

Permit Information:

Well Name: Ruby 2 State Com No. 703H

Location:

SL: 220' FNL & 1213' FWL, Section 2, T-26-S, R-34-E, Lea Co., N.M.

BHL: 230' FSL & 1653' FWL, Section 2, T-26-S, R-34-E, Lea Co., N.M.

Casing Program:

Hole Size	Interval	Csg OD	Weight	Grade	Conn	DF _{min} Collapse	DF _{min} Burst	DF _{min} Tension
14.75"	0 – 915'	10.75"	40.5#	J55	STC	1.125	1.25	1.60
9.875 & 8.50"	0' – 11,700'	7.625"	29.7#	HCP-110	LTC & FXL	1.125	1.25	1.60
6.75"	0'-17,538'	5.5"	17#	HCP-110	LTC	1.125	1.25	1.60

Cement Program:

Depth	No. Sacks	Wt. ppg	Yld Ft ³ /ft	Slurry Description
915'	400	13.5	1.73	Class C + 4.0% Bentonite + 0.6% CD-32 + 0.5% CaCl ₂ + 0.25 lb/sk Cello-Flake (TOC @ Surface)
	300	14.8	1.34	Class C + 0.6% FL-62 + 0.25 lb/sk Cello-Flake + 0.2% Sodium Metasilicate
11,700'	250	14.8	1.38	Class C + 5% Gypsum + 3% CaCl ₂ (TOC @ Surface)
	2000	14.8	1.38	Class C + 5% Gypsum + 3% CaCl ₂
	550	14.4	1.20	50:50 Class H:Poz + 0.25% CPT20A + 0.40% CPT49 + 0.20% CPT35 + 0.80% CPT16A + 0.25% CPT503P
17,538'	800	14.2	1.31	Class H + 0.1% C-20 + 0.05% CSA-1000 + 0.20% C-49 + 0.40% C-17 (TOC @ 11,000')

Mud Program:

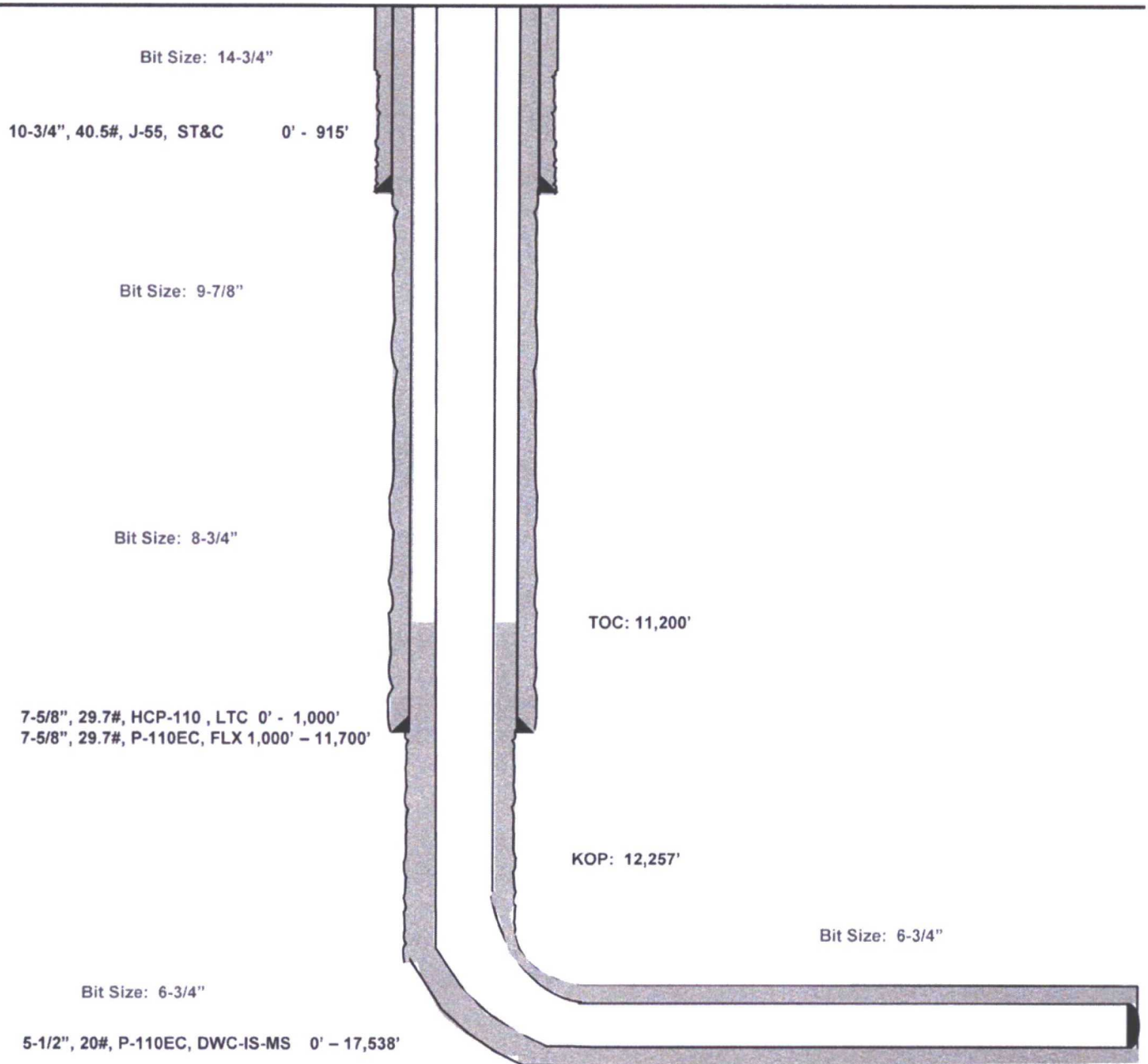
Depth	Type	Weight (ppg)	Viscosity	Water Loss
0 – 915'	Fresh - Gel	8.6-8.8	28-34	N/c
915' – 11,700'	Brine	8.8-10.0	28-34	N/c
11,700' – 12,257'	Oil Base	10.0-11.5	58-68	3 - 6
12,257' – 17,538' Lateral	Oil Base	10.0-11.5	58-68	3 - 6

