State of New Mexico Energy, Minerals and Natural Resources Department

Michelle Lujan Grisham Governor

Sarah Cottrell Propst Cabinet Secretary

Todd E. Leahy, JD, PhD Deputy Secretary Adrienne Sandoval, Division Director Oil Conservation Division



New Mexico Oil Conservation Division approval and conditions listed below are made in accordance with OCD Rule 19.15.7.11 and are in addition to the actions approved by BLM on the following 3160-4 or 3160-5 form.

Operator Signature Date: 5/1/2019 Well information:
30-039-06476 JICARILLA 110 #012
SOUTHLAND ROYALTY COMPANY LLC
Application Type:
P&A Drilling/Casing Change Location Change
Recomplete/DHC (For hydraulic fracturing operations review EPA Underground injection control Guidance #84; Submit Gas Capture Plan form prior t spudding or initiating recompletion operations)
Other:
Conditions of Approval:
 Notify NMOCD 24hrs prior to beginning operations.
 Extend plug #1 to 3090'-2538' BLM Ojo Alamo pick @ 2588'.
 Adjust plug #2 to 1218'-1350' to cover the Nacimiento top. RI M Nacimiento.

• Adjust plug #2 to 1218'-1350' to cover the Nacimiento top. BLM Nacimiento pick @ 1268'. OCD Nacimiento pick @ 1300'.

NMOCD Approved by Signature

Date

7/10/19

Form 3160-5 (June 2015)

UNITED STATES DEPARTMENT OF THE INTERIOR

BUREAU OF LAND MANAGEMENT SUNDRY NOTICES AND REPORTS ON WELLS

FORM APPROVED
OMB NO. 1004-0137
Expires: January 31, 2013

Date 06/27/2019

5. Lease Serial No. JIC110

If Indian, Allottee or Tr	ibe Nar	1

abandoned we	If Indian, Allottee or Tribe Name JICARILLA APACHE					
SUBMIT IN TRIPLICATE - Other instructions on page 2					7. If Unit or CA/Agree	eement, Name and/or No.
Type of Well Oil Well				8. Well Name and No JICARILLA 110 1		
Name of Operator SOUTHLAND ROYALTY COM	ERIC KITTII	NGER om		9. API Well No. 30-039-06476-0	00-S1	
3a. Address 400 W 7TH STREET FORT WORTH, TX 76102	3b. Phone No. (include area code) Ph: 817.334.8302			10. Field and Pool or Exploratory Area SOUTH BLANCO		
4. Location of Well (Footage, Sec., T	., R., M., or Survey Description	n)			11. County or Parish, State	
	Sec 17 T26N R5W NESW 1650FSL 1650FWL 36.484263 N Lat, 107.386149 W Lon				RIO ARRIBA COUNTY, NM	
12. CHECK THE A	PPROPRIATE BOX(ES)	TO INDICA	TE NATUR	E OF NOTICE	E, REPORT, OR OT	HER DATA
TYPE OF SUBMISSION			TYPI	E OF ACTION		
■ Notice of Intent	☐ Acidize	☐ Dec	epen	☐ Produc	ction (Start/Resume)	☐ Water Shut-Off
	☐ Alter Casing	□ Ну	draulic Fractur	ing Reclar	mation	☐ Well Integrity
☐ Subsequent Report	☐ Casing Repair	□ Ne	w Construction	☐ Recon	plete	Other
☐ Final Abandonment Notice	☐ Change Plans	☑ Plug and Abandon ☐ Tempora			orarily Abandon	
	☐ Convert to Injection	☐ Plu	☐ Plug Back ☐ Water □			
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 recomplete 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 recompletion 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. SRC requests approval to plug and abandon the Jicarilla 110 #12. Attached are the Proposed Procedure, WBDs, Proposed Reclamation Plan, and Noxious Weed Form.						
/ madrida are the reposed r	0004410, 11220, 110200	od i toolamati	on rian, and	TOXIOGO TTOOG		
NMOCD					Notify prior	NMOCD 24 hrs to beginning perations
				Perations		
	DISTRI	CT III				
14. I hereby certify that the foregoing is	s true and correct. Electronic Submission # For SOUTHLAND ted to AFMSS for processi	ROYALTY CO	MPANY, sent	to the Rio Pue	rco	
Name (Printed/Typed) CONNIE E	BLAYLOCK		Title REC	SULATORY AN	NALYST	
Signature (Electronic S	Submission)		Date 05/0	1/2019		
THIS SPACE FOR FEDERAL OR STATE OFFICE USE						
			T			

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.

TitlePETROLEUM ENGINEER

Office Rio Puerco



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.

