Revised Permit Information:

30-025-42727

HOBBS OCD

AUG 0 5 2015

RECEIVED

Well Name: Thor 21 No. 705H

Location:

SL: 735' FSL & 236' FEL, Section 21, T-26-S, R-33-E, Lea Co., N.M.

BHL: 230' FNL & 330' FEL, Section 21, T-26-S, R-33-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 – 1000'	10.75"	40.5#	J55	STC	1.125	1.25	1.60
9.875"	0-10,500'	7.625"	29.7#	HCP-110	LTC	1.125	1.25	1.60
6.75"	0'-17,449'	5.5"	17#	HCP-110	BTC	1.125	1.25	1.60

Cement Program:

Depth	No. Sacks	Wt. ppg	Yld Ft^3/ft	Slurry Description
1000'	300	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)
	200	14.8	1.34	Class C + 0.6% FL-62 + 0.25 lb/sk Cello-Flake + 0.2% Sodium Metasilicate
10,500' DV Tool w/ ECP @ 5,000'	315	10.8	3.68	Stage 1 Lead: Class C + 15.00 lbs/sk BA-90 + 4.00% MPA-5 + 3.00% SMS + 5.00% A-10 + 1.00% BA-10A + 0.80% ASA-301 + 2.90% R-21 + 8.00 lb/sk LCM-1 + 0.005 lb/sx Static Free
	250	15.6	1.19	Stage 1 Tail: Class H + 1.0% FL-52 + 0.6% CD-32 + 0.5% SMS + 1.0% Salt + 0.3% R-3
	550	12.7	2.22	Stage 2 Lead: Class 'C' + 2.0% SMS + 10.0% Slat + 0.55% R-21 + 0.25 pps Celloflake + 0.005 pps Static Free (TOC @ Surface)
	200	14.8	1.35	Stage 2 Tail: Class 'C' + 0.60% FL-62 + 0.7% CD-32 + 0.3% SMS + 2.0% Salt + 0.10% R-3 + 0.005 pps Static Free + 0.005 gps FP-6L
17,449'	625	14.2	1.35	50:50:2 Class H + 0.65% FL-52 + 0.70% CD-32 + 1.0% EC-1 + 0.40% SMS + 2.0% Salt + 0.05% R-3 + 0.005 pps Static Free + 0.005 gps FP-6L (TOC @ 11,000')

Mud Program:

Depth	Type	Weight (ppg)	Viscosity	Water Loss
0 – 1000'	Fresh - Gel	8.6-8.8	28-34	N/c
1000' – 10,500'	Oil Base	8.7-9.4	58-68	N/c - 6
10,500' – 12,111'	Oil Base	8.7-9.4	58-68	N/c - 6
12,111' – 17,449' Lateral	Oil Base	9.0-9.5	58-68	N/c - 6

