

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD Hobbs

FORM APPROVED
OMB NO. 1004-0137
Expires: January 31, 2018**SUNDRY NOTICES AND REPORTS ON WELLS**
*Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.***SUBMIT IN TRIPLICATE - Other instructions on page 2**

1. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other		5. Lease Serial No. NMNM100864
2. Name of Operator DEVON ENERGY PRODUCTION COMPANY Contact: REBECCA DEAL Email: Rebecca.Deal@devon.com		6. If Indian, Allottee or Tribe Name
3a. Address 6488 SEVEN RIVERS HIGHWAY ARTESIA, NM 88211	3b. Phone No. (include area code) Ph: 405-228-8429	7. If Unit or CA/Agreement, Name and/or No.
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 4 T23S R34E SENW 2630FNL 300FWL		8. Well Name and No. RIO BLANCO 4 33 FED COM 1H
		9. API Well No. 30-025-43244-00-X1
		10. Field and Pool or Exploratory Area GRAMA RIDGE
		11. County or Parish, State LEA COUNTY, NM

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

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

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

Devon Energy Production Co., L.P. respectfully requests a casing design change for the Rio Blanco 4-33 Fed Com 1H. Please see attached Casing Sundry Document.

All previous COAs still apply

14. I hereby certify that the foregoing is true and correct. Electronic Submission #394329 verified by the BLM Well Information System For DEVON ENERGY PRODUCTION COMPANY LP, sent to the Hobbs Committed to AFMSS for processing by CHARLES NIMMER on 11/09/2017 (18CN0010SE)	
Name (Printed/Typed) REBECCA DEAL	Title REGULATORY COMPLIANCE PROFESSI
Signature (Electronic Submission)	Date 11/07/2017

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By CHARLES NIMMER	Title PETROLEUM ENGINEER	Date 11/09/2017
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.		Office Hobbs

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

(Instructions on page 2)

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

KZ

Devon Energy, Rio Blanco 4-33 Fed Com 1H

1. Geologic Formations

TVD of target	8,800'	Pilot hole depth	N/A
MD at TD:	16,129'	Deepest expected fresh water:	

Basin

Formation	Depth (TVD) from KB	Water/Mineral Bearing/ Target Zone?	Hazards*
Rustler	2293		
Salado	2674		
Capitan Reef	3540		
Base of Salt	5126		
Delaware	5126		
Lwr Brushy	8252		
1st BSPG Lime	8433		
LNRD A	8611		
LNRD A Target	8767		
LNRD A Target Base	8837		

*H2S, water flows, loss of circulation, abnormal pressures, etc.

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	Y or N
Is casing new? If used, attach certification as required in Onshore Order #1	Y
Does casing meet API specifications? If no, attach casing specification sheet.	Y
Is premium or uncommon casing planned? If yes attach casing specification sheet.	N
Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria).	Y
Will the intermediate pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	Y
Is well located within Capitan Reef?	N
If yes, does production casing cement tie back a minimum of 50' above the Reef?	
Is well within the designated 4 string boundary.	
Is well located in SOPA but not in R-111-P?	N
If yes, are the first 2 strings cemented to surface and 3 rd string cement tied back 500' into previous casing?	
Is well located in R-111-P and SOPA?	N
If yes, are the first three strings cemented to surface?	
Is 2 nd string set 100' to 600' below the base of salt?	
Is well located in high Cave/Karst?	N
If yes, are there two strings cemented to surface?	
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	

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2. Casing Program (Primary Design)

Hole Size	Casing Interval		Csg. Size	Weight (lbs)	Grade	Conn	Min SF Collapse	Min SF Burst	Min SF Tension
	From	To							
26"	0	800'	16"	75	J-55	BTC	1.125	1.00	1.6 Dry
18.125"	800'	2,318							1.8 Wet
13.5"	0	3,500'	11.875"	71.8	Q-125 HC	Vam HD-L	1.125	1.00	1.6 Dry 1.8 Wet
10.625"	0	5,100'	8.625"	32	K55 HC	LTC	1.125	1.00	1.6 Dry 1.8 Wet
7.875"	0	TD	5.5"	17	P110	BTC	1.125	1.00	1.6 Dry 1.8 Wet
BLM Minimum Safety Factor							1.125	1.00	1.6 Dry 1.8 Wet

All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.h
Must have table for contingency casing

Casing Program (Alternate Design)

