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

Sundry Print Reports
04/06/2021

Well Name: DOGWOOD 23 FED COM Well Location: T26S / R33E / SEC 23 / County or Parish/State: LEA /

SWSE / 32.0222438 / -103.539856

Well Number: 741H Type of Well: OIL WELL Allottee or Tribe Name:

Lease Number: NMNM122622 Unit or CA Name: Unit or CA Number:

NMNM139194

US Well Number: 300254409500X1 Well Status: Approved Application for Operator: EOG RESOURCES

Permit to Drill INCORPORATED

#### **Notice of Intent**

Type of Submission: Notice of Intent

Type of Action Other

Date Sundry Submitted: 03/11/2021 Time Sundry Submitted: 08:17

Date proposed operation will begin: 05/09/2021

**Procedure Description:** EOG respectfully requests an amendment to our approved APD for this well to reflect the following changes: Change well number from 704H to 741H Update casing program to current design Change BHL to T-26-S R-33-E Sec 14 100 feet FNL 450 feet FEL Lea Co, NM Increase HSU to 1280.00 acres Revise directional plan to include back build

#### **Surface Disturbance**

Is any additional surface disturbance proposed?: No

#### **NOI Attachments**

#### **Procedure Description**

Wellhead\_9.675\_in\_20210311081721.pdf

EOG\_BLM\_10M\_Annular\_Variance\_\_\_\_9.675\_in\_20210311081715.pdf

Dogwood\_23\_Fed\_Com\_741H\_Wall\_Plot\_20210311081715.pdf

Dogwood\_23\_Fed\_Com\_741H\_Permit\_Info\_\_\_Rev\_Name\_\_target\_\_HSU\_\_BHL\_2.25.2021\_20210311081704

.pdf

 $Dogwood\_23\_Fed\_Com\_741H\_Planning\_Report\_20210311081704.pdf$ 

10\_M\_Choke\_Manifold\_20210311081654.pdf

 $5.500 in\_20.00\_VST\_P110EC\_VAM\_SFC\_20210311081653.pdf$ 

Co\_Flex\_Hose\_Test\_Chart\_20210311081654.pdf

Co\_Flex\_Hose\_Certification\_20210311081653.pdf

10\_M\_BOP\_Diagram\_9.675\_in\_20210311081653.pdf

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10\_M\_BOP\_Diagram\_13.375\_in\_20210311081653.pdf

7.625in\_29.70\_P110HC\_FXL\_20210311081653.pdf

5.500in 20.00 VST P110EC DWC C IS MS Spec Sheet 20210311081653.pdf

DOGWOOD\_23\_FED\_COM\_741H\_C\_102\_20210311081640.pdf

#### **Conditions of Approval**

#### **Additional Reviews**

DOGWOOD\_23\_FED\_COM\_741H\_APD\_CHANGE\_SUNDRY\_Drilling\_COAs\_20210319105408.pdf

#### **Operator Certification**

I certify that the foregoing is true and correct. 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. Electronic submission of Sundry Notices through this system satisfies regulations requiring a submission of Form 3160-5 or a Sundry Notice.

Operator Electronic Signature: HARRELL Signed on: MAR 11, 2021 08:17 AM

Name: EOG RESOURCES INCORPORATED

Title: Regulatory Specialist

Street Address: 5509 CHAMPIONS DRIVE

City: MIDLAND State: TX

Phone: (432) 848-9161

Email address: Star\_Harrell@eogresources.com

#### **Field Representative**

Representative Name: STAR HARRELL

Street Address: 5509 CHAMPIONS DRIVE

City: MIDLAND State: TX Zip: 79706

Phone: (432)848-9161

Email address: Star\_Harrell@eogresources.com

#### **BLM Point of Contact**

BLM POC Name: CHRISTOPHER WALLS

BLM POC Title: Petroleum Engineer

**BLM POC Phone:** 5752342234 **BLM POC Email Address:** cwalls@blm.gov

**Disposition:** Approved **Disposition Date:** 04/06/2021

Signature: Chris Walls

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 1000 Rio Brazos Road, Aztec, NM 87410 Phone: (505) 334-6178 Fax: (505) 334-6170 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

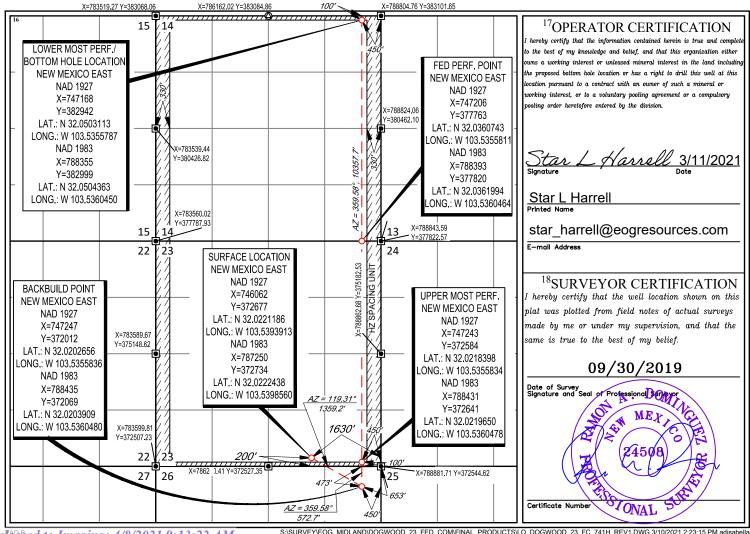
#### WELL LOCATION AND ACREAGE DEDICATION PLAT

١	<sup>1</sup> API Number		<sup>2</sup> Pool Code	<sup>3</sup> Pool Name				
	30-025	<b>-</b> 44095	98097	Sanders Tank; Upper W	/olfcamp			
ı	<sup>4</sup> Property Code		<sup>5</sup> Pr	operty Name	<sup>6</sup> Well Number			
	319664		DOGWOOD 23 FED COM					
ſ	<sup>7</sup> OGRID No.		<sup>8</sup> O <sub>I</sub>	perator Name	<sup>9</sup> Elevation			
	7377		EOG RES	OURCES, INC.	3318'			

<sup>10</sup>Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
0	23	26-S	33-E	_	200'	SOUTH	1630'	EAST	LEA
11 Bottom			Bottom Ho	ole Location If <b>D</b>	Different From Su	rface			
UL or lot no.	IL or lot no. Section Township Range Lo  A 14 26-S 33-E -		Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County	
A			-	100'	NORTH	450'	EAST	LEA	
<sup>12</sup> Dedicated Acres	<sup>2</sup> Dedicated Acres		de <sup>15</sup> Ord	er No.					
1280									

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.



### PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME: | EOG RESOURCES, INC.

LEASE NO.: | NMNM122622

LOCATION: Section 23, T.26 S., R.33 E., NMPM

**COUNTY:** Lea County, New Mexico

WELL NAME & NO.: DOGWOOD 23 FED COM 741H

SURFACE HOLE FOOTAGE: 200'/N & 1630'/E BOTTOM HOLE FOOTAGE 100'/N & 450'/E

COA

H2S	O Yes	• No	
Potash	None	Secretary	© R-111-P
Cave/Karst Potential	• Low	Medium	O High
Cave/Karst Potential	Critical		
Variance	O None	• Flex Hose	Other
Wellhead	Conventional	• Multibowl	O Both
Other	☐4 String Area	☐ Capitan Reef	□WIPP
Other	☐ Fluid Filled		☐ Pilot Hole
Special Requirements	☐ Water Disposal	<b>☑</b> COM	□ Unit

#### All previous COAs still apply, except for the following:

#### A. CASING

- 1. The 9-5/8 inch surface casing shall be set at approximately 1,045 feet (a minimum of 25 feet (Lea County) into the Rustler Anhydrite and above the salt) and cemented to the surface.
  - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
  - b. Wait on cement (WOC) time for a primary cement job will be a minimum of **8** hours or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
  - c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.

- d. If cement falls back, remedial cementing will be done prior to drilling out that string.
- 2. The **7-5/8** inch surface casing shall be set at approximately **11,600** feet. The minimum required fill of cement behind the **7-5/8** inch intermediate casing is:

Operator has proposed to cement in two stages by conventionally cementing the first stage and performing a bradenhead squeeze on the second stage.

#### First Stage

• Operator will cement to reach the top of Brushy Canyon.

#### **Second Stage**

• Operator will perform bradenhead squeeze. Cement to surface. If cement does not circulate see B.1.a, c-d above.

Operator has proposed to pump down 9-5/8" X 7-5/8" annulus. Operator must run Echo-meter to verify fluid top and the volume of displacement fluid above the cement slurry in the annulus.

- 3. The minimum required fill of cement behind the 5-1/2 inch production casing is:
  - Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification.

#### **B. PRESSURE CONTROL**

- 1. Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).'
- 2. Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be 10,000 (10M) psi. Variance is approved to use a 5000 (5M) Annular which shall be tested to 5000 (5M) psi.
  - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
  - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
  - c. Manufacturer representative shall install the test plug for the initial BOP test.

- d. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
- e. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.

#### C. SPECIAL REQUIREMENT (S)

#### **Communitization Agreement**

- The operator will submit a Communitization Agreement to the Carlsbad Field Office, 620 E Greene St. Carlsbad, New Mexico 88220, at least 90 days before the anticipated date of first production from a well subject to a spacing order issued by the New Mexico Oil Conservation Division. The Communitization Agreement will include the signatures of all working interest owners in all Federal and Indian leases subject to the Communitization Agreement (i.e., operating rights owners and lessees of record), or certification that the operator has obtained the written signatures of all such owners and will make those signatures available to the BLM immediately upon request.
- If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.
- In addition, the well sign shall include the surface and bottom hole lease numbers. When the Communitization Agreement number is known, it shall also be on the sign.

#### JJP03192021

### GENERAL REQUIREMENTS

The BLM is to be notified in advance for a representative to witness:

- a. Spudding well (minimum of 24 hours)
- b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
- c. BOPE tests (minimum of 4 hours)
- 1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.

- a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
- b. When the operator proposes to set surface casing with Spudder Rig
  - Notify the BLM when moving in and removing the Spudder Rig.
  - Notify the BLM when moving in the 2<sup>nd</sup> Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
  - BOP/BOPE test to be conducted per Onshore Oil and Gas Order No. 2 as soon as 2nd Rig is rigged up on well.
- 2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.
- 3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

#### A. CASING

- 1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.
- 2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log. The casing intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.
- 3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours.

WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.

- 4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.
- 5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.
- 6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.
- 7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
- 8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

#### B. PRESSURE CONTROL

- 1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.
- 2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.
- 3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.

- 4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:
  - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
  - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
  - c. Manufacturer representative shall install the test plug for the initial BOP test
  - d. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.
  - e. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
- 5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
  - a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).
  - b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the plug. However, **no tests** shall commence until the cement has had a minimum of 24 hours setup time, except the casing pressure test can be initiated immediately after bumping the plug (only applies to single stage cement jobs).
  - c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).

- d. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.
- e. The results of the test shall be reported to the appropriate BLM office.
- f. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
- g. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.
- h. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.

#### **Revised Permit Information 2/25/2021:**

Well Name: Dogwood 23 Fed Com #741H

Location:

SHL: 200' FSL & 1630' FEL, Section 23, T-26-S, R-33-E, Lea Co., N.M. BHL: 100' FNL & 450' FEL, Section 14, T-26-S, R-33-E, Lea Co., N.M.

**Casing Program:** 

Hole	- 0	Csg				$\mathbf{DF}_{min}$	DF <sub>min</sub>	DF <sub>min</sub>
Size	Interval	OD	Weight	Grade	Conn	Collapse	Burst	Tension
12.25"	0'-1,050'	9.625"	40#	J-55	LTC	1.125	1.25	1.60
8.75"	0'-11,380'	7.625"	29.7#	HCP-110	FXL	1.125	1.25	1.60
6.75"	0'-10,880'	5.5"	20#	P-110EC	DWC/C-IS	1.125	1.25	1.60
					MS			
6.75"	10,880' –	5.5"	20#	P-110EC	VAM SFC	1.125	1.25	1.60
	11,380'							
6.75"	11,380' –	5.5"	20#	P-110EC	DWC/C-IS	1.125	1.25	1.60
	23,824'				MS			

Variance is requested to waive the centralizer requirements for the 7-5/8" 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 waive any centralizer requirements for the 5-1/2" 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.

Variance is also requested to waive the annular clearance requirements for the 5-1/2" casing by 7-5/8" casing annulus to the proposed top of cement.

EOG requests permission to allow deviation from the 0.422" annulus clearance requirement from Onshore Order #2 under the following conditions:

- Annular clearance to meet or exceed 0.422" between intermediate casing ID and production casing coupling only on the first 500' overlap between both casing strings.
- Annular clearance less than 0.422" is acceptable for the curve and lateral portions of the production open hole section.

**Cement Program:** 

	No.	Wt.	Yld	
Depth	Sacks	ppg	Ft <sup>3</sup> /sk	Slurry Description
1,050° 9-5/8°	300	13.5	1.73	Lead: Class C + 4.0% Bentonite Gel + 0.5% CaCl <sub>2</sub> + 0.25 lb/sk Cello-Flake (TOC @ Surface)
	80	14.8	1.34	Tail: Class C + 0.6% FL-62 + 0.25 lb/sk Cello-Flake + 0.2%
				Sodium Metasilicate (TOC @ 850')
11,380'	400	14.2	1.11	1st Stage (Tail): Class C + 0.6% Halad-9 + 0.45% HR-601 +
7-5/8"				3% Microbond (TOC @ 8,009')
	1,350	14.8	1.5	2 <sup>nd</sup> Stage (Bradenhead squeeze): Class C + 3% Salt + 1%
				PreMag-M + 6% Bentonite Gel (TOC @ surface)
23,824'	1100	14.2	1.31	Lead: Class H + 0.4% Halad-344 + 0.35% HR-601 + 3%
5-1/2"				Microbond (TOC @ 10,880')

Additive	Purpose				
Bentonite Gel	Lightweight/Lost circulation prevention				
Calcium Chloride	Accelerator				
Cello-flake	Lost circulation prevention				
Sodium Metasilicate	Accelerator				
MagOx	Expansive agent				
Pre-Mag-M	Expansive agent				
Sodium Chloride	Accelerator				
FL-62	Fluid loss control				
Halad-344	Fluid loss control				
Halad-9	Fluid loss control				
HR-601	Retarder				
Microbond	Expansive Agent				

EOG requests variance from minimum standards to pump a two stage cement job on the 7-5/8" intermediate casing string with the first stage being pumped conventionally with the calculated TOC at the Brushy Canyon and the second stage performed as a bradenhead squeeze with planned cement from the Brushy Canyon to surface. If necessary a top out consisting of 1,000 sacks of Class C cement + 3% Salt + 1% PreMag-M + 6% Bentonite Gel (2.30 yld, 12.91 ppg) will be executed as a contingency. Top of cement will be verified by Echo-meter.

EOG will include the final fluid top verified by Echo-meter and the volume of displacement fluid above the cement slurry in the annulus in all post-drill sundries on wells utilizing this cement program.

EOG will report to the BLM the volume of fluid (limited to 5 bbls) used to flush intermediate casing valves following backside cementing procedures.

#### **Mud Program**:

Depth	Type	Weight (ppg)	Viscosity	Water Loss
0-1,050	0 – 1,050' Fresh - Gel		28-34	N/c
1,050' – 11,380'	Brine	10.0-10.2	28-34	N/c
11,380' – 12,567'	Oil Base	8.7-9.4	58-68	N/c - 6
12,567' – 23,824'	Oil Base	10.0-14.0	58-68	3 - 6
Lateral				

Variance is requested to use a 5,000 psi annular BOP with the 10,000 psi BOP stack.

KB: 3,343'

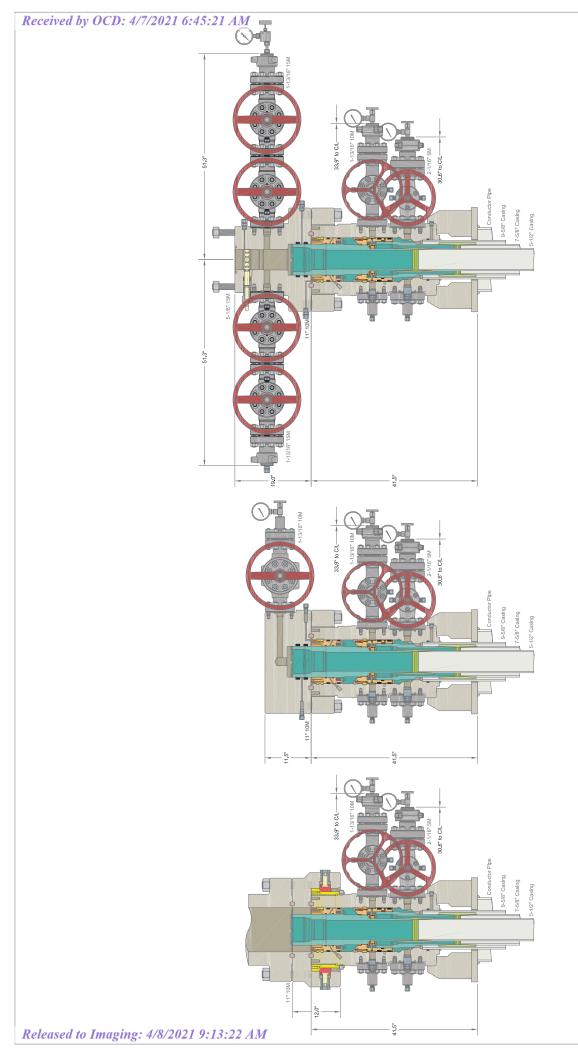
GL: 3,318'

200' FSL 1630' FEL Section 23 T-26-S, R-33-E

**Revised Wellbore** 

API: 30-025-44095

Bit Size: 12-1/4" 9-5/8", 40#, J-55, LTC 0' - 1,050' Bit Size: 8-3/4" 7-5/8", 29.7#, HCP-110 , FXL @ 0' - 11,380' TOC: 10,880' Bit Size: 6-3/4" Lateral: 23,824' MD, 13,056' TVD **Upper Most Perf:** 5-1/2", 20#, P-110 EC, DWC/C-IS MS @ 0' - 10,880' 5-1/2", 20#, P-110 EC, VAM SFC @ 10,880' - 11,380' 5-1/2", 20#, P-110 EC, DWC/C-IS MS @ 11,380,' -100' FSL & 450' FEL Sec. 23 **Lower Most Perf:** 100' FNL & 450' FEL Sec. 14 BH Location: 2539' FSL & 660' FEL 23,824' Section 14 T-26-S, R-33-E KOP: 12,567'



ALL DIMENSIONS APPROXIMATE

# EOG RESOURCES DELAWARE

DELAWARE DRAWN DLE 230CT1888 APPRV LIBEROGOGA
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20" x 9-5/8" x 7-5/8" x 5-1/2" MBU-T-SF SOW Wellhead System With 11" 10M x 5-1/8" 15M CMT-DBLHPS-SB Tubing Head, Mandrel Hangers, Quick Connect Drilling Adapter And TA Cap

CACTUS WELLHEAD LLC

INFORMATION CONTAINED HEREIN IS THE PROPERTY OF CACTUS WELLHEAD, I.L.C. REPRODUCTION, DISCLOSURE, OR USE THEREOF IS PERMISSIBLE ONLY AS PROVIDED BY CONTRACT OR AS EXPRESSLY AUTHORIZED BY CACTUS WELLHEAD, I.L.C.

### 10,000 PSI BOP Annular Variance Request

EOG Resources request a variance to use a 5000 psi annular BOP with a 10,000 psi BOP stack. The component and compatibility tables along with the general well control plans demonstrate how the 5000 psi annular BOP will be protected from pressures that exceed its rated working pressure (RWP). The pressure at which the control of the wellbore is transferred from the annular preventer to another available preventer will not exceed 3500 psi (70% of the RWP of the 5000 psi annular BOP).