Ruby 2 State Com #703H

220' FNL
1213' FWL
Section 2
T-26-S, R-34-E

Lea County, New Mexico
Proposed Wellbore
Revised 9/5/17
API: 30-025-43893

KB: 3,330'
GL: 3,305'



Lateral: 17,538' MD, 12,810' TVD
Upper Most Perf:
330' FNL & 1653' FWL Sec. 2
Lower Most Perf:
330' FSL & 1654' FWL Sec. 11
BH Location: 230' FSL & 1653' FWL
Section 2
T-26-S, R-34-E



Lea County, NM (NAD 83 NME)

Ruby 2 State Com #703H

HP 642

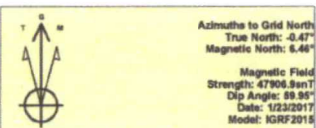
Plan #0.1

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: #703H

Ground Level: 3305.0
KB = 25' @ 3330.0 surf (HP 642)
Northing: 393647.00 Easting: 816370.00 Latitude: 32° 4' 44.773 N Longitude: 103° 28' 43.280 W



To convert a Magnetic Direction to a Grid Direction, Add 6.48°
To convert a Magnetic Direction to a True Direction, Add 6.93° East
To convert a True Direction to a Grid Direction, Subtract 0.47°

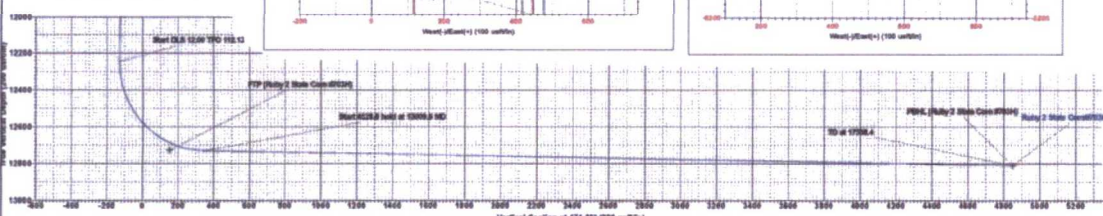
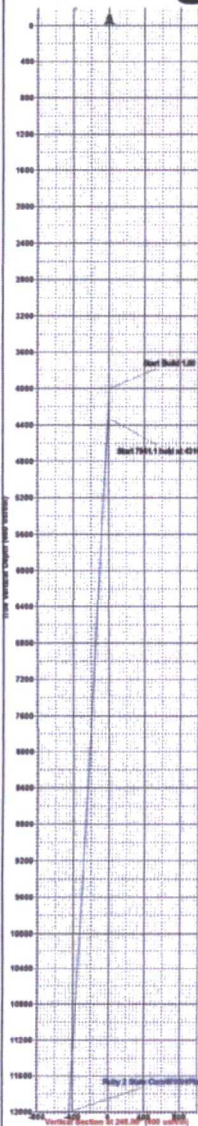
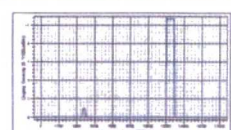
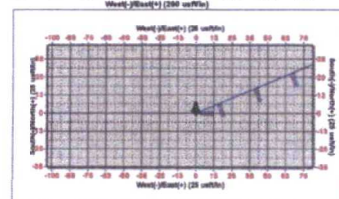
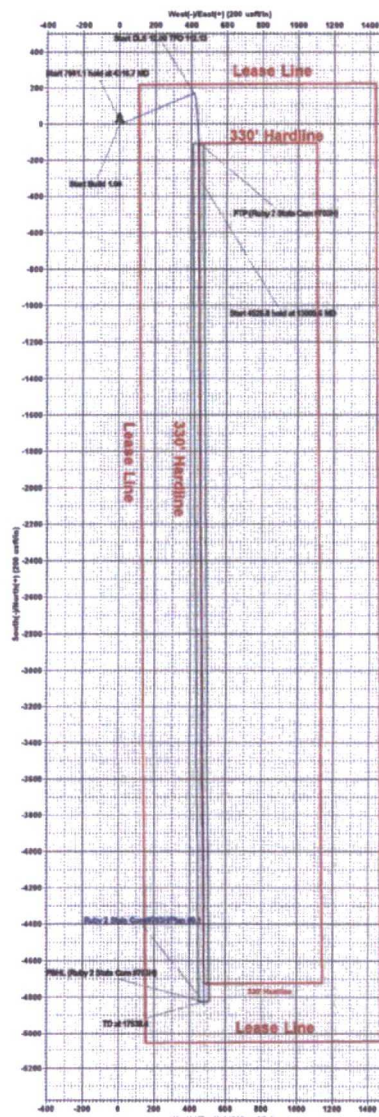
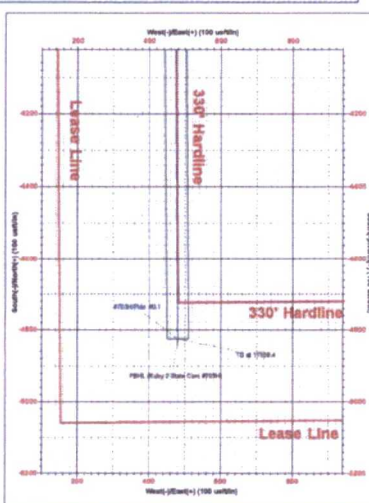
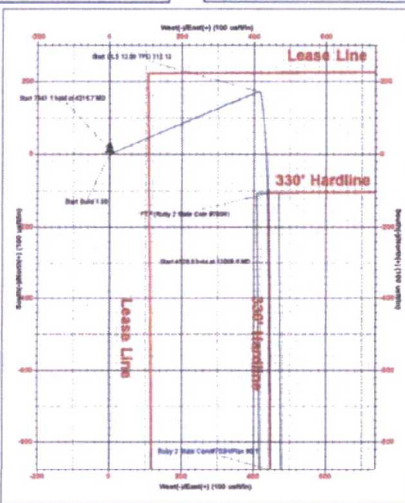
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	4000.0	0.00	0.00	4000.0	0.0	0.0	0.00	0.00	0.0	
3	4316.7	3.17	67.40	4316.5	3.4	8.1	1.00	67.40	-2.5	
4	12257.8	3.17	67.40	12245.6	172.0	413.1	0.00	0.00	-130.2	
5	13009.6	89.02	179.51	12732.3	-297.0	441.6	12.00	112.13	339.2	
6	17538.4	89.02	179.51	12810.0	-4825.0	480.0	0.00	0.00	4848.8	PBHL (Ruby 2 State Com #703H)

CASING DETAILS

No casing data is available

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting
PBHL (Ruby 2 State Com #703H)	12810.0	-4825.0	480.0	393647.00	816370.00
FTP (Ruby 2 State Com #703H)	12728.0	-107.0	440.0	393640.00	816810.00



EOG Resources - Midland

Lea County, NM (NAD 83 NME)

Ruby 2 State Com

#703H

73805

OH

Plan: Plan #0.1

Standard Planning Report

05 September, 2017

Planning Report

Database: EDM 5000.14
 Company: EOG Resources - Midland
 Project: Lea County, NM (NAD 83 NME)
 Site: Ruby 2 State Com
 Well: #703H
 Wellbore: OH
 Design: Plan #0.1

Local Co-ordinate Reference: Well #703H
 TVD Reference: KB = 25' @ 3330.0usft (HP 642)
 MD Reference: KB = 25' @ 3330.0usft (HP 642)
 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	#703H			
Well Position	+N/-S	57.0 usft	Northing:	393,647.00 usft
	+E/-W	41,222.0 usft	Easting:	816,370.00 usft
Position Uncertainty	0.0 usft	Wellhead Elevation:	0.0 usft	Ground Level: 3,305.0 usft

Wellbore	OH					
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)	
	IGRF2015	1/23/2017	6.93	59.95	47,906.91007229	

Design	Plan #0.1				
Audit Notes:					
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0	
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.0	0.0	0.0	174.32	

Plan Survey Tool Program	Date 9/5/2017				
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks	
1	0.0	17,538.4 Plan #0.1 (OH)	MWD		
			MWD - Standard		

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	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	
4,316.7	3.17	67.40	4,316.5	3.4	8.1	1.00	1.00	0.00	67.40	
12,257.8	3.17	67.40	12,245.6	172.0	413.1	0.00	0.00	0.00	0.00	
13,009.6	89.02	179.51	12,732.3	-297.0	441.6	12.00	11.42	14.91	112.13	
17,538.4	89.02	179.51	12,810.0	-4,825.0	480.0	0.00	0.00	0.00	0.00	PBHL (Ruby 2 State C

