

HOBBS OCD

OCT 03 2017

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

FORM APPROVED
OMB No. 1004-0137
Expires October 31, 2014

5. Lease Serial No.
NMNM122622

6. If Indian, Allottee or Tribe Name

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

8. Lease Name and Well No. (319664)
DOGWOOD 23 FED COM 704H

9. API Well No.

30-025-44095

10. Field and Pool, or Exploratory

SANDERS TANK; WPR WC

11. Sec., T. R. M. or Blk. and Survey or Area

SEC 23 / T26S / R33E / NMP

1a. Type of work: ☒ DRILL ☐ REENTER

1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone

2. Name of Operator
EOG RESOURCES INCORPORATED (7377)

3a. Address
1111 Bagby Sky Lobby2 Houston TX 77002

3b. Phone No. (include area code)
(713)651-7000

4. Location of Well (Report location clearly and in accordance with any State requirements.)

At surface SWSE / 200 FSL / 1630 FEL / LAT 32.0222438 / LONG -103.539856

At proposed prod. zone NWNE / 230 FNL / 1869 FEL / LAT 32.0500829 / LONG -103.5406249

14. Distance in miles and direction from nearest town or post office*
22 miles

12. County or Parish
LEA

13. State
NM

15. Distance from proposed*
location to nearest
property or lease line, ft.
200 feet
(Also to nearest drig. unit line, if any)

16. No. of acres in lease
1640

17. Spacing Unit dedicated to this well
320

18. Distance from proposed location*
to nearest well, drilling, completed, 513 feet
applied for, on this lease, ft.

19. Proposed Depth
12500 feet / 22575 feet

20. BLM/BIA Bond No. on file
FED: NM2308

21. Elevations (Show whether DF, KDB, RT, GL, etc.)
3318 feet

22. Approximate date work will start*
08/01/2017

23. Estimated duration
25 days

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, must be attached to this form:

1. Well plat certified by a registered surveyor.

2. A Drilling Plan.

3. A Surface Use Plan (if the location is on National Forest System Lands, the
SUPO must be filed with the appropriate Forest Service Office).

4. Bond to cover the operations unless covered by an existing bond on file (see
Item 20 above).

5. Operator certification

6. Such other site specific information and/or plans as may be required by the
BLM.

25. Signature
(Electronic Submission)

Name (Printed/Typed)
Stan Wagner / Ph: (432)686-3689

Date
03/07/2017

Title
Regulatory Specialist

Approved by (Signature)
(Electronic Submission)

Name (Printed/Typed)
Cody Layton / Ph: (575)234-5959

Date
09/26/2017

Title
Supervisor Multiple Resources

Office
CARLSBAD

Application approval 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.
Conditions of approval, if any, are attached.

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.

(Continued on page 2)

*(Instructions on page 2)

APPROVED WITH CONDITIONS

Ka
10/04/17

Double
Sided



U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT

Application Data Report

09/27/2017

APD ID: 10400010758

Submission Date: 03/07/2017

Highlighted data
reflects the most
recent changes

Operator Name: EOG RESOURCES INCORPORATED

Well Name: DOGWOOD 23 FED COM

Well Number: 704H

[Show Final Text](#)

Well Type: OIL WELL

Well Work Type: Drill

Section 1 - General

APD ID: 10400010758

Tie to previous NOS?

Submission Date: 03/07/2017

BLM Office: CARLSBAD

User: Stan Wagner

Title: Regulatory Specialsit

Federal/Indian APD: FED

Is the first lease penetrated for production Federal or Indian? FED

Lease number: NMNM122622

Lease Acres: 1640

Surface access agreement in place?

Allotted?

Reservation:

Agreement in place? NO

Federal or Indian agreement:

Agreement number:

Agreement name:

Keep application confidential? NO

Permitting Agent? NO

APD Operator: EOG RESOURCES INCORPORATED

Operator letter of designation:

Operator Info

Operator Organization Name: EOG RESOURCES INCORPORATED

Operator Address: 1111 Bagby Sky Lobby2

Zip: 77002

Operator PO Box:

Operator City: Houston

State: TX

Operator Phone: (713)651-7000

Operator Internet Address:

Section 2 - Well Information

Well in Master Development Plan? NO

Mater Development Plan name:

Well in Master SUPO? NO

Master SUPO name:

Well in Master Drilling Plan? NO

Master Drilling Plan name:

Well Name: DOGWOOD 23 FED COM

Well Number: 704H

Well API Number:

Field/Pool or Exploratory? Field and Pool

Field Name: RED HILLS

Pool Name: WC-025 S263327G

Is the proposed well in an area containing other mineral resources? USEABLE WATER

Operator Name: EOG RESOURCES INCORPORATED

Well Name: DOGWOOD 23 FED COM

Well Number: 704H

Describe other minerals:

Is the proposed well in a Helium production area? N

Use Existing Well Pad? NO

New surface disturbance?

