

HOBBS OGD
 FEB 16 2018
 RECEIVED



Lea County, NM (NAD 83 NME)
 Convoy 28 State Com #601H
 HP 642
 Plan #1

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

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

WELL DETAILS: #601H

KB = 25 @ 3650.0usft (HP 642) 3525.0
 Northing 435286.00 Easting 776850.00 Latitude 32° 11' 39.904 N Longitude 103° 34' 21.128 W

Azimuths to Grid North
 True North: -4.41°
 Magnetic North: 6.50°

Magnetic Field
 Strength: 47872.9nT
 Dip Angle: 50.03°
 Date: 11/30/2017
 Model: IGRF2015

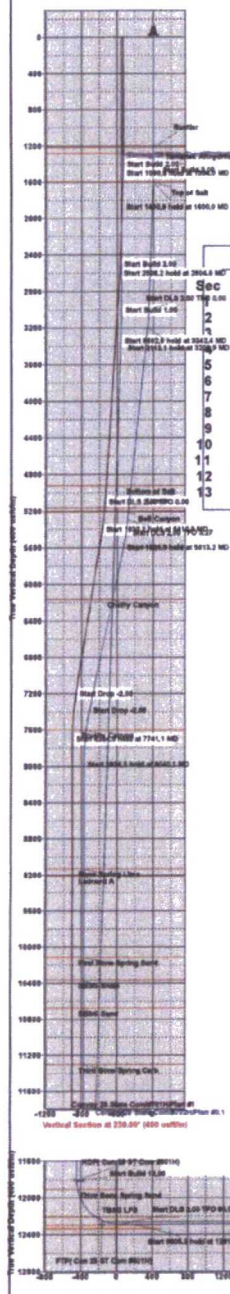
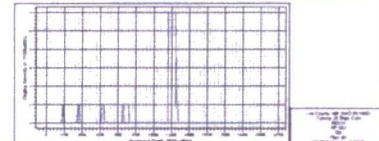
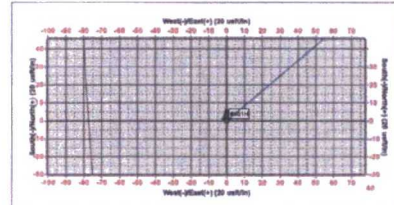
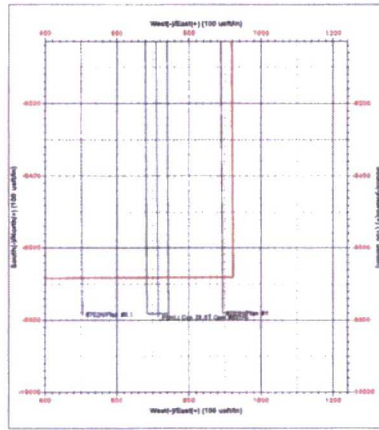
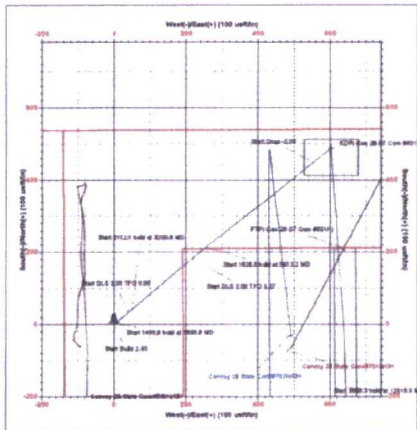
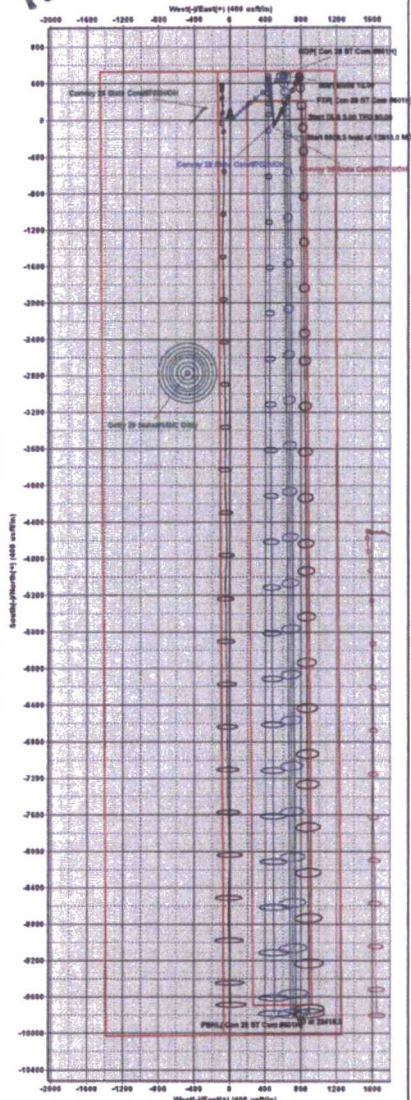
To convert a Magnetic Direction to a Grid Direction, Add 6.50°
 To convert a Magnetic Direction to a True Direction, Add 6.50° East
 To convert a True Direction to a Grid Direction, Subtract 0.41°

