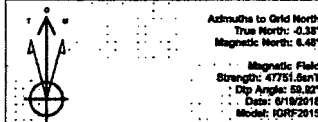




Lea County, NM (NAD 83 NME)

Gem 36 State Com #502H

Plan #0.2



To convert a Magnetic Direction to a Grid Direction, Add 6.48°
 To convert a Magnetic Direction to a True Direction, Add 6.98° East
 To convert a True Direction to a Grid Direction, Subtract 0.58°

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: #502H

KB = 25 @ 3480.0mft 3435.0
 Northing 359139.00 Easting 782000.00 Latitude 32° 5' 33.214 N Longitude 103° 37' 14.818 W

SECTION DETAILS

Sec	SID	Inc	Adj	TVD	HU-S	+EJ-W	Dleg	TFace	VFace	Target	Annotation
1	8.9	0.00	0.00	0.0	8.9	0.0	0.00	0.00	0.0		
2	2506.9	0.00	0.00	2506.0	8.9	0.0	0.00	0.00	0.0		
3	2464.9	6.18	325.98	8603.9	23.7	-16.0	2.00	325.98	-21.7		
4	7713.3	6.18	325.98	7083.5	573.4	-337.1	0.00	0.00	-623.2		
8	7919.8	0.00	0.00	7469.0	597.1	-482.1	2.00	190.00	-646.9		
9	16389.8	0.00	0.00	10231.9	597.1	-482.1	0.00	0.00	-544.8		
7	16743.7	43.99	208.29	10854.2	688.9	-471.9	12.00	208.29	-411.5		
8	11187.8	90.00	179.54	10812.0	87.9	-467.3	12.00	-39.19	-34.4		
9	18864.5	90.00	179.54	10812.0	-4419.9	-911.0	0.00	0.00	-6466.4		

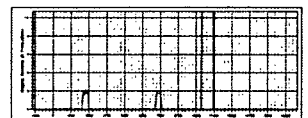
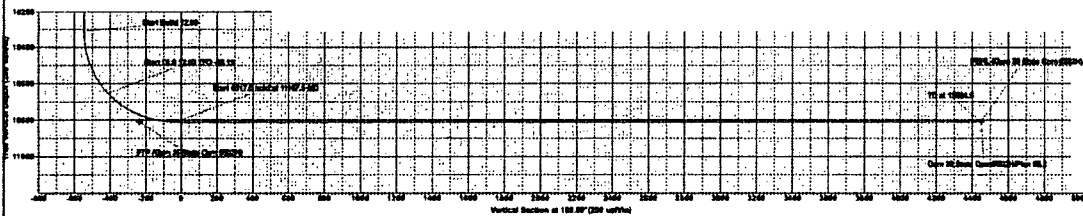
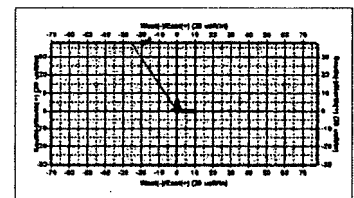
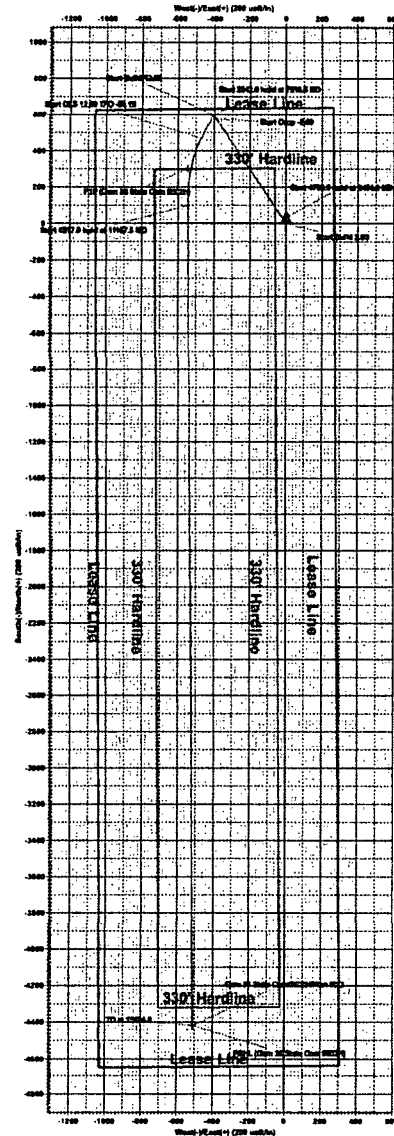
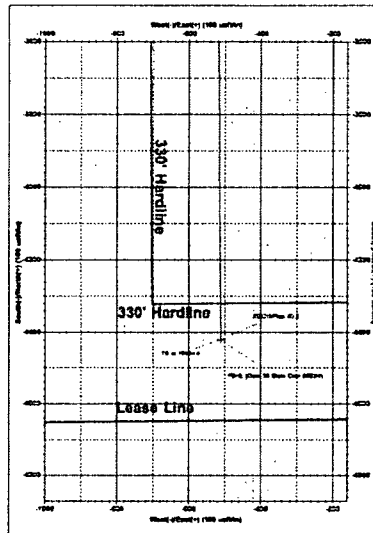
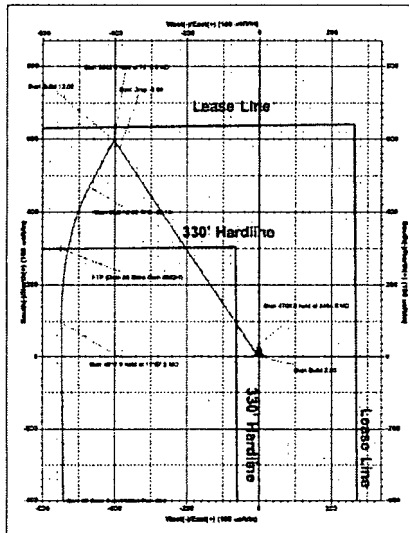
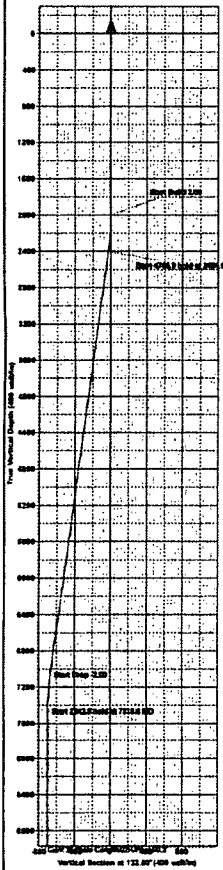
PSHL (Gem 36 State Com #502H)

