Form 3160-5
(June 2015)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB NO. 1004-0137
Expires: January 31, 2018

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.

HOBBS OCD

SUBMIT IN TRIPLICATE - Other instructions on page 2

AUG 06 2018

RECEIVED

5. Lease Serial No.
NMNM110840

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.

1. Type of Well
☒ Oil Well ☐ Gas Well ☐ Other

8. Well Name and No.
RHILLY 31 FED COM 703H

2. Name of Operator
EOG RESOURCES INCORPORATED

Contact: STAN WAGNER
E-Mail: stan_wagner@eogresources.com

9. API Well No.
30-025-44768-00-X1

3a. Address
MIDLAND, TX 79702

3b. Phone No. (include area code)
Ph: 432-686-3689

10. Field and Pool or Exploratory Area
RED HILLS-WOLFCAMP, WEST (GAS)

4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)*
Sec 31 T26S R34E 290FSL 2030FWL
32.001064 N Lat, 103.510994 W Lon

11. County or Parish, State
LEA COUNTY, NM

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other Change to Original APD
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.

EOG Resources requests an amendment to our approved APD for this well to reflect a change in BHL.

Change BHL to: 100' FNL & 1667' FWL 1-30-26S-34E

Carlsbad Field Office
OCD Hobbs

All previous COAs still apply.

14. I hereby certify that the foregoing is true and correct.

Electronic Submission #428554 verified by the BLM Well Information System
For EOG RESOURCES INCORPORATED, sent to the Hobbs
Committed to AFMSS for processing by PRISCILLA PEREZ on 07/25/2018 (18PP1542SE)

Name *(Printed/Typed)* STAN WAGNER — Title REGULATORY ANALYST

Signature (Electronic Submission) — Date 07/24/2018

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By ZOTA STEVENS — Title PETROLEUM ENGINEER — Date 07/30/2018

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office Hobbs

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

**** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ****

District I
1625 N French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax (575) 393-0720
District II
811 S First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone (505) 334-6178 Fax (505) 334-6179
District IV
1220 S St Francis Dr., Sante Fe, NM 87505
Phone (505) 476-3460 Fax (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources
Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Sante Fe, NM 87505

FORM C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office

[X] AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1]API Number	[2]Pool Code	[3]Pool Name
30-025-44768	98097	Sanders Tank; Upper Wolfcamp

[4]Property Code	[5]Property Name	[6]Well Number
321381	PHILLY 31 FED COM	#703H

[7]OGRID No.	[8]Operator Name	[9]Elevation
7377	EOG RESOURCES, INC.	3365'

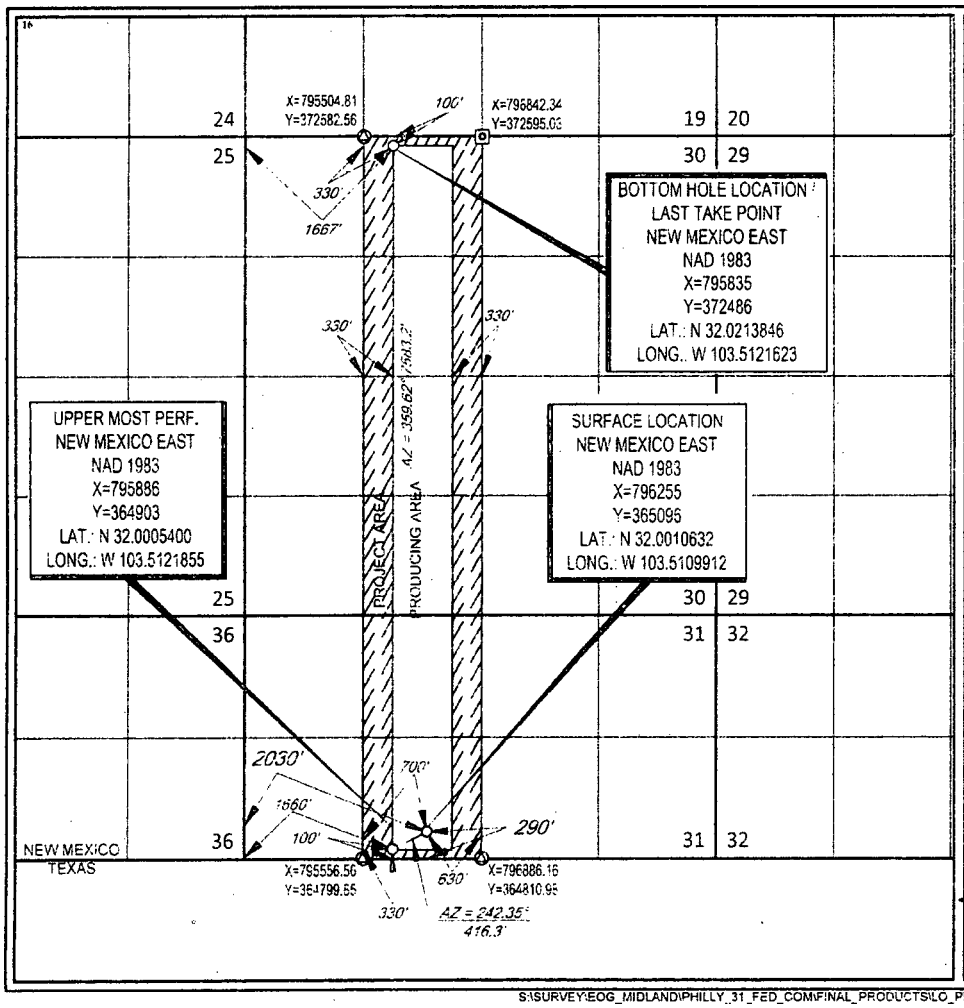
[10]Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
3	31	26-S	34-E	-	290'	SOUTH	2030'	WEST	LEA

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	30	26-S	34-E	-	100'	NORTH	1667'	WEST	LEA

[12]Dedicated Acres	[13]Joint or Infill	[14]Consolidation Code	[15]Order No.
238.30			

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.



[17]OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Stan Wagner 7/24/18
Signature Date

Stan Wagner
Printed Name

E-mail Address

[18]SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true to the best of my belief.

05/09/2018
Date of Survey
Signature and Seal of Professional Surveyor

MICHAEL BROWN
NEW MEXICO
18329
PROFESSIONAL SURVEYOR

Certificate Number

S:\SURVEY\EOG_MIDLAND\PHILLY_31_FED_COM\FINAL_PRODUCTS\LO_PHILLY31FEDCOM_703H_C102_REV3.DWG 7/20/2018 6:19:38 AM tstewart

Revised Permit Information 7/20/18:

Well Name: Philly 31 Fed Com No. 703H

Location:

SL: 290' FSL & 2030' FWL, Section 31, T-26-S, R-34-E, Lea Co., N.M.

BHL: 100' FNL & 1667' FWL, Section 30, 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
17.5"	0 – 840'	13.375"	54.5#	J55	STC	1.125	1.25	1.60
12.25"	0-4,000'	9.625"	40#	J55	LTC	1.125	1.25	1.60
12.25"	4,000' – 5,300'	9.625"	40#	HCK55	LTC	1.125	1.25	1.60
8.75"	0 – 11,600'	7.625"	29.7#	HCP110	FXL	1.125	1.25	1.60
6.75"	0 – 11,100'	5.5"	20#	P110EC	DWC CIS MS	1.125	1.25	1.60
6.75"	11,100'-20,202'	5.5"	20#	P110EC	VAM SFC	1.125	1.25	1.60

Variance is requested for annular clearance of the 5-1/2" x 7-5/8" to the top of cement.

