Permit Information: 30-025-42158

Well Name: Jolly Roger 16 State No. 502H

Location:
SL: 150' FNL & 1046' FWL, Section 16, T-24-S, R-34-E, Lea Co., N.M.
BHL: 230' FSL & 1631' FWL, Section 16, T-24-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
17.5"	0 – 1240'	13.375"	54.5#	J55	STC	1.125	1.25	1.60
12.25"	0-4000'	9.625"	40#	J55	LTC	1.125	1.25	1.60
12.25"	4000' – 5200'	9.625"	40#	HCK-55	LTC	1.125	1.25	1.60
8.75"	0'-15,658'	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
1240'	600	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
5,200'	900	12.7	2.22	Class 'C' + 1.50% R-3 + 0.25 lb/sk Cello-Flake + 2.0% Sodium Metasilicate + 10% Salt + 0.005 lb/sk Static Free (TOC @ Surface)
	225	14.8	1.32	Tail: Class 'C' + 0.25 lb/sk Cello Flake + 0.005 lb/sk Static Free
15,658'	375	10.8	3.67	60:40:0 Class C + 15.0 pps BA-90 + 4% MPA-5 + 3.0% SMS + 5.0% A-10 + 1.0% BA-10A + 0.80% ASA-301 + 2.55% R-21 + 8.0 pps LCM-1 (TOC @ 4700')
	400	11.8	2.38	50:50:10 Class H + 0.80% FL-52 + 0.30% ASA-301 + 0.40% SMS + 2.0% Salt + 0.30% R-21 + 3.0 pps LCM-1 + 0.25 pps Celloflake
	1300	14.2	1.28	50:50:2 Class H + 0.65% FL-52 + 0.45% CD-32 + 0.10% SMS + 2.0% Salt

Mud Program:

Depth	Type	Weight (ppg)	Viscosity	Water Loss
0 – 1240'	Fresh - Gel	8.6-8.8	28-34	N/c
1240' – 5,200'	Brine	10.0-10.2	28-34	N/c
5,200' – 10,325'	Cut Brine	8.4-9.0	28-34	N/c
10,325' – 15,658' Lateral	Cut Brine	9.0-9.5	40-42	8-10

