.4	0.00	0.00	0.00
15,000.0	90.00	179.45	12,440.0	-2,514.8	-158.5	2,518.3	0.00	0.00	0.00
15,100.0	90.00	179.45	12,440.0	-2,614.8	-157.5	2,618.2	0.00	0.00	0.00
15,200.0	90.00	179.45	12,440.0	-2,714.8	-156.5	2,718.1	0.00	0.00	0.00
15,300.0	90.00	179.45	12,440.0	-2,814.8	-155.6	2,818.1	0.00	0.00	0.00
15,400.0	90.00	179.45	12,440.0	-2,914.7	-154.6	2,918.0	0.00	0.00	0.00
15,500.0	90.00	179.45	12,440.0	-3,014.7	-153.7	3,017.9	0.00	0.00	0.00
15,600.0	90.00	179.45	12,440.0	-3,114.7	-152.7	3,117.8	0.00	0.00	0.00
15,700.0	90.00	179.45	12,440.0	-3,214.7	-151.7	3,217.8	0.00	0.00	0.00
15,800.0	90.00	179.45	12,440.0	-3,314.7	-150.8	3,317.7	0.00	0.00	0.00
15,900.0	90.00	179.45	12,440.0	-3,414.7	-149.8	3,417.6	0.00	0.00	0.00
16,000.0	90.00	179.45	12,440.0	-3,514.7	-148.9	3,517.6	0.00	0.00	0.00
16,100.0	90.00	179.45	12,440.0	-3,614.7	-147.9	3,617.5	0.00	0.00	0.00
16,200.0	90.00	179.45	12,440.0	-3,714.7	-146.9	3,717.4	0.00	0.00	0.00
16,300.0	90.00	179.45	12,440.0	-3,814.7	-146.0	3,817.3	0.00	0.00	0.00
16,400.0	90.00	179.45	12,440.0	-3,914.7	-145.0	3,917.3	0.00	0.00	0.00
16,500.0	90.00	179.45	12,440.0	-4,014.7	-144.1	4,017.2	0.00	0.00	0.00
16,600.0	90.00	179.45	12,440.0	-4,114.7	-143.1	4,117.1	0.00	0.00	0.00
16,700.0	90.00	179.45	12,440.0	-4,214.7	-142.1	4,217.0	0.00	0.00	0.00
16,800.0	90.00	179.45	12,440.0	-4,314.7	-141.2	4,317.0	0.00	0.00	0.00
16,900.0	90.00	179.45	12,440.0	-4,414.7	-140.2	4,416.9	0.00	0.00	0.00
17,000.0	90.00	179.45	12,440.0	-4,514.7	-139.3	4,516.8	0.00	0.00	0.00
17,100.0	90.00	179.45	12,440.0	-4,614.7	-138.3	4,616.7	0.00	0.00	0.00
17,200.0	90.00	179.45	12,440.0	-4,714.7	-137.3	4,716.7	0.00	0.00	0.00
17,235.3	90.00	179.45	12,440.0	-4,750.0	-137.0	4,752.0	0.00	0.00	0.00

Design Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PBHL (Ruby 2 State Cor - hit/miss target - Shape - Point	0.00	0.00	12,440.0	-4,750.0	-137.0	388,835.00	819,117.00	32° 3' 56.933 N	103° 26' 11.799 W
FTP (Ruby 2 State Com - plan misses target center by 39.9usft at 12528.9usft MD (12402.9 TVD, -48.7 N, -181.3 E) - Point	0.00	0.00	12,440.0	-34.0	-182.0	393,551.00	819,072.00	32° 4' 43.602 N	103° 26' 11.867 W