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
0	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	1500.0	0.00	0.00	1500.0	0.0	0.0	0.00	0.00	0.0	
7	1600.0	2.00	50.00	1600.0	1.1	1.3	2.00	50.00	-1.0	
5	3200.9	6.00	50.00	3199.5	41.5	49.5	2.00	0.00	-37.8	
6	5313.0	6.00	50.00	5300.0	183.4	218.6	0.00	0.00	-167.0	
7	5613.2	12.00	51.65	5596.4	212.9	255.1	2.00	3.27	-193.8	
8	7440.1	12.00	51.65	7383.4	448.6	553.0	0.00	0.00	-407.2	
9	8040.1	0.00	0.00	7979.0	487.5	602.1	2.00	180.00	-442.3	
10	11874.6	0.00	0.00	11813.5	487.5	602.1	0.00	0.00	-442.3	KOP(Con 28 ST Com #601H)
11	12626.0	90.17	175.90	12291.0	9.8	636.3	12.00	175.90	36.6	
12	12810.0	90.17	179.58	12290.4	-174.0	643.6	2.00	90.00	220.4	
13	22418.3	90.17	179.58	12262.0	-9782.0	714.0	0.00	0.00	9808.0	PBHL(Con 28 ST Com #601H)

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting
KOP(Con 28 ST Com #601H)	11813.5	487.5	602.1	435773.65	777282.05
PBHL(Con 28 ST Com #601H)	12262.0	-9782.0	714.0	435694.00	777394.00
FTP(Con 28 ST Com #601H)	12291.0	215.0	640.0	435496.00	777320.00





EOG Resources - Midland

Lea County, NM (NAD 83 NME)

Convoy 28 State Com

#601H

74922

OH

Plan: Plan #1

Standard Planning Report

15 February, 2018



Planning Report

Database:	EDM 5000.14	Local Co-ordinate Reference:	Well #601H
Company:	EOG Resources - Midland	TVD Reference:	KB = 25 @ 3550.0usft (HP 642)
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB = 25 @ 3550.0usft (HP 642)
Site:	Convoy 28 State Com	North Reference:	Grid
Well:	#601H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

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	Convoy 28 State Com				
Site Position:		Northing:	435,221.00 usft	Latitude:	32° 11' 39.126 N
From:	Map	Easting:	777,172.00 usft	Longitude:	103° 34' 15.406 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.41 °

Well	#601H					
Well Position	+N/-S	65.0 usft	Northing:	435,286.00 usft	Latitude:	32° 11' 39.804 N
	+E/-W	-492.0 usft	Easting:	776,680.00 usft	Longitude:	103° 34' 21.126 W
Position Uncertainty	0.0 usft		Wellhead Elevation:		Ground Level:	3,525.0 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	11/30/2017	6.90	60.03	47,872.94537558

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	175.83

Plan Survey Tool Program		Date		2/15/2018	
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks	
1	0.0	22,418.3 Plan #1 (OH)	MWD		
			OWSG MWD - Standard		



Planning Report

Database: EDM 5000.14
 Company: EOG Resources - Midland
 Project: Lea County, NM (NAD 83 NME)
 Site: Convoy 28 State Com
 Well: #601H
 Wellbore: OH
 Design: Plan #1

Local Co-ordinate Reference: Well #601H
 TVD Reference: KB = 25 @ 3550.0usft (HP 642)
 MD Reference: KB = 25 @ 3550.0usft (HP 642)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature

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	
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,600.0	2.00	50.00	1,600.0	1.1	1.3	2.00	2.00	0.00	50.00	
3,000.9	2.00	50.00	3,000.0	32.5	38.8	0.00	0.00	0.00	0.00	
3,200.9	6.00	50.00	3,199.5	41.5	49.5	2.00	2.00	0.00	0.00	
5,313.0	6.00	50.00	5,300.0	183.4	218.6	0.00	0.00	0.00	0.00	
5,613.2	12.00	51.65	5,596.4	212.9	255.1	2.00	2.00	0.55	3.27	
7,440.1	12.00	51.65	7,383.4	448.6	553.0	0.00	0.00	0.00	0.00	
8,040.1	0.00	0.00	7,979.0	487.5	602.1	2.00	-2.00	0.00	180.00	
11,874.6	0.00	0.00	11,813.5	487.5	602.1	0.00	0.00	0.00	0.00	KOP(Con 28 ST Cor
12,626.0	90.17	175.90	12,291.0	9.8	636.3	12.00	12.00	0.00	175.90	
12,810.0	90.17	179.58	12,290.4	-174.0	643.6	2.00	0.00	2.00	90.00	
22,418.3	90.17	179.58	12,262.0	-9,782.0	714.0	0.00	0.00	0.00	0.00	PBHL(Con 28 ST Co



Planning Report

Database: EDM 5000.14
 Company: EOG Resources - Midland
 Project: Lea County, NM (NAD 83 NME)
 Site: Convoxy 28 State Com
 Well: #601H
 Wellbore: OH
 Design: Plan #1