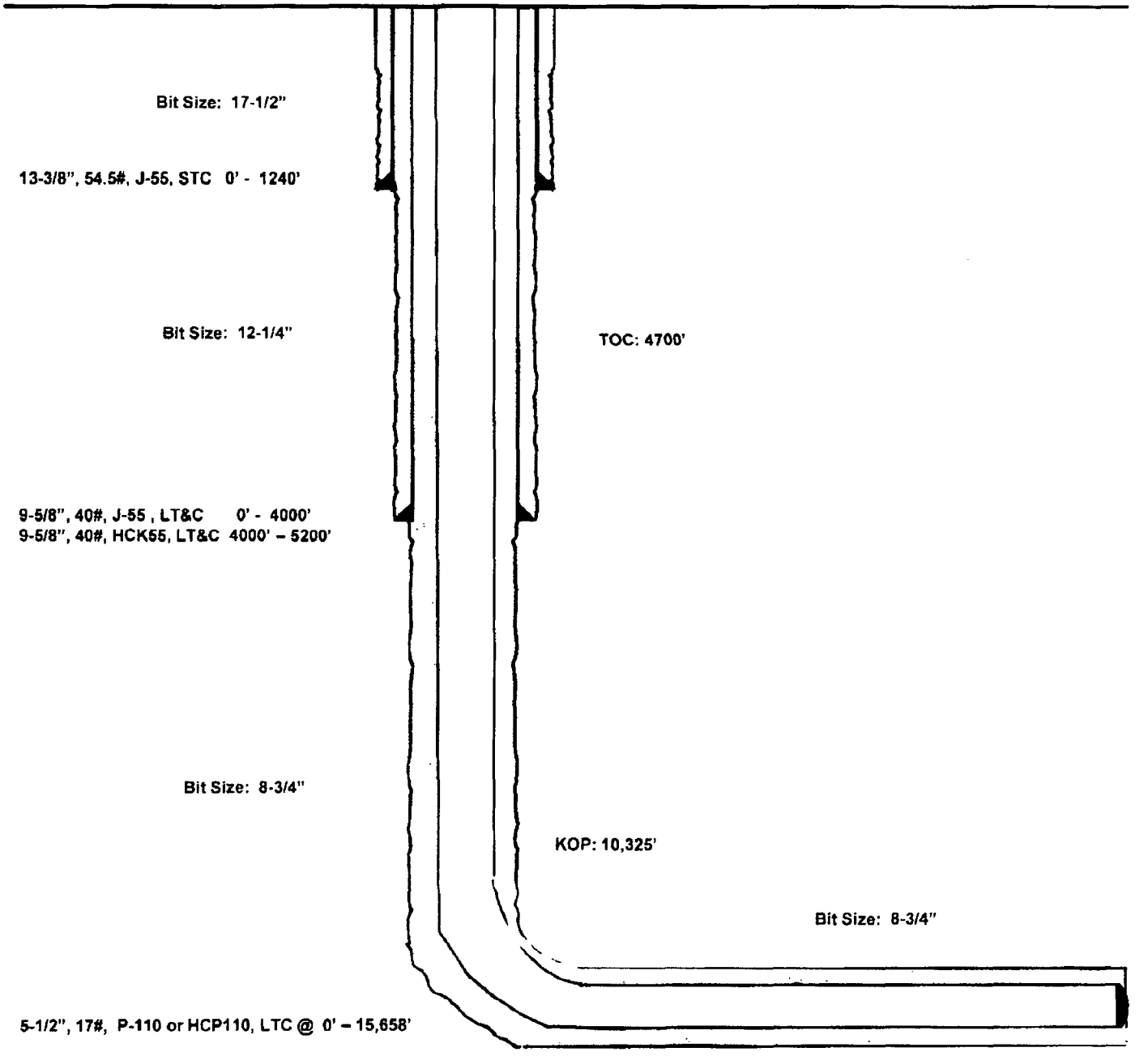
Jolly Roger 16 State #502H
Lea County, New Mexico

150' FNL
1046' FWL
Section 16
T-24-S, R-34-E

Proposed Wellbore

API: 30-025-

KB: 3,582'
GL: 3,557'



Lateral: 15,658' MD, 10,880' TVD

BH Location: 230' FSL & 1631' FWL
Section 16
T-24-S, R-34-E

eog resources

Lea County, NM (NAD 27 NME)

Jolly Roger 16 State #502H

Plan #1

PROJECT DETAILS: Lea County, NM (NAD 27 NME)

Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: New Mexico East 3001
System Datum: Mean Sea Level

Azimuths to Grid North
True North: -0.48°
Magnetic North: 6.68°

Magnetic Field
Strength: 48295.8snT
Dip Angle: 60.13°
Date: 9/30/2014
Model: IGRF201014

To convert a Magnetic Direction to a Grid Direction, Add 6.68°
To convert a Magnetic Direction to a True Direction, Add 7.14° East
To convert a True Direction to a Grid Direction, Subtract 0.46°

