STATE OF NEW MEXICO

ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION



April 10, 1987

GARREY CARRUTHERS

POST OFFICE BOX 2088 STATE LAND OFFICE BUILDING SANTA FE, NEW MEXICO 87501 (505) 827-5800

Marathon Oil Company P.O. Box 3128 Houston, Texas 77253

Attention: R. J. Peterson

Re: Administrative Order NFL-170

Dear Mr. Peterman:

Reference is made to your application for an Infill Well Finding and Well-Spacing Waiver made pursuant to Section 271.305(b) of the Federal Energy Regulatory Commission regulations, Natural Gas Policy Act of 1978, and Oil Conservation Division Order No. R-6013 for the following described well:

South Eunice (7RQ) Unit Well No. 437 located 2310 feet from the South line and 890 feet from the West line (Unit L) of Section 36, Township 22 South, Range 36 East, NMPM, Lea County, New Mexico.

THE DIVISION FINDS THAT:

(1) Section 271.305(b) of the Federal Energy Regulatory Commission Interim Regulations promulgated pursuant to the Natural Gas Policy Act of 1978 provides that, in order for an infill well to qualify as a new onshore production well under Section 103 of said Act, the Division must find, prior to the commencement of drilling, that the well is necessary to effectively and efficiently drain a portion of the reservoir covered by the proration unit which cannot be so drained by any existing well within that unit, and must grant a waver of existing well-spacing requirements.

(2) By Division Order No. R-6013, dated June 7, 1979, the Division established an administrative procedure whereby the Division Director and the Division Examiners are empowered to act for the Division and find that an infill well is necessary.

(3) The well for which a finding is sought is to be completed in the South Eunice Seven Rivers Queen Pool, and the standard spacing unit in said pool is 40 acres. (4) A standard 40-acre oil proration unit comprising the NW/4 SW/4 of Section 36, Township 22 South, Range 36 East, is currently dedicated to the applicant's South Eunice (7RQ) Unit Well No. 409 also located in Unit L of said Section 36.

(5) Said unit is <u>not</u> being effectively and efficiently drained by the existing well on the unit.

(6) The drilling and completion of the well for which a finding is sought should result in the production of an additional 24,000 MCF of gas from the proration unit which would not otherwise be recovered.

(7) All requirements of Division Order No. R-6013 have been complied with, and the well for which a finding is sought is necessary to effectively and efficiently drain a portion of the reservoir covered by said proration unit which cannot be so drained by any existing well within the unit.

(8) In order to permit effective and efficient drainage of said proration unit, the subject application should be approved as an exception to the standard well-spacing requirements for the pool.

IT IS THEREFORE ORDERED THAT:

(1) The applicant is hereby authorized to drill the South Eunice (7RQ) Unit Well No. 437 as described above, as an infill well on the existing 40-acre oil proration unit comprising the NW/4 SW/4 of Section 36, Township 22 South, Range East, NMPM, South Euncie Seven Rivers Queen Pool, Lea County, New Mexico. The authorization for infill drilling granted by this order is an exception to applicable well spacing requirements and is necessary to permit the drainage of a portion of the reservoir covered by said proration unit which cannot be effectively and efficiently drained by any existing well thereon.

(2) Jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

Sincerely Michael E. Stogner

Examiner

MES/et xc: Oil Conservation Division - Hobbs

NEXICO OIL CONSERVATION COMMISSION WELL LOCATION AND ACREAGE DEDICATION PLAT

••.'

Form C-102 Supersedes C-128 Effective 1-1-65

÷.

		All distances m	ust be from the	outer boundarie	s of the Section.				
Ciperator			Leas	 South I 	lunice		Weil No.		
Marathon	011 Company	<u>v</u>		Seven Rive	rs Queen	Unit	437		
Unit Letter Sec	tion	Township		Range	County				
L	36	22 S		<u>36 E</u>		Lea			
Actual Foolage Location			•						
			ne and	890	feet from the	West	line		
Ground Level Elev.	Producing For		Pool			1	Dedicated Acreage;		
3446.0	Seven Riv	vers, Queen	Sou	th Eunice	(7 Rivers	, Queen)	40 Acres		
1. Outline the ac	creage dedica	ted to the subj	ect well by	colored penc	il or hachure	marks on the	e plat below. 💈		
interest and re	 Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty). 								
dated by comm	nunitization, u No Ifar	nitization, force	-pooling.e type of con	c? solidation			all owners been consoli-		
this form if ne No allowable v	cessary.) vill be assigne	ed to the well ur	ntil all inte	ests have bee	en consolidat	ed (by comm	ted. (Use reverse side of nunitization, unitization, approved by the Commis-		
	1				1				
) 	۲ 		 		toined here best of my Name C. R. Hi Position	ertify that the information con- ein is true and complete to the knowledge and belief ubacher t Oper. Engineer		
				8 8 8		Compony Marathor Date July 18	n Oil Company , 1985		
8 9 0 - 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	South Euri 1650 FSL- Spud: 1/A South Euri Compto Cummulat. as of 1	77/58 tion tion (1/21/26 4/31/26 4/31/26	Que a series	ND - 676		shawn an t nates of a under my s is true ar	certify that the well location this plat was platted from field actual surveys made by me or supervision, and that the same ad carrect to the best of my and belief.		
			and the second	2 MEXICO	<i>\</i>		105/85 Professional Engineer Surveyor MUUUU		
0 330 660 '90	1320 1680 191		2000	1600 1000	Cr	X	RONALD J. EIDSON, 3239		

