Mobil Producing Texas & New Mexico Inc.

December 31, 1985

State of New Mexico Energy and Mineral Department Oil Conservation Division P.O. BOX 633 MIDLAND, TEXAS 79702

MIDLAND DIVISION

Richard L. Stamets
Director



MOBIL PRODUCING TEXAS & N.M. INC. REQUEST FOR EXCEPTION TO RULE 303-A DOWN HOLE COMMINGLING TUBB & DRINKARD GAS ZONES MARSHALL COM. WELL NO. 5 LEA COUNTY, N.M.

Gentlemen:

Mebil Producing Texas and New Mexico, Inc. (MPTM) respectfully request your approval to down hole commingle the production from the Tubb & Drinkard zones in the captioned well. Each zone is classified as a gas zone.

In support of this request NMOCD's required information is attached.

Yours very truly,

G.E. Tate

Env. and Reg. Mgr.

HFW/km Attachments

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MOBIL PRODUCING TEXAS AND NEW MEXICO, INC.

DOWNHOLE COMMINGLING REQUIRED DATA

1. (a) Well involves a gas zone.

- Commingling is required to economically produce this well as the Tubb zone has a tendency to load up with water and die. Downhole commingling will extend the life of the well and will therefore increase reserves. A pumping unit is installed to unload the water.
- 2. It is expected that due to the nature of the formation and the differential pressures of the two zones that Crossflow with not occur.
- 3. Neither zone is sensitive to water.
- 4. The water from the Tubb has not exhibited tendencies toward precipation at the formation.

5. Ownership is common.

- 6. BHP differential is 43% Drinkard 1058 PSIA Tubb 603 PSIA.
- 2. (a) Mobil Producing Texas & New Mexico, Inc. P.O. Box 633 Midland, Texas 79702
 - (b) Marshall Com. Well #5, 589' FNL, 2057' FWL of Sec. 34, T-21-S, R-37-E Lea County, New Mexico. Tubb & Drinkard Pools.
 - (c) Ownership Plat (attached).
 - (d) 24 hour productivity tests (within 30 days) cannot be obtained for the Tubb due to the inability of the Tubb to produce with fluid on the backside. As per conversation with Jerry Sexton on 11-8-85 this explanation obviates the requirement to submit a C-116 for the Tubb.
 - (e) Decline curve for the Tubb zone attached. This zone is now loaded with fluid and will not produce until the fluid on the formation is removed. Fluid will be pumped off by releasing the packer when the commingling permit approval is received. Allocation of production per zone can then be determined by use of the Drinkard Test prior to commingling when compared to the combined production. Production decline curve for the Tubb zone is attached. The well was recently recompleted to include the Drinkard zone. The well was reentered with Tubb perfs 5978'-6155' with a T.D. of 6618' and PBTD 6368'. The well was cleaned out to 6588', the Drinkard perf'd from 6475' to 6579'.

MOBIL PRODUCING TEXAS AND NEW MEXICO, INC. DOWNHOLE COMMINGLING REQUIRED DATA CONTINUED

- (e) The Drinkard perf'd interval was acidized with 4000 gal. acid. A packer was run and set to 6399' to separate the zones. String of tubing was run to the packer and the well has been pumped to remove the fluid from the Drinkard zone. The Tubb zone is packed off and will not flow due to the head of fluid trapped above the packer.
- (f) Bottom hole pressures for each zone is attached.
- (g) Each zone is gas and there is no evidence of incompatibility.
- (h) Each zone is gas, and dedicated to some contract.
- (i) Test the Drinkard prior to commingling, then test the commingled production. Allocate initial test production to the Drinkard. Allocate the differential of the commingled production and the Drinkard to the Tubb zone.
- (j) Attached is a list of offset operators who were informed of the proposal to down commingle.