CASING DETAILS

No casing data is available

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	HU-S	+EJ-W	Northing	Easting
PSHL (Gem 36 State Com #502H)	10812.0	-4419.9	-911.0	359236.00	781489.00
FTP (Gem 36 State Com #502H)	10812.0	300.0	-549.0	359436.90	781451.00





EOG Resources - Midland

Lea County, NM (NAD 83 NME)

Gem 36 State Com

#502H

OH

Plan: Plan #0.2

Standard Survey Report

25 June, 2018



Survey Report

Company: EOG Resources - Midland
Project: Lea County, NM (NAD 83 NME)
Site: Gem 36 State Com
Well: #502H
Wellbore: OH
Design: Plan #0.2

Local Co-ordinate Reference: Well #502H
TVD Reference: KB = 25 @ 3460.0usft
MD Reference: KB = 25 @ 3480.0usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.14

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		Gem 36 State Com			
Site Position:		Northing:	393,686.00 usft	Latitude:	32° 4' 49.331 N
From:	Map	Easting:	759,213.00 usft	Longitude:	103° 37' 47.552 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.37 °

Well	#502H					
Well Position	+N-S	0.0 usft	Northing:	398,139.00 usft	Latitude:	32° 5' 33.214 N
	+E-W	0.0 usft	Easting:	762,000.00 usft	Longitude:	103° 37' 14.818 W
Position Uncertainty	0.0 usft	Wellhead Elevation:	usft	Ground Level:	3,435.0 usft	

Wellbore	OH					
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)	
	IGRF2015	6/19/2018	6.86	59.92	47,751.50180340	

Design	Plan #0.2				
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	186.59	

Survey Tool Program	Date 6/25/2018				
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.0	15,684.5	Plan #0.2 (OH)	MWD	OWSG MWD - Standard	

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	



Survey Report

Company: EOG Resources - Midland
 Project: Lea County, NM (NAD 83 NME)
 Site: Gem 36 State Com
 Well: #502H
 Wellbore: OH
 Design: Plan #0.2

