

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: 2/21/2020

Well information:

**30-039-05772 HALL #005**

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 to spudding or initiating recompletion operations)

Other:

Conditions of Approval:

- Notify NMOCD 24 Hours prior to commencing activities
- In addition to APD approved plugs
- Include a plug, 2250-2150.' OCD Nacimiento top @ 2200.'
- Include a plug, 3404'-3304.' OCD Kirtland top @ 3354.'

NMOCD Approved by Signature

6/4/2020  
Date

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

OCD Received  
4/29/2020

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.*

5. Lease Serial No.  
NMSF080536

6. If Indian, Allottee or Tribe Name

**SUBMIT IN TRIPLICATE - Other instructions on page 2**

7. If Unit or CA/Agreement, Name and/or No.

1. Type of Well  
 Oil Well  Gas Well  Other

8. Well Name and No.  
HALL 5

2. Name of Operator **SOUTHLAND ROYALTY COMPANY LLC** Contact: **ERIC KITTINGER**  
E-Mail: **EKITTINGER@MSPARTNERS.COM**

9. API Well No.  
30-039-05772-00-S1

3a. Address  
**AZTEC, NM 87410**

3b. Phone No. (include area code)  
Ph: **817-334-8302**

10. Field and Pool or Exploratory Area  
**BLANCO**

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
**Sec 28 T25N R3W SESW 990FSL 1650FWL  
36.364393 N Lat, 107.153605 W Lon**

11. County or Parish, State  
**RIO ARRIBA 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 type="checkbox"/> Other          |
|  | <input type="checkbox"/> Change Plans         | <input checked="" type="checkbox"/> Plug and Abandon | <input type="checkbox"/> Temporarily Abandon       |   |
|  | <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 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.

Southland Royalty Company LLC requests approval to plug and abandon the Hall #5.

Attached are the Proposed Procedure, Current and Proposed WBDs, Reclamation Plan, and Noxious Weed form.

14. I hereby certify that the foregoing is true and correct.

**Electronic Submission #504125 verified by the BLM Well Information System  
For SOUTHLAND ROYALTY COMPANY LLC, sent to the Rio Puerco  
Committed to AFMSS for processing by ALBERTA WETHINGTON on 02/25/2020 (20AMW0007SE)**

Name (Printed/Typed) **CONNIE BLAYLOCK**

Title **REGULATORY ANALYST**

Signature (Electronic Submission)

Date **02/21/2020**

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved By **JOE KILLINS**

Title **PETROLEUM ENGINEER**

Date **04/29/2020**

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 **Rio Puerco**

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 \*\***

AV

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: Hall 5

**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. Submit electronic copy of the CBL for verification to the following addresses: [jkillins@blm.gov](mailto:jkillins@blm.gov) , [jhoffman@blm.gov](mailto:jhoffman@blm.gov) and [Brandon.Powell@state.nm.us](mailto:Brandon.Powell@state.nm.us) . Based on CBL review inside/outside plugs and volumes may be adjusted accordingly. Please review the General Requirements document to ensure volumes meet required excess inside and outside casing.
  - a. BLM tops are based on the attached geologic report. Plugs will be adjusted based on cement coverage indicated by the CBL. Do not proceed with any additional plugging operations prior to reviewing CBL results with BLM and confirming plug depths.
4. All plugs must cover 50 feet above and below indicated formation. Minimum inside plug 100 feet plus 50 feet excess cement. See attached BLM geologic report.
  - a. BLM Fruitland formation top (3434 ft md). Plug: 3484-3384
  - b. BLM Ojo Alamo formation top (3184 ft md). Plug: 3234-3134
5. Minimum surface plug is 50 feet deeper than surface casing to surface. Perforate production casing at least 156 feet or deeper for surface plug.

**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 minimum general 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 H<sub>2</sub>S.

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.

