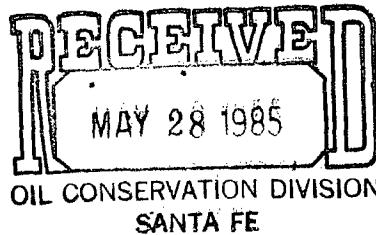


CERTIFIED MAIL



Southland Royalty Company

May 23, 1985

Mr. Richard L. Stamets, Director
New Mexico Oil Conservation Division
P. O. Box 2088
Santa Fe, New Mexico 87501

RE: Downhole Commingling Dakota/Mesaverde
SRC - Reid #18
SW/4, Section 18, T28N, R9W
San Juan County, New Mexico

Dear Mr. Stamets:

Southland Royalty Company hereby requests permission to downhole commingle Basin Dakota and Blanco Mesaverde production from the above captioned dual well. The Dakota formation does not currently produce enough gas to lift the oil it produces, and it is felt that the additional gas from the Mesaverde will allow the Dakota hydrocarbons to be produced more efficiently and effectively.

The gas produced from each zone is similar, and although the oil gravities differ, it is not felt that this difference will adversely effect production from either formation. As bottom hole pressures for each formation are similar, there will be no crossflow and hence, no lost production resulting from the proposed commingle.

Current deliverability tests for each formation are attached, as are production plats, decline curves, and miscellaneous data. Working interest and royalty ownership in both formations in the subject well are identical.

The proposed production allocation between the Dakota and Mesaverde is based on production performance from each well's decline curve. The proposed allocation is as follows:

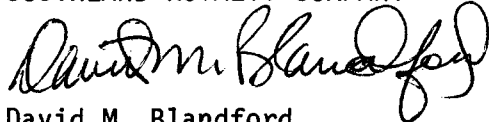
Oil Production:	33% Dakota 67% Mesaverde
Gas Production:	42% Dakota 58% Mesaverde

Mr. Richard L. Stamets
SRC - Reid #10
Page Two
May 23, 1985

A copy of this application has been submitted to the BLM and all offset operators. Please advise if further information is required.

Sincerely,

SOUTHLAND ROYALTY COMPANY

A handwritten signature in cursive script, appearing to read "David M. Blandford".