Local Co-ordinate Reference: Well #502H
 TVD Reference: KB = 25 @ 3460.0usft
 MD Reference: KB = 25 @ 3460.0usft
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Database: EDM 5000.14

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)
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	2.00	325.98	2,100.0	1.4	-1.0	-1.3	2.00	2.00	0.00
2,200.0	4.00	325.98	2,199.8	5.8	-3.9	-5.3	2.00	2.00	0.00
2,300.0	6.00	325.98	2,299.5	13.0	-8.8	-11.9	2.00	2.00	0.00
2,404.9	8.10	325.98	2,403.5	23.7	-16.0	-21.7	2.00	2.00	0.00
2,500.0	8.10	325.98	2,497.7	34.8	-23.5	-31.9	0.00	0.00	0.00
2,600.0	8.10	325.98	2,596.7	46.5	-31.4	-42.5	0.00	0.00	0.00
2,700.0	8.10	325.98	2,695.7	58.1	-39.2	-53.2	0.00	0.00	0.00
2,800.0	8.10	325.98	2,794.7	69.8	-47.1	-63.9	0.00	0.00	0.00
2,900.0	8.10	325.98	2,893.7	81.5	-55.0	-74.6	0.00	0.00	0.00
3,000.0	8.10	325.98	2,992.7	93.2	-62.9	-85.3	0.00	0.00	0.00
3,100.0	8.10	325.98	3,091.7	104.8	-70.8	-96.0	0.00	0.00	0.00
3,200.0	8.10	325.98	3,190.7	116.5	-78.7	-106.7	0.00	0.00	0.00
3,300.0	8.10	325.98	3,289.7	128.2	-86.5	-117.4	0.00	0.00	0.00
3,400.0	8.10	325.98	3,388.7	139.9	-94.4	-128.1	0.00	0.00	0.00
3,500.0	8.10	325.98	3,487.7	151.5	-102.3	-138.8	0.00	0.00	0.00
3,600.0	8.10	325.98	3,586.7	163.2	-110.2	-149.5	0.00	0.00	0.00
3,700.0	8.10	325.98	3,685.7	174.9	-118.1	-160.2	0.00	0.00	0.00
3,800.0	8.10	325.98	3,784.7	186.6	-125.9	-170.9	0.00	0.00	0.00
3,900.0	8.10	325.98	3,883.7	198.2	-133.8	-181.5	0.00	0.00	0.00
4,000.0	8.10	325.98	3,982.7	209.9	-141.7	-192.2	0.00	0.00	0.00
4,100.0	8.10	325.98	4,081.8	221.6	-149.6	-202.9	0.00	0.00	0.00
4,200.0	8.10	325.98	4,180.8	233.3	-157.5	-213.6	0.00	0.00	0.00
4,300.0	8.10	325.98	4,279.8	244.9	-165.3	-224.3	0.00	0.00	0.00
4,400.0	8.10	325.98	4,378.8	256.6	-173.2	-235.0	0.00	0.00	0.00
4,500.0	8.10	325.98	4,477.8	268.3	-181.1	-245.7	0.00	0.00	0.00
4,600.0	8.10	325.98	4,576.8	279.9	-189.0	-256.4	0.00	0.00	0.00
4,700.0	8.10	325.98	4,675.8	291.6	-196.9	-267.1	0.00	0.00	0.00
4,800.0	8.10	325.98	4,774.8	303.3	-204.8	-277.8	0.00	0.00	0.00
4,900.0	8.10	325.98	4,873.8	315.0	-212.6	-288.5	0.00	0.00	0.00
5,000.0	8.10	325.98	4,972.8	326.6	-220.5	-299.2	0.00	0.00	0.00
5,100.0	8.10	325.98	5,071.8	338.3	-228.4	-309.9	0.00	0.00	0.00
5,200.0	8.10	325.98	5,170.8	350.0	-236.3	-320.5	0.00	0.00	0.00
5,300.0	8.10	325.98	5,269.8	361.7	-244.2	-331.2	0.00	0.00	0.00



Survey Report

Company: EOG Resources - Midland
Project: Lea County, NM (NAD 83 NME)
Site: Gem 36 State Com
Well: #502H
Wellbore: OH
Design: Plan #0.2

Local Co-ordinate Reference: Well #502H
TVD Reference: KB = 25 @ 3460.0usft
MD Reference: KB = 25 @ 3460.0usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.14

