

Form 3160-4
(August 2007)UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB No. 1004-0137
Expires: July 31, 2010

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

1a. Type of Well ☒ Oil Well ☐ Gas Well ☐ Dry ☐ Other			5. Lease Serial No. NMNM108503		
b. Type of Completion ☒ New Well ☐ Work Over ☐ Deepen ☐ Plug Back ☐ Diff. Resvr. Other _____			6. If Indian, Allottee or Tribe Name		
2. Name of Operator EOG RESOURCES INCORPORATED			7. Unit or CA Agreement Name and No.		
Contact: KAY MADDOX E-Mail: kay_maddox@eogresources.com			8. Lease Name and Well No. CABALLO 23 FED 705H		
3. Address PO BOX 2267 MIDLAND, TX 79702			9. API Well No. 30-025-45584-00-S1		
3a. Phone No. (include area code) Ph: 432-686-3658			10. Field and Pool, or Exploratory BOBCAT DRAW-UPR WOLFCAMP		
4. Location of Well (Report location clearly and in accordance with Federal requirements)* Sec 23 T25S R33E Mer NMP At surface SESW 300FSL 2231FWL 32.109599 N Lat, 103.544453 W Lon Sec 23 T25S R33E Mer NMP At top prod interval reported below SESW 549FSL 2424FWL 32.110284 N Lat, 103.543830 W Lon Sec 14 T25S R33E Mer NMP At total depth NESW 2512FSL 2398FWL 32.130195 N Lat, 103.543910 W Lon			11. Sec., T., R., M., or Block and Survey or Area Sec 23 T25S R33E Mer NMP		
14. Date Spudded 02/23/2019			15. Date T.D. Reached 03/23/2019		
16. Date Completed ☐ D & A ☒ Ready to Prod. 05/11/2019			17. Elevations (DF, KB, RT, GL)* 3342 GL		
18. Total Depth: MD 19970 TVD 12454		19. Plug Back T.D.: MD 19933 TVD 12454		20. Depth Bridge Plug Set: MD TVD	
21. Type Electric & Other Mechanical Logs Run (Submit copy of each) 3342 GL			22. Was well cored? ☒ No ☐ Yes (Submit analysis) Was DST run? ☒ No ☐ Yes (Submit analysis) Directional Survey? ☐ No ☒ Yes (Submit analysis)		

23. Casing and Liner Record (Report all strings set in well)

Hole Size	Size/Grade	Wt. (#/ft.)	Top (MD)	Bottom (MD)	Stage Cementer Depth	No. of Sk. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
12.250	9.625 J55	40.0		1210		660		0	
8.750	7.625 HCP110	29.7		11728		1515		29	
6.750	5.500 ICYP110	20.0		19950		825		7120	

24. Tubing Record

Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)

25. Producing Intervals

Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A) UPR WOLFCAMP	12720	19933	12720 TO 19933	3.000	1428	OPEN
B)						
C)						
D)						

27. Acid, Fracture, Treatment, Cement Squeeze, Etc.

Depth Interval	Amount and Type of Material
12720 TO 19933	18,628,170 LBS PROPPANT; 341,273 BBLs LOAD FLUID

28. Production - Interval A

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
05/11/2019	05/19/2019	24	→	2802.0	5547.0	6059.0			GAS LIFT
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	
	SI		→	2802	5547	6059	1980	POW	

28a. Production - Interval B

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	
	SI		→						

(See Instructions and spaces for additional data on reverse side)

ELECTRONIC SUBMISSION #468612 VERIFIED BY THE BLM WELL INFORMATION SYSTEM

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

PM

28b. Production - Interval C

Date First Produced	Test Date	Hours Tested	Test Production →	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate →	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	

28c. Production - Interval D

Date First Produced	Test Date	Hours Tested	Test Production →	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate →	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	

29. Disposition of Gas(Sold, used for fuel, vented, etc.)
SOLD

30. Summary of Porous Zones (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

31. Formation (Log) Markers

Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top Meas. Depth
RUSTLER	1079		BARREN	RUSTLER	1079
TOP OF SALT	1395		BARREN	TOP OF SALT	1395
BASE OF SALT	4691		BARREN	BASE OF SALT	4691
BRUSHY CANYON	7611		OIL & GAS	BRUSHY CANYON	7611
BONE SPRING 1ST	10135		OIL & GAS	BONE SPRING 1ST	10135
BONE SPRING 2ND	10693		OIL & GAS	BONE SPRING 2ND	10693
BONE SPRING 3RD	11864		OIL & GAS	BONE SPRING 3RD	11864
WOLFCAMP	12319		OIL & GAS	WOLFCAMP	12319

32. Additional remarks (include plugging procedure):
PLEASE REFERENCE ATTACHMENTS

33. Circle enclosed attachments:

- | | | | |
|---|--------------------|---------------|-----------------------|
| 1. Electrical/Mechanical Logs (1 full set req'd.) | 2. Geologic Report | 3. DST Report | 4. Directional Survey |
| 5. Sundry Notice for plugging and cement verification | 6. Core Analysis | 7 Other: | |

34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions):

Electronic Submission #468612 Verified by the BLM Well Information System.
For EOG RESOURCES INCORPORATED, sent to the Hobbs
Committed to AFMSS for processing by DINAH NEGRETE on 10/03/2019 (20DCN0008SE)

Name (please print) KAY MADDOX

Title REGULATORY SPECIALIST

Signature (Electronic Submission)

Date 06/11/2019

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.

**** REVISED ** REVISED ** REVISED ** REVISED ** REVISED ** REVISED ** REVISED ****

Revisions to Operator-Submitted EC Data for Well Completion #468612

	Operator Submitted	BLM Revised (AFMSS)
Lease:	NMNM108503	NMNM108503
Agreement:		
Operator:	EOG RESOURCES, INC PO BOX 2267 MIDLAND, TX 79702 Ph: 432-686-3658	EOG RESOURCES INCORPORATED PO BOX 2267 MIDLAND, TX 79702 Ph: 432.686.3689
Admin Contact:	KAY MADDOX REGULATORY SPECIALIST E-Mail: KAY_MADDOX@EOGRESOURCES.COM Cell: 432-638-8475 Ph: 432-686-3658	KAY MADDOX REGULATORY SPECIALIST E-Mail: kay_maddox@eogresources.com Cell: 432-638-8475 Ph: 432-686-3658
Tech Contact:	KAY MADDOX REGULATORY SPECIALIST E-Mail: KAY_MADDOX@EOGRESOURCES.COM Cell: 432-638-8475 Ph: 432-686-3658	KAY MADDOX REGULATORY SPECIALIST E-Mail: kay_maddox@eogresources.com Cell: 432-638-8475 Ph: 432-686-3658
Well Name:	CABALLO 23 FEDERAL	CABALLO 23 FED
Number:	705H	705H
Location:		
State:	NM	NM
County:	LEA	LEA
S/T/R:	Sec 23 T25S R33E Mer NMP	Sec 23 T25S R33E Mer NMP
Surf Loc:	SESW 300FSL 2231FWL 32.109599 N Lat, 103.544453 W Lon	SESW 300FSL 2231FWL 32.109599 N Lat, 103.544453 W Lon
Field/Pool:	BOBCAT DRAW;UPR WOLFCAMP	BOBCAT DRAW-UPR WOLFCAMP
Logs Run:		3342 GL
Producing Intervals - Formations:	WOLFCAMP	UPR WOLFCAMP
Porous Zones:	RUSTLER T/SALT B/SALT BRUSHY CANYON 1ST BONE SPRING SAND 2ND BONE SPRING SAND 3RD BONE SPRING SAND WOLFCAMP	RUSTLER TOP OF SALT BASE OF SALT BRUSHY CANYON BONE SPRING 1ST BONE SPRING 2ND BONE SPRING 3RD WOLFCAMP
Markers:	RUSTLER T/SALT B/SALT BRUSHY CANYON 1ST BONE SPRING SAND 2ND BONE SPRING SAND 3RD BONE SPRING SAND WOLFCAMP	RUSTLER TOP OF SALT BASE OF SALT BRUSHY CANYON BONE SPRING 1ST BONE SPRING 2ND BONE SPRING 3RD WOLFCAMP

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) 748-9730
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa 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.
Santa Fe, NM 87505

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-025-45584	² Pool Code 98094	³ Pool Name BOBCAT DRAW, UPPER WOLF CAMP
⁴ Property Code 38481	⁵ Property Name CABALLO 23 FED	⁶ Well Number #705H
⁷ OGRID No. 7377	⁸ Operator Name EOG RESOURCES, INC.	⁹ Elevation 3342'

