submitted in lieu of Form 3160-5

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED
MAIL ROOM

Sundry Notices and Reports on Wells

95 DEC 12 AM 8:00

070 FARMINGTON, NM

1. **Type of Well**
GAS

5. **Lease Number**
SF-078115

6. **If Indian, All. or Tribe Name**

7. **Unit Agreement Name**

2. **Name of Operator**
SOUTHLAND ROYALTY COMPANY

8. **Well Name & Number**
Grenier #15

3. **Address & Phone No. of Operator**
PO Box 4289, Farmington, NM 87499 (505) 326-9700

9. **API Well No.**
30-045-11668

4. **Location of Well, Footage, Sec., T, R, M**
1470'FNL, 1690'FWL, Sec.18, T-31-N, R-11-W, NMPM

10. **Field and Pool**
Basin Dakota

11. **County and State**
San Juan Co, NM

12. **CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OTHER DATA**

Type of Submission	Type of Action		
_X_ Notice of Intent	___ Abandonment	___ Recompletion	___ Plugging Back
___ Subsequent Report	___ Casing Repair	___ Altering Casing	_X_ Other - Pay add
___ Final Abandonment	___ Change of Plans	___ New Construction	___ Non-Routine Fracturing
	___ Water Shut off	___ Conversion to Injection	

13. **Describe Proposed or Completed Operations**

It is intended to add pay to the Dakota formation of the subject well according to the attached procedure and wellbore diagram.

RECEIVED
DEC 18 1995
OIL CON. DIV.
DIST. 3

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

Signed Peggy Bradfield (TJM4) Title Regulatory Administrator Date 12/11/95

(This space for Federal or State Office use)
APPROVED BY _____ Title _____ Date **APPROVED**
CONDITION OF APPROVAL, if any:

DEC 14 1995

DISTRICT MANAGER

NMOCD

PERTINENT DATA SHEET
Grenier 15

Location: Unit Letter "F", 1470' FNL, 1690 FWL, Sec 18, T31N-R11W, San Juan County, NM

Lat-Long by TDG: 36.901932-108.034134

Field: Basin Dakota **Elevation:** 6147' GR KB = 10' **PBTD:** 7357'

Spud Date: 4 - 4 - 66 **Completed:** 5 - 16 - 66 **Workover:** 2/22/69

Casing/Liner Record:

Hole size	Csg Size	Wt & Grade	Depth Set	Cement	Top/Cement
12-1/4"	8-5/8"	24	266'	225 SX	Surface
7-7/8"	4-1/2"	11.6 & 10.5 Repaired leak @ 4360'	7390'	970 SX 200 SX	5239' 3583'

Float Collar @ 7357'
1st Stage Collar @ 5285'
2nd Stage Collar @ 2814'

Tubing Record:

Tbg Size	Wt & Grade	Depth Set
1-1/2"	2.75	7230'

Formation Tops:

Pictured Cliffs	2713'
Cliffhouse	4285'
Point Lookout	4950'
Gallup	6312'
Greenhorn	7022'
Graneros	7074'
Graneros Sand	7132'
Dakota	7210'

Logging record: ES-I-DL

Stimulation:

Graneros Sand
Perf: 7133'-7137', 7143'-7152' 4 SPF

Upper Dakota
Perf: 7212'-7246'

Frac: 60,000# 20/40 sand & 54,700 gallons water 4#/100 FRH 1% $CaCl_2$. Breakdown pressure 1800 ATP 2875 MP 3600

Workover History:

2/22/69: Casing repair. Squeezed w/200 sx Class A w/2% CaCl, 12-1/2# gilsonite and 2000 pounds of pressure.