Local Co-ordinate Reference: Well #601H
 TVD Reference: KB = 25 @ 3550.0usft (HP 642)
 MD Reference: KB = 25 @ 3550.0usft (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	2.00	50.00	1,600.0	1.1	1.3	-1.0	2.00	2.00	0.00
1,700.0	2.00	50.00	1,699.9	3.4	4.0	-3.1	0.00	0.00	0.00
1,800.0	2.00	50.00	1,799.9	5.6	6.7	-5.1	0.00	0.00	0.00
1,900.0	2.00	50.00	1,899.8	7.9	9.4	-7.1	0.00	0.00	0.00
2,000.0	2.00	50.00	1,999.7	10.1	12.0	-9.2	0.00	0.00	0.00
2,100.0	2.00	50.00	2,099.7	12.3	14.7	-11.2	0.00	0.00	0.00
2,200.0	2.00	50.00	2,199.6	14.6	17.4	-13.3	0.00	0.00	0.00
2,300.0	2.00	50.00	2,299.6	16.8	20.1	-15.3	0.00	0.00	0.00
2,400.0	2.00	50.00	2,399.5	19.1	22.7	-17.4	0.00	0.00	0.00
2,500.0	2.00	50.00	2,499.4	21.3	25.4	-19.4	0.00	0.00	0.00
2,600.0	2.00	50.00	2,599.4	23.6	28.1	-21.4	0.00	0.00	0.00
2,700.0	2.00	50.00	2,699.3	25.8	30.7	-23.5	0.00	0.00	0.00
2,800.0	2.00	50.00	2,799.2	28.0	33.4	-25.5	0.00	0.00	0.00
2,900.0	2.00	50.00	2,899.2	30.3	36.1	-27.6	0.00	0.00	0.00
3,000.9	2.00	50.00	3,000.0	32.5	38.8	-29.6	0.00	0.00	0.00
3,100.0	3.98	50.00	3,099.0	35.9	42.8	-32.7	2.00	2.00	0.00
3,200.9	6.00	50.00	3,199.5	41.5	49.5	-37.8	2.00	2.00	0.00
3,300.0	6.00	50.00	3,298.1	48.2	57.4	-43.9	0.00	0.00	0.00
3,400.0	6.00	50.00	3,397.5	54.9	65.4	-50.0	0.00	0.00	0.00
3,500.0	6.00	50.00	3,497.0	61.6	73.4	-56.1	0.00	0.00	0.00
3,600.0	6.00	50.00	3,596.4	68.3	81.4	-62.2	0.00	0.00	0.00
3,700.0	6.00	50.00	3,695.9	75.0	89.4	-68.3	0.00	0.00	0.00
3,800.0	6.00	50.00	3,795.3	81.8	97.4	-74.5	0.00	0.00	0.00
3,900.0	6.00	50.00	3,894.8	88.5	105.5	-80.6	0.00	0.00	0.00
4,000.0	6.00	50.00	3,994.2	95.2	113.5	-86.7	0.00	0.00	0.00
4,100.0	6.00	50.00	4,093.7	101.9	121.5	-92.8	0.00	0.00	0.00
4,200.0	6.00	50.00	4,193.1	108.6	129.5	-98.9	0.00	0.00	0.00
4,300.0	6.00	50.00	4,292.6	115.4	137.5	-105.0	0.00	0.00	0.00
4,400.0	6.00	50.00	4,392.0	122.1	145.5	-111.2	0.00	0.00	0.00
4,500.0	6.00	50.00	4,491.5	128.8	153.5	-117.3	0.00	0.00	0.00
4,600.0	6.00	50.00	4,590.9	135.5	161.5	-123.4	0.00	0.00	0.00
4,700.0	6.00	50.00	4,690.4	142.2	169.5	-129.5	0.00	0.00	0.00
4,800.0	6.00	50.00	4,789.8	149.0	177.5	-135.6	0.00	0.00	0.00
4,900.0	6.00	50.00	4,889.3	155.7	185.5	-141.8	0.00	0.00	0.00
5,000.0	6.00	50.00	4,988.7	162.4	193.5	-147.9	0.00	0.00	0.00
5,100.0	6.00	50.00	5,088.2	169.1	201.5	-154.0	0.00	0.00	0.00
5,200.0	6.00	50.00	5,187.6	175.8	209.6	-160.1	0.00	0.00	0.00
5,300.0	6.00	50.00	5,287.1	182.6	217.6	-166.2	0.00	0.00	0.00



