

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

Sundry Print Report

Well Name: DEEP ELEM 4 FED COM Well Location: T26S / R31E / SEC 4 / County or Parish/State:

SWSE /

Well Number: 727H Type of Well: OIL WELL Allottee or Tribe Name:

Lease Number: NMNM0438001 Unit or CA Name: Unit or CA Number:

US Well Number: 3001548555 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: 07/13/2021 Time Sundry Submitted: 11:22

Date proposed operation will begin: 08/21/2021

Procedure Description: EOG respectfully requests an amendment to our approved APD for this well to reflect the following changes: Change SHL to T-26-S, R-31-E, Sec 4, 408' FSL, 1998' FEL, Eddy Co., N.M. Change BHL to T-26-S, R-31-E, Sec 16, 230' FSL, 2630' FEL, Eddy Co., N.M.

Surface Disturbance

Is any additional surface disturbance proposed?: No

NOI Attachments

Procedure Description

DEEP_ELEM_4_FED_COM_727H_PLAT_SIGNED_20210713112146.pdf

Deep_Elem_4_Fed_Com_727H_Sundry_Info___Rev_SHL__BHL_6.10.2021_20210713111355.pdf

Page 1 of 2

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Page 2 of

Conditions of Approval

Additional Reviews

042631O_Sundry_2507479_Deep_Elem_4_Federal_Com_727H_Eddy_NMNM0438001_EOG_13_22_08252021_NMK _20210825105520.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: ERIC BRORMAN Signed on: JUL 13, 2021 11:22 AM

Name: EOG RESOURCES INCORPORATED

Title: Engineering Associate

Street Address: 5509 CHAMPIONS DRIVE

City: MIDLAND State: TX

Phone: (432) 556-1276

Email address: ERIC_BRORMAN@EOGRESOURCES.COM

Field Representative

Representative Name:

Street Address:

City: State: Zip:

Phone:

Email address:

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:** 09/01/2021

Signature: Chris Walls

Page 2 of 2



Revised Permit Information 06/10/2021:

Well Name: Deep Elem 4 Fed Com 727H

Location: SHL: 408' FSL & 1998' FEL, Section 4, T-26-S, R-31-E, Eddy Co., N.M.

BHL: 230' FSL & 2630' FEL, Section 16, T-26-S, R-31-E, Eddy Co., N.M.

Casing Program:

Hole		Csg				DFmin	DFmin	DFmin
Size	Interval	OD	Weight	Grade	Conn	Collapse	Burst	Tension
12.25"	0' - 1,440'	9.625"	36#	J-55	LTC	1.125	1.25	1.6
8.75"	0' - 10,220'	7.625"	29.7#	HCP-110	FXL	1.125	1.25	1.6
6.75"	0' - 9,720'	5.5"	20#	P-110EC	DWC/C-IS MS	1.125	1.25	1.6
6.75"	9,720' - 10,220'	5.5"	20#	P-110EC	VAM SFC	1.125	1.25	1.6
6.75"	10,220' - 21,988'	5.5"	20#	P-110EC	DWC/C-IS MS	1.125	1.25	1.6

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 production open hole section.

Cementing Program:

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		Wt.	Yld	Slurry Description
Depth	No. Sacks	ppg	Ft3/sk	, ,
1,440'	380	13.5	1.73	Lead: Class C + 4.0% Bentonite Gel + 0.5% CaCl2 + 0.25 lb/sk
9-5/8''				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 @ 1,235')
10,220'	480	14.2	1.11	1st Stage (Tail): Class C + 0.6% Halad-9 + 0.45% HR-601 + 3%
7-5/8''				Microbond (TOC @ 6,194')
	1060	14.8	1.5	2nd Stage (Bradenhead squeeze): Class C + 3% Salt + 1% PreMag-
				M + 6% Bentonite Gel (TOC @ surface)
21,988'	1040	14.2	1.31	Lead: Class H + 0.4% Halad-344 + 0.35% HR-601 + 3% Microbond
5-1/2''				(TOC @ 9,723')



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 top of cement at the Brushy Canyon (6,394') 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 1,063 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 will be verified by Echo-meter.