_Approved By _JOE KILLINS __



UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT FARMINGTON DISTRICT OFFICE

6251 COLLEGE BLVD. FARMINGTON, NEW MEXICO 87402

Attachment to notice of Intention to Abandon:

Re: Permanent Abandonment Well: Jicarilla 110 12 API: 30-039-06476

CONDITIONS OF APPROVAL

- 1. Plugging operations authorized are subject to the attached "General Requirements for Permanent Abandonment of Wells on Federal and Indian Lease."
- 2. Farmington Office is to be notified at least 24 hours before the plugging operations commence (505) 564-7750.
- 3. CBL required after setting CIBP from 3090' to surface to confirm TOC. Submit electronic copy of the log for verification to the following addresses: jkillina@blm.gov and Brandon.Powell@state.nm.us. Based on CBL results inside/outside plugs and volumes will be adjusted accordingly. Please review the Genereal Requirements document to ensure volumes meet required excess inside and outside casing.
- 4. BLM picks formation tops as indicated in the table below for use in determining TOC for all plugs.

	<u>Top</u>
Nacimiento	1268
Ojo Alamo	2588
Kirtland	2754
Fruitland	2865
Pictured Cliffs	3174
Lewis Shale	3282
Chacra	4084

GENERAL REQUIREMENTS FOR PERMANENT ABANDONMENT OF WELLS ON FEDERAL AND INDIAN LEASES

FARMINGTON FIELD OFFICE

- 1.0 The approved plugging plans may contain variances from the following <u>minimum general</u> requirements.
 - 1.1 Modification of the approved plugging procedure is allowed only with the prior approval of the Authorized Officer, Farmington Field Office.
 - 1.2 Requirements may be added to address specific well conditions.
- 2.0 Materials used must be accurately measured. (densometer/scales)
- 3.0 A tank or lined pit must be used for containment of any fluids from the wellbore during plugging operations and all pits are to be fenced with woven wire. These pits will be fenced on three sides and once the rig leaves location, the fourth side will be fenced.
 - 3.1 Pits are not to be used for disposal of any hydrocarbons. If hydrocarbons are present in the pit, the fluids must be removed prior to filling in.
- 4.0 All cement plugs are to be placed through a work string. Cement may be bull-headed down the casing with prior approval. Cement caps on top of bridge plugs or cement retainers may be placed by dump bailer.
 - 4.1 The cement shall be as specified in the approved plugging plan.
 - 4.2 All cement plugs placed inside casing shall have sufficient volume to fill a minimum of 100' of the casing, or annular void(s) between casings, plus an excess volume sufficient to provide for 50 linear feet of fill above the plug.
 - 4.3 Surface plugs may be no less than 50' in length.
 - 4.4 All cement plugs placed to fill annular void(s) between casing and the formation shall be of sufficient volume to fill a minimum of 100' of the annular space plus 100% excess, calculated using the bit size, or 100' of annular capacity, determined from a caliper log, plus an excess volume sufficient to provide for 50 linear feet of fill above the plug.
 - 4.5 All cement plugs placed to fill an open hole shall be of sufficient volume to fill a minimum of 100' of hole, as calculated from a caliper log, plus an excess volume sufficient to provide for 50 linear feet of fill above the plug. In the absence of a caliper log, an excess of 100% shall be required.
 - 4.6 A cement bond log or other accepted cement evaluation tool is required to be run if one had not been previously ran or cement did not circulate to surface during the original casing cementing job or subsequent cementing jobs.

- 5.0 All cement plugs spotted across, or above, any exposed zone(s), when; the wellbore is not full of fluid or the fluid level will not remain static, and in the case of lost circulation or partial returns during cement placement, shall be tested by tagging with the work string.
 - 5.1 The top of any cement plug verified by tagging must be at or above the depth specified in the approved plan, without regard to any excess.
 - 5.2 Testing will not be required for any cement plug that is mechanically contained by use of a bridge plug and/or cement retainer, if casing integrity has been established.
 - 5.3 Any cement plug which is the only isolating medium, for a fresh water interval or a zone containing a prospectively valuable deposit of minerals, shall be tested by tagging.
 - 5.4 If perforations are required below the surface casing shoe, a 30 minute minimum wait time will be required to determine if gas and/or water flows are present. If flow is present, the well will be shut-in for a minimum of one hour and the pressure recorded. Short or long term venting may be necessary to evacuate trapped gas. If only a water flow occurs with no associated gas, shut well in and record the pressures. Contact the Engineer as it may be necessary to change the cement weight and additives.
- 6.0 Before setting any cement plugs the hole needs to be rolled. All wells are to be controlled by means of a fluid that is to be of a weight and consistency necessary to stabilize the wellbore. This fluid shall be left in place as filler between all plugs.
 - 6.1 Drilling mud may be used as the wellbore fluid in open hole plugging operations.
 - 6.2 The wellbore fluid used in cased holes shall be of sufficient weight to balance known pore pressures in all exposed formations.
- 7.0 A blowout preventer and related equipment (BOPE) shall be installed and tested prior to working in a wellbore with any exposed zone(s); (1) that are over pressured, (2) where the pressures are unknown, or (3) known to contain H₂S.
- 8.0 Within 30 days after plugging work is completed, file a Sundry Notice, Subsequent Report of Abandonment (Form 3160-5), five copies, with the Field Manager, Bureau of Land Management, 6251 College Blvd., Suite A, Farmington, NM 87402. The report should show the manner in which the plugging work was carried out, the extent, by depth(s), of cement plugs placed, and the size and location, by depth(s), of casing left in the well. Show date well was plugged.
- 9.0 All permanently abandoned wells are to be marked with a permanent monument as specified in 43 CFR 3162.6(d). Unless otherwise approved.
- 10.0 If this well is located in a Specially Designated Area (SDA), compliance with the appropriate seasonal closure requirements will be necessary.