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	8.10	325.98	5,368.8	373.3	-252.0	-341.9	0.00	0.00	0.00
5,500.0	8.10	325.98	5,467.8	385.0	-259.9	-352.6	0.00	0.00	0.00
5,600.0	8.10	325.98	5,566.8	396.7	-267.8	-363.3	0.00	0.00	0.00
5,700.0	8.10	325.98	5,665.8	408.4	-275.7	-374.0	0.00	0.00	0.00
5,800.0	8.10	325.98	5,764.8	420.0	-283.6	-384.7	0.00	0.00	0.00
5,900.0	8.10	325.98	5,863.8	431.7	-291.5	-395.4	0.00	0.00	0.00
6,000.0	8.10	325.98	5,962.8	443.4	-299.3	-406.1	0.00	0.00	0.00
6,100.0	8.10	325.98	6,061.8	455.1	-307.2	-416.8	0.00	0.00	0.00
6,200.0	8.10	325.98	6,160.8	466.7	-315.1	-427.5	0.00	0.00	0.00
6,300.0	8.10	325.98	6,259.8	478.4	-323.0	-438.2	0.00	0.00	0.00
6,400.0	8.10	325.98	6,358.8	490.1	-330.9	-448.9	0.00	0.00	0.00
6,500.0	8.10	325.98	6,457.8	501.8	-338.7	-459.5	0.00	0.00	0.00
6,600.0	8.10	325.98	6,556.8	513.4	-346.6	-470.2	0.00	0.00	0.00
6,700.0	8.10	325.98	6,655.8	525.1	-354.5	-480.9	0.00	0.00	0.00
6,800.0	8.10	325.98	6,754.8	536.8	-362.4	-491.6	0.00	0.00	0.00
6,900.0	8.10	325.98	6,853.8	548.5	-370.3	-502.3	0.00	0.00	0.00
7,000.0	8.10	325.98	6,952.8	560.1	-378.2	-513.0	0.00	0.00	0.00
7,100.0	8.10	325.98	7,051.8	571.8	-386.0	-523.7	0.00	0.00	0.00
7,113.8	8.10	325.98	7,065.5	573.4	-387.1	-525.2	0.00	0.00	0.00
7,200.0	6.37	325.98	7,151.0	582.4	-393.2	-533.4	2.00	-2.00	0.00
7,300.0	4.37	325.98	7,250.6	590.2	-398.4	-540.5	2.00	-2.00	0.00
7,400.0	2.37	325.98	7,350.4	595.1	-401.7	-545.0	2.00	-2.00	0.00
7,500.0	0.37	325.98	7,450.4	597.0	-403.1	-546.8	2.00	-2.00	0.00
7,518.6	0.00	0.00	7,469.0	597.1	-403.1	-546.9	2.00	-2.00	0.00
7,600.0	0.00	0.00	7,550.4	597.1	-403.1	-546.9	0.00	0.00	0.00
7,700.0	0.00	0.00	7,650.4	597.1	-403.1	-546.9	0.00	0.00	0.00
7,800.0	0.00	0.00	7,750.4	597.1	-403.1	-546.9	0.00	0.00	0.00
7,900.0	0.00	0.00	7,850.4	597.1	-403.1	-546.9	0.00	0.00	0.00
8,000.0	0.00	0.00	7,950.4	597.1	-403.1	-546.9	0.00	0.00	0.00
8,100.0	0.00	0.00	8,050.4	597.1	-403.1	-546.9	0.00	0.00	0.00
8,200.0	0.00	0.00	8,150.4	597.1	-403.1	-546.9	0.00	0.00	0.00
8,300.0	0.00	0.00	8,250.4	597.1	-403.1	-546.9	0.00	0.00	0.00
8,400.0	0.00	0.00	8,350.4	597.1	-403.1	-546.9	0.00	0.00	0.00
8,500.0	0.00	0.00	8,450.4	597.1	-403.1	-546.9	0.00	0.00	0.00
8,600.0	0.00	0.00	8,550.4	597.1	-403.1	-546.9	0.00	0.00	0.00
8,700.0	0.00	0.00	8,650.4	597.1	-403.1	-546.9	0.00	0.00	0.00
8,800.0	0.00	0.00	8,750.4	597.1	-403.1	-546.9	0.00	0.00	0.00
8,900.0	0.00	0.00	8,850.4	597.1	-403.1	-546.9	0.00	0.00	0.00
9,000.0	0.00	0.00	8,950.4	597.1	-403.1	-546.9	0.00	0.00	0.00
9,100.0	0.00	0.00	9,050.4	597.1	-403.1	-546.9	0.00	0.00	0.00
9,200.0	0.00	0.00	9,150.4	597.1	-403.1	-546.9	0.00	0.00	0.00
9,300.0	0.00	0.00	9,250.4	597.1	-403.1	-546.9	0.00	0.00	0.00
9,400.0	0.00	0.00	9,350.4	597.1	-403.1	-546.9	0.00	0.00	0.00