EOG will include the Echo-meter verified fluid top 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 – 1,440'	Fresh - Gel	8.6-8.8	28-34	N/c
1,440' – 10,220'	Brine	10.0-10.2	28-34	N/c
10,220' – 11,336'	Oil Base	8.7-9.4	58-68	N/c - 6
11,336' – 21,988'	Oil Base	10.0-14.0	58-68	4 - 6



408' FSL 1998' FEL **Revised Wellbore**

KB: 3304' GL: 3279'

Section 4

T-26-S, R-31-E

API: 30-015-48555

Bit Size: 12-1/4" 9-5/8", 36#, J-55, LTC, 0' - 1,440" Bit Size: 8-3/4" 7-5/8", 29.7#, HCP-110, FXL, 0' -10,220' TOC: 9,723' Bit Size: 6-3/4" Lateral: 21,988' MD, 11,750' TVD 5-1/2", 20#, P-110EC, DWC/C-IS MS, @ 0' -**Upper Most Perf:** 330' FSL & 2630' FEL Sec. 9 9,720' **Lower Most Perf:** 5-1/2", 20#, P-110EC, VAM SFC, @ 9,720' -330' FSL & 2630' FEL Sec. 16 BH Location: 230' FSL & 2630' FEL Sec. 16 5-1/2", 20#, P-110EC, DWC/C-IS MS, @ 10,220' -T-26-S R-31-E 21,988' KOP: 11,336'



Design B

4. CASING PROGRAM

Hole		Csg				DFmin	DFmin	DFmin
Size	Interval	OD	Weight	Grade	Conn	Collapse	Burst	Tension
16"	0' - 1,435'	13.375"	54.5#	J-55	STC	1.125	1.25	1.6
12.25"	0' - 4,020'	9.625"	40#	J-55	LTC	1.125	1.25	1.6
8.75"	0' - 10,223'	7.625"	29.7#	HCP-110	FXL	1.125	1.25	1.6
6.75"	0' - 9,723'	5.5"	20#	P-110EC	FXL	1.125	1.25	1.6
6.75"	9,723' - 10,223'	5.5"	20#	P-110EC	DWC/C-IS MS	1.125	1.25	1.6
6.75"	10,223' - 21,988'	5.5"	20#	P-110EC	VAM SFC	1.125	1.25	1.6

Cementing Program:

Cementii	ng Program:			
Depth	No. Sacks	Wt.	Yld Ft3/sk	Slurry Description
1,435' 13-3/8"	430	13.5	1.73	Lead: Class C + 4.0% Bentonite Gel + 0.5% CaCl2 + 0.25 lb/sk Cello-Flake (TOC @ Surface)
	100	14.8	1.34	Tail: Class C + 0.6% FL-62 + 0.25 lb/sk Cello-Flake + 0.2% Sodium Metasilicate (TOC @ 1,235')
4,013' 9-5/8"	590	12.7	2.22	Lead: Class C + 10% NaCl + 6% Bentonite Gel + 3% MagOx (TOC @ Surface)
	260	10.8	1.32	Tail: Class C + 10% NaCl + 3% MagOx (TOC @ 3,210')
10,223' 7-5/8"	200	14.8	3.67	Lead: Class H + 0.4% Halad-344 + 0.35% HR-601 + 3% Microbond (TOC @ 3,513')
21,988' 5-1/2"	100	14.8	2.38	Tail: Class H + 0.6% Halad-9 + 0.45% HR-601 + 3% Microbond (TOC @ 8,723')
	1040	14.8	1.31	Class H + 0.4% Halad-344 + 0.35% HR-601 + 3% Microbond (TOC @ 9,723')

As a contingency, EOG requests 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 top of cement at the Brushy Canyon (6,394') 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.

Mud Program:

Depth	Type	Weight (ppg)	Viscosity	Water Loss
0 – 1,435'	Fresh - Gel	8.6-8.8	28-34	N/c
1,435' – 4,013'	Brine	10.0-10.2	28-34	N/c
4,013' – 10,223'	Oil Base	8.7-9.4	58-68	N/c - 6
10,223' – 21,988' Lateral	Oil Base	10.0-14.0	58-68	4 - 6