AUG 1 1 2015

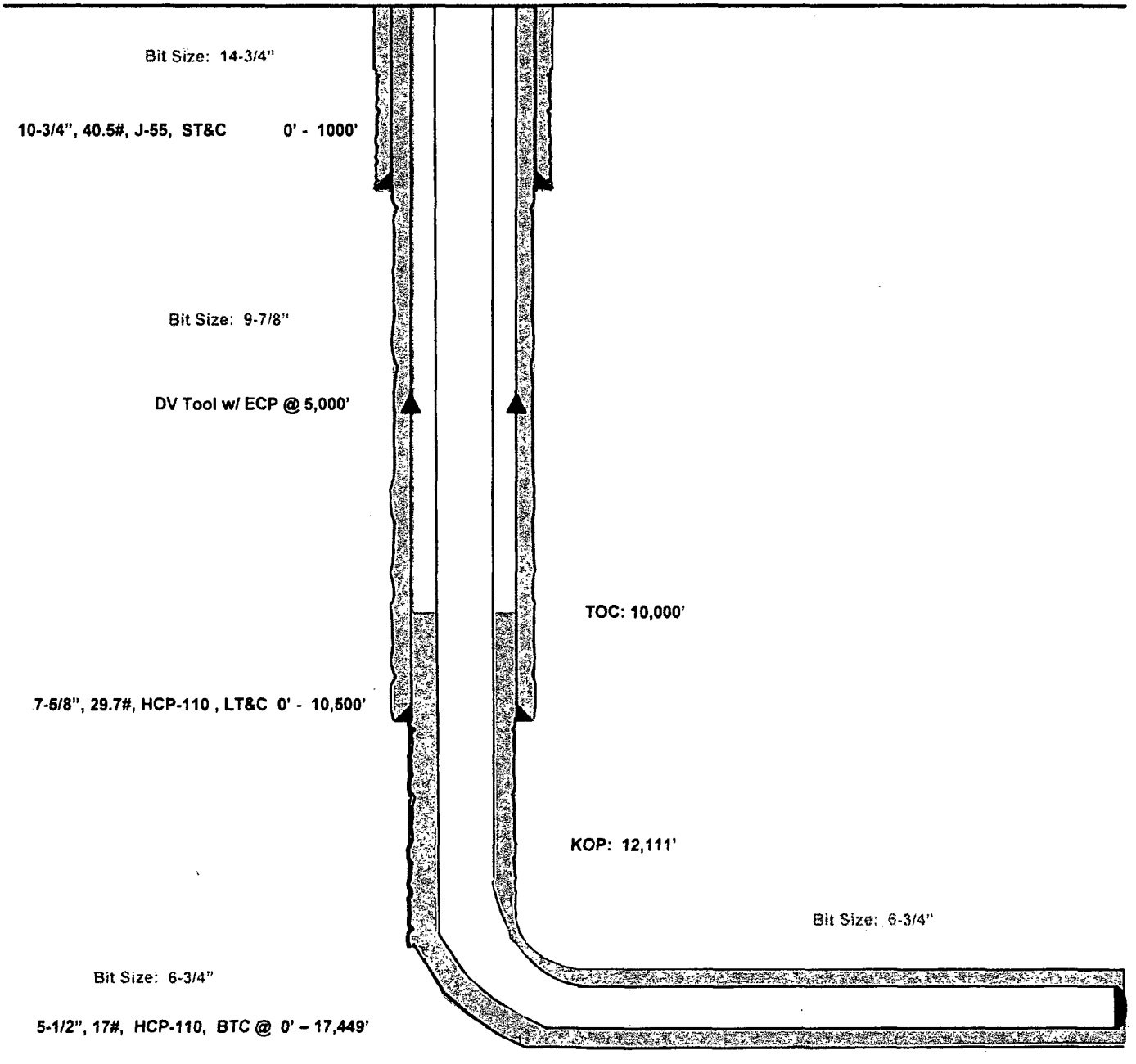
Thor 21 #705H

Lea County, New Mexico
Proposed Wellbore

735' FSL
236' FEL
Section 21
T-26-S, R-33-E

API: 30-025-*****

KB: 3,284'
GL: 3,259'



Lateral: 17,449' MD, 12,650' TVD

BH Location: 230' FNL & 330' FEL
Section 21
T-26-S, R-33-E

eog resources

Lea County, NM (NAD 27 NME)

Thor 21 #705H

H&P 260

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: -9.41°
Magnetic North: 8.72°

Magnetic Field
Strength: 48002.8snT
Dip Angle: 59.80°
Date: 9/8/2015
Model: IGRF2015

To convert a Magnetic Direction to a Grid Direction, Add 8.73°
To convert a Magnetic Direction to a True Direction, Add 7.13° East
To convert a True Direction to a Grid Direction, Subtract 0.41°

WELL DETAILS: #705H

Ground Level: 3259.0
KB = 25 @ 3284.0usft (H&P 260)

Northing	Easting	Latitude	Longitude
373160.00	736878.00	32° 1' 24.961 N	103° 34' 8.442 W