David M. Blandford
Petroleum Engineer

DMB/eg

Attachments

XC; Frank Chavez-NMOCD-Aztec, NM

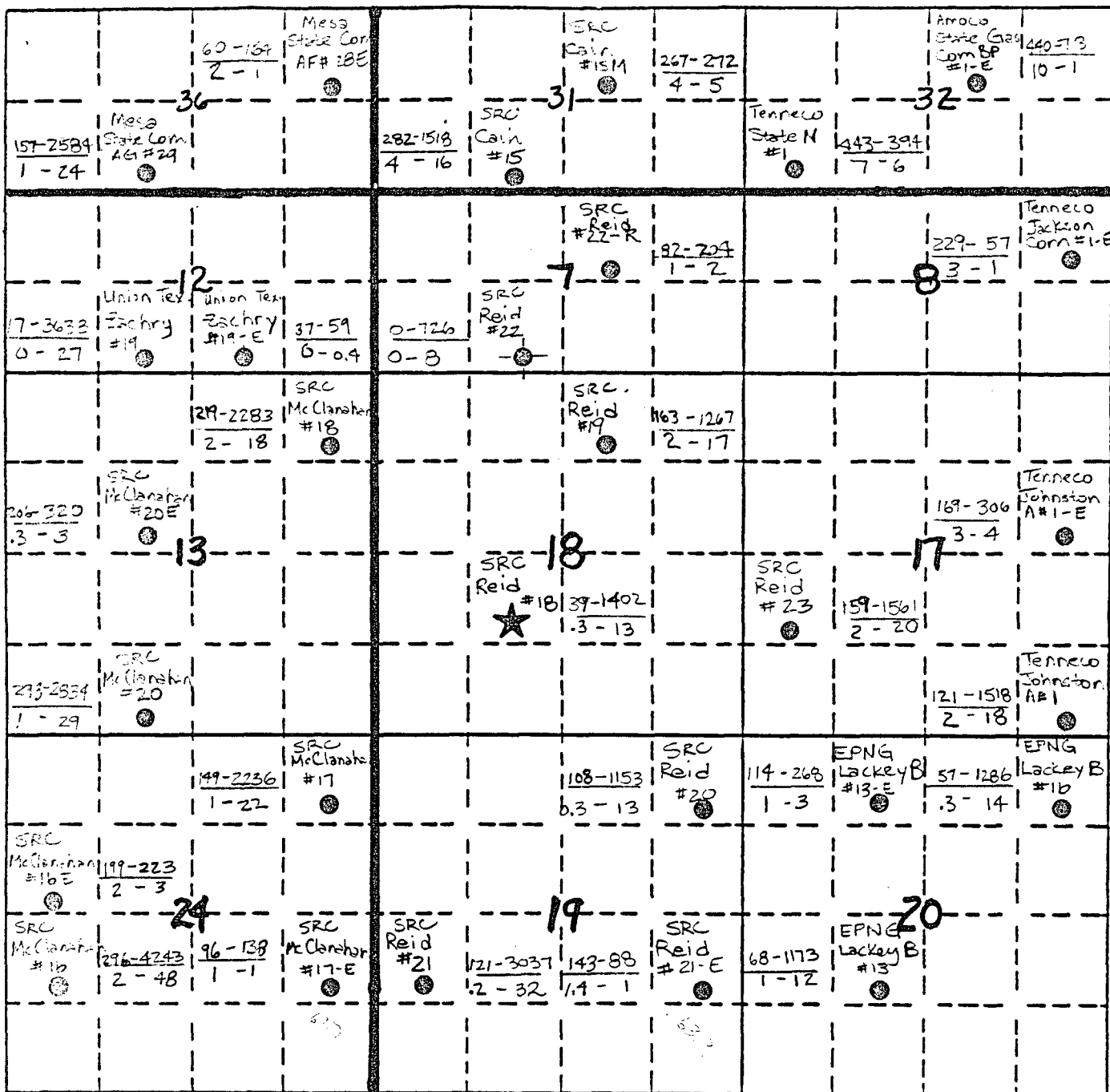
MISCELLANEOUS DATA

REID #18

Dakota Bottom Hole Pressure	=	430 psi
Mesaverde Bottom Hole Pressure	=	460 psi
Dakota Oil Gravity		64° API
Mesaverde Oil Gravity		46° API
BTU/cf at 14.73 psia/60°F/Dry (Dakota)		1285
BTU/cf at 14.73 psia/60°F/Dry (Mesaverde)		1281

K10W

R9W

T
29
NT
28
NT
29
NT
28
N

S.R.C.