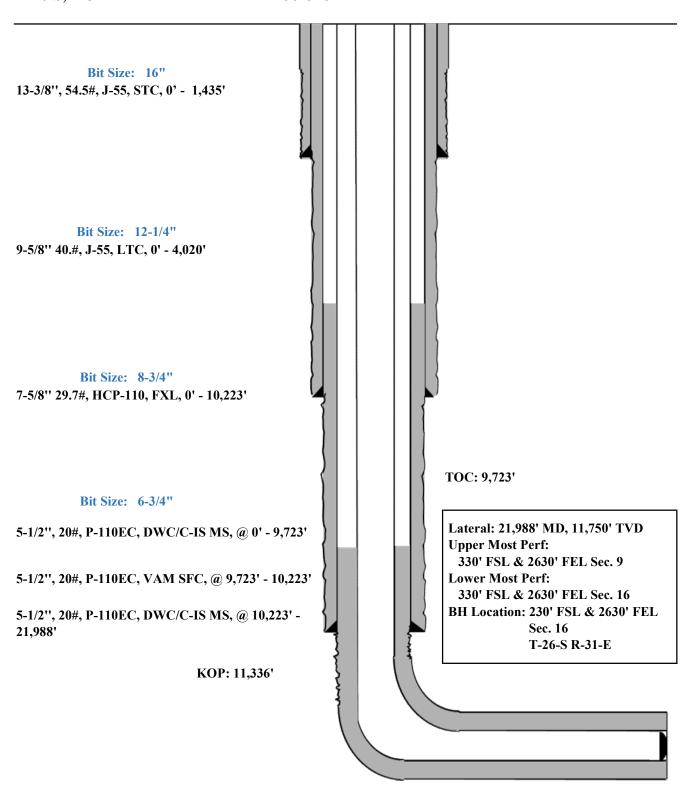
408' 1998' **Proposed Wellbore**

KB: 3304' GL: 3279'

Section 4

T-26-S, R-31-E

API: 30-015-****



DISTRICT I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
DISTRICT II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone: (505) 343-6178 Fax: (305) 334-6170
DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3406 Fax: (505) 476-3462

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

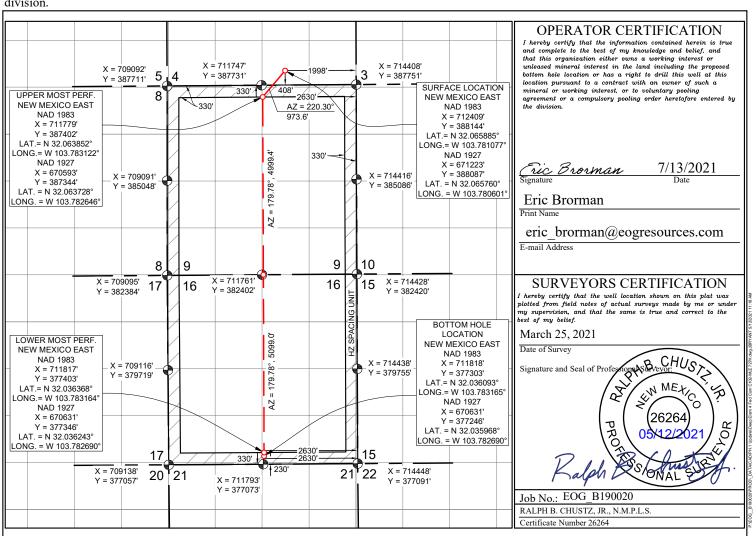
Form C-102 Revised August 1, 2011 Submit one copy to appropriate District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

30-015-48	PI Number 8555		Pool Code 98220 Purple Sage; Wolfcamp						
Property Co	ode				Property Name			Well Nur	nber
				DE	EP ELEM 4 FE	D COM		727H	1
OGRID N	o.				Operator Name			Elevati	on
7377				EO	G RESOURCE	S, INC.		3279	9'
		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	4	26 S	26 S 31 E		408	SOUTH	1998	EAST	EDDY
			Bott	om Hole l	Location If Diff	erent From Surfac	e		
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
0	16	26 S	6 S 31 E		230	SOUTH	2630	EAST	EDDY
Dedicated Acres	Joint or	Infill	Consolidated Co	de Orde	r No.	•	•	•	
1280.00									

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.



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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**

COMMENTS

Action 46260

COMMENTS

Operator:	OGRID:
EOG RESOURCES INC	7377
P.O. Box 2267	Action Number:
Midland, TX 79702	46260
	Action Type:
	[C-103] NOI Change of Plans (C-103A)

COMMENTS

Created By	Comment	Comment Date
kpickford	KP GEO Review 9/13/2021	9/13/2021

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

CONDITIONS

Action 46260

CONDITIONS

Operator:	OGRID:
EOG RESOURCES INC	7377
P.O. Box 2267	Action Number:
Midland, TX 79702	46260
	Action Type:
	[C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
kpickford	Adhere to previous NMOCD Conditions of Approval.	9/13/2021