Hole Size	Casing Interval		Csg. Size	Weight (lbs)	Grade	Conn	Min SF Collapse	Min SF Burst	Min SF Tension
	From	To							
26"	0	2,318'	20"	106.5	J-55	BTC	1.125	1.00	1.6 Dry 1.8 Wet
17.5"	0	3,500'	13.375"	54.5	J-55	BTC	1.125	1.00	1.6 Dry 1.8 Wet
12.25"	0	5,100'	9.625"	40	J-55	BTC	1.125	1.00	1.6 Dry 1.8 Wet
8.75"	0	TD	5.5"	17	P110	BTC	1.125	1.00	1.6 Dry 1.8 Wet
BLM Minimum Safety Factor							1.125	1.00	1.6 Dry 1.8 Wet

All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.h
Must have table for contingency casing

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3. Cementing Program (Primary Design)

Casing	# Sks	Wt. lb/ gal	H ₂ O gal/sk	Yld ft ³ / sack	500# Comp. Strength (hours)	Slurry Description
16" Surface	2235	13.5	9.22	1.73	12	Lead: 100% Class C Cement: 4% BWOC Bentonite + 0.125 lbs/sack Poly-E-Flake
	285	14.8	6.32	1.33	6	Tail: Class C Cement + 0.125 lbs/sack Poly-E-Flake
16" Surface Top Out	1200	14.8	6.32	1.33	6	Primary: Neat Class C Cement
11.875" Int 1	715	12.9	9.81	1.87	14	Lead: (65:35) Class C Cement: Poz (Fly Ash): 6% BWOC Bentonite + 5% BWOW Sodium Chloride + 0.125 lbs/sack Poly-E-Flake
	170	14.8	6.32	1.33	6	Tail: Class C Cement + 0.125 lbs/sack Poly-E-Flake
11.875" Int 1 Top Out	2235	13.5	9.22	1.73	12	Lead: 100% Class C Cement: 4% BWOC Bentonite + 0.125 lbs/sack Poly-E-Flake
8.625" Int 2	844	12.5	10.89	1.96	20	Lead: (65:35) Class H Cement: Poz (Fly Ash): 6% BWOC Bentonite + 5% BWOW Sodium Chloride + 0.125 lbs/sack Poly-E-Flake
	338	15.6	5.28	1.18	7.5	Tail: Class H Cement + 0.125 lbs/sack Poly-E-Flake
8.625" Int 2 Two Stage	390	12.9	9.81	1.87	14	Lead: (65:35) Class C Cement: Poz (Fly Ash): 6% BWOC Bentonite + 5% BWOW Sodium Chloride + 0.125 lbs/sack Poly-E-Flake
	55	14.8	6.32	1.33	6	Tail: Class C Cement + 0.125 lbs/sack Poly-E-Flake
	135	12.5	10.89	1.96	20	Lead: (65:35) Class H Cement: Poz (Fly Ash): 6% BWOC Bentonite + 5% BWOW Sodium Chloride + 0.125 lbs/sack Poly-E-Flake
	120	15.6	5.28	1.18	7.5	Tail: Class H Cement + 0.125 lbs/sack Poly-E-Flake
5.5" Prod	325	11	17.38	2.81	20	Lead: NeoCem®
	1225	13.2	7.46	1.47	6	Tail: NeoCem®

DV tool depth(s) will be adjusted based on hole conditions and cement volumes will be adjusted proportionally. DV tool will be set a minimum of 50 feet below previous casing and a minimum of 200 feet above current shoe. If cement is not returned to surface during the primary cement job on the surface casing string, a planned top job will be conducted immediately after completion of the primary job.

Casing String	TOC	% Excess
16" Surface	0ft	75%
11.875" Intermediate 1	0ft	50%
11.875" Intermediate 1 (Two Stage)	1 st Stage = 2368ft / 2 nd Stage = 0ft	50%
8.625" Intermediate 2	0ft	25%
8.625" Intermediate 2 (Two Stage)	1 st Stage = 3550ft / 2 nd Stage = 0ft	25%
5.5" Prod	4600'	10%

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Cementing Program (Alternate Design)