Planning Report

Database: EDM 5000.14
 Company: EOG Resources - Midland
 Project: Lea County, NM (NAD 83 NME)
 Site: Ruby 2 State Com
 Well: #703H
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Local Co-ordinate Reference: Well #703H
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 MD Reference: KB = 25' @ 3330.0usft (HP 642)
 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
4,100.0	1.00	67.40	4,100.0	0.3	0.8	-0.3	1.00	1.00	0.00
4,200.0	2.00	67.40	4,200.0	1.3	3.2	-1.0	1.00	1.00	0.00
4,300.0	3.00	67.40	4,299.9	3.0	7.2	-2.3	1.00	1.00	0.00
4,316.7	3.17	67.40	4,316.5	3.4	8.1	-2.5	1.00	1.00	0.00
4,400.0	3.17	67.40	4,399.7	5.1	12.3	-3.9	0.00	0.00	0.00
4,500.0	3.17	67.40	4,499.6	7.3	17.4	-5.5	0.00	0.00	0.00
4,600.0	3.17	67.40	4,599.4	9.4	22.5	-7.1	0.00	0.00	0.00
4,700.0	3.17	67.40	4,699.3	11.5	27.6	-8.7	0.00	0.00	0.00
4,800.0	3.17	67.40	4,799.1	13.6	32.7	-10.3	0.00	0.00	0.00
4,900.0	3.17	67.40	4,898.9	15.7	37.8	-11.9	0.00	0.00	0.00
5,000.0	3.17	67.40	4,998.8	17.9	42.9	-13.5	0.00	0.00	0.00
5,100.0	3.17	67.40	5,098.6	20.0	48.0	-15.1	0.00	0.00	0.00
5,200.0	3.17	67.40	5,198.5	22.1	53.1	-16.7	0.00	0.00	0.00

Planning Report

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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)
5,300.0	3.17	67.40	5,298.3	24.2	58.2	-18.4	0.00	0.00	0.00
5,400.0	3.17	67.40	5,398.2	26.4	63.3	-20.0	0.00	0.00	0.00
5,500.0	3.17	67.40	5,498.0	28.5	68.4	-21.6	0.00	0.00	0.00
5,600.0	3.17	67.40	5,597.9	30.6	73.5	-23.2	0.00	0.00	0.00
5,700.0	3.17	67.40	5,697.7	32.7	78.6	-24.8	0.00	0.00	0.00
5,800.0	3.17	67.40	5,797.6	34.9	83.7	-26.4	0.00	0.00	0.00
5,900.0	3.17	67.40	5,897.4	37.0	88.8	-28.0	0.00	0.00	0.00
6,000.0	3.17	67.40	5,997.3	39.1	93.9	-29.6	0.00	0.00	0.00
6,100.0	3.17	67.40	6,097.1	41.2	99.0	-31.2	0.00	0.00	0.00
6,200.0	3.17	67.40	6,197.0	43.3	104.1	-32.8	0.00	0.00	0.00
6,300.0	3.17	67.40	6,296.8	45.5	109.2	-34.4	0.00	0.00	0.00
6,400.0	3.17	67.40	6,396.7	47.6	114.3	-36.0	0.00	0.00	0.00
6,500.0	3.17	67.40	6,496.5	49.7	119.4	-37.6	0.00	0.00	0.00
6,600.0	3.17	67.40	6,596.4	51.8	124.5	-39.3	0.00	0.00	0.00
6,700.0	3.17	67.40	6,696.2	54.0	129.6	-40.9	0.00	0.00	0.00
6,800.0	3.17	67.40	6,796.0	56.1	134.7	-42.5	0.00	0.00	0.00
6,900.0	3.17	67.40	6,895.9	58.2	139.8	-44.1	0.00	0.00	0.00
