



Amoco Production Company

Post Office Box 68
Hobbs, New Mexico 88240

S. J. Okerson
District Superintendent

June 15, 1983

File: SJO-1052-WF

Re: Application to Downhole Commingle
Owen B No. 2
Drinkard and Tubb Oil & 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 Owen B No. 2 in accordance with NMOCD Rule 303-C.

The well is located 1980' FSL x 440' FWL, Section 34, Township 21 South, Range 37 East, Lea County, New Mexico. The well was originally completed in the Grayburg Formation as an oil well on June 25, 1939. Amoco recompleted this well to a Drinkard completion on March 24, 1947. The Drinkard was dually completed with the Tubb Gas on March 18, 1954 as a flowing gas-oil well. Reference Dual Completion Order No. DC-36, dated December 21, 1953 (copy attached). Currently, the Tubb is flowing and the Drinkard has been temporarily abandoned since August 16, 1976. 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:

	<u>Date</u>	<u>BOPD</u>	<u>BWPD</u>	<u>MCFD</u>	<u>Perforations</u>
Tubb	5-16-83	2	3	305	6070'-6344'
*Drinkard	6-25-76	5	11	300	6382'-6582'

Copies of C-116's are attached.

*Last test taken before zone was temporarily abandoned August 16, 1976.

2. Neither zone produces more water than the combined oil limit determined by 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 the Tubb and Drinkard will not jeopardize the efficiency of future secondary recovery operations in either zone.
5. We do not anticipate a significant change in the value of the commingled gas streams. Current gas prices being received are \$1.03/MCF for Drinkard gas and \$1.01/MCF for Tubb gas.
6. Expected daily production from the commingled zones are as follows:

	<u>Tubb</u>	<u>Drinkard</u>	<u>Commingled</u>
BOPD	2	3	5
BWPD	3	1	4
MCFD	620	470	1,090

See attached production decline curves.

7. Bottom hole pressures are as follows:
 All pressures corrected to common datum 6,250'.

<u>Tubb</u>	
Pressure at 6,000'	= 431.0 psi
Pressure 6,000'-6,250' @ (.102 psi/ft) gradient	= 25.5 psi
Total pressure at 6,250'	= 456.5 psi

<u>Drinkard</u>	
Pressure at 6,000'	= 311.0 psi
Pressure 6,000'-6,250' @ (.021 psi/ft) gradient	= 5.3 psi
Total pressure at 6,250'	= 316.3 psi

[illegible]

10-808-01

and the value of the
and the value of the
and the value of the

[illegible]

Bottom hole pressure - see below.
 1/17 pressure converted to common datum 1400.

[illegible]

June 15, 1983
File: SJ0-1052-WF
Page 3

* Owen B No. 3 (Drinkard) was used due to Owen B No. 2 (Drinkard) being temporarily abandoned since August of 1976.

**Copies of BHP tests are attached.

8. Both zones to be commingled have common ownership.
9. Recommended oil and gas allotments are as follows: Based on Reserves

	<u>Oil</u>	<u>Gas</u>
Tubb	58%	73%
Drinkard	42%	27%

10. All offset operators have been notified by certified mail. (Copy of receipts and list of offset operators attached.)
11. Also attached, please find a copy of Administrative Order No. DHC-31 granting downhole commingling of the closely located State "C" Tract 13 No. 9 Tubb and Drinkard Pools.

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

Yours very truly,

Original Signed by:
E. L. OKERSON

Attachments

cc: State of New Mexico
Energy and Minerals Department
Oil Conservation Division
P. O. Box 1980
Hobbs, NM 88240

1971 to 1972 and 1972 to 1973. The first year of the study was 1971 to 1972 and the second year was 1972 to 1973. The first year of the study was 1971 to 1972 and the second year was 1972 to 1973.

...dizendo nome do pai e da mãe, e do nome do filho.

1994	1995	
01	003	0001
000	000	00000000

1. The following information was obtained from the records of the Department of the Interior, Bureau of Land Management, regarding the land owned by the State of California:

• what you do next

air condensation

0801 x 0.0 C
0888 N

OFFSET OPERATORS

Amerada Hess Corporation
P. O. Drawer D
Monument, NM 88265

Exxon Company U.S.A.
P. O. Box 1700
Midland, TX 79702

Gulf Oil Exploration and Production Company
P. O. Box 670
Hobbs, NM 88240

Mobil Producing Texas and New Mexico, Inc.
P. O. Box 1800
Hobbs, NM 88240

Phillips Petroleum Company
4001 Penbrook
Odessa, TX 79762

100-100000
100-100000
100-100000
100-100000

LIST OF OPERATORS

Wanda Hase Corporation
P.O. Drawer B
Hobbs, NM 88306

W. H. Hase Corporation
P.O. Box 1100
Hobbs, TX 78305

W. H. Hase Corporation
P.O. Box 870
Hobbs, NM 88306

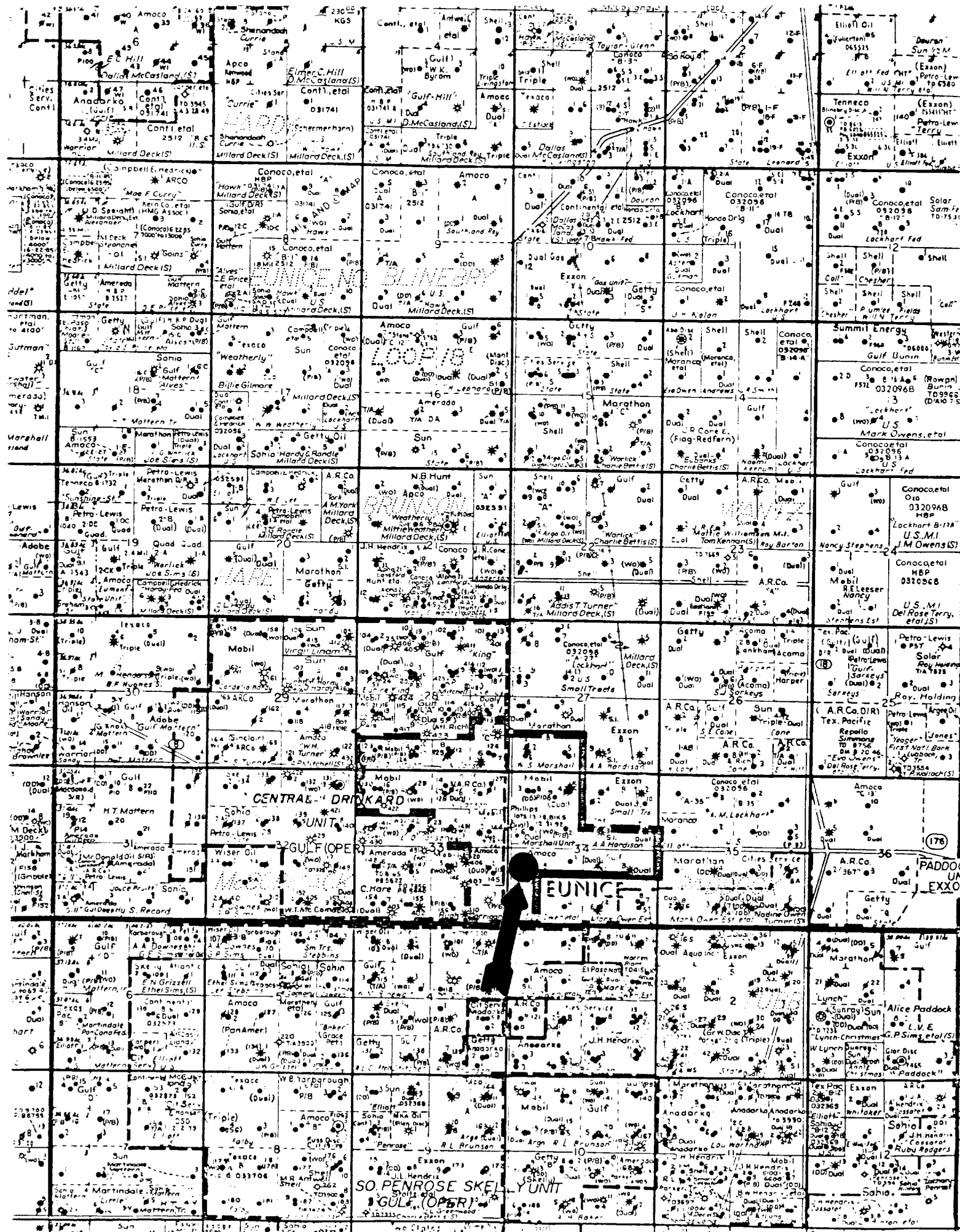
W. H. Hase Corporation
P.O. Box 1800
Hobbs, NM 88306

W. H. Hase Corporation
P.O. Box 1800
Hobbs, TX 78305

RECEIVED

JUN 20 1983

O.C.D.
HOBBS OFFICE



GAS-OIL RATIO TESTS

Operator		Amoco Production Company		Pool		Drinkard		County		Lea	
Address		P. O. Box 68, Hobbs, New Mexico 88240		88240		TYPE OF TEST - (X)		Scheduled ☐		Conservation ☐	
LEASE NAME		WELL NO.		LOCATION		DATE OF TEST		CHOKE SIZE		PRESS.	
		U		S		T		R			
Owen B		2		L		34		21		37	
						6-25-76 F				--	
										24	
										11	
										5	
										300	
										60,000	

(This is the last test recorded, the well has been Shut-in since then)

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 casing 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.