Cement Program:

Depth	No. Sacks	Wt. lb/gal	Yld Ft^3/ft	Slurry Description
840'	697	13.5	1.74	Lead: Class 'C' + 4.00% Bentonite + 2.00% CaCl2 (TOC @ Surface)
	333	14.8	1.35	Tail: Class 'C' + 0.6% FL-62 + 0.25 lb/sk Cello-Flake + 0.2% Sodium Metasilicate + 2.0% KCl (1.06 lb/sk)
5,300'	692	12.7	2.22	Lead: Class C + 0.15% C-20 + 11.63 pps Salt + 0.1% C-51 + 0.75% C-41P (TOC @ Surface)
	303	14.8	1.32	Tail: Class C + 0.13% C-20
11,600'	375	10.8	3.67	Lead: Class C + 0.40% D013 + 0.20% D046 + 0.10% D065 + 0.20% D167 (TOC @ 4,800')
	400	14.8	2.38	Tail: Class H + 94.0 pps D909 + 0.25% D065 + 0.30% D167 + 0.02% D208 + 0.15% D800
20,202'	1000	14.8	1.31	Class H + 0.1% C-20 + 0.05% CSA-1000 + 0.20% C-49 + 0.40% C-17 (TOC @ 11,100')

Mud Program:

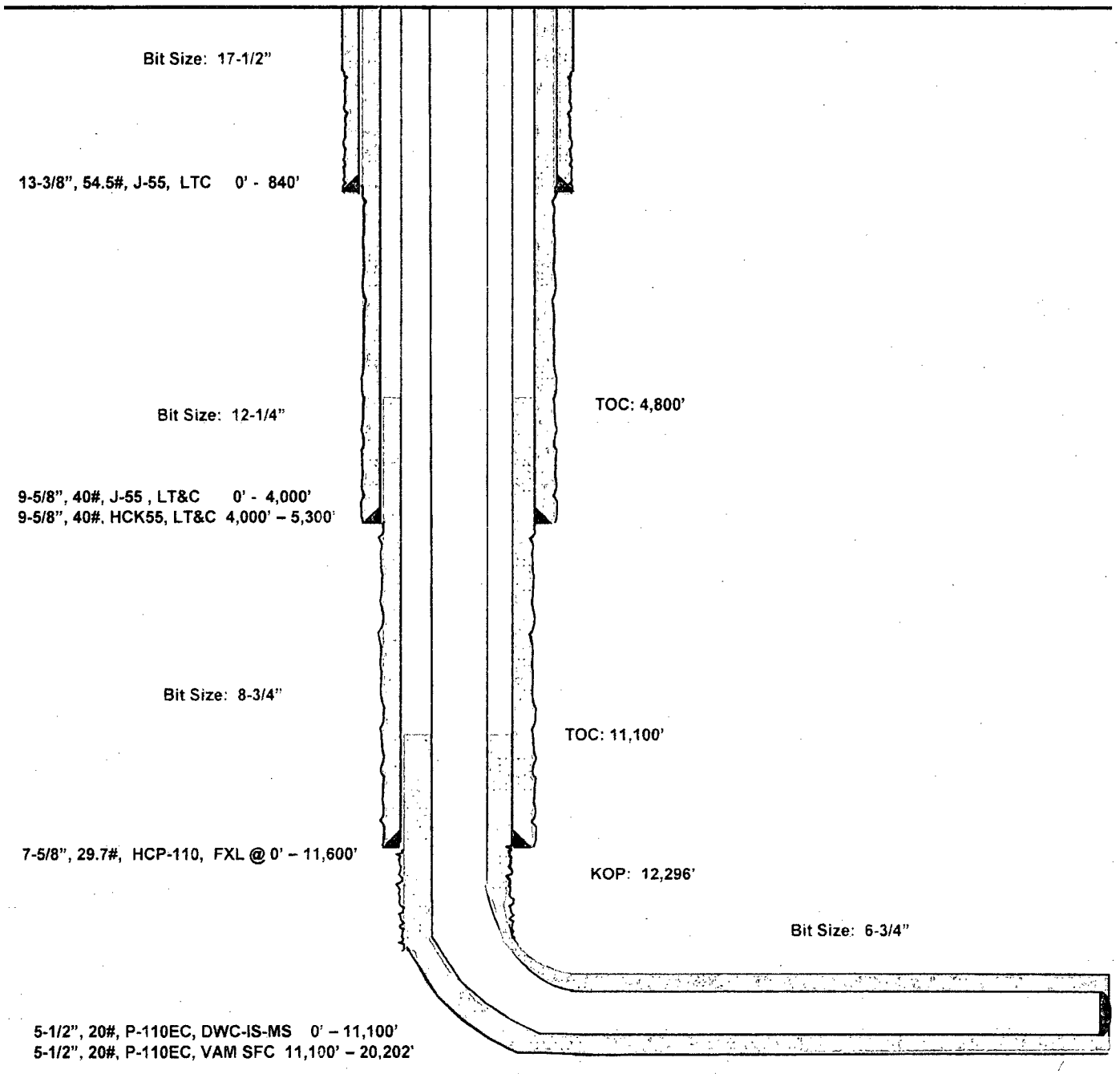
Depth	Type	Weight (ppg)	Viscosity	Water Loss
0 – 840'	Fresh - Gel	8.6-8.8	28-34	N/c
840' – 5,300'	Brine	10.0-10.2	28-34	N/c
5,300'– 11,600'	Oil Base	8.7-9.4	58-68	N/c - 6
11,600'– 20,202' Lateral	Oil Base	10.0-11.5	58-68	3 - 6

Philly 31 Fed Com #703H
Lea County, New Mexico

290' FSL
2030' FWL
Section 31
T-26-S, R-34-E

Proposed Wellbore
Revised 7/20/18
API: 30-025-44768

KB: 3,390'
GL: 3,365'



Lateral: 20,202' MD, 12,730' TVD
Upper Most Perf:
100' FSL & 1660' FWL Sec. 31
Lower Most Perf:
100' FNL & 1667' FWL Sec. 30
BH Location: 100' FNL & 1667' FWL
Section 30
T-26-S, R-34-E

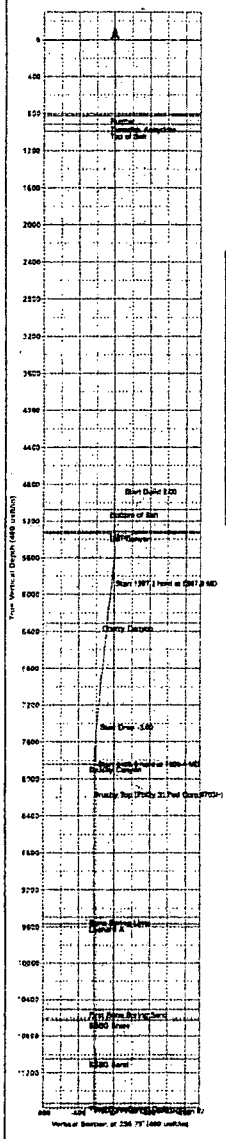
eog resources

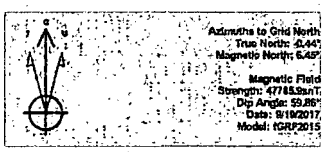
Lea County, NM (NAD 83 NME)