Subject Well

SOUTHLAND ROYALTY COMPANY

Reid #18

AREA

(K) Sec 18-T28N-R9W

LOCATION

Basin Dakota - Production & Cums

TYPE OF MAP

CONTOURED

CL

BY

DATE

REVISED BY

DATE

REFERENCE

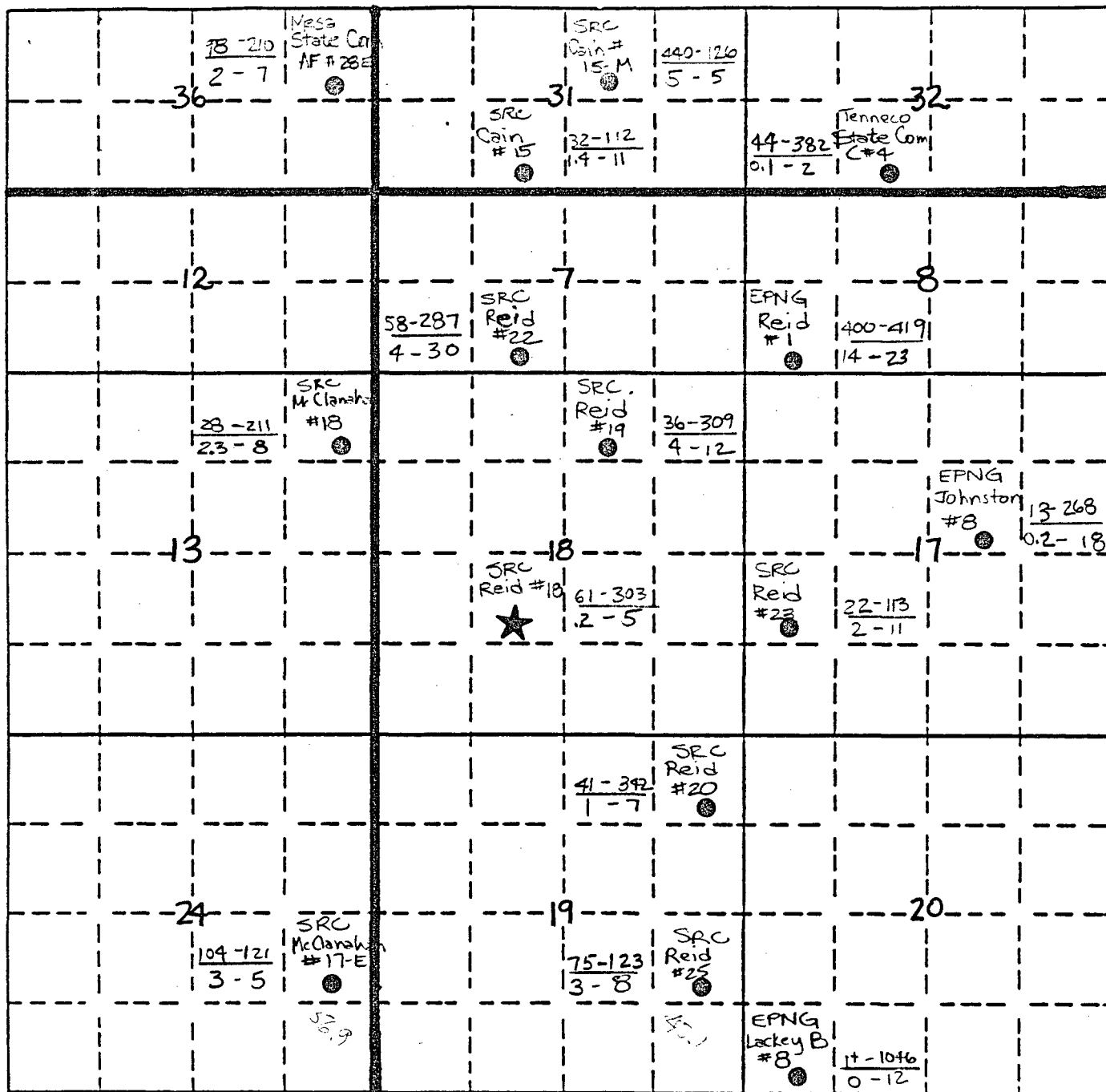
DATE

NOTES

MCFD-MMCF
BOPD-MBO through 12-84

R10W

R9W

T
29
NT
29
NT
28
NT
28
N

S.R.C.



Subject Well

SOUTHLAND ROYALTY COMPANY

AREA
Reid #18LOCATION
(K) Sec 18-T28N-R9WTYPE OF MAP
Blanco Mesaverde

CONTOURED

C.I.

