

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use Form 9-331-C for such proposals.)

1. oil ☐ well gas ☒ well other

2. NAME OF OPERATOR  
Southland Royalty Company

3. ADDRESS OF OPERATOR  
P.O. Drawer 570, Farmington, New Mexico 87401

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)  
AT SURFACE: 1045' FSL & 1695' FWL  
AT TOP PROD. INTERVAL:  
AT TOTAL DEPTH:

16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

REQUEST FOR APPROVAL TO:

SUBSEQUENT REPORT OF:

TEST WATER SHUT-OFF ☐  
FRACTURE TREAT ☐  
SHOOT OR ACIDIZE ☐  
REPAIR WELL ☐  
PULL OR ALTER CASING ☐  
MULTIPLE COMPLETE ☐  
CHANGE ZONES ☐  
ABANDON\* ☐

☐  
☐  
☐  
☐  
☐  
☐  
☐  
☐

(other) Production Tubing Rpt ☒

5. LEASE

SF-077652

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

East

9. WELL NO.

10-M

10. FIELD OR WILDCAT NAME

Basin Dakota/Blanco Mesa Verde

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

Section 26, T31N, R12W

12. COUNTY OR PARISH

San Juan

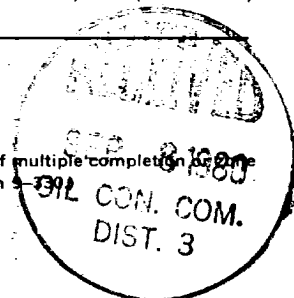
13. STATE

New Mexico

14. API NO.

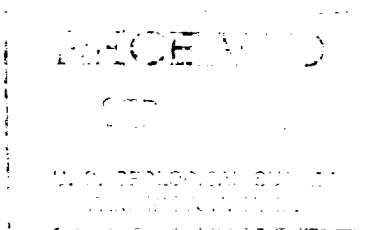
15. ELEVATIONS (SHOW DF, KDB, AND WD)  
6069' GR

(NOTE: Report results of multiple completion log zone change on Form 9-331-C)



17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

8/27/80 Ran 217 joints (7191') of 1-1/2", 2.90#, EUE tubing landed at 7202'.  
Model "R" Packer set at 5224'.  
Ran 159 joints (4929') of 1-1/2", 2.76#, IJ tubing landed at 4940'.  
SIFT...



Subsurface Safety Valve: Manu. and Type \_\_\_\_\_ Set @ \_\_\_\_\_ Ft.

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

SIGNED R. E. Fields TITLE District Engineer DATE August 28, 1980

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_

CONDITIONS OF APPROVAL, IF ANY:

ACCEPTED FOR RECORD

SEP 04 1980

\*See Instructions on Reverse Side

FARMINGTON DISTRICT

BY

BW

NMOCC

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use Form 9-331-C for such proposals.)

1. oil ☐ gas ☒ other

2. NAME OF OPERATOR  
Southland Royalty Company

3. ADDRESS OF OPERATOR  
P.O. Drawer 570, Farmington, New Mexico 87401

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)  
AT SURFACE: 1045' FSL & 1695' FWL  
AT TOP PROD. INTERVAL:  
AT TOTAL DEPTH:

16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

REQUEST FOR APPROVAL TO: SUBSEQUENT REPORT OF:

TEST WATER SHUT-OFF	<input type="checkbox"/>	<input type="checkbox"/>
FRACTURE TREAT	<input type="checkbox"/>	<input type="checkbox"/>
SHOOT OR ACIDIZE	<input type="checkbox"/>	<input type="checkbox"/>
REPAIR WELL	<input type="checkbox"/>	<input type="checkbox"/>
PULL OR ALTER CASING	<input type="checkbox"/>	<input type="checkbox"/>
MULTIPLE COMPLETE	<input type="checkbox"/>	<input type="checkbox"/>
CHANGE ZONES	<input type="checkbox"/>	<input type="checkbox"/>
ABANDON*	<input type="checkbox"/>	<input type="checkbox"/>