Planning Report

Database:	EDM 5000.14	Local Co-ordinate Reference:	Well #601H
Company:	EOG Resources - Midland	TVD Reference:	KB = 25 @ 3550.0usft (HP 642)
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB = 25 @ 3550.0usft (HP 642)
Site:	Convoy 28 State Corn	North Reference:	Grid
Well:	#601H	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)
5,313.0	6.00	50.00	5,300.0	183.4	218.6	-167.0	0.00	0.00	0.00
5,400.0	7.74	50.74	5,386.4	190.1	226.6	-173.1	2.00	2.00	0.85
5,500.0	9.74	51.26	5,485.2	199.6	238.4	-181.7	2.00	2.00	0.52
5,600.0	11.74	51.61	5,583.5	211.2	253.0	-192.2	2.00	2.00	0.35
5,613.2	12.00	51.65	5,596.4	212.9	255.1	-193.8	2.00	2.00	0.28
5,700.0	12.00	51.65	5,681.3	224.1	269.3	-203.9	0.00	0.00	0.00
5,800.0	12.00	51.65	5,779.1	237.0	285.6	-215.6	0.00	0.00	0.00
5,900.0	12.00	51.65	5,876.9	249.9	301.9	-227.3	0.00	0.00	0.00
6,000.0	12.00	51.65	5,974.7	262.8	318.2	-238.9	0.00	0.00	0.00
6,100.0	12.00	51.65	6,072.6	275.7	334.5	-250.6	0.00	0.00	0.00
6,200.0	12.00	51.65	6,170.4	288.6	350.8	-262.3	0.00	0.00	0.00
6,300.0	12.00	51.65	6,268.2	301.5	367.1	-274.0	0.00	0.00	0.00
6,400.0	12.00	51.65	6,366.0	314.4	383.4	-285.7	0.00	0.00	0.00
6,500.0	12.00	51.65	6,463.8	327.3	399.7	-297.4	0.00	0.00	0.00
6,600.0	12.00	51.65	6,561.6	340.2	416.0	-309.0	0.00	0.00	0.00
6,700.0	12.00	51.65	6,659.4	353.1	432.3	-320.7	0.00	0.00	0.00
6,800.0	12.00	51.65	6,757.3	366.0	448.6	-332.4	0.00	0.00	0.00
6,900.0	12.00	51.65	6,855.1	378.9	464.9	-344.1	0.00	0.00	0.00
7,000.0	12.00	51.65	6,952.9	391.8	481.2	-355.8	0.00	0.00	0.00
7,100.0	12.00	51.65	7,050.7	404.7	497.5	-367.4	0.00	0.00	0.00
7,200.0	12.00	51.65	7,148.5	417.6	513.8	-379.1	0.00	0.00	0.00
7,300.0	12.00	51.65	7,246.3	430.5	530.2	-390.8	0.00	0.00	0.00
7,400.0	12.00	51.65	7,344.1	443.4	546.5	-402.5	0.00	0.00	0.00
7,440.1	12.00	51.65	7,383.4	448.6	553.0	-407.2	0.00	0.00	0.00
7,500.0	10.80	51.65	7,442.1	456.0	562.3	-413.8	2.00	-2.00	0.00
7,600.0	8.80	51.65	7,540.6	466.5	575.6	-423.4	2.00	-2.00	0.00
7,700.0	6.80	51.65	7,639.7	474.9	586.3	-431.0	2.00	-2.00	0.00
7,800.0	4.80	51.65	7,739.2	481.2	594.2	-436.7	2.00	-2.00	0.00
7,900.0	2.80	51.65	7,839.0	485.3	599.4	-440.4	2.00	-2.00	0.00
8,000.0	0.80	51.65	7,938.9	487.3	601.9	-442.2	2.00	-2.00	0.00
8,040.1	0.00	0.00	7,979.0	487.5	602.1	-442.3	2.00	-2.00	0.00
8,100.0	0.00	0.00	8,038.9	487.5	602.1	-442.3	0.00	0.00	0.00
8,200.0	0.00	0.00	8,138.9	487.5	602.1	-442.3	0.00	0.00	0.00
8,300.0	0.00	0.00	8,238.9	487.5	602.1	-442.3	0.00	0.00	0.00
8,400.0	0.00	0.00	8,338.9	487.5	602.1	-442.3	0.00	0.00	0.00
8,500.0	0.00	0.00	8,438.9	487.5	602.1	-442.3	0.00	0.00	0.00
8,600.0	0.00	0.00	8,538.9	487.5	602.1	-442.3	0.00	0.00	0.00
8,700.0	0.00	0.00	8,638.9	487.5	602.1	-442.3	0.00	0.00	0.00
8,800.0	0.00	0.00	8,738.9	487.5	602.1	-442.3	0.00	0.00	0.00
8,900.0	0.00	0.00	8,838.9	487.5	602.1	-442.3	0.00	0.00	0.00
9,000.0	0.00	0.00	8,938.9	487.5	602.1	-442.3	0.00	0.00	0.00
9,100.0	0.00	0.00	9,038.9	487.5	602.1	-442.3	0.00	0.00	0.00
9,200.0	0.00	0.00	9,138.9	487.5	602.1	-442.3	0.00	0.00	0.00
9,300.0	0.00	0.00	9,238.9	487.5	602.1	-442.3	0.00	0.00	0.00
9,400.0	0.00	0.00	9,338.9	487.5	602.1	-442.3	0.00	0.00	0.00
9,500.0	0.00	0.00	9,438.9	487.5	602.1	-442.3	0.00	0.00	0.00
9,600.0	0.00	0.00	9,538.9	487.5	602.1	-442.3	0.00	0.00	0.00
9,700.0	0.00	0.00	9,638.9	487.5	602.1	-442.3	0.00	0.00	0.00
9,800.0	0.00	0.00	9,738.9	487.5	602.1	-442.3	0.00	0.00	0.00
9,900.0	0.00	0.00	9,838.9	487.5	602.1	-442.3	0.00	0.00	0.00
10,000.0	0.00	0.00	9,938.9	487.5	602.1	-442.3	0.00	0.00	0.00
10,100.0	0.00	0.00	10,038.9	487.5	602.1	-442.3	0.00	0.00	0.00
10,200.0	0.00	0.00	10,138.9	487.5	602.1	-442.3	0.00	0.00	0.00
10,300.0	0.00	0.00	10,238.9	487.5	602.1	-442.3	0.00	0.00	0.00