BY

DATE

REVISED BY

DATE

REFERENCE

DATE

NOTES

MCFD-MMCF

BOPD-MBO

PANTECHS LABORATORIES

☐ P. O. BOX 2439 TEL. 806 669-6821 PAMPA, TEXAS 79066-2439
☒ P. O. BOX 3246 TEL. 806 797-4325 LUBBOCK, TEXAS 79452-3246

SAMPLE DATA

CUSTOMER..... SOUTHLAND ROYALTY

STATION No.... N/A
OPERATOR..... N/A
LEASE..... REID 18 DK
PLANT.....
SAMPLE OF..... *GAS
PRESSURE..... 195 PSI
TEMPERATURE... 52 F
ATM. TEMP..... N/A
SAMPLE DATE... 1-30-85
SAMPLED BY.... SOUTHLAND ROYALTY
ANALYSIS DATE. 2-6-85
ANALYZED BY... A. PATTILLO
SAMPLE CYL.No. PL-1213

ANALYSIS RESULTS

COMPONENT		MOL %	GPM, *
=====		=====	=====
NITROGEN	N2	0.36	
CARBON D.	CO2	1.22	
METHANE	C1	79.06	
ETHANE	C2	10.80	2.915
PROPANE	C3	4.10	1.153
I-BUTANE	IC4	0.85	0.288
N-BUTANE	NC4	1.33	0.435
I-PENTANE	IC5	0.79	0.305
N-PENTANE	NC5	0.61	0.235
HEXANES+	C6+	0.88	0.401

DISTRIBUTION:

SOUTHLAND ROYALTY
3-MR. JOHN HAMMER; FARMINGTON, NM

GASOLINE CONTENT (GPM), *

=====

PENTANES & HEAVIER....	0.941
BUTANES & HEAVIER....	1.664
PROPANE & HEAVIER....	2.817
ETHANE & HEAVIER....	5.732
26 # GASOLINE.....	1.388

HEATING VALUE,**

(GROSS BTU/CF)

=====

WATER VAP.SAT.....	1263
DRY GAS BASIS.....	1285

SPECIFIC GRAVITY

=====

CALC., WATER SAT.....	0.749
CALC., DRY BASIS.....	0.751

REMARKS:

*CYLINDER CONTAINED SOME CONDENSATE.

*, 14.65 PSIA & 60 F
**, 14.73 PSIA & 60 F

PANTECHS LABORATORIES

☐ P. O. BOX 2439 TEL. 806 669-6821 PAMPA, TEXAS 79066-2439
☒ P. O. BOX 3246 TEL. 806 797-4325 LUBBOCK, TEXAS 79452-3246

SAMPLE DATA

CUSTOMER..... SOUTHLAND ROYALTY

STATION No.... N/A
OPERATOR..... N/A
LEASE..... REID 18 MV
PLANT.....
SAMPLE OF..... GAS
PRESSURE..... 170 PSI
TEMPERATURE... 44 F
ATM. TEMP..... N/A
SAMPLE DATE... 1-30-85
SAMPLED BY.... SOUTHLAND ROYALTY
ANALYSIS DATE. 2-6-85
ANALYZED BY... A. PATTILLO
SAMPLE CYL. NO. FL-608

DISTRIBUTION:

SOUTHLAND ROYALTY
3-MR. JOHN HAMMER; FARMINGTON, NM

ANALYSIS RESULTS

COMPONENT	MOL %	GPM, *
NITROGEN N2	0.34	
CARBON D. CO2	0.53	
METHANE C1	78.44	
ETHANE C2	11.43	3.085
PROPANE C3	5.68	1.597
I-BUTANE IC4	0.77	0.261
N-BUTANE NC4	1.68	0.550
I-PENTANE IC5	0.48	0.185
N-PENTANE NC5	0.41	0.158
HEXANES+ C6+	0.24	0.108

GASOLINE CONTENT (GPM), *

PENTANES & HEAVIER....	0.451
BUTANES & HEAVIER.....	1.262
PROPANE & HEAVIER.....	2.859
ETHANE & HEAVIER.....	5.944
26 # GASOLINE.....	0.640