Survey Report

Company: EOG Resources - Midland
Project: Lea County, NM (NAD 83 NME)
Site: Gem 36 State Com
Well: #502H
Wellbore: OH
Design: Plan #0.2

Local Co-ordinate Reference: Well #502H
TVD Reference: KB = 25 @ 3460.0usft
MD Reference: KB = 25 @ 3460.0usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.14

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)
9,500.0	0.00	0.00	9,450.4	597.1	-403.1	-546.9	0.00	0.00	0.00
9,600.0	0.00	0.00	9,550.4	597.1	-403.1	-546.9	0.00	0.00	0.00
9,700.0	0.00	0.00	9,650.4	597.1	-403.1	-546.9	0.00	0.00	0.00
9,800.0	0.00	0.00	9,750.4	597.1	-403.1	-546.9	0.00	0.00	0.00
9,900.0	0.00	0.00	9,850.4	597.1	-403.1	-546.9	0.00	0.00	0.00
10,000.0	0.00	0.00	9,950.4	597.1	-403.1	-546.9	0.00	0.00	0.00
10,100.0	0.00	0.00	10,050.4	597.1	-403.1	-546.9	0.00	0.00	0.00
10,200.0	0.00	0.00	10,150.4	597.1	-403.1	-546.9	0.00	0.00	0.00
10,300.0	0.00	0.00	10,250.4	597.1	-403.1	-546.9	0.00	0.00	0.00
10,360.6	0.00	0.00	10,311.0	597.1	-403.1	-546.9	0.00	0.00	0.00
10,375.0	1.72	208.20	10,325.4	596.9	-403.2	-546.7	12.00	12.00	0.00
10,400.0	4.72	208.20	10,350.3	595.7	-403.9	-545.3	12.00	12.00	0.00
10,425.0	7.73	208.20	10,375.2	593.3	-405.1	-542.8	12.00	12.00	0.00
10,450.0	10.73	208.20	10,399.8	589.8	-407.0	-539.1	12.00	12.00	0.00
10,475.0	13.73	208.20	10,424.3	585.1	-409.5	-534.2	12.00	12.00	0.00
10,500.0	16.73	208.20	10,448.4	579.3	-412.6	-528.1	12.00	12.00	0.00
10,525.0	19.73	208.20	10,472.1	572.4	-416.3	-520.8	12.00	12.00	0.00
10,550.0	22.73	208.20	10,495.4	564.4	-420.6	-512.4	12.00	12.00	0.00
10,575.0	25.73	208.20	10,518.2	555.4	-425.5	-502.9	12.00	12.00	0.00
10,600.0	28.73	208.20	10,540.4	545.3	-430.9	-492.2	12.00	12.00	0.00
10,625.0	31.73	208.20	10,562.0	534.2	-436.8	-480.5	12.00	12.00	0.00
10,650.0	34.73	208.20	10,583.0	522.1	-443.3	-467.8	12.00	12.00	0.00
10,675.0	37.74	208.20	10,603.1	509.1	-450.3	-454.0	12.00	12.00	0.00
10,700.0	40.74	208.20	10,622.5	495.2	-457.8	-439.3	12.00	12.00	0.00
10,725.0	43.74	208.20	10,641.0	480.4	-465.7	-423.7	12.00	12.00	0.00
10,743.7	45.98	208.20	10,654.2	468.8	-471.9	-411.5	12.00	12.00	0.00
10,750.0	46.58	207.56	10,658.6	464.7	-474.1	-407.2	12.00	9.46	-10.22
10,775.0	48.98	205.13	10,675.4	448.1	-482.3	-389.8	12.00	9.80	-9.74
10,800.0	51.42	202.86	10,691.4	430.6	-490.1	-371.5	12.00	9.79	-9.05
10,825.0	53.91	200.75	10,706.6	412.1	-497.4	-352.3	12.00	9.95	-8.45
10,850.0	56.43	198.77	10,720.8	392.8	-504.4	-332.3	12.00	10.09	-7.92
10,875.0	58.99	196.90	10,734.2	372.7	-510.8	-311.6	12.00	10.21	-7.47
10,900.0	61.56	195.13	10,746.6	351.8	-516.8	-290.2	12.00	10.31	-7.08
10,925.0	64.16	193.45	10,758.0	330.3	-522.3	-268.1	12.00	10.40	-6.74
10,950.0	66.78	191.83	10,768.4	308.1	-527.3	-245.5	12.00	10.47	-6.45
10,975.0	69.42	190.28	10,777.7	285.3	-531.7	-222.4	12.00	10.54	-6.20
11,000.0	72.06	188.79	10,785.9	262.1	-535.6	-198.8	12.00	10.59	-5.99
11,025.0	74.72	187.33	10,793.1	238.3	-539.0	-174.9	12.00	10.63	-5.81
11,050.0	77.39	185.92	10,799.1	214.2	-541.8	-150.6	12.00	10.67	-5.67
11,075.0	80.06	184.53	10,804.0	189.8	-544.0	-126.1	12.00	10.70	-5.55
11,100.0	82.74	183.16	10,807.7	165.2	-545.7	-101.4	12.00	10.72	-5.46
11,125.0	85.43	181.81	10,810.3	140.3	-546.8	-76.6	12.00	10.74	-5.40
11,150.0	88.12	180.48	10,811.7	115.4	-547.3	-51.8	12.00	10.75	-5.36