Planning Report

Database:	EDM 5000.14	Local Co-ordinate Reference:	Well #601H
Company:	EOG Resources - Midland	TVD Reference:	KB = 25 @ 3550.0usft (HP 642)
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB = 25 @ 3550.0usft (HP 642)
Site:	Convoy 28 State Corn	North Reference:	Grid
Well:	#601H	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)	
10,400.0	0.00	0.00	10,338.9	487.5	602.1	-442.3	0.00	0.00	0.00	
10,500.0	0.00	0.00	10,438.9	487.5	602.1	-442.3	0.00	0.00	0.00	
10,600.0	0.00	0.00	10,538.9	487.5	602.1	-442.3	0.00	0.00	0.00	
10,700.0	0.00	0.00	10,638.9	487.5	602.1	-442.3	0.00	0.00	0.00	
10,800.0	0.00	0.00	10,738.9	487.5	602.1	-442.3	0.00	0.00	0.00	
10,900.0	0.00	0.00	10,838.9	487.5	602.1	-442.3	0.00	0.00	0.00	
11,000.0	0.00	0.00	10,938.9	487.5	602.1	-442.3	0.00	0.00	0.00	
11,100.0	0.00	0.00	11,038.9	487.5	602.1	-442.3	0.00	0.00	0.00	
11,200.0	0.00	0.00	11,138.9	487.5	602.1	-442.3	0.00	0.00	0.00	
11,300.0	0.00	0.00	11,238.9	487.5	602.1	-442.3	0.00	0.00	0.00	
11,400.0	0.00	0.00	11,338.9	487.5	602.1	-442.3	0.00	0.00	0.00	
11,500.0	0.00	0.00	11,438.9	487.5	602.1	-442.3	0.00	0.00	0.00	
11,600.0	0.00	0.00	11,538.9	487.5	602.1	-442.3	0.00	0.00	0.00	
11,700.0	0.00	0.00	11,638.9	487.5	602.1	-442.3	0.00	0.00	0.00	
11,800.0	0.00	0.00	11,738.9	487.5	602.1	-442.3	0.00	0.00	0.00	
11,874.6	0.00	0.00	11,813.5	487.5	602.1	-442.3	0.00	0.00	0.00	
11,900.0	3.05	175.90	11,838.9	486.8	602.1	-441.7	12.00	12.00	0.00	
11,925.0	6.05	175.90	11,863.8	484.8	602.3	-439.7	12.00	12.00	0.00	
11,950.0	9.05	175.90	11,888.6	481.5	602.5	-436.4	12.00	12.00	0.00	
11,975.0	12.05	175.90	11,913.2	477.0	602.8	-431.8	12.00	12.00	0.00	
12,000.0	15.05	175.90	11,937.5	471.1	603.3	-426.0	12.00	12.00	0.00	
12,025.0	18.05	175.90	11,961.4	464.0	603.8	-418.8	12.00	12.00	0.00	
12,050.0	21.05	175.90	11,985.0	455.7	604.4	-410.5	12.00	12.00	0.00	
12,075.0	24.05	175.90	12,008.1	446.1	605.1	-400.9	12.00	12.00	0.00	
12,100.0	27.05	175.90	12,030.6	435.4	605.8	-390.1	12.00	12.00	0.00	
12,125.0	30.05	175.90	12,052.6	423.5	606.7	-378.2	12.00	12.00	0.00	
12,150.0	33.05	175.90	12,073.9	410.4	607.6	-365.1	12.00	12.00	0.00	
12,175.0	36.05	175.90	12,094.5	396.3	608.6	-350.9	12.00	12.00	0.00	
12,200.0	39.05	175.90	12,114.3	381.1	609.7	-335.7	12.00	12.00	0.00	
12,225.0	42.05	175.90	12,133.3	364.9	610.9	-319.4	12.00	12.00	0.00	
12,250.0	45.05	175.90	12,151.4	347.7	612.1	-302.2	12.00	12.00	0.00	
12,275.0	48.05	175.90	12,168.6	329.6	613.4	-284.1	12.00	12.00	0.00	
12,300.0	51.05	175.90	12,184.8	310.6	614.8	-265.0	12.00	12.00	0.00	
12,325.0	54.05	175.90	12,200.0	290.8	616.2	-245.2	12.00	12.00	0.00	
12,350.0	57.05	175.90	12,214.2	270.3	617.7	-224.6	12.00	12.00	0.00	
12,375.0	60.05	175.90	12,227.2	249.0	619.2	-203.3	12.00	12.00	0.00	
12,400.0	63.05	175.90	12,239.1	227.1	620.8	-181.3	12.00	12.00	0.00	
12,425.0	66.05	175.90	12,249.8	204.6	622.4	-158.7	12.00	12.00	0.00	
12,450.0	69.05	175.90	12,259.4	181.5	624.0	-135.6	12.00	12.00	0.00	
12,475.0	72.05	175.90	12,267.7	158.0	625.7	-112.0	12.00	12.00	0.00	
12,500.0	75.05	175.90	12,274.8	134.1	627.4	-88.1	12.00	12.00	0.00	
12,525.0	78.05	175.90	12,280.6	109.8	629.2	-63.7	12.00	12.00	0.00	
12,550.0	81.05	175.90	12,285.1	85.3	630.9	-39.2	12.00	12.00	0.00	
12,575.0	84.05	175.90	12,288.4	60.6	632.7	-14.4	12.00	12.00	0.00	
12,600.0	87.05	175.90	12,290.3	35.7	634.5	10.5	12.00	12.00	0.00	
12,626.0	90.17	175.90	12,291.0	9.8	636.3	36.6	12.00	12.00	0.00	
12,700.0	90.17	177.38	12,290.7	-64.1	640.7	110.5	2.00	0.00	2.00	
12,800.0	90.17	179.38	12,290.4	-164.0	643.5	210.4	2.00	0.00	2.00	
12,810.0	90.17	179.58	12,290.4	-174.0	643.6	220.4	2.00	0.00	2.00	
12,900.0	90.17	179.58	12,290.2	-264.0	644.2	310.2	0.00	0.00	0.00	
13,000.0	90.17	179.58	12,289.9	-364.0	645.0	410.0	0.00	0.00	0.00	
13,100.0	90.17	179.58	12,289.6	-464.0	645.7	509.8	0.00	0.00	0.00	
13,200.0	90.17	179.58	12,289.3	-564.0	646.4	609.6	0.00	0.00	0.00	
13,300.0	90.17	179.58	12,289.0	-664.0	647.2	709.3	0.00	0.00	0.00	



