

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Sundry Notices and Reports on Wells

1. Type of Well
GAS

RECEIVED
NOV 23 1994

2. Name of Operator
SOUTHLAND ROYALTY COMPANY

OIL CON. DIV.
DIST. 3

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

4. Location of Well, Footage, Sec., T, R, M
790' FSL, 1850' FEL, Sec. 4, T-27-N, R-11-W, NMPM

5. Lease Number
NM-048567
6. If Indian, All. or
Tribe Name
7. Unit Agreement Name
8. Well Name & Number
Frontier E #1
9. API Well No.
30-045-13045
10. Field and Pool
Kutz Gal/Basin DK
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

<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Abandonment	<input type="checkbox"/> Change of Plans
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Recompletion	<input type="checkbox"/> New Construction
<input type="checkbox"/> Final Abandonment	<input type="checkbox"/> Plugging Back	<input type="checkbox"/> Non-Routine Fracturing
	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> Water Shut off
	<input type="checkbox"/> Altering Casing	<input type="checkbox"/> Conversion to Injection
	<input checked="" type="checkbox"/> Other -	

13. Describe Proposed or Completed Operations

It is intended to repair the subject well according to the attached procedure and wellbore diagram.

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

Signed [Signature] (LWD2) Title Regulatory Affairs Date 11/11/94

(This space for Federal or State Office use)

APPROVED BY _____ Title _____ Date _____

CONDITION OF APPROVAL, if any:

APPROVED

NOV 21 1994

DISTRICT MANAGER

NMOCD

WORKOVER PROCEDURE

FRONTIER E # 1
Gallup/Dakota Duel
SE/4 Sec. 4, T27N, R11W
San Juan Co., New Mexico

1. Test location rig anchors and repair if necessary. Prepare blow pit. Comply to all NMOCD, BLM, and MOI regulations.
2. MOL and RU daylight pulling unit. Conduct safety meeting for all personnel on location. NU relief line to atmospheric tank.
3. Blow down both the Dakota tubing and the Gallup tubing to atmospheric tank. ND wellhead and NU BOP's. Test and record operation of BOP's. Send wellhead to A-1 Machine for inspection.
4. PU on Gallup tubing, backout set screws in tubing hanger, unseat tubing from string anchor (Baker Model 699) at 6010', and strap out of hole. If Gallup kicks, load backside (187 bbl capacity) with 2% KCL. Visually inspect Gallup tubing string (on trip), and replace joints of tubing that are in bad condition.
5. PU on Dakota tubing, backout set screws in tubing hanger, and unseat tubing from the permanent packer (Baker Model D) at 6480' and strap out of hole. Visually inspect Dakota tubing string (on trip), and replace joints of tubing that are in bad condition.
6. TIH open-ended with a notched collar on bottom and wash to the top the packer at 6480'. Circulate hole clean and TOOH.
7. TIH with test assembly for the permanent packer, and also with a retrievable packer with an F nipple and blanking plug located directly above the retrievable packer. Set test assembly into packer, and set retrievable packer at 6390'. Pressure test tubing string to 1000 psig. Retrieve blanking plug with wireline. Pressure test Model D packer to 1000 psig. If pressure test is successful, proceed to step # 8, if unsuccessful proceed to step # 8a.
8. Release retrievable packer and POOH to 6000'. Spot 10 bbl Westchem A-Sol P-38 solvent. Pull up hole and set retrievable packer at 5745'. Displace P-38 solvent with 6.0 bbl of water down the tubing. Shut well in overnight (Solvent must sit in perforations a minimum of 16 hours). Flow or swab well back, and catch sample of spent solvent for analysis.
9. Release retrievable packer, TIH and recover test assembly from permanent packer. POOH, LD test assembly and retrievable packer.
10. TIH open-ended with tapered string and clean out to bottom with air. Use string float near surface as needed while blowing with air. Blow well clean and obtain gauges, and POOH. Proceed to Step # 11.
 - 8a. POOH with testing assembly and retrievable packer. TIH with Baker milling tool and mill out permanent packer. TIH with 6 1/4" bit, clean out to PBTD with water, circulate hole clean, and POOH. TIH with retrievable bridge plug and packer. Set RBP at 6620', pull up hole one joint and spot 7 bbl Westchem A-Sol P-38 solvent. Pull up hole and set retrievable

packer at 6440'. Displace p-38 solvent with 5.0 bbl of water down tubing. Shut well in overnight (Solvent must sit in perforations a minimum of 16 hours). Flow or swab well back, and catch sample of spent solvent for analysis.