Philly 31 Fed Com #703H

H&P 642

Plan #2





To convert a Magnetic Direction to a Grid Direction, Add 6.45°
To convert a Magnetic Direction to a True Direction, Add 6.89° East
To convert a True Direction to a Grid Direction, Subtract 0.44°

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

3385.0

KB = 25' @ 3390.0usft (H&P 642)

Northing	Easting	Latitude	Longitude
365096.00	796255.00	32° 0' 3.830 N	103° 30' 39.564 W

SECTION DETAILS

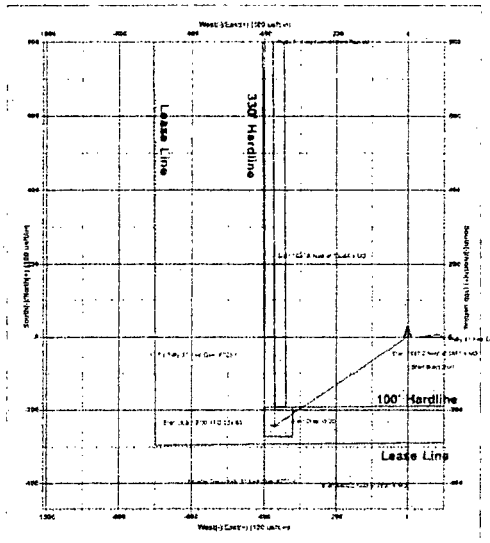
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	5280.0	0.00	0.00	5280.0	0.0	0.0	0.00	0.00	0.0	
3	5887.9	12.16	236.78	5883.4	-35.2	-53.8	2.00	236.78	-32.1	
4	7485.1	12.16	236.78	7444.8	-219.5	-335.2	0.00	0.00	-200.2	
5	7890.4	0.00	0.00	7847.0	-243.0	-371.0	3.00	180.00	-221.6	Brushy Top (Philly 31 Fed Com #703H)
6	12296.4	0.00	0.00	12253.0	-243.0	-371.0	0.00	0.00	-221.6	
7	13044.9	89.82	359.63	12730.5	232.9	-374.1	12.00	359.63	253.8	
8	14142.5	89.82	359.63	12734.0	1330.5	-381.1	0.00	0.00	1350.0	TGT #1(Philly 31 Fed Com #703H)
9	14145.3	89.87	359.63	12734.0	1333.3	-381.1	2.00	-0.79	1352.8	
10	16365.3	89.87	359.63	12735.0	3553.3	-395.4	0.00	0.00	3570.0	TGT #2(Philly 31 Fed Com #703H)
11	16367.8	89.92	359.63	12739.0	3555.8	-395.4	2.00	1.78	3572.5	
12	17817.2	89.92	359.63	12741.0	5005.1	-404.7	0.00	0.00	5020.0	TGT #3(Philly 31 Fed Com #703H)
13	17832.7	90.23	359.63	12741.0	5020.7	-404.8	2.00	-0.09	5035.5	
14	19799.7	90.23	359.63	12733.0	6987.6	-417.4	0.00	0.00	7000.0	TGT #4(Philly 31 Fed Com #703H)
15	19809.6	90.43	359.63	12732.9	6997.5	-417.5	2.00	-0.08	7009.9	
16	20202.1	90.43	359.63	12730.0	7390.0	-420.0	0.00	0.00	7401.9	PBHL (Philly 31 Fed Com #703H)

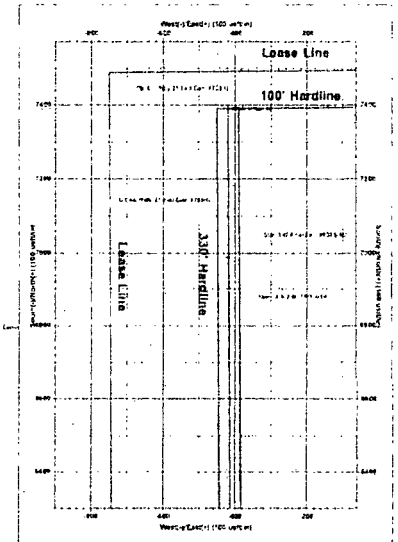
CASING DETAILS

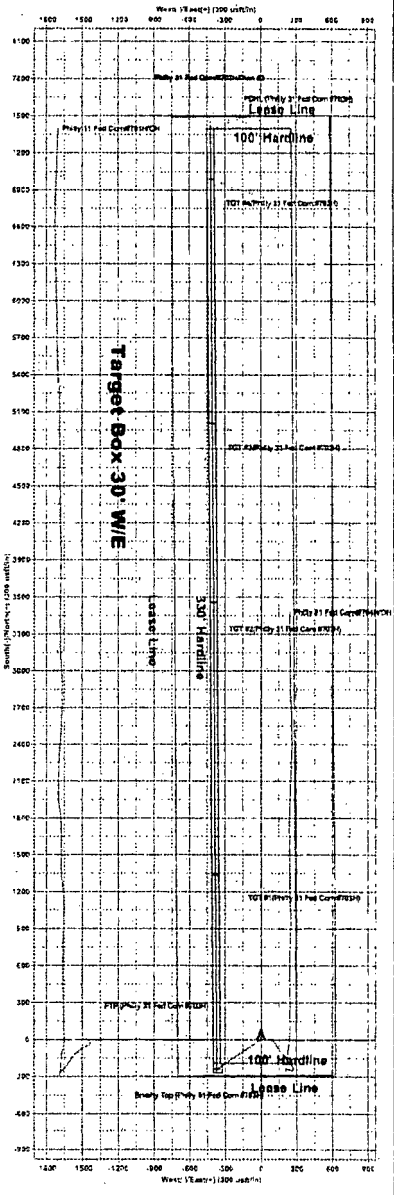
No casing data is available

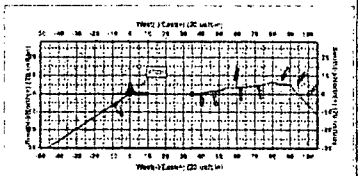
WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

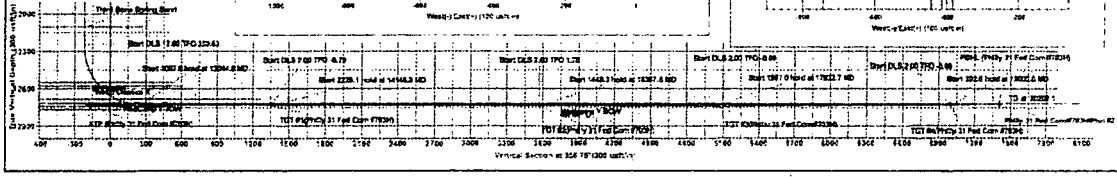
Name	TVD	+N/-S	+E/-W	Northing	Easting
Brushy Top (Philly 31 Fed Com #703H)	7847.0	-243.0	-371.0	364853.00	795884.00
FTP (Philly 31 Fed Com #703H)	12730.0	-193.0	-389.0	364903.00	795866.00
PBHL (Philly 31 Fed Com #703H)	12730.0	7390.0	-420.0	372486.00	795835.00
TGT #4(Philly 31 Fed Com #703H)	12733.0	6987.6	-417.4	372083.60	795837.58
TGT #1(Philly 31 Fed Com #703H)	12734.0	1330.5	-381.1	366426.50	795873.90
TGT #2(Philly 31 Fed Com #703H)	12739.0	3553.3	-395.4	368648.30	795839.60
TGT #3(Philly 31 Fed Com #703H)	12741.0	5005.1	-404.7	370101.10	795850.30