Planning Report

Database: EDM 5000.14
 Company: EOG Resources - Midland
 Project: Lea County, NM (NAD 83 NME)
 Site: Convoy 28 State Com
 Well: #601H
 Wellbore: OH
 Design: Plan #1

Local Co-ordinate Reference: Well #601H
 TVD Reference: KB = 25 @ 3550.0usft (HP 642)
 MD Reference: KB = 25 @ 3550.0usft (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)
13,400.0	90.17	179.58	12,288.7	-764.0	647.9	809.1	0.00	0.00	0.00
13,500.0	90.17	179.58	12,288.4	-864.0	648.6	908.9	0.00	0.00	0.00
13,600.0	90.17	179.58	12,288.1	-964.0	649.4	1,008.7	0.00	0.00	0.00
13,700.0	90.17	179.58	12,287.8	-1,064.0	650.1	1,108.5	0.00	0.00	0.00
13,800.0	90.17	179.58	12,287.5	-1,164.0	650.8	1,208.3	0.00	0.00	0.00
13,900.0	90.17	179.58	12,287.2	-1,264.0	651.6	1,308.0	0.00	0.00	0.00
14,000.0	90.17	179.58	12,286.9	-1,364.0	652.3	1,407.8	0.00	0.00	0.00
14,100.0	90.17	179.58	12,286.6	-1,464.0	653.0	1,507.6	0.00	0.00	0.00
14,200.0	90.17	179.58	12,286.3	-1,564.0	653.8	1,607.4	0.00	0.00	0.00
14,300.0	90.17	179.58	12,286.0	-1,664.0	654.5	1,707.2	0.00	0.00	0.00
14,400.0	90.17	179.58	12,285.7	-1,764.0	655.2	1,807.0	0.00	0.00	0.00
14,500.0	90.17	179.58	12,285.4	-1,864.0	656.0	1,906.8	0.00	0.00	0.00
14,600.0	90.17	179.58	12,285.1	-1,963.9	656.7	2,006.5	0.00	0.00	0.00
14,700.0	90.17	179.58	12,284.8	-2,063.9	657.4	2,106.3	0.00	0.00	0.00
14,800.0	90.17	179.58	12,284.5	-2,163.9	658.2	2,206.1	0.00	0.00	0.00
14,900.0	90.17	179.58	12,284.2	-2,263.9	658.9	2,305.9	0.00	0.00	0.00
15,000.0	90.17	179.58	12,283.9	-2,363.9	659.6	2,405.7	0.00	0.00	0.00
15,100.0	90.17	179.58	12,283.6	-2,463.9	660.4	2,505.5	0.00	0.00	0.00
15,200.0	90.17	179.58	12,283.3	-2,563.9	661.1	2,605.3	0.00	0.00	0.00
15,300.0	90.17	179.58	12,283.1	-2,663.9	661.8	2,705.0	0.00	0.00	0.00
15,400.0	90.17	179.58	12,282.8	-2,763.9	662.6	2,804.8	0.00	0.00	0.00
15,500.0	90.17	179.58	12,282.5	-2,863.9	663.3	2,904.6	0.00	0.00	0.00
15,600.0	90.17	179.58	12,282.2	-2,963.9	664.0	3,004.4	0.00	0.00	0.00
15,700.0	90.17	179.58	12,281.9	-3,063.9	664.8	3,104.2	0.00	0.00	0.00
15,800.0	90.17	179.58	12,281.6	-3,163.9	665.5	3,204.0	0.00	0.00	0.00
15,900.0	90.17	179.58	12,281.3	-3,263.9	666.2	3,303.7	0.00	0.00	0.00
16,000.0	90.17	179.58	12,281.0	-3,363.9	667.0	3,403.5	0.00	0.00	0.00
16,100.0	90.17	179.58	12,280.7	-3,463.9	667.7	3,503.3	0.00	0.00	0.00
16,200.0	90.17	179.58	12,280.4	-3,563.9	668.4	3,603.1	0.00	0.00	0.00
16,300.0	90.17	179.58	12,280.1	-3,663.9	669.2	3,702.9	0.00	0.00	0.00
16,400.0	90.17	179.58	12,279.8	-3,763.9	669.9	3,802.7	0.00	0.00	0.00
16,500.0	90.17	179.58	12,279.5	-3,863.9	670.6	3,902.5	0.00	0.00	0.00
16,600.0	90.17	179.58	12,279.2	-3,963.9	671.4	4,002.2	0.00	0.00	0.00
16,700.0	90.17	179.58	12,278.9	-4,063.9	672.1	4,102.0	0.00	0.00	0.00
16,800.0	90.17	179.58	12,278.6	-4,163.9	672.8	4,201.8	0.00	0.00	0.00
16,900.0	90.17	179.58	12,278.3	-4,263.9	673.6	4,301.6	0.00	0.00	0.00
17,000.0	90.17	179.58	12,278.0	-4,363.9	674.3	4,401.4	0.00	0.00	0.00
17,100.0	90.17	179.58	12,277.7	-4,463.9	675.0	4,501.2	0.00	0.00	0.00
17,200.0	90.17	179.58	12,277.4	-4,563.9	675.8	4,601.0	0.00	0.00	0.00
17,300.0	90.17	179.58	12,277.1	-4,663.9	676.5	4,700.7	0.00	0.00	0.00
17,400.0	90.17	179.58	12,276.8	-4,763.9	677.2	4,800.5	0.00	0.00	0.00
17,500.0	90.17	179.58	12,276.5	-4,863.9	678.0	4,900.3	0.00	0.00	0.00
17,600.0	90.17	179.58	12,276.3	-4,963.9	678.7	5,000.1	0.00	0.00	0.00
17,700.0	90.17	179.58	12,276.0	-5,063.9	679.4	5,099.9	0.00	0.00	0.00
17,800.0	90.17	179.58	12,275.7	-5,163.8	680.2	5,199.7	0.00	0.00	0.00
17,900.0	90.17	179.58	12,275.4	-5,263.8	680.9	5,299.4	0.00	0.00	0.00
18,000.0	90.17	179.58	12,275.1	-5,363.8	681.6	5,399.2	0.00	0.00	0.00
18,100.0	90.17	179.58	12,274.8	-5,463.8	682.4	5,499.0	0.00	0.00	0.00
18,200.0	90.17	179.58	12,274.5	-5,563.8	683.1	5,598.8	0.00	0.00	0.00
18,300.0	90.17	179.58	12,274.2	-5,663.8	683.8	5,698.6	0.00	0.00	0.00
18,400.0	90.17	179.58	12,273.9	-5,763.8	684.6	5,798.4	0.00	0.00	0.00
18,500.0	90.17	179.58	12,273.6	-5,863.8	685.3	5,898.2	0.00	0.00	0.00
18,600.0	90.17	179.58	12,273.3	-5,963.8	686.0	5,997.9	0.00	0.00	0.00
18,700.0	90.17	179.58	12,273.0	-6,063.8	686.7	6,097.7	0.00	0.00	0.00