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

Rule 331 and appropriate pool rules.
0+2-NMOCOD, H 1-LRB 1-File 533.11

Administrative Analyst

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

P. O. BOX 2930
SANTA FE, NEW MEXICO 87501

Form C-118
Revised 10-1-78

GAS-OIL RATIO TESTS

Operator		Pool		Tubb		County		Lea							
P. O. Box 68, Hobbs, New Mexico 88240						TYPE OF TEST - (X)		Scheduled ☐		Consolidation ☐		Special ☒			
LEASE NAME	WELL NO.	LOCATION				DATE OF TEST	CHOKE SIZE	TEG. PRESS.	DAILY ALLOW. ABL	LENGTH OF TEST HOURS	PROD. DURING TEST				GAS-OIL RATIO CU. FT./BSL
		U	S	T	R						WATER BSL.	GRAV. OIL BSL.	GAS M.C.F.		
Owen B	2	L	34	21	37	5-16-83	F		--	24	3	2	305	152,000	

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 allowances when authorized by the Division.

Gas volumes 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 casing pressure in line 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 applicable pool rules.

0+2-NMOCD, 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.

Neil Sullivan
(Signature)
Administrative Analyst

6-1-83

RECEIVED

JUN 20 1983

O.C.D.
HOBBS OFFICE

Owen "B" No. 2 (Tubb)

Surf

1000

2000

Depth
Ft.

3000

4000

5000

6000

7000

0

100

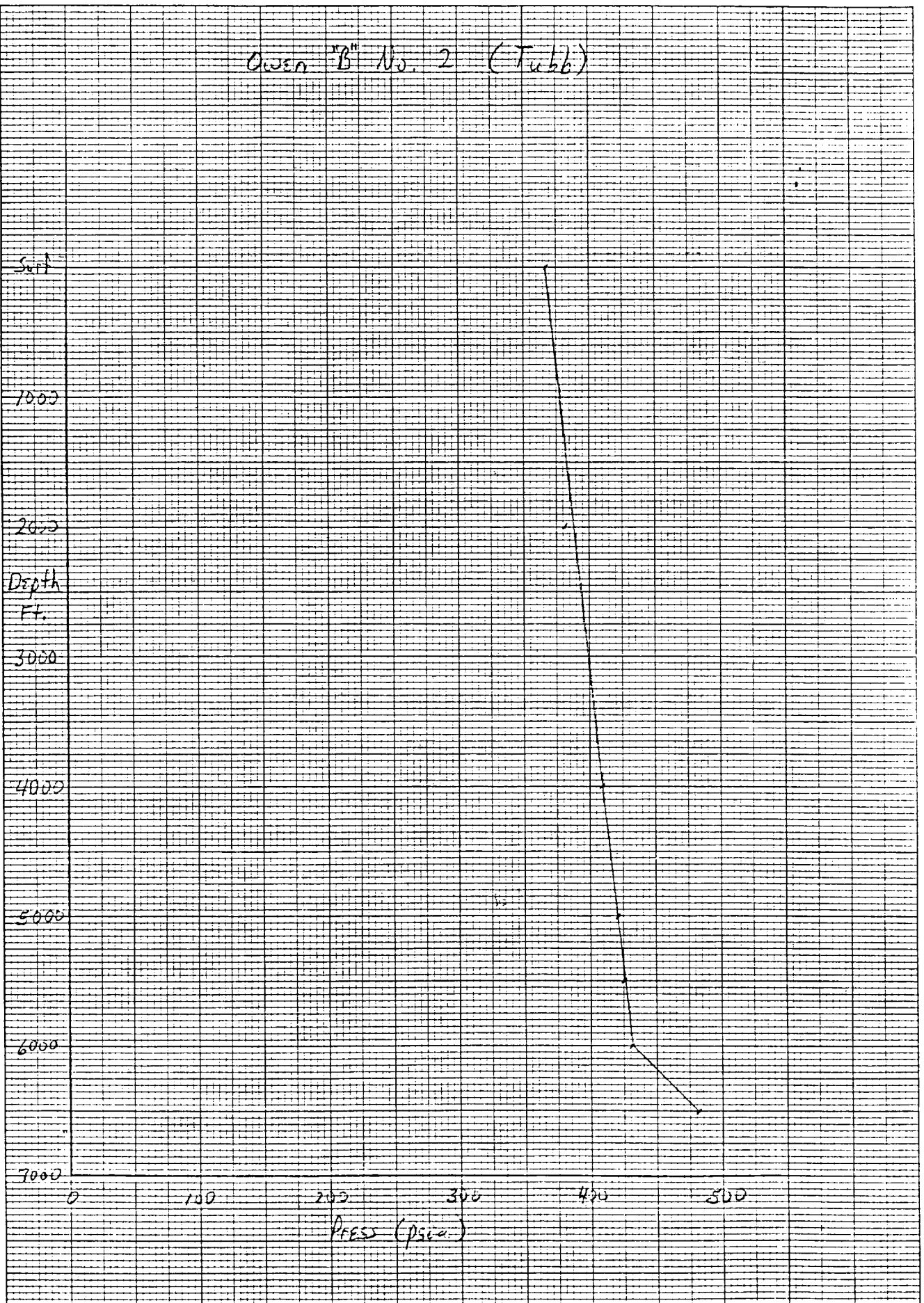
200

300

400

500

PRESS (psia)



