

Memo

From
Gilbert P. Quintana
Petroleum Engineer

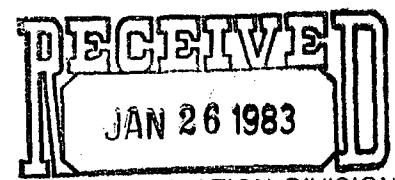
To File / Southland Royalty "A"
No. 4

Estimates of pressure are:

Hydrostatic Head Pressure
+ Flowing or Pumping Tbg Pressure

Estimate Pressure

Note: Order PC-53
justifies item
No. 4. Surface
commingling of
the lease.



Amoco Production Company (USA)
Post Office Box 68
Hobbs, New Mexico 88240
OIL CONSERVATION DIVISION
SANTA FE

S. J. Okerson
District Superintendent

January 18, 1983

File: SJ0-127-WF

Re: Application to Downhole Commingle
Southland Royalty "A" No. 4
Drinkard and Tubb Oil and Gas Pools
Lea County, New Mexico

State of New Mexico
Energy and Minerals Department
Oil Conservation Division
P. O. Box 2088
Santa Fe, NM 87501

Attention: Mr. Joe D. Ramey

Gentlemen:

Approval is hereby requested to downhole commingle the Southland Royalty "A" No. 4 in accordance with NMOC Rule 303-C.

This well is located 660' FSL x 660' FEL, Section 4, T-21-S, R-37-E, Lea County, New Mexico. Currently, the Tubb (gas) is being pumped and the Drinkard (oil) is shut-in and will not flow. Reference: Administrative Order No. DHC-373 dated September 16, 1982. This Order gave us permission to downhole commingle the same two zones on our Southland Royalty "A" No. 2 (copy attached). Due to the marginal production of these two zones, commingling is the only economical way of producing this well. Attached is a map showing the subject well and the offset operators.

In support of our request, we submit the following facts:

1. The latest productivity tests are as follows:

	Date	BOPD	BWPD	MCFD	Perforations
Tubb	10-16-82	0	1	249	6176'-6392'
Drinkard	04-19-82	5	2	0	6519'-6655'

Copies of C-116's are attached.

2. Neither zone produces more water than the combined oil limit as determined in Rule 303-C.

3. The produced fluids should be compatible and commingling these fluids should not result in precipitates which might damage the reservoirs.
4. Commingling of the Tubb and Drinkard will not jeopardize the efficiency of future secondary recovery operations in either zone.
5. No depreciation of value will occur from downhole commingling. Crude oils on the Southland Royalty "A" lease are commingled into a common tank battery and sold in mixed streams.
6. Expected daily production from the commingled zones are as follows:

	<u>Tubb</u>	<u>Drinkard</u>	<u>Commingled</u>
BOPD	1	5	6
BWPD	0.5	0.5	1
MCFD	300	75	375

See attached production decline curves.

7. Estimated bottom hole pressure for the Tubb is 430 psi based on a shut-in tubing pressure of 110 psi. Estimated bottom hole pressure for the Drinkard is 370 psi based on a shut-in tubing pressure of 40 psi.
8. Both zones to be commingled have common ownership.
9. Recommended oil and gas allotments are as follows:

	<u>Oil</u>	<u>Gas</u>
Tubb	17%	80%
Drinkard	83%	20%

10. All offset operators have been notified by registered mail. (Copy of receipts and list of offset operators attached.)

If additional information is required, contact Charles Herring at 393-1781.

Yours very truly,



Attachments

cc: State of New Mexico
Energy and Minerals Department
Oil Conservation Division
P. O. Box 1980
Hobbs, NM 88240
Mr. Jim Allen - Proration Dept., Houston, TX

OFFSET OPERATORS

Texaco, Inc.
P. O. Box 728
Hobbs, NM 88240

Shell Oil Company
P. O. Box 576, Woodcreek
Houston, TX 77001

Gulf Oil Company
P. O. Box 1150
Midland, TX 79701

Dallas McCasland
P. O. Box 206
Eunice, NM 88231

Conoco, Inc.
P. O. Box 460
Hobbs, NM 88240



INDUSTRY PRODUCTION DATA RATE-TIME PLOTS

OIL

WELL: SOUTHLAND ROYALTY A

FIELD: TUBB OIL AND GAS

OPERATOR: AMOCO PRODUCTION CO

STATE: NM 30 COUNTY: LEA

FIRST PROD LAST PROD 82 06

REQUESTOR: ROBERTS -HOB-05

LOCATION: HOBBS

MAJOR PROD CUM:

1,787

API NO: 300250000000

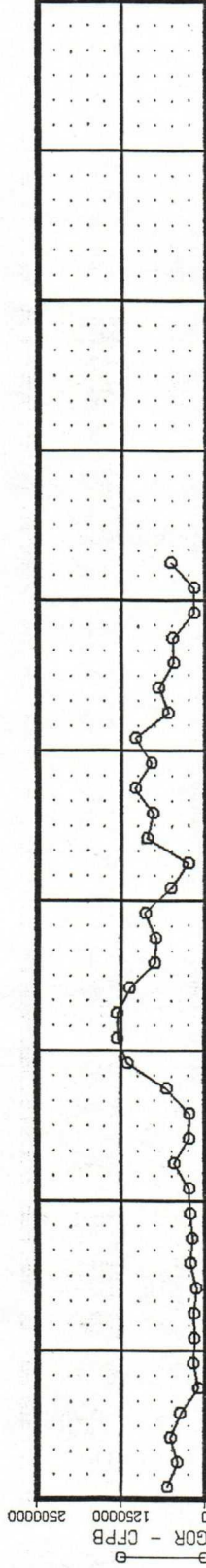
PERFS:

008074029

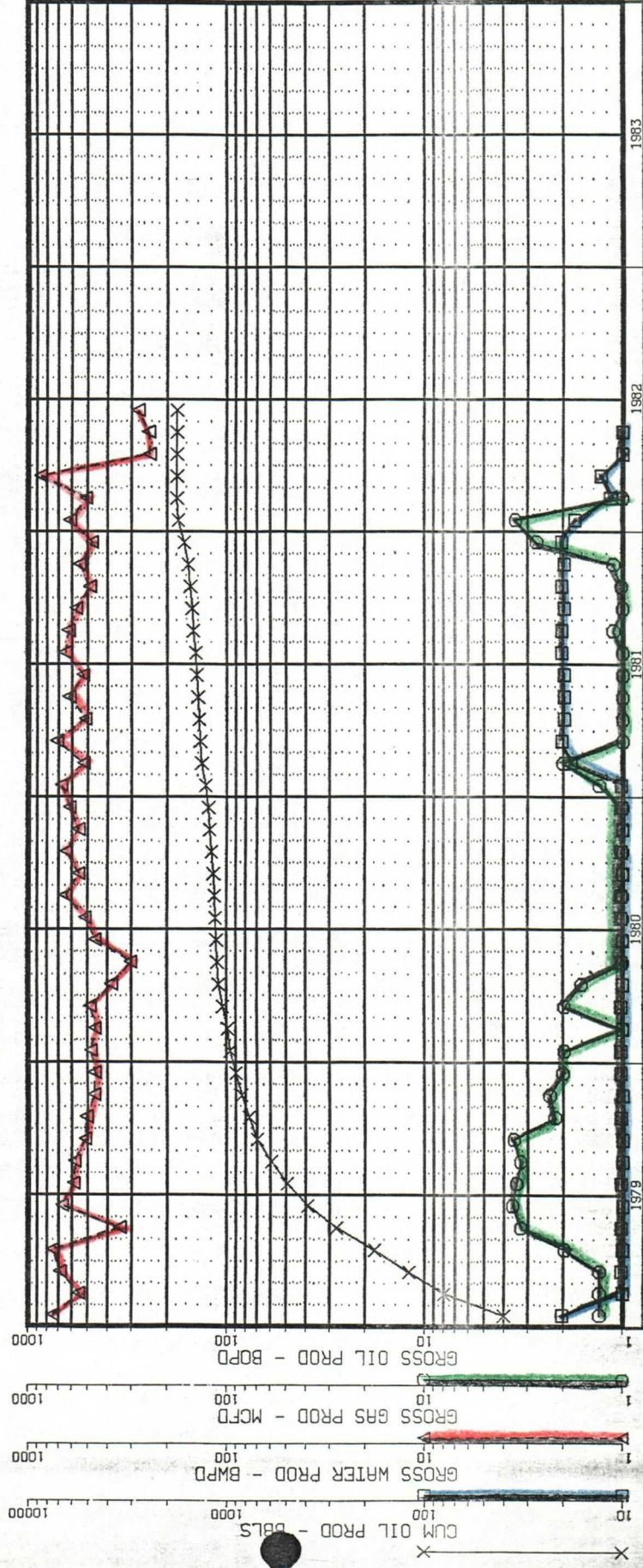
COMP DATE: 79 01

GENID: 4W407856

RESERVOIR:



MAJOR PRODUCT



1982-11-10

TIME

REPORT NUMBER 321



INDUSTRY PRODUCTION DATA RATE-TIME PLOTS

OIL

WELL:

SOUTHLAND ROYALTY A

000004

API NO: 300250639688

FIELD:

DRINKARD

DR

008022800

PERFS:

OPERATOR:

AMOCO PRODUCTION CO

019922

COMP DATE:

STATE:

NM 30

COUNTY:

LEA

025

GENID: 4W407855

FIRST PROD

LAST PROD 82 06

RESERVOIR:

DR

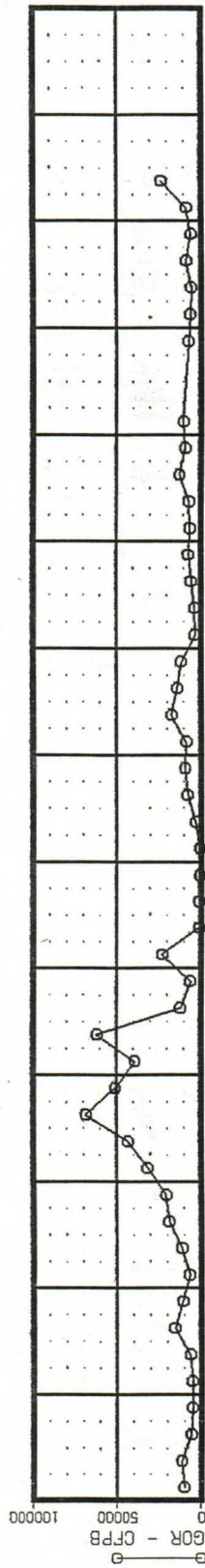
REQUESTOR:

ROBERTS -HOB-05

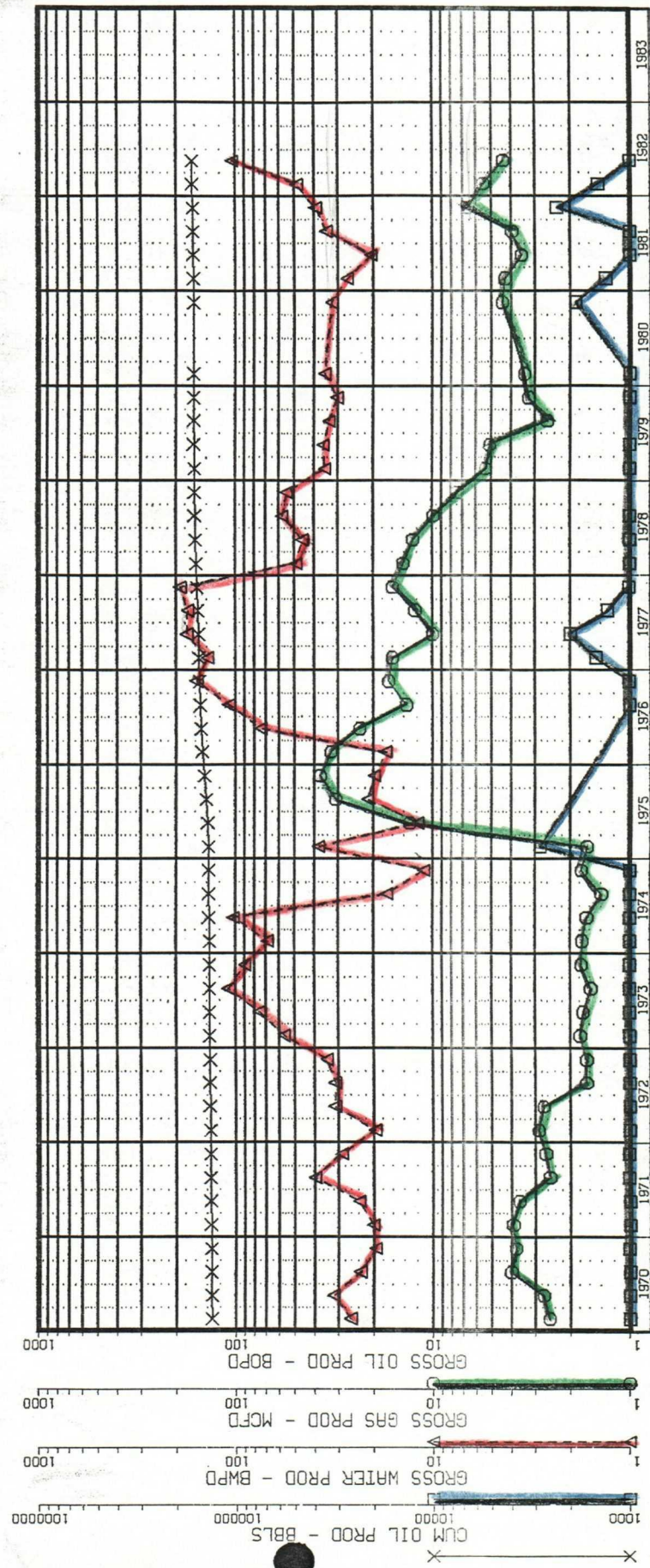
LOCATION: HOBBS

MAJOR PROD CUM:

165,997



MAJOR PRODUCT



1982-11-10

TIME

REPORT NUMBER 321

GAS-OIL RATIO TESTS

Operator		Pool		County		Lea							
Amoco Production Company		Tubb Oil & Gas											
Address				TYPE OF TEST - (X)		Scheduled <input checked="" type="checkbox"/>							
P. O. Box 68, Hobbs, New Mexico 88240						Condition <input type="checkbox"/>							
LEASE NAME	WELL NO.	LOCATION			DATE OF TEST	CHOKE SIZE	TEG. PRESS.	DAILY ALLOW. ABLE	LENGTH OF TEST HOURS	PROD. DURING TEST			GAS - OIL RATIO CU.FT/BSL
		U	S	T						R	WATER GDS.	GRAV. OIL GDS.	
STATE S Com OWEN "B" Pike Federal Southland Royalty A	3	E	32	22	38	10-7-82	F	--	24	0	1	192	192,000
	2	L	34	21	37	10-12	F	--	24	8	0	141	--
	1	A	6	23	38	10-20	F	--	24	2	5	365	73,000
	2	B	9	21	37	10-14	P	3	24	1	1	12	12,000
	3	V	4	21	37	10-21	P	1	24	1	1	8	8,000
	8	W	4	21	37	10-7	P	2	24	1	3	57	19,000
	4	X	4	21	37	10-16	P	--	24	1	0	249	--
								(Gas Well)					

No well will be assigned an allowable greater than the amount of oil produced on the official test.
During gas-oil ratio test, each well shall be produced at a rate not exceeding the top unit allowable for the pool in which well is located by more than 25 percent. Operator is encouraged to take advantage of this 25 percent tolerance in order that well can be assigned increased allowables when authorized by the Division.
Gas volume must be reported in MCF measured at a pressure base of 15.025 psia and a temperature of 60° F. Specific Gravity base will be 0.60.

Report ending pressure in lieu of tubing pressure for any well producing through casing.
Mail original and one copy of this report to the district office of the New Mexico Oil Conservation Division in accordance with Rule 331 and appropriate pool rules.

0+2-NMOC D, H 1-File 533.11 1-LRB

I hereby certify that the above information is true and complete to the best of my knowledge and belief.

Ruth Burman
(Signature)
Administrative Analyst

P 323 550 811
RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED—
NOT FOR INTERNATIONAL MAIL
(See Reverse)

SENT TO		TEXACO, Inc	
STREET AND NO.		P.O. Box 728	
P.O. STATE AND ZIP CODE		Albuquerque, NM 88240	
POSTAGE		\$.71	
CERTIFIED FEE		.75	
SPECIAL DELIVERY		.	
RESTRICTED DELIVERY		.	
SHOW TO WHOM AND DATE DELIVERED		.60	
SHOW TO WHOM, DATE, AND ADDRESS OF DELIVERY		.	
SHOW TO WHOM AND DATE DELIVERED WITH RESTRICTED DELIVERY		.	
SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY WITH RESTRICTED DELIVERY		.	
TOTAL POSTAGE AND FEES		\$2.06	

POSTMARK OR DATE



PS Form 3800, Apr. 1976

P 323 550 818
RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED—
NOT FOR INTERNATIONAL MAIL
(See Reverse)