Survey Report

Company: EOG Resources - Midland
 Project: Lea County, NM (NAD 83 NME)
 Site: Gem 36 State Com
 Well: #502H
 Wellbore: OH
 Design: Plan #0.2

Local Co-ordinate Reference: Well #502H
 TVD Reference: KB = 25 @ 3460.0usft
 MD Reference: KB = 25 @ 3460.0usft
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Database: EDM 5000.14

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)
11,167.5	90.00	179.54	10,812.0	97.9	-547.3	-34.4	12.00	10.75	-5.34
11,200.0	90.00	179.54	10,812.0	65.4	-547.0	-2.1	0.00	0.00	0.00
11,300.0	90.00	179.54	10,812.0	-34.6	-546.2	97.1	0.00	0.00	0.00
11,400.0	90.00	179.54	10,812.0	-134.6	-545.4	196.4	0.00	0.00	0.00
11,500.0	90.00	179.54	10,812.0	-234.6	-544.6	295.6	0.00	0.00	0.00
11,600.0	90.00	179.54	10,812.0	-334.6	-543.8	394.8	0.00	0.00	0.00
11,700.0	90.00	179.54	10,812.0	-434.6	-543.0	494.1	0.00	0.00	0.00
11,800.0	90.00	179.54	10,812.0	-534.6	-542.2	593.3	0.00	0.00	0.00
11,900.0	90.00	179.54	10,812.0	-634.6	-541.4	692.6	0.00	0.00	0.00
12,000.0	90.00	179.54	10,812.0	-734.6	-540.6	791.8	0.00	0.00	0.00
12,100.0	90.00	179.54	10,812.0	-834.6	-539.8	891.1	0.00	0.00	0.00
12,200.0	90.00	179.54	10,812.0	-934.6	-539.0	990.3	0.00	0.00	0.00
12,300.0	90.00	179.54	10,812.0	-1,034.6	-538.2	1,089.5	0.00	0.00	0.00
12,400.0	90.00	179.54	10,812.0	-1,134.6	-537.4	1,188.8	0.00	0.00	0.00
12,500.0	90.00	179.54	10,812.0	-1,234.6	-536.6	1,288.0	0.00	0.00	0.00
12,600.0	90.00	179.54	10,812.0	-1,334.6	-535.8	1,387.3	0.00	0.00	0.00
12,700.0	90.00	179.54	10,812.0	-1,434.6	-535.0	1,486.5	0.00	0.00	0.00
12,800.0	90.00	179.54	10,812.0	-1,534.6	-534.2	1,585.8	0.00	0.00	0.00
12,900.0	90.00	179.54	10,812.0	-1,634.6	-533.4	1,685.0	0.00	0.00	0.00
13,000.0	90.00	179.54	10,812.0	-1,734.6	-532.6	1,784.2	0.00	0.00	0.00
13,100.0	90.00	179.54	10,812.0	-1,834.6	-531.7	1,883.5	0.00	0.00	0.00
13,200.0	90.00	179.54	10,812.0	-1,934.6	-530.9	1,982.7	0.00	0.00	0.00
13,300.0	90.00	179.54	10,812.0	-2,034.6	-530.1	2,082.0	0.00	0.00	0.00
13,400.0	90.00	179.54	10,812.0	-2,134.5	-529.3	2,181.2	0.00	0.00	0.00
13,500.0	90.00	179.54	10,812.0	-2,234.5	-528.5	2,280.5	0.00	0.00	0.00
13,600.0	90.00	179.54	10,812.0	-2,334.5	-527.7	2,379.7	0.00	0.00	0.00
13,700.0	90.00	179.54	10,812.0	-2,434.5	-526.9	2,478.9	0.00	0.00	0.00