7,000.0	3.17	67.40	6,995.7	60.3	144.9	-45.7	0.00	0.00	0.00
7,100.0	3.17	67.40	7,095.6	62.5	150.0	-47.3	0.00	0.00	0.00
7,200.0	3.17	67.40	7,195.4	64.6	155.1	-48.9	0.00	0.00	0.00
7,300.0	3.17	67.40	7,295.3	66.7	160.2	-50.5	0.00	0.00	0.00
7,400.0	3.17	67.40	7,395.1	68.8	165.3	-52.1	0.00	0.00	0.00
7,500.0	3.17	67.40	7,495.0	70.9	170.4	-53.7	0.00	0.00	0.00
7,600.0	3.17	67.40	7,594.8	73.1	175.5	-55.3	0.00	0.00	0.00
7,700.0	3.17	67.40	7,694.7	75.2	180.6	-56.9	0.00	0.00	0.00
7,800.0	3.17	67.40	7,794.5	77.3	185.7	-58.6	0.00	0.00	0.00
7,900.0	3.17	67.40	7,894.4	79.4	190.8	-60.2	0.00	0.00	0.00
8,000.0	3.17	67.40	7,994.2	81.6	195.9	-61.8	0.00	0.00	0.00
8,100.0	3.17	67.40	8,094.1	83.7	201.0	-63.4	0.00	0.00	0.00
8,200.0	3.17	67.40	8,193.9	85.8	206.1	-65.0	0.00	0.00	0.00
8,300.0	3.17	67.40	8,293.8	87.9	211.2	-66.6	0.00	0.00	0.00
8,400.0	3.17	67.40	8,393.6	90.1	216.3	-68.2	0.00	0.00	0.00
8,500.0	3.17	67.40	8,493.4	92.2	221.4	-69.8	0.00	0.00	0.00
8,600.0	3.17	67.40	8,593.3	94.3	226.5	-71.4	0.00	0.00	0.00
8,700.0	3.17	67.40	8,693.1	96.4	231.6	-73.0	0.00	0.00	0.00
8,800.0	3.17	67.40	8,793.0	98.5	236.7	-74.6	0.00	0.00	0.00
8,900.0	3.17	67.40	8,892.8	100.7	241.8	-76.2	0.00	0.00	0.00
9,000.0	3.17	67.40	8,992.7	102.8	246.9	-77.8	0.00	0.00	0.00
9,100.0	3.17	67.40	9,092.5	104.9	252.0	-79.5	0.00	0.00	0.00
9,200.0	3.17	67.40	9,192.4	107.0	257.1	-81.1	0.00	0.00	0.00
9,300.0	3.17	67.40	9,292.2	109.2	262.2	-82.7	0.00	0.00	0.00
9,400.0	3.17	67.40	9,392.1	111.3	267.3	-84.3	0.00	0.00	0.00
9,500.0	3.17	67.40	9,491.9	113.4	272.4	-85.9	0.00	0.00	0.00
9,600.0	3.17	67.40	9,591.8	115.5	277.5	-87.5	0.00	0.00	0.00
9,700.0	3.17	67.40	9,691.6	117.7	282.6	-89.1	0.00	0.00	0.00
9,800.0	3.17	67.40	9,791.5	119.8	287.7	-90.7	0.00	0.00	0.00
9,900.0	3.17	67.40	9,891.3	121.9	292.8	-92.3	0.00	0.00	0.00
10,000.0	3.17	67.40	9,991.2	124.0	297.9	-93.9	0.00	0.00	0.00
10,100.0	3.17	67.40	10,091.0	126.1	303.0	-95.5	0.00	0.00	0.00
10,200.0	3.17	67.40	10,190.9	128.3	308.1	-97.1	0.00	0.00	0.00
10,300.0	3.17	67.40	10,290.7	130.4	313.2	-98.7	0.00	0.00	0.00
10,400.0	3.17	67.40	10,390.5	132.5	318.3	-100.4	0.00	0.00	0.00
10,500.0	3.17	67.40	10,490.4	134.6	323.5	-102.0	0.00	0.00	0.00
10,600.0	3.17	67.40	10,590.2	136.8	328.6	-103.6	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: #703H
Wellbore: OH
Design: Plan #0.1

