STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
HOBBS DISTRICT OFFICE

7-16-90

GARREY CARRUTHERS
GOVERNOR

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OIL CONSERVATION DIVISION
P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

DC-764

RE: Proposed:
MC
DHC X
NSL
NSP
SWD
WFX
PMX

Gentlemen:

I have examined the application for the:

Marathon Oil Co. Mark Owen #7-N 35-21-37
Operator Lease & Well No. Unit S-T-R

and my recommendations are as follows:

OK

Yours very truly,

Jerry Sexton
Supervisor, District 1

/ed

Mid-Continent Region
Production United States

Marathon Oil Company

P.O. Box 552
Midland, Texas 79702
Telephone 915/682-1626

July 3, 1990

Mr. David Catanach
Energy & Minerals Department
Oil Conservation Division
P. O. Box 2088
Santa Fe, New Mexico 87501

Re: Request for Exemption to Rule 303-A
Downhole Commingling
Mark Owen No. 7
Section 35-21S-37E
Wantz Abo, Wantz (Granite Wash)
Lea County, New Mexico

Dear Mr. Catanach:

Marathon Oil Company respectfully requests administrative approval for an exemption to Rule 303-A to permit the downhole commingling of production from the Wantz Abo and Wantz Granite Wash pools in the subject well.

Well No. 7 was originally completed in the Wantz Granite Wash in 1975 and dualled with the Wantz Abo in 1976 under the Division Order No. MC-2265.

On May 1, 1989, the Wantz Granite Wash was shut-in. On May 3, the well was weighed with a dynamometer. From the dynamometer pump card a fluid load was calculated and Nabla's Pump Intake Pressure program was run. The pump intake pressure at pump depth of 7137' was calculated to be 460 psi with a fluid gradient of 0.22. A static bottom-hole pressure of 494 psi was calculated at mid perfs (7292').

On June 14, 1990, a pressure bomb was run into the tubing down to mid-perfs of the Wantz Abo (7025'). The static pressure was 790 psi.

The pressure of the Granite Wash is within 50% of that of the Wantz Abo. Marathon believes that the two zones can be downhole commingled and produced without crossflow or a loss of reserves in either zone. The last test on the Wantz Abo shows it producing 14 BOPD, 0 BWPD, and 52 MCFD. Therefore, the well should remain in a pumped off condition. This would make the producing pressure less than 100 psi while being artificially lifted.

All ownership (WI, Royalty and ORRI) in the wellbore is the same. Commingling will not jeopardize future secondary recovery operations. As required, additional information is attached and all offset operators are being notified by copy of this application.

In summary, Marathon feels that as a prudent operator, we can effectively downhole commingle the Wantz Abo and the Wantz Granite Wash and maximize production by doing so. We look forward to your approval of this application.

Sincerely yours,

William D. Holmes

William D. Holmes
Midland Operations Superintendent

WPB/lr
Attachments

005-90

ATTACHMENT 1

Request for Exemption to Rule 303-A
Mark Owen No. 7
Wantz (Abo), Wantz (Granite Wash) Oil Pools
Lea County, New Mexico

Reference: Section C-2 Rule 303

a) Marathon Oil Company
P. O. Box 552
Midland, Texas 79702

b) Mark Owen No. 7
660' FSL and 2310' FWL, Sec. 35-21S-37E
Lea County, New Mexico (See Attachment 2 for form C-103)

c) Plat of the area can be seen on Attachments 3 and 4.

d) Form C-116 for Wantz Abo completion (see Attachment 5).
Form C-116 for Granite Wash completion (see Attachment 6).

e) Production decline curve for the Wantz Abo completion (see Attachment 7).
Production decline curve for the Wantz Granite Wash completion (see Attachment 8).

f) Measured bottomhole pressure for both zones in question (48 hr. static pressure).

Wantz Abo (790 psi)
Wantz Granite Wash (494 psi)

g&h) The oil produced from the Wantz Abo and the Granite Wash have gravities of 39° and 40° API, respectively. Because the oil gravities are so similar, the value of the commingled stream should not be less than the value of the two separate streams. Water analyses of the two zones show little difference between the two streams (see Attachments 9 & 10).

i) Production from latest GOR test shows:

Zone	Oil Bbls	Oil (%)	Gas (MCFD)	Gas (%)	Water (BWPD)
Wantz Abo	14	77.8%	52	69.3%	0
Granite Wash	4	22.2%	23	30.7	0
Total	18	100.0%	75	100.0%	0

j) By copy of this letter, we are notifying all offset operators of the proposed commingling by certified mail (see attached letters).