Type of Well Pad: MULTIPLE WELL

Multiple Well Pad Name:

Number: 703H/704H

DOGWOOD 23 FED COM

Well Class: HORIZONTAL

Number of Legs: 1

Well Work Type: Drill

Well Type: OIL WELL

Describe Well Type:

Well sub-Type: INFILL

Describe sub-type:

Distance to town: 22 Miles

Distance to nearest well: 513 FT

Distance to lease line: 200 FT

Reservoir well spacing assigned acres Measurement: 320 Acres

Well plat: Dogwood_23_Fed_Com_704H_signed_C_102_03-07-2017.pdf

Well work start Date: 08/01/2017

Duration: 25 DAYS

Section 3 - Well Location Table

Survey Type: RECTANGULAR

Describe Survey Type:

Datum: NAD83

Vertical Datum: NAVD88

Survey number:

	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD
SHL Leg #1	200	FSL	163 0	FEL	26S	33E	23	Aliquot SWSE	32.02224 38	- 103.5398 56	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 122622	331 8	0	0
KOP Leg #1	50	FSL	185 5	FEL	26S	33E	23	Aliquot SWSE	32.02183 86	- 103.5405 875	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 122622	- 869 5	120 18	120 13
PPP Leg #1	330	FSL	186 9	FEL	26S	33E	23	Aliquot SWSE	32.02260 03	- 103.5406 282	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 122622	- 913 7	125 70	124 55



U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT

Drilling Plan Data Report

09/27/2017

APD ID: 10400010758

Submission Date: 03/07/2017

Highlighted data
reflects the most
recent changes

Operator Name: EOG RESOURCES INCORPORATED

Well Name: DOGWOOD 23 FED COM

Well Number: 704H

[Show Final Text](#)

Well Type: OIL WELL

Well Work Type: Drill

Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
17706	PERMIAN	3318	0	0	ANHYDRITE	NONE	No
17746	RUSTLER	2326	992	992	ANHYDRITE	NONE	No
17718	TOP SALT	-1342	1342	1342	SALT	NONE	No
17722	BASE OF SALT	-4952	4952	4952	SALT	NONE	No
17719	LAMAR	-5179	5179	5179	LIMESTONE	NONE	No
15332	BELL CANYON	-5218	5218	5218	SANDSTONE	NATURAL GAS,OIL	No
15316	CHERRY CANYON	-6290	6290	6290	SANDSTONE	NATURAL GAS,OIL	No
17713	BRUSHY CANYON	-7941	7941	7941	SANDSTONE	NATURAL GAS,OIL	No
17721	BONE SPRING LIME	-9415	9415	9415	LIMESTONE	NONE	No
15338	BONE SPRING 1ST	-10343	10343	10343	SANDSTONE	NATURAL GAS,OIL	No
17737	BONE SPRING 2ND	-10897	10897	10897	SANDSTONE	NATURAL GAS,OIL	No
17738	BONE SPRING 3RD	-11953	11953	11953	SANDSTONE	NATURAL GAS,OIL	No
17709	WOLFCAMP	-12374	12374	12374	SHALE	NATURAL GAS,OIL	Yes

Section 2 - Blowout Prevention

Operator Name: EOG RESOURCES INCORPORATED

Well Name: DOGWOOD 23 FED COM

Well Number: 704H

Pressure Rating (PSI): 10M

Rating Depth: 12500

Equipment: The minimum blowout preventer equipment (BOPE) shown in Exhibit #1 will consist of a single ram, mud cross and double ram-type (10,000 psi WP) preventer and an annular preventer (10000-psi WP). Both units will be hydraulically operated and the ram-type will be equipped with blind rams on bottom and drill pipe rams on top. All BOPE will be tested in accordance with Onshore Oil and Gas order No. 2.

Requesting Variance? YES

Variance request: Variance is requested to use a co-flex line between the BOP and choke manifold (instead of using a 4" OD steel line). Variance is requested to wave the centralizer requirements for the 7-5/8" FJ casing in the 8-3/4" hole size. An expansion additive will be utilized, in the cement slurry, for the entire length of the 8-3/4" hole interval to maximize cement bond and zonal isolation. Variance is also requested to wave any centralizer requirements for the 5-1/2" FJ casing in the 6-3/4" hole size. An expansion additive will be utilized, in the cement slurry, for the entire length of the 6-3/4" hole interval to maximize cement bond and zonal isolation.