Casing	# Sks	Wt. lb/ gal	H ₂ O gal/sk	Yld ft/sk	500# Comp. Strength (hours)	Slurry Description
20" Surface	3185	13.7	8.89	1.73	7	Lead: Class C Cement + 2% Bentonite + 5lb/sk Salt
	1135	14.8	6.32	1.33	6	Tail: Class C Cement + 0.125 lbs/sack Poly-E-Flake
20" Surface Top Out	1200	14.8	6.32	1.33	6	Primary: Neat Class C Cement
13.375" Int 1	1480	12.9	9.81	1.87	14	Lead: (65:35) Class C Cement: Poz (Fly Ash): 6% BWOC Bentonite + 5% BWOW Sodium Chloride + 0.125 lbs/sack Poly-E-Flake
	690	14.8	6.32	1.33	6	Tail: Class C Cement + 0.125 lbs/sack Poly-E-Flake
13.375" Int 1 Two Stage	1020	12.9	9.81	1.87	14	Lead: (65:35) Class C Cement: Poz (Fly Ash): 6% BWOC Bentonite + 5% BWOW Sodium Chloride + 0.125 lbs/sack Poly-E-Flake
	390	14.8	6.32	1.33	6	Tail: Class C Cement + 0.125 lbs/sack Poly-E-Flake
	DV Tool = 2368ft					
	915	14.8	6.32	1.33	6	Tail: Class C Cement + 0.125 lbs/sack Poly-E-Flake
9.625" Int 2	840	12.9	9.81	1.87	14	Lead: (65:35) Class C Cement: Poz (Fly Ash): 6% BWOC Bentonite + 5% BWOW Sodium Chloride + 0.125 lbs/sack Poly-E-Flake
	355	14.8	6.32	1.33	6	Tail: Class C Cement + 0.125 lbs/sack Poly-E-Flake
9.625" Int 2 Two Stage	575	12.9	9.81	1.87	14	Lead Stage 1: (65:35) Class C Cement: Poz (Fly Ash): 6% BWOC Bentonite + 5% BWOW Sodium Chloride + 0.125 lbs/sack Poly-E-Flake
	145	14.8	6.32	1.33	6	Tail Stage 1: Class C Cement + 0.125 lbs/sack Poly-E-Flake
	290	12.9	9.81	1.87	14	Lead Stage 2: (65:35) Class C Cement: Poz (Fly Ash): 6% BWOC Bentonite + 5% BWOW Sodium Chloride + 0.125 lbs/sack Poly-E-Flake
	180	14.8	6.32	1.33	6	Tail Stage 2: Class C Cement + 0.125 lbs/sack Poly-E-Flake
5.5" Prod	523	11	17.38	2.811	20	Lead: NeoCem®
	1571	13.2	7.46	1.468	6	Tail: NeoCem®

DV tool depth(s) will be adjusted based on hole conditions and cement volumes will be adjusted proportionally. DV tool will be set a minimum of 50 feet below previous casing and a minimum of 200 feet above current shoe. If cement is not returned to surface during the primary cement job on the surface casing string, a planned top job will be conducted immediately after completion of the primary job.

Casing String	TOC	% Excess
20" Surface	0ft	100%
13.375" Intermediate	0ft	75%
13.375" Intermediate (Two Stage)	1 st Stage = 2368ft / 2 nd Stage = 0ft	75%
9.625" Intermediate	0ft	50%
9.625" Intermediate (Two Stage)	1 st Stage = 3450ft / 2 nd Stage = 0ft	50%
5.5" Prod	4600'	10%

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4. Pressure Control Equipment (Primary Casing Design)

BOP installed and tested before drilling which hole?	Size	Min Required WP	Type	✓	Tested to:
13-1/2"	13-5/8"	3M	Annular	x	50% testing pressure
			Blind Ram		3M
			Pipe Ram		
			Double Ram	x	
			Other*		
10-5/8"	13-5/8"	3M	Annular	x	50% testing pressure
			Blind Ram		3M
			Pipe Ram		
			Double Ram	x	
			Other*		
7-5/8"	13-5/8"	3M	Annular	x	50% testing pressure
			Blind Ram		3M
			Pipe Ram		
			Double Ram	x	
			Other*		

*Specify if additional ram is utilized.

N	A variance is requested for the use of a diverter on the surface casing. See attached for schematic.
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Pressure Control Equipment (Alternate Casing Design)

BOP installed and tested before drilling which hole?	Size	Min Required WP	Type	✓	Tested to:
17-1/2"	21-1/4"	2M	Annular	x	50% of working pressure
			Blind Ram		2M
			Pipe Ram		
			Double Ram		
			Other*		
12-1/4"	13-5/8"	3M	Annular	x	50% testing pressure
			Blind Ram		3M
			Pipe Ram		
			Double Ram	x	
			Other*		
8-3/4"	13-5/8"	3M	Annular	x	50% testing pressure
			Blind Ram		3M
			Pipe Ram		
			Double Ram	x	
			Other*		

*Specify if additional ram is utilized.

N	A variance is requested for the use of a diverter on the surface casing. See attached for schematic.
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Devon Energy, Rio Blanco 4-33 Fed Com 1H

5. Mud Program

Depth		Type	Weight (ppg)	Viscosity	Water Loss
From	To				
0	2,318'	FW Gel	8.4-8.6	28-34	N/C
2,318'	3,500'	Saturated Brine	10.0	28-34	N/C
3,500'	5,100'	Cut brine/brine	8.8-10	28-34	N/C
5,100'	TD	Cut brine	8.6-9.2	28-34	N/C

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all times.

What will be used to monitor the loss or gain of fluid?	PVT/Pason/Visual Monitoring
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