STATE OF NEW MEXICO

ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION



April 10, 1987

GARREY CARRUTHERS

Marathon Oil Company P.O. Box 3128 Houston, Texas 77253

Attention: R. J. Peterson

Re: Administrative Order NFL-170

Dear Mr. Peterman:

Reference is made to your application for an Infill Well Finding and Well-Spacing Waiver made pursuant to Section 271.305(b) of the Federal Energy Regulatory Commission regulations, Natural Gas Policy Act of 1978, and Oil Conservation Division Order No. R-6013 for the following described well:

South Eunice (7RQ) Unit Well No. 437 located 2310 feet from the South line and 890 feet from the West line (Unit L) of Section 36, Township 22 South, Range 36 East, NMPM, Lea County, New Mexico.

THE DIVISION FINDS THAT:

(1) Section 271.305(b) of the Federal Energy Regulatory Commission Interim Regulations promulgated pursuant to the Natural Gas Policy Act of 1978 provides that, in order for an infill well to qualify as a new onshore production well under Section 103 of said Act, the Division must find, prior to the commencement of drilling, that the well is necessary to effectively and efficiently drain a portion of the reservoir covered by the proration unit which cannot be so drained by any existing well within that unit, and must grant a waver of existing well-spacing requirements.

(2) By Division Order No. R-6013, dated June 7, 1979, the Division established an administrative procedure whereby the Division Director and the Division Examiners are empowered to act for the Division and find that an infill well is necessary.

(3) The well for which a finding is sought is to be completed in the South Eunice Seven Rivers Queen Pool, and the standard spacing unit in said pool is 40 acres.

POST OFFICE BOX 2088 STATE LAND OFFICE BUILDING SANTA FE, NEW MEXICO 87501 (505) 827-5800 (4) A standard 40-acre oil proration unit comprising the NW/4 SW/4 of Section 36, Township 22 South, Range 36 East, is currently dedicated to the applicant's South Eunice (7RQ) Unit Well No. 409 also located in Unit L of said Section 36.

(5) Said unit is <u>not</u> being effectively and efficiently drained by the existing well on the unit.

(6) The drilling and completion of the well for which a finding is sought should result in the production of an additional 24,000 MCF of gas from the proration unit which would not otherwise be recovered.

(7) All requirements of Division Order No. R-6013 have been complied with, and the well for which a finding is sought is necessary to effectively and efficiently drain a portion of the reservoir covered by said proration unit which cannot be so drained by any existing well within the unit.

(8) In order to permit effective and efficient drainage of said proration unit, the subject application should be approved as an exception to the standard well-spacing requirements for the pool.

IT IS THEREFORE ORDERED THAT:

(1) The applicant is hereby authorized to drill the South Eunice (7RQ) Unit Well No. 437 as described above, as an infill well on the existing 40-acre oil proration unit comprising the NW/4 SW/4 of Section 36, Township 22 South, Range East, NMPM, South Euncie Seven Rivers Queen Pool, Lea County, New Mexico. The authorization for infill drilling granted by this order is an exception to applicable well spacing requirements and is necessary to permit the drainage of a portion of the reservoir covered by said proration unit which cannot be effectively and efficiently drained by any existing well thereon.

(2) Jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

Sincerel Michael E. Stogner

Examiner

MES/et xc: Oil Conservation Division - Hobbs STATE OF NEW MEXICO .

ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION



April 10, 1987

GARREY CARRUTHERS GOVERNOR

> Marathon Oil Company P.O. Box 3128 Houston, Texas 77253

Attention: R. J. Peterson

Re: Administrative Order NFL-170

POST OFFICE BOX 2088 STATE LAND OFFICE BUILDING SANTA FE, NEW MEXICO 87501

(505) 827-5800

Dear Mr. Peterman:

Reference is made to your application for an Infill Well Finding and Well-Spacing Waiver made pursuant to Section 271.305(b) of the Federal Energy Regulatory Commission regulations, Natural Gas Policy Act of 1978, and Oil Conservation Division Order No. R-6013 for the following described well:

South Eunice (7RQ) Unit Well No. 437 located 2310 feet from the South line and 890 feet from the West line (Unit L) of Section 36, Township 22 South, Range 36 East, NMPM, Lea County, New Mexico.

THE DIVISION FINDS THAT:

(1) Section 271.305(b) of the Federal Energy Regulatory Commission Interim Regulations promulgated pursuant to the Natural Gas Policy Act of 1978 provides that, in order for an infill well to qualify as a new onshore production well under Section 103 of said Act, the Division must find, prior to the commencement of drilling, that the well is necessary to effectively and efficiently drain a portion of the reservoir covered by the proration unit which cannot be so drained by any existing well within that unit, and must grant a waver of existing well-spacing requirements.

(2) By Division Order No. R-6013, dated June 7, 1979, the Division established an administrative procedure whereby the Division Director and the Division Examiners are empowered to act for the Division and find that an infill well is necessary.