Testing Procedure: Before drilling out of the surface casing, the ram-type BOP and accessory equipment will be tested to 5000/ 250 psig and the annular preventer to 5000/ 250 psig. The surface casing will be tested to 1500 psi for 30 minutes. Before drilling out of the intermediate casing, the ram-type BOP and accessory equipment will be tested to 5000/ 250 psig and the annular preventer to 5000/ 250 psig. The intermediate casing will be tested to 2000 psi for 30 minutes. Pipe rams will be operationally checked each 24-hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. A hydraulically operated choke will be installed prior to drilling out of the intermediate casing shoe.

Choke Diagram Attachment:

Dogwood 23 Fed Com 704H 5 M Choke Manifold Diagram (3-21-14)_03-02-2017.pdf

10M_Choke_Manifold_07-10-2017.pdf

BOP Diagram Attachment:

Dogwood 23 Fed Com 704H 5 M BOP Diagram (8-14-14)_03-02-2017.pdf

10M_BOPE_07-10-2017.pdf

Section 3 - Casing

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
1	INTERMEDIATE	9.875	7.625	NEW	API	N	0	1000	0	1000	3318	2318	1000	HCP-110	29.7	LTC	1.125	1.25	BUOY	1.6	BUOY	1.6
2	SURFACE	14.75	10.75	NEW	API	N	0	1020	0	1020	3318	2298	1020	J-55	40.5	STC	1.125	1.25	BUOY	1.6	BUOY	1.6
3	INTERMEDIATE	9.875	7.625	NEW	API	N	1000	3000	1000	3000	2318	318	2000	OTHER	29.7	OTHER - SJII II	1.125	1.25	BUOY	1.6	BUOY	1.6
4	PRODUCTION	6.75	5.5	NEW	API	N	0	11100	0	11100	3318	-7782	11100	OTHER	20	OTHER - DWC/C-ISMS	1.125	1.25	BUOY	1.6	BUOY	1.6

Operator Name: EOG RESOURCES INCORPORATED

Well Name: DOGWOOD 23 FED COM

Well Number: 704H

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
5	INTERMEDIATE	8.75	7.625	NEW	API	N	3000	11600	3000	11600	318	-8282	8600	HCP-110	29.7	OTHER - Flushmax III	1.125	1.25	BUOY	1.6	BUOY	1.6
6	PRODUCTION	6.75	5.5	NEW	API	N	11100	22575	11100	12500	-7782	-9182	11475	OTHER	20	OTHER - VAM SFC	1.125	1.25	BUOY	1.6	BUOY	1.6

Casing Attachments

Casing ID: 1 **String Type:**INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Dogwood 23 Fed Com 704H BLM Plan_03-02-2017.pdf

Casing ID: 2 **String Type:**SURFACE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Dogwood 23 Fed Com 704H BLM Plan_03-02-2017.pdf

Operator Name: EOG RESOURCES INCORPORATED

Well Name: DOGWOOD 23 FED COM

Well Number: 704H

Casing Attachments

Casing ID: 3 **String Type:**INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Dogwood 23 Fed Com 704H BLM Plan_03-02-2017.pdf

Casing ID: 4 **String Type:**PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Dogwood 23 Fed Com 704H BLM Plan_03-02-2017.pdf

Casing ID: 5 **String Type:**INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Dogwood 23 Fed Com 704H BLM Plan_03-02-2017.pdf

Operator Name: EOG RESOURCES INCORPORATED

Well Name: DOGWOOD 23 FED COM

Well Number: 704H

Casing Attachments

Casing ID: 6

String Type: PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Dogwood 23 Fed Com 704H BLM Plan_03-02-2017.pdf

Section 4 - Cement

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
INTERMEDIATE	Lead		0	0	0	0	0	0	0	0	0
PRODUCTION	Lead		0	0	0	0	0	0	0	0	0
INTERMEDIATE	Lead		0	0	0	0	0	0	0	0	0
SURFACE	Lead		0	1020	325	1.73	13.5	562	25	Class C	Class C + 4.0% Bentonite + 0.6% CD-32 + 0.5% CaCl2 + 0.25 lb/sk Cello-Flake (TOC @ Surface)
SURFACE	Tail		1020	1020	200	1.34	14.8	268	25	Class C	Class C + 0.6% FL-62 + 0.25 lb/sk Cello-Flake + 0.2% Sodium Metasilicate
INTERMEDIATE	Lead		0	1160 0	2250	1.38	14.8	3105	25	Class C	Class C + 5% Gypsum + 3% CaCl2 pumped via bradenhead (TOC@surface)
INTERMEDIATE	Tail		1160 0	1160 0	550	1.2	14.4	660	25	Class H	50:50 Class H:Poz + 0.25% CPT20A + 0.40% CPT49 + 0.20% CPT35 + 0.80% CPT16A + 0.25% CPT503P pumped conventionally.