#### 1. Component and Preventer Compatibility Tables

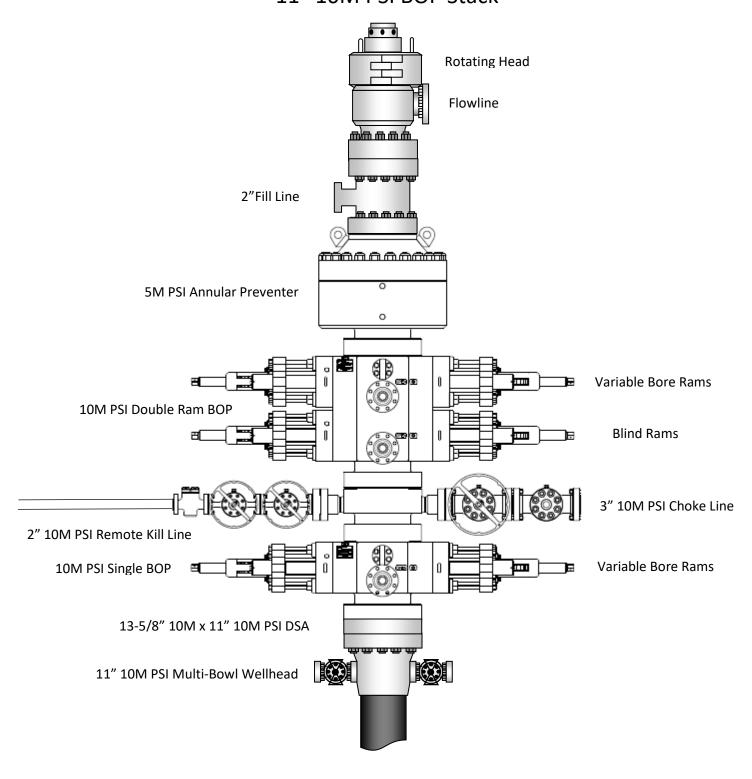
The tables below outlines the tubulars and the compatible preventers in use. This table, combined with the drilling fluid, documents that two barriers to flow will be maintained at all times.

	-	-3/4" Intermediate H		tion										
	10M psi requirement													
Component OD Primary Preventer RWP Alternate Preventer(s) R														
Drillpipe	4.500"	Annular	5M	Upper 3.5 - 5.5" VBR	10M									
				Lower 3.5 - 5.5" VBR	10M									
HWDP	4.500"	Annular	5M	Upper 3.5 - 5.5" VBR	10M									
				Lower 3.5 - 5.5" VBR	10M									
Jars	4.500"	Annular	5M	Upper 3.5 - 5.5" VBR	10M									
				Lower 3.5 - 5.5" VBR	10M									
DCs and MWD tools	6.500 - 8.000"	Annular	5M	-	-									
Mud Motor	6.750 – 8.000"	Annular	5M	-	-									
Intermediate casing	7.625"	Annular	5M	-	-									
Open-hole	-	Blind Rams	10M	-	-									

	6-3/4	1" Production Hole Se	ection												
	10M psi requirement														
Component	OD	<b>Primary Preventer</b>	RWP	Alternate Preventer(s)	RWP										
Drillpipe	4.500"	Annular	5M	Upper 3.5 - 5.5" VBR	10M										
				Lower 3.5 - 5.5" VBR	10M										
HWDP	4.500"	Annular	5M	Upper 3.5 - 5.5" VBR	10M										
				Lower 3.5 - 5.5" VBR	10M										
DCs and MWD tools	4.750 – 5.500"	Annular	5M	Upper 3.5 - 5.5" VBR	10M										
				Lower 3.5 - 5.5" VBR	10M										
Mud Motor	4.750 – 5.500"	Annular	5M	Upper 3.5 - 5.5" VBR	10M										
				Lower 3.5 - 5.5" VBR	10M										
Mud Motor	5.500 – 5.750"	Annular	5M	-	-										
Production casing	5.500"	Annular	5M	Upper 3.5 - 5.5" VBR	10M										
				Lower 3.5 - 5.5" VBR	10M										
Open-hole	-	Blind Rams	10M	-	-										

VBR = Variable Bore Ram

# EOG Resources 11" 10M PSI BOP Stack



#### 2. Well Control Procedures

Below are the minimal high-level tasks prescribed to assure a proper shut-in while drilling, tripping, running casing, pipe out of the hole (open hole), and moving the BHA through the BOPs. At least one well control drill will be performed weekly per crew to demonstrate compliance with the procedure and well control plan. The well control drill will be recorded in the daily drilling log. The type of drill will be determined by the ongoing operations, but reasonable attempts will be made to vary the type of drill conducted (pit, trip, open hole, choke, etc.). This well control plan will be available for review by rig personnel in the EOG Resources drilling supervisor's office on location, and on the rig floor. All BOP equipment will be tested as per Onshore O&G Order No. 2 with the exception of the 5000 psi annular which will be tested to 100% of its RWP.

#### General Procedure While Drilling

- 1. Sound alarm (alert crew)
- 2. Space out drill string
- 3. Shut down pumps (stop pumps and rotary)
- 4. Shut-in Well (uppermost applicable BOP, typically annular preventer first. HCR and choke will already be in the closed position.)
- 5. Confirm shut-in
- 6. Notify toolpusher/company representative
- 7. Read and record the following:
  - a. SIDPP and SICP
  - b. Pit gain
  - c. Time
- 8. Regroup and identify forward plan
- 9. If pressure has built or is anticipated during the kill to reach 70% or greater of the RWP of the annular preventer, confirm spacing and close the upper variable bore rams.

#### General Procedure While Tripping

- 1. Sound alarm (alert crew)
- 2. Stab full opening safety valve and close
- 3. Space out drill string
- 4. Shut-in (uppermost applicable BOP, typically annular preventer first. HCR and choke will already be in the closed position.)
- 5. Confirm shut-in
- 6. Notify toolpusher/company representative
- 7. Read and record the following:
  - a. SIDPP and SICP
  - b. Pit gain
  - c. Time
- 8. Regroup and identify forward plan
- 9. If pressure has built or is anticipated during the kill to reach 70% or greater of the RWP of the annular preventer, confirm spacing and close the upper variable bore rams.

#### General Procedure While Running Production Casing

- 1. Sound alarm (alert crew)
- 2. Stab crossover and full opening safety valve and close
- 3. Space out string

- 4. Shut-in (uppermost applicable BOP, typically annular preventer first. HCR and choke will already be in the closed position.)
- 5. Confirm shut-in
- 6. Notify toolpusher/company representative
- 7. Read and record the following:
  - a. SIDPP and SICP
  - b. Pit gain
  - c. Time
- 8. Regroup and identify forward plan
- 9. If pressure has built or is anticipated during the kill to reach 70% or greater of the RWP of the annular preventer, confirm spacing and close the upper variable bore rams.

#### General Procedure With No Pipe In Hole (Open Hole)

- 1. Sound alarm (alert crew)
- 2. Shut-in with blind rams. (HCR and choke will already be in the closed position.)
- 3. Confirm shut-in
- 4. Notify toolpusher/company representative
- 5. Read and record the following:
  - a. SICP
  - b. Pit gain
  - c. Time
- 6. Regroup and identify forward plan

#### General Procedures While Pulling BHA thru Stack

- 1. PRIOR to pulling last joint of drillpipe thru the stack.
  - a. Perform flowcheck, if flowing:
  - b. Sound alarm (alert crew)
  - c. Stab full opening safety valve and close
  - d. Space out drill string with tool joint just beneath the upper variable bore rams.
  - e. Shut-in using upper variable bore rams. (HCR and choke will already be in the closed position.)
  - f. Confirm shut-in
  - g. Notify toolpusher/company representative
  - h. Read and record the following:
    - i. SIDPP and SICP
    - ii. Pit gain
    - iii. Time
  - i. Regroup and identify forward plan
- 2. With BHA in the stack and compatible ram preventer and pipe combo immediately available.
  - a. Sound alarm (alert crew)
  - b. Stab crossover and full opening safety valve and close
  - c. Space out drill string with upset just beneath the upper variable bore rams.
  - d. Shut-in using upper variable bore rams. (HCR and choke will already be in the closed position.)
  - e. Confirm shut-in
  - f. Notify toolpusher/company representative
  - g. Read and record the following:
    - i. SIDPP and SICP

- ii. Pit gain
- iii. Time
- h. Regroup and identify forward plan
- 3. With BHA in the stack and NO compatible ram preventer and pipe combo immediately available.
  - a. Sound alarm (alert crew)
  - b. If possible to pick up high enough, pull string clear of the stack and follow "Open Hole" scenario
  - c. If impossible to pick up high enough to pull the string clear of the stack:
  - d. Stab crossover, make up one joint/stand of drillpipe, and full opening safety valve and close
  - e. Space out drill string with tooljoint just beneath the upper variable bore ram.
  - f. Shut-in using upper variable bore ram. (HCR and choke will already be in the closed position.)
  - g. Confirm shut-in
  - h. Notify toolpusher/company representative
  - i. Read and record the following:
    - i. SIDPP and SICP
    - ii. Pit gain
    - iii. Time
  - j. Regroup and identify forward plan



eived by OCD: 4/7/2021 6:45:21 AM

7600

9200

10000

10400

11200

11600

12000

12400

12800

13200

Released to Imaging: 4/8/2021 9:13:22 AM

FTP (Dogwood 23 Fed Com #741H)

1350

T M A

Azimuths to Grid North
True North: -0.42°
Magnetic North: 6.54°

Magnetic Field Strength: 47856.2nT Dip Angle: 59.89° Date: 2/16/2017 Model: IGRF2015

To convert a Magnetic Direction to a Grid Direction, Add 6.54° To convert a Magnetic Direction to a True Direction, Add 6.96° East To convert a True Direction to a Grid Direction, Subtract 0.42°

Lea County, NM (NAD 83 NME)

Dogwood 23 Fed Com #741H

Plan #0.3

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

Ground Level: 3318.0

**WELL DETAILS: #741H** 

 KB = 25' @ 3343.0usft

 Northing
 Easting
 Latittude
 Longitude

 372734.00
 787250.00
 32° 1' 20.077 N
 103° 32' 23.482 W

						S	<b>ECTION</b>	DETAILS						
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	<b>TFace</b>	<b>VSect</b>	Target				
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0					
2	1300.0	0.00	0.00	1300.0	0.0	0.0	0.00	0.00	0.0					
3	1657.7	7.15	119.30	1656.8	-10.9	19.5	2.00	119.30	-8.8					
4	12209.3	7.15	119.30	12126.2	-654.1	1165.5	0.00	0.00	-525.6					
5	12567.0	0.00	0.00	12483.0	-665.0	1185.0	2.00	180.00	-534.4	KOP(Dogwood 23 Fed Com #741H)				
6	13459.1	89.20	359.60	13055.9	-100.0	1181.0	10.00	359.60	27.0					
7	13466.1	89.20	359.60	13056.0	-93.0	1181.0	0.00	0.00	33.9	FTP (Dogwood 23 Fed Com #741H)				
8	13506.1	90.00	359.58	13056.3	-53.0	1180.7	2.00	-1.42	73.6	,				
9	18645.2	90.00	359.58	13056.0	5086.0	1143.0	0.00	0.00	5179.1	Fed Perf(Dogwood 23 Fed Com #741H)				
10	23824.4	90.00	359.58	13056.0	10265.0	1105.0	0.00	178.58	10324.3	PBHL (Dogwood 23 Fed Com #741H)				
										, ,				