SECTION DETAILS

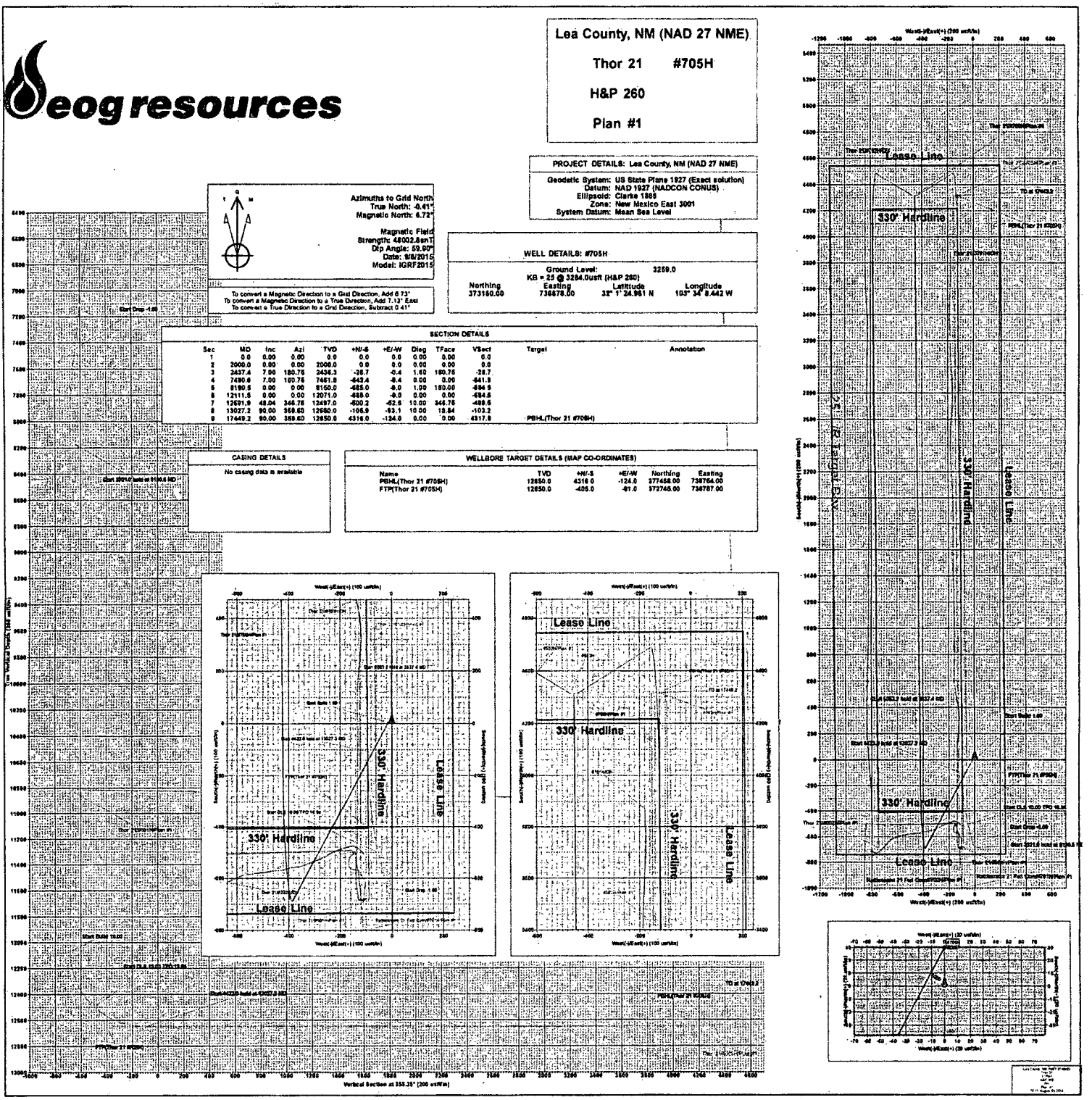
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target	Annotation
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0		
2	2000.0	0.00	0.00	2000.0	0.0	0.0	0.00	0.00	0.0		
3	2437.4	7.00	180.76	2436.3	-26.7	-0.4	1.60	180.76	-26.7		
4	7490.6	7.00	180.76	7461.8	-643.4	-8.4	0.00	0.00	-641.8		
5	8190.5	0.00	0.00	8160.0	-685.0	-8.8	1.00	180.00	-684.5		
6	12111.5	0.00	0.00	12071.0	-685.0	-8.8	0.00	0.00	-684.5		
7	12691.9	48.04	346.76	12497.0	-500.2	-62.5	10.00	346.76	-486.6		
8	13027.2	90.00	359.60	12660.0	-106.9	-93.1	10.00	18.84	-103.2		
9	17449.2	90.00	359.60	12650.0	4316.0	-124.0	0.00	0.00	4317.8	PBHL(Thor 21 #705H)	

CASING DETAILS

No casing data is available

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting
PBHL(Thor 21 #705H)	12650.0	4316.0	-124.0	377468.00	736754.00
FTP(Thor 21 #705H)	12650.0	-405.0	-91.0	372746.00	736787.00



eog resources

EOG Resources - Midland

Lea County, NM (NAD 27 NME)
Thor 21
#705H

OH

Plan: Plan #1

Standard Planning Report

05 August, 2015

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well #705H
Company:	EOG Resources - Midland	**TVD Reference:**	KB = 25 @ 3284.0usft (H&P 260)
Project:	Lea County, NM (NAD 27 NME)	**MD Reference:**	KB = 25 @ 3284.0usft (H&P 260)
Site:	Thor 21	**North Reference:**	Grid
Well:	#705H	**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 Thor 21

Site Position:		**Northing:**	372,644.00 usft	**Latitude:**	32° 1' 19.964 N
From:	Map	**Easting:**	736,738.00 usft	**Longitude:**	103° 34' 10.110 W
Position Uncertainty:	0.0 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	0.41 °

