Submit 1 Copy To Appropriate District Office	State of New Me	xico	Form C-103
District I - (575) 393-6161	Energy, Minerals and Natur	ral Resources	Revised July 18, 2013
1625 N. French Dr., Hobbs, NM 88240 <u>District II</u> – (575) 748-1283	OIL CONSERVATION		30-025-45350
811 S. First St., Artesia, NM 88210 District III – (505) 334-6178	1220 South St. Fran	ois Dr. 5. Indica	te Type of Lease
1000 Rio Brazos Rd., Aztec, NM 87410	Santa Fe, NM 87	51	ATE X FEE   Dil & Gas Lease No.
<u>District IV</u> – (505) 476-3460 1220 S. St. Francis Dr., Santa Fe, NM	Suma ro, ruir or	o. State C	on & Gas Lease No.
(DO NOT USE THIS FORM FOR PROPO	TCES AND REPORTS ON WELLS DSALS TO DRILL OR TO DEEPEN OR PLU ICATION FOR PERMIT" (FORM C-101) FO	G BACK TO A	Name or Unit Agreement Name s 28-21 State Com
1. Type of Well: Oil Well	Gas Well 🗍 Other	Star 2018 8. Well N	Number 1H
2. Name of Operator	Deletier C. LD	9. OGRI	D Number 6137
3. Address of Operator	ergy Production Co. LP	NU. LIVI	name or Wildcat
•	heridan Ave OKC, OK 73102		SONE SPRING, SOUTH (96660)
4. Well Location			<u>Serie Si kirte, 500 mi (20000)</u>
		line and <u>2310</u> feet fro	-
Section 28	Township 21S Ra		Lea County
	11. Elevation (Show whether DR, 3712'	KKB, RI, GR, etc.)	
Entre & Bandana day - Alfa anni <u>de Sarana ana anna anna anna anna an anna an A</u> bhata anna an Abhata ann <u>a anna a</u>			
12. Check	Appropriate Box to Indicate Na	ature of Notice, Report or	Other Data
NOTICE OF I	NTENTION TO:	SUBSEQUE	NT REPORT OF:
PERFORM REMEDIAL WORK	PLUG AND ABANDON	REMEDIAL WORK	
TEMPORARILY ABANDON	CHANGE PLANS	COMMENCE DRILLING OPM	
PULL OR ALTER CASING	MULTIPLE COMPL	CASING/CEMENT JOB	
CLOSED-LOOP SYSTEM			
OTHER:		OTHER:	
	pleted operations. (Clearly state all p ork). SEE RULE 19.15.7.14 NMAC completion.		
	ectfully requests the following c	hanges to the original AF	PD:
Surface cosing chan	as to 25' below the Ductler ten	Companting volumes for	aurtaca
-	ge to 25' below the Rustler top. nsure cement gets back to surfa	Ũ	
casing adjusted to e	insure cement gets back to surre	tee with deeper easing str	ing
Please see attached	revised Drilling Plan		
r			
Spud Date:	Rig Release Dat	e:	
······································			
I hereby certify that the information	above is true and complete to the be	st of my knowledge and belief	•
SIGNATURE Kebeleh	ILLE_Regul	atory Analyst	DATE_11/15/2018
Type or print name <u>Rebecca Dea</u> For State Use Only	E-mail address:	rebecca.deal@dvn.com_	PHONE: <u>405-228-8429</u>
APPROVED BY:	TITLE	·	DATE 11/16/18
Conditions of Approval (if any):		roleum Engineer	
	Yer	74×2.	