WELL DETAILS: Jolly Roger 16 State #502H

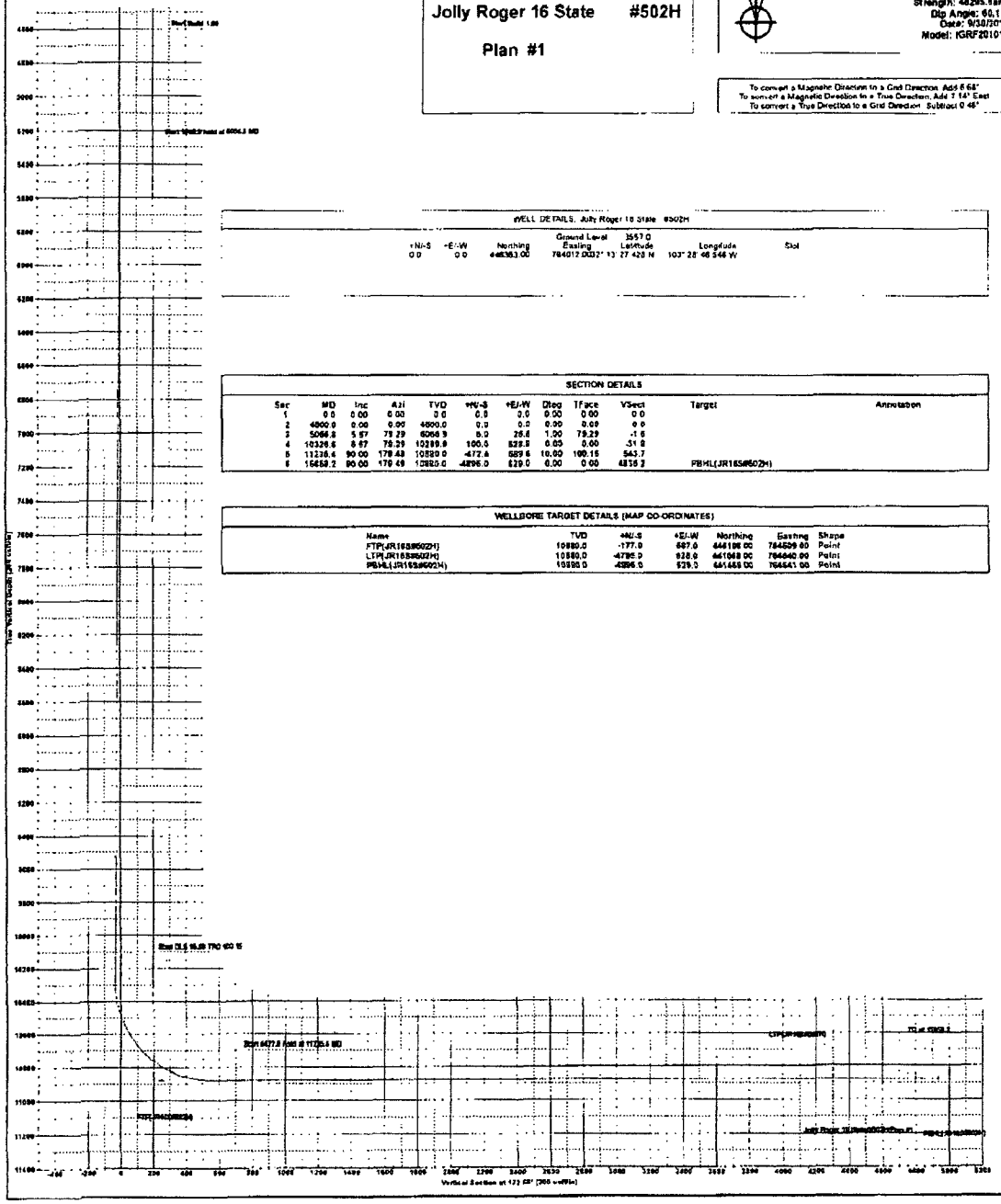
+N/-S	+E/-W	Northing	Ground Level Easting	3557.0 Latitude	Longitude	Slot
0.0	0.0	448383.00	784012.00	32° 13' 27.428 N	103° 28' 46.546 W	