¹⁰Surface Location

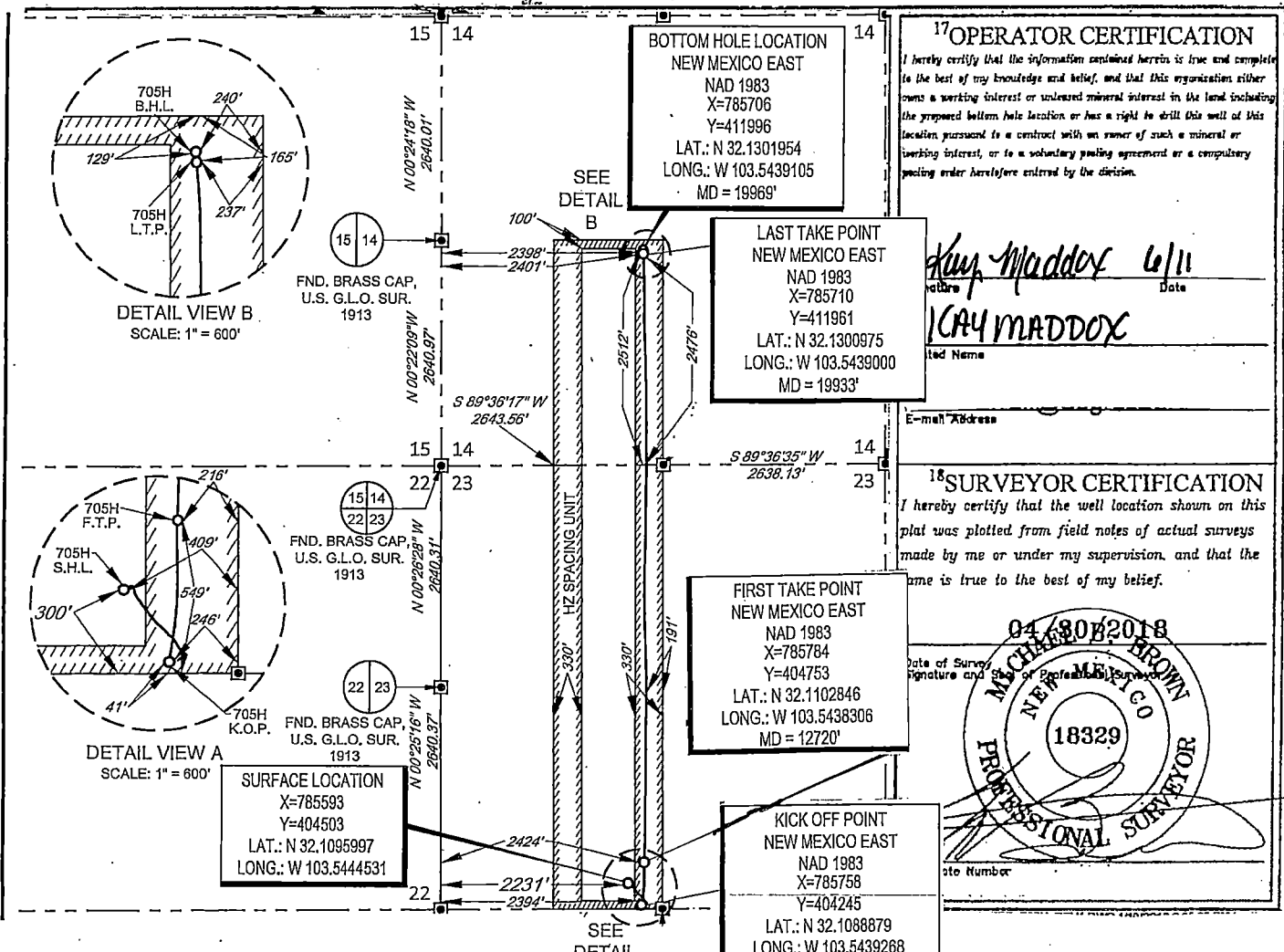
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	23	25-S	33-E	-	300'	SOUTH	2231'	WEST	LEA

¹¹Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
K	14	25-S	33-E	-	2512'	SOUTH	2398'	WEST	LEA

¹² Dedicated Acres 240.00	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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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.





EOG Resources - Midland

Lea County, NM (NAD 83 NME)

Caballo 23 Fed

#705H

OH

Design: OH

Midland PVA

26 March, 2019



Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #705H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25 @ 3367.0usft
Site:	Caballo 23 Fed	MD Reference:	KB = 25 @ 3367.0usft
Well:	#705H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	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	Caballo 23 Fed		
Site Position:		Northing:	404,499.00 usft
From:	Map	Easting:	785,117.00 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 6' 34.558 N
		Longitude:	103° 32' 45.566 W
		Grid Convergence:	0.42 °

Well	#705H		
Well Position	+N-S	0.0 usft	Northing:
	+E-W	0.0 usft	Easting:
Position Uncertainty	0.0 usft		Wellhead Elevation:
			usft
			Latitude:
			Longitude:
			Ground Level:

Wellbore	OH		
Magnetics	Model Name	Sample Date	Declination
	IGRF2015	8/15/2018	(°)
			Dip Angle
			(°)
			Field Strength
			(nT)
			6.81
			59.95
			47,754.25856828

Design	OH		
Audit Notes:			
Version:	1.0	Phase:	ACTUAL
		Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N-S	+E-W
	(usft)	(usft)	(usft)
	0.0	0.0	0.0
			Direction
			(°)
			1.11

Survey Program	Date	3/26/2019		
From	To	Survey (Wellbore)	Tool Name	Description
(usft)	(usft)			
158.0	19,970.0	Driltech MWD (OH)	MWD	OWSG MWD - Standard



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Site:	Caballo 23 Fed	MD Reference:	KB = 25 @ 3367.0usft
Well:	#705H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14

Survey												
MD (usft)	Inc (")	Azi (azimuth) (")	TVD (usft)	NIS (usft)	EW (usft)	DLag ("/100usft)	Build ("/100usft)	Turn ("/100usft)	High to Plan (usft)	Right to Plan (usft)		
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.0	0.0		0.0
158.0	0.44	289.25	158.0	0.2	-0.6	0.28	0.28	0.00	-0.6	0.0		0.0
273.0	0.79	292.06	273.0	0.6	-1.7	0.31	0.30	2.44	-1.8	0.1		0.1
390.0	0.97	283.54	390.0	1.2	-3.4	0.19	0.15	-7.28	-3.6	-0.3		-0.3
449.0	1.14	289.60	449.0	1.5	-4.5	0.34	0.29	10.27	-4.7	0.1		0.1
568.0	1.32	281.87	567.9	2.2	-6.9	0.21	0.15	-6.50	-7.2	-0.7		-0.7
754.0	2.02	292.50	753.9	3.9	-12.1	0.41	0.38	5.72	-12.6	1.0		1.0
846.0	2.11	296.72	845.8	5.2	-15.1	0.19	0.10	4.59	-15.8	2.1		2.1
936.0	1.06	343.21	935.8	6.8	-16.8	1.76	-1.17	51.66	-11.3	14.1		14.1
1,027.0	0.70	30.50	1,026.8	8.1	-16.7	0.86	-0.40	51.97	1.5	18.5		18.5
1,162.0	1.87	89.76	1,161.7	8.5	-14.4	1.16	0.72	51.30	15.6	5.9		5.9
1,333.0	2.64	90.71	1,332.6	8.0	-8.0	0.60	0.57	-5.29	8.1	7.9		7.9
1,428.0	2.11	98.00	1,427.5	7.7	-4.1	0.64	-0.56	7.67	5.1	7.1		7.1
1,523.0	1.76	98.62	1,522.5	7.2	-0.9	0.37	-0.37	0.65	2.0	7.0		7.0
1,618.0	2.02	91.23	1,617.4	7.0	2.2	0.37	0.27	-7.78	-2.1	7.0		7.0
1,713.0	1.85	88.51	1,712.4	7.0	5.4	0.20	-0.18	-2.86	-5.6	6.9		6.9
1,808.0	1.58	86.84	1,807.3	7.1	8.3	0.29	-0.28	-1.76	-8.6	6.6		6.6
1,902.0	1.49	80.07	1,901.3	7.4	10.8	0.22	-0.10	-7.20	-11.9	5.4		5.4
1,997.0	1.32	83.59	1,996.3	7.7	13.1	0.20	-0.18	3.71	-13.8	6.2		6.2
2,092.0	1.49	76.12	2,091.2	8.1	15.3	0.26	0.18	-7.86	-16.9	4.2		4.2
2,187.0	1.76	73.21	2,186.2	8.9	17.9	0.30	0.28	-3.06	-19.7	3.3		3.3
2,282.0	1.41	69.35	2,281.2	9.7	20.4	0.38	-0.37	-4.06	-22.5	1.9		1.9
2,377.0	1.58	69.70	2,376.1	10.6	22.8	0.18	0.18	0.37	-25.0	2.0		2.0
2,471.0	1.49	65.74	2,470.1	11.5	25.1	0.15	-0.10	-4.21	-27.6	0.2		0.2
2,566.0	1.32	60.38	2,565.1	12.6	27.2	0.23	-0.18	-5.64	-29.8	-2.5		-2.5
2,662.0	1.41	57.39	2,661.0	13.7	29.1	0.12	0.09	-3.11	-31.9	-4.1		-4.1
2,758.0	3.17	152.32	2,755.0	12.1	31.3	3.81	1.87	100.99	-3.8	33.3		33.3



Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #705H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25 @ 3367.0usft
Site:	Caballo 23 Fed	MD Reference:	KB = 25 @ 3367.0usft
Well:	#705H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14