CASING DETAILS

No casing data is available

3150

3600

4050

WELLBORE TARGET DETAILS (MAP CO-ORDINATES) +E/-W Northing TVD +N/-S **Easting** KOP(Dogwood 23 Fed Com #741H) -665.0 12483.0 1185.0 372069.00 788435.00 FTP (Dogwood 23 Fed Com #741H) -93.0 1181.0 13056.0 372641.00 788431.00 Fed Perf(Dogwood 23 Fed Com #741H) 13056.0 5086.0 1143.0 377820.00 788393.00 PBHL (Dogwood 23 Fed Com #741H) 13056.0 10265.0 1105.0 382999.00 788355.00

PBHL (Dogwood 23 Fed Com #741H)

Dogwood 23 Fed C PBHL (Dogwood 23 Fed Com #741H) 9200 8400-Fed Perf(Dogwood 23 Fed Com #741H) 2800 2400 2000 1200--400 FTP (Dogwood 23 Fed Com #741H) 0 KOP(D490 ood 23 B90 Com #74200) West(-)/East(+)

West(-)/East(+)

KOP(Dogwood 23 Fed Com #741H)

Dogwood 23 Fed Com/#74tH/Plan

Vertical Section at 6.14°

4500

Fed Perf(Dogwood 23 Fed Com #741H)

6750

7650

6300

5850

Lea County, NM (NAD 83 NME)
Dogwood 23 Fed Com
#741H
OH
Plan #0.3

10:04, March 03 2021



### **EOG Resources - Midland**

Lea County, NM (NAD 83 NME) Dogwood 23 Fed Com #741H

OH

Plan: Plan #0.3

### **Standard Planning Report**

03 March, 2021

47.856.19152376

### eog resources

#### **EOG Resources**

#### Planning Report

EDM Database:

Company:

EOG Resources - Midland Lea County, NM (NAD 83 NME)

Project: Dogwood 23 Fed Com Site:

Well: #741H Wellbore: OH Plan #0.3 Design:

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

**Survey Calculation Method:** 

Well #741H

KB = 25' @ 3343.0usft KB = 25' @ 3343.0usft

Minimum Curvature

59.89

Project Lea County, NM (NAD 83 NME)

US State Plane 1983 Map System: North American Datum 1983 Geo Datum: New Mexico Eastern Zone Map Zone:

System Datum:

Mean Sea Level

Dogwood 23 Fed Com Site

Northing: 372,741.00 usft Site Position: Latitude: 32° 1' 20.069 N From: Мар Easting: 788,311.00 usft Longitude: 103° 32' 11.158 W **Position Uncertainty:** 0.0 usft Slot Radius: 13-3/16 " **Grid Convergence:** 0.42

Well #741H

+N/-S **Well Position** -7.0 usft Northing: 372,734.00 usft Latitude: 32° 1' 20.077 N +E/-W -1,061.0 usft Easting: 787,250.00 usft Longitude: 103° 32' 23.482 W

**Position Uncertainty** 0.0 usft Wellhead Elevation: 0.0 usft **Ground Level:** 3,318.0 usft

Wellbore ОН Magnetics **Model Name** Sample Date Declination **Dip Angle** Field Strength (°) (°) (nT)

Design Plan #0.3 Audit Notes: Version: Phase: PLAN Tie On Depth: 0.0

6.96

Vertical Section: Depth From (TVD) +N/-S +E/-W Direction (usft) (usft) (usft) (°)

2/16/2017

6.14 0.0 0.0 0.0

Plan Survey Tool Program Date 3/3/2021

**Depth From** Depth To

(usft) (usft) Survey (Wellbore) **Tool Name** Remarks

MWD 0.0 23,824.4 Plan #0.3 (OH)

IGRF2015

OWSG MWD - Standard

# eog resources

#### **EOG Resources**

Planning Report

Database: EDM

Company: EOG Resources - Midland
Project: Lea County, NM (NAD 83 NME)

Site: Dogwood 23 Fed Com

 Well:
 #741H

 Wellbore:
 OH

 Design:
 Plan #0.3

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

**Survey Calculation Method:** 

Well #741H

KB = 25' @ 3343.0usft KB = 25' @ 3343.0usft

Grid

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,657.7	7.15	119.30	1,656.8	-10.9	19.5	2.00	2.00	0.00	119.30	
12,209.3	7.15	119.30	12,126.2	-654.1	1,165.5	0.00	0.00	0.00	0.00	
12,567.0	0.00	0.01	12,483.0	-665.0	1,185.0	2.00	-2.00	0.00	180.00	KOP(Dogwood 23 Fe
13,459.1	89.20	359.60	13,055.9	-100.0	1,181.0	10.00	10.00	-0.05	359.60	
13,466.1	89.20	359.60	13,056.0	-93.0	1,181.0	0.00	0.00	0.00	0.00	FTP (Dogwood 23 Fe
13,506.1	90.00	359.58	13,056.3	-53.0	1,180.7	2.00	2.00	-0.05	-1.42	
18,645.2	90.00	359.58	13,056.0	5,086.0	1,143.0	0.00	0.00	0.00	0.00	Fed Perf(Dogwood 23
23,824.4	90.00	359.58	13,056.0	10,265.0	1,105.0	0.00	0.00	0.00	178.58	PBHL (Dogwood 23 F

## eog resources

#### **EOG Resources**

#### Planning Report

Database: EDM Company: EOG

Project:

EOG Resources - Midland

Lea County, NM (NAD 83 NME)

Site: Dogwood 23 Fed Com

 Well:
 #741H

 Wellbore:
 OH

 Design:
 Plan #0.3

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well #741H

KB = 25' @ 3343.0usft KB = 25' @ 3343.0usft

Grid

sign:	Plan #0.3								
anned 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				0.0				0.00	
	0.00	0.00	800.0		0.0	0.0	0.00		0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
					0.0				
1,200.0	0.00	0.00	1,200.0	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	2.00	119.30	1,400.0	-0.9	1.5	-0.7	2.00	2.00	0.00
1,500.0	4.00	119.30	1,499.8	-3.4	6.1	-2.7	2.00	2.00	0.00
1,600.0			1,599.5	-3.4 -7.7			2.00	2.00	
	6.00	119.30			13.7	-6.2			0.00
1,657.7	7.15	119.30	1,656.8	-10.9	19.5	-8.8	2.00	2.00	0.00
1,700.0	7.15	119.30	1,698.7	-13.5	24.0	-10.8	0.00	0.00	0.00
1,800.0	7.15	119.30	1,798.0	-19.6	34.9	-15.7	0.00	0.00	0.00
1,900.0	7.15	119.30	1,897.2	-25.7	45.8	-20.6	0.00	0.00	0.00
2,000.0	7.15	119.30	1,996.4	-31.8	56.6	-25.5	0.00	0.00	0.00
2,100.0	7.15	119.30	2,095.6	-37.9	67.5	-30.4	0.00	0.00	0.00
2,200.0	7.15	119.30	2,194.8	-44.0	78.4	-35.3	0.00	0.00	0.00
2,300.0	7.15	119.30	2,194.0	-50.1	89.2	-40.2	0.00	0.00	0.00
2,300.0	7.15	119.30	2,294.1	-30.1	09.2	-40.2	0.00	0.00	0.00
2,400.0	7.15	119.30	2,393.3	-56.2	100.1	-45.1	0.00	0.00	0.00
2,500.0	7.15	119.30	2,492.5	-62.3	110.9	-50.0	0.00	0.00	0.00
2,600.0	7.15	119.30	2,591.7	-68.4	121.8	-54.9	0.00	0.00	0.00
2,700.0	7.15	119.30	2,691.0	-74.4	132.7	-59.8	0.00	0.00	0.00
			,						
2,800.0	7.15	119.30	2,790.2	-80.5	143.5	-64.7	0.00	0.00	0.00
2,900.0	7.15	119.30	2,889.4	-86.6	154.4	-69.6	0.00	0.00	0.00
3,000.0	7.15	119.30	2,988.6	-92.7	165.2	-74.5	0.00	0.00	0.00
3,100.0	7.15	119.30	3,087.8	-98.8	176.1	-79.4	0.00	0.00	0.00
3,200.0	7.15	119.30	3,187.1	-104.9	187.0	-84.3	0.00	0.00	0.00
3,300.0	7.15	119.30	3,286.3	-111.0	197.8	-89.2	0.00	0.00	0.00
3,400.0	7.15	119.30	3,385.5	-117.1	208.7	-94.1	0.00	0.00	0.00
3,500.0	7.15	119.30	3,484.7	-123.2	219.6	-99.0	0.00	0.00	0.00
3,600.0	7.15				230.4			0.00	0.00
		119.30	3,583.9	-129.3		-103.9	0.00		
3,700.0	7.15	119.30	3,683.2	-135.4	241.3	-108.8	0.00	0.00	0.00
3,800.0	7.15	119.30	3,782.4	-141.5	252.1	-113.7	0.00	0.00	0.00
3,900.0	7.15	119.30	3,881.6	-147.6	263.0	-118.6	0.00	0.00	0.00
4,000.0	7.15	119.30	3,980.8	-153.7	273.9	-123.5	0.00	0.00	0.00
4,100.0	7.15	119.30	4,080.1	-159.8	284.7	-128.4	0.00	0.00	0.00
4,200.0	7.15	119.30	4,179.3	-165.9	295.6	-133.3	0.00	0.00	0.00
4,300.0	7.15	119.30	4,278.5	-172.0	306.5	-138.2	0.00	0.00	0.00
4,400.0	7.15	119.30	4,377.7	-178.1	317.3	-143.1	0.00	0.00	0.00
4,500.0	7.15	119.30	4,476.9	-184.2	328.2	-143.1			
							0.00	0.00	0.00
4,600.0	7.15	119.30	4,576.2	-190.3	339.0	-152.9	0.00	0.00	0.00
4,700.0	7.15	119.30	4,675.4	-196.4	349.9	-157.8	0.00	0.00	0.00
4,800.0	7.15	119.30	4,774.6	-202.5	360.8	-162.7	0.00	0.00	0.00
4,900.0	7.15	119.30	4,873.8	-208.5	371.6	-167.6	0.00	0.00	0.00
,			4,973.0	-214.6	382.5	-172.5	0.00	0.00	0.00
5 000 0	/ 15	119.50							
5,000.0 5,100.0	7.15 7.15	119.30 119.30	5,072.3	-220.7	393.3	-172.3	0.00	0.00	0.00