# Devon Energy, Chiles 28-21 State Com 1H\_Drilling Plan

## 1. Geologic Formations

TVD of target	11,640	Pilot hole depth	N/A
MD at TD:	22,208	Deepest expected fresh water:	

Basin

Formation	Depth (TVD) from KB	Water/Mineral Bearing/ Target Zone?	Hazards*
Rustler	1817		
Top of Salt	2262		
Lower Brushy	8379		
1 <sup>st</sup> Bone Spring Lime	8542		
1 <sup>st</sup> Bone Spring Sand	9782		
2 <sup>nd</sup> Bone Spring Sand	10432		
3 <sup>rd</sup> Bone Spring Sand	11312		
Wolfcamp	11542		
	····		
			<u></u>

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

Hole	Casin	g Interval	Csg.	Weight	Grade	Conn.	SF	SF	SF
Size	From	То	Size	(lbs)			Collapse	Burst	Tension
17.5"	0	1850'	13.375"	48	H40	STC	1.125	1	1.6
12.25"	0	4500'	9.625"	40	J55	LTC	1.125	1	1.6
12.25"	4,500'	5,500'	9.625"	40	HCK-55	LTC	1.125	1	1.6
8.75"	0	22,208	5.5"	17	P110	BTC	1.125	1	1.6
				<b>BLM Min</b>	imum Safet	ty Factor	1.125	1	1.6 Dry
						-			1.8 Wet

#### 2. Casing Program

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

	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 <sup>rd</sup> 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 <sup>nd</sup> 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?	

Casing	# Sks	Wt. lb/ gal	Yld ft3/ sack	H20 gal/sk	500# Comp. Strength (hours)	Slurry Description
Surf.	1500	14.8	1.33	6.32	6	Lead: Class C Cement + 0.125 lbs/sack Poly-F- Flake
Inter.	742	10.3	3.65	22.06	24	Lead: (50:50) Poz (Silica) 3 lbm/sk Kol-Seal, .125 lbm/sk Poly-E-Flake
	153	14.8	1.33	6.32	6	Tail: Class C Cement + 0.125 lbs/sack Poly-F- Flake
Prod.	801	9	3.27	13.5	21	Lead: Tuned Light Cement
	2001	14.5	1.2	5.31	25	Tail: (50:50) Clas H Cement: Poz (Fly Ash) + 0.5% bwoc HALAD-344 + 0.4% bwoc CFR-3 + 0.2% BWOC HR-601 + 2% bwoc Bentonite

#### 3. Cementing Program

Casing String	TOC	% Excess
13-3/8" Surface	0'	50%
9-5/8" Intermediate	0,	30%
5-1/2" Production	5000'	25%

## 4. Pressure Control Equipment

N A variance is requested for the use of a diverter on the surface casing. See attached for schematic.

BOP installed and tested before drilling which hole?	Size?	Min. Required WP	1	уре		Tested to:
			An	nular	X	50% of working pressure
			Blin	d Ram		
12-1/4"	13-5/8"	3M	Pipe Ram			3M
			Dout	le Ram	x	5171
			Other*			
	13-5/8"	3M	Annular		x	50% of working pressure
			Blind Ram			
8-3/4"			Pipe Ram			
8-3/4			Double Ram		x	3M
			Other *			
			Annular			
			Blind Ram			

Pipe Ram	
Double Ram	
Other	
*	

\*Specify if additional ram is utilized.

BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per Onshore Order 2 requirements. The System may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all the components installed will be functional and tested.

Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. Other accessories to the BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold. See attached schematics.

<b></b>								
Y	Formation integrity test will be performed per Onshore Order #2.							
	On Exploratory wells or 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. Will be tested in							
	accordance with Onshore Oil and Gas Order #2 III.B.1.i.							
	A variance is requested for the use of a flexible choke line from the BOP to Choke							
Y	Manifold. See attached for specs and hydrostatic test chart.							
I								
	Y Are anchors required by manufacturer?							
Y	A multibowl wellhead is being used. The BOP will be tested per Onshore Order #2 after							
	installation on the surface casing which will cover testing requirements for a maximum of							
	30 days. If any seal subject to test pressure is broken the system must be tested.							
	Devon proposes using 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 3000 (3M) psi.							
	•							
	• Wellhead will be installed by wellhead representatives.							
	• If the welding is performed by a third party, the wellhead representative will							
	monitor the temperature to verify that it does not exceed the maximum							
	temperature of the seal.							
	• Wellhead representative will install the test plug for the initial BOP test.							
	• Wellhead company will install a solid steel body pack-off to completely isolate							
	the lower head after cementing intermediate casing. After installation of the							
	packoff, the pack-off and the lower flange will be tested to 3M, as shown on the							
	attached schematic. Everything above the pack-off will not have been altered							
	whatsoever from the initial nipple up. Therefore the BOP components will not be							
	retested at that time.							