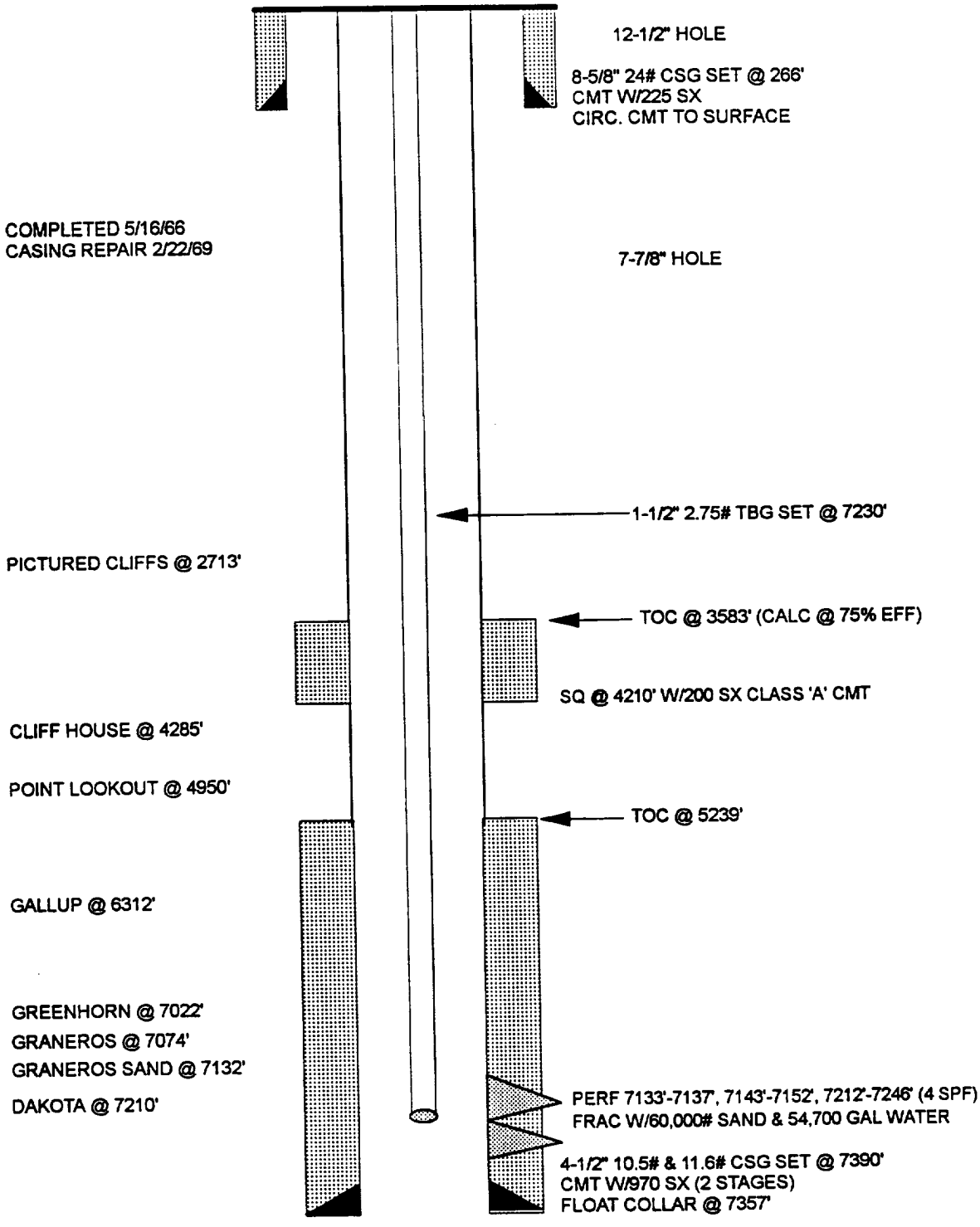
GRENIER #15

AS OF 6/05/95

BASIN DAKOTA

UNIT F, SEC 18, T31N, R11W, SAN JUAN COUNTY, NM

LATITUDE 36.901932, LONGITUDE 108.034134



TD 7391'

LMG - ENGINEERING

GRENIER 15

SECTION 18-T31N-R11W

LATTITUDE 36.901932, LONGITUDE 108.034134

COMPLETION PROCEDURE FOR PURPOSE OF PAYADD

1. Comply w/ all BLM, MOI and NMOCD rules and regulations. MOL and RU. NU BOP flow tree and stripping head. Test rams.

2. Spot 6 - 400 bbl frac tanks and fill w/ 2% KCl.

3. TOH 235 joints 1-1/2" EUE- 2.75 # tubing set @ 7230' and lay down.

4. PU and TIH w/ 3-7/8" bit on 2-3/8" N-80 4.7# work string and 4 3-1/8" drill collars. Drill out float collar @ 7357' and 28' additional cement w/ water to new PBTD of 7385' (If unable to hold water column drill w/ mist system. TOH.