(3) The well for which a finding is sought is to be completed in the South Eunice Seven Rivers Queen Pool, and the standard spacing unit in said pool is 40 acres. (4) A standard 40-acre oil proration unit comprising the NW/4 SW/4 of Section 36, Township 22 South, Range 36 East, is currently dedicated to the applicant's South Eunice (7RQ) Unit Well No. 409 also located in Unit L of said Section 36.

(5) Said unit is <u>not</u> being effectively and efficiently drained by the existing well on the unit.

(6) The drilling and completion of the well for which a finding is sought should result in the production of an additional 24,000 MCF of gas from the proration unit which would not otherwise be recovered.

(7) All requirements of Division Order No. R-6013 have been complied with, and the well for which a finding is sought is necessary to effectively and efficiently drain a portion of the reservoir covered by said proration unit which cannot be so drained by any existing well within the unit.

(8) In order to permit effective and efficient drainage of said proration unit, the subject application should be approved as an exception to the standard well-spacing requirements for the pool.

IT IS THEREFORE ORDERED THAT:

(1) The applicant is hereby authorized to drill the South Eunice (7RQ) Unit Well No. 437 as described above, as an infill well on the existing 40-acre oil proration unit comprising the NW/4 SW/4 of Section 36, Township 22 South, Range East, NMPM, South Euncie Seven Rivers Queen Pool, Lea County, New Mexico. The authorization for infill drilling granted by this order is an exception to applicable well spacing requirements and is necessary to permit the drainage of a portion of the reservoir covered by said proration unit which cannot be effectively and efficiently drained by any existing well thereon.

(2) Jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

Sincerelv Michael E. Stogner

Michael E. Stogner Examiner

MES/et xc: Oil Conservation Division - Hobbs

CERTIFICATE OF SERVICE

I hereby certify that I have this day served a copy, via registered mail, of Marathon Oil Company's request for Infill Well Finding for South Eunice Unit Well No. 437, South Eunice (Seven Rivers Queen) Field, Lea County, New Mexico upon all offset operators as listed below as required by New Mexico Order No. R-6013-A.

> Arco Oil and Gas P. O. Box 1610 Midland, Texas 79702 Attn: Jerry Tweed

Conoco, Inc. 726 E. Michigan Hobbs, New Mexico 88240 Attn: Mark Mosley

Sun Production Company P. O. Box 1861 Midland, Texas 79702 Attn: Tom Hobbs

Texaco, Inc. P. O. Box 728 Hobbs, New Mexico 88240

R. J. Peterman, Manager Contracts & Regulatory Compliance

Subscribed and sworn to before me, a Notary Public,

itoper 1985

anny

Notary Public

YAYEKE SETT ON References for a Teach My Demails (un Crystell 7+26-09



Midland District Houston Division Production Operations United States

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

July 18, 1985

MARATHON

Marathon

Oil Company

New Mexico Oil Conservation Division P. O. Box 2088 Santa Fe, New Mexico 87501 Attn: David Catanach

RE: Unorthodox Locations South Eunice (Seven Rivers, Queen) Unit Well Nos. 436, 437 and 439 Sec. 35 and 36, T-22-S, R-36-E Lea County, New Mexico

Marathon Oil Company, as operator of the referenced unit, respectfully requests administrative approval to drill three infill producing wells, Nos. 436, 437, and 439, at the following unorthodox locations: .

No.	436	2475 '	FSL	and	330 '	FEL,	Sec.	35-22S-36E,	Lea	Co.
No.	437	2310'	FSL	and	890'	FWL,	Sec.	36-22S-36E,	Lea	Co.
No.	439	990 '	FSL	and	2220'	FWL,	Sec.	36-22S-36E,	Lea	Co.

All of these wells will be drilled to about 3850' to test the Seven Rivers and Queen formations in the South Eunice (Seven Rivers, Queen) pool. It is expected that these wells will recover additional reserves within this secondary recovery project.

Copies of this application have been sent to the offset operators by registered mail.

Attached for your information is a map showing the proposed locations and a list of offset operators to these locations.

Very truly yours,

Inlack

C. R. Hubacher District Operations Engineer

DGJ/jdt/I

Attachments

xc: NMOCD - District I (Hobbs)
 Offset Operators

Request for Infill Well Finding South Eunice Unit Well No. 437 South Eunice (Seven Rivers Queen) Field Lea County, New Mexico

In compliance with Rule 8 of Filing Requirements for Natural Gas Policy Act Infill Findings, Marathon is submitting a plat showing 40-acre spacing within the South Eunice Unit and a description of all wells drilled on the proration unit (including the completed infill well) which are completed in the same pool or reservoir as the proposed infill well. Also attached is a statement indicating why the existing well on the proration unit cannot effectively and efficiently drain the portion of the reservoir covered by the proration unit.

ι.