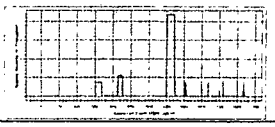












eog resources

EOG Resources - Midland

Lea County, NM (NAD 83 NME)
Philly 31 Fed Com
#703H
73696
OH

Plan: Plan #2

Standard Planning Report

18 July, 2018

Database:	EDM 5000.14	**Local Co-ordinate Reference:**	Well #703H
Company:	EOG Resources - Midland	**TVD Reference:**	KB = 25' @ 3390.0usft (H&P 642)
Project:	Lea County, NM (NAD 83 NME)	**MD Reference:**	KB = 25' @ 3390.0usft (H&P 642)
Site:	Philly 31 Fed Com	**North Reference:**	Grid
Well:	#703H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2		

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 Philly 31 Fed Com

Site Position:		**Northing:**	365,084.00 usft	**Latitude:**	32° 0' 3.819 N
From:	Map	**Easting:**	794,820.00 usft	**Longitude:**	103° 30' 56.229 W
Position Uncertainty:	0.0 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	0.43 °

Well #703H

Well Position	**+N/-S**	12.0 usft	**Northing:**	365,096.00 usft	**Latitude:**	32° 0' 3.830 N
	+E/-W	1,435.0 usft	**Easting:**	796,255.00 usft	**Longitude:**	103° 30' 39.564 W
Position Uncertainty		0.0 usft	**Wellhead Elevation:**		**Ground Level:**	3,365.0 usft

Wellbore OH

Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	IGRF2015	9/19/2017	6.88	59.86	47,785.85016300

Design Plan #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	356.75	

Plan Survey Tool Program **Date** 7/18/2018

	Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	20,202.1	Plan #2 (OH)	MWD	
				OWSG MWD - Standard	

Database:	EDM 5000.14	**Local Co-ordinate Reference:**	Well #703H
Company:	EOG Resources - Midland	**TVD Reference:**	KB = 25' @ 3390.0usft (H&P 642)
Project:	Lea County, NM (NAD 83 NME)	**MD Reference:**	KB = 25' @ 3390.0usft (H&P 642)
Site:	Philly 31 Fed Com	**North Reference:**	Grid
Well:	#703H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2		

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	
5,280.0	0.00	0.00	5,280.0	0.0	0.0	0.00	0.00	0.00	0.00	
5,887.9	12.16	236.78	5,883.4	-35.2	-53.8	2.00	2.00	0.00	236.78	
7,485.1	12.16	236.78	7,444.8	-219.5	-335.2	0.00	0.00	0.00	0.00	
7,890.4	0.00	0.00	7,847.0	-243.0	-371.0	3.00	-3.00	0.00	180.00	Brushy Top (Philly 31
12,296.4	0.00	0.00	12,253.0	-243.0	-371.0	0.00	0.00	0.00	0.00	
13,044.9	89.82	359.63	12,730.5	232.9	-374.1	12.00	12.00	-0.05	359.63	
14,142.5	89.82	359.63	12,734.0	1,330.5	-381.1	0.00	0.00	0.00	0.00	TGT #1(Philly 31 Fed
14,145.3	89.87	359.63	12,734.0	1,333.3	-381.1	2.00	2.00	-0.03	-0.79	
16,365.3	89.87	359.63	12,739.0	3,553.3	-395.4	0.00	0.00	0.00	0.00	TGT #2(Philly 31 Fed
16,367.8	89.92	359.63	12,739.0	3,555.8	-395.4	2.00	2.00	0.06	1.78	
17,817.2	89.92	359.63	12,741.0	5,005.1	-404.7	0.00	0.00	0.00	0.00	TGT #3(Philly 31 Fed
17,832.7	90.23	359.63	12,741.0	5,020.7	-404.8	2.00	2.00	0.00	-0.09	
19,799.7	90.23	359.63	12,733.0	6,987.6	-417.4	0.00	0.00	0.00	0.00	TGT #4(Philly 31 Fed
19,809.6	90.43	359.63	12,732.9	6,997.5	-417.5	2.00	2.00	0.00	-0.08	
20,202.1	90.43	359.63	12,730.0	7,390.0	-420.0	0.00	0.00	0.00	0.00	PBHL (Philly 31 Fed C

Database:	EDM 5000.14	**Local Co-ordinate Reference:**	Well #703H
Company:	EOG Resources - Midland	**TVD Reference:**	KB = 25' @ 3390.0usft (H&P 642)
Project:	Lea County, NM (NAD 83 NME)	**MD Reference:**	KB = 25' @ 3390.0usft (H&P 642)
Site:	Philly 31 Fed Com	**North Reference:**	Grid
Well:	#703H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2		

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
829.0	0.00	0.00	829.0	0.0	0.0	0.0	0.00	0.00	0.00
Rustler									
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
920.0	0.00	0.00	920.0	0.0	0.0	0.0	0.00	0.00	0.00
Tamarisk Anhydrite									
994.0	0.00	0.00	994.0	0.0	0.0	0.0	0.00	0.00	0.00
Top of Salt									
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	0.00	0.00	4,600.0	0.0	0.0	0.0	0.00	0.00	0.00

Database:	EDM 5000.14	**Local Co-ordinate Reference:**	Well #703H
Company:	EOG Resources - Midland	**TVD Reference:**	KB = 25' @ 3390.0usft (H&P 642)
Project:	Lea County, NM (NAD 83 NME)	**MD Reference:**	KB = 25' @ 3390.0usft (H&P 642)
Site:	Philly 31 Fed Com	**North Reference:**	Grid
Well:	#703H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2		

