

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 11-6-80			
Company Southland Royalty Company				Connection Southern Union Gathering			
Pool Flora Vista				Formation Fruitland		Unit	
Completion Date 11-6-80		Total Depth 5170'		Plug Back TD 5084'		Elevation 6057' GR	
Farm or Lease Name Thompson							
Casing Size 7.000 4.500		Wt. 20# 10.5#		d 6.456 4.052		Set At 2687' 2534'-5082'	
Perforations: From To						Well No. #7A	
Tubing Size 1.900		Wt. 2.9#		d 1.610		Set At 2251'	
Perforations: From To		2218'		2237'		Unit Sec. Twp. Rge. F 34 31N 12W	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple GG-Multiple				Packer Set At 2286'		County San Juan	
Producing Thru Tubing		Reservoir Temp. *F p		Mean Annual Temp. *F		Baro. Press. - P _a 12.2	
State New Mexico							
L		H		Gg .700		% CO ₂ % N ₂ % H ₂ S	
Prover		Meter Run		Taps			

FLOW DATA							TUBING DATA		CASING DATA		Duration of Flow
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h _w	Temp. *F	Press. p.s.i.g.	Temp. *F	Press. p.s.i.g.	Temp. *F	
SI							766		777		
1.	2" X 3/4"						74		174		1 Hour
2.							62		163		2 Hours
3.							56		159		3 Hours
4.											
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w F_m}$	Pressure P _m	Flow Temp. Factor F _t	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1	12.365		68.2	1.0000	.9258	1.0000	781
2.							
3							
4.							
5							

NO.	P _t	Temp. *R	T _t	Z	Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.
1					A.P.L. Gravity of Liquid Hydrocarbons _____ Deg.
2.					Specific Gravity Separator Gas _____ X X X X X X X X
3.					Specific Gravity Flowing Fluid _____ X X X X X
4.					Critical Pressure _____ P.S.I.A. _____ P.S.I.A.
5.					Critical Temperature _____ R _____ R

P _c 784.2 P _c ² 614969.6					(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.0500$		(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.0424$	
NO.	F _t ²	P _w	P _w ²	P _c ² - P _w ²	ACF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 814$			
1								
2								
3								
4								
5								

Absolute Open Flow 814		Mcf @ 15.025		Angle of Slope θ _____		DIST. _____		Slope, n _____ 85	
Remarks: _____									

Approved by Division	Conducted By: Jim Bacon	Calculated By: James Smith	Checked By: L. O. Van Ryan
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UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN DUPLICATE*

(See other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R355.5.

5. LEASE DESIGNATION AND SERIAL NO.

NM-01614

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Thompson

9. WELL NO.

#7A

10. FIELD AND POOL, OR WILDCAT

Flora Vista Fruitland

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA

Section 34, T31N, R12W

12. COUNTY OR PARISH
San Juan13. STATE
NM

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

1a. TYPE OF WELL: OIL WELL ☐ GAS WELL ☒ DRY ☐ Other

b. TYPE OF COMPLETION:

NEW WELL ☒ WORK OVER ☐ DEEP-EN ☐ PLUG BACK ☐ DIFF. RE-SVR. ☒ Other

2. NAME OF OPERATOR

Southland Royalty Company

3. ADDRESS OF OPERATOR

P. O. Drawer 570, Farmington, NM 87401

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)*

At surface

1780' FNL & 1570' FWL

At top prod. interval reported below

At total depth

14. PERMIT NO.

DATE ISSUED

15. DATE SPUDDED

1-25-79

16. DATE T.D. REACHED

2-1-79

17. DATE COMPL. (Ready to prod.)

11-6-80

18. ELEVATIONS (DF, R&B, RT, GR, ETC.)*

6057' GR

19. ELEV. CASINGHEAD

20. TOTAL DEPTH, MD & TVL

5170'

21. PLUG, BACK T.D., MD & TVL

5084'

22. IF MULTIPLE COMPL., HOW MANY*

2

23. INTERVALS DRILLED BY

ROTARY TOOLS

0'-5170'

CABLE TOOLS

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)*

Fruitland: 2218' - 2237'

25. WAS DIRECTIONAL SURVEY MADE

Deviation

26. TYPE ELECTRIC AND OTHER LOGS RUN

IES, GR-Density, GR-Correlation, Cement Bond Log

27. WAS WELL CORDED

No

28. CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT FULLED
9 5/8"	36#	235'	12 1/4"	105 sacks	
7"	20#	2687'	8 3/4"	205 sacks	

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
4 1/2"	2534'	5084'	360 SX		1 1/2"	2251'	2286'

31. PERFORATION RECORD (Interval, size and number)

Fruitland: 2218', 2225', 2231', 2237'.
(4 holes)

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
2218' - 2237'	48,680 gals water & 27,500# 20/40 sand

33.*

PRODUCTION

DATE FIRST PRODUCTION

PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump)

WELL STATUS (Producing or shut-in)

Flowing

Shut-in

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO
11-6-80	3 hours	3/4"	→				
FLOW, TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE	OIL—BBL.	GAS—MCF.	WATER—BBL.	OIL GRAVITY-API (CORR.)	
56	159	→		814			

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.)

Sold

TEST WITNESSED BY

Jim Bacon

35. LIST OF ATTACHMENTS

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

SIGNED

TITLE District Production Manager

DATE 11-13-80

*(See Instructions and Spaces for Additional Data on Reverse Side)

INSTRUCTIONS

General: This form is designed for submitting a complete and correct well completion report and log on all types of lands and leases to either a Federal agency or a State agency, or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office. See instructions on items 22 and 24, and 33, below regarding separate reports for separate completions. If not filed prior to the time this summary record is submitted, copies of all currently available logs (drillers, geologists, sample and core analysis, all types electric, etc.), formation and pressure tests, and directional surveys, should be attached hereto, to the extent required by applicable Federal and/or State laws and regulations. All attachments should be listed on this form, see item 35.

Item 4: If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.

Item 18: Indicate which elevation is used as reference (where not otherwise shown) for depth measurements given in other spaces on this form and in any attachments. **Items 22 and 24:** If this well is completed for separate production from more than one interval zone (multiple completion), so state in item 22, and in item 24 show the producing interval, or intervals, top(s), bottom(s) and name(s) (if any) for only the interval reported in item 33. Submit a separate report (page) on this form, adequately identified, for each additional interval to be separately produced, showing the additional data pertinent to such interval.

Item 29: "Sacks Cement": Attached supplemental records for this well should show the details of any multiple stage cementing and the location of the cementing tool.

Item 33: Submit a separate completion report on this form for each interval to be separately produced. (See instruction for items 22 and 24 above.)

37. SUMMARY OF POROUS ZONES: SHOW ALL IMPORTANT ZONES OF POROSITY AND CONTENTS THEREOF; CORED INTERVALS; AND ALL DRILL-STEM TESTS, INCLUDING DEPTH INTERVAL TESTED, CUSHION USED, TIME TOOL OPEN, FLOWING AND SHUT-IN PRESSURES, AND RECOVERIES			38. GEOLOGIC MARKERS	
FORMATION	TOP	BOTTOM	NAME	MEAS. DEPTH TOP TRUE VERT. DEPTH
Fruitland Pictured Cliffs Cliff House Pt. Lookout	1809' 2411' 4018' 4765'			