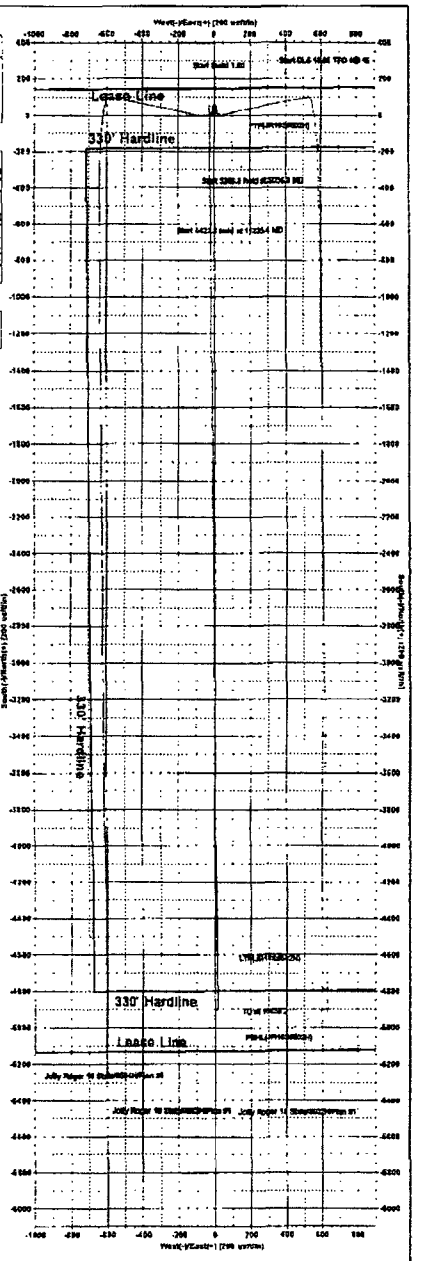
SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target	Annotation
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0		
2	4500.0	0.00	0.00	4500.0	0.0	0.0	0.00	0.00	0.0		
3	5068.8	5.67	79.29	5068.5	5.0	28.6	1.00	79.29	-1.6		
4	10326.6	5.67	79.29	10289.8	100.5	573.8	0.00	0.00	-31.8		
5	11236.4	90.00	179.48	10820.0	-417.4	589.6	10.00	100.15	543.7		
6	16458.2	90.00	179.48	10820.0	-4296.0	579.0	0.00	0.00	4818.2	PBHL(JR16#502H)	

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
FTP(JR16#502H)	10880.0	-177.0	607.0	448186.00	784599.00	Point
LTP(JR16#502H)	10880.0	-4796.0	638.0	443568.00	784640.00	Point
PBHL(JR16#502H)	10880.0	-4296.0	579.0	444068.00	784541.00	Point





eog resources

EOG Resources - Midland

Lea County, NM (NAD 27 NME)
Jolly Roger 16 State
#502H

OH

Plan: Plan #1

Standard Planning Report

30 September, 2014

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well #502H
Company:	EOG Resources - Midland	**TVD Reference:**	KB = 25 @ 3582.0usft
Project:	Lea County, NM (NAD 27 NME)	**MD Reference:**	KB = 25 @ 3582.0usft
Site:	Jolly Roger 16 State	**North Reference:**	Grid
Well:	#502H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Project	Lea County, NM (NAD 27 NME)		
Map System:	US State Plane 1927 (Exact solution)	**System Datum:**	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site	Jolly Roger 16 State				
Site Position:		**Northing:**	446,370.00 usft	**Latitude:**	32° 13' 27.402 N
From:	Map	**Easting:**	765,216.00 usft	**Longitude:**	103° 28' 32.531 W
Position Uncertainty:	0.0 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	0.46 °

Well	#502H					
Well Position	**+N/-S**	-7.0 usft	**Northing:**	446,363.00 usft	**Latitude:**	32° 13' 27.428 N
	+E/-W	-1,204.0 usft	**Easting:**	764,012.00 usft	**Longitude:**	103° 28' 46.546 W
Position Uncertainty		0.0 usft	**Wellhead Elevation:**	0.0 usft	**Ground Level:**	3,557.0 usft

Wellbore	OH				
Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	IGRF201014	9/30/2014	7.14	60.12	48,296

Design	Plan #1				
Audit Notes:					
Version:		**Phase:**	PLAN	**Tie On Depth:**	0.0
Vertical Section:	**Depth From (TVD) (usft)**	**+N/-S (usft)**	**+E/-W (usft)**	**Direction (°)**	
	0.0	0.0	0.0	172.68	

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	
4,500.0	0.00	0.00	4,500.0	0.0	0.0	0.00	0.00	0.00	0.00	
5,056.8	5.57	79.29	5,055.9	5.0	26.6	1.00	1.00	0.00	79.29	
10,325.6	5.57	79.29	10,299.9	100.0	528.9	0.00	0.00	0.00	0.00	
11,235.4	90.00	179.49	10,880.0	-472.4	589.6	10.00	9.28	11.01	100.15	
15,658.2	90.00	179.49	10,880.0	-4,895.0	629.0	0.00	0.00	0.00	0.00	PBHL(JR16S#502H)