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)
4,700.0	0.00	0.00	4,700.0	0.0	0.0	0.0	0.00	0.00	0.00
4,800.0	0.00	0.00	4,800.0	0.0	0.0	0.0	0.00	0.00	0.00
4,900.0	0.00	0.00	4,900.0	0.0	0.0	0.0	0.00	0.00	0.00
5,000.0	0.00	0.00	5,000.0	0.0	0.0	0.0	0.00	0.00	0.00
5,081.0	0.00	0.00	5,081.0	0.0	0.0	0.0	0.00	0.00	0.00
Bottom of Salt									
5,100.0	0.00	0.00	5,100.0	0.0	0.0	0.0	0.00	0.00	0.00
5,200.0	0.00	0.00	5,200.0	0.0	0.0	0.0	0.00	0.00	0.00
5,280.0	0.00	0.00	5,280.0	0.0	0.0	0.0	0.00	0.00	0.00
5,300.0	0.40	236.78	5,300.0	0.0	-0.1	0.0	2.00	2.00	0.00
5,315.0	0.70	236.78	5,315.0	-0.1	-0.2	-0.1	2.00	2.00	0.00
Lamar									
5,340.0	1.20	236.78	5,340.0	-0.3	-0.5	-0.3	2.00	2.00	0.00
Bell Canyon									
5,400.0	2.40	236.78	5,400.0	-1.4	-2.1	-1.3	2.00	2.00	0.00
5,500.0	4.40	236.78	5,499.8	-4.6	-7.1	-4.2	2.00	2.00	0.00
5,600.0	6.40	236.78	5,599.3	-9.8	-14.9	-8.9	2.00	2.00	0.00
5,700.0	8.40	236.78	5,698.5	-16.8	-25.7	-15.4	2.00	2.00	0.00
5,800.0	10.40	236.78	5,797.1	-25.8	-39.4	-23.5	2.00	2.00	0.00
5,887.9	12.16	236.78	5,883.4	-35.2	-53.8	-32.1	2.00	2.00	0.00
5,900.0	12.16	236.78	5,895.2	-36.6	-55.9	-33.4	0.00	0.00	0.00
6,000.0	12.16	236.78	5,992.9	-48.1	-73.5	-43.9	0.00	0.00	0.00
6,100.0	12.16	236.78	6,090.7	-59.7	-91.1	-54.4	0.00	0.00	0.00
6,200.0	12.16	236.78	6,188.4	-71.2	-108.7	-64.9	0.00	0.00	0.00
6,300.0	12.16	236.78	6,286.2	-82.8	-126.4	-75.5	0.00	0.00	0.00
6,329.5	12.16	236.78	6,315.0	-86.2	-131.5	-78.6	0.00	0.00	0.00
Cherry Canyon									
6,400.0	12.16	236.78	6,384.0	-94.3	-144.0	-86.0	0.00	0.00	0.00
6,500.0	12.16	236.78	6,481.7	-105.8	-161.6	-96.5	0.00	0.00	0.00
6,600.0	12.16	236.78	6,579.5	-117.4	-179.2	-107.0	0.00	0.00	0.00
6,700.0	12.16	236.78	6,677.2	-128.9	-196.8	-117.5	0.00	0.00	0.00
6,800.0	12.16	236.78	6,775.0	-140.5	-214.5	-128.1	0.00	0.00	0.00
6,900.0	12.16	236.78	6,872.7	-152.0	-232.1	-138.6	0.00	0.00	0.00
7,000.0	12.16	236.78	6,970.5	-163.5	-249.7	-149.1	0.00	0.00	0.00
7,100.0	12.16	236.78	7,068.3	-175.1	-267.3	-159.6	0.00	0.00	0.00
7,200.0	12.16	236.78	7,166.0	-186.6	-284.9	-170.2	0.00	0.00	0.00
7,300.0	12.16	236.78	7,263.8	-198.2	-302.5	-180.7	0.00	0.00	0.00
7,400.0	12.16	236.78	7,361.5	-209.7	-320.2	-191.2	0.00	0.00	0.00
7,485.1	12.16	236.78	7,444.8	-219.5	-335.2	-200.2	0.00	0.00	0.00
7,500.0	11.71	236.78	7,459.3	-221.2	-337.7	-201.7	3.00	-3.00	0.00
7,600.0	8.71	236.78	7,557.7	-230.9	-352.6	-210.5	3.00	-3.00	0.00
7,700.0	5.71	236.78	7,656.9	-237.8	-363.1	-216.8	3.00	-3.00	0.00
7,800.0	2.71	236.78	7,756.6	-241.8	-369.2	-220.5	3.00	-3.00	0.00
7,890.4	0.00	0.00	7,847.0	-243.0	-371.0	-221.6	3.00	-3.00	0.00
Brushy Canyon									
7,900.0	0.00	0.00	7,856.6	-243.0	-371.0	-221.6	0.00	0.00	0.00
8,000.0	0.00	0.00	7,956.6	-243.0	-371.0	-221.6	0.00	0.00	0.00
8,100.0	0.00	0.00	8,056.6	-243.0	-371.0	-221.6	0.00	0.00	0.00
8,200.0	0.00	0.00	8,156.6	-243.0	-371.0	-221.6	0.00	0.00	0.00
8,300.0	0.00	0.00	8,256.6	-243.0	-371.0	-221.6	0.00	0.00	0.00
8,400.0	0.00	0.00	8,356.6	-243.0	-371.0	-221.6	0.00	0.00	0.00
8,500.0	0.00	0.00	8,456.6	-243.0	-371.0	-221.6	0.00	0.00	0.00
8,600.0	0.00	0.00	8,556.6	-243.0	-371.0	-221.6	0.00	0.00	0.00
8,700.0	0.00	0.00	8,656.6	-243.0	-371.0	-221.6	0.00	0.00	0.00

Database:	EDM 5000.14	**Local Co-ordinate Reference:**	Well #703H
Company:	EOG Resources - Midland	**TVD Reference:**	KB = 25' @ 3390.0usft (H&P 642)
Project:	Lea County, NM (NAD 83 NME)	**MD Reference:**	KB = 25' @ 3390.0usft (H&P 642)
Site:	Philly 31 Fed Com	**North Reference:**	Grid
Well:	#703H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2		