CH DEPTH OR CUM	DEFL INCH	PSI @	TEMP. CORR.	CORRECTED	# PRESS. CORR. TO DATUM @
-----------------------	-----------	-------	----------------	-----------	---------------------------

RUN BY TGR 5/24/83

Owen "B" No. 3 (Drinkard)

Surf

1000

2000

Depth

ft.

3000

4000

5000

6000

7000

0

100

200

300

400

500

Press (psia)

46 1320

10 X 10 TO 1 1/2 INCH 7 X 10 INCHES
KEUFFEL & ESSER CO. MADE IN U.S.A.

[illegible]

THE APPLICATION OF STANOLIND OIL & GAS COMPANY FOR PERMISSION TO EFFECT DUAL COMPLETION OF ITS EVA OWEN 'B', WELL NO. 2, 1980 FEET FROM SOUTH LINE AND 440 FEET FROM WEST LINE OF SECTION 34, TOWNSHIP 21 SOUTH, RANGE 37 EAST, NMPM, LEA COUNTY, NEW MEXICO.

ORDER NO. DC-36

ADMINISTRATIVE ORDER
OF THE OIL CONSERVATION COMMISSION

Under the provisions of Order No. R-316, Rule 112-A, Stanolind Oil & Gas Company made application to the New Mexico Oil Conservation Commission on December 8, 1953, for permission to dually complete its Eva Owen 'B', Well No. 2, 1980 feet from the south and 440 feet from the west lines of Section 34, Township 21 South, Range 37 East, NMPM, Lea County, New Mexico, and

The Secretary-Director Finds:

- (1) That application has been duly filed under the provisions of Sub-section 'c' of Rule 112-A of the Commission's Rules and Regulations;
- (2) That satisfactory information has been provided that all operators of offset acreage have been duly notified; and
- (3) That no objections have been received within the waiting period as prescribed by said rule.

IT IS THEREFORE ORDERED:

That the applicant herein, Stanolind Oil & Gas Company, be and it hereby is authorized to dually complete its Eva Owen 'B', Well No. 2, located 1980 feet from the south and 440 feet from the west lines of Section 34, Township 21 South, Range 37 East, NMPM, Lea County, New Mexico, in such a manner as to permit production of gas from the Tubb formation of the Tubb Gas Pool through the annular space between the casing and the tubing, and oil from the Drinkard formation of the Drinkard Oil Pool through the tubing, by proper perforations and the installation of a suitable packer;

PROVIDED, HOWEVER, That subject well shall be completed and thereafter produced in such a manner that there will be no commingling within the well-bore, either within or outside the casing, of gas, oil and gas, or oil produced from either or both of the separate strata,

PROVIDED FURTHER, That upon the actual dual completion of such subject well applicant shall submit to the District Office of the Commission at Hobbs, New Mexico, copies of Oil Conservation Commission Form C-103, Form C-104, Form C-110 and Form C-122 outlining the information required on those forms by existing Rules and Regulations, and two copies of the electric log of the well, if available.

PROVIDED FURTHER, That said subject well for dual completion and production shall be equipped in such a way that reservoir pressures may be determined separately for each of the two specified strata, and further, be equipped with all necessary connections required to permit recording meters to be installed and used, at any time, as may be required by the

JUN 02 1988

RECEIVED

Commission or its representatives, in order that natural gas, oil, or oil and gas from each separate stratum may be accurately measured and the gas-oil ratio thereof determined, and

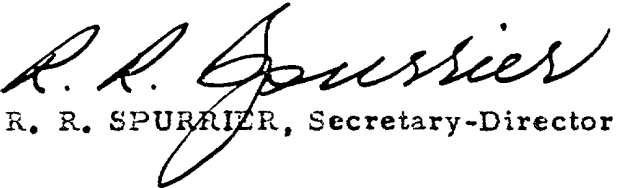
PROVIDED FURTHER, That the operator-applicant shall make any and all tests, including segregation tests, but not excluding other tests and/or determinations at any convenient time and in such manner as deemed necessary by the Commission; the original and all subsequent tests shall be witnessed by representatives of the Commission and by representatives of offset operators, if any there be, at their election, and the results of each test properly attested to by the applicant herein and all witnesses, and shall be filed with the Commission within ten days after completion of such test, and

PROVIDED FURTHER, That upon the actual dual completion of such subject well, applicant shall submit to the Commission a diagrammatic sketch of the mechanical installation which was actually used to complete and produce the seal between the strata, and a special report of production, gas-oil ratio and reservoir pressure determination of each producing zone or stratum immediately following completion.