Local Co-ordinate Reference: Well #703H
TVD Reference: KB = 25' @ 3330.0usft (HP 642)
MD Reference: KB = 25' @ 3330.0usft (HP 642)
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)
10,700.0	3.17	67.40	10,690.1	138.9	333.7	-105.2	0.00	0.00	0.00
10,800.0	3.17	67.40	10,789.9	141.0	338.8	-106.8	0.00	0.00	0.00
10,900.0	3.17	67.40	10,889.8	143.1	343.9	-108.4	0.00	0.00	0.00
11,000.0	3.17	67.40	10,989.6	145.3	349.0	-110.0	0.00	0.00	0.00
11,100.0	3.17	67.40	11,089.5	147.4	354.1	-111.6	0.00	0.00	0.00
11,200.0	3.17	67.40	11,189.3	149.5	359.2	-113.2	0.00	0.00	0.00
11,300.0	3.17	67.40	11,289.2	151.6	364.3	-114.8	0.00	0.00	0.00
11,400.0	3.17	67.40	11,389.0	153.7	369.4	-116.4	0.00	0.00	0.00
11,500.0	3.17	67.40	11,488.9	155.9	374.5	-118.0	0.00	0.00	0.00
11,600.0	3.17	67.40	11,588.7	158.0	379.6	-119.6	0.00	0.00	0.00
11,700.0	3.17	67.40	11,688.6	160.1	384.7	-121.3	0.00	0.00	0.00
11,800.0	3.17	67.40	11,788.4	162.2	389.8	-122.9	0.00	0.00	0.00
11,900.0	3.17	67.40	11,888.3	164.4	394.9	-124.5	0.00	0.00	0.00
12,000.0	3.17	67.40	11,988.1	166.5	400.0	-126.1	0.00	0.00	0.00
12,100.0	3.17	67.40	12,088.0	168.6	405.1	-127.7	0.00	0.00	0.00
12,200.0	3.17	67.40	12,187.8	170.7	410.2	-129.3	0.00	0.00	0.00
12,257.8	3.17	67.40	12,245.6	172.0	413.1	-130.2	0.00	0.00	0.00
12,265.0	2.95	83.09	12,252.7	172.1	413.5	-130.3	12.00	-2.99	218.54
KOP (Ruby 2 Fed Com #703H)									
12,275.0	3.06	105.99	12,262.7	172.0	414.0	-130.2	12.00	1.06	229.56
12,300.0	4.85	142.42	12,287.6	171.0	415.3	-129.0	12.00	7.17	145.70
12,325.0	7.46	156.53	12,312.5	168.7	416.6	-126.6	12.00	10.45	56.47
12,350.0	10.29	163.17	12,337.2	165.0	417.9	-122.9	12.00	11.30	26.52
12,375.0	13.19	166.93	12,361.7	160.1	419.1	-117.8	12.00	11.61	15.08
12,400.0	16.13	169.36	12,385.8	153.9	420.4	-111.6	12.00	11.75	9.69
12,425.0	19.08	171.05	12,409.7	146.5	421.7	-104.0	12.00	11.83	6.76
12,450.0	22.05	172.30	12,433.1	137.8	423.0	-95.2	12.00	11.87	5.00
12,475.0	25.03	173.26	12,456.0	127.9	424.2	-85.3	12.00	11.90	3.87
12,500.0	28.01	174.04	12,478.4	116.8	425.5	-74.1	12.00	11.92	3.09
12,525.0	30.99	174.67	12,500.1	104.6	426.7	-61.8	12.00	11.93	2.54
12,550.0	33.98	175.20	12,521.2	91.2	427.8	-48.4	12.00	11.95	2.13
12,575.0	36.96	175.66	12,541.6	76.7	429.0	-33.9	12.00	11.95	1.83
12,600.0	39.95	176.06	12,561.1	61.2	430.1	-18.3	12.00	11.96	1.59
12,625.0	42.95	176.41	12,579.9	44.7	431.2	-1.8	12.00	11.96	1.40
12,650.0	45.94	176.72	12,597.7	27.2	432.3	15.7	12.00	11.97	1.25
12,675.0	48.93	177.01	12,614.6	8.8	433.3	34.1	12.00	11.97	1.13
12,700.0	51.92	177.26	12,630.6	-10.4	434.2	53.3	12.00	11.97	1.03
12,725.0	54.92	177.50	12,645.4	-30.4	435.1	73.4	12.00	11.98	0.95
12,750.0	57.91	177.72	12,659.3	-51.3	436.0	94.2	12.00	11.98	0.89
12,775.0	60.91	177.93	12,672.0	-72.8	436.8	115.6	12.00	11.98	0.83
12,800.0	63.90	178.13	12,683.6	-94.9	437.6	137.8	12.00	11.98	0.78
12,825.0	66.90	178.31	12,694.0	-117.6	438.3	160.4	12.00	11.98	0.74
12,828.1	67.26	178.33	12,695.2	-120.4	438.4	163.2	12.00	11.98	0.72
FTP (Ruby 2 Fed Com #703H) - FTP (Ruby 2 State Com #703H)									
12,850.0	69.89	178.49	12,703.2	-140.8	438.9	183.6	12.00	11.98	0.71
12,875.0	72.89	178.66	12,711.2	-164.5	439.5	207.2	12.00	11.98	0.68
12,900.0	75.88	178.83	12,717.9	-188.6	440.1	231.2	12.00	11.98	0.66
12,925.0	78.88	178.99	12,723.4	-213.0	440.5	255.6	12.00	11.98	0.65
12,950.0	81.88	179.15	12,727.5	-237.6	440.9	280.1	12.00	11.98	0.63
12,975.0	84.87	179.30	12,730.4	-262.5	441.3	304.9	12.00	11.98	0.62
13,000.0	87.87	179.46	12,732.0	-287.4	441.5	329.7	12.00	11.98	0.62
13,009.6	89.02	179.51	12,732.3	-297.0	441.6	339.2	12.00	11.98	0.61
13,100.0	89.02	179.51	12,733.8	-387.4	442.4	429.3	0.00	0.00	0.00
13,200.0	89.02	179.51	12,735.5	-487.4	443.2	528.8	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: #703H
 Wellbore: OH
 Design: Plan #0.1