I. WELL ON WHICH FILING FOR INFILL FINDING IS BEING MADE

A. Lease Name & Well Location: South Eunice Unit No. 437

Unit L, Section 36, T-22-S, R-36-E, 2310' FSL & 890' FWL,

Lea County, New Mexico

B. Spud Date: 8-10-85

C. Completion Date: N/A

- D. Mechanical Problems: None
- E. Current Rate of Production: N/A
- F. Date of P&A: None

II. EXISTING WELL ON PRORATION UNIT

A. Lease Name & Well Location: South Eunice Unit No. 409

Unit L, Section 36, T-22-S, R-36-E

Lea County, New Mexico

B. Spud Date: 1-27-58

C. Completion Date: 2-5-58

D. Mechanical Problems: None

E. Current Rate of Production: 14 BOPD, 3.0 MCFPD, 7.5 BWPD

F. Date of P&A: None

South Eunice Unit Well No's. 434, 435, 436, 437, & 439 Lea County, New Mexico

Reserves of 80,000 barrels of oil and 24,000 MCF of gas are expected from each of the wells listed above. This reserve figure was derived from volumetric calculations, using the following parameters: average porosity 15%, drainage area = 10 acres, net pay thickness = 50 feet, water saturation = 35%, formation volume factor = 1.2, recovery efficiency = 25%, and gas-oil ratio = 300 SCF/STB.

The area was originally developed on 40 acre spacing in the late 1950's and early 1960's. In the mid-1970's a pilot and later a unit-wide waterflood were implemented, utilizing the existing wells. It is believed that only a small portion of the unitized reservoir has been successfully waterflooded, due to the low permeability of the fine-grained Queen sandstone and the presence of high permeability streaks in portions of the Unit. Two-thirds of the waterflood production has come from several wells that encounter one particular high permeability sand member in the northeastern portion of the Unit.

Due to this low permeability of the majority of the Queen pay, each well has drained considerably less than the 40 acres currently assigned. As shown above, reserves of 80,000 barrels can be calculated assuming only 10 acre drainage, and many wells in the unit have not made that much. It is expected that these infill wells can recover primary reserves from tight Queen sands after adequate stimulation.

It is also believed that these wells will help to recover additional secondary reserves from higher permeability intervals which are floodable. Pressure testing of wells has indicated an unusually low reservoir pressure in some producing wells, indicating inadequate injection support. This may be caused by reservoir discontinuities between producing wells and injection wells. By infill drilling in the South Eunice Unit, more continuous pay will be developed which should improve waterflood recoveries. OFFSET OPERATORS South Eunice (Seven Rivers, Queen) Unit Marathon Oil Company, Operator Well Nos. 436, 437 and 439