5. PU 4-1/2" casing scraper and TIH on work string. Roll hole w/ 1 hole volume 2% KCl water if hole won't hold fluid column. TOH.

6. RU wireline company. Run GR-CCL-CBL from TD to TOC or top of fluid column and tie into attached Depth Control log. RD wireline.

7. TIH w/ 4-1/2" full bore packer. Set packer @ 7255'.

***** HOLD SAFETY MEETING WITH ALL PERSONNEL BEFORE PRESSURE TESTING *****

8. Pressure test casing below perfs to 4300 psi for 15 minutes. TOH w/ packer.

9. RU wireline. Perforate from 7352'-7358' (3-1/8" HSC-13 gram-0.41" hole - 4 SPF - total 24 shots). Inspect guns to ensure all shots fired. RD wireline.

10. PU 4-1/2" full bore packer, TIH w/ 2-3/8" EUE-4.7#-N80 tubing. Set packer @7260'.

11. RU stimulation crew and breakdown perfs w/ 750 gallons 15% HCl acid and ball off w/ 48-1.3 SG 7/8" RCN ball sealers. **MAX STATIC PRESSURE - 4300#.** Acid is to contain:

    Iron Control-Fe-1A @ 5.00 gals/1000 gals
    Iron Control-Fe-2 @ 25.00 lbs/1000 gals
    Corrosion Inhibitor-HAI-81 M @ 2.00 gals/1000 gals
    Surfactant-SSO-21M @ 2.00 gals/1000 gals

12. Release packer and TIH to knock balls off. TOH and reset packer @ 7260'. Flow test for 6 hours. Swab if well won't flow. TOH w/ packer.

13. PU F-Nipple, TIH w/ 1 joint 2-3/8" N-80 4.7# tubing, PU 4-1/2" FH packer, TIH w/ 5 joints 2-3/8" N-80 4.7# tubing, PU second FH packer, TIH w/ 8 joints 2-3/8" stinger and 2-7/8" buttress. Set packers @ 7260' and 7110'. Run in blanking plug and pressure test frac string to 6000#. Retrieve blanking plug.

***** HOLD SAFETY MEETING WITH ALL PERSONNEL BEFORE PRESSURE TESTING *****

14. Pressure test surface lines to 7000#.

15. Fracture stimulate w/ the following attached procedure. Hold 500 # on the backside while fracing. Mix in Iridium isotope for RA Tagging. **MAX TREATING PRESSURE = 5400#. ANTICIPATED PRESSURE = 3295#. MAX STATIC PRESSURE 4300#.** Frac consultant will need to be present for the frac job. Additives for the frac gel will be:

    Mixing Fluid - 2% KCL Water
    Biocide-BE-6-0.18 lbs/1000 gals
    Crosslinker-CL-28M-0.9 gal/1000 gals
    Gelling Agent-LGC-8-7.5 gal/1000 gals
    pH Buffer-MO-67-0.5 gal/1000 gals
    Breaker-SP Breaker-0.4 lbs/1000 gals
    Surfactant-SSO-21M-2 gal/1000 gals

16. RD stimulation crew and wait 3 hours for gel to break.

17. Flow well back until there is no more sand production and water has decreased to 4 bbls/hr. If sand production is present flow back through choke @ 20 BPM or less.