Well #705H

Well Position	**+N/-S**	506.0 usft	**Northing:**	373,150.00 usft	**Latitude:**	32° 1' 24.961 N
	+E/-W	140.0 usft	**Easting:**	736,878.00 usft	**Longitude:**	103° 34' 8.442 W
Position Uncertainty		0.0 usft	**Wellhead Elevation:**	0.0 usft	**Ground Level:**	3,259.0 usft

Wellbore OH

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	9/6/2015	7.13	59.90	48,003

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	358.35

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	
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,437.4	7.00	180.75	2,436.3	-26.7	-0.4	1.60	1.60	0.00	180.75	
7,490.6	7.00	180.75	7,451.8	-642.4	-8.4	0.00	0.00	0.00	0.00	
8,190.5	0.00	0.00	8,150.0	-685.0	-9.0	1.00	-1.00	0.00	180.00	
12,111.5	0.00	0.00	12,071.0	-685.0	-9.0	0.00	0.00	0.00	0.00	
12,591.9	48.04	346.75	12,497.0	-500.2	-52.5	10.00	10.00	0.00	346.75	
13,027.2	90.00	359.60	12,650.0	-105.9	-93.1	10.00	9.64	2.95	18.84	
17,449.2	90.00	359.60	12,650.0	4,316.0	-124.0	0.00	0.00	0.00	0.00	PBHL(Thor 21 #705H

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well #705H
Company:	EOG Resources - Midland	**TVD Reference:**	KB = 25 @ 3284.0usft (H&P 260)
Project:	Lea County, NM (NAD 27 NME)	**MD Reference:**	KB = 25 @ 3284.0usft (H&P 260)
Site:	Thor 21	**North Reference:**	Grid
Well:	#705H	***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	1.60	180.75	2,100.0	-1.4	0.0	-1.4	1.60	1.60	0.00
2,200.0	3.20	180.75	2,199.9	-5.6	-0.1	-5.6	1.60	1.60	0.00
2,300.0	4.80	180.75	2,299.6	-12.6	-0.2	-12.5	1.60	1.60	0.00
2,400.0	6.40	180.75	2,399.2	-22.3	-0.3	-22.3	1.60	1.60	0.00
2,437.4	7.00	180.75	2,436.3	-26.7	-0.4	-26.7	1.60	1.60	0.00
2,500.0	7.00	180.75	2,498.4	-34.3	-0.5	-34.3	0.00	0.00	0.00
2,600.0	7.00	180.75	2,597.7	-46.5	-0.6	-46.5	0.00	0.00	0.00
2,700.0	7.00	180.75	2,697.0	-58.7	-0.8	-58.6	0.00	0.00	0.00
2,800.0	7.00	180.75	2,796.2	-70.9	-0.9	-70.8	0.00	0.00	0.00
2,900.0	7.00	180.75	2,895.5	-83.0	-1.1	-83.0	0.00	0.00	0.00
3,000.0	7.00	180.75	2,994.7	-95.2	-1.3	-95.1	0.00	0.00	0.00
3,100.0	7.00	180.75	3,094.0	-107.4	-1.4	-107.3	0.00	0.00	0.00
3,200.0	7.00	180.75	3,193.2	-119.6	-1.6	-119.5	0.00	0.00	0.00
3,300.0	7.00	180.75	3,292.5	-131.8	-1.7	-131.7	0.00	0.00	0.00
3,400.0	7.00	180.75	3,391.7	-144.0	-1.9	-143.8	0.00	0.00	0.00
3,500.0	7.00	180.75	3,491.0	-156.1	-2.1	-156.0	0.00	0.00	0.00
3,600.0	7.00	180.75	3,590.2	-168.3	-2.2	-168.2	0.00	0.00	0.00
3,700.0	7.00	180.75	3,689.5	-180.5	-2.4	-180.4	0.00	0.00	0.00
3,800.0	7.00	180.75	3,788.8	-192.7	-2.5	-192.5	0.00	0.00	0.00
3,900.0	7.00	180.75	3,888.0	-204.9	-2.7	-204.7	0.00	0.00	0.00
4,000.0	7.00	180.75	3,987.3	-217.1	-2.9	-216.9	0.00	0.00	0.00
4,100.0	7.00	180.75	4,086.5	-229.2	-3.0	-229.1	0.00	0.00	0.00
4,200.0	7.00	180.75	4,185.8	-241.4	-3.2	-241.2	0.00	0.00	0.00
4,300.0	7.00	180.75	4,285.0	-253.6	-3.3	-253.4	0.00	0.00	0.00
4,400.0	7.00	180.75	4,384.3	-265.8	-3.5	-265.6	0.00	0.00	0.00
4,500.0	7.00	180.75	4,483.5	-278.0	-3.7	-277.8	0.00	0.00	0.00
4,600.0	7.00	180.75	4,582.8	-290.2	-3.8	-289.9	0.00	0.00	0.00
4,700.0	7.00	180.75	4,682.1	-302.4	-4.0	-302.1	0.00	0.00	0.00
4,800.0	7.00	180.75	4,781.3	-314.5	-4.1	-314.3	0.00	0.00	0.00
4,900.0	7.00	180.75	4,880.6	-326.7	-4.3	-326.5	0.00	0.00	0.00
5,000.0	7.00	180.75	4,979.8	-338.9	-4.5	-338.6	0.00	0.00	0.00
5,100.0	7.00	180.75	5,079.1	-351.1	-4.6	-350.8	0.00	0.00	0.00
5,200.0	7.00	180.75	5,178.3	-363.3	-4.8	-363.0	0.00	0.00	0.00