Planning Report

Database: EDM 5000.14
 Company: EOG Resources - Midland
 Project: Lea County, NM (NAD 83 NME)
 Site: Convoy 28 State Com
 Well: #601H
 Wellbore: OH
 Design: Plan #1

Local Co-ordinate Reference: Well #601H
 TVD Reference: KB = 25 @ 3550.0usft (HP 642)
 MD Reference: KB = 25 @ 3550.0usft (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)
18,800.0	90.17	179.58	12,272.7	-6,163.8	687.5	6,197.5	0.00	0.00	0.00
18,900.0	90.17	179.58	12,272.4	-6,263.8	688.2	6,297.3	0.00	0.00	0.00
19,000.0	90.17	179.58	12,272.1	-6,363.8	688.9	6,397.1	0.00	0.00	0.00
19,100.0	90.17	179.58	12,271.8	-6,463.8	689.7	6,496.9	0.00	0.00	0.00
19,200.0	90.17	179.58	12,271.5	-6,563.8	690.4	6,596.6	0.00	0.00	0.00
19,300.0	90.17	179.58	12,271.2	-6,663.8	691.1	6,696.4	0.00	0.00	0.00
19,400.0	90.17	179.58	12,270.9	-6,763.8	691.9	6,796.2	0.00	0.00	0.00
19,500.0	90.17	179.58	12,270.6	-6,863.8	692.6	6,896.0	0.00	0.00	0.00
19,600.0	90.17	179.58	12,270.3	-6,963.8	693.3	6,995.8	0.00	0.00	0.00
19,700.0	90.17	179.58	12,270.0	-7,063.8	694.1	7,095.6	0.00	0.00	0.00
19,800.0	90.17	179.58	12,269.7	-7,163.8	694.8	7,195.4	0.00	0.00	0.00
19,900.0	90.17	179.58	12,269.4	-7,263.8	695.5	7,295.1	0.00	0.00	0.00
20,000.0	90.17	179.58	12,269.2	-7,363.8	696.3	7,394.9	0.00	0.00	0.00
20,100.0	90.17	179.58	12,268.9	-7,463.8	697.0	7,494.7	0.00	0.00	0.00
20,200.0	90.17	179.58	12,268.6	-7,563.8	697.7	7,594.5	0.00	0.00	0.00
20,300.0	90.17	179.58	12,268.3	-7,663.8	698.5	7,694.3	0.00	0.00	0.00
20,400.0	90.17	179.58	12,268.0	-7,763.8	699.2	7,794.1	0.00	0.00	0.00
20,500.0	90.17	179.58	12,267.7	-7,863.8	699.9	7,893.9	0.00	0.00	0.00
20,600.0	90.17	179.58	12,267.4	-7,963.8	700.7	7,993.6	0.00	0.00	0.00
20,700.0	90.17	179.58	12,267.1	-8,063.8	701.4	8,093.4	0.00	0.00	0.00
20,800.0	90.17	179.58	12,266.8	-8,163.8	702.1	8,193.2	0.00	0.00	0.00
20,900.0	90.17	179.58	12,266.5	-8,263.8	702.9	8,293.0	0.00	0.00	0.00
21,000.0	90.17	179.58	12,266.2	-8,363.7	703.6	8,392.8	0.00	0.00	0.00
21,100.0	90.17	179.58	12,265.9	-8,463.7	704.3	8,492.6	0.00	0.00	0.00
21,200.0	90.17	179.58	12,265.6	-8,563.7	705.1	8,592.3	0.00	0.00	0.00
21,300.0	90.17	179.58	12,265.3	-8,663.7	705.8	8,692.1	0.00	0.00	0.00
21,400.0	90.17	179.58	12,265.0	-8,763.7	706.5	8,791.9	0.00	0.00	0.00
21,500.0	90.17	179.58	12,264.7	-8,863.7	707.3	8,891.7	0.00	0.00	0.00
21,600.0	90.17	179.58	12,264.4	-8,963.7	708.0	8,991.5	0.00	0.00	0.00