IT IS FURTHER ORDERED, That jurisdiction of this cause is hereby retained by the Commission for such further order or orders as may seem necessary or convenient for the prevention of waste and/or protection of correlative rights; upon failure of applicant to comply with any requirement of this order after proper notice and hearing, the Commission may terminate the authority hereby granted and require applicant or its successors and assigns to limit its activities to regular single-zone production in the interests of conservation.

APPROVED at Santa Fe, New Mexico, on this 21st day of December, 1953.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION


R. R. SPURRER, Secretary-Director

SEAL

PLOT 2 10.30.24 FRI 13 MAY, 1983

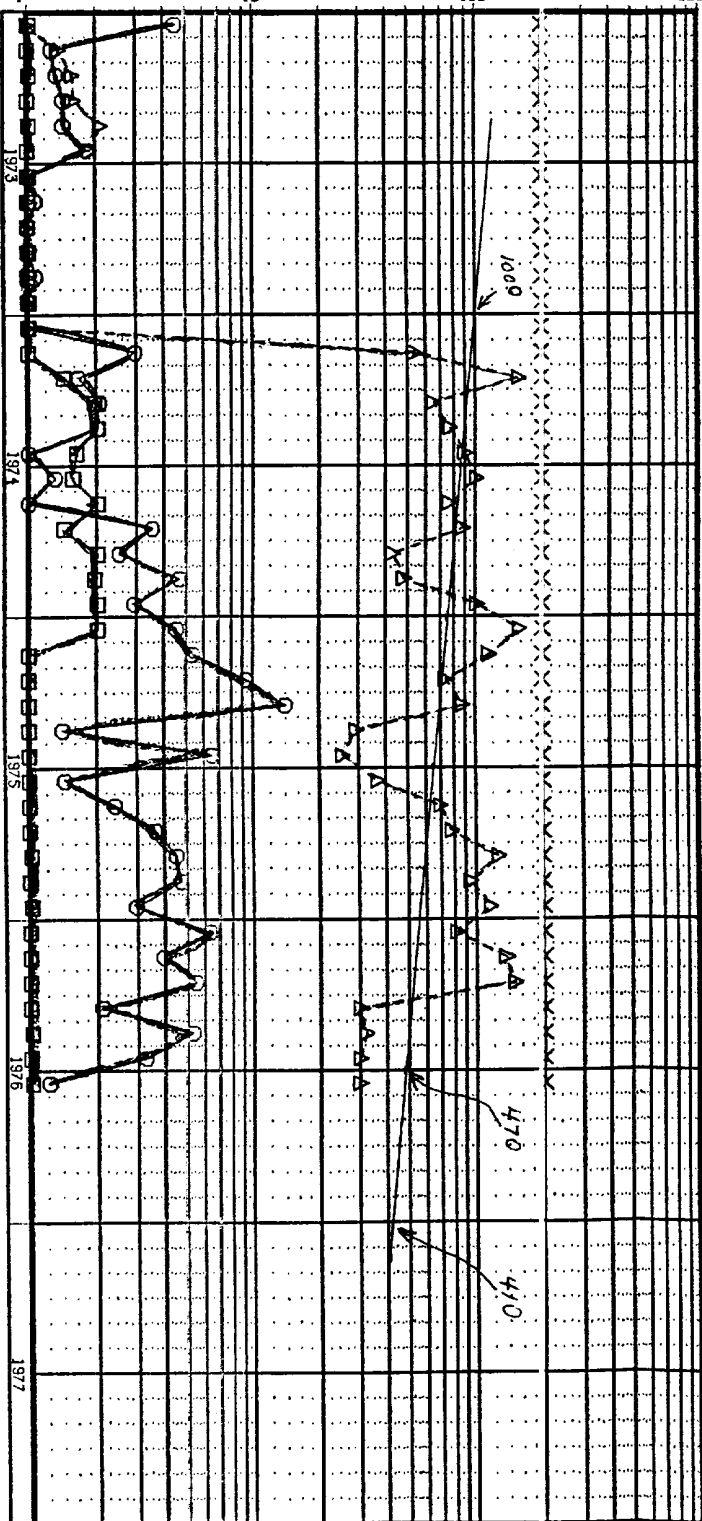
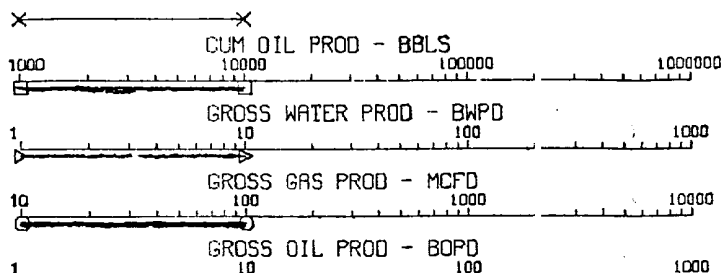
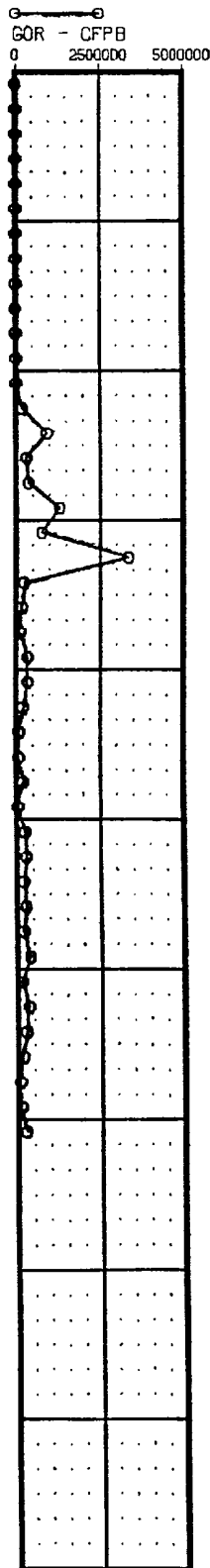
JOB-R63R0219, 5000, TILSH CENTER DISPLA VER 8.2