#### **EOG Resources**

#### Planning Report

beog resources

Database: EDM

Company: EOG Resources - Midland
Project: Lea County, NM (NAD 83 NME)

Site: Dogwood 23 Fed Com

 Well:
 #741H

 Wellbore:
 OH

 Design:
 Plan #0.3

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well #741H

KB = 25' @ 3343.0usft KB = 25' @ 3343.0usft

Grid

isign:	FIAIT #0.3								
anned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,300.0	7.15	119.30	5,270.7	-232.9	415.1	-187.2	0.00	0.00	0.00
5,400.0	7.15	119.30	5,369.9	-239.0	425.9	-192.1	0.00	0.00	0.00
5,500.0	7.15	119.30	5,469.2	-245.1	436.8	-197.0	0.00	0.00	0.00
5,600.0	7.15	119.30	5,568.4	-251.2	447.7	-201.9	0.00	0.00	0.00
5,700.0	7.15	119.30	5,667.6	-257.3	458.5	-206.8	0.00	0.00	0.00
5,800.0	7.15	119.30	5,766.8	-263.4	469.4	-211.7	0.00	0.00	0.00
5,900.0	7.15	119.30	5,866.0	-269.5	480.2	-216.6	0.00	0.00	0.00
6,000.0	7.15	119.30	5,965.3	-275.6	491.1	-210.0	0.00	0.00	0.00
6,100.0	7.15	119.30	6,064.5	-281.7	502.0	-226.4	0.00	0.00	0.00
6,200.0	7.15	119.30	6,163.7	-287.8	512.8	-231.2	0.00	0.00	0.00
6,300.0	7.15	119.30	6,262.9	-293.9	523.7	-236.1	0.00	0.00	0.00
6,400.0	7.15	119.30	6,362.1	-300.0	534.6	-241.0	0.00	0.00	0.00
6,500.0	7.15	119.30	6,461.4	-306.1	545.4	-245.9	0.00	0.00	0.00
6,600.0	7.15	119.30	6,560.6	-312.2	556.3	-250.8	0.00	0.00	0.00
6,700.0	7.15	119.30	6,659.8	-318.3	567.1	-255.7	0.00	0.00	0.00
6,800.0	7.15	119.30	6,759.0	-324.4	578.0	-260.6	0.00	0.00	0.00
6,900.0	7.15	119.30	6,858.2	-330.5	588.9	-265.5	0.00	0.00	0.00
7,000.0	7.15	119.30	6,957.5	-336.6	599.7	-270.4	0.00	0.00	0.00
7,100.0	7.15	119.30	7,056.7	-342.6	610.6	-275.3	0.00	0.00	0.00
7,200.0	7.15	119.30	7,155.9	-348.7	621.4	-280.2	0.00	0.00	0.00
7,300.0	7.15	119.30	7,155.9	-354.8	632.3	-285.1	0.00	0.00	0.00
7,400.0	7.15	119.30	7,354.4	-360.9	643.2	-290.0	0.00	0.00	0.00
7,500.0	7.15	119.30	7,453.6	-367.0	654.0	-294.9	0.00	0.00	0.00
7,600.0	7.15	119.30	7,552.8	-373.1	664.9	-299.8	0.00	0.00	0.00
7,700.0	7.15	119.30	7,652.0	-379.2	675.8	-304.7	0.00	0.00	0.00
7,800.0	7.15	119.30	7,751.2	-385.3	686.6	-309.6	0.00	0.00	0.00
7,900.0	7.15	119.30	7,850.5	-391.4	697.5	-314.5	0.00	0.00	0.00
8,000.0	7.15	119.30	7,949.7	-397.5	708.3	-319.4	0.00	0.00	0.00
8,100.0	7.15	119.30	8,048.9	-403.6	719.2	-324.3	0.00	0.00	0.00
8,200.0	7.15	119.30	8,148.1	-409.7	730.1	-329.2	0.00	0.00	0.00
8,300.0	7.15	119.30	8,247.3	-415.8	740.9	-334.1	0.00	0.00	0.00
9.400.0	7.15	110.20	0.246.6	424.0	751.0	220.0	0.00	0.00	0.00
8,400.0	7.15	119.30	8,346.6	-421.9	751.8	-339.0	0.00	0.00	0.00
8,500.0	7.15	119.30	8,445.8	-428.0	762.6	-343.9	0.00	0.00	0.00
8,600.0	7.15	119.30	8,545.0	-434.1	773.5	-348.8	0.00	0.00	0.00
8,700.0	7.15	119.30	8,644.2	-440.2	784.4	-353.7	0.00	0.00	0.00
8,800.0	7.15	119.30	8,743.5	-446.3	795.2	-358.6	0.00	0.00	0.00
8,900.0	7.15	119.30	8,842.7	-452.4	806.1	-363.5	0.00	0.00	0.00
9,000.0	7.15	119.30	8,941.9	-458.5	817.0	-368.4	0.00	0.00	0.00
9,100.0	7.15	119.30	9,041.1	-464.6	827.8	-373.3	0.00	0.00	0.00
9,200.0	7.15	119.30	9,140.3	-470.7	838.7	-378.2	0.00	0.00	0.00
9,300.0	7.15	119.30	9,239.6	-476.7	849.5	-383.1	0.00	0.00	0.00
9,400.0	7.15	119.30	9,338.8	-482.8	860.4	-388.0	0.00	0.00	0.00
9,400.0	7.15 7.15	119.30	9,338.8	-482.8 -488.9	860.4 871.3	-388.0 -392.9	0.00	0.00	0.00
9,500.0 9,600.0									
9,700.0	7.15 7.15	119.30 119.30	9,537.2 9,636.4	-495.0 -501.1	882.1 893.0	-397.8 -402.7	0.00 0.00	0.00 0.00	0.00 0.00
9,800.0	7.15 7.15	119.30	9,636.4 9,735.7		903.9	-402.7 -407.6	0.00	0.00	0.00
				-507.2					
9,900.0	7.15	119.30	9,834.9	-513.3	914.7	-412.5	0.00	0.00	0.00
10,000.0	7.15	119.30	9,934.1	-519.4	925.6	-417.4	0.00	0.00	0.00
10,100.0	7.15	119.30	10,033.3	-525.5	936.4	-422.3	0.00	0.00	0.00
10,200.0	7.15	119.30	10,132.6	-531.6	947.3	-427.2	0.00	0.00	0.00
10,300.0	7.15	119.30	10,231.8	-537.7	958.2	-432.1	0.00	0.00	0.00
10,400.0	7.15	119.30	10,331.0	-543.8	969.0	-437.0	0.00	0.00	0.00
10,400.0	7.15 7.15	119.30	10,331.0	-543.8 -549.9	969.0 979.9	-437.0 -441.9	0.00	0.00	0.00
10,600.0	7.15 7.15	119.30	10,430.2	-549.9 -556.0	979.9	-441.9 -446.8	0.00	0.00	0.00

#### **EOG Resources**

#### Planning Report

beog resources

Database: EDM

Company: EOG Resources - Midland
Project: Lea County, NM (NAD 83 NME)