Amoco Production Company P.O. Box 68 Hobbs, N.M. 88240

Exxon Company USA P.O. Box 2180 Houston, Texas 77001

Chevron-Gulf R.C. Anderson P.O. Box 670 Hobbs, N.M. 88240

Marathon Oil Company
P.O. Box 552
Midland, Texas 79702
ATTN: D.E. Yester
copy to W.D. Holmes (Hobbs, N.M.)

·						
	28		27			
	GULF	MARATHON	EXXON			
N. CARSON GULF 33 N. CARSON		W.S. MARSHALL MOSSL SUBJECT WELL DUAL TUBB	A.A. HARDISON EXXON 3.4			
MOBIL.	MOSIL J. CARSON	DRIMKARD MARSHALL UNIT	A.A. HARDISON			
MOSIL	AMOCO	AMOCO	GULF			
	CORRIGAN					
HUGH CORRIGAN		EVA OWEN etal	MARK OWEN EST.			

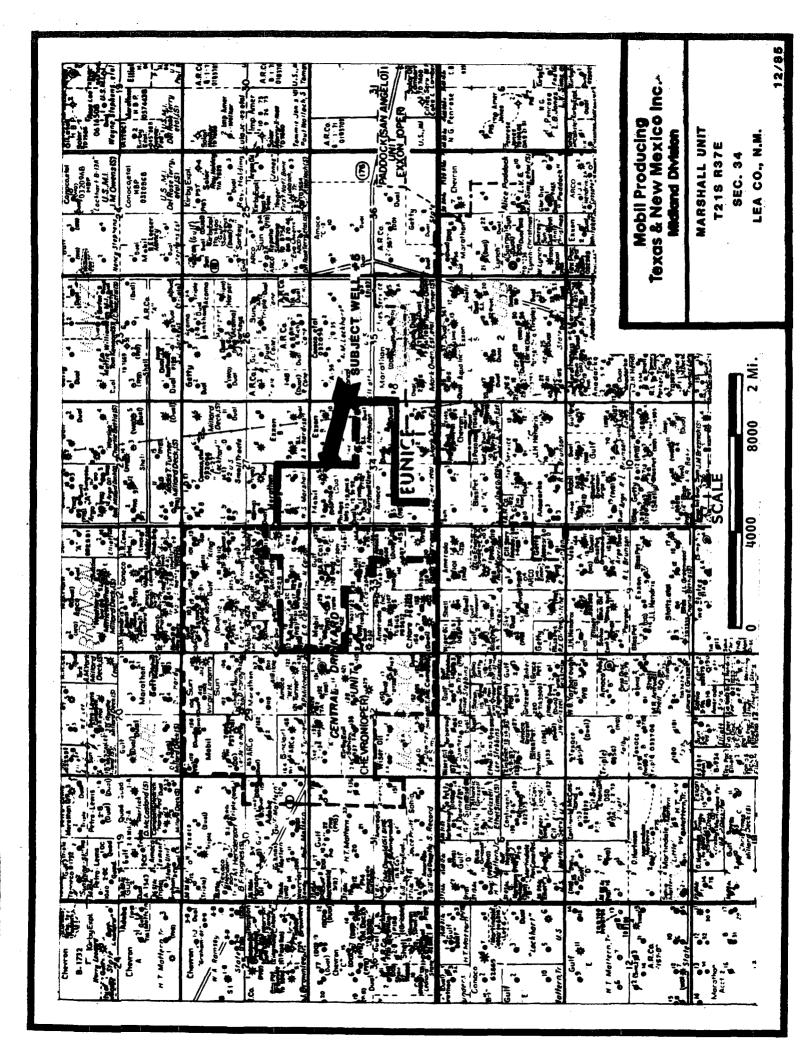


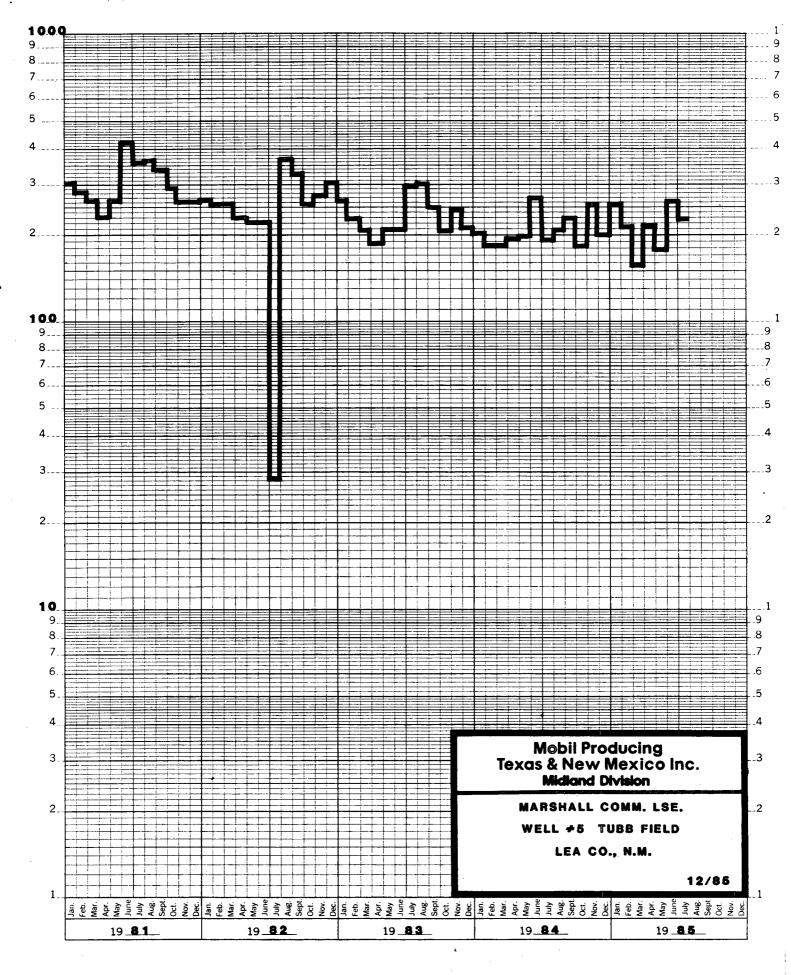
SCALE 0 2000 4000 1 Mi. Mobil Producing Texas & New Mexico Inc. Midland Division

MARSHALL COMM. LSE.
WELL +5, TUBB FIELD
T218 R37E
LEA CO. N.M.

RWP

10-1-85





PRESSURE TRANSIENT TEST DATA

COMPANY: Mobil Producing Texas & New Mexico Inc. CONTACT: Mike Marrs

LEASE: Marshall Com WELL: #5

FIELD: Tubb

COUNTY: Lea STATE: New Mexico

STATUS: Pulled rods; ran bombs; shut-in OPERATOR: Newman

PERFORATIONS FROM: 5,978.0' TO: 6,165.0'

DEPTH: 5,900.0' TEMPERATURE: 117.0'F

ELEMENT: 4586 RANGE: 1975 psig CLOCK: 21499 RANGE: 72 hrs ELEMENT: 33196 RANGE: 2100 psig CLOCK: 10194 RANGE: 72 hrs

SURFACE PRESSURE MEASUREMENTS

EVENT	DATE	TIME	PRESSURE
START CLOCK	08/06/85	16:30:00	185.0 psig
SET ELEMENT	08/06/85	17:00:00	185.0 psig
WELL SHUT IN	08/06/85	17:00:00	185.0 psig
TEST ENDED	08/08/85	08:00:00	502.0 psig