Survey											
MD (usft)	Inc (")	Azi (azimuth) (")	TVD (usft)	N/S (usft)	E/W (usft)	DLeg ("/100usft)	Bulld ("/100usft)	Turn ("/100usft)	High to Plan (usft)	Right to Plan (usft)	
2,851.0	3.08	149.77	2,849.8	7.5	33.8	0.17	-0.09	-2.68	-10.5	33.0	
2,946.0	2.99	146.25	2,944.7	3.3	36.5	0.22	-0.09	-3.71	-17.5	32.2	
3,041.0	5.01	173.50	3,039.5	-2.9	38.3	2.86	2.13	28.68	-7.0	37.6	
3,136.0	4.84	168.20	3,134.1	-10.9	39.7	0.68	-0.18	-7.68	-17.2	34.6	
3,232.0	4.84	151.88	3,229.8	-18.4	42.6	1.26	0.00	-14.92	-27.2	27.2	
3,326.0	5.36	145.55	3,323.4	-25.5	47.0	0.81	0.55	-6.73	-29.3	22.9	
3,421.0	4.57	141.15	3,418.1	-32.2	51.9	0.92	-0.83	-4.63	-29.2	20.3	
3,516.0	4.22	137.02	3,512.8	-37.7	56.6	0.50	-0.37	-4.35	-28.0	18.6	
3,611.0	3.96	142.56	3,607.5	-42.8	61.0	0.50	-0.27	5.83	-22.9	21.3	
3,706.0	4.48	144.93	3,702.3	-48.5	65.1	0.58	0.55	2.49	-19.1	21.7	
3,801.0	4.66	148.71	3,797.0	-54.8	69.3	0.37	0.19	3.88	-15.3	21.8	
3,896.0	3.96	143.62	3,891.7	-60.7	73.2	0.84	-0.74	-5.36	-14.4	19.7	
3,991.0	5.10	141.51	3,986.4	-66.7	77.8	1.21	1.20	-2.22	-12.7	18.9	
4,086.0	5.80	140.28	4,081.0	-73.7	83.5	0.75	0.74	-1.29	-12.2	18.7	
4,181.0	5.63	144.41	4,175.5	-81.2	89.2	0.47	-0.18	4.35	-10.3	19.4	
4,276.0	5.36	141.68	4,270.1	-88.4	94.7	0.40	-0.28	-2.87	-10.4	18.5	
4,371.0	6.07	140.54	4,364.6	-95.8	100.7	0.76	0.75	-1.20	-10.3	18.4	
4,466.0	6.16	139.22	4,459.1	-103.5	107.2	0.18	0.09	-1.39	-10.9	18.4	
4,561.0	6.07	140.01	4,553.5	-111.2	113.7	0.13	-0.09	0.83	-10.8	18.8	
4,656.0	7.21	133.24	4,647.9	-119.2	121.3	1.45	1.20	-7.13	-14.1	18.2	
4,750.0	8.62	129.90	4,741.0	-127.7	131.0	1.58	1.50	-3.55	-18.4	18.9	
4,845.0	8.62	133.24	4,834.9	-137.2	141.7	0.53	0.00	3.52	-21.7	21.8	
4,940.0	7.03	134.39	4,929.0	-146.1	151.0	1.68	-1.67	1.21	-24.4	23.5	
5,035.0	6.16	137.29	5,023.4	-153.9	158.6	0.98	-0.92	3.05	-24.2	25.7	
5,130.0	5.36	136.23	5,117.9	-160.9	165.1	0.85	-0.84	-1.12	-24.3	26.0	
5,224.0	5.36	133.42	5,211.5	-167.1	171.4	0.28	0.00	-2.99	-24.6	25.9	
5,319.0	5.36	130.96	5,306.1	-173.0	177.9	0.24	0.00	-2.58	-24.8	26.4	



Midland PVA

Company: EOG Resources - Midland
 Project: Lea County, NM (NAD 83 NME)
 Site: Caballo 23 Fed
 Well: #705H
 Wellbore: OH
 Design: OH

Local Co-ordinate Reference: Well #705H
 TVD Reference: KB = 25 @ 3367.0usft
 MD Reference: KB = 25 @ 3367.0usft
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Database: EDM 5000.14

Survey											
MD (usft)	Inc (")	Azi (azimuth) (")	TVD (usft)	N/S (usft)	EW (usft)	DLeg ("/100usft)	Build ("/100usft)	Turn ("/100usft)	High to Plan (usft)	Right to Plan (usft)	
5,414.0	5.80	145.90	5,400.6	-179.9	184.0	1.59	0.46	15.73	-16.4	32.2	
5,509.0	6.51	148.19	5,495.1	-188.5	189.5	0.79	0.75	2.41	-15.4	31.8	
5,604.0	6.51	145.37	5,589.5	-197.5	195.4	0.34	0.00	-2.97	-17.8	30.0	
5,699.0	6.16	144.93	5,683.9	-206.1	201.4	0.37	-0.37	-0.46	-18.6	29.2	
5,794.0	6.07	142.47	5,778.4	-214.2	207.4	0.29	-0.09	-2.59	-20.0	28.0	
5,889.0	5.89	143.97	5,872.8	-222.2	213.3	0.25	-0.19	1.58	-19.3	28.1	
5,983.0	4.57	140.89	5,966.5	-229.0	218.5	1.44	-1.40	-3.28	-19.5	26.9	
6,078.0	3.78	142.38	6,061.2	-234.4	222.8	0.84	-0.83	1.57	-16.9	27.3	
6,173.0	2.11	169.19	6,156.1	-238.6	225.0	2.23	-1.76	28.22	0.3	29.3	
6,268.0	1.76	169.37	6,251.0	-241.7	225.6	0.37	-0.37	0.19	1.2	27.2	
6,363.0	0.53	166.29	6,346.0	-243.6	226.0	1.30	-1.29	-3.24	-0.9	26.6	
6,458.0	1.06	12.48	6,441.0	-243.2	226.3	1.64	0.56	-161.91	-11.4	-24.4	
6,553.0	1.08	5.45	6,536.0	-241.4	226.6	0.14	0.00	-7.40	-10.1	-25.7	
6,647.0	0.88	12.68	6,630.0	-239.9	226.8	0.23	-0.19	7.67	-14.8	-24.2	
6,743.0	0.88	7.74	6,726.0	-238.4	227.1	0.08	0.00	-5.12	-14.1	-25.4	
6,838.0	0.79	3.86	6,820.9	-237.0	227.2	0.11	-0.09	-3.98	-13.8	-26.3	
6,933.0	0.70	354.11	6,915.9	-235.8	227.2	0.16	-0.09	-10.37	-10.3	-28.4	
7,028.0	0.62	339.35	7,010.9	-234.7	227.0	0.20	-0.08	-15.54	-3.8	-30.3	
7,123.0	0.53	333.72	7,105.9	-233.9	226.6	0.11	-0.09	-5.93	-1.8	-30.6	
7,217.0	0.62	347.79	7,199.9	-233.0	226.3	0.18	0.10	14.97	-10.1	-29.1	
7,312.0	0.70	343.57	7,294.9	-231.9	226.0	0.10	0.08	-4.44	-9.0	-29.8	
7,407.0	0.62	349.10	7,389.9	-230.9	225.8	0.11	-0.08	5.82	-12.9	-28.7	
7,502.0	0.70	333.37	7,484.9	-229.8	225.4	0.21	0.08	-16.56	-5.7	-31.3	
7,596.0	0.62	331.35	7,578.9	-228.9	224.9	0.09	-0.09	-2.15	-5.7	-31.5	
7,691.0	0.44	339.52	7,673.8	-228.1	224.5	0.21	-0.19	8.60	-11.0	-30.3	
7,786.0	0.53	319.22	7,768.9	-227.4	224.1	0.20	0.09	-21.37	-0.6	-32.4	
7,881.0	0.18	297.34	7,863.9	-227.0	223.7	0.39	-0.37	-23.03	11.0	-30.4	



Midland PVA

Company: EOG Resources - Midland
 Project: Lea County, NM (NAD 83 NME)
 Site: Caballo 23 Fed
 Well: #705H
 Wellbore: OH
 Design: OH

Local Co-ordinate Reference: Well #705H
 TVD Reference: KB = 25 @ 3367.0usft
 MD Reference: KB = 25 @ 3367.0usft
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Database: EDM 5000.14