HEATING VALUE,**

(GROSS BTU/CF)

WATER VAP. SAT.....	1258
DRY GAS BASIS.....	1281

SPECIFIC GRAVITY

CALC., WATER SAT.....	0.735
CALC., DRY BASIS.....	0.737

REMARKS:

*, 14.65 PSIA & 60 F
**, 14.73 PSIA & 60 F

RECEIVED

FEB 12 1985

FARMINGTON DISTRICT

OIL CONSERVATION DIVISION

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENTP. O. BOX 2088
SANTA FE, NEW MEXICO 87501Form C-122-A
Revised 10-1-78WELL DELIVERABILITY TEST REPORT FOR 19 85

POOL NAME Basin	POOL SLOPE n = .75	FORMATION Dakota	COUNTY San Juan
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COMPANY Southland Royalty Company			WELL NAME AND NUMBER Reid #18		
UNIT LETTER K	SECTION 18	TOWNSHIP 28N	RANGE 9W	PURCHASING PIPELINE SUG	
CASING O.D. - INCHES 4.5000	CASING I.D. - INCHES 4.0900	SET AT DEPTH - FEET 6506'	TUBING O.D. - INCHES 1.3150	TUBING I.D. - INCHES 1.0490	TOP - TUBING PERF. - FEET 4221'
GAS PAY ZONE FROM 6322' TO 6446'		WELL PRODUCING THRU CASING TUBING X		GAS GRAVITY .723	GRAVITY X LENGTH 3052
DATE OF FLOW TEST FROM 2/12/85 TO 2/19/85			DATE SHUT-IN PRESSURE MEASURED 2/26/85		

PRESSURE DATA - ALL PRESSURES IN PSIA

(a) Flowing Casing Pressure (DWt)	(b) Flowing Tubing Pressure (DWt)	(c) Flowing Meter Pressure (DWt)	(d) Flow Chart Static Reading	(e) Meter Error (Item c - Item d)	(f) Friction Loss (a - c) or (b - c)	(g) Average Meter Pressure (Integr.)
	178	177	176	+ 1	+ 1	186
(h) Corrected Meter Pressure (g + e)	(i) Avg. Wellhead Press. $P_t = (h + f)$	(j) Shut-in Casing Pressure (DWt)	(k) Shut-in Tubing Pressure (DWt)	(l) $P_c =$ higher value of (j) or (k)	(m) Del. Pressure $P_d = 50\% P_c$	(n) Separator or Dehydrator Pr. (DWt) for critical flow only
187	188		383	383	192	

FLOW RATE CORRECTION (METER ERROR)

Integrated Volume - MCF/D	Quotient of $\frac{\text{Item c}}{\text{Item d}}$	$\sqrt{\frac{\text{Item c}}{\text{Item d}}}$	Corrected Volume
14	1.0057	1.0028	Q = 14 MCF/D

50.4 X .014

WORKING PRESSURE CALCULATION

$(1 - e^{-a})$	$(P_c Q_m)^2 (1000)$	$R^2 = (1 - e^{-a}) (P_c Q_m)^2 (1000)$	P_t^2	$P_w^2 = P_t^2 + R^2$	$P_w = \sqrt{P_w^2}$
.199	498	99	35344	35443	188

DELIVERABILITY CALCULATION

$D = Q \left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^n = 14 \left[\frac{109825}{111246} \right]^n \left(.9872 \right)^n = .9904 = 14 \text{ MCF/D}$
--

REMARKS:

SUMMARY

Item h _____ Psia
 P_c _____ Psia
 Q _____ MCF/D
 P_w _____ Psia
 P_d _____ Psia
 D _____ MCF/D

Company _____
 By _____
 Title _____
 Witnessed By _____
 Company _____

OIL CONSERVATION DIVISION

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENTP. O. BOX 2088
SANTA FE, NEW MEXICO 87501Form C-122-A
Revised 10-1-78WELL DELIVERABILITY TEST REPORT FOR 19 85