SUBSURFACE PRESSURE MEASUREMENTS

			GAUGE	ABSOLUTE	RESERVOIR
DATE	TIME	t.	PRESSURE	PRESSURE	PRESSURE
		hrs	psig	psi a	psia
08/04/85	17:00:00	0,000	349.0	362.2	364.1
08/06/85	17:15:00	.250	340.0	373.2	375.1
08/0 6/85	17:30:00	.500	368.0	381.2	383.1
08/06/85	17:45:00	.750	377.0	390.2	392.2
08/06/85	18:00:00	1.000	383.0	396.2	398.2
08/06/85	18:30:00	1.500	396.0	409.2	411.3
08/06/85	19:00:00	2.000	406.0	417.2	421.3
08/06/85	19:30:00	2.500	421.0	434.2	436.4
08/06/85	20:00:00	3.000	438.0	451.2	453.5
08/06/85	20:30:00	3.500	450.0	463.2	465.6
08/06/85	21:00:00	4.000	459.0	472.2	474.6
08/06/85	21:30:00	4.500	465.0	478.2	480.6
08/06/85	22:00:00	5.000	474.0	487.2	489.7
08/06/85	23:00:00	6. 000	484.0	497.2	499.7
08/07/85	00:00:00	7.000	495.0	508.2	510.8
08/07/85	01:00:00	8.000	506.0	519.2	521.9
08/07/85	02:00:00	9.000	517.0	530.2	532.9
08/07/85	03:00:00	10.000	530.0	543.2	546.0
08/07/85	04:00:00	11.000	540.0	555.2	556.0
08/07/85	05:00:00	12.000	549.O	562.2	565.1
08/07/85	06:00:00	13.000	557.0	570.2	573.1
08/07/ 8 5	07:00:00	14.000	564.0	577.2	580.1

PRESSURE TRANSIENT TEST DATA

SUBSURFACE PRESSURE MEASUREMENTS

DATE	TIME	t. hrs	GAUGE PRESSURE psig	ABSOLUTE PRESSURE psia	RESERVOIR PRESSURE psia
08/07/85	08:00:00	15.000	548.0	581.2	584.2
08/07/85	09:00:00	16.000	570.0	583.2	586.2
08/07/85	10:00:00	17.000	572.0	585.2	588.2
08/07/85	11:00:00	18.000	574.0	587. 2	590.2
08/07/85	12:00:00	19.000	576.0	589.2	592.2
08/07/85	13:00:00	20.000	578.0	591. 2	594.2
08/07/85	15:00:00	22.000	581.0	594.2	597.2
08/07/85	17:00:00	24.000	581.0	594. 2	597.2
08/07/85	19:00:00	26.000	583.0	596.2	599.2
08/07/85	21:00:00	28.000	583.0	596.2	599.2
08/07/85	23:00:00	30.000	583.0	596.2	599.2
08/08/85	01:00:00	32.000	585.0	598.2	601.3
08/08/85	03:00:00	34.000	585.0	598.2	601.3
08/08/85	05:00:00	36.000	585.0	598.2	601.3
08/08/85	07:00:00	38.000	587.0	600.2	603.3
08/08/85	08:00:00	39.000	587.0	600.2	603.3

PRESSURE TRANSIENT TEST DATA

COMPANY: Mobil Producing Texas & New Mexico Inc. CONTACT: Rock Petty

LEASE: Marshall Com. WELL: #5

FIELD: Drinkard

COUNTY: Lea STATE: New Mexico

STATUS: Shut in overnight before running bombs OPERATOR: Newman

PERFORATIONS FROM: 6,475.0' TO: 6,519.0'

DEPTH: 6,497.0' TEMPERATURE: 126.0'F

ELEMENT: 20274 RANGE: 3150 psig CLOCK: 21467 RANGE: 72 hrs ELEMENT: 16452 RANGE: 3250 psig CLOCK: 10193 RANGE: 72 hrs

SURFACE PRESSURE MEASUREMENTS

EVENT	DATE	TIME	PRESSURE
START CLOCK	09/24/85	09:30:00	40.0 psig
SET ELEMENT	09/24/85	10:30:00	40.0 psig
WELL SHUT IN	09/24/85	10:30:00	40.0 psig
TEST ENDED	09/27/85	08:30:00	437.0 psid