OIL

INDUSTRY PRODUCTION DATA RATE-TIME PLOTS

WELL: OWEN B 000002 API NO: 300250699788
FIELD: DRINKARD DR 008022800 PERFS:
OPERATOR: AMOCO PRODUCTION CO 019922 COMP DATE:
STATE: NM 30 COUNTY: LEA 025 GENID: 4W021264
FIRST PROD LAST PROD 76 07 RESERVOIR: DR
REQUESTOR: DORADO HOB-100 LOCATION: HOBBS MAJOR PROD CUM: 202,911



1983-05-13

TIME

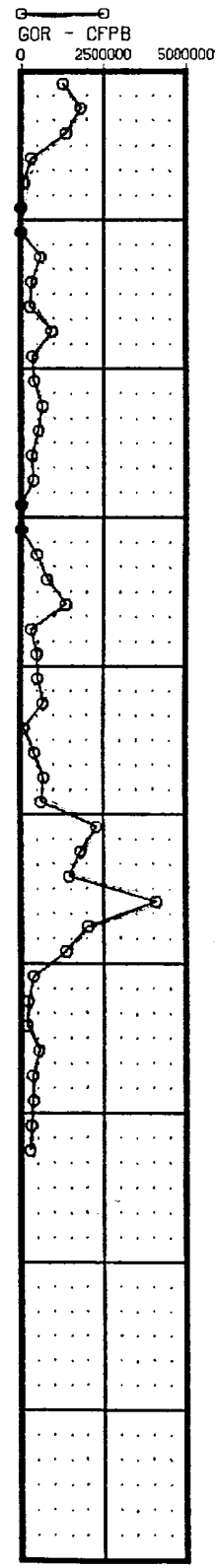
REPORT NUMBER 321



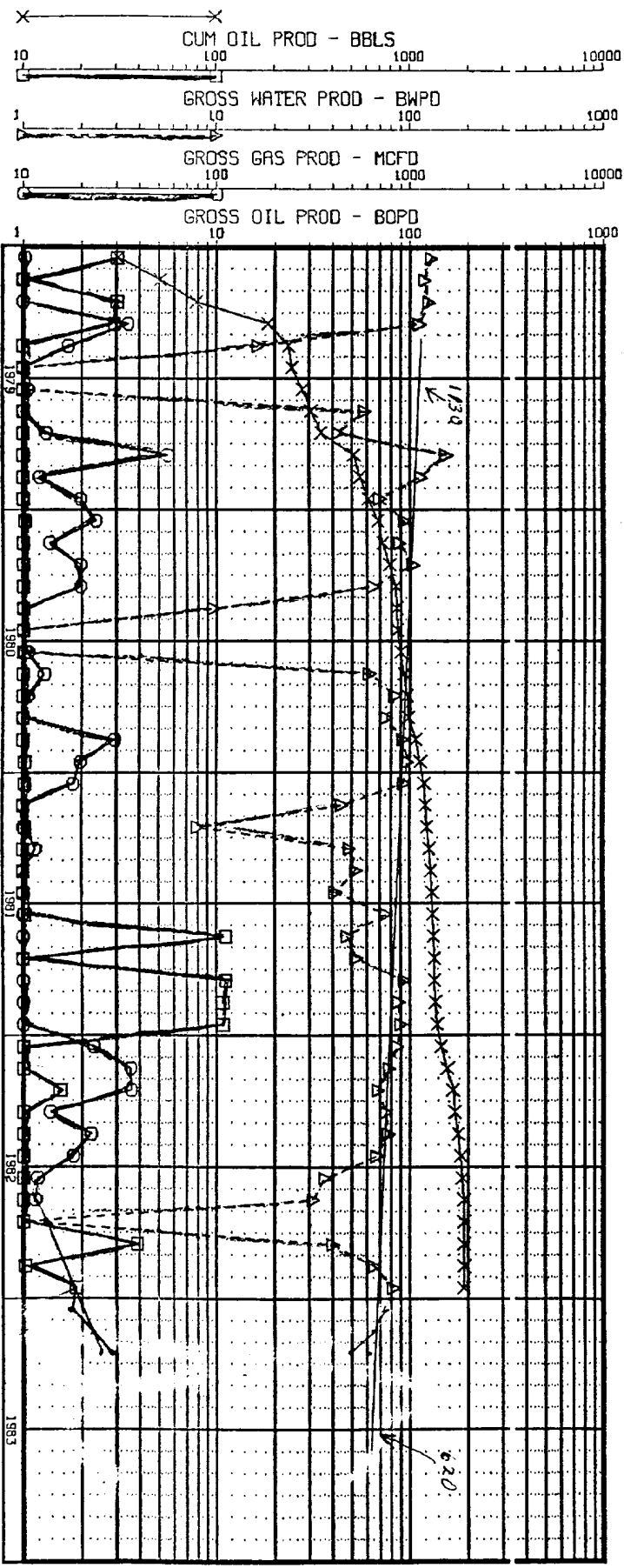
INDUSTRY PRODUCTION DATA RATE-TIME PLOTS