Site: Dogwood 23 Fed Com

 Well:
 #741H

 Wellbore:
 OH

 Design:
 Plan #0.3

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well #741H

KB = 25' @ 3343.0usft KB = 25' @ 3343.0usft

Grid

esign:	Plan #0.3								
lanned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,700.0	7.15	119.30	10,628.7	-562.1	1,001.6	-451.7	0.00	0.00	0.00
10,800.0	7.15	119.30	10,727.9	-568.2	1,012.5	-456.6	0.00	0.00	0.00
10,900.0	7.15	119.30	10,827.1	-574.3	1,023.3	-461.5	0.00	0.00	0.00
11,000.0	7.15	119.30	10,926.3	-580.4	1,034.2	-466.3	0.00	0.00	0.00
11,100.0	7.15	119.30	11,025.5	-586.5	1,045.1	-471.2	0.00	0.00	0.00
11,200.0	7.15	119.30	11,124.8	-592.6	1,055.9	-476.1	0.00	0.00	0.00
11,300.0	7.15	119.30	11,224.0	-598.7	1,066.8	-481.0	0.00	0.00	0.00
11,400.0	7.15	119.30	11,323.2	-604.8	1,077.6	-485.9	0.00	0.00	0.00
11,500.0	7.15	119.30	11,422.4	-610.8	1,088.5	-490.8	0.00	0.00	0.00
11,600.0	7.15	119.30	11,521.6	-616.9	1,099.4	-495.7	0.00	0.00	0.00
11,700.0	7.15	119.30	11,620.9	-623.0	1,110.2	-500.6	0.00	0.00	0.00
11,800.0	7.15	119.30	11,720.1	-629.1	1,121.1	-505.5	0.00	0.00	0.00
11,900.0	7.15	119.30	11,819.3	-635.2	1,132.0	-510.4	0.00	0.00	0.00
12,000.0	7.15	119.30	11,918.5	-641.3	1,142.8	-515.3	0.00	0.00	0.00
12,100.0	7.15	119.30	12,017.8	-647.4	1,153.7	-520.2	0.00	0.00	0.00
12,209.3 12,300.0	7.15 5.34	119.30 119.30	12,126.2 12,216.4	-654.1 -658.9	1,165.5 1,174.2	-525.6 -529.5	0.00 2.00	0.00 <b>-</b> 2.00	0.00 0.00
12,400.0	3.34	119.30	12,316.1	-662.6	1,180.8	-532.4	2.00	-2.00	0.00
12,500.0	1.34	119.30	12,416.0	-664.6	1,184.3	-534.0	2.00	-2.00	0.00
12,567.0	0.00	0.01	12,483.0	-665.0	1,185.0	-534.4	2.00	-2.00	0.00
12,600.0 12,650.0	3.30 8.30	359.60 359.60	12,516.0 12,565.7	-664.1 -659.0	1,185.0 1,185.0	-533.4 -528.4	10.00 10.00	10.00 10.00	0.00 0.00
12,700.0	13.30	359.60	12,614.8	-649.6	1,184.9	-519.1	10.00	10.00	0.00
12,750.0 12,800.0	18.30	359.60	12,662.9 12,709.6	-636.0	1,184.8	-505.6 -487.9	10.00	10.00 10.00	0.00
12,850.0	23.30 28.30	359.60 359.60	12,754.6	-618.3 -596.5	1,184.7 1,184.5	-467.9 -466.3	10.00 10.00	10.00	0.00 0.00
12,900.0	33.30	359.60	12,797.5	-570.9	1,184.3	-440.9	10.00	10.00	0.00
12,950.0	38.30	359.60	12,838.1	-541.7	1,184.1	-411.9	10.00	10.00	0.00
13,000.0	43.30	359.60	12,875.9	-509.0	1,183.9	-379.4	10.00	10.00	0.00
13,050.0	48.30	359.60	12,910.8	-473.2	1,183.7	-343.8	10.00	10.00	0.00
13,100.0	53.30	359.60	12,942.4	-434.5	1,183.4	-305.3	10.00	10.00	0.00
13,150.0	58.30	359.60	12,970.5	-393.1	1,183.1	-264.3	10.00	10.00	0.00
13,200.0	63.30	359.60	12,994.9	-349.5	1,182.8	-220.9	10.00	10.00	0.00
13,250.0	68.30	359.60	13,015.3	-303.9	1,182.5	-175.6	10.00	10.00	0.00
13,300.0	73.30	359.60	13,031.8	-256.7	1,182.1	-128.7	10.00	10.00	0.00
13,350.0	78.30	359.60	13,044.0	-208.3	1,181.8	-80.6	10.00	10.00	0.00
13,400.0	83.30	359.60	13,052.0	-158.9	1,181.5	-31.6	10.00	10.00	0.00
13,450.0	88.30	359.60	13,055.7	-109.1	1,181.1	18.0	10.00	10.00	0.00
13,459.1	89.20	359.60	13,055.9	-100.0	1,181.0	27.0	10.00	10.00	0.00
13,466.1	89.20	359.60	13,056.0	-93.0	1,181.0	33.9	0.00	0.00	0.00
13,506.1 13,600.0	90.00 90.00	359.58 359.58	13,056.3 13,056.3	-53.0 40.9	1,180.7 1,180.0	73.6 167.0	2.00 0.00	2.00 0.00	-0.05 0.00
13,700.0	90.00	359.58	13,056.3	140.9	1,179.3	266.3	0.00	0.00	0.00
13,800.0	90.00	359.58	13,056.3	240.9	1,178.6	365.7	0.00	0.00	0.00
13,900.0 14,000.0	90.00 90.00	359.58 359.58	13,056.3 13,056.2	340.9 440.9	1,177.8 1,177.1	465.0 564.4	0.00 0.00	0.00 0.00	0.00 0.00
14,100.0	90.00	359.58	13,056.2	540.9	1,176.4	663.7	0.00	0.00	0.00
14,200.0	90.00	359.58	13,056.2	640.9	1,175.6	763.0	0.00	0.00	0.00
14,200.0	90.00	359.58 359.58	13,056.2	740.9	1,175.6	763.0 862.4	0.00	0.00	0.00
14,400.0	90.00	359.58	13,056.2	840.9	1,174.9	961.7	0.00	0.00	0.00
14,500.0	90.00	359.58	13,056.2	940.9	1,173.4	1,061.1	0.00	0.00	0.00
14,600.0	90.00	359.58	13,056.2	1,040.9	1,172.7	1,160.4	0.00	0.00	0.00
14,700.0	90.00	359.58	13,056.2	1,140.9	1,172.0	1,259.8	0.00	0.00	0.00
14,700.0	90.00	359.58	13,056.2	1,140.9	1,172.0	1,259.6	0.00	0.00	0.00

**EOG Resources**Planning Report

**b**eog resources

Database: EDM

Company: EOG Resources - Midland
Project: Lea County, NM (NAD 83 NME)

Site: Dogwood 23 Fed Com

 Well:
 #741H

 Wellbore:
 OH

 Design:
 Plan #0.3

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well #741H

KB = 25' @ 3343.0usft KB = 25' @ 3343.0usft

Grid

esign:	Plan #0.3										
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)		
14,900.0	90.00	359.58	13,056.2	1,340.9	1,170.5	1,458.5	0.00	0.00	0.00		
15,000.0	90.00	359.58	13,056.2	1,440.9	1,169.8	1,557.8	0.00	0.00	0.00		
15,100.0	90.00	359.58	13,056.2	1,540.9	1,169.0	1,657.1	0.00	0.00	0.00		
15,200.0	90.00	359.58	13,056.2	1,640.9	1,168.3	1,756.5	0.00	0.00	0.00		
15,300.0	90.00	359.58	13,056.2	1,740.9	1,167.5	1,855.8	0.00	0.00	0.00		
15,400.0	90.00	359.58	13,056.2	1,840.9	1,166.8	1,955.2	0.00	0.00	0.00		
15,500.0	90.00	359.58	13,056.2	1,940.9	1,166.1	2,054.5	0.00	0.00	0.00		
15,600.0	90.00	359.58	13,056.2	2,040.9	1,165.3	2,153.9	0.00	0.00	0.00		
15,700.0	90.00	359.58	13,056.2	2,140.9	1,164.6	2,253.2	0.00	0.00	0.00		
15,800.0	90.00	359.58	13,056.2	2,240.9	1,163.9	2,352.6	0.00	0.00	0.00		
15,900.0	90.00	359.58	13,056.1	2,340.9	1,163.1	2,451.9	0.00	0.00	0.00		
16,000.0	90.00	359.58	13,056.1	2,440.9	1,162.4	2,551.2	0.00	0.00	0.00		
16,100.0	90.00	359.58	13,056.1	2,540.8	1,161.7	2,650.6	0.00	0.00	0.00		
16,200.0	90.00	359.58	13,056.1	2,640.8	1,160.9	2,749.9	0.00	0.00	0.00		
16,300.0	90.00	359.58	13,056.1	2,740.8	1,160.2	2,849.3	0.00	0.00	0.00		
16,400.0	90.00	359.58	13,056.1	2,840.8	1,159.5	2,948.6	0.00	0.00	0.00		
16,500.0 16,600.0	90.00 90.00	359.58 359.58	13,056.1 13,056.1	2,940.8 3,040.8	1,158.7 1,158.0	3,048.0 3,147.3	0.00 0.00	0.00 0.00	0.00 0.00		
16,700.0	90.00	359.58	13,056.1	3,140.8	1,157.3	3,246.7	0.00	0.00	0.00		
16,800.0	90.00	359.58	13,056.1	3,240.8	1,156.5	3,346.0	0.00	0.00	0.00		
16,900.0	90.00	359.58	13,056.1	3,340.8	1,155.8	3,445.3	0.00	0.00	0.00		
17,000.0	90.00	359.58	13,056.1 13,056.1	3,440.8	1,155.1	3,544.7	0.00	0.00 0.00	0.00		
17,100.0	90.00	359.58		3,540.8	1,154.3	3,644.0	0.00		0.00		
17,200.0	90.00	359.58	13,056.1	3,640.8	1,153.6	3,743.4	0.00	0.00	0.00		
17,300.0	90.00	359.58	13,056.1	3,740.8	1,152.9	3,842.7	0.00	0.00	0.00		
17,400.0	90.00	359.58	13,056.1	3,840.8	1,152.1	3,942.1	0.00	0.00	0.00		
17,500.0 17,600.0	90.00 90.00	359.58 359.58	13,056.1 13,056.1	3,940.8 4,040.8	1,151.4 1,150.7	4,041.4 4,140.8	0.00 0.00	0.00 0.00	0.00 0.00		
17,700.0	90.00	359.58	13,056.1	4,140.8	1,149.9	4,240.1	0.00	0.00	0.00		
17,800.0	90.00	359.58	13,056.0	4,240.8	1,149.2	4,339.4	0.00	0.00	0.00		
17,900.0 18,000.0	90.00 90.00	359.58 359.58	13,056.0 13,056.0	4,340.8 4,440.8	1,148.5 1,147.7	4,438.8 4,538.1	0.00 0.00	0.00 0.00	0.00 0.00		
18,100.0	90.00	359.58	13,056.0	4,540.8	1,147.7	4,637.5	0.00	0.00	0.00		
				,							
18,200.0	90.00	359.58	13,056.0	4,640.8	1,146.3	4,736.8	0.00	0.00	0.00		
18,300.0 18,400.0	90.00 90.00	359.58 359.58	13,056.0 13,056.0	4,740.8 4,840.8	1,145.5	4,836.2 4,935.5	0.00 0.00	0.00 0.00	0.00 0.00		
18,500.0	90.00	359.56 359.58	13,056.0	4,040.8	1,144.8 1,144.1	5,034.9	0.00	0.00	0.00		
18,600.0	90.00	359.58	13,056.0	5,040.8	1,143.3	5,134.2	0.00	0.00	0.00		
					,				0.00		
18,645.2 18,700.0	90.00 90.00	359.58 359.58	13,056.0 13,056.0	5,086.0 5,140.8	1,143.0 1,142.6	5,179.1 5,233.5	0.00 0.00	0.00 0.00	0.00		
18,800.0	90.00	359.56 359.58	13,056.0	5,140.8	1,142.0	5,332.9	0.00	0.00	0.00		
18,900.0	90.00	359.58	13,056.0	5,340.8	1,141.1	5,432.2	0.00	0.00	0.00		
19,000.0	90.00	359.58	13,056.0	5,440.8	1,140.4	5,531.6	0.00	0.00	0.00		
19,100.0	90.00	359.58	13,056.0	5,540.8	1,139.7	5,630.9	0.00	0.00	0.00		
19,100.0	90.00	359.56 359.58	13,056.0	5,540.6 5,640.8	1,139.7	5,730.3	0.00	0.00	0.00		
19,300.0	90.00	359.58	13,056.0	5,740.8	1,138.2	5,829.6	0.00	0.00	0.00		
19,400.0	90.00	359.58	13,056.0	5,840.8	1,137.5	5,929.0	0.00	0.00	0.00		
19,500.0	90.00	359.58	13,056.0	5,940.8	1,136.7	6,028.3	0.00	0.00	0.00		
19,600.0	90.00	359.58	13,056.0	6,040.8	1,136.0	6,127.6	0.00	0.00	0.00		
19,700.0	90.00	359.58	13,056.0	6,140.8	1,135.3	6,227.0	0.00	0.00	0.00		
19,800.0	90.00	359.58	13,056.0	6,240.7	1,134.5	6,326.3	0.00	0.00	0.00		
19,900.0	90.00	359.58	13,055.9	6,340.7	1,133.8	6,425.7	0.00	0.00	0.00		
20,000.0	90.00	359.58	13,055.9	6,440.7	1,133.1	6,525.0	0.00	0.00	0.00		
20,100.0	90.00	359.58	13,055.9	6,540.7	1,132.3	6,624.4	0.00	0.00	0.00		