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Project:	Lea County, NM (NAD 27 NME)	**MD Reference:**	KB = 25 @ 3284.0usft (H&P 260)
Site:	Thor 21	**North Reference:**	Grid
Well:	#705H	**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	7.00	180.75	5,277.6	-375.5	-4.9	-375.2	0.00	0.00	0.00
5,400.0	7.00	180.75	5,376.8	-387.6	-5.1	-387.3	0.00	0.00	0.00
5,500.0	7.00	180.75	5,476.1	-399.8	-5.3	-399.5	0.00	0.00	0.00
5,600.0	7.00	180.75	5,575.3	-412.0	-5.4	-411.7	0.00	0.00	0.00
5,700.0	7.00	180.75	5,674.6	-424.2	-5.6	-423.9	0.00	0.00	0.00
5,800.0	7.00	180.75	5,773.9	-436.4	-5.7	-436.0	0.00	0.00	0.00
5,900.0	7.00	180.75	5,873.1	-448.6	-5.9	-448.2	0.00	0.00	0.00
6,000.0	7.00	180.75	5,972.4	-460.7	-6.1	-460.4	0.00	0.00	0.00
6,100.0	7.00	180.75	6,071.6	-472.9	-6.2	-472.6	0.00	0.00	0.00
6,200.0	7.00	180.75	6,170.9	-485.1	-6.4	-484.7	0.00	0.00	0.00
6,300.0	7.00	180.75	6,270.1	-497.3	-6.5	-496.9	0.00	0.00	0.00
6,400.0	7.00	180.75	6,369.4	-509.5	-6.7	-509.1	0.00	0.00	0.00
6,500.0	7.00	180.75	6,468.6	-521.7	-6.9	-521.3	0.00	0.00	0.00
6,600.0	7.00	180.75	6,567.9	-533.8	-7.0	-533.4	0.00	0.00	0.00
6,700.0	7.00	180.75	6,667.2	-546.0	-7.2	-545.6	0.00	0.00	0.00
6,800.0	7.00	180.75	6,766.4	-558.2	-7.3	-557.8	0.00	0.00	0.00
6,900.0	7.00	180.75	6,865.7	-570.4	-7.5	-570.0	0.00	0.00	0.00
7,000.0	7.00	180.75	6,964.9	-582.6	-7.7	-582.1	0.00	0.00	0.00
7,100.0	7.00	180.75	7,064.2	-594.8	-7.8	-594.3	0.00	0.00	0.00
7,200.0	7.00	180.75	7,163.4	-607.0	-8.0	-606.5	0.00	0.00	0.00
7,300.0	7.00	180.75	7,262.7	-619.1	-8.1	-618.6	0.00	0.00	0.00
7,400.0	7.00	180.75	7,361.9	-631.3	-8.3	-630.8	0.00	0.00	0.00
7,490.6	7.00	180.75	7,451.8	-642.4	-8.4	-641.9	0.00	0.00	0.00
7,500.0	6.90	180.75	7,461.2	-643.5	-8.5	-643.0	1.00	-1.00	0.00
7,600.0	5.90	180.75	7,560.6	-654.7	-8.6	-654.1	1.00	-1.00	0.00