POOL NAME Blanco	POOL SLOPE n = .75	FORMATION Mesaverde	COUNTY San Juan
---------------------	-----------------------	------------------------	--------------------

COMPANY Southland Royalty Company			WELL NAME AND NUMBER Reid #18		
UNIT LETTER K	SECTION 18	TOWNSHIP 28N	RANGE 9W	PURCHASING PIPELINE SUG	
CASING O.D. - INCHES 4.0900	CASING I.D. - INCHES 4.0520	SET AT DEPTH - FEET 6506'	TUBING O.D. - INCHES 1.9000	TUBING I.D. - INCHES 1.6100	TOP - TUBING PERF. - FEET 6125'
GAS PAY ZONE FROM 4190' TO 4366'		WELL PRODUCING THRU CASING TUBING X		GAS GRAVITY .742	GRAVITY X LENGTH 4545'
DATE OF FLOW TEST FROM 2/12/85 TO 2/19/85			DATE SHUT-IN PRESSURE MEASURED 2/26/85		

PRESSURE DATA - ALL PRESSURES IN PSIA

(a) Flowing Casing Pressure (DWt) 248	(b) Flowing Tubing Pressure (DWt) 196	(c) Flowing Meter Pressure (DWt) 194	(d) Flow Chart Static Reading 194	(e) Meter Error (Item c - Item d) 0	(f) Friction Loss (a - c) or (b - c) + 2	(g) Average Meter Pressure (Integr.) 198
(h) Corrected Meter Pressure (g + e) 198	(i) Avg. Wellhead Press. $P_t = (h + f)$ 200	(j) Shut-in Casing Pressure (DWt) 383	(k) Shut-in Tubing Pressure (DWt) 383	(l) P_c = higher value of (j) or (k) 383	(m) Del. Pressure $P_d = 80\% P_c$ 306	(n) Separator or Dehydrator Pr. (DWt) for critical flow only

FLOW RATE CORRECTION (METER ERROR)

Integrated Volume - MCF/D 33	Quotient of $\frac{\text{Item c}}{\text{Item d}}$ 1.0000	$\sqrt{\frac{\text{Item c}}{\text{Item d}}}$ 1.0000	Corrected Volume Q = 33 MCF/D
---------------------------------	---	--	----------------------------------

WORKING PRESSURE CALCULATION

$(1 - e^{-R})$.281	$(P_c Q_m)^2 (1000)$ 295	$R^2 = (1 - e^{-R}) (P_c Q_m)^2 (1000)$ 83	P_t^2 40000	$P_w^2 = P_t^2 + R^2$ 40083	$P_w = \sqrt{P_w^2}$ 200
------------------------	-----------------------------	---	------------------	--------------------------------	-----------------------------

DELIVERABILITY CALCULATION

$D = Q \left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^n = 33$	$\left[\frac{53053}{40083} \right]^n = 1.3236$	$\left[\frac{53053}{40083} \right]^n = 1.2340$	$= 41$ MCF/D
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REMARKS:

SUMMARY

Item b _____ Psia
 P_c _____ Psia
 Q _____ MCF/D
 P_w _____ Psia
 P_d _____ Psia
 D _____ MCF/D