OIL
WELL: OWEN B
FIELD: TUBB OIL AND GAS
OPERATOR: AMOCO PRODUCTION CO
STATE: NM 30 COUNTY: LEA
FIRST PROD LAST PROD 82 12
REQUESTOR: DORADO HOB-100 LOCATION: HOBBS
API NO: 300250000000
PERFS: TB 008074029
COMP DATE: 79 01
GENID: 4W021266
RESERVOIR: TB
MAJOR PROD CUM: 1,908

PLOT 2 10.31.44 FRI 13 MAY, 1983 JOB-R6390219, S000, TULSA CENTER DISPLA VER 8.2



MAJOR PRODUCT



1983-05-13

TIME

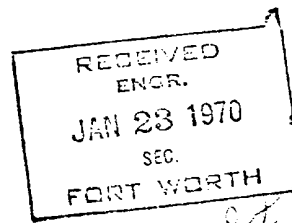
REPORT NUMBER 321



OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO
P. O. BOX 2088 - SANTA FE
87501

January 19, 1970



GOVERNOR
DAVID F. CARGO
CHAIRMAN

LAND COMMISSIONER
ALEX J. ARMIJO
MEMBER

STATE GEOLOGIST
A. L. PORTER, JR.
SECRETARY - DIRECTOR

Pan American Petroleum Corporation
P. O. Box 1410
Fort Worth, Texas 76101

Attention: Mr. D. L. Ray

Administrative Order No. DHC-31
State "C" Tract 13 Well No. 9
Unit F of Section 36, Township 21,
South, Range 37 East, NMPM
Tubb and Drinkard Pools

Gentlemen:

Reference is made to your recent application for an exception to Rule 303-A of the Commission Rules and Regulations for the subject dually completed well to permit the removal of the down-hole separation equipment and to commingle the production from both pools in the well-bore.

It appearing that the subject well qualifies for approval for such exception pursuant to the provisions of Rule 303-C, and that reservoir damage or waste will not result from such down-hole commingling, and correlative rights will not be violated thereby, you are hereby authorized to commingle the production as described above and Commission Order No. MC-1664, which authorized the dual completion and required separation of the zones, is hereby placed in abeyance.

In accordance with the provisions of Rule 303-C, total commingled oil production from the subject well shall not exceed 40 barrels per day and total water production from the well shall not exceed 80 barrels per day. The maximum amount of gas which may be produced daily from the well shall be determined by multiplying 2000 by top unit allowable for the Drinkard Pool.

-2-

January 19, 1970

Pan American Petroleum Corporation
P. O. Box 1410
Fort Worth, Texas 76101

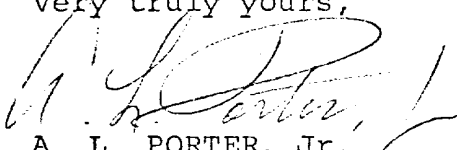
Administrative Order No. DHC-31

Assignment of allowable to the well and allocation of production from the well shall be on the following basis:

Jubla Upper Pool: 55%
Dinkard Lower Pool: 45%

Pursuant to Rule 303-C 5, the commingling authority granted by this order may be rescinded by the Secretary-Director if, in his opinion, conservation is not being best served by such commingling.