ARCO Oil and Gas P. O. Box 1610 Midland, Texas 79702 Attn: Jerry Tweed

Conoco, Inc. 726 E. Michigan Hobbs, New Mexico 88240 Attn: Mark Mosley

Sun Production Company P. O. Box 1861 Midland, Texas 79702 Attn: Tom Hobbs

Texaco, Inc. P. O. Box 728 Hobbs, New Mexico 88240

		A.K.Co		auf	ABJ	. Torparo.
	5500 000 000 000 000 000 000 000 000 00		A :		Gulf 5 012171 152 (Doel)	•' _{P/B}
~		Horrington	42 s ¹⁸	N * Mattern 7-	AL MAL / 17 med 6 (Pore) // (F & 13 2 // (F & 13) (MB) 2 // (F & 13) (MB)	
an ²⁴	12 32 THI 38 2 (S nclair)	3 A.R.Co.	11 :6 	14 14 Two		- Barnel 76
0 ⁷⁰ 54 4 53	• • • • • • • • • • •	Henry S. Record	- _{الس} ر م	A.R.Co ^157/0` 15 _12 _10 _9	Nation Letter 45	177 A Antiwell 0,262 TOISCE
	<u>State</u> WiserOil Margthan	Hangthan Acet Ita	State	(waits signed is	Contraction of the second second	ural or its
-ory Peta	Bind Al Of Al	ARCO Gostignts	ARCO Gasrights	● ¹⁰ ● ⁹² 30 ● Morothon Attr 2 / ■ -	14 •	2. 002575 1010
ST.	●9.€ ● ⁵ → ⁵	36	10 10 10 10 10 10 10 10 10 10 10 10 10 1	* 8ª "\$	Auflierd Deck (S)	100070.002 Hons 0.2 0.232 -: 0.4 0.24 0.5
•7 •2	e ⁹ 10 3 29	• ¹⁵	14 **		Anition Dieck (3) Sin 26 Min med Jim Marken J Gem Example 1 3 Gem Example (0/8) Amerado Petroleums US Profiles (0/8) Amerado Petroleums US Profiles	nobel Zia Idrick Mener
	"Mc Jana ia" • ⁸ •• ⁶ • ⁷ • ⁴	Mr. Donald		2.3 50 REPORTS	PA 1 (Exion) Bern, Pa	Inere Warris
ual	State	Fies State JOavidson	State	Mediana d 1214 Manatapan 2194	3 0/2	
ARCO VELLE	Sun Serent in siner	Peer ress (CD)	Nertex ON 13126 (5) 18 G ARCO Pecora 24 Carginy Lemona TOISD'S	Acet 1-8 Fm A-2614	Petro Lewis # Store Paraula	Porsy e
ello Goren pro Dect (S)	ARCO 191	NenryRecord URCattle Ca.(S)	de "Meyer" the	Gas rights *'• WN"	-13 TO J705 Do) - B20 D5 1256	• ² •••••••••••••••••••••••••••••••••••
ord Deck 194000 18	Gulf Contil Shally	21 3 4 23 24 Cont1, etal	14 (Shell) Cent's, erel	A REVEN BILL ON I	33 4 Gerry 1 (5200)	n) 72 Morrior
Delport)	Cutt Grae A Deca (S) E/2	030193 ●1 8" "~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	Moromoti A per Millord Deph A Charstrian	UNIT UNIT		Closer: Levis Montra Z' Avadora:
mor Lur	4D.Green Uild. Emery F. King	UR Cattle Co.ISI	Getty Marathan	420 Share To 3900	57070 •73 •56 ••• State	Clowe-
enal 33	M 010139 36 37 	(Arr.Rich.)	Gerry Arco 42	427 431	M 59 60 61 8-934 M	
030133	All Mener 33		202 (Chell) O 423	State - McDonold	81 38 #27 #26 Dan @ 20	wyi mblel #
	ARCO	€ 6 10 1 H 10 10 10 10 10 10 10 10 10 10 10 10 10	501 504 403 0	5heil 25 McCaslanctos 11 Oolports 6603 8 2500 re 3500 0 McCaslanctos 01 000	1 50 33 28 25 8 494	Store
ا ما	Miliard Deck (8) A (Tex Decific) Sun - 4 Peserve AR(0) 4 AR(0)	Markie DD Shipley Life,Est A.L. Christmas A.L. Christmas	A.R.Co. Visione, a 10 8	(Table Malaart)	fo.3862' 67 64	Anadarka 39 - 8 - asseze
	ARCO LANDER LA B	J F Shipley Hrs. Millord Dechast	MeD. de	anniel (denniel 24		
Conore To 3800	SI 1381 52 ALDERT GOCALE (Ationfiel Dew Legi	ARCO (OPER.)	ARCO ARCO	44 ARUO 0 4.57 8 06 7 5.57	Petro-Lewisetal	TE 2
¹ \\$	J L Selby Correy Estimated	SEVEN RIVERS ON UT.	27 35 078 454 456	411 418 BJ Grohom Lewis:St	17774 3' 10 3662' 14 efail 18 0 11 3421 1 10 350 State 147 4 Tel 5' IT	eury is Guit Acte Constant Fete Constant
,	37 So Conficetal	ARCO 50 54 J2ARCO 31 34 WN 33 (J.H. Mendrix) 20 Hortman	A Gockie	(OPER) 36	(Daipart, etal) Bourg brig.	a Tr.6 7
ا م	1204 50133 •1 760 50133 •1 760 50133 •1 760 50133 •1 760 50133 •1 760	(<u>M.L</u> Klein) ₁ 35 t ≰37 ⊄2	Alto Alto Alto Alto Alto Alto Alto Alto	vir a Conaid of	Beurg 3 Ashort King"	kelly prig. a
	19126 F118 Millard Deckist	1936 Ofis L. Jones	Willing Deck Las State Mar Mar	410 412 (A14 A17 510 (A14 A17) 41 (A14 A17) (A14 A17) (A17)	Millerer Deck ist Stiller State	- 5 Willia erna King
s4 ⊕ 3 inental AS		ARCO BPISOO (44) ARCO (A.Gockie)	44 43 Guli , -ARCA 42 1 68-229 447 42 1 68-229 447	Sun Brow Fist Gently	Cetty Marcio King BTr. 6 June Tr. 7 (19) 25 Gult-Union Tex. 1	- 戸山 - 平三
3197	* 15 87 43 * 15 8.1, Qual	49 50 51 52 "Sincloir State"	53 54 55 11. 0 54	o' * 5' .	Sarthg L King Millard Deck # TD 4032 Millard D	28 629 Jechytto
* ²	1 g Gulf 1 Culf	• ⁴⁴ 47 p Sun • 61 63 	El Poso Nat el Jú 4-je 4-je-3-je J.H. Hendrix	Getty Oil 30 02 1 # Sun	(Dataset) Getty Sun Dist Shelly, etal	Shelly \$32 • 31
.†	Ten Poe. 1703627 IAC-4) J TO 120506 J 18 10/A 9 5 46 (PHB) TS 10 (PHB) TS 10 Star Jondo	41 41 69	B-1327 Shapba Tures Co		Tr. II PENROSE	
15:312	36 33 4	State Sun [Cit Serv]	B.1327 Stores Vezico	Millard EVck.(S) Aino	THE 1 Sep	Harrison 1.Biech, Guil,
* *	Sun Dúel 115		• • • • • • • • • • • • • • • • • • •	• 3 () 8' (5 (6 (8) Annes (8)	Richards Tr. II 44 Finn	15 1/
\$	◆ ¹⁴ ^f ₃₁ ^(A, f) ¹⁰⁰ ◆		• 99 85 <i>1</i> • 11 – Al	REA NEAR THE		TVIGID
ertFields 	•10 •10	55 66 6 1 3 0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	St St	OUTH EUNICE (SEV	VEN RIVERS, QUEEN) UNIT	4900 Tr.18
*2	■ 1/4.555 ■ 1/4 1/1 2 ■ 1/7 1/7 = 3557 Store		1	-22-S, R-36-E EA COUNTY, NEW M	IEXICO	17.10 54 Tc17
5,0	Texace ma Amerada)	Store	State	ŕ		
,- *; 411. Řích	W.Barniell B.D.Arcs Vironie Issoco-	(Ares: 51 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	• Sun ·	ROPOSED INFILL I	LOCATIONS SHOWN	DK20
20	Ares-St	-36 Store	stote			WROSE :
4-1 4-1 MD.	Alterrie Burgold - 1 2 9/2 Burgold Street 1 2 P Lone 1 Dis 31. (1) 3 Swer.or Swit St 1 2 Amer Petro	Conoco,etoi 030556 1 2 18-15 2 Cleanu	ARCO •3" ₩N" #4	1) 294		
, B	JNEvere (Mabili 1 Bretro JNEvere (Mabili 1 Bretro Highland Fod. Tex SA L 4108 Bisst Bl 24	Slevens Pet. I-WH-	Juni -Bia - 47			Line Lang
	tiater store P 28	U.R. Cat. Car(S) Dual U.R. Cottle Cons	UR Carrie Co (S)	State Sun (PerindGull)	U UR COMERCE (S) AND US MI TOT	128 US 4 (82
		* 94 (Excen) 1 	• ¹³ 11 0 • 90 • ¹⁰	Sun Italie With		