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well #502H
Company:	EOG Resources - Midland	**TVD Reference:**	KB = 25 @ 3582.0usft
Project:	Lea County, NM (NAD 27 NME)	**MD Reference:**	KB = 25 @ 3582.0usft
Site:	Jolly Roger 16 State	**North Reference:**	Grid
Well:	#502H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

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	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	1.00	79.29	4,600.0	0.2	0.9	-0.1	1.00	1.00	0.00
4,700.0	2.00	79.29	4,700.0	0.6	3.4	-0.2	1.00	1.00	0.00
4,800.0	3.00	79.29	4,799.9	1.5	7.7	-0.5	1.00	1.00	0.00
4,900.0	4.00	79.29	4,899.7	2.6	13.7	-0.8	1.00	1.00	0.00
5,000.0	5.00	79.29	4,999.4	4.0	21.4	-1.3	1.00	1.00	0.00
5,056.8	5.57	79.29	5,055.9	5.0	26.6	-1.6	1.00	1.00	0.00
5,100.0	5.57	79.29	5,098.9	5.8	30.7	-1.8	0.00	0.00	0.00
5,200.0	5.57	79.29	5,198.4	7.6	40.2	-2.4	0.00	0.00	0.00

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well #502H
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Site:	Jolly Roger 16 State	**North Reference:**	Grid
Well:	#502H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