(other) Perforation & Stimulation X

5. LEASE

SF-077652

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

East

9. WELL NO.

10-M

10. FIELD OR WILDCAT NAME

Basin Dakota/Blanco Mesaverde

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

Section 26, T31N, R12W

12. COUNTY OR PARISH

San Juan

13. STATE

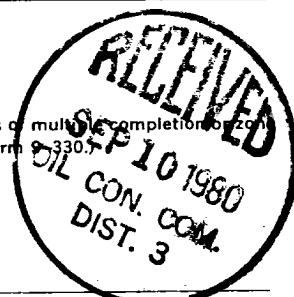
New Mexico

14. API NO.

15. ELEVATIONS (SHOW DF, KDB, AND WD)

6069' GR

(NOTE: Report results of multiple completion or zone change on Form 9-330.7)



17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

8/16/80 Perforated the Lower Dakota at 7107', 7135', 7155', 7161', 7167', 7173', 7179', 7202', 7208', 7214'. (Total of 10 holes.)

8/19/80 Frac'd the Lower Dakota with 77,958 gals 30# 1% KCl water and 21,673# of 20/40 sand. AIR 16 BPM, ATP 3300 psi, ISIP 2300 psi.  
Perforated the Upper Dakota at 6979', 6991', 7043', 7049', 7059', 7065', 7071', 7077', 7083'. (Total of 9 holes.)

8/20/80 Frac'd the Upper Dakota with 97,446 gals gel 1% KCl water and 23,447# of 20/40 sand. AIR 16 BPM, ATP 3200 psi, ISIP 1400 psi.

8/23/80 Perforated the Mesa Verde at 4834', 4840', 4846', 4852', 4858', 4864', 4873', 4879', 4885', 4891', 4902', 4925', 4930', 5020', 5025', 5036', 5042', 5092'. (Total of 18 holes.)  
Frac'd the Mesa Verde with 122,094 gals of slick water and 49,500# of 20/40 sand. AIR 35 BPM, ATP 500 psi, ISIP Vac.

Subsurface Safety Valve: Manu. and Type \_\_\_\_\_ Set @ \_\_\_\_\_ Ft.

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

SIGNED R. E. Fulk TITLE District Engineer DATE August 28, 1980

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_  
CONDITIONS OF APPROVAL, IF ANY:

ACCEPTED FOR RECORD

SEP 9 1980

\*See Instructions on Reverse Side

NMOCC

FARMINGTON DISTRICT  
H. Bodruhan

## OIL CONSERVATION DIVISION

STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENTP. O. BOX 2088  
SANTA FE, NEW MEXICO 87501Form C-122  
Revised 10-1-78

## MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test <input checked="" type="checkbox"/> Initial <input type="checkbox"/> Annual <input type="checkbox"/> Special					Test Date 10-4-80	
Company Southland Royalty Company			Connection Southern Union Gathering			
Pool Blanco			Formation Mesa Verde		Unit	
Completion Date 9-20-80		Total Depth 7215'	Plug Back TD 7214'		Elevation 6069' GR	
Farm or Lease Name EAST		Well No. 10M				
Cs. Size 7.625	Wt. 26.40#	d 6.969	Set At 4758'	Perforations: From To		
5.500	15.5#	4.950	4591'-7214'			
Thq. Size 1.900	Wt. 2.76#	d 1.610	Set At 4940'	Perforations: From 4834' To 5092'		
Type Well - Single - Bradenhead - G.G. or G.O. Multiple GG-Multiple			Packer Set At 5224'		County San Juan	
Producing Thru Tubing		Reservoir Temp. °F #	Mean Annual Temp. °F		Baro. Press. - P <sub>a</sub> 12.2	
State New Mexico						
L	H	Gg 7,700	% CO <sub>2</sub>	% N <sub>2</sub>	% H <sub>2</sub> 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 <sub>w</sub>	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	
SI							1034		1041	
1.	2" X 3/4"						263		931	1 Hour
2.							251		906	2 Hours
3.							243		884	3 Hours
4.										
5.										

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P <sub>m</sub>	Flow Temp. Factor F <sub>t</sub>	Gravity Factor F <sub>g</sub>	Super Compress. Factor, F <sub>pv</sub>	Rate of Flow Q, Mcfd
1	12.365		255.2	1.0000	.9258	1.0000	2921
2.							
3.							
4.							
5.							