R. W. Byram & Co., - Mar., 1984

(C - DRILLING - Cont'd.)

In the event gas production is encountered in a well which was projected to an oil-producing horizon and which is located accordingly but does not conform to the above gas well location rules, it shall be necessary for the operator to bring the matter to a hearing before approval for the production of gas can be given.

III. All counties except Lea, Chaves, Eddy, Roosevelt, San Juan, Rio Arriba, and Sandoval (As Amended by Order No. R-6870, February 1, 1982.)

Any wildcat well which is projected as an oil well in any county other than Lea, Chaves, Eddy, Roosevelt, San Juan, Rio Arriba, and Sandoval shall be located on a tract consisting of approximately 40 surface contiguous acres substantially in the form of a square which is a legal subdivision of the U.S. Public Land Surveys, or on a governmental quarter-quarter section or lot and shall be located not closer than 330 feet to any boundary of such tract.

Any wildcat well which is projected as a gas well to a formation and in an area which, in the opinion of the Division representative approving the application to drill, may reasonably be presumed to be productive of gas rather than oil shall be located on a drilling tract consisting of 160 surface contiguous acres, more or less, substantially in the form of a square which is a quarter section, being a legal subdivision of the U. S. Public Land Surveys, and shall be located not closer than 660 feet to any outer boundary of such tract nor closer than 330 feet to any quarter-quarter section or subdivision inner boundary.

- ACREAGE AND WELL LOCATION REQUIREMENTS FOR DEVELOPMENT WELLS (As Amended by Order No. R-4383, September 6, 1972, and Order No. R-5113, С. LOCATION REQUIREMENTS November 1, 1975.)
- I. Oil Wells, All Counties (As Amended by Order No. R-4383, September 6, 1972.)

Unless otherwise provided in special pool rules, each development well for a defined oil pool shall be located on a tract consisting of approximately 40 surface contiguous acres substantially in the form of a square which is a legal subdivision of the U. S. Public Land Surveys, or on a governmental quarter-quarter section or lot, and shall be located not closer than 330 feet to any boundary of such tract nor closer than 330 feet to the nearest well drilling to or capable of producing from the same pool, provided, however, only tracts committed to active secondary recovery projects shall be permitted more than four wells.

II. Gas Wells

11. Gas Wells
(a) Lea, Chaves, Eddy, and Roosevelt Counties
Unless otherwise provided in special pool rules, each.
development well for a defined gas pool in a formation younger
than the Wolfcamp formation, or in the Wolfcamp formation
which was created and defined by the Division prior to
November 1, 1975, or in a Pennsylvanian age or older formation which was created and defined by the Division prior to June 1. 1964, shall be located on a designated drilling tract consisting of 160 surface contiguous acres, more or less, substantially in the form of a square which is a quarter section being a legal subdivision of the U. S. Public Land Surveys, and shall be located not closer than 660 feet to any outer boundary of such tract nor closer than 330 feet to any quarter-quarter section or subdivision inner boundary nor closer than 1320 feet to the nearest well drilling to or capable of producing from the same pool.

Unless otherwise provided in the special pool rules, each development well for a defined gas pool in the Wolfcamp formation which was created and defined by the Division after November 1, 1975, or of Pennsylvanian age or older which was created and defined by the Division after June 1, 1964, shall be located on a designated drilling tract consisting of 320 surface contiguous acres, more or less, comprising any two contiguous quarter sections of a single governmental section, being a legal subdivision of the U. S. Public Land Surveys. Any such well

having more than 160 acres dedicated to it shall be located not closer than 660 feet to the nearest side boundary of the dedicated tract nor closer than 1980 feet to the nearest end boundary nor closer than 330 feet to any quarter-quarter section or subdivision inner boundary. (For the purpose of this rule, 'side' boundary and 'end' boundary are as defined in Section B I (a) of this rule.)