7,700.0	4.90	180.75	7,660.1	-664.1	-8.7	-663.5	1.00	-1.00	0.00
7,800.0	3.90	180.75	7,759.8	-671.7	-8.8	-671.2	1.00	-1.00	0.00
7,900.0	2.90	180.75	7,859.6	-677.7	-8.9	-677.2	1.00	-1.00	0.00
8,000.0	1.90	180.75	7,959.6	-681.9	-9.0	-681.3	1.00	-1.00	0.00
8,100.0	0.90	180.75	8,059.5	-684.3	-9.0	-683.8	1.00	-1.00	0.00
8,190.5	0.00	0.00	8,150.0	-685.0	-9.0	-684.5	1.00	-1.00	0.00
8,200.0	0.00	0.00	8,159.5	-685.0	-9.0	-684.5	0.00	0.00	0.00
8,300.0	0.00	0.00	8,259.5	-685.0	-9.0	-684.5	0.00	0.00	0.00
8,400.0	0.00	0.00	8,359.5	-685.0	-9.0	-684.5	0.00	0.00	0.00
8,500.0	0.00	0.00	8,459.5	-685.0	-9.0	-684.5	0.00	0.00	0.00
8,600.0	0.00	0.00	8,559.5	-685.0	-9.0	-684.5	0.00	0.00	0.00
8,700.0	0.00	0.00	8,659.5	-685.0	-9.0	-684.5	0.00	0.00	0.00
8,800.0	0.00	0.00	8,759.5	-685.0	-9.0	-684.5	0.00	0.00	0.00
8,900.0	0.00	0.00	8,859.5	-685.0	-9.0	-684.5	0.00	0.00	0.00
9,000.0	0.00	0.00	8,959.5	-685.0	-9.0	-684.5	0.00	0.00	0.00
9,100.0	0.00	0.00	9,059.5	-685.0	-9.0	-684.5	0.00	0.00	0.00
9,200.0	0.00	0.00	9,159.5	-685.0	-9.0	-684.5	0.00	0.00	0.00
9,300.0	0.00	0.00	9,259.5	-685.0	-9.0	-684.5	0.00	0.00	0.00
9,400.0	0.00	0.00	9,359.5	-685.0	-9.0	-684.5	0.00	0.00	0.00
9,500.0	0.00	0.00	9,459.5	-685.0	-9.0	-684.5	0.00	0.00	0.00
9,600.0	0.00	0.00	9,559.5	-685.0	-9.0	-684.5	0.00	0.00	0.00
9,700.0	0.00	0.00	9,659.5	-685.0	-9.0	-684.5	0.00	0.00	0.00
9,800.0	0.00	0.00	9,759.5	-685.0	-9.0	-684.5	0.00	0.00	0.00
9,900.0	0.00	0.00	9,859.5	-685.0	-9.0	-684.5	0.00	0.00	0.00
10,000.0	0.00	0.00	9,959.5	-685.0	-9.0	-684.5	0.00	0.00	0.00
10,100.0	0.00	0.00	10,059.5	-685.0	-9.0	-684.5	0.00	0.00	0.00
10,200.0	0.00	0.00	10,159.5	-685.0	-9.0	-684.5	0.00	0.00	0.00
10,300.0	0.00	0.00	10,259.5	-685.0	-9.0	-684.5	0.00	0.00	0.00
10,400.0	0.00	0.00	10,359.5	-685.0	-9.0	-684.5	0.00	0.00	0.00