NO.	P <sub>t</sub>	Temp. °R	T <sub>f</sub>	Z	Gas Liquid Hydrocarbon Ratio —	A.P.I. Gravity of Liquid Hydrocarbons —	Specific Gravity Separator Gas —	Specific Gravity Flowing Fluid —	Critical Pressure — P.S.I.A.	Critical Temperature — R
1.										
2.										
3.										
4.										
5.										

NO.	P <sub>t</sub> <sup>2</sup>	P <sub>w</sub>	P <sub>w</sub> <sup>2</sup>	P <sub>c</sub> <sup>2</sup> - P <sub>w</sub> <sup>2</sup>	(1) $\frac{P_c^2}{P_c^2 - P_w^2} =$	(2) $\left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n =$
1	896.2	803174.4	306055.8		3.6243	2.6267
2						
3						
4						
5						

Absolute Open Flow 7673 Mcfd @ 15.025      Angle of Slope  $\phi$  \_\_\_\_\_      Slope, n .75

Remarks: \_\_\_\_\_

Approved By Division	Conducted By: Tom Wagner	Calculated By: James Smith	Checked By: L. O. Van Ryan
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## OIL CONSERVATION DIVISION

STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENTP. O. BOX 2088  
SANTA FE, NEW MEXICO 87501Form C-122  
Revised 10-1-78

## MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test <input checked="" type="checkbox"/> Initial <input type="checkbox"/> Annual <input type="checkbox"/> Special					Test Date 9-27-80				
Company Southland Royalty Co.				Connection Southern Union Gathering					
Pool Basin				Formation Dakota				Unit	
Completion Date 9-20-80		Total Depth 7215'		Plug Back TD 7214'		Elevation 6069' GR		Farm or Lease Name EAST	
Csg. Size 7.625 5.500		Wt. 26.40# 15.5#		d 6.969 4.950		Set At 4758' 4591'-7214'		Perforations: From      To	
Tbg. Size 1.900		Wt. 2.90#		d 1.610		Set At 7202'		Perforations: From 6979'      To 7214'	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple GG-Multiple					Packer Set At 5224'		County San Juan		
Producing Thru Tubing		Reservoir Temp. °F 8		Mean Annual Temp. °F		Baro. Press. - P <sub>a</sub> 12.2		State New Mexico	
L		H		Gg .700		% CO <sub>2</sub>		% N <sub>2</sub>	
						% H <sub>2</sub> 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 <sub>w</sub>	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	
SI							606			
1.	2" X 3/4"						4			1 Hour
2.							2			2 Hours
3.							1			3 Hours
4.										
5.										

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P <sub>m</sub>	Flow Temp. Factor F <sub>t</sub>	Gravity Factor F <sub>g</sub>	Super Compress. Factor, F <sub>pv</sub>	Rate of Flow Q, Mcfd
1	12.365		13.2	1.0000	.9258	1.0000	151
2.							
3.							
4.							
5.							

NO.	P <sub>t</sub>	Temp. °R	T <sub>t</sub>	Z	Gas Liquid Hydrocarbon Ratio	A.P.I. Gravity of Liquid Hydrocarbons	Specific Gravity Separator Gas	Specific Gravity Flowing Fluid	Critical Pressure	Critical Temperature
1										
2.										
3.										
4.										
5.										

NO.	P <sub>t</sub> <sup>2</sup>	P <sub>w</sub>	P <sub>w</sub> <sup>2</sup>	P <sub>c</sub> <sup>2</sup> - P <sub>w</sub> <sup>2</sup>
1		13.2	174.2	381997.0
2				
3				
4				
5				

$$(1) \frac{P_c^2}{P_c^2 - P_w^2} = 1.0005$$

$$AOF = Q \left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 151$$

$$(2) \left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.0003$$

Absolute Open Flow	151	Mcfd @ 15.025	Angle of Slope	Slope, n = 75
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Remarks:			

Approved By Division	Conducted By: Tom Wagner	Calculated By: James Smith	Checked By: L. O. Van Ryan
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