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)
8,800.0	0.00	0.00	8,756.6	-243.0	-371.0	-221.6	0.00	0.00	0.00
8,900.0	0.00	0.00	8,856.6	-243.0	-371.0	-221.6	0.00	0.00	0.00
9,000.0	0.00	0.00	8,956.6	-243.0	-371.0	-221.6	0.00	0.00	0.00
9,100.0	0.00	0.00	9,056.6	-243.0	-371.0	-221.6	0.00	0.00	0.00
9,200.0	0.00	0.00	9,156.6	-243.0	-371.0	-221.6	0.00	0.00	0.00
9,300.0	0.00	0.00	9,256.6	-243.0	-371.0	-221.6	0.00	0.00	0.00
9,400.0	0.00	0.00	9,356.6	-243.0	-371.0	-221.6	0.00	0.00	0.00
9,500.0	0.00	0.00	9,456.6	-243.0	-371.0	-221.6	0.00	0.00	0.00
9,543.4	0.00	0.00	9,500.0	-243.0	-371.0	-221.6	0.00	0.00	0.00
Bone Spring Lime									
9,600.0	0.00	0.00	9,556.6	-243.0	-371.0	-221.6	0.00	0.00	0.00
9,614.4	0.00	0.00	9,571.0	-243.0	-371.0	-221.6	0.00	0.00	0.00
Leonard A									
9,700.0	0.00	0.00	9,656.6	-243.0	-371.0	-221.6	0.00	0.00	0.00
9,800.0	0.00	0.00	9,756.6	-243.0	-371.0	-221.6	0.00	0.00	0.00
9,900.0	0.00	0.00	9,856.6	-243.0	-371.0	-221.6	0.00	0.00	0.00
10,000.0	0.00	0.00	9,956.6	-243.0	-371.0	-221.6	0.00	0.00	0.00
10,100.0	0.00	0.00	10,056.6	-243.0	-371.0	-221.6	0.00	0.00	0.00
10,200.0	0.00	0.00	10,156.6	-243.0	-371.0	-221.6	0.00	0.00	0.00
10,300.0	0.00	0.00	10,256.6	-243.0	-371.0	-221.6	0.00	0.00	0.00
10,400.0	0.00	0.00	10,356.6	-243.0	-371.0	-221.6	0.00	0.00	0.00
10,500.0	0.00	0.00	10,456.6	-243.0	-371.0	-221.6	0.00	0.00	0.00
10,559.4	0.00	0.00	10,516.0	-243.0	-371.0	-221.6	0.00	0.00	0.00
First Bone Spring Sand									
10,600.0	0.00	0.00	10,556.6	-243.0	-371.0	-221.6	0.00	0.00	0.00
10,673.4	0.00	0.00	10,630.0	-243.0	-371.0	-221.6	0.00	0.00	0.00
SBSG Shale									
10,700.0	0.00	0.00	10,656.6	-243.0	-371.0	-221.6	0.00	0.00	0.00
10,800.0	0.00	0.00	10,756.6	-243.0	-371.0	-221.6	0.00	0.00	0.00
10,900.0	0.00	0.00	10,856.6	-243.0	-371.0	-221.6	0.00	0.00	0.00
11,000.0	0.00	0.00	10,956.6	-243.0	-371.0	-221.6	0.00	0.00	0.00
11,099.4	0.00	0.00	11,056.0	-243.0	-371.0	-221.6	0.00	0.00	0.00
SBSG Sand									
11,100.0	0.00	0.00	11,056.6	-243.0	-371.0	-221.6	0.00	0.00	0.00
11,200.0	0.00	0.00	11,156.6	-243.0	-371.0	-221.6	0.00	0.00	0.00
11,300.0	0.00	0.00	11,256.6	-243.0	-371.0	-221.6	0.00	0.00	0.00
11,400.0	0.00	0.00	11,356.6	-243.0	-371.0	-221.6	0.00	0.00	0.00
11,500.0	0.00	0.00	11,456.6	-243.0	-371.0	-221.6	0.00	0.00	0.00
11,580.4	0.00	0.00	11,537.0	-243.0	-371.0	-221.6	0.00	0.00	0.00
Third Bone Spring Carb									
11,600.0	0.00	0.00	11,556.6	-243.0	-371.0	-221.6	0.00	0.00	0.00
11,700.0	0.00	0.00	11,656.6	-243.0	-371.0	-221.6	0.00	0.00	0.00
11,800.0	0.00	0.00	11,756.6	-243.0	-371.0	-221.6	0.00	0.00	0.00
11,900.0	0.00	0.00	11,856.6	-243.0	-371.0	-221.6	0.00	0.00	0.00
12,000.0	0.00	0.00	11,956.6	-243.0	-371.0	-221.6	0.00	0.00	0.00
12,100.0	0.00	0.00	12,056.6	-243.0	-371.0	-221.6	0.00	0.00	0.00
12,150.4	0.00	0.00	12,107.0	-243.0	-371.0	-221.6	0.00	0.00	0.00
Third Bone Spring Sand									
12,200.0	0.00	0.00	12,156.6	-243.0	-371.0	-221.6	0.00	0.00	0.00
12,296.4	0.00	0.00	12,253.0	-243.0	-371.0	-221.6	0.00	0.00	0.00
12,300.0	0.43	359.63	12,256.5	-243.0	-371.0	-221.5	12.00	12.00	0.00
12,325.0	3.43	359.63	12,281.6	-242.1	-371.0	-220.7	12.00	12.00	0.00
12,350.0	6.43	359.63	12,306.5	-240.0	-371.0	-218.6	12.00	12.00	0.00

Database:	EDM 5000.14	**Local Co-ordinate Reference:**	Well #703H
Company:	EOG Resources - Midland	**TVD Reference:**	KB = 25' @ 3390.0usft (H&P 642)
Project:	Lea County, NM (NAD 83 NME)	**MD Reference:**	KB = 25' @ 3390.0usft (H&P 642)
Site:	Philly 31 Fed Com	**North Reference:**	Grid
Well:	#703H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2		

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)
12,375.0	9.43	359.63	12,331.2	-236.5	-371.0	-215.1	12.00	12.00	0.00
12,400.0	12.43	359.63	12,355.8	-231.8	-371.1	-210.4	12.00	12.00	0.00
12,425.0	15.43	359.63	12,380.0	-225.8	-371.1	-204.4	12.00	12.00	0.00
12,450.0	18.43	359.63	12,404.0	-218.5	-371.2	-197.1	12.00	12.00	0.00
12,475.0	21.43	359.63	12,427.5	-210.0	-371.2	-188.6	12.00	12.00	0.00
12,500.0	24.43	359.63	12,450.5	-200.3	-371.3	-178.9	12.00	12.00	0.00
12,525.0	27.43	359.63	12,473.0	-189.3	-371.3	-167.9	12.00	12.00	0.00
12,550.0	30.43	359.63	12,494.8	-177.2	-371.4	-155.9	12.00	12.00	0.00
12,575.0	33.43	359.63	12,516.0	-164.0	-371.5	-142.7	12.00	12.00	0.00
12,600.0	36.43	359.63	12,536.5	-149.7	-371.6	-128.4	12.00	12.00	0.00
12,624.7	39.39	359.63	12,556.0	-134.5	-371.7	-113.2	12.00	12.00	0.00
Wolfcamp									
12,625.0	39.43	359.63	12,556.3	-134.3	-371.7	-113.0	12.00	12.00	0.00
12,650.0	42.43	359.63	12,575.1	-118.0	-371.8	-96.7	12.00	12.00	0.00
12,663.5	44.05	359.63	12,585.0	-108.7	-371.9	-87.4	12.00	12.00	0.00
Wfmp Clastics X									
12,675.0	45.43	359.63	12,593.1	-100.6	-371.9	-79.3	12.00	12.00	0.00
12,700.0	48.43	359.63	12,610.2	-82.4	-372.0	-61.1	12.00	12.00	0.00
12,725.0	51.43	359.63	12,626.3	-63.2	-372.2	-42.0	12.00	12.00	0.00
12,750.0	54.43	359.63	12,641.4	-43.3	-372.3	-22.1	12.00	12.00	0.00
12,775.0	57.43	359.63	12,655.4	-22.6	-372.4	-1.4	12.00	12.00	0.00
12,800.0	60.43	359.63	12,668.3	-1.2	-372.6	20.0	12.00	12.00	0.00
12,825.0	63.43	359.63	12,680.0	20.9	-372.7	42.0	12.00	12.00	0.00
12,843.5	65.65	359.63	12,688.0	37.6	-372.8	58.7	12.00	12.00	0.00
Wfmp Clastics Y									
12,850.0	66.43	359.63	12,690.6	43.5	-372.8	64.6	12.00	12.00	0.00
12,875.0	69.43	359.63	12,700.0	66.7	-373.0	87.8	12.00	12.00	0.00
12,900.0	72.43	359.63	12,708.2	90.3	-373.1	111.4	12.00	12.00	0.00
12,925.0	75.43	359.63	12,715.1	114.3	-373.3	135.3	12.00	12.00	0.00
12,941.6	77.42	359.63	12,719.0	130.5	-373.4	151.4	12.00	12.00	0.00
Wolfcamp Y TOW									
12,950.0	78.43	359.63	12,720.8	138.7	-373.5	159.7	12.00	12.00	0.00
12,975.0	81.43	359.63	12,725.1	163.3	-373.6	184.2	12.00	12.00	0.00
13,000.0	84.43	359.63	12,728.2	188.1	-373.8	209.0	12.00	12.00	0.00
13,025.0	87.43	359.63	12,730.0	213.0	-373.9	233.9	12.00	12.00	0.00
13,044.9	89.82	359.63	12,730.5	232.9	-374.1	253.8	12.00	12.00	0.00
13,100.0	89.82	359.63	12,730.6	288.0	-374.4	308.8	0.00	0.00	0.00
13,200.0	89.82	359.63	12,731.0	388.0	-375.1	408.7	0.00	0.00	0.00
13,300.0	89.82	359.63	12,731.3	488.0	-375.7	508.6	0.00	0.00	0.00
13,400.0	89.82	359.63	12,731.6	588.0	-376.3	608.4	0.00	0.00	0.00
13,500.0	89.82	359.63	12,731.9	688.0	-377.0	708.3	0.00	0.00	0.00
13,600.0	89.82	359.63	12,732.3	788.0	-377.6	808.2	0.00	0.00	0.00
13,700.0	89.82	359.63	12,732.6	886.0	-378.3	908.1	0.00	0.00	0.00
13,800.0	89.82	359.63	12,732.9	988.0	-378.9	1,007.9	0.00	0.00	0.00
13,900.0	89.82	359.63	12,733.2	1,088.0	-379.5	1,107.8	0.00	0.00	0.00
14,000.0	89.82	359.63	12,733.5	1,188.0	-380.2	1,207.7	0.00	0.00	0.00
14,100.0	89.82	359.63	12,733.9	1,288.0	-380.8	1,307.5	0.00	0.00	0.00
14,142.5	89.82	359.63	12,734.0	1,330.5	-381.1	1,350.0	0.00	0.00	0.00
14,145.3	89.87	359.63	12,734.0	1,333.3	-381.1	1,352.8	2.00	2.00	-0.03
14,200.0	89.87	359.63	12,734.1	1,388.0	-381.5	1,407.4	0.00	0.00	0.00
14,300.0	89.87	359.63	12,734.4	1,488.0	-382.1	1,507.3	0.00	0.00	0.00
14,400.0	89.87	359.63	12,734.6	1,588.0	-382.8	1,607.2	0.00	0.00	0.00
14,500.0	89.87	359.63	12,734.8	1,688.0	-383.4	1,707.0	0.00	0.00	0.00
14,600.0	89.87	359.63	12,735.0	1,788.0	-384.0	1,806.9	0.00	0.00	0.00