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well #705H
Company:	EOG Resources - Midland	**TVD Reference:**	KB = 25 @ 3284.0usft (H&P 260)
Project:	Lea County, NM (NAD 27 NME)	**MD Reference:**	KB = 25 @ 3284.0usft (H&P 260)
Site:	Thor 21	**North Reference:**	Grid
Well:	#705H	**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)
10,500.0	0.00	0.00	10,459.5	-685.0	-9.0	-684.5	0.00	0.00	0.00
10,600.0	0.00	0.00	10,559.5	-685.0	-9.0	-684.5	0.00	0.00	0.00
10,700.0	0.00	0.00	10,659.5	-685.0	-9.0	-684.5	0.00	0.00	0.00
10,800.0	0.00	0.00	10,759.5	-685.0	-9.0	-684.5	0.00	0.00	0.00
10,900.0	0.00	0.00	10,859.5	-685.0	-9.0	-684.5	0.00	0.00	0.00
11,000.0	0.00	0.00	10,959.5	-685.0	-9.0	-684.5	0.00	0.00	0.00
11,100.0	0.00	0.00	11,059.5	-685.0	-9.0	-684.5	0.00	0.00	0.00
11,200.0	0.00	0.00	11,159.5	-685.0	-9.0	-684.5	0.00	0.00	0.00
11,300.0	0.00	0.00	11,259.5	-685.0	-9.0	-684.5	0.00	0.00	0.00
11,400.0	0.00	0.00	11,359.5	-685.0	-9.0	-684.5	0.00	0.00	0.00
11,500.0	0.00	0.00	11,459.5	-685.0	-9.0	-684.5	0.00	0.00	0.00
11,600.0	0.00	0.00	11,559.5	-685.0	-9.0	-684.5	0.00	0.00	0.00
11,700.0	0.00	0.00	11,659.5	-685.0	-9.0	-684.5	0.00	0.00	0.00
11,800.0	0.00	0.00	11,759.5	-685.0	-9.0	-684.5	0.00	0.00	0.00
11,900.0	0.00	0.00	11,859.5	-685.0	-9.0	-684.5	0.00	0.00	0.00
12,000.0	0.00	0.00	11,959.5	-685.0	-9.0	-684.5	0.00	0.00	0.00
12,100.0	0.00	0.00	12,059.5	-685.0	-9.0	-684.5	0.00	0.00	0.00
12,111.5	0.00	0.00	12,071.0	-685.0	-9.0	-684.5	0.00	0.00	0.00
12,150.0	3.85	346.75	12,109.5	-683.8	-9.3	-683.2	10.00	10.00	0.00
12,200.0	8.85	346.75	12,159.2	-678.4	-10.6	-677.8	10.00	10.00	0.00
12,250.0	13.85	346.75	12,208.2	-668.8	-12.8	-668.2	10.00	10.00	0.00
12,300.0	18.85	346.75	12,256.1	-655.1	-16.0	-654.4	10.00	10.00	0.00
12,350.0	23.85	346.75	12,302.7	-637.4	-20.2	-636.6	10.00	10.00	0.00
12,400.0	28.85	346.75	12,347.5	-615.8	-25.3	-614.8	10.00	10.00	0.00
12,450.0	33.85	346.75	12,390.2	-590.5	-31.3	-589.4	10.00	10.00	0.00
12,500.0	38.85	346.75	12,430.4	-561.7	-38.1	-560.3	10.00	10.00	0.00
12,550.0	43.85	346.75	12,467.9	-529.5	-45.6	-528.0	10.00	10.00	0.00
12,591.9	48.04	346.75	12,497.0	-500.2	-52.5	-498.5	10.00	10.00	0.00
12,600.0	48.81	347.10	12,502.4	-494.3	-53.9	-492.6	10.00	9.47	4.29
12,650.0	53.57	349.08	12,533.8	-456.2	-61.9	-454.2	10.00	9.51	3.96
12,700.0	58.35	350.83	12,561.8	-415.4	-69.1	-413.3	10.00	9.57	3.50
12,750.0	63.16	352.41	12,586.2	-372.3	-75.5	-369.9	10.00	9.61	3.16
FTP(Thor 21 #705H)									
12,800.0	67.98	353.86	12,606.8	-327.1	-80.9	-324.6	10.00	9.65	2.90
12,850.0	72.82	355.21	12,623.6	-280.2	-85.4	-277.6	10.00	9.67	2.71
12,900.0	77.66	356.50	12,636.4	-232.0	-88.9	-229.4	10.00	9.69	2.57
12,950.0	82.51	357.74	12,645.0	-182.8	-91.3	-180.1	10.00	9.70	2.48
13,000.0	87.36	358.95	12,649.4	-133.1	-92.8	-130.3	10.00	9.71	2.42
13,027.2	90.00	359.60	12,650.0	-105.9	-93.1	-103.2	10.00	9.71	2.40
13,100.0	90.00	359.60	12,650.0	-33.1	-93.6	-30.4	0.00	0.00	0.00
13,200.0	90.00	359.60	12,650.0	66.9	-94.3	69.6	0.00	0.00	0.00
13,300.0	90.00	359.60	12,650.0	166.9	-95.0	169.6	0.00	0.00	0.00
13,400.0	90.00	359.60	12,650.0	266.9	-95.7	269.6	0.00	0.00	0.00
13,500.0	90.00	359.60	12,650.0	366.9	-96.4	369.5	0.00	0.00	0.00
13,600.0	90.00	359.60	12,650.0	466.9	-97.1	469.5	0.00	0.00	0.00
13,700.0	90.00	359.60	12,650.0	566.9	-97.8	569.5	0.00	0.00	0.00
13,800.0	90.00	359.60	12,650.0	666.9	-98.5	669.5	0.00	0.00	0.00
13,900.0	90.00	359.60	12,650.0	766.9	-99.2	769.4	0.00	0.00	0.00
14,000.0	90.00	359.60	12,650.0	866.9	-99.9	869.4	0.00	0.00	0.00
14,100.0	90.00	359.60	12,650.0	966.9	-100.6	969.4	0.00	0.00	0.00
14,200.0	90.00	359.60	12,650.0	1,066.9	-101.3	1,069.4	0.00	0.00	0.00
14,300.0	90.00	359.60	12,650.0	1,166.9	-102.0	1,169.3	0.00	0.00	0.00
14,400.0	90.00	359.60	12,650.0	1,266.9	-102.7	1,269.3	0.00	0.00	0.00