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	EW (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)	
7,976.0	0.26	212.17	7,958.9	-227.1	223.5	0.32	0.08	-89.65	31.0	8.2	
8,070.0	0.53	201.80	8,052.9	-227.7	223.2	0.30	0.29	-11.03	28.4	13.6	
8,165.0	0.79	189.41	8,147.9	-228.8	222.9	0.31	0.27	-13.04	23.7	19.3	
8,261.0	0.97	185.63	8,243.9	-230.2	222.7	0.20	0.19	-3.94	20.9	20.8	
8,355.0	0.79	154.25	8,337.9	-231.6	222.9	0.54	-0.19	-33.38	5.7	28.2	
8,451.0	0.79	149.59	8,433.9	-232.8	223.5	0.07	0.00	-4.85	2.1	28.5	
8,546.0	0.53	152.84	8,528.8	-233.7	224.1	0.28	-0.27	3.42	2.6	28.4	
8,641.0	0.53	168.14	8,623.8	-234.5	224.4	0.15	0.00	16.11	9.1	26.8	
8,736.0	0.53	166.20	8,718.8	-235.4	224.6	0.02	0.00	-2.04	7.4	27.1	
8,830.0	0.62	148.80	8,812.8	-236.3	224.9	0.21	0.10	-18.51	-2.0	27.9	
8,925.0	0.79	151.61	8,907.8	-237.3	225.5	0.18	0.18	2.96	-1.8	28.0	
9,020.0	0.88	158.38	9,002.8	-238.5	226.1	0.14	0.09	7.13	0.1	28.1	
9,115.0	0.62	135.71	9,097.8	-239.6	226.7	0.41	-0.27	-23.86	-11.9	25.7	
9,210.0	0.88	152.05	9,192.8	-240.6	227.4	0.35	0.27	17.20	-5.4	28.2	
9,304.0	1.41	238.71	9,286.8	-241.8	226.8	1.72	0.56	92.19	26.6	7.8	
9,399.0	1.06	241.26	9,381.8	-242.8	225.0	0.37	-0.37	2.68	24.9	6.6	
9,494.0	0.97	235.29	9,476.7	-243.7	223.6	0.15	-0.09	-6.28	22.4	9.1	
9,589.0	1.23	256.91	9,571.7	-244.4	221.9	0.51	0.27	22.76	22.4	0.5	
9,683.0	1.41	272.55	9,665.7	-244.6	219.8	0.43	0.19	16.64	19.6	-5.3	
9,778.0	1.76	267.19	9,760.7	-244.6	217.1	0.40	0.37	-5.64	17.3	-3.5	
9,873.0	2.02	276.68	9,855.6	-244.5	214.0	0.43	0.27	9.99	13.4	-6.1	
9,968.0	2.02	257.87	9,950.6	-244.6	210.7	0.69	0.00	-19.80	11.4	-2.0	
10,062.0	2.37	240.29	10,044.5	-246.0	207.4	0.80	0.37	-18.70	8.0	1.0	
10,157.0	1.76	239.50	10,139.4	-247.7	204.5	0.64	-0.64	-0.83	4.5	1.1	
10,252.0	1.93	242.23	10,234.4	-249.2	201.8	0.20	0.18	2.87	1.5	1.0	
10,347.0	1.49	196.53	10,329.3	-251.1	200.0	1.46	-0.46	-48.11	-2.0	0.6	
10,441.0	0.88	214.81	10,423.3	-252.9	199.3	0.76	-0.65	19.45	-3.6	1.6	



Midland PVA

Company: EOG Resources - Midland
Project: Lea County, NM (NAD 83 NME)
Site: Caballo 23 Fed
Well: #705H
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well #705H
TVD Reference: KB = 25 @ 3367.0usft
MD Reference: KB = 25 @ 3367.0usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.14

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	NIS (usft)	E/W (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)
10,536.0	0.62	262.18	10,518.3	-253.5	188.3	0.88	-0.27	49.86	-2.3	4.3
10,631.0	1.06	185.71	10,613.3	-254.5	187.7	1.15	0.46	-80.49	-5.7	-1.7
10,726.0	1.06	251.90	10,708.3	-255.6	186.8	1.22	0.00	69.67	-5.1	5.3
10,821.0	1.41	259.89	10,803.3	-256.1	194.8	0.41	0.37	8.41	-6.3	6.1
10,916.0	1.49	239.15	10,888.2	-256.9	192.6	0.56	0.08	-21.83	-10.4	3.0
11,010.0	1.85	253.92	10,982.2	-258.0	180.1	0.59	0.38	15.71	-12.0	5.9
11,105.0	2.20	275.10	11,067.1	-258.2	186.8	0.86	0.37	22.29	-12.3	10.4
11,199.0	2.46	285.12	11,161.1	-257.6	183.1	0.51	0.28	10.66	-14.1	12.7
11,294.0	1.93	278.09	11,276.0	-256.8	179.5	0.62	-0.56	-7.40	-19.2	10.6
11,484.0	2.11	265.50	11,465.9	-257.2	173.0	0.43	0.09	-11.89	-28.2	1.2
11,579.0	1.93	251.63	11,560.8	-258.2	169.8	0.24	-0.19	-4.07	-31.6	-0.8
11,685.0	1.32	267.37	11,666.8	-258.8	166.8	0.71	-0.58	14.85	-33.6	8.3
11,807.0	0.62	248.29	11,788.8	-259.1	164.8	0.62	-0.57	-15.64	-36.4	-3.6
11,902.0	0.18	38.59	11,883.8	-259.2	164.4	0.82	-0.46	158.21	30.1	21.5
11,997.0	6.24	15.12	11,978.6	-254.1	165.9	6.40	6.38	-24.71	13.7	31.6
12,092.0	21.19	10.46	12,070.6	-232.1	170.4	15.77	15.74	-4.91	-2.5	30.4
12,186.0	36.49	6.77	12,152.7	-187.3	176.8	16.38	16.28	-3.83	-23.6	25.9
12,281.0	43.26	7.56	12,225.6	-126.9	184.4	7.15	7.13	0.83	-42.4	19.7
12,376.0	49.07	4.31	12,291.3	-58.8	191.4	6.59	6.12	-3.42	-51.9	10.1
12,470.0	60.85	359.39	12,345.2	17.9	193.6	13.24	12.53	-5.23	-54.2	4.4
12,565.0	67.01	356.33	12,387.0	103.2	191.9	6.56	6.48	-1.12	-49.8	5.3
12,660.0	71.31	359.65	12,420.8	192.0	180.4	4.71	4.53	1.39	-33.2	6.7
12,754.0	77.38	1.41	12,446.1	282.4	191.2	6.70	6.46	1.87	-9.2	5.1
12,849.0	86.88	0.27	12,459.0	375.4	192.6	10.18	10.11	-1.21	3.9	3.0
12,942.0	87.23	0.18	12,463.8	469.3	193.0	0.38	0.37	-0.10	9.0	2.0
13,037.0	90.92	0.88	12,465.3	564.3	193.8	3.95	3.88	0.74	10.7	0.4
13,132.0	91.71	0.44	12,463.2	659.2	194.9	0.95	0.83	-0.46	8.8	-1.4



Midland PVA

Company: EOG Resources - Midland
 Project: Lea County, NM (NAD 83 NME)
 Site: Caballo 23 Fed
 Well: #705H
 Wellbore: OH
 Design: OH

Local Co-ordinate Reference: Well #705H
 TVD Reference: KB = 25 @ 3367.0usft
 MD Reference: KB = 25 @ 3367.0usft
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Database: EDM 5000.14

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Bulld (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)	
13,227.0	91.10	359.91	12,460.8	754.2	195.2	0.85	-0.64	-0.56	6.7	-2.3	
13,322.0	89.25	359.83	12,460.5	849.2	195.0	1.95	-1.95	-0.08	6.7	-2.8	
13,417.0	90.04	0.62	12,461.1	944.2	195.4	1.18	0.83	0.83	7.5	-3.8	
13,512.0	88.81	0.70	12,462.1	1,039.2	196.5	1.30	-1.29	0.08	8.7	-5.6	
13,607.0	89.16	0.53	12,463.8	1,134.2	197.5	0.41	0.37	-0.18	10.6	-7.3	
13,702.0	90.48	1.06	12,464.1	1,229.1	198.8	1.50	1.39	0.56	11.2	-9.3	
13,797.0	88.29	1.06	12,465.1	1,324.1	200.6	2.31	-2.31	0.00	12.4	-11.7	
13,892.0	88.29	358.77	12,467.9	1,419.1	200.4	2.41	0.00	-2.41	15.5	-12.2	
13,986.0	89.60	358.51	12,469.6	1,513.0	198.2	1.42	1.39	-0.28	17.5	-10.7	
14,081.0	90.84	358.60	12,469.3	1,608.0	195.8	1.31	1.31	0.09	17.4	-9.0	
14,176.0	91.36	358.56	12,467.5	1,703.0	194.3	1.15	0.55	1.01	15.8	-8.1	
14,271.0	88.99	0.44	12,467.2	1,797.9	194.3	2.66	-2.49	0.93	15.7	-8.8	
14,365.0	88.99	0.44	12,468.8	1,891.9	195.0	0.00	0.00	0.00	17.6	-10.2	
14,460.0	88.81	0.97	12,470.6	1,986.9	196.2	0.59	-0.19	0.56	19.7	-12.0	
14,555.0	89.34	0.79	12,472.2	2,081.9	197.6	0.59	0.56	-0.19	21.7	-14.1	
14,650.0	90.92	1.85	12,472.0	2,176.9	199.8	2.00	1.66	1.12	22.0	-17.0	
14,744.0	91.01	359.91	12,470.4	2,270.8	201.2	2.07	0.10	-2.06	20.8	-19.1	
14,839.0	88.55	357.63	12,470.7	2,365.8	199.2	3.53	-2.59	-2.40	21.6	-17.7	
14,934.0	91.10	359.04	12,471.0	2,460.7	196.5	3.07	2.66	1.48	22.4	-15.7	
15,028.0	91.01	358.60	12,469.3	2,554.7	194.5	0.48	-0.10	-0.47	21.1	-14.4	
15,123.0	88.99	357.72	12,469.3	2,649.6	191.5	2.32	-2.13	-0.93	21.6	-12.0	
15,218.0	89.52	357.10	12,470.5	2,744.5	187.2	0.86	0.56	-0.65	23.2	-8.4	
15,313.0	90.31	358.68	12,470.7	2,839.5	183.7	1.86	0.83	1.66	23.8	-5.6	
15,408.0	89.96	358.68	12,470.5	2,934.4	181.5	0.37	-0.37	0.00	24.1	-4.0	
15,502.0	88.72	358.07	12,471.5	3,028.4	178.8	1.47	-1.32	-0.65	25.6	-2.0	
15,597.0	89.69	357.19	12,472.9	3,123.3	174.9	1.38	1.02	-0.93	27.4	1.2	
15,692.0	90.92	358.24	12,472.4	3,218.2	171.1	1.70	1.29	1.11	27.3	4.3	