Database:	EDM 5000.14	**Local Co-ordinate Reference:**	Well #703H
Company:	EOG Resources - Midland	**TVD Reference:**	KB = 25' @ 3390.0usft (H&P 642)
Project:	Lea County, NM (NAD 83 NME)	**MD Reference:**	KB = 25' @ 3390.0usft (H&P 642)
Site:	Philly 31 Fed Com	**North Reference:**	Grid
Well:	#703H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2		

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	89.87	359.63	12,735.3	1,888.0	-384.7	1,906.8	0.00	0.00	0.00
14,800.0	89.87	359.63	12,735.5	1,968.0	-385.3	2,006.7	0.00	0.00	0.00
14,900.0	89.87	359.63	12,735.7	2,088.0	-386.0	2,106.5	0.00	0.00	0.00
15,000.0	89.87	359.63	12,735.9	2,188.0	-386.6	2,206.4	0.00	0.00	0.00
15,100.0	89.87	359.63	12,736.2	2,288.0	-387.3	2,306.3	0.00	0.00	0.00
15,200.0	89.87	359.63	12,736.4	2,388.0	-387.9	2,406.2	0.00	0.00	0.00
15,300.0	89.87	359.63	12,736.6	2,488.0	-388.5	2,506.0	0.00	0.00	0.00
15,400.0	89.87	359.63	12,736.8	2,588.0	-389.2	2,605.9	0.00	0.00	0.00
15,500.0	89.87	359.63	12,737.1	2,688.0	-389.8	2,705.8	0.00	0.00	0.00
15,600.0	89.87	359.63	12,737.3	2,788.0	-390.5	2,805.6	0.00	0.00	0.00
15,700.0	89.87	359.63	12,737.5	2,888.0	-391.1	2,905.5	0.00	0.00	0.00
15,800.0	89.87	359.63	12,737.7	2,988.0	-391.8	3,005.4	0.00	0.00	0.00
15,900.0	89.87	359.63	12,738.0	3,088.0	-392.4	3,105.3	0.00	0.00	0.00
16,000.0	89.87	359.63	12,738.2	3,188.0	-393.0	3,205.1	0.00	0.00	0.00
16,100.0	89.87	359.63	12,738.4	3,288.0	-393.7	3,305.0	0.00	0.00	0.00
16,200.0	89.87	359.63	12,738.6	3,388.0	-394.3	3,404.9	0.00	0.00	0.00
16,300.0	89.87	359.63	12,738.9	3,488.0	-395.0	3,504.8	0.00	0.00	0.00
16,365.3	89.87	359.63	12,739.0	3,553.3	-395.4	3,570.0	0.00	0.00	0.00
16,367.8	89.92	359.63	12,739.0	3,555.8	-395.4	3,572.5	2.00	2.00	0.06
16,400.0	89.92	359.63	12,739.0	3,588.0	-395.6	3,604.6	0.00	0.00	0.00
16,500.0	89.92	359.63	12,739.2	3,688.0	-396.3	3,704.5	0.00	0.00	0.00
16,600.0	89.92	359.63	12,739.3	3,788.0	-396.9	3,804.4	0.00	0.00	0.00
16,700.0	89.92	359.63	12,739.5	3,888.0	-397.5	3,904.2	0.00	0.00	0.00
16,800.0	89.92	359.63	12,739.6	3,988.0	-398.2	4,004.1	0.00	0.00	0.00
16,900.0	89.92	359.63	12,739.7	4,087.9	-398.8	4,104.0	0.00	0.00	0.00
17,000.0	89.92	359.63	12,739.9	4,187.9	-399.5	4,203.9	0.00	0.00	0.00
17,100.0	89.92	359.63	12,740.0	4,287.9	-400.1	4,303.7	0.00	0.00	0.00
17,200.0	89.92	359.63	12,740.2	4,387.9	-400.7	4,403.6	0.00	0.00	0.00
17,300.0	89.92	359.63	12,740.3	4,487.9	-401.4	4,503.5	0.00	0.00	0.00
17,400.0	89.92	359.63	12,740.4	4,587.9	-402.0	4,603.4	0.00	0.00	0.00
17,500.0	89.92	359.63	12,740.6	4,687.9	-402.7	4,703.2	0.00	0.00	0.00
17,600.0	89.92	359.63	12,740.7	4,787.9	-403.3	4,803.1	0.00	0.00	0.00
17,700.0	89.92	359.63	12,740.8	4,887.9	-403.9	4,903.0	0.00	0.00	0.00
17,800.0	89.92	359.63	12,741.0	4,987.9	-404.6	5,002.9	0.00	0.00	0.00
17,817.2	89.92	359.63	12,741.0	5,005.1	-404.7	5,020.0	0.00	0.00	0.00
17,832.7	90.23	359.63	12,741.0	5,020.7	-404.8	5,035.5	2.00	2.00	0.00
17,900.0	90.23	359.63	12,740.7	5,087.9	-405.2	5,102.7	0.00	0.00	0.00
18,000.0	90.23	359.63	12,740.3	5,187.9	-405.9	5,202.6	0.00	0.00	0.00
18,100.0	90.23	359.63	12,739.9	5,287.9	-406.5	5,302.5	0.00	0.00	0.00
18,200.0	90.23	359.63	12,739.5	5,387.9	-407.2	5,402.3	0.00	0.00	0.00
18,300.0	90.23	359.63	12,739.1	5,487.9	-407.8	5,502.2	0.00	0.00	0.00
18,400.0	90.23	359.63	12,738.7	5,587.9	-408.4	5,602.1	0.00	0.00	0.00
18,500.0	90.23	359.63	12,738.3	5,687.9	-409.1	5,702.0	0.00	0.00	0.00
18,600.0	90.23	359.63	12,737.9	5,787.9	-409.7	5,801.8	0.00	0.00	0.00
18,700.0	90.23	359.63	12,737.5	5,887.9	-410.4	5,901.7	0.00	0.00	0.00
18,800.0	90.23	359.63	12,737.1	5,987.9	-411.0	6,001.6	0.00	0.00	0.00
18,900.0	90.23	359.63	12,736.6	6,087.9	-411.6	6,101.4	0.00	0.00	0.00
19,000.0	90.23	359.63	12,736.2	6,187.9	-412.3	6,201.3	0.00	0.00	0.00
19,100.0	90.23	359.63	12,735.8	6,287.9	-412.9	6,301.2	0.00	0.00	0.00
19,200.0	90.23	359.63	12,735.4	6,387.9	-413.6	6,401.1	0.00	0.00	0.00
19,300.0	90.23	359.63	12,735.0	6,487.9	-414.2	6,500.9	0.00	0.00	0.00
19,400.0	90.23	359.63	12,734.6	6,587.9	-414.9	6,600.8	0.00	0.00	0.00
19,500.0	90.23	359.63	12,734.2	6,687.9	-415.5	6,700.7	0.00	0.00	0.00
19,600.0	90.23	359.63	12,733.8	6,787.9	-416.1	6,800.6	0.00	0.00	0.00