SENT TO		Shell Oil Company	
STREET AND NO.		P.O. Box 576, Woodlands	
P.O. STATE AND ZIP CODE		Houston, TX 77001	
POSTAGE		\$.71	
CERTIFIED FEE		.75	
SPECIAL DELIVERY		.	
RESTRICTED DELIVERY		.	
SHOW TO WHOM AND DATE DELIVERED		.60	
SHOW TO WHOM, DATE, AND ADDRESS OF DELIVERY		.	
SHOW TO WHOM AND DATE DELIVERED WITH RESTRICTED DELIVERY		.	
SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY WITH RESTRICTED DELIVERY		.	
TOTAL POSTAGE AND FEES		\$2.06	

POSTMARK OR DATE



PS Form 3800, Apr. 1976

P 323 550 819
RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED—
NOT FOR INTERNATIONAL MAIL
(See Reverse)

SENT TO		Gulf Oil Company	
STREET AND NO.		P.O. Box 1150	
P.O. STATE AND ZIP CODE		Midland, TX 79701	
POSTAGE		\$.71	
CERTIFIED FEE		.75	
SPECIAL DELIVERY		.	
RESTRICTED DELIVERY		.	
SHOW TO WHOM AND DATE DELIVERED		.60	
SHOW TO WHOM, DATE, AND ADDRESS OF DELIVERY		.	
SHOW TO WHOM AND DATE DELIVERED WITH RESTRICTED DELIVERY		.	
SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY WITH RESTRICTED DELIVERY		.	
TOTAL POSTAGE AND FEES		\$2.06	

POSTMARK OR DATE



PS Form 3800, Apr. 1976

P 323 550 820
RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED—
NOT FOR INTERNATIONAL MAIL
(See Reverse)

SENT TO		Dallas McCasland	
STREET AND NO.		P.O. Box 206	
P.O. STATE AND ZIP CODE		Farmington, NM 88231	
POSTAGE		\$.71	
CERTIFIED FEE		.75	
SPECIAL DELIVERY		.	
RESTRICTED DELIVERY		.	
SHOW TO WHOM AND DATE DELIVERED		.60	
SHOW TO WHOM, DATE, AND ADDRESS OF DELIVERY		.	
SHOW TO WHOM AND DATE DELIVERED WITH RESTRICTED DELIVERY		.	
SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY WITH RESTRICTED DELIVERY		.	
TOTAL POSTAGE AND FEES		\$2.06	

POSTMARK OR DATE



PS Form 3800, Apr. 1976

P 323 550 821
RECEIPT FOR CERTIFIED MAIL

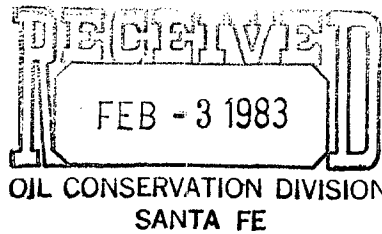
NO INSURANCE COVERAGE PROVIDED—
NOT FOR INTERNATIONAL MAIL
(See Reverse)

SENT TO		Conoco, Inc	
STREET AND NO.		P.O. Box 460	
P.O. STATE AND ZIP CODE		Farmington, NM 88240	
POSTAGE		\$.71	
CERTIFIED FEE		.75	
SPECIAL DELIVERY		.	
RESTRICTED DELIVERY		.	
SHOW TO WHOM AND DATE DELIVERED		.60	
SHOW TO WHOM, DATE, AND ADDRESS OF DELIVERY		.	
SHOW TO WHOM AND DATE DELIVERED WITH RESTRICTED DELIVERY		.	
SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY WITH RESTRICTED DELIVERY		.	
TOTAL POSTAGE AND FEES		\$2.06	

POSTMARK OR DATE



PS Form 3800, Apr. 1976



Amoco Production Company (USA)

Post Office Box 68
Hobbs, New Mexico 88240

S. J. Okerson
District Superintendent

January 18, 1983

File: SJO-122-WF

Re: Downhole Commingling of
the Southland Royalty "A" No. 4
Drinkard and Tubb Oil and Gas Pools
660' FSL x 660' FEL
Section 4, T-21-S, R-37-E
Lea County, New Mexico

Shell Oil Company
P. O. Box 576, Woodcreek
Houston, TX 77001

Gentlemen:

Amoco Production Company, as operator of the Southland Royalty "A" No. 4, hereby notifies you that we have applied to the NMOCD for Administrative Approval to downhole commingle the subject well. Commingling will enhance the economic operation of the well.