Midland PVA

Company: EOG Resources - Midland
 Project: Lea County, NM (NAD 83 NME)
 Site: Caballo 23 Fed
 Well: #705H
 Wellbore: OH
 Design: OH

Local Co-ordinate Reference: Well #705H
 TVD Reference: KB = 25 @ 3367.0usft
 MD Reference: KB = 25 @ 3367.0usft
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Database: EDM 5000.14

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)	
15,787.0	89.43	358.16	12,472.1	3,313.2	168.1	1.57	-1.57	-0.08	27.5	6.6	
15,881.0	90.57	359.04	12,472.1	3,407.1	165.8	1.53	1.21	0.94	27.9	8.3	
15,976.0	91.36	359.21	12,470.5	3,502.1	164.4	0.85	0.83	0.18	26.8	9.0	
16,071.0	91.01	359.30	12,468.5	3,597.1	163.1	0.38	-0.37	0.09	25.3	9.6	
16,166.0	90.84	1.58	12,467.0	3,692.1	163.9	2.41	-0.18	2.40	24.2	8.2	
16,260.0	89.87	2.64	12,466.4	3,786.0	167.3	1.53	-1.03	1.13	24.1	4.1	
16,355.0	90.13	2.64	12,466.4	3,880.9	171.7	0.27	0.27	0.00	24.5	-1.0	
16,450.0	89.87	0.97	12,466.4	3,975.9	174.7	1.78	-0.27	-1.76	25.0	-4.6	
16,545.0	89.34	359.21	12,467.0	4,070.8	174.8	1.93	-0.56	-1.85	26.1	-5.5	
16,640.0	89.34	359.04	12,468.1	4,165.8	173.4	0.18	0.00	-0.18	27.7	-4.7	
16,734.0	89.43	0.18	12,469.1	4,259.8	172.8	1.22	0.10	1.21	29.3	-4.7	
16,829.0	88.99	359.91	12,470.5	4,354.8	172.8	0.54	-0.46	-0.28	31.1	-5.5	
16,924.0	90.75	0.35	12,470.7	4,449.8	173.0	1.91	1.85	0.46	31.9	-6.3	
17,018.0	92.07	0.62	12,468.4	4,543.8	173.8	1.43	1.40	0.29	30.1	-7.8	
17,113.0	92.24	359.91	12,464.8	4,638.7	174.3	0.77	0.18	-0.75	27.1	-8.9	
17,208.0	91.80	1.14	12,461.4	4,733.6	175.2	1.37	-0.46	1.29	24.3	-10.5	
17,303.0	90.22	0.09	12,459.8	4,828.6	176.2	2.00	-1.66	-1.11	23.1	-12.1	
17,398.0	88.55	0.09	12,460.8	4,923.6	176.3	1.76	-1.76	0.00	24.7	-13.0	
17,493.0	89.16	0.35	12,462.7	5,018.6	176.7	0.70	0.64	0.27	27.1	-14.0	
17,588.0	89.16	358.77	12,464.1	5,113.6	176.0	1.66	0.00	-1.66	29.0	-14.0	
17,683.0	90.75	359.91	12,464.1	5,208.6	174.9	2.06	1.67	1.20	29.6	-13.5	
17,778.0	91.89	359.47	12,462.0	5,303.5	174.3	1.29	1.20	-0.46	28.0	-13.7	
17,872.0	91.36	0.00	12,459.3	5,397.5	173.9	0.80	-0.56	0.56	25.9	-13.9	
17,967.0	90.75	359.21	12,457.5	5,492.5	173.3	1.05	-0.64	-0.83	24.6	-13.9	
18,062.0	89.25	359.12	12,457.5	5,587.5	171.9	1.58	-1.58	-0.09	25.2	-13.2	
18,157.0	90.22	359.04	12,458.0	5,682.4	170.3	1.02	1.02	-0.08	26.2	-12.4	
18,251.0	90.04	358.86	12,457.8	5,776.4	168.6	0.27	-0.19	-0.19	26.5	-11.3	



Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #705H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25 @ 3367.0usft
Site:	Caballo 23 Fed	MD Reference:	KB = 25 @ 3367.0usft
Well:	#705H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)	
18,346.0	90.48	359.74	12,457.3	5,871.4	167.5	1.04	0.46	0.93	26.4	-10.8	
18,441.0	89.52	358.42	12,457.3	5,966.4	165.9	1.72	-1.01	-1.39	26.5	-10.0	
18,536.0	91.01	357.80	12,458.9	6,061.3	162.8	1.70	1.57	-0.65	26.2	-7.5	
18,631.0	90.48	358.07	12,455.7	6,156.3	159.4	0.63	-0.56	0.28	25.1	-4.8	
18,727.0	89.60	358.24	12,455.6	6,252.2	156.3	0.93	-0.92	0.18	25.1	-2.4	
18,822.0	90.40	358.60	12,455.6	6,347.2	153.7	0.92	0.84	0.38	25.2	-0.4	
18,916.0	89.52	357.19	12,455.7	6,441.1	150.2	1.77	-0.94	-1.50	25.4	2.4	
19,011.0	88.99	356.31	12,456.9	6,536.0	144.8	1.08	-0.56	-0.93	26.8	7.1	
19,106.0	91.01	357.63	12,456.9	6,630.8	139.8	2.54	2.13	1.39	26.9	11.4	
19,201.0	91.45	358.68	12,454.9	6,725.7	136.8	1.20	0.46	1.11	24.9	13.8	
19,296.0	92.15	0.53	12,451.9	6,820.7	136.1	2.08	0.74	1.95	22.1	13.8	
19,391.0	91.01	0.62	12,449.3	6,915.6	137.1	1.20	-1.20	0.09	19.6	12.2	
19,486.0	89.08	359.12	12,449.2	7,010.6	136.8	2.57	-2.03	-1.58	19.6	11.7	
19,581.0	89.25	358.68	12,450.6	7,105.6	135.0	0.50	0.18	-0.46	21.1	12.9	
19,676.0	90.57	359.65	12,450.7	7,200.6	133.6	1.72	1.39	1.02	21.3	13.6	
19,771.0	89.25	356.84	12,450.9	7,295.5	130.7	3.27	-1.39	-2.96	21.6	15.8	
19,865.0	88.90	354.29	12,452.4	7,389.2	123.5	2.74	-0.37	-2.71	23.3	22.4	
19,905.0	88.08	354.38	12,453.1	7,429.0	119.5	0.50	0.45	0.22	24.0	26.1	
19,970.0	89.08	354.38	12,454.1	7,493.7	113.1	0.00	0.00	0.00	25.1	32.0	



Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #705H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25 @ 3367.0usft
Site:	Cabello 23 Fed	MD Reference:	KB = 25 @ 3367.0usft
Well:	#705H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/S (usft)	+E/W (usft)	
11,951.0	11,932.7	-257.7	164.9	KOP, MD:11951.0', TVD:11932.7', N/S:-257.7', E/W:164.9', INC:3.30
12,165.4	12,135.8	-199.0	175.4	FTP Crossing, MD:12165.4', TVD:12135.8', N/S:-199.0', E/W:175.4', INC:33.13
19,905.0	12,453.1	7,429.0	119.5	Last MWD Survey (MD=19905.0')
19,970.0	12,454.1	7,493.7	113.1	Projection to Bit (MD=19970.0')

Checked By:	Approved By:	Date:
-------------	--------------	-------



Lea County, NM (NAD 83 NME)

Caballo 23 Fed #705H

Plan #1

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: #705H

KB = 25 @ 3367.0usft
Northing 404503.00 Easting 765993.00 Latitude 32° 0' 34.503 N Longitude 103° 32' 40.031 W

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSeet	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	3000.0	0.00	0.00	3000.0	0.0	0.0	0.00	0.00	0.0	
3	3299.9	6.00	141.23	3299.3	-12.2	9.8	2.00	141.23	-12.0	
4	6056.3	6.00	141.23	6040.7	-236.8	190.2	0.00	0.00	-233.1	
5	6356.2	0.00	0.00	6340.0	-249.0	200.0	2.00	180.00	-245.1	
6	11994.2	0.00	0.00	11978.0	-249.0	200.0	0.00	0.00	-245.1	
7	12745.4	90.15	359.59	12455.5	229.7	196.6	12.00	359.59	233.4	
8	14485.6	90.15	359.59	12451.0	1969.8	184.3	0.00	0.00	1973.0	TGT#1(Caballo 23 Fed Com #705H)
9	14492.0	90.27	359.59	12451.0	1976.2	184.2	2.00	0.00	1979.4	
10	16573.4	90.27	359.59	12441.0	4057.5	169.5	0.00	0.00	4060.0	TGT#2(Caballo 23 Fed Com #705H)
11	16575.8	90.32	359.59	12441.0	4059.9	169.5	2.00	0.00	4062.5	
12	18344.0	90.32	359.59	12431.0	5828.1	156.9	0.00	0.00	5830.0	TGT#3(Caballo 23 Fed Com #705H)
13	18356.9	90.07	359.59	12431.0	5840.9	156.8	2.00	180.00	5842.9	
14	20029.0	90.07	359.59	12429.0	7513.0	145.0	0.00	0.00	7514.4	PBHL (Caballo 23 Fed Com #705H)