0	If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head will be cut and top out operations will be conducted.
0	Devon will pressure test all seals above and below the mandrel (but still above the casing) to full working pressure rating.
0	Devon will test the casing to 0.22 psi/ft or 1500 psi, whichever is greater, as per Onshore Order #2.
rating pressu Low to If the condu	running the 13-3/8" surface casing, a 13-5/8" BOP/BOPE system with a minimum of 3M will be installed on the wellhead system and will undergo a 250 psi low are test followed by a 3,000 psi high pressure test. The 3,000 psi high and 250 psi. est will cover testing requirements a maximum of 30 days, as per Onshore Order #2. well is not complete within 30 days of this BOP test, another full BOP test will be cted, as per Onshore Order #2. running the 9-5/8' intermediate casing with a mandrel hanger, the 13-5/8" BOPE system with a minimum rating of 3M will already be installed on the ead.
pipe is and 3' addition	ipe rams will be operated and checked each 24 hour period and each time the drill s out of the hole. These tests will be logged in the daily driller's log. A 2" kill line ' choke line will be incorporated into the drilling spool below the ram BOP. In on to the rams and annular preventer, additional BOP accessories include a Kelly floor safety valve, choke lines, and choke manifold rated at 3,000 psi WP.
Devor or Car	n's proposed wellhead manufactures will be EMC Technologies, Cactus Wellhead, neron.
pipe is and 3'	ipe rams will be operated and checked each 24 hour period and each time the drill s out of the hole. These tests will be logged in the daily driller's log. A 2" kill line 'choke line will be incorporated into the drilling spool below the ram BOP. In on to the rams and annular preventer, additional BOP accessories include a kelly floor safety valve, choke lines, and choke manifold rated at 3,000 psi WP.

## 5. Mud Program

Depth From To		Туре	Weight (ppg)	Viscosity	Water Loss	
0	815	FW Gel	8.5-9.0	28-34	N/C	
815	5,500	Saturated Brine	10.0-11.0	28-34	N/C	
4,250	22,208	Cut Brine	8.5-9.3	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	PVT/Pason/Visual Monitoring
of fluid?	

#### 6. Logging and Testing Procedures

Logging, Coring and Testing.		
X	Will run GR/CNL from TD to surface (horizontal well – vertical portion of hole).	
	Stated logs run will be in the Completion Report and submitted to the BLM.	
	No Logs are planned based on well control or offset log information.	
	Drill stem test? If yes, explain	
	Coring? If yes, explain	

Add	itional logs planned	Interval
	Resistivity	Int. shoe to KOP
	Density	Int. shoe to KOP
Х	CBL	Production casing
Х	Mud log	KOP to TD
	PEX	

#### 7. Drilling Conditions

Condition	Specify what type and where?
BH Pressure at deepest TVD	4942 psi
Abnormal Temperature	No

Mitigation measure for abnormal conditions. Describe. Lost circulation material/sweeps/mud scavengers.

Hydrogen Sulfide (H2S) monitors will be installed prior to drilling out the surface shoe. If		
H2S is detected in concentrations greater than 100 ppm, the operator will comply with the		
provisions of Onshore Oil and Gas Order #6. If Hydrogen Sulfide is encountered, measured		
values and formations will be provided to the BLM.		
N	H2S is present	
Y	H2S Plan attached	

#### 8. Other facets of operation

Is this a walking operation? No. Will be pre-setting casing? No.

Attachments \_x\_ Directional Plan \_\_\_ Other, describe