If you have no objections to the commingling, sign below and forward one copy to the NMOCD in Santa Fe, one copy to the NMOCD in Hobbs, one copy to this office, and retain one copy for your records. Addressed, stamped envelopes have been provided for your convenience.

Yours very truly,

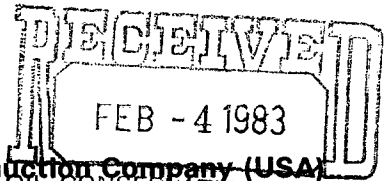
APPROVAL

COMPANY: SHELL oil Co.

BY: A. J. Fure

DATE: 2/1/83

Attachments



Amoco Production Company (USA)
Post Office Box 68
Hobbs, New Mexico 88240
OIL CONSERVATION DIVISION
SANTA FE

S. J. Okerson
District Superintendent

January 18, 1983

File: SJ0-122-WF

Re: Downhole Commingling of
the Southland Royalty "A" No. 4
Drinkard and Tubb Oil and Gas Pools
660' FSL x 660' FEL
Section 4, T-21-S, R-37-E
Lea County, New Mexico

Texaco, Inc.
P. O. Box 728
Hobbs, NM 88240

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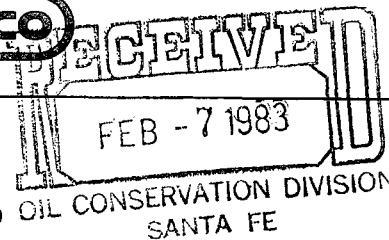
APPROVAL

COMPANY: **TEXACO INC.**

BY: R. L. Lane

DATE: 2-2-83

Attachments



Mark K. Mosley
Division Manager
Production Department
Hobbs Division
North American Production

Conoco Inc.
P. O. Box 460
726 E. Michigan
Hobbs, NM 88240
(505) 393-4141

February 2, 1983

New Mexico Oil Conservation Division
Department of Energy and Minerals
P. O. Box 2088
Santa Fe, NM 87501

Attention: Joe Ramey

Gentlemen:

Downhole Commingling of the Southland Royalty "A" No. 4 Drinkard and Tubb
Oil and Gas Pools 660' FSL X 660' FEL, Section 4, T-21-S, R-37-E, Lea
County, New Mexico

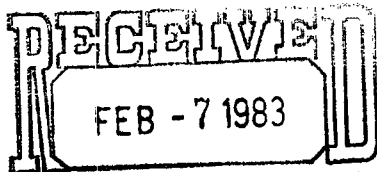
Conoco Inc., as offset operator, has approved Amoco's request on the
above subject. A copy of such approval is forwarded for your file.

Yours very truly,

HAI:mhe

CC: NMOCD - Hobbs
Amoco - Hobbs

Attachments



OIL CONSERVATION DIVISION Amoco Production Company (USA)
SANTA FE Post Office Box 68
Hobbs, New Mexico 88240

S. J. Okerson
District Superintendent

January 18, 1983

File: SJ0-122-WF

Re: Downhole Commingling of
the Southland Royalty "A" No. 4
Drinkard and Tubb Oil and Gas Pools
660' FSL x 660' FEL
Section 4, T-21-S, R-37-E
Lea County, New Mexico

Gulf Oil Company
P. O. Box 1150
Midland, TX 79701

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Yours very truly,

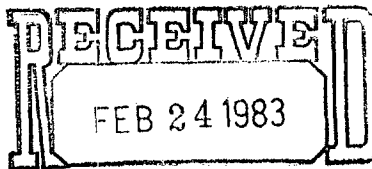
APPROVAL:

COMPANY: Gulf Oil Corporation

By: J. R. Frank
Chief Proration Engineer

Date: February 3, 1983

Attachments



OIL CONSERVATION DIVISION
SANTA FE

Amoco Production Company (USA)

Post Office Box 68
Hobbs, New Mexico 88240

S. J. Okerson
District Superintendent

January 18, 1983

File: SJ0-122-WF

Re: Downhole Commingling of
the Southland Royalty "A" No. 4
Drinkard and Tubb Oil and Gas Pools
660' FSL x 660' FEL
Section 4, T-21-S, R-37-E
Lea County, New Mexico

Dallas McCasland
P. O. Box 206
Eunice, NM 88231

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Yours very truly,

APPROVAL

COMPANY: Dallas McCasland Production

BY:

DATE: 02-22-83

Attachments