21,700.0	90.17	179.58	12,264.1	-9,063.7	708.7	9,091.3	0.00	0.00	0.00
21,800.0	90.17	179.58	12,263.8	-9,163.7	709.5	9,191.1	0.00	0.00	0.00
21,900.0	90.17	179.58	12,263.5	-9,263.7	710.2	9,290.8	0.00	0.00	0.00
22,000.0	90.17	179.58	12,263.2	-9,363.7	710.9	9,390.6	0.00	0.00	0.00
22,100.0	90.17	179.58	12,262.9	-9,463.7	711.7	9,490.4	0.00	0.00	0.00
22,200.0	90.17	179.58	12,262.6	-9,563.7	712.4	9,590.2	0.00	0.00	0.00
22,300.0	90.17	179.58	12,262.3	-9,663.7	713.1	9,690.0	0.00	0.00	0.00
22,400.0	90.17	179.58	12,262.1	-9,763.7	713.9	9,789.8	0.00	0.00	0.00
22,418.3	90.17	179.58	12,262.0	-9,782.0	714.0	9,808.0	0.00	0.00	0.00



Planning Report

Database:	EDM 5000.14	Local Co-ordinate Reference:	Well #601H
Company:	EOG Resources - Midland	TVD Reference:	KB = 25 @ 3550.0usft (HP 642)
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB = 25 @ 3550.0usft (HP 642)
Site:	Convoy 28 State Com	North Reference:	Grid
Well:	#601H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
KOP(Con 28 ST Com # - hit/miss target - Shape - Polygon	0.00	0.00	11,813.5	487.5	602.1	435,773.45	777,282.09	32° 11' 44.585 N	103° 34' 14.079 W
Point 1			11,813.5	25.0	-75.0	435,798.45	777,207.09		
Point 2			11,813.5	25.0	75.0	435,798.45	777,357.09		
Point 3			11,813.5	-75.0	75.0	435,698.45	777,357.09		
Point 4			11,813.5	-75.0	-75.0	435,698.45	777,207.09		
PBHL(Con 28 ST Com ; - plan hits target center - Rectangle (sides W60.0 H0 0 D9,991.0)	90.00	179.58	12,262.0	-9,782.0	714.0	425,504.00	777,394.00	32° 10' 2.959 N	103° 34' 13.624 W
FTP(Con 28 ST Com # - plan misses target center by 43.4usft at 12436.9usft MD (12254.5 TVD, 193.7 N, 623.1 E) - Point	0.00	0.01	12,291.0	210.0	640.0	435,496.00	777,320.00	32° 11' 41.837 N	103° 34' 13.661 W

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
1,214.0	1,214.0	Rustler		0.00		
1,281.0	1,281.0	Tamarisk Anhydrite		0.00		
1,596.0	1,596.0	Top of Salt		0.00		
4,938.9	4,928.0	Bottom of Salt		0.00		
5,181.3	5,169.0	Lamar		0.00		
5,231.5	5,219.0	Bell Canyon		0.00		
6,198.6	6,169.0	Cherry Canyon		0.00		
7,662.0	7,602.0	Brushy Canyon		0.00		
9,193.1	9,132.0	Bone Spring Lime		0.00		
9,276.1	9,215.0	Leonard A		0.00		
10,180.1	10,119.0	First Bone Spring Sand		0.00		
10,432.1	10,371.0	SBSG Shale		0.00		
10,743.1	10,682.0	SBSG Sand		0.00		
11,370.1	11,309.0	Third Bone Spring Carb		0.00		
11,976.9	11,915.0	Third Bone Spring Sand		0.00		
12,351.6	12,215.0	TBSG LFS		0.00		