B SUNDRY Do not use thi abandoned we	Contact: RATING LE-Mail: leland@pe	NTERIOR GEMENT RTS ON M drill or to re- b) for such ructions on LELAN AND	page 2 ERS sum.com	<u>resią</u>	OMB NO Expires: Jan	nent, Name and/or No. DERAL COM 21H	
4. Location of Well <i>(Footage, Sec., T</i> Sec 34 T19S R25E NWNE 70 32.622494 N Lat, 104.470985	9FNL 2174FEL W Lon				11. County or Parish, Si EDDY COUNTY,	NM	
<u></u>	PPROPRIATE BOX(ES)	TO INDICA					
TYPE OF SUBMISSION	 Acidize Alter Casing 	pen raulic Fracturing	🗖 Reclama		 Water Shut-Off Well Integrity Other 		
Final Abandonment Notice	Subsequent Report Casing Repair New Construction Recond Final Abandonment Notice Change Plans Plug and Abandon Tempore Convert to Injection Plug Back Water Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any						
Attach the Bond under which the wo following completion of the involved testing has been completed. Final Al determined that the site is ready for f Changing the production casin plan.	l operations. If the operation re bandonment Notices must be fil inal inspection.	sults in a multip ed only after all	e completion or reco requirements, includ	mpletion in a no ing reclamation	ew interval, a Form 3160 , have been completed an	-4 must be filed once d the operator has	
				DIS	TRICT II-ARTESIA (D.C.D.	
	Electronic Submission # For PERCUSSION I nmitted to AFMSS for proc	PETRO OPER	ATING LLC, sent SCILLA PEREZ o	to the Carlsb n 07/10/2018 (ad		
Name (Printed/Typed) BRIAN W	OOD		Title CONSU	ILTANT			
Signature (Electronic	Submission)		Date 07/05/2	018			
	THIS SPACE FO	DR FEDER	L OR STATE	OFFICE US	SE		
Approved By Conditions of approval, if any, are attache certify that the applicant holds legal or equivalent would entitle the applicant to condu-	uitable title to those rights in the uct operations thereon.	not warrant or subject lease	Garlsba	ad Fiel	ngineer d Office	JUbate 1 8 2018	
Title 18 U.S.C. Section 1001 and Title 43 States any false, fictitious or fraudulent				willfully to ma	ke to any department or a	igency of the United	
(Instructions on page 2) ** BLM REV	ISED ** BLM REVISE	D ** BLM R	EVISED ** BLN		** BLM REVISED) **	

٠

.

3LM REVISED **	BLM REVISED **	BLM REVISED **	BLM REVISED **	BLM REVISED *

Ruf 8-8-18

Percussion Petroleum Operating, LLC South Boyd Federal Com 21H SHL 709' FNL & 2174' FEL 34-19S-25E BHL 20' FNL & 2063' FEL 27-19S-25E Eddy County, NM

Drilling Program

Formation/Lithology	TVD	MD	Contents
Quaternary caliche	000′	000′	water
Grayburg dolomite	544'	544′	hydrocarbons
San Andres dolomite	824'	826′	hydrocarbons
(КОР	2039′	2050'	hydrocarbons)
Glorieta silty dolomite	2403′	2457′	hydrocarbons
Yeso dolomite	2538′	2710'	hydrocarbons & goal
TD	2527′	8142'	hydrocarbons

1. <u>ESTIMATED_TOPS</u> (no change)

2. <u>NOTABLE ZONES</u> (no change)

Yeso is the goal. Closest water well (RA 02958) is 2696' south. Depth to water was not recorded in this 450' deep well.

3. <u>PRESSURE CONTROL</u> (no change)

A 3000-psi 5000' rated BOP stack consisting of annular preventer and double (blind and pipe) ram will be used below surface casing to TD. See attached BOP and choke manifold diagrams.

Pressure tests will be conducted before drilling out from under all casing strings. Third party test crews will conduct all tests. All tests will be recorded for 10-minutes on low pressure (500 psi) and 10-minutes on high pressure (3000-psi). After BOP testing is complete, test casing (without test plug) to 2000-psi for 30 minutes. All tests will be charted on a plot. BOPs will be function tested every day.



DRILL PLAN PAGE 2 7-3-18

Percussion Petroleum Operating, LLC South Boyd Federal Com 21H SHL 709' FNL & 2174' FEL 34-19S-25E BHL 20' FNL & 2063' FEL 27-19S-25E Eddy County, NM

4. <u>CASING & CEMENT</u> (change to tapered long string & reduce cement volume)

All casing will be API and new. A contingency plan is attached.

Hole O. D.	Set MD	Set TVD	Casing O. D.	Weight (lb/ft)	Grade	Joint	Collapse	Burst	Tension
12.25"	0′ - 1274'	0′ - 1268'	Surface 9.625"	36	J-55	STC	1.125	1.125	1.8
8.75″	0' - 2325'	0' – 2299'	1 st Product. 7″	32	L-80	BTC	1.125	1.125	1.8
8.75"	2325′ - 8142'	2299' - 2527'	2 nd Product. 5.5"	17	L-80	втс	1.125	1.125	1.8

Casing Name	Туре	Sacks	Yield	Cu. Ft.	Weight	Blend
Surface	Lead	635	1.32	838	14.8	Class C + 2% CaCl + ¼ pound per sack celloflake
TOC = GL	TOC = GL 100% Excess centralizers per Onshore Orc				ntralizers per Onshore Order 2	
Production .	Lead	445	1.97	876	12.6	65/65/6 Class C + 6% gel + 5% salt + ¼ pound per sack celloflake + 0.2% C41-P
	Tail	1470	1.32	1940	14.8	Class C + 2% CaCl + ¼ pound per sack celloflake
TOC = GL >50% Excess		1 centralizer on 1 st collar and every 10 th collar to 1200' + 1 inside the surface casing				

5. <u>MUD PROGRAM</u> (no change)

An electronic/mechanical mud monitor with a minimum pit volume totalizer, stroke counter, and flow sensor will be used. All necessary mud products (LCM) will be on site to handle any abnormal hole condition that may be encountered while drilling this well. A closed loop system will be used.



Percussion Petroleum Operating, LLC South Boyd Federal Com 21H SHL 709' FNL & 2174' FEL 34-19S-25E BHL 20' FNL & 2063' FEL 27-19S-25E Eddy County, NM DRILL PLAN PAGE 3 7-3-18

Туре	Interval (MD)	lb/gal	Viscosity	Fluid Loss	Plastic Viscosity	Yield Point
fresh water/gel	0' - 1274'	8.4 - 9.2	36-42	NC	3-5	5-7
fresh water/cut brine	1274' - 2050'	8.3 - 9.2	28-30	NC	1	1
cut brine	2050' - 8142'	8.6 - 9.2	29-32	NC	4-5	6-10

6. <u>CORES, TESTS, & LOGS</u> (no change)

No core or drill stem test is planned.

A mud logger will be used from GL to TD. Samples will be collected every 10' in the lateral pay zone.

No electric logs are planned at this time.

7. <u>DOWN HOLE CONDITIONS</u> (no change)

No abnormal pressure or temperature is expected. Maximum expected bottom hole pressure is ≈ 1097 psi. Expected bottom hole temperature is ≈ 108 ° F.

A Hydrogen Sulfide Drilling Operation Plan is attached.

8. OTHER INFORMATION (no change)

Anticipated spud date is upon approval. It is expected it will take ≈ 1 month to drill and complete the well.

St. Devote LLC has operating rights in NMNM-504364B. St. Devote LLC is a subsidiary of Percussion.