### beog resources

#### **EOG Resources**

#### Planning Report

Database: EDM

Company: EOG Resources - Midland
Project: Lea County, NM (NAD 83 NME)

Site: Dogwood 23 Fed Com

 Well:
 #741H

 Wellbore:
 OH

 Design:
 Plan #0.3

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well #741H

KB = 25' @ 3343.0usft KB = 25' @ 3343.0usft

Grid

Planned Survey									
iailieu 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)
20,200.0	90.00	359.58	13,055.9	6,640.7	1,131.6	6,723.7	0.00	0.00	0.00
20,300.0	90.00	359.58	13,055.9	6,740.7	1,130.9	6,823.0	0.00	0.00	0.00
20,400.0	90.00	359.58	13,055.9	6,840.7	1,130.1	6,922.4	0.00	0.00	0.00
20,500.0	90.00	359.58	13,055.9	6,940.7	1,129.4	7,021.7	0.00	0.00	0.00
20,600.0	90.00	359.58	13,055.9	7,040.7	1,128.7	7,121.1	0.00	0.00	0.00
20,700.0	90.00	359.58	13,055.9	7,140.7	1,127.9	7,220.4	0.00	0.00	0.00
20,800.0	90.00	359.58	13,055.9	7,240.7	1,127.2	7,319.8	0.00	0.00	0.00
20,900.0	90.00	359.58	13,055.9	7,340.7	1,126.5	7,419.1	0.00	0.00	0.00
21,000.0	90.00	359.58	13,055.9	7,440.7	1,125.7	7,518.5	0.00	0.00	0.00
21,100.0	90.00	359.58	13,055.9	7,540.7	1,125.0	7,617.8	0.00	0.00	0.00
21,200.0	90.00	359.58	13,055.9	7,640.7	1,124.3	7,717.1	0.00	0.00	0.00
21,300.0	90.00	359.58	13,055.9	7,740.7	1,123.5	7,816.5	0.00	0.00	0.00
21,400.0	90.00	359.58	13,055.9	7,840.7	1,122.8	7,915.8	0.00	0.00	0.00
21,500.0	90.00	359.58	13,055.9	7,940.7	1,122.1	8,015.2	0.00	0.00	0.00
21,600.0	90.00	359.58	13,055.9	8,040.7	1,121.3	8,114.5	0.00	0.00	0.00
21,700.0	90.00	359.58	13,055.9	8,140.7	1,120.6	8,213.9	0.00	0.00	0.00
21,800.0	90.00	359.58	13,055.9	8,240.7	1,119.9	8,313.2	0.00	0.00	0.00
21,900.0	90.00	359.58	13,055.9	8,340.7	1,119.1	8,412.6	0.00	0.00	0.00
22,000.0	90.00	359.58	13,055.9	8,440.7	1,118.4	8,511.9	0.00	0.00	0.00
22,100.0	90.00	359.58	13,055.9	8,540.7	1,117.7	8,611.2	0.00	0.00	0.00
22,200.0	90.00	359.58	13,055.9	8,640.7	1,116.9	8,710.6	0.00	0.00	0.00
22,300.0	90.00	359.58	13,055.9	8,740.7	1,116.2	8,809.9	0.00	0.00	0.00
22,400.0	90.00	359.58	13,055.9	8,840.7	1,115.4	8,909.3	0.00	0.00	0.00
22,500.0	90.00	359.58	13,055.9	8,940.7	1,114.7	9,008.6	0.00	0.00	0.00
22,600.0	90.00	359.58	13,055.9	9,040.7	1,114.0	9,108.0	0.00	0.00	0.00
22,700.0	90.00	359.58	13,056.0	9,140.7	1,113.2	9,207.3	0.00	0.00	0.00
22,800.0	90.00	359.58	13,056.0	9,240.7	1,112.5	9,306.7	0.00	0.00	0.00
22,900.0	90.00	359.58	13,056.0	9,340.7	1,111.8	9,406.0	0.00	0.00	0.00
23,000.0	90.00	359.58	13,056.0	9,440.7	1,111.0	9,505.3	0.00	0.00	0.00
23,100.0	90.00	359.58	13,056.0	9,540.7	1,110.3	9,604.7	0.00	0.00	0.00
23,200.0	90.00	359.58	13,056.0	9,640.7	1,109.6	9,704.0	0.00	0.00	0.00
23,300.0	90.00	359.58	13,056.0	9,740.7	1,108.8	9,803.4	0.00	0.00	0.00
23,400.0	90.00	359.58	13,056.0	9,840.7	1,108.1	9,902.7	0.00	0.00	0.00
23,500.0	90.00	359.58	13,056.0	9,940.6	1,107.4	10,002.1	0.00	0.00	0.00
23,600.0	90.00	359.58	13,056.0	10,040.6	1,106.6	10,101.4	0.00	0.00	0.00
23,700.0	90.00	359.58	13,056.0	10,140.6	1,105.9	10,200.8	0.00	0.00	0.00
23,800.0	90.00	359.58	13,056.0	10,240.6	1,105.2	10,300.1	0.00	0.00	0.00
23,824.4	90.00	359.58	13,056.0	10,265.0	1,105.0	10,324.3	0.00	0.00	0.00

# **S**eog resources

#### **EOG Resources**

#### Planning Report

Database: EDM

Company: EOG Resources - Midland
Project: Lea County, NM (NAD 83 NME)

Site: Dogwood 23 Fed Com

 Well:
 #741H

 Wellbore:
 OH

 Design:
 Plan #0.3

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

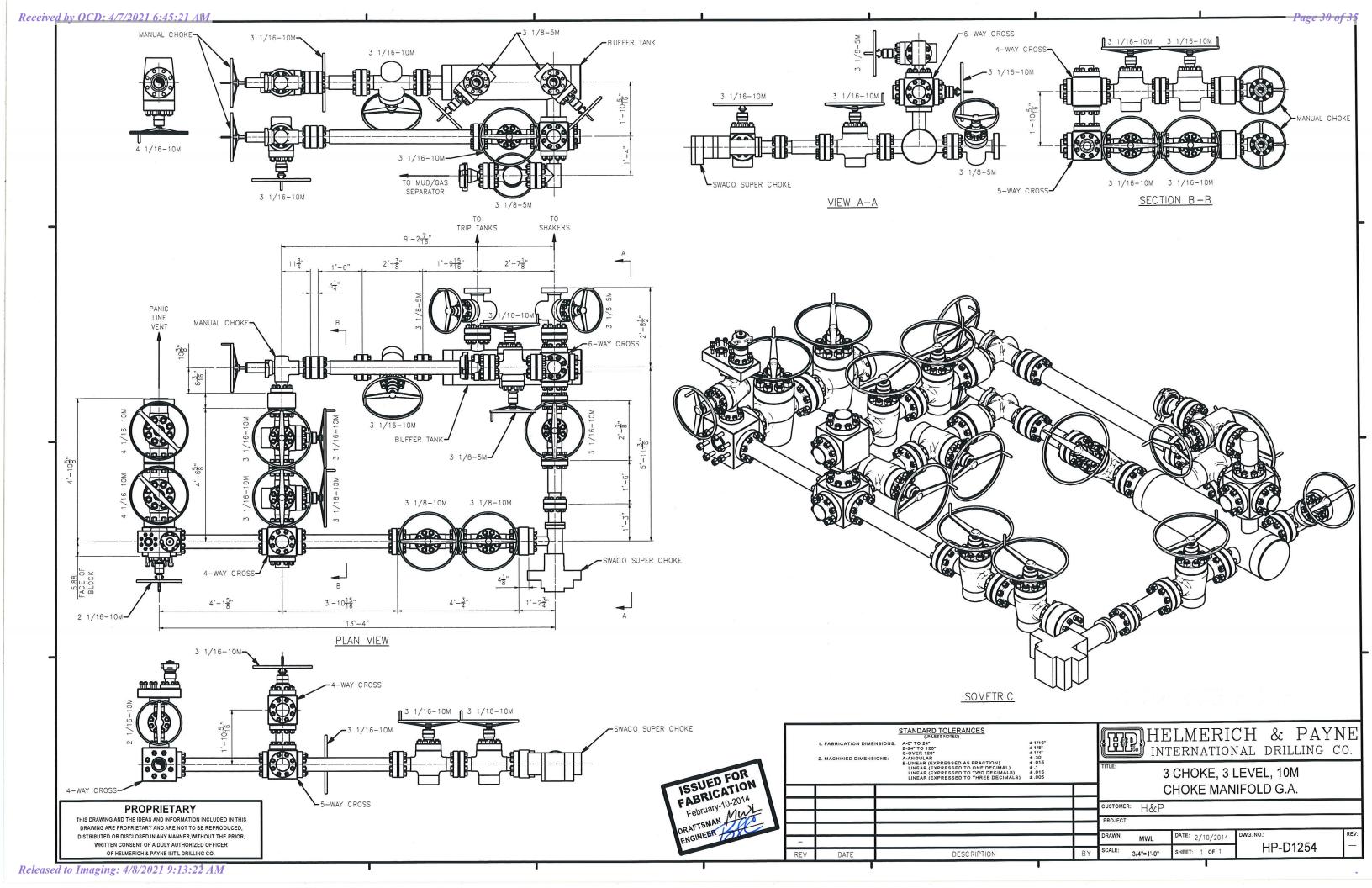
**Survey Calculation Method:** 

Well #741H

KB = 25' @ 3343.0usft KB = 25' @ 3343.0usft

Grid

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
KOP(Dogwood 23 Fed 0 - plan hits target cer - Point		0.01	12,483.0	-665.0	1,185.0	372,069.00	788,435.00	32° 1' 13.410 N	103° 32' 9.776 W
PBHL (Dogwood 23 Fed - plan hits target cer - Point		0.00	13,056.0	10,265.0	1,105.0	382,999.00	788,355.00	32° 3′ 1.573 N	103° 32' 9.768 W
FTP (Dogwood 23 Fed 0 - plan hits target cer - Point		0.00	13,056.0	-93.0	1,181.0	372,641.00	788,431.00	32° 1' 19.071 N	103° 32' 9.773 W
Fed Perf(Dogwood 23 Fe - plan hits target cer - Point		0.00	13,056.0	5,086.0	1,143.0	377,820.00	788,393.00	32° 2' 10.322 N	103° 32' 9.770 W