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	5.57	79.29	5,298.0	9.4	49.7	-3.0	0.00	0.00	0.00
5,400.0	5.57	79.29	5,397.5	11.2	59.3	-3.6	0.00	0.00	0.00
5,500.0	5.57	79.29	5,497.0	13.0	68.8	-4.1	0.00	0.00	0.00
5,600.0	5.57	79.29	5,596.6	14.8	78.3	-4.7	0.00	0.00	0.00
5,700.0	5.57	79.29	5,696.1	16.6	87.9	-5.3	0.00	0.00	0.00
5,800.0	5.57	79.29	5,795.6	18.4	97.4	-5.9	0.00	0.00	0.00
5,900.0	5.57	79.29	5,895.1	20.2	107.0	-6.4	0.00	0.00	0.00
6,000.0	5.57	79.29	5,994.7	22.0	116.5	-7.0	0.00	0.00	0.00
6,100.0	5.57	79.29	6,094.2	23.8	126.0	-7.6	0.00	0.00	0.00
6,200.0	5.57	79.29	6,193.7	25.6	135.6	-8.1	0.00	0.00	0.00
6,300.0	5.57	79.29	6,293.3	27.4	145.1	-8.7	0.00	0.00	0.00
6,400.0	5.57	79.29	6,392.8	29.2	154.6	-9.3	0.00	0.00	0.00
6,500.0	5.57	79.29	6,492.3	31.0	164.2	-9.9	0.00	0.00	0.00
6,600.0	5.57	79.29	6,591.8	32.8	173.7	-10.4	0.00	0.00	0.00
6,700.0	5.57	79.29	6,691.4	34.6	183.2	-11.0	0.00	0.00	0.00
6,800.0	5.57	79.29	6,790.9	36.4	192.8	-11.6	0.00	0.00	0.00
6,900.0	5.57	79.29	6,890.4	38.2	202.3	-12.1	0.00	0.00	0.00
7,000.0	5.57	79.29	6,990.0	40.0	211.8	-12.7	0.00	0.00	0.00
7,100.0	5.57	79.29	7,089.5	41.8	221.4	-13.3	0.00	0.00	0.00
7,200.0	5.57	79.29	7,189.0	43.6	230.9	-13.9	0.00	0.00	0.00
7,300.0	5.57	79.29	7,288.5	45.5	240.4	-14.4	0.00	0.00	0.00
7,400.0	5.57	79.29	7,388.1	47.3	250.0	-15.0	0.00	0.00	0.00
7,500.0	5.57	79.29	7,487.6	49.1	259.5	-15.6	0.00	0.00	0.00
7,600.0	5.57	79.29	7,587.1	50.9	269.0	-16.2	0.00	0.00	0.00
7,700.0	5.57	79.29	7,686.7	52.7	278.6	-16.7	0.00	0.00	0.00
7,800.0	5.57	79.29	7,786.2	54.5	288.1	-17.3	0.00	0.00	0.00
7,900.0	5.57	79.29	7,885.7	56.3	297.6	-17.9	0.00	0.00	0.00
8,000.0	5.57	79.29	7,985.2	58.1	307.2	-18.4	0.00	0.00	0.00
8,100.0	5.57	79.29	8,084.8	59.9	316.7	-19.0	0.00	0.00	0.00
8,200.0	5.57	79.29	8,184.3	61.7	326.2	-19.6	0.00	0.00	0.00
8,300.0	5.57	79.29	8,283.8	63.5	335.8	-20.2	0.00	0.00	0.00
8,400.0	5.57	79.29	8,383.4	65.3	345.3	-20.7	0.00	0.00	0.00
8,500.0	5.57	79.29	8,482.9	67.1	354.8	-21.3	0.00	0.00	0.00
8,600.0	5.57	79.29	8,582.4	68.9	364.4	-21.9	0.00	0.00	0.00
8,700.0	5.57	79.29	8,681.9	70.7	373.9	-22.5	0.00	0.00	0.00
8,800.0	5.57	79.29	8,781.5	72.5	383.4	-23.0	0.00	0.00	0.00
8,900.0	5.57	79.29	8,881.0	74.3	393.0	-23.6	0.00	0.00	0.00
9,000.0	5.57	79.29	8,980.5	76.1	402.5	-24.2	0.00	0.00	0.00
9,100.0	5.57	79.29	9,080.0	77.9	412.0	-24.7	0.00	0.00	0.00
9,200.0	5.57	79.29	9,179.6	79.7	421.6	-25.3	0.00	0.00	0.00
9,300.0	5.57	79.29	9,279.1	81.5	431.1	-25.9	0.00	0.00	0.00
9,400.0	5.57	79.29	9,378.6	83.3	440.6	-26.5	0.00	0.00	0.00
9,500.0	5.57	79.29	9,478.2	85.1	450.2	-27.0	0.00	0.00	0.00
9,600.0	5.57	79.29	9,577.7	86.9	459.7	-27.6	0.00	0.00	0.00
9,700.0	5.57	79.29	9,677.2	88.7	469.2	-28.2	0.00	0.00	0.00
9,800.0	5.57	79.29	9,776.7	90.5	478.8	-28.8	0.00	0.00	0.00
9,900.0	5.57	79.29	9,876.3	92.3	488.3	-29.3	0.00	0.00	0.00
10,000.0	5.57	79.29	9,975.8	94.1	497.8	-29.9	0.00	0.00	0.00
10,100.0	5.57	79.29	10,075.3	95.9	507.4	-30.5	0.00	0.00	0.00
10,200.0	5.57	79.29	10,174.9	97.7	516.9	-31.0	0.00	0.00	0.00
10,300.0	5.57	79.29	10,274.4	99.5	526.4	-31.6	0.00	0.00	0.00
10,325.6	5.57	79.29	10,299.9	100.0	528.9	-31.8	0.00	0.00	0.00
10,350.0	5.67	104.39	10,324.2	99.9	531.2	-31.4	10.00	0.42	102.86
10,400.0	8.46	139.32	10,373.8	96.5	536.0	-27.4	10.00	5.58	69.87

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well #502H
Company:	EOG Resources - Midland	**TVD Reference:**	KB = 25 @ 3582.0usft
Project:	Lea County, NM (NAD 27 NME)	**MD Reference:**	KB = 25 @ 3582.0usft
Site:	Jolly Roger 16 State	**North Reference:**	Grid
Well:	#502H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