Operator Name: EOG RESOURCES INCORPORATED

Well Name: DOGWOOD 23 FED COM

Well Number: 704H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
PRODUCTION	Lead		1110 0	2257 5	950	1.26	14.1	1197	25	Class H	Class H + 0.1% C-20 + 0.05% CSA-1000 + 0.20% C-49 + 0.40% C-17 (TOC @ 11100')

Section 5 - Circulating Medium

Mud System Type: Closed

Will an air or gas system be Used? NO

Description of the equipment for the circulating system in accordance with Onshore Order #2:

Diagram of the equipment for the circulating system in accordance with Onshore Order #2:

Describe what will be on location to control well or mitigate other conditions: (A) A Kelly cock will be kept in the drill string at all times. (B) A full opening drill pipe-stabbing valve (inside BOP) with proper drill pipe connections will be on the rig floor at all times. (C) H2S monitoring and detection equipment will be utilized from surface casing point to TD.

Describe the mud monitoring system utilized: An electronic pit volume totalizer (PVT) will be utilized on the circulating system to monitor pit volume, flow rate, pump pressure and stroke rate.

Circulating Medium Table

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
1020	1160 0	SALT SATURATED	8.8	10							
1160 0	2257 5	OIL-BASED MUD	10	14							
0	1020	WATER-BASED MUD	8.6	8.8							

Operator Name: EOG RESOURCES INCORPORATED

Well Name: DOGWOOD 23 FED COM

Well Number: 704H

Section 6 - Test, Logging, Coring

List of production tests including testing procedures, equipment and safety measures:

Open-hole logs are not planned for this well.

List of open and cased hole logs run in the well:

DS

Coring operation description for the well:

None

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 7500

Anticipated Surface Pressure: 4750

Anticipated Bottom Hole Temperature(F): 181

Anticipated abnormal pressures, temperatures, or potential geologic hazards? NO

Describe:

Contingency Plans geohazards description:

Contingency Plans geohazards attachment:

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations plan:

Dogwood 23 Fed Com 704H H2S Plan Summary_03-02-2017.pdf

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

Dogwood 23 Fed Com 704H Planning Report_03-02-2017.pdf

Dogwood 23 Fed Com 704H Wall Plot_03-02-2017.pdf

Other proposed operations facets description:

Other proposed operations facets attachment:

Dogwood 23 Fed Com 704H 5.500in 20.00 VST P110EC DWC_C-IS MS Spec Sheet_03-02-2017.pdf

Dogwood 23 Fed Com 704H 5.500in 20.00 VST P110EC VAM SFC Spec Sheet_03-02-2017.pdf

Dogwood 23 Fed Com 704H 7.625in 29.7 P110EC VAM SLIJ-II_03-02-2017.pdf

Dogwood 23 Fed Com 704H 7.625in 29.70 P-110 FlushMax III Spec Sheet_03-02-2017.pdf

Dogwood 23 Fed Com 704H BLM Plan_03-02-2017.pdf

Dogwood 23 Fed Com 704H Proposed Wellbore_03-02-2017.pdf

Dogwood 23 Fed Com 704H Rig Layout_03-02-2017.pdf

Other Variance attachment:

Dogwood 23 Fed Com 704H Co-Flex Hose Test Chart_03-02-2017.pdf

Operator Name: EOG RESOURCES INCORPORATED

Well Name: DOGWOOD 23 FED COM

Well Number: 704H

Dogwood 23 Fed Com 704H Co-Flex Hose Certification_03-02-2017.PDF



U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT

Bond Info Data Report

09/27/2017

Bond Information

Federal/Indian APD: FED

BLM Bond number: NM2308

BIA Bond number:

Do you have a reclamation bond? NO

Is the reclamation bond a rider under the BLM bond?

Is the reclamation bond BLM or Forest Service?

BLM reclamation bond number:

Forest Service reclamation bond number:

Forest Service reclamation bond attachment:

Reclamation bond number:

Reclamation bond amount:

Reclamation bond rider amount:

Additional reclamation bond information attachment:

Operator Name: EOG RESOURCES INCORPORATED

Well Name: DOGWOOD 23 FED COM

Well Number: 704H

	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD
EXIT Leg #1	330	FNL	186 9	FEL	26S	33E	14	Aliquot NWNE	32.04980 86	- 103.5406 264	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 122621	918 2	224 75	125 00
BHL Leg #1	230	FNL	186 9	FEL	26S	33E	14	Aliquot NWNE	32.05008 29	- 103.5406 249	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 122622	918 2	225 75	125 00