Azimuths to Grid North
True North: 0.42°
Magnetic North: 6.39°
Magnetic Field
Strength: 47754.3a11
Dip Angle: 59.95°
Date: 8/15/2016
Model: IGRF2015

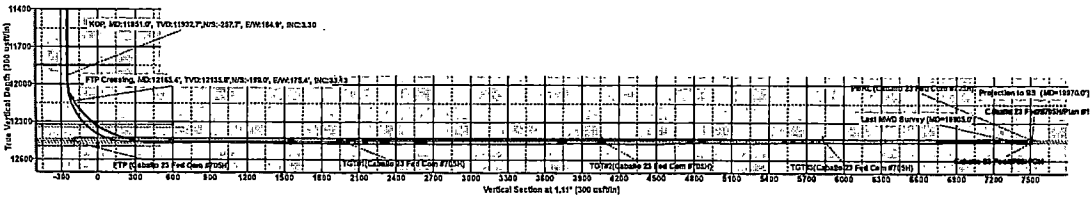
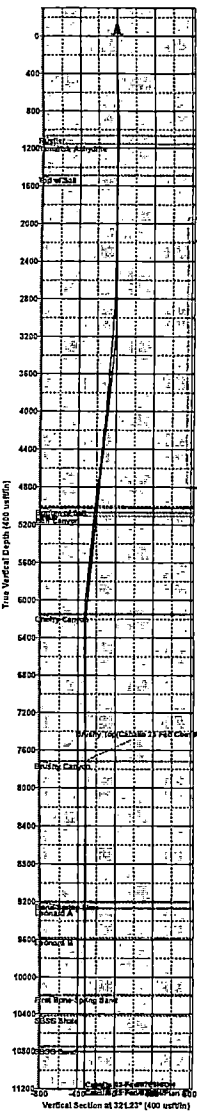
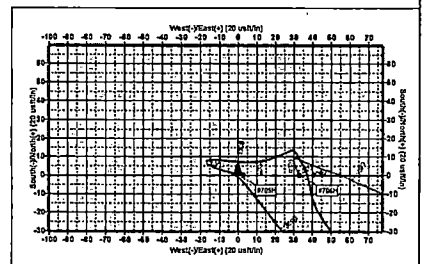
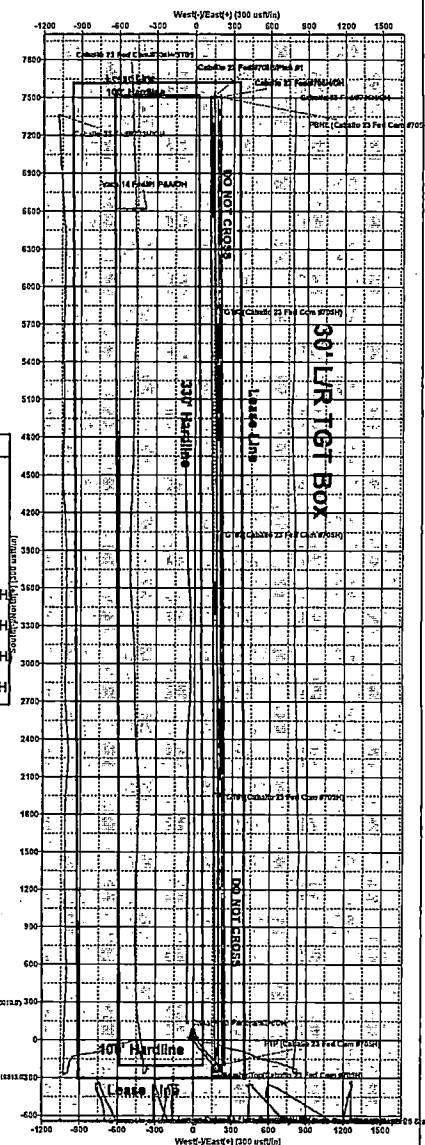
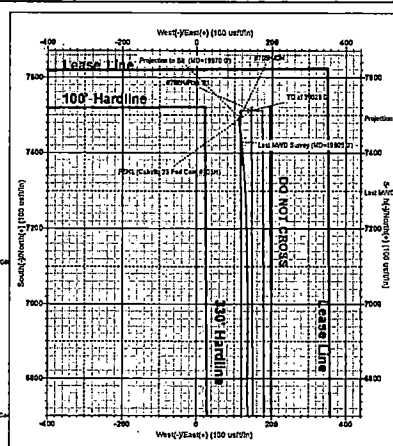
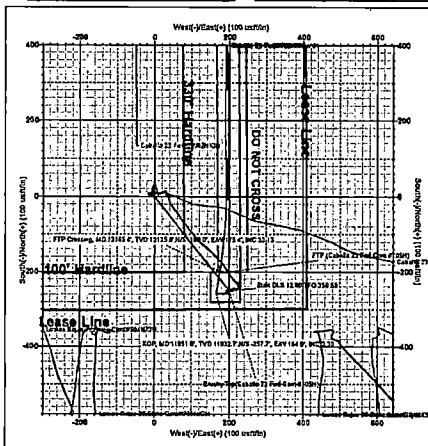
To convert a Magnetic Direction to a Grid Direction, Add 6.39°
To convert a Magnetic Direction to a True Direction, Add 6.81° East
To convert a True Direction to a Grid Direction, Subtract 0.42°

CASING DETAILS

No casing data is available

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting
Brushy Top(Caballo 23 Fed Com #705H)	7713.0	-249.0	200.0	404254.00	765793.00
PBHL (Caballo 23 Fed Com #705H)	12429.0	7513.0	145.0	412016.00	765738.00
TGT#1(Caballo 23 Fed Com #705H)	12451.0	6228.1	169.5	410331.10	765749.34
TGT#2(Caballo 23 Fed Com #705H)	12441.0	4057.5	169.5	408569.50	765762.48
TGT#3(Caballo 23 Fed Com #705H)	12451.0	5828.1	156.9	408472.80	765777.28
FTP (Caballo 23 Fed Com #705H)	12456.0	-193.0	200.0	404304.00	765753.00



Form 3160-5
(June 2015)UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM 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.*5. Lease Serial No.
NMNM108503

6. If Indian, Allottee or Tribe Name

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

8. Well Name and No.
CABALLO 23 FED 705H9. API Well No.
30-025-45584-00-X110. Field and Pool or Exploratory Area
RED HILLS11. County or Parish, State
LEA COUNTY, NM**SUBMIT IN TRIPLICATE - Other instructions on page 2**

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other2. Name of Operator
EOG RESOURCES INCORPORATED
Contact: KAY MADDOX
E-Mail: kay_maddox@eogresources.com3a. Address
PO BOX 2267
MIDLAND, TX 797023b. Phone No. (include area code)
Ph: 432-686-3658

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

Sec 23 T25S R33E SESW 300FSL 2231FWL
32.109600 N Lat, 103.544456 W Lon**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 Plans	☐ Plug and Abandon	☐ Temporarily Abandon	Production Start-up
	☐ 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 recompleat 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 recompleat 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.

03/25/2019 RIG RELEASED
03/28/2019 MIRU PREP TO FRAC, TEST VOID 5000 PSI, SEALS & FLANGES TO 8500 PSI
04/25/2019 BEGIN PERF & FRAC
05/06/2019 FINISH 24 STAGES PERF & FRAC 12,720 - 19,933', 1428 3 1/8" SHOTS FRAC W/18,628,170
LBS PROPPANT, 341,273 BBLs LOAD FLUID
05/09/2019 DRILLED OUT PLUGS AND CLEAN OUT WELLBORE
05/11/2019 OPENED WELL TO FLOWBACK
DATE OF FIRST PRODUCTION

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

Electronic Submission #468554 verified by the BLM Well Information System
For EOG RESOURCES INCORPORATED, sent to the Hobbs
Committed to AFMSS for processing by PRISCILLA PEREZ on 06/11/2019 (19PP2138SE)

Name (Printed/Typed) KAY MADDOX

Title REGULATORY SPECIALIST

Signature (Electronic Submission)