- 9a. Move RBP to 6020' and treat Gallup perforations as written in Step # 8.
- 10a. Release retrievable packer, TIH and recover RBP. POOH, LD retrievable bridge plug and packer. TIH with 6 1/4" bit and clean out to bottom with air. Use string float near surface as needed while blowing with ~~nitrogen~~ ^{air}. Blow well clean and obtain gauges. POOH. Set new permanent production packer at 6480'. Proceed to Step # 11.
11. TIH with Dakota tubing with seating nipple and pump out plug one joint off bottom, and land in permanent packer at 6480' with tailpipe landed at \cong 6580'. TIH with Gallup tubing with seating nipple and blanking plug one joint off bottom, and land in parallel string anchor at \cong 6000'.
12. ND BOP's and NU wellhead. Pull blanking plug from Gallup tubing, and pump out the plug from the Dakota tubing.
13. Release rig, rerun packer integrity test, and re-establish production.

Recommended: _____
Operations Engineer

Approval: PJB
Drilling Superintendent

PERTINENT DATA SHEET

10/7/94

WELLNAME: Frontier E #1				DP NUMBER: 21784 (GP) 21783 (DK)			
WELL TYPE: Gallup Dakota				ELEVATION: GL: 6179' KB: 6191'			
LOCATION: 790' FSL 1850' FEL Sec. 4, T27N, R11W San Juan County, New Mexico				INITIAL POTENTIAL: AOF 4.909 MCF/D (DK) SICP: 2.017 (DK)			
OWNERSHIP: GWI: DK 50.1651% GP 37.6238% NRI: 41.3862% 29.1708%				DRILLING: SPUD DATE: 05-23-60 COMPLETED: 06-09-60 TOTAL DEPTH: 6753' PBTD: 6703'			
CASING RECORD:							
HOLE SIZE	SIZE	WEIGHT	GRADE	DEPTH	EQUIP.	CEMENT	TOC
	9-5/8"	36#	J55	228'	-	200 sx	surface
	7"	23#	J55 & N80	6756'		200 sx	C-Log 4830'
						100 sx	C-Log 1550'
Tubing (GP)	2 3/8"	4.7#	J55	6012'	Model D Packer @ 6480'		
Tubing (DK)	2 3/8"	4.7#	J55	6485'	String Anchor @ 6014'		
					Model J Stage Tool @ 2207'		
FORMATION TOPS:							
	Ojo Alamo		857'		Mancos	4684'	
	Kirtland		950'		Gallup	5557'	
	Fruitland		1774'		Sanastee	6028'	
	Picture Cliffs		1968'		Greenhorn	6396'	
	Lewis		2132'		Graneros	6443'	
	Mesa Verde		2900'		Dakota	6548'	
	Point Lookout		4472'				
LOGGING: ES-Induction Log, Micro Log, Sonic Log, DIL, Cemotion Log, TS							
PERFORATIONS A) 6545' -- 6587' w/4 spf B) 5968' -- 5993' w/2 spf C) 5897' -- 5919'							
STIMULATION: A) 46,620 gal oil & 50,000# sand -- flushed w/ 11,000 gal oil B) 29,568 gal oil & 20,000# sand -- flushed w/ 5,000 gal oil B) Refractured w/ 46,452 gal oil & 40,000# sand -- flushed w/ 10,500 gal oil C) 51,240 gal oil & 50,000# sand -- flushed w/10,500 gal oil							
WORKOVER HISTORY:							
03-12-62 -- 03-20-62	Pull rods & pump from GP tubing. Install OCT blank plug at top of DK string. Remove wellhead and install Shaffer Double Gate BOP. Pull GP tubing. Reran GP tubing and landed as before @ 6014'. Remove BOP & install wellhead. Repaired Trans Western Pump. Ran RWT pump & sucker rods in GP tubing.						
06-06-66 -- 06-14-66	Fish & retrieve wireline tools from DK string, had to cut off DK tubing and mill out packer. Set Baker D Packer @ 6480'. Landed 2 3/8" DK tubing @ 6485', and 2 3/8" GP tubing @ 6012'.						
PRODUCTION HISTORY:							
	Gas	Oil	DATE OF LAST PRODUCTION:		Gas	Oil	
Cumulative as of 1994:	189 MMcf	50.8 MBbl	(GP)	October, 1979	3.4 MMcf	0 Bbl	(GP)
Current:	0 Mcfd	0 Bopd	(GP)				
Cumulative as of 1994:	1.3 bcf	8.3 MBbl	(DK)	May, 1990	5 Mcf	35 Bbl	(DK)
Current:	0 Mcfd	0 Bopd	(DK)				
PIPELINE: EPNG							

Frontier E #1

CURRENT -- 10-6-94

Gallup (DPNO 21784)

Dakota (DPNO 21783)

790' FSL, 1850' FEL,
Section 4, T-27-N, R-11-W, San Juan County, NM

Spud: 05-23-60

Completed : 06-09-60

Ojo Alamo @ 857'

Kirtland @ 950'

Fruitland @ 1774'

Pictured Cliffs @ 1968'

Lewis @ 2132'

Mesa Verde @ 2900'

Point Lookout @ 4472'

Mancos @ 4684'

Gallup @ 5557'

Sanastee @ 6028'

Greenhorn @ 6396'

Graneros @ 6443'

Dakota @ 6548'