(b) San Juan, Rio Arriba, and Sandoval Counties

Unless otherwise provided in special pool rules, each development well for a defined gas pool shall be located on a designated drilling tract consisting of 160 surface contiguous acres, more or less, substantially in the form of a square which is a quarter section, being a legal subdivision of the U. S. Public Land Surveys, and shall be located not closer than 790 feet to any quarter-quarter section line or subdivision inner boundary.

All counties except Lea, Chaves, Eddy, Roosevelt, San Juan, Rio Arriba, and Sandoval (c)

Unless otherwise provided in special pool rules, each development well for a defined gas pool shall be located on a designated drilling tract consisting of 160 surface contiguous acres, more or less, substantially in the form of a square which is a quarter section, being a legal subdivision of the U. S. Public Land Surveys, and shall be located not closer than 660 feet to any outer boundary of such tract nor closer than 330 feet to any quarter-quarter section or subdivision inner boundary nor closer than 1320 feet to the nearest well drilling to or capable of producing from the same pool.

- ACREAGE ASSIGNMENT, COMPLETED WELLS D.
- Well Tests and Classification I.

It shall be the responsibility of the operator of any wildcat gas well or development gas well to which more than 40 acres has been dedicated to conduct a potential test within 30 days following completion of the well and to file the same with the Division within 10 days following completion of the tests. (See Rule 401.)

Date of completion for a gas well shall be the date a Christmas tree is installed or 30 days following conclusion of active comple-

tion work on the well, whichever date comes first. Upon making a determination that the well should not properly be classified as a gas well, the Division will reduce the acreage dedicated to the well.

Failure of the operator to file the aforesaid tests within the specified time will also subject the well to such acreage reduction.

II. Non-Standard Units

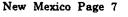
:

Any completed gas well which does not have the required amount of acreage dedicated to it for the pool or formation in which it is completed may not be produced until a standard unit for the well has been formed and dedicated or until a nonstandard unit has been approved.

The Division-Director may grant administrative approval to non-standard gas units without notice and hearing when an application has been filed for a non-standard unit and the unorthodox size or shape of the unit is necessitated by a variation in the legal subdivision of the U. S. Public Land Surveys, or the following facts exist and the following provisions are complied with:

(a) The non-standard unit consists of quarter-quarter sections or lots that are contiguous by a common bordering side.

(b) The non-standard unit lies wholly within a single governmental quarter section if the well is completed in a pool or formation for which 160 acres is the standard unit size or wholly within a single governmental half section if the well is completed in a pool or formation for which 320 acres is the standard unit size standard unit size.



(C - DRILLING - Cont'd.)

Page 8 New Mexico

(c) The applicant presents written consent in the form of waivers from all offset operators and from all operators owning interests in the quarter section (for 160-acre pools or formations) or the half section (for 320-acre pools or formations) in which the non-standard unit is situated and which acreage is not included in said non-standard unit.

(d) In lieu of paragraph (c) of this rule, the applicant may furnish proof of the fact that all of the aforesaid operators were notified by registered or certified mail of his intent to form such non-standard unit. The Director may approve the application if no such operator has entered an objection to the formation of such non-standard unit within 30 days after the Division Director has received the application.

E. (As Amended by Order No. R-2761, January 1, 1965.) Form C-101, Application for Permit to Drill, Deepen, or Plug Back for any well shall designate the exact legal subdivision allotted to the well and no Form C-101 will be approved by the Division or any of its agents without such proper designation of acreage.

F. Unorthodox Locations (As Amended by Order No. R-3038, February 9, 1966, Order No. R-5890, December 29, 1978, Order No. R-6870, February 1, 1982, and Order No. R-7451, March 2, 1984.)

I. The Division Director shall have authority to grant an exception to the well location requirements of Sections B and C above without notice and hearing when the necessity for such unorthodox location is based upon topographical conditions, the recompletion of a well previously drilled to a deeper horizon, provided said well was drilled at an orthodox or approved unorthodox location for such original horizon, or to permit the completion of an efficient production and injection pattern within a secondary recovery or pressure maintenance project, provided that any such unorthodox location within such project is no closer than 330 feet to the outer boundary of the lease, or the unitized area, nor closer than 10 feet to any quarter-quarter section line or subdivision inner boundary.

II. The Division Director shall have authority to grant an exception to the well location requirements of Rule 104 B.I. (a) and Rule 104 C.II. (a) without notice and hearing when the necessity for such unorthodox location is based upon geologic conditions provided that any such unorthodox location shall be no closer than 660 feet to the nearest side boundary nor closer than 990 feet to the nearest end boundary of the proration unit.

III. Applications for administrative approval of unorthodox locations shall be filed in triplicate and shall be accompanied by plats, showing the ownership of all leases offsetting the proration or spacing unit for which the unorthodox location is sought, and also all wells completed thereon. If the proposed unorthodox location is based upon topography, the plat shall also show and describe the existent topographical conditions. If the proposed unorthodox location is based upon completion of an efficient production and injection pattern, the plat shall also show the project outline identifying all producing and injection wells therein, and the applicant shall further include a statement setting forth the necessity for such location. If the proposed unorthodox location is based upon geology as provided in Paragraph II above, the application shall include appropriate geologic maps, cross-sections, and/or logs, and a discussion of the geologic conditions which result in the necessity for the unorthodox location.