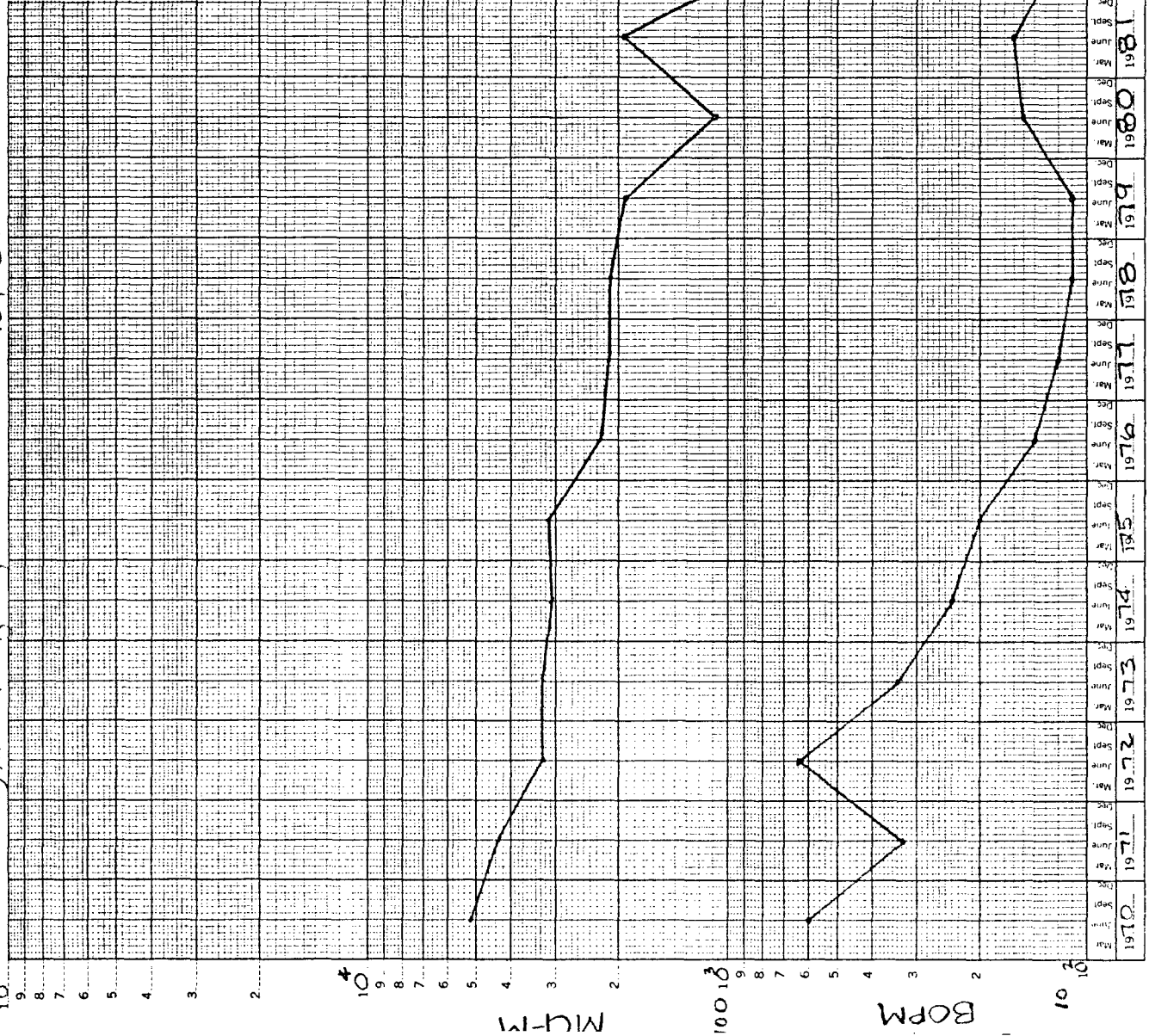
Company _____
 By _____
 Title _____
 Witnessed By _____
 Company _____



Southland Royalty Company

Grants: 1401,550 MCF 13,182 BO

Project Name _____
Operator SRC
Lease-Well Reid #18
Zone Dakota
Field Basin
County San Juan State N.M.
Location (K) Sec 18-28N-9W





Southland Royalty Company

Cums: 304,422 MCF 5404 BO

Project Name

Operator SRC

Lease-Well Reid #18

Zone Mesaverde

Field Blanco

County San Juan State N.M.

Location (K) Sec 18-28N-9W