Very truly yours,


A. L. PORTER, Jr.
Secretary-Director

ALP/JEK/og

cc: Oil Conservation Commission - Hobbs

P 267 164 374
RECEIPT FOR CERTIFIED MAIL

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

SENT TO		EXXON Company USA	
STREET AND NO.		P.O. Box 1700	
P.O. STATE AND ZIP CODE		Midland, TX 79702	
POSTAGE		\$.37	
CONSULT POSTMASTER FOR FEES	CERTIFIED FEE	.75	
	SPECIAL DELIVERY	c	
	RESTRICTED DELIVERY	c	
	OPTIONAL SERVICES		
	RETURN RECEIPT SERVICE	.60	
SHOW TO WHOM AND DATE DELIVERED		c	
SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY		c	
SHOW TO WHOM AND DATE DELIVERED WITH RESTRICTED DELIVERY		c	
SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY WITH RESTRICTED DELIVERY		c	
TOTAL POSTAGE AND FEES		\$ 1.72	
POSTMARK OR DATE			
			

PS Form 3800, Apr. 1976

P 267 164 375
RECEIPT FOR CERTIFIED MAIL

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

SENT TO		Mobil Prod. TX & NM, Inc.	
STREET AND NO.		P.O. Box 1800	
P.O. STATE AND ZIP CODE		Hobbs, NM 88240	
POSTAGE		\$.37	
CONSULT POSTMASTER FOR FEES	CERTIFIED FEE	.75	
	SPECIAL DELIVERY	c	
	RESTRICTED DELIVERY	c	
	OPTIONAL SERVICES		
	RETURN RECEIPT SERVICE	.60	
SHOW TO WHOM AND DATE DELIVERED		c	
SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY		c	
SHOW TO WHOM AND DATE DELIVERED WITH RESTRICTED DELIVERY		c	
SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY WITH RESTRICTED DELIVERY		c	
TOTAL POSTAGE AND FEES		\$ 1.72	
POSTMARK OR DATE			
			

PS Form 3800, Apr. 1976

P 267 164 371
RECEIPT FOR CERTIFIED MAIL

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

SENT TO		Amerada Hess Corp.	
STREET AND NO.		P.O. Drawer D	
P.O. STATE AND ZIP CODE		Monument, NM 88265	
POSTAGE		\$.37	
CONSULT POSTMASTER FOR FEES	CERTIFIED FEE	.75	
	SPECIAL DELIVERY	c	
	RESTRICTED DELIVERY	c	
	OPTIONAL SERVICES		
	RETURN RECEIPT SERVICE	.60	
SHOW TO WHOM AND DATE DELIVERED		c	
SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY		c	
SHOW TO WHOM AND DATE DELIVERED WITH RESTRICTED DELIVERY		c	
SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY WITH RESTRICTED DELIVERY		c	
TOTAL POSTAGE AND FEES		\$ 1.72	
POSTMARK OR DATE			
			

PS Form 3800, Apr. 1976

P 267 164 372
RECEIPT FOR CERTIFIED MAIL

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

SENT TO		Gulf Oil Exp. & Prod. Co.	
STREET AND NO.		P.O. Box 670	
P.O. STATE AND ZIP CODE		Hobbs, NM 88240	
POSTAGE		\$.37	
CONSULT POSTMASTER FOR FEES	CERTIFIED FEE	.75	
	SPECIAL DELIVERY	c	
	RESTRICTED DELIVERY	c	
	OPTIONAL SERVICES		
	RETURN RECEIPT SERVICE	.60	
SHOW TO WHOM AND DATE DELIVERED		c	
SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY		c	
SHOW TO WHOM AND DATE DELIVERED WITH RESTRICTED DELIVERY		c	
SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY WITH RESTRICTED DELIVERY		c	
TOTAL POSTAGE AND FEES		\$ 1.72	
POSTMARK OR DATE			
			

PS Form 3800, Apr. 1976

P 267 164 373
RECEIPT FOR CERTIFIED MAIL

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

SENT TO		Phillips Petroleum Co.	
STREET AND NO.		4001 Penbrook	
P.O. STATE AND ZIP CODE		Odessa, TX 79762	
POSTAGE		\$.37	
CONSULT POSTMASTER FOR FEES	CERTIFIED FEE	.75	
	SPECIAL DELIVERY	c	
	RESTRICTED DELIVERY	c	
	OPTIONAL SERVICES		
	RETURN RECEIPT SERVICE	.60	
SHOW TO WHOM AND DATE DELIVERED		c	
SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY		c	
SHOW TO WHOM AND DATE DELIVERED WITH RESTRICTED DELIVERY		c	
SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY WITH RESTRICTED DELIVERY		c	
TOTAL POSTAGE AND FEES		\$ 1.72	
POSTMARK OR DATE			
			

PS Form 3800, Apr. 1976

RECEIVED

JUN 20 1983

O.C.D.
HOBBS OFFICE