13,800.0	90.00	179.54	10,812.0	-2,534.5	-526.1	2,578.2	0.00	0.00	0.00
13,900.0	90.00	179.54	10,812.0	-2,634.5	-525.3	2,677.4	0.00	0.00	0.00
14,000.0	90.00	179.54	10,812.0	-2,734.5	-524.5	2,776.7	0.00	0.00	0.00
14,100.0	90.00	179.54	10,812.0	-2,834.5	-523.7	2,875.9	0.00	0.00	0.00
14,200.0	90.00	179.54	10,812.0	-2,934.5	-522.9	2,975.2	0.00	0.00	0.00
14,300.0	90.00	179.54	10,812.0	-3,034.5	-522.1	3,074.4	0.00	0.00	0.00
14,400.0	90.00	179.54	10,812.0	-3,134.5	-521.3	3,173.6	0.00	0.00	0.00
14,500.0	90.00	179.54	10,812.0	-3,234.5	-520.5	3,272.9	0.00	0.00	0.00
14,600.0	90.00	179.54	10,812.0	-3,334.5	-519.7	3,372.1	0.00	0.00	0.00
14,700.0	90.00	179.54	10,812.0	-3,434.5	-518.9	3,471.4	0.00	0.00	0.00
14,800.0	90.00	179.54	10,812.0	-3,534.5	-518.1	3,570.6	0.00	0.00	0.00
14,900.0	90.00	179.54	10,812.0	-3,634.5	-517.3	3,669.9	0.00	0.00	0.00
15,000.0	90.00	179.54	10,812.0	-3,734.5	-516.5	3,769.1	0.00	0.00	0.00
15,100.0	90.00	179.54	10,812.0	-3,834.5	-515.7	3,868.3	0.00	0.00	0.00
15,200.0	90.00	179.54	10,812.0	-3,934.5	-514.9	3,967.6	0.00	0.00	0.00
15,300.0	90.00	179.54	10,812.0	-4,034.5	-514.1	4,066.8	0.00	0.00	0.00
15,400.0	90.00	179.54	10,812.0	-4,134.5	-513.3	4,166.1	0.00	0.00	0.00



Survey Report

Company: EOG Resources - Midland
Project: Lea County, NM (NAD 83 NME)
Site: Gem 36 State Com
Well: #502H
Wellbore: OH
Design: Plan #0.2

Local Co-ordinate Reference: Well #502H
TVD Reference: KB = 25 @ 3460.0usft
MD Reference: KB = 25 @ 3460.0usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.14

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)
15,500.0	90.00	179.54	10,812.0	-4,234.5	-512.5	4,265.3	0.00	0.00	0.00
15,600.0	90.00	179.54	10,812.0	-4,334.5	-511.7	4,364.6	0.00	0.00	0.00
15,684.5	90.00	179.54	10,812.0	-4,419.0	-511.0	4,448.4	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
- hit/miss target									
- Shape									
PBHL (Gem 36 State Co	0.00	0.00	10,812.0	-4,419.0	-511.0	393,720.00	761,489.00	32° 4' 49.519 N	103° 37' 21.096 W
- plan hits target center									
- Point									
FTP (Gem 36 State Corr	0.00	0.00	10,812.0	300.0	-549.0	398,439.00	761,451.00	32° 5' 36.219 N	103° 37' 21.176 W
- plan misses target center by 41.1usft at 10975.4usft MD (10777.8 TVD, 285.0 N, -531.8 E)									
- Point									

Checked By: _____ Approved By: _____ Date: _____