18. Once flow has minimized release packers and TOH. Send full bore and FH packers to Baker warehouse to be redressed.

19. CO to new PBTD and get clean pitot gauge.

20. RU wireline and PU CIBP and set @ 7320'. RD wireline.

21. RU wireline and perforate 7270'-7280' and 7290'-7308' (3-1/8" HSC-13 gram-0.41" hole - 4 SPF - total 112 shots). Inspect gun to ensure all shots fired. RD wireline.

22. PU 4-1/2" full bore packer and TIH. Set packer @ 7315'. Test CIBP to 4300#. TOH and set packer @ 7260'.

23. RU stimulation crew and breakdown perfs w/ 750 gallons 15% Hcl acid and ball off w/ 150-1.3 SG 7/8" RCN ball sealers. **MAX STATIC PRESSURE - 4300#.** Acid is to contain:

    Iron Control-Fe-1A @ 5.00 gals/1000 gals
    Iron Control-Fe-2 @ 25.00 lbs/1000 gals
    Corrosion Inhibitor-HAI-81 M @ 2.00 gals/1000 gals
    Surfactant-SSO-21M @ 2.00 gals/1000 gals

24. Release packer and TIH to knock balls off. TOH w/ packer.

25. PU F-Nipple, TIH w/ 1 joint 2-3/8" N-80 4.7# tubing, PU 4-1/2" FH packer, TIH w/ 5 joints 2-3/8" N-80 4.7# tubing, PU second FH packer, TIH w/ 8 joints 2-3/8" stringer and 2-7/8" buttress. Set packers @ 7260' and 7110'. Run in blanking plug and pressure test frac string to 7500#. Retrieve blanking

***** HOLD SAFETY MEETING WITH ALL PERSONNEL BEFORE PRESSURE TESTING *****

26. Pressure test surface lines to 8500#.

27. Fracture stimulate w/ the following attached procedure. Hold 500 # on the backside while fracing. Mix in Iridium isotope for RA Tagging. **MAX TREATING PRESSURE = 6400#. ANTICIPATED PRESSURE = 4256#. MAX STATIC PRESSURE 4300#.** Frac consultant will need to be present for the frac job. Additives for the frac gel will be:

Mixing Fluid - 2% KCL Water
Biocide-BE-6-0.18 lbs/1000 gals
Crosslinker-CL-28M-0.9 gal/1000 gals
Gelling Agent-LGC-8-7.5 gal/1000 gals
pH Buffer-MO-67-0.5 gal/1000 gals
Breaker-SP Breaker-0.4 lbs/1000 gals
Surfactant-SSO-21M-2 gal/1000 gals

28. RD stimulation crew and wait 3 hours for the gel to break.

29. Flow well back until there is no more sand production and water production has decreased to 4 bbls/ hour. If sand production is present flow back through choke @ 20 BPM or less.

30. Release packer and TOH after water and sand production has minimized. Lay down frac string.

31. PU 3-7/8" mill on 2-3/8" workstring and TIH. CO to CIBP set @ 7320'.

32. Get clean pitot gauge before drilling out CIBP. Drill out CIBP @ 7320 w/ air/mist system.

33. CO to new PBTD @ 7385'. TOH when well is clean.

34. RU wireline and run after-frac from new PBTD to 500' above top of last isotope reading perf. RD wireline.

35. PU pumpout plug, TIH w/ 1-1/2" tubing w/ F-nipple 1 joint off bottom. Land tubing @ 7358'.

36. ND BOP's, NU wellhead. Pump out plug. Obtain final pitot gauge. RDMO. Return well to production.

APPROVED: PJB ____
Drilling Supervisor

RECOMMEND: Gerald P Zick
Team Leader

VENDORS:

	COMPANY	PHONE NUMBER
WIRELINE:	Halliburton	327-4751
STIMULATION:	Halliburton	325-3575
RA TAGGING:	Pro-Technics	326-7133

TELEPHONE NUMBERS:

Engineering - **Louis R. Shepard**
Office 326-9785
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Frac Consultant - **Mark Byars**
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Mobile 320-0349
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Mike Martinez
Pager 599-7429
Mobile 860-7518
Home 326-4861

LRS