Local Co-ordinate Reference: Well #703H
 TVD Reference: KB = 25' @ 3330.0usft (HP 642)
 MD Reference: KB = 25' @ 3330.0usft (HP 642)
 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)
13,300.0	89.02	179.51	12,737.2	-587.3	444.1	628.4	0.00	0.00	0.00
13,400.0	89.02	179.51	12,739.0	-687.3	444.9	728.0	0.00	0.00	0.00
13,500.0	89.02	179.51	12,740.7	-787.3	445.8	827.6	0.00	0.00	0.00
13,600.0	89.02	179.51	12,742.4	-887.3	446.6	927.1	0.00	0.00	0.00
13,700.0	89.02	179.51	12,744.1	-987.3	447.5	1,026.7	0.00	0.00	0.00
13,800.0	89.02	179.51	12,745.8	-1,087.3	448.3	1,126.3	0.00	0.00	0.00
13,900.0	89.02	179.51	12,747.5	-1,187.2	449.2	1,225.9	0.00	0.00	0.00
14,000.0	89.02	179.51	12,749.3	-1,287.2	450.0	1,325.4	0.00	0.00	0.00
14,100.0	89.02	179.51	12,751.0	-1,387.2	450.9	1,425.0	0.00	0.00	0.00
14,200.0	89.02	179.51	12,752.7	-1,487.2	451.7	1,524.6	0.00	0.00	0.00
14,300.0	89.02	179.51	12,754.4	-1,587.2	452.5	1,624.2	0.00	0.00	0.00
14,400.0	89.02	179.51	12,756.1	-1,687.1	453.4	1,723.7	0.00	0.00	0.00
14,500.0	89.02	179.51	12,757.8	-1,787.1	454.2	1,823.3	0.00	0.00	0.00
14,600.0	89.02	179.51	12,759.6	-1,887.1	455.1	1,922.9	0.00	0.00	0.00
14,700.0	89.02	179.51	12,761.3	-1,987.1	455.9	2,022.5	0.00	0.00	0.00
14,800.0	89.02	179.51	12,763.0	-2,087.1	456.8	2,122.0	0.00	0.00	0.00
14,900.0	89.02	179.51	12,764.7	-2,187.1	457.6	2,221.6	0.00	0.00	0.00
15,000.0	89.02	179.51	12,766.4	-2,287.0	458.5	2,321.2	0.00	0.00	0.00
15,100.0	89.02	179.51	12,768.1	-2,387.0	459.3	2,420.8	0.00	0.00	0.00
15,192.0	89.02	179.51	12,769.7	-2,479.0	460.1	2,512.4	0.00	0.00	0.00
TGT 1 (Ruby 2 Fed Com #703H)									
15,200.0	89.02	179.51	12,769.9	-2,487.0	460.2	2,520.3	0.00	0.00	0.00
15,300.0	89.02	179.51	12,771.6	-2,587.0	461.0	2,619.9	0.00	0.00	0.00
15,400.0	89.02	179.51	12,773.3	-2,687.0	461.9	2,719.5	0.00	0.00	0.00
15,500.0	89.02	179.51	12,775.0	-2,786.9	462.7	2,819.1	0.00	0.00	0.00
15,600.0	89.02	179.51	12,776.7	-2,886.9	463.6	2,918.6	0.00	0.00	0.00
15,700.0	89.02	179.51	12,778.4	-2,986.9	464.4	3,018.2	0.00	0.00	0.00
15,800.0	89.02	179.51	12,780.2	-3,086.9	465.3	3,117.8	0.00	0.00	0.00
15,900.0	89.02	179.51	12,781.9	-3,186.9	466.1	3,217.4	0.00	0.00	0.00
16,000.0	89.02	179.51	12,783.6	-3,286.9	467.0	3,316.9	0.00	0.00	0.00
16,100.0	89.02	179.51	12,785.3	-3,386.8	467.8	3,416.5	0.00	0.00	0.00
16,200.0	89.02	179.51	12,787.0	-3,486.8	468.7	3,516.1	0.00	0.00	0.00
16,300.0	89.02	179.51	12,788.7	-3,586.8	469.5	3,615.7	0.00	0.00	0.00
16,400.0	89.02	179.51	12,790.5	-3,686.8	470.3	3,715.2	0.00	0.00	0.00
16,500.0	89.02	179.51	12,792.2	-3,786.8	471.2	3,814.8	0.00	0.00	0.00
16,600.0	89.02	179.51	12,793.9	-3,886.7	472.0	3,914.4	0.00	0.00	0.00
16,700.0	89.02	179.51	12,795.6	-3,986.7	472.9	4,014.0	0.00	0.00	0.00
16,800.0	89.02	179.51	12,797.3	-4,086.7	473.7	4,113.5	0.00	0.00	0.00
16,900.0	89.02	179.51	12,799.0	-4,186.7	474.6	4,213.1	0.00	0.00	0.00
17,000.0	89.02	179.51	12,800.8	-4,286.7	475.4	4,312.7	0.00	0.00	0.00
17,100.0	89.02	179.51	12,802.5	-4,386.6	476.3	4,412.3	0.00	0.00	0.00
17,200.0	89.02	179.51	12,804.2	-4,486.6	477.1	4,511.8	0.00	0.00	0.00
17,300.0	89.02	179.51	12,805.9	-4,586.6	478.0	4,611.4	0.00	0.00	0.00
17,400.0	89.02	179.51	12,807.6	-4,686.6	478.8	4,711.0	0.00	0.00	0.00
17,500.0	89.02	179.51	12,809.3	-4,786.6	479.7	4,810.5	0.00	0.00	0.00
17,538.4	89.02	179.51	12,810.0	-4,825.0	480.0	4,848.8	0.00	0.00	0.00