HALL #5 30-039-05772

PROPOSED P&A PROCEDURE

1. MIRU.
2. POOH w/ tubing.
3. Run a casing scraper to 3,500'
4. Set CIBP @ 3,500'
5. Spot 12 sx Class G Cement on top of plug. (est'd TOC @ 3,400). WOC. Tag TOC.
6. RU and run CBL.
7. Circulate hole with mud laden fluid.
8. Spot balanced cement plug from 1,300' – 1,500' with 24 sx Class G cement. WOC. Tag TOC.
9. Perf squeeze hole @ 150'.
10. Cement into annulus with 26 sx Class G cement and inside casing w/ 18 sx Class G cement. Total cement 44 sx. Ensure cement at surface.
11. Cut off wellhead below surface casing flange. Install P&A marker.



Southland Royalty Company LLC

### Current

Prepared by: D. Poindexter

Date: 01/23/2020

KB = 7,195'

API# 30-039-05772

Spud Date: 12/16/1957

Date Completed: 04/07/1958

### Hall #5 Rio Arriba County, NM

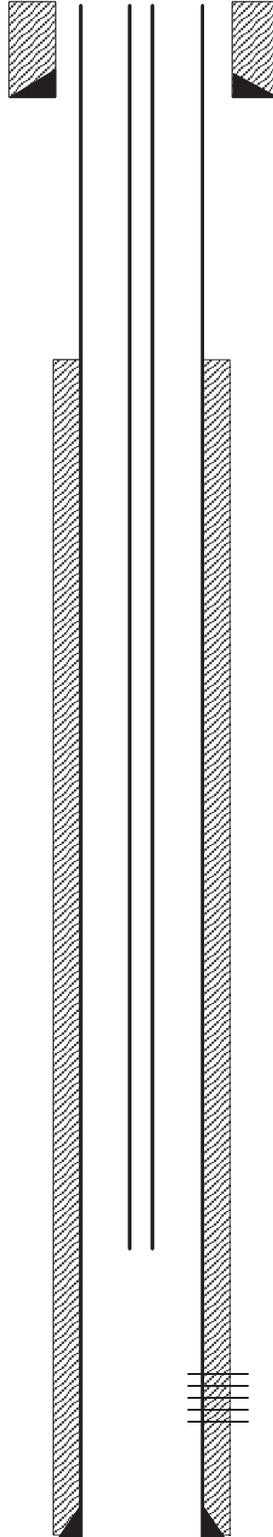
TD – 3,666'; PBTD – 3,628'

Surface Csg: 8 5/8", 24#, J-55  
Setting Depth: 106'

Cement  
70 sx Cement  
Cmt circulated

Production Csg: 5-1/2", 15.5#, J-55  
Setting Depth: 3,665'

Cement:  
100 sx cement  
TOC @ ?



**PC Perfs (1958):**  
3548'-66'  
3572' - 80'  
Frac'd

**Tubing: 1-1/4" tubing**



Southland Royalty Company LLC

### Proposed P&A

Prepared by: D. Poindexter

Date: 01/23/2020

KB = 7,195'

API# 30-039-05772

Spud Date: 12/16/1957

Date Completed: 04/07/1958

### Hall #5 Rio Arriba County, NM

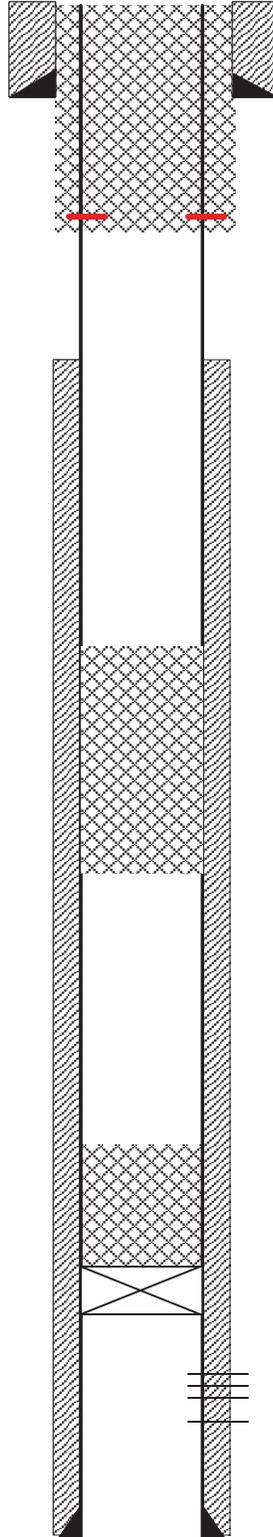
TD – 3,666'; PBTD – 3,628'