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)
10,450.0	12.68	154.26	10,422.9	88.8	540.8	-19.1	10.00	8.45	29.86
10,500.0	17.32	161.57	10,471.2	76.7	545.5	-6.6	10.00	9.27	14.63
10,550.0	22.11	165.83	10,518.3	60.5	550.2	10.1	10.00	9.58	8.52
10,600.0	26.98	168.63	10,563.8	40.3	554.7	30.7	10.00	9.73	5.59
10,650.0	31.88	170.62	10,607.3	16.1	559.1	55.3	10.00	9.81	3.98
10,700.0	36.81	172.12	10,648.6	-11.8	563.3	83.4	10.00	9.85	3.01
10,750.0	41.75	173.32	10,687.2	-43.1	567.3	115.1	10.00	9.89	2.39
10,800.0	46.70	174.30	10,723.1	-77.8	571.1	149.9	10.00	9.91	1.97
10,850.0	51.66	175.14	10,755.7	-115.5	574.5	187.8	10.00	9.92	1.67
10,900.0	56.63	175.87	10,785.0	-155.9	577.7	228.2	10.00	9.93	1.46
10,950.0	61.60	176.52	10,810.7	-198.7	580.5	271.0	10.00	9.94	1.30
10,961.2	62.71	176.65	10,815.9	-208.5	581.1	280.9	10.00	9.94	1.22
FTP(JR16S#502H)									
11,000.0	66.57	177.11	10,832.5	-243.6	583.0	315.9	10.00	9.94	1.17
11,050.0	71.54	177.65	10,850.4	-290.2	585.2	362.4	10.00	9.95	1.10
11,100.0	76.52	178.17	10,864.1	-338.2	586.9	410.2	10.00	9.95	1.03
11,150.0	81.50	178.67	10,873.7	-387.3	588.3	459.1	10.00	9.95	0.99
11,200.0	86.47	179.15	10,878.9	-437.0	589.2	508.5	10.00	9.95	0.97
11,235.4	90.00	179.49	10,880.0	-472.4	589.6	543.7	10.00	9.95	0.96
11,300.0	90.00	179.49	10,880.0	-536.9	590.2	607.8	0.00	0.00	0.00
11,400.0	90.00	179.49	10,880.0	-636.9	591.1	707.1	0.00	0.00	0.00
11,500.0	90.00	179.49	10,880.0	-736.9	592.0	806.4	0.00	0.00	0.00
11,600.0	90.00	179.49	10,880.0	-836.9	592.9	905.7	0.00	0.00	0.00
11,700.0	90.00	179.49	10,880.0	-936.9	593.8	1,004.9	0.00	0.00	0.00
11,800.0	90.00	179.49	10,880.0	-1,036.9	594.7	1,104.2	0.00	0.00	0.00
11,900.0	90.00	179.49	10,880.0	-1,136.9	595.5	1,203.5	0.00	0.00	0.00
12,000.0	90.00	179.49	10,880.0	-1,236.9	596.4	1,302.8	0.00	0.00	0.00
12,100.0	90.00	179.49	10,880.0	-1,336.9	597.3	1,402.1	0.00	0.00	0.00
12,200.0	90.00	179.49	10,880.0	-1,436.9	598.2	1,501.4	0.00	0.00	0.00
12,300.0	90.00	179.49	10,880.0	-1,536.9	599.1	1,600.7	0.00	0.00	0.00
12,400.0	90.00	179.49	10,880.0	-1,636.9	600.0	1,700.0	0.00	0.00	0.00
12,500.0	90.00	179.49	10,880.0	-1,736.9	600.9	1,799.3	0.00	0.00	0.00
12,600.0	90.00	179.49	10,880.0	-1,836.9	601.8	1,898.6	0.00	0.00	0.00
12,700.0	90.00	179.49	10,880.0	-1,936.9	602.7	1,997.9	0.00	0.00	0.00
12,800.0	90.00	179.49	10,880.0	-2,036.9	603.6	2,097.2	0.00	0.00	0.00
12,900.0	90.00	179.49	10,880.0	-2,136.9	604.4	2,196.5	0.00	0.00	0.00
13,000.0	90.00	179.49	10,880.0	-2,236.9	605.3	2,295.8	0.00	0.00	0.00
13,100.0	90.00	179.49	10,880.0	-2,336.9	606.2	2,395.1	0.00	0.00	0.00
13,200.0	90.00	179.49	10,880.0	-2,436.9	607.1	2,494.4	0.00	0.00	0.00
13,300.0	90.00	179.49	10,880.0	-2,536.9	608.0	2,593.7	0.00	0.00	0.00
13,400.0	90.00	179.49	10,880.0	-2,636.8	608.9	2,692.9	0.00	0.00	0.00
13,500.0	90.00	179.49	10,880.0	-2,736.8	609.8	2,792.2	0.00	0.00	0.00
13,600.0	90.00	179.49	10,880.0	-2,836.8	610.7	2,891.5	0.00	0.00	0.00
13,700.0	90.00	179.49	10,880.0	-2,936.8	611.6	2,990.8	0.00	0.00	0.00
13,800.0	90.00	179.49	10,880.0	-3,036.8	612.5	3,090.1	0.00	0.00	0.00
13,900.0	90.00	179.49	10,880.0	-3,136.8	613.3	3,189.4	0.00	0.00	0.00
14,000.0	90.00	179.49	10,880.0	-3,236.8	614.2	3,288.7	0.00	0.00	0.00
14,100.0	90.00	179.49	10,880.0	-3,336.8	615.1	3,388.0	0.00	0.00	0.00
14,200.0	90.00	179.49	10,880.0	-3,436.8	616.0	3,487.3	0.00	0.00	0.00
14,300.0	90.00	179.49	10,880.0	-3,536.8	616.9	3,586.6	0.00	0.00	0.00
14,400.0	90.00	179.49	10,880.0	-3,636.8	617.8	3,685.9	0.00	0.00	0.00
14,500.0	90.00	179.49	10,880.0	-3,736.8	618.7	3,785.2	0.00	0.00	0.00
14,600.0	90.00	179.49	10,880.0	-3,836.8	619.6	3,884.5	0.00	0.00	0.00