Date 06/11/2019

THIS SPACE FOR FEDERAL OR STATE OFFICE USEApproved By **ACCEPTED**JONATHON SHEPARD
Title PETROELUM ENGINEER

Date 06/12/2019

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 ****

PM

Revisions to Operator-Submitted EC Data for Sundry Notice #468554

	Operator Submitted	BLM Revised (AFMSS)
Sundry Type:	STARTUP SR	STARTUP SR
Lease:	NMNM108503	NMNM108503
Agreement:		
Operator:	EOG RESOURCES, INC PO BOX 2267 ATTENTION; KAY MADDOX MIDLAND, TX 79702 Ph: 432-686-3658	EOG RESOURCES INCORPORATED PO BOX 2267 MIDLAND, TX 79702 Ph: 432.686.3689
Admin Contact:	KAY MADDOX REGULATORY SPECIALIST E-Mail: kay_maddox@eogresources.com Cell: 432-638-8475 Ph: 432-686-3658	KAY MADDOX REGULATORY SPECIALIST E-Mail: kay_maddox@eogresources.com Cell: 432-638-8475 Ph: 432-686-3658
Tech Contact:	KAY MADDOX REGULATORY SPECIALIST E-Mail: kay_maddox@eogresources.com Cell: 432-638-8475 Ph: 432-686-3658	KAY MADDOX REGULATORY SPECIALIST E-Mail: kay_maddox@eogresources.com Cell: 432-638-8475 Ph: 432-686-3658
Location:		
State:	NM	NM
County:	LEA	LEA
Field/Pool:	BOBCAT DRAW;UPPER WOLFCA	RED HILLS
Well/Facility:	CABALLO 23 FEDERAL 705H Sec 23 T25S R33E Mer NMP SESW 300FSL 2231FWL 32.109599 N Lat, 103.544453 W Lon	CABALLO 23 FED 705H Sec 23 T25S R33E SESW 300FSL 2231FWL 32.109600 N Lat, 103.544456 W Lon

Bureau of Land Management

Hobbs Field Office

414 W. Taylor

Hobbs, New Mexico

505.393.3612

WATER PRODUCTION & DISPOSAL INFORMATION

Well: CABALLO 23 FEDERAL #705H 30-025-45584
CABALLO 23 FEDERAL #706H 30-025-45585
CABALLO 23 FEDERAL #709H 30-025-45588
CABALLO 23 FEDERAL #710H 30-025-45589
CABALLO 23 FEDERAL #711H 30-025-45623
Sec 23 T25S, R33E
LEA COUNTY, NEW MEXICO

1. Name of formations producing water on lease: WOLFCAMP
2. Amount of water produced from all formations in barrels per day 5000-6000 BHPD
3. How water is stored on lease Tanks: 4- 400 bbl tanks
4. How water is moved to disposal facility Pipeline/Trucked
5. Disposal Facility:
 - a. Facility Operators name EOG RESOURCES INC
 - b. Name of facility or well name & number
 - c. Water goes to EOG Water Gathering System, then to Lomas Rojas
Reuse pit to be recycled – some water disposed at
BLACK BEAR 36 STATE #5
30-025-40585
H-36-25S-33E
Permit no SWD 1359
 - d. Type of facility or wells SWD

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Submit Original
to Appropriate
District Office

GAS CAPTURE PLAN

Date: 06/11/2019

☐ Original

Operator & OGRID No.: EOG Resources Inc 7377

☒ Amended - Reason for Amendment: COMPLETED WELL

This Gas Capture Plan outlines actions to be taken by the Operator to reduce well/production facility flaring/venting for new completion (new drill, recomple to new zone, re-frac) activity.

Well(s)/Production Facility -- Name of facility

The well(s) that will be located at the production facility are shown in the table below.

Well Name	API	Well Location (ULSTR)	Footages	Expected MCF/D	Flared or Vented	Comments
CABALLO 23 FEDERAL #705H	30-025-45584	23-25S-33E	300' FSL & 2231' FWL	5000 MCFD	1083 mcf total flared	New Well

Gathering System and Pipeline Notification

Well(s) will be connected to a production facility after flowback operations are complete, if gas transporter system is in place. The gas produced from production facility is dedicated to ENTERPRISE & REGENCY and will be connected to EOG Resources Inc low/high pressure gathering system located in LEA County, New Mexico. It will require N/A' of pipeline to connect the facility to low/high pressure gathering system. EOG Resources Inc provides (periodically) to ENTERPRISE & REGENCY a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future. In addition, EOG Resources Inc and ENTERPRISE & REGENCY have periodic conference calls to discuss changes to drilling and completion schedules. Gas from these wells will be processed at ENTERPRISE & REGENCY Processing Plant located in LEA County, New Mexico. The actual flow of the gas will be based on compression operating parameters and gathering system pressures.

Flowback Strategy

After the fracture treatment/completion operations, well(s) will be produced to temporary production tanks and gas will be flared or vented. During flowback, the fluids and sand content will be monitored. When the produced fluids contain minimal sand, the wells will be turned to production facilities. Gas sales should start as soon as the wells start flowing through the production facilities, unless there are operational issues on ENTERPRISE & REGENCY system at that time. Based on current information, it is EOG Resources Inc belief the system can take this gas upon completion of the well(s).

Safety requirements during cleanout operations from the use of underbalanced air cleanout systems may necessitate that sand and non-pipeline quality gas be vented and/or flared rather than sold on a temporary basis.

Alternatives to Reduce Flaring

Below are alternatives considered from a conceptual standpoint to reduce the amount of gas flared.

- Power Generation – On lease
 - Only a portion of gas is consumed operating the generator, remainder of gas will be flared
- Compressed Natural Gas – On lease
 - Gas flared would be minimal, but might be uneconomical to operate when gas volume declines
- NGL Removal – On lease
 - Plants are expensive, residue gas is still flared, and uneconomical to operate when gas volume declines



EOG Resources, Inc.
P.O. Box 2267
Midland, TX 79702
(432) 686-3600

June 11, 2019

State of New Mexico
Oil Conservation Division – District 1
1625 N. French Drive
Hobbs, New Mexico 88240

Re: Request for exception to Rule 107 J
Tubingless Completion
CABALLO 23 FEDERAL #705H 30-025-45584

EOG Resources, Inc. requests an exception to NMOCD Rule 107 J regarding required production tubing. EOG requests a tubingless completion for the well listed above to allow greater flowback after frac stimulation.

The plan is to install production tubing as soon as flow decreases, which should occur within 6 months.

Thank you for your consideration of this request. If additional information is needed, please contact me at 432 686-3658.

Sincerely,

EOG Resources, Inc.

A handwritten signature in black ink that reads "Kay Maddox".

Kay Maddox
Regulatory Analyst

Intent ☐ As Drilled ☒

API # 30-025-45584		
Operator Name: EOG RESOURCES, INC	Property Name: CABALLO 23 FEDERAL	Well Number 705H

Kick Off Point (KOP)

UL N	Section 23	Township 25S	Range 33E	Lot	Feet 41	From N/S SOUTH	Feet 2394	From E/W WEST	County LEA
Latitude 32.1088879					Longitude 103.5439268			NAD 1983	

First Take Point (FTP)

UL N	Section 23	Township 25S	Range 33E	Lot	Feet 549	From N/S SOUTH	Feet 2424	From E/W WEST	County LEA
Latitude 32.1102846					Longitude 103.5438306			NAD 1983	

Last Take Point (LTP)

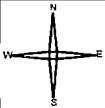
UL K	Section 14	Township 25S	Range 33E	Lot	Feet 2476	From N/S SOUTH	Feet 2401	From E/W WEST	County LEA
Latitude 32.1300975					Longitude 103.5439000			NAD 1983	

Is this well the defining well for the Horizontal Spacing Unit? ☐Is this well an infill well? ☐

If infill is yes please provide API if available, Operator Name and well number for Defining well for Horizontal Spacing Unit.

API # 30-025-43878		
Operator Name: EOG RESOURCES, INC	Property Name: CABALLO 23 FEDERAL	Well Number 704H

KZ 06/29/2018



EOG Resources, Inc.
CABALLO 23 FED COM CTB
N-23-25S-33E

7/18/2019 EPF

LEGEND

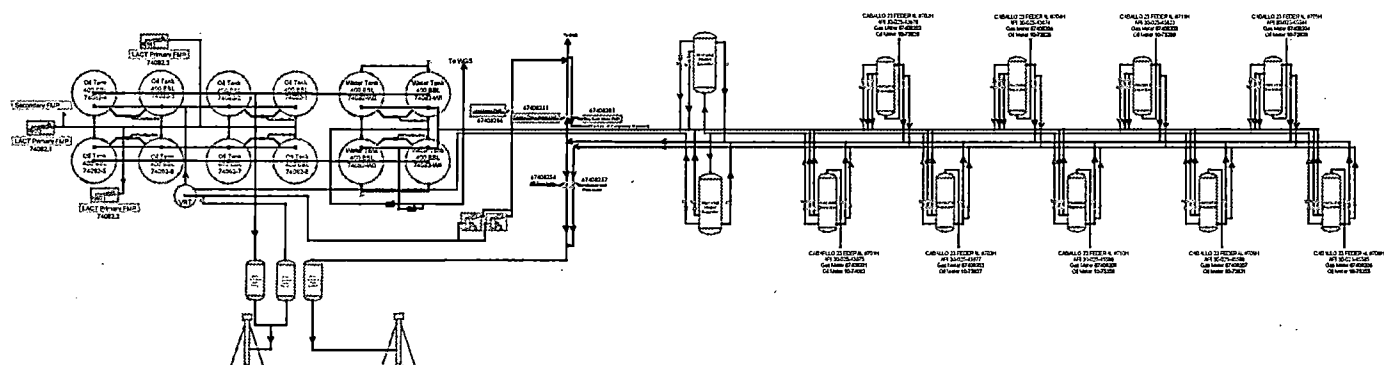
 Valve Open  Valve Closed  Valve Sealed  Orifice Meter	 Turbine/ Coriolis Meter  Oil  Gas  Water
---	--