SUBSURFACE PRESSURE MEASUREMENTS

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DATE	TIME	t <u>:</u>	GAUGE PRESSURE	ABSOLUTE PRESSURE	RESERVOIR PRESSURE
		hrs	psig	psia	psia
09/24/85	10:30:00	0.000	959.0	972.2	972.2
09/24/85	11:30:00	1.000	961.0	974.2	974.2
09/24/85	12:30:00	2.000	963.0	976.2	976.2
09/24/85	14:30:00	4.000	964.0	977.2	977.2
09/24/85	16:30:00	6.000	966.0	979.2	979.2
09/24/85	18:30:00	8.000	967.0	980.2	980.2
09/24/85	20:30:00	10.000	969.0	982.2	982.2
09/24/85	22:30:00	12.000	971.0	984.2	984.2
09/25/85	00:30:00	14,000	974.0	987.2	987.2
09/25 /85 -	02:30:00	16.000	977.0	990.2	990.2
09/25/85	04:30:00	18.000	980.0	993.2	993.2
09/25/85	06:30:00	20.000	984.0	997.2	997.2
09/25/85	08:30:00	22,000	987.0	1,000.2	1,000.2
09/25/85	10:30:00	24.000	990.0	1,003.2	1,003.2
09/25/85	12:30:00	26.000	993.0	1,006.2	1,006.2
09/25/85	14:30:00	28.000	997.0	1,010.2	1,010.2
09/25/85	16:30:00	30.000	999.0	1,012.2	1,012.2
09/25/85	18:30:00	32.000	1,002.0	1,015.2	1,015.2
09/25/85	20:30:00	34.000	1,005.0	1,018.2	1,018.2
09/25/85	22:30:00	36,000	1,008.0	1,021.2	1,021.2
09/26/85	00:30:00	38.000	1,010.0	1,023.2	1,023.2
09/26/85	02:30:00	40.000	1,012.0	1,025.2	1,025.2.

PRESSURE TRANSIENT TEST DATA

SUBSURFACE PRESSURE MEASUREMENTS

DATE	TIME	t hrs	GAUGE PRESSURE psig	ABSOLUTE PRESSURE psia	RESERVOIR PRESSURE psia
09/26/85	04:30:00	42,000	1,015.0	1,028.2	1,028.2
09/26/85	04:30:00	44.000	1,017.0	1,030.2	1,030.2
09/26/85	08:30:00	46.000	1,019.0	1,032.2	1,032.2
09/26/85	10:30:00	48.000	1,021.0	1,034.2	1,034.2
-09/28/85	12:30:00	50.000	1,024.0	1,037.2	1,037.2
09/26/85	14:30:00	52,000	1,024.0	1,039.2	1,039:2
09/26/85	16:30:00	54.000	1,028.0	1,041.2	1,041.2
09/26/85	18:30:00	56,000	1,030.0	1,043.2	1,043.2
09/26/85	20:30:00	58,000	1,032.0	1,045.2	1,045.2
09/26/85	22:30:00	60.000	1,034.0	1,047.2	1,047.2
09/27/85	00:30:00	62.000	1,037.0	1,050.2	1,050.2
09/27/85	02:30:00	64.000	1,040.0	1,053.2	1,053.2
09/27/85	04:30:00	66.000	1,042.0	1,055.2	1,055.2
09/27/85	06:30:00	68.000	1,044.0	1,057.2	1,057.2
09/27/85	08:30:00	70.000	1,045.0	1,058.2	1,058.2

PULLED BOMBS TO 5900' @ 08:30:00 09/27/85 FOR 2 HOURS PRESSURE @ 5900' BUILT FROM 855.2 PSIA TO 858.2 PSIA IN 2 HOURS