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well #502H
Company:	EOG Resources - Midland	**TVD Reference:**	KB = 25 @ 3582.0usft
Project:	Lea County, NM (NAD 27 NME)	**MD Reference:**	KB = 25 @ 3582.0usft
Site:	Jolly Roger 16 State	**North Reference:**	Grid
Well:	#502H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

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)
14,700.0	90.00	179.49	10,880.0	-3,936.8	620.5	3,983.8	0.00	0.00	0.00
14,800.0	90.00	179.49	10,880.0	-4,036.8	621.4	4,083.1	0.00	0.00	0.00
14,900.0	90.00	179.49	10,880.0	-4,136.8	622.3	4,182.4	0.00	0.00	0.00
15,000.0	90.00	179.49	10,880.0	-4,236.8	623.1	4,281.7	0.00	0.00	0.00
15,100.0	90.00	179.49	10,880.0	-4,336.8	624.0	4,380.9	0.00	0.00	0.00
15,200.0	90.00	179.49	10,880.0	-4,436.8	624.9	4,480.2	0.00	0.00	0.00
15,300.0	90.00	179.49	10,880.0	-4,536.8	625.8	4,579.5	0.00	0.00	0.00
15,400.0	90.00	179.49	10,880.0	-4,636.8	626.7	4,678.8	0.00	0.00	0.00
15,500.0	90.00	179.49	10,880.0	-4,736.8	627.6	4,778.1	0.00	0.00	0.00
15,558.2	90.00	179.49	10,880.0	-4,795.0	628.1	4,835.9	0.00	0.00	0.00
LTP(JR16S#502H)									
15,600.0	90.00	179.49	10,880.0	-4,836.8	628.5	4,877.4	0.00	0.00	0.00
15,658.2	90.00	179.49	10,880.0	-4,895.0	629.0	4,935.2	0.00	0.00	0.00
PBHL(JR16S#502H)									

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
LTP(JR16S#502H)	0.00	0.00	10,880.0	-4,795.0	628.0	441,568.00	764,640.00	32° 12' 39.931 N	103° 28' 39.680 W
- plan misses target center by 0.1usft at 15558.2usft MD (10880.0 TVD, -4795.0 N, 628.1 E)									
- Point									
PBHL(JR16S#502H)	0.00	0.00	10,880.0	-4,895.0	629.0	441,468.00	764,641.00	32° 12' 38.941 N	103° 28' 39.678 W
- plan hits target center									
- Point									
FTP(JR16S#502H)	0.00	0.00	10,880.0	-177.0	587.0	446,186.00	764,599.00	32° 13' 25.630 N	103° 28' 39.730 W
- plan misses target center by 71.7usft at 10961.2usft MD (10815.9 TVD, -208.5 N, 581.1 E)									
- Point									