TGT 3 (Ruby 2 Fed Com #703H) - LTP (Ruby 2 Fed Com #703H) - TGT 4 (Ruby 2 Fed Com #703H) - PBHL (Ruby 2 Fed Com #703H) - PBHL

Planning Report

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Company: EOG Resources - Midland
Project: Lea County, NM (NAD 83 NME)
Site: Ruby 2 State Com
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Design: Plan #0.1

Local Co-ordinate Reference: Well #703H
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Survey Calculation Method: Minimum Curvature

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
FTP (Ruby 2 State Com - plan misses target center by 36.4usft at 12828.1usft MD (12695.2 TVD, -120.4 N, 438.4 E) - Point	0.00	0.07	12,729.0	-107.0	440.0	393,540.00	816,810.00	32° 4' 43.678 N	103° 26' 38.156 W
PBHL (Ruby 2 State Cor - plan hits target center - Rectangle (sides W60.0 H0.0 D4,718.5)	90.00	179.50	12,810.0	-4,825.0	480.0	388,822.00	816,850.00	32° 3' 56.990 N	103° 26' 38.144 W

**EOG RESOURCES, INC.
RUBY 2 STATE COM #703H**

Hydrogen Sulfide Plan Summary

- A. All personnel shall receive proper H₂S training in accordance with Onshore Order III.C.3.a.
- B. Briefing Area: two perpendicular areas will be designated by signs and readily accessible.
- C. Required Emergency Equipment:

- Well control equipment
 - a. Flare line 150' from wellhead to be ignited by flare gun.
 - b. Choke manifold with a remotely operated choke.
 - c. Mud/gas separator
- Protective equipment for essential personnel.

Breathing apparatus:

- a. Rescue Packs (SCBA) — 1 unit shall be placed at each breathing area, 2 shall be stored in the safety trailer.
- b. Work/Escapes packs — 4 packs shall be stored on the rig floor with sufficient air hose not to restrict work activity.
- c. Emergency Escape Packs — 4 packs shall be stored in the doghouse for emergency evacuation.

Auxiliary Rescue Equipment:

- a. Stretcher
 - b. Two OSHA full body harness
 - c. 100 ft 5/8 inch OSHA approved rope
 - d. 1-20# class ABC fire extinguisher
- H₂S detection and monitoring equipment:

The stationary detector with three sensors will be placed in the upper dog house if equipped, set to visually alarm @ 10 ppm and audible @ 14 ppm. Calibrate a minimum of every 30 days or as needed. The sensors will be placed in the following places: Rig floor / Bell nipple / End of flow line or where well bore fluid is being discharged.
(Gas sample tubes will be stored in the safety trailer)
 - Visual warning systems.
 - a. One color code condition sign will be placed at the entrance to the site reflecting the possible conditions at the site.
 - b. A colored condition flag will be on display, reflecting the current condition at the site at the time.
 - c. Two wind socks will be placed in strategic locations, visible from all angles.

EOG RESOURCES, INC.
RUBY 2 STATE COM #703H

- **Mud program:**
The mud program has been designed to minimize the volume of H₂S circulated to surface. The operator will have the necessary mud products to minimize hazards while drilling in H₂S bearing zones.
- **Metallurgy:**
All drill strings, casings, tubing, wellhead, blowout preventer, drilling spool, kill lines, choke manifold and lines, and valves shall be suitable for H₂S service.
- **Communication:**
Communication will be via cell phones and land lines where available.

**EOG RESOURCES, INC.
RUBY 2 STATE COM #703H**

Emergency Assistance Telephone List

PUBLIC SAFETY: **911 or**

Lea County Sheriff's Department	(575) 396-3611
Rod Coffman	
Fire Department:	
Carlsbad	(575) 885-3125
Artesia	(575) 746-5050
Hospitals:	
Carlsbad	(575) 887-4121
Artesia	(575) 748-3333
Hobbs	(575) 392-1979
Dept. of Public Safety/Carlsbad	(575) 748-9718
Highway Department	(575) 885-3281
New Mexico Oil Conservation	(575) 476-3440
U.S. Dept. of Labor	(575) 887-1174

EOG Resources, Inc.

EOG / Midland	Office (432) 686-3600
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Company Drilling Consultants:

David Dominique	Cell (985) 518-5839
Mike Vann	Cell (817) 980-5507

Drilling Engineer

Steve Munsell	Office (432) 686-3609
	Cell (432) 894-1256

Drilling Manager

Floyd Hernandez	Office (432) 686-3716
	Cell (817) 682-4569

Drilling Superintendent

Jason Fitzgerald	Office (432) 848-9029
	Cell (318) 347-3916

H&P Drilling

H&P Drilling	Office (432) 563-5757
H&P 651 Drilling Rig	Rig (903) 509-7131

Tool Pusher:

Johnathan Craig	Cell (817) 760-6374
Brad Garrett	

Safety

Brian Chandler (HSE Manager)	Office (432) 686-3695
	Cell (817) 239-0251