IV. All operators of proration or spacing units offsetting the unit for which the unorthodox location is sought shall be notified of the application by certified or registered mail, and the application shall state that such notification has been given. The Division Director may approve the unorthodox location upon receipt of waivers from all offset operators or if no offset operator has entered an objection to the unorthodox location within 20 dows after the Director provided the application

operator has entered an objection to the unorthodox location within 20 days after the Director has received the application. V. The Division Director may, at his discretion, set any application for administrative approval of an unorthodox location for public hearing. R. W. Byram & Co., - Mar., 1984

G. Whenever an exception is granted, the Division may take such action as will offset any advantage which the person securing the exception may obtain over other producers by reason of the unorthodox location.

H. If the drilling tract is within an allocated oil pool or is placed within such allocated pool at any time after completion of the well and the drilling tract consists of less than $39\cdot1/2$ acres or more than $40\cdot1/2$ acres, the top unit allowable for such well shall be increased or decreased in the proportion that the number of acres in the drilling tract bears to 40.

I. If the drilling tract is within an allocated gas pool or is subsequently placed within an allocated gas pool, and the drilling tract consists of less than 158 acres or more than 162 acres in 160-acre pools, or less than 316 acres or more than 324 acres in 320-acre pools, the top allowable for such well shall be decreased or increased in the proportion that the number of acres in the drilling tract bears to a standard unit for the pool.

J. In computing acreage under H and I above, minor fractions of an acre shall not be counted but 1/2 acre or more shall count as 1 acre.

K. The provisions of H and I above shall apply only to wells completed after January 1, 1950. Nothing herein contained shall affect in any manner any well completed prior to the effective date of this rule and no adjustments shall be made in the allowable production for any such wells by reason of these rules.

L. In order to prevent waste the Division may, after notice and hearing, fix different spacing requirements and require greater acreage for drilling tracts in any defined oil pool or in any defined gas pool notwithstanding the provisions of B and C above.

M. The Division may approve the pooling or communitization of fractional lots of 20.49 acres or less with another oil proration unit when:

1. The units involved are contiguous;

2. They are part of the same basic lease, carrying the same royalty interest; and

3. The ownership of the units involved is common.

Application to the Division for pooling shall be accompanied by three (3) copies of a certified plat showing the dimensions and acreage involved in the pooling, the ownership of all leases and royalty interests involved, and the location of any proposed wells.

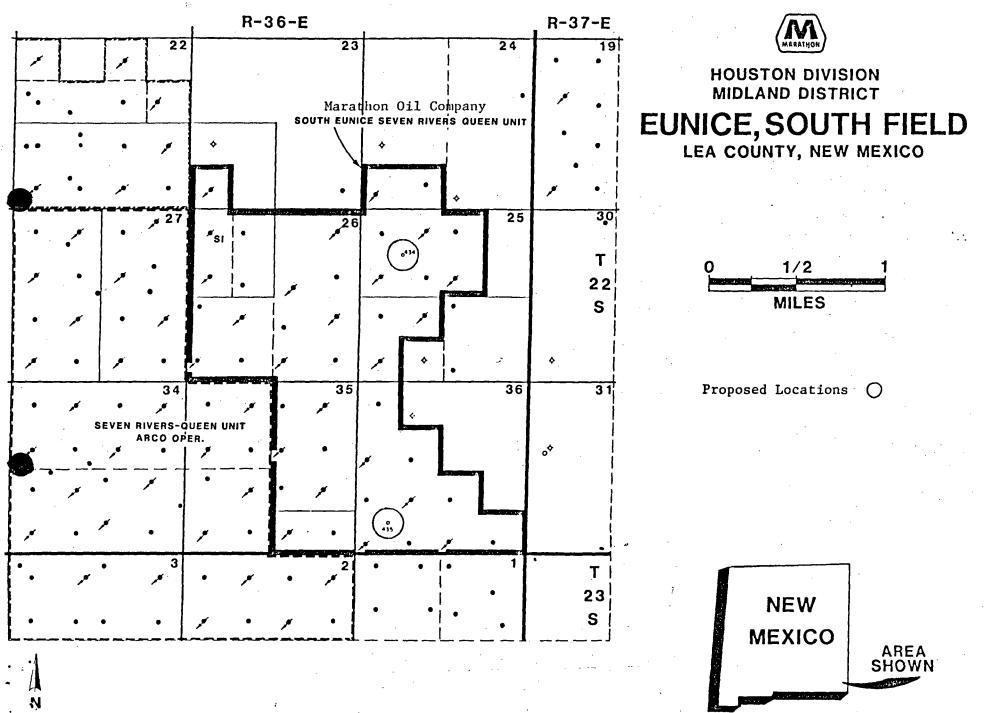
Applicant shall furnish all operators who directly and diagonally offset the units involved a copy of the application to the Division, and shall include with his application a written statement that all offset operators have been properly notified. Offset operators shall include only those operators who have offset properties within the State of New Mexico. The Division shall wait at least ten days before approving any such pooling, and shall approve such pooling only in the absence of objection from any offset operator. In the event that an operator objects to the pooling, the Division shall consider the matter only after proper notice and hearing.