All of the above are minimum requirements. Failure to comply with the above conditions of approval may result in an assessment for noncompliance and/or a Shut-in Order being issued pursuant to 43 CFR 3163.1. You are further advised that any instructions, orders or decisions issued by the Bureau of Land Management are subject to administrative review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR 3165.4 and 43 CFR 4.700.



P&A PLANNED PROCEDURE

Jicarilla 110 #12

- 1. MIRU.
- 2. Run a casing scraper to 3,110'
- 3. Set CIBP @ 3,090'
- 4. Spot 60 sx Class B Cement on top of plug. (est'd TOC @ 2,600). WOC. Tag TOC.
- 5. Spot balanced cement plug from 1,250' 1,350' with 12 sx Class B cement. WOC. Tag TOC.
- 6. Perforate 3 holes @ 155'.
- 7. Pump 53 sx Class B Cement to fill annulus up through bradenhead and production casing string to surface. If unable to circulate, top off as needed.
- 8. Cut off wellhead below surface casing flange. Install P&A marker.



Jicarilla 110 #12

Rio Arriba County, NM

Surface Csg: 5 jts 8 5/8" 24# J-55

Production Csg: 97 jts 5.5", 15.5# J-55

TD - 3,261'; PBTD - 3,225'

10.5" hole to 103' KB.

Setting Depth: 103'

Circulated to surface

7.25" hole to 3,261'

Setting Depth: 3,260' 100sx cement **TOC Unknown**

Cement

70 Sx

CURRENT

Prepared by: SThompson Date: 01/09/2018

> KB = 6,674GL = 6,665'

API# 30-039-06476

Spud Date: 10/29/1957 Date Completed: 12/24/1957

> Kirtland: 2,719' Fruitland: 2,890' Lewis: 3,235'

Ojo Alamo: 2,561' Pictured Cliffs: 3,152'

Prod Tbg 12/09/1957:

1 1/4" EUE Tbg, 2.4# 101 jts 3164' EOT = 3172'

PBTD: 6,429'

12/08/1957 3139'-3173' & 3190'-3208' 4 spf Sandfracutred with 24,600 gal water & 30,000# sand. Flushed with 3,400 gal water Dropped 100 rubber balls during treatment





PROPOSED P&A

KB = 6,674' GL = 6,665' API# 30-039-06476

Spud Date: 10/29/1957 Date Completed: 12/24/1957

Jicarilla 110 #12 Rio Arriba County, NM

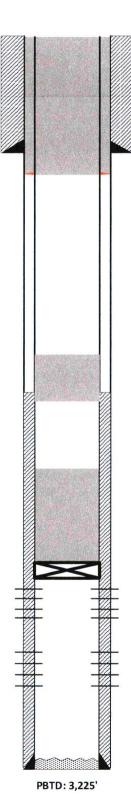
TD - 3,261'; PBTD - 3,225'

10.5" hole to 103' KB. Surface Csg: 5 jts 8 5/8" 24# J-55 Setting Depth: 103'

Cement 70 Sx Circulated to surface

7.25" hole to 3,261'
Production Csg: 97 jts 5.5", 15.5# J-55
Setting Depth: 3,260'
100sx cement
TOC Unknown

12/08/1957 3139'-3173' & 3190'-3208' 4 spf Sandfracutred with 24,600 gal water & 30,000# sand. Flushed with 3,400 gal water Dropped 100 rubber balls during treatment



PLUG 3:

Perf 3 holes @ 155'
33 sx cement in casing annulus & 20 sx cement inside 5.5" casing. Bring all cement to surface.

PLUG 2:

Balanced Cement Plug from 1,250' – 1,350' w/ 12 sx cmt.

PLUG 1:

Set CIBP @ 3,090' Top w/ 60 sx Cmt. TOC @ 2,600'