FACILITY DIAGRAM
 Shown: Major equipment, vessels, process piping, and valves
 Not shown: Auxiliary process systems such as fuel/ pilot gas system, gas lift system, roll lines, recircul lines, vent lines, and small drain lines

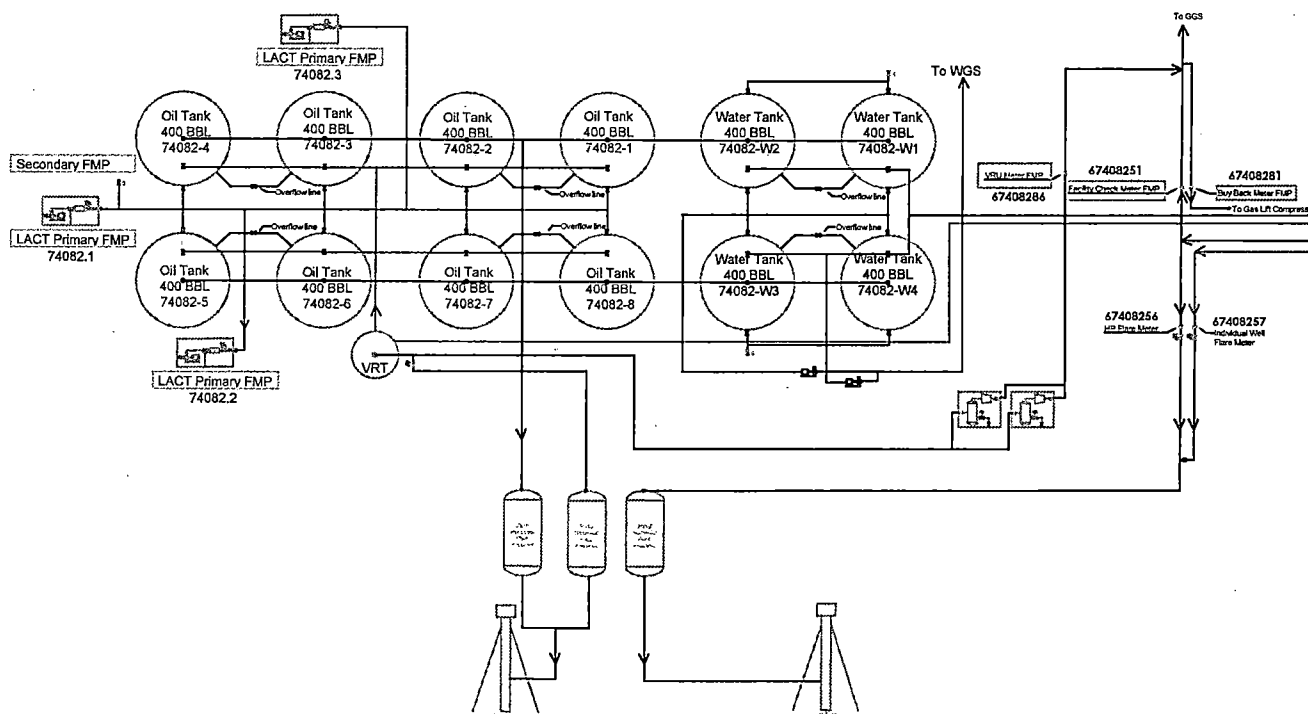
PRODUCTION PHASE: All valves that provide access to production are effectively sealed in the close position.

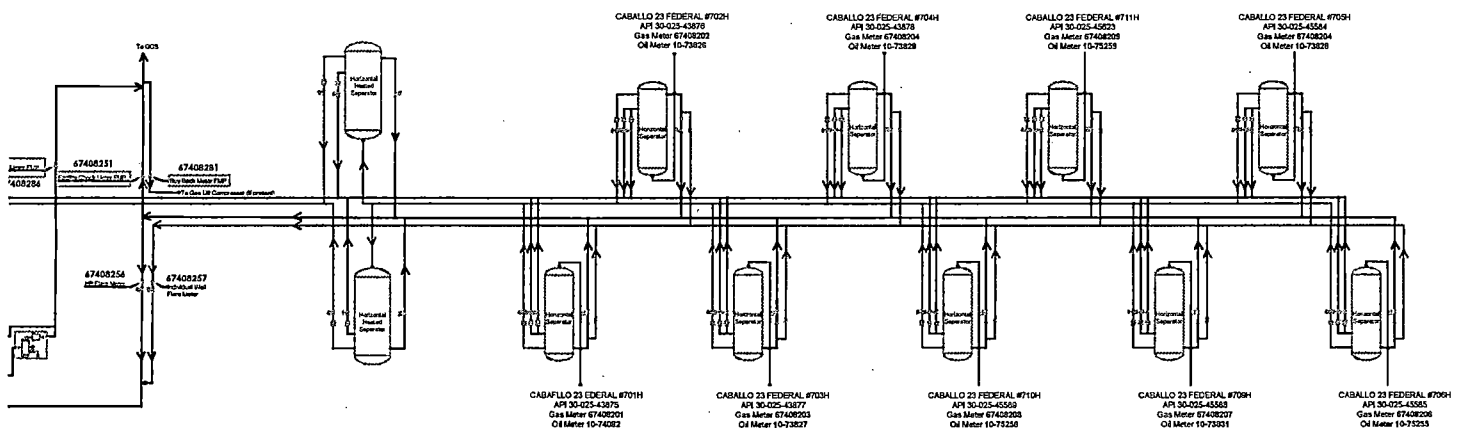
SALES THROUGH LACT UNITS: Sale is measured through LACT units. All other valves that provide access to production (load-out valves) are effectively sealed in the closed position.

WATER TANKS: If the possibility for oil to enter water tanks exists through common recirculating or equalizing lines, oil tanks are isolated from water tanks by valves effectively sealed in the closed position.



Facility Overview: Please see pages 2 and 3 for details.





District I

1625 N. French Dr., Hobbs, NM 88240

State of New Mexico
Energy, Minerals & Natural Resources

Form C-104

Revised August 1, 2011

District II 811 S. First St., Artesia, NM 88210

District III 1000 Rio Brazos Rd., Aztec, NM 87410

Oil Conservation Division

Submit one copy to appropriate District Office

District IV

1220 S. St. Francis Dr., Santa Fe, NM 87505

1220 South St. Francis Dr.
Santa Fe, NM 87505☐ AMENDED REPORT**I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT**

¹ Operator name and Address EOG RESOURCES INC PO BOX 2267 MIDLAND, TX 79702		² OGRID Number 7377
		³ Reason for Filing Code/ Effective Date NW 05/11/2019
⁴ API Number 30 - 025-45584	⁵ Pool Name BOBCAT DRAW; UPPER WOLFCAMP	⁶ Pool Code 98094
⁷ Property Code 38481	CABALLO 23 FEDERAL	⁹ Well Number 705H

II. ¹⁰ Surface Location

UL or lot no. N	Section 23	Township 25S	Range 33E	Lot Idn	Feet from the 300'	North/South SOUTH	Feet from the 2231'	East/West line WEST	County LEA
¹¹ Bottom Hole Location									
UL or lot no. K	Section 14	Township 25S	Range 33E	Lot Idn	Feet from the 2512'	North/South SOUTH	Feet from the 2398'	East/West line WEST	County LEA
¹² Lse Code S	¹³ Producing Method Code FLOWING	¹⁴ Gas Connection Date	¹⁵ C-129 Permit Number	¹⁶ C-129 Effective Date	¹⁷ C-129 Expiration Date				

III. Oil and Gas Transporters

¹⁸ Transporter OGRID	¹⁹ Transporter Name and Address	²⁰ O/G/W
372812	EOGRM	OIL
151618	ENTERPRISE FIELD SERVICES	GAS
298751	REGENCY FIELD SRVICES, LLC	GAS
36785	DCP MIDSTREAM	GAS

IV. Well Completion Data

²¹ Spud Date 02/23/2019	²² Ready Date 05/11/2019	²³ TD 19,970'	²⁴ PBDT 19,933'	²⁵ Perforations 12,720 - 19,933'	²⁶ DHC, MC
²⁷ Hole Size	²⁸ Casing & Tubing Size	²⁹ Depth Set	³⁰ Sacks Cement		
12 1/4"	9 5/8"	1,210'	660 SXS CL C/CIRC		
8 3/4"	7 5/8"	11,728'	1515 SXS CL C/29' ECHO		
6 3/4"	5 1/2"	19,950'	825 SXS CL H/TOC 7120' CBL		

V. Well Test Data

³¹ Date New Oil 05/11/2019	³² Gas Delivery Date 05/11/2019	³³ Test Date 05/19/2019	³⁴ Test Length 24HRS	³⁵ Tbg. Pressure	³⁶ Csg. Pressure 2111
³⁷ Choke Size 50	³⁸ Oil 2802 BOPD	³⁹ Water 6059 BWPD	⁴⁰ Gas 5547 MCFPD		⁴¹ Test Method

⁴² I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

Signature:

Kay Madrox

OIL CONSERVATION DIVISION

Approved by:

KS