Surface Csg: 8 5/8", 24#, J-55  
Setting Depth: 106'

Cement  
70 sx Cement  
Cmt circulated

Production Csg: 5-1/2", 15.5#, J-55  
Setting Depth: 3,665'

Cement:  
100 sx cement  
TOC @ ?



**PLUG 3**  
Perf @ 150'  
26 sx cement into annulus & 18 sx  
cmt inside casing.  
Total cement = 44 sx  
Cement 150' - sfc

**PLUG 2**  
24 sx cement from  
1,300' – 1,500'

**PLUG 1**  
CIBP @ 3,500  
12 sx Class G cement  
TOC @ 3,400'

**PC Perfs (1958):**  
3548'-66'  
3572' - 80'  
Frac'd

**BLM FLUID MINERALS  
Geologic Report**

**Date Completed:** 4/16/20

|                      |            |                             |  |       |            |       |     |
|----------------------|------------|-----------------------------|--|-------|------------|-------|-----|
| Well No.             | Hall #5    | Location                    | 990'                                   | FSL   | &          | 1650' | FWL |
| Lease No.            | NMSF080536 | Sec. 28                     | T25N                                   |       |            | R3W   |     |
| Operator             | Southland  | County                      | Rio Arriba                             | State | New Mexico |       |     |
| Total Depth          | 3666'      | PBTD 3666'                  | Formation Blanco Pictured Cliffs South |       |            |       |     |
| Elevation (GL) 7183' |            | Elevation (KB) 7195' (est.) |  |       |            |       |     |

| Geologic Formations   | Est. Top | Est. Bottom | Log Top | Log Bottom | Remarks                     |
|-----------------------|----------|-------------|---------|------------|-----------------------------|
| San Jose Fm           |          |             | Surface | 2200'      | Surface/Fresh water sands   |
| Nacimiento Fm         |          |             | 2200'   | 3184'      |                             |
| Ojo Alamo Ss          |          |             | 3184'   | 3354'      | Aquifer (fresh water)       |
| Kirtland Shale        |          |             | 3354'   | 3434'      |                             |
| Fruitland Fm          |          |             | 3434'   | 3554'      | Coal/Gas/Possible water     |
| Pictured Cliffs Ss    |          |             | 3554'   | 3614'      | Gas                         |
| Lewis Shale           |          |             | 3614'   |            |                             |
| Chacra                |          |             |         |            | Probable water or dry       |
| Cliff House Ss (main) |          |             |         |            | Water/Possible gas          |
| Menefee Fm            |          |             |         |            | Coal/Ss/Water/Possible O&G  |
| Point Lookout Ss      |          |             |         |            | Probable water/Possible O&G |
| Mancos Shale          |          |             |         |            | Source rock                 |
| Gallup                |          |             |         |            | O&G/Water                   |
| Dakota                |          |             |         |            | O&G/Water                   |
|                       |          |             |         |            |                             |
|                       |          |             |         |            |                             |

Remarks:  
P & A

- Please ensure that the tops of the Pictured Cliffs and Fruitland formations as well as the entire Ojo Alamo aquifer, identified in this report, are isolated by proper placement of cement plugs. This will protect the freshwater sands in this well bore.

Reference Well:

1)Rim Operating                      Fm. Tops  
Ora # 3  
1900' FNL, 2270' FEL  
T25N, R3W, Sec 28  
GL= 7183'

**Prepared by:** Walter Gage