Database:	EDM 5000.14	**Local Co-ordinate Reference:**	Well #703H
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Project:	Lea County, NM (NAD 83 NME)	**MD Reference:**	KB = 25' @ 3390.0usft (H&P 642)
Site:	Philly 31 Fed Com	**North Reference:**	Grid
Well:	#703H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2		

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)
19,700.0	90.23	359.63	12,733.4	6,887.9	-416.8	6,900.4	0.00	0.00	0.00
19,799.7	90.23	359.63	12,733.0	6,987.6	-417.4	7,000.0	0.00	0.00	0.00
19,809.6	90.43	359.63	12,732.9	6,997.5	-417.5	7,009.9	2.00	2.00	0.00
19,900.0	90.43	359.63	12,732.3	7,087.9	-418.1	7,100.2	0.00	0.00	0.00
20,000.0	90.43	359.63	12,731.5	7,187.9	-418.7	7,200.0	0.00	0.00	0.00
20,100.0	90.43	359.63	12,730.8	7,287.9	-419.3	7,299.9	0.00	0.00	0.00
20,202.1	90.43	359.63	12,730.0	7,390.0	-420.0	7,401.9	0.00	0.00	0.00

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
Brushy Top (Philly 31 Fe	0.00	0.00	7,847.0	-243.0	-371.0	364,853.00	795,884.00	32° 0' 1.453 N	103° 30' 43.894 W
- plan hits target center									
- Polygon									
Point 1			7,847.0	50.0	-30.0	364,903.00	795,854.00		
Point 2			7,847.0	50.0	50.0	364,903.00	795,934.00		
Point 3			7,847.0	-30.0	50.0	364,823.00	795,934.00		
Point 4			7,847.0	-30.0	-30.0	364,823.00	795,854.00		
FTP (Philly 31 Fed Com	0.00	0.00	12,730.0	-193.0	-369.0	364,903.00	795,886.00	32° 0' 1.948 N	103° 30' 43.856 W
- plan misses target center by 163.1usft at 12700.0usft MD (12610.2 TVD, -82.4 N, -372.0 E)									
- Point									
PBHL (Philly 31 Fed Cor	90.00	359.62	12,730.0	7,390.0	-420.0	372,486.00	795,835.00	32° 1' 16.988 N	103° 30' 43.790 W
- plan hits target center									
- Rectangle (sides W60.0 H0.0 D7,583.0)									
TGT #4(Philly 31 Fed Cc	0.00	0.00	12,733.0	6,987.6	-417.4	372,083.60	795,837.58	32° 1' 13.006 N	103° 30' 43.795 W
- plan hits target center									
- Point									
TGT #1(Philly 31 Fed Cc	0.00	0.00	12,734.0	1,330.5	-381.1	366,426.50	795,873.90	32° 0' 17.024 N	103° 30' 43.873 W
- plan hits target center									
- Point									
TGT #2(Philly 31 Fed Cc	0.00	0.00	12,739.0	3,553.3	-395.4	368,649.30	795,859.60	32° 0' 39.021 N	103° 30' 43.843 W
- plan hits target center									
- Point									
TGT #3(Philly 31 Fed Cc	0.00	0.00	12,741.0	5,005.1	-404.7	370,101.10	795,850.30	32° 0' 53.388 N	103° 30' 43.822 W
- plan hits target center									
- Point									

Database:	EDM 5000.14	**Local Co-ordinate Reference:**	Well #703H
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Project:	Lea County, NM (NAD 83 NME)	**MD Reference:**	KB = 25' @ 3390.0usft (H&P 642)
Site:	Philly 31 Fed Com	**North Reference:**	Grid
Well:	#703H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2		

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
829.0	829.0	Rustler			
920.0	920.0	Tamarisk Anhydrite			
994.0	994.0	Top of Salt			
5,081.0	5,081.0	Bottom of Salt			
5,315.0	5,315.0	Lamar			
5,340.0	5,340.0	Bell Canyon			
6,329.5	6,315.0	Cherry Canyon			
7,890.4	7,847.0	Brushy Canyon			
9,543.4	9,500.0	Bone Spring Lime			
9,614.4	9,571.0	Leonard A			
10,559.4	10,516.0	First Bone Spring Sand			
10,673.4	10,630.0	SBSG Shale			
11,099.4	11,056.0	SBSG Sand			
11,580.4	11,537.0	Third Bone Spring Carb			
12,150.4	12,107.0	Third Bone Spring Sand			
12,624.7	12,556.0	Wolfcamp			
12,663.5	12,585.0	Wfmp Clastics X			
12,843.5	12,688.0	Wfmp Clastics Y			
12,941.6	12,719.0	Wolfcamp Y TOW			