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well #705H
Company:	EOG Resources - Midland	**TVD Reference:**	KB = 25 @ 3284.0usft (H&P 260)
Project:	Lea County, NM (NAD 27 NME)	**MD Reference:**	KB = 25 @ 3284.0usft (H&P 260)
Site:	Thor 21	**North Reference:**	Grid
Well:	#705H	**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)
14,500.0	90.00	359.60	12,650.0	1,366.9	-103.4	1,369.3	0.00	0.00	0.00
14,600.0	90.00	359.60	12,650.0	1,466.9	-104.1	1,469.3	0.00	0.00	0.00
14,700.0	90.00	359.60	12,650.0	1,566.9	-104.8	1,569.3	0.00	0.00	0.00
14,800.0	90.00	359.60	12,650.0	1,666.9	-105.5	1,669.2	0.00	0.00	0.00
14,900.0	90.00	359.60	12,650.0	1,766.9	-106.2	1,769.2	0.00	0.00	0.00
15,000.0	90.00	359.60	12,650.0	1,866.9	-106.9	1,869.2	0.00	0.00	0.00
15,100.0	90.00	359.60	12,650.0	1,966.9	-107.6	1,969.2	0.00	0.00	0.00
15,200.0	90.00	359.60	12,650.0	2,066.9	-108.3	2,069.1	0.00	0.00	0.00
15,300.0	90.00	359.60	12,650.0	2,166.9	-109.0	2,169.1	0.00	0.00	0.00
15,400.0	90.00	359.60	12,650.0	2,266.9	-109.7	2,269.1	0.00	0.00	0.00
15,500.0	90.00	359.60	12,650.0	2,366.9	-110.4	2,369.1	0.00	0.00	0.00
15,600.0	90.00	359.60	12,650.0	2,466.9	-111.1	2,469.0	0.00	0.00	0.00
15,700.0	90.00	359.60	12,650.0	2,566.9	-111.8	2,569.0	0.00	0.00	0.00
15,800.0	90.00	359.60	12,650.0	2,666.9	-112.5	2,669.0	0.00	0.00	0.00
15,900.0	90.00	359.60	12,650.0	2,766.9	-113.2	2,769.0	0.00	0.00	0.00
16,000.0	90.00	359.60	12,650.0	2,866.9	-113.9	2,868.9	0.00	0.00	0.00
16,100.0	90.00	359.60	12,650.0	2,966.9	-114.6	2,968.9	0.00	0.00	0.00
16,200.0	90.00	359.60	12,650.0	3,066.9	-115.3	3,068.9	0.00	0.00	0.00
16,300.0	90.00	359.60	12,650.0	3,166.9	-116.0	3,168.9	0.00	0.00	0.00
16,400.0	90.00	359.60	12,650.0	3,266.8	-116.7	3,268.9	0.00	0.00	0.00
16,500.0	90.00	359.60	12,650.0	3,366.8	-117.4	3,368.8	0.00	0.00	0.00
16,600.0	90.00	359.60	12,650.0	3,466.8	-118.1	3,468.8	0.00	0.00	0.00
16,700.0	90.00	359.60	12,650.0	3,566.8	-118.8	3,568.8	0.00	0.00	0.00
16,800.0	90.00	359.60	12,650.0	3,666.8	-119.5	3,668.8	0.00	0.00	0.00
16,900.0	90.00	359.60	12,650.0	3,766.8	-120.2	3,768.7	0.00	0.00	0.00
17,000.0	90.00	359.60	12,650.0	3,866.8	-120.9	3,868.7	0.00	0.00	0.00
17,100.0	90.00	359.60	12,650.0	3,966.8	-121.6	3,968.7	0.00	0.00	0.00
17,200.0	90.00	359.60	12,650.0	4,066.8	-122.3	4,068.7	0.00	0.00	0.00
17,300.0	90.00	359.60	12,650.0	4,166.8	-123.0	4,168.6	0.00	0.00	0.00
17,400.0	90.00	359.60	12,650.0	4,266.8	-123.7	4,268.6	0.00	0.00	0.00
17,449.2	90.00	359.60	12,650.0	4,316.0	-124.0	4,317.8	0.00	0.00	0.00
PBHL(Thor 21 #705H)									

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
PBHL(Thor 21 #705H)	90.00	359.60	12,650.0	4,316.0	-124.0	377,466.00	736,754.00	32° 2' 7.680 N	103° 34' 9.528 W
- plan hits target center - Rectangle (sides W60.0 H0.0 D4,721.8)									
FTP(Thor 21 #705H)	0.00	0.00	12,650.0	-405.0	-91.0	372,745.00	736,787.00	32° 1' 20.960 N	103° 34' 9.533 W
- plan misses target center by 73.4usft at 12750.0usft MD (12586.2 TVD, -372.3 N, -75.5 E) - Point									