#### **Hose Inspection Report**

#### ContiTech Oil & Marine

Customer	Customer Reference #	CBC Reference #	<b>CBC Inspector</b>	Date of Inspection
H&P Drilling	740021604	COM906112	A. Jaimes	10/17/2016

<b>Hose Manufacturer</b>	Contitech Rubber Industrial
--------------------------	-----------------------------

Hose Serial #	62429		Date of Manufacture	05/2012
Hose I.D.	3"		<b>Working Pressure</b>	10000PSI
Hose Type	Choke and	Kill	Test Pressure	15000PSI
Manufacturing St	andard	API 16C		

#### **Connections**

End A: 3.1/16" 10KPsi API Spec 6A Type 6BX Flange	End B: 3.1/16" 10Kpsi API Spec 6A Type 6BX Flange
No damage	No damage
Material: Carbon Steel	Material: Carbon Steel
Seal Face: BX154	Seal Face: BX154
Length Before Hydro Test: 16'	Length After Hydro test: 16'

**Conclusion:** Hose #62429 passed the external inspection with no notable damages to the hose armor. Internal borescope of the hose showed no damage to the hose liner. Hose #62429 passed the hydrostatic pressure test by holding a pressure of 15,000PSI for 60 minutes. Hose #62429 is suitable for continued service.

**Recommendations**: In general the hose should be inspected on a regular on-going basis. The frequency and degree of the inspection should as a minimum follow these guidelines:

Visual inspection: Every 3 months (or during installation/removal)

Annual: In-situ pressure test

Initial 5 years service: Major inspection 2nd Major inspection: 8 / 10 years of service

(Detailed description of test regime available upon request, ISS-059 Rev 04)

\*\*NOTE: There are a number of critical elements in the hose that cannot be thoroughly checked through standard inspection techniques. Away from dissecting the hose body, the best way to evaluate the condition of the hose is through review of the operating conditions recorded during the hose service life, in particular maximums and peak conditions.

**Issued By:** Alejandro Jaimes **Date:** 10/25/2016

Checked By: Jeremy Mckay Date: 10/25/2016

**QF97** 

# Exhibit 1 EOG Resources 11" 10M PSI BOP Stack

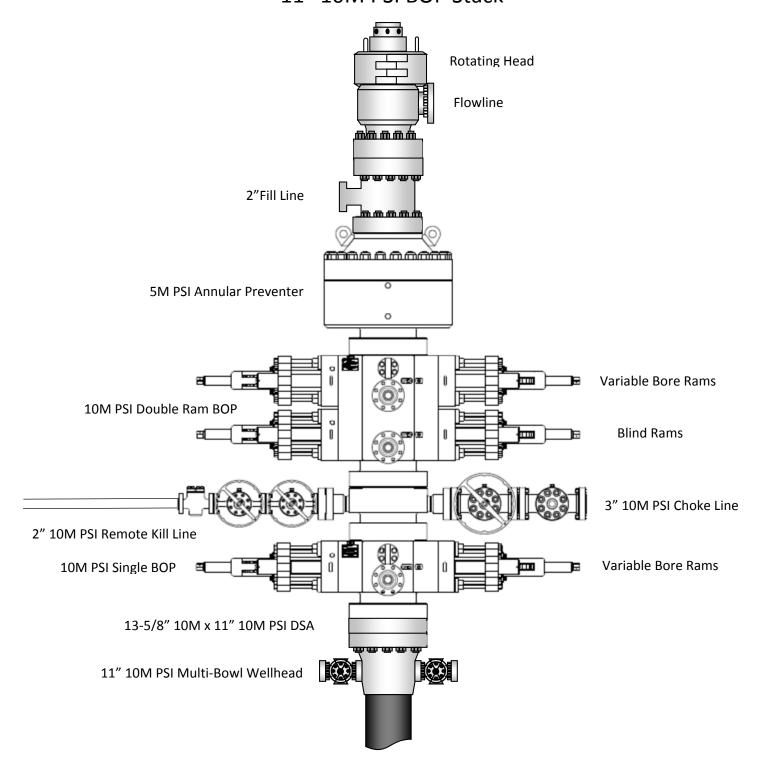
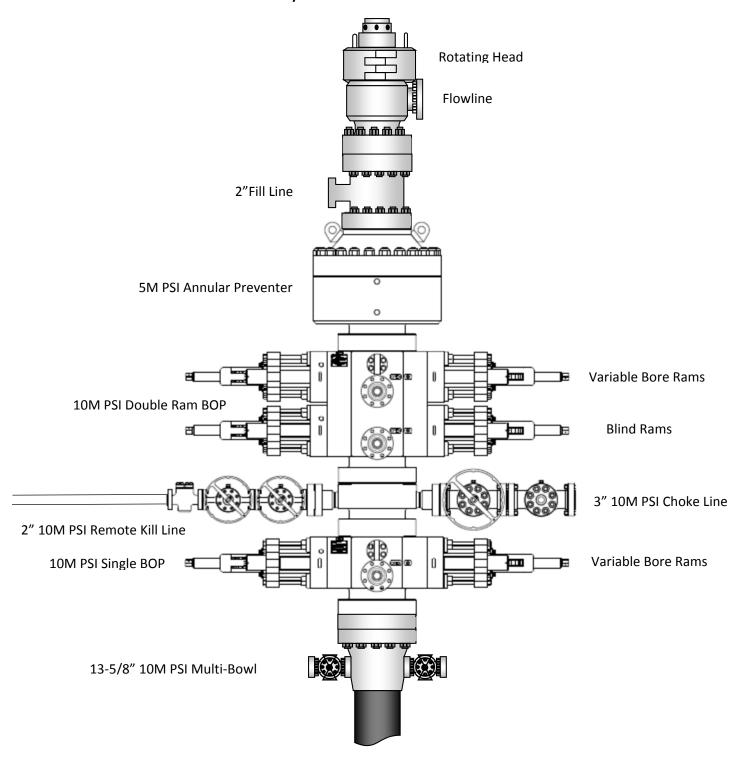


Exhibit 1
EOG Resources
13-5/8" 10M PSI BOP Stack



Metal One Corp.	MO-FXL		Page	MCTP			
14.10	WO-T XL		Date	3-Nov-1	16		
Metal <mark>O</mark> ne	Connection Data	Sheet	D				
			Rev.	0			
	Geometry	Imperia	<u>ıl</u>	<u>S.I.</u>			
	Pipe Body						
	Grade	P110HC *1		P110HC *1			
	Pipe OD ( D )	7 5/8	in	193.68	mm		
MO-FXL	Weight	29.70	lb/ft	44.25	kg/m		
	Actual weight	29.04		43.26	kg/m		
	Wall Thickness (t)	0.375	in	9.53	mm		
	Pipe ID (d)	6.875	in	174.63	mm		
	Pipe body cross section	8.537	in <sup>2</sup>	5,508	mm <sup>2</sup>		
	Drift Dia.	6.750	in	171.45	mm		
	Connection						
	Box OD ( W )	7.625	in	193.68	mm		
A	PIN ID	6.875	in	174.63	mm		
T 🔾	Make up Loss	4.219	in	107.16	mm		
	Box Critical Area	5.714	in <sup>2</sup>	3686			
Box	laint land officianous		0/	70	mm <sup>2</sup>		
critica	Thread Taper	70	/ 10 / 1	.2" per ft )	%		
3169	Number of Threads			TPI			
Make up loss	Performance Performance Properties for Pipe Body						
	Performance Properties ( S.M.Y.S. *1	1,067	kips	4,747	kN		
	M.I.Y.P. *1	10,760	psi	74.21	MPa		
Pin	Collance Strongth *1	7,360	psi	50.76	MPa		
area		ied Minimum YIELD Strength of Pipe body					
4	M.I.Y.P. = Minim *1 Based on VSB	um Internal Yield P110HC (YS=12	Pressur 5~140ks	re of Pipe body			
	Performance Properties			-40 MV 0 V			
<u> </u>	Tensile Yield load Min. Compression Yield			of S.M.Y.S.)			
	Internal Pressure			of S.M.Y.S.)	-		
	External Pressure	0,010 psi		of Collapse St	rength		
	Max. DLS ( deg./100ft)			0	aengar		
	Recommended Torque						
	Min.	15,500	ft-lb	21,000	N-m		
	Opti.	17,200	ft-lb	23,300	N-m		
	Max.	18,900	ft-lb	25,600	N-m		
	Operational Max.	23,600	ft-lb	32,000	N-m		
	Note: Operational Max. to						
	-,						

<u>District I</u> 1625 N. French Dr., Hobbs, NM 88240 Phone:(575) 393-6161 Fax:(575) 393-0720

811 S. First St., Artesia, NM 88210 Phone:(575) 748-1283 Fax:(575) 748-9720 District III
1000 Rio Brazos Rd., Aztec, NM 87410

Phone:(505) 334-6178 Fax:(505) 334-6170 1220 S. St Francis Dr., Santa Fe, NM 87505 Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 23203

#### **CONDITIONS OF APPROVAL**

Operator:			OGRID:		Action Type:
EOG RESOURCES INC	P.O. Box 2267 Midl	and, TX79702	7377	23203	C-103A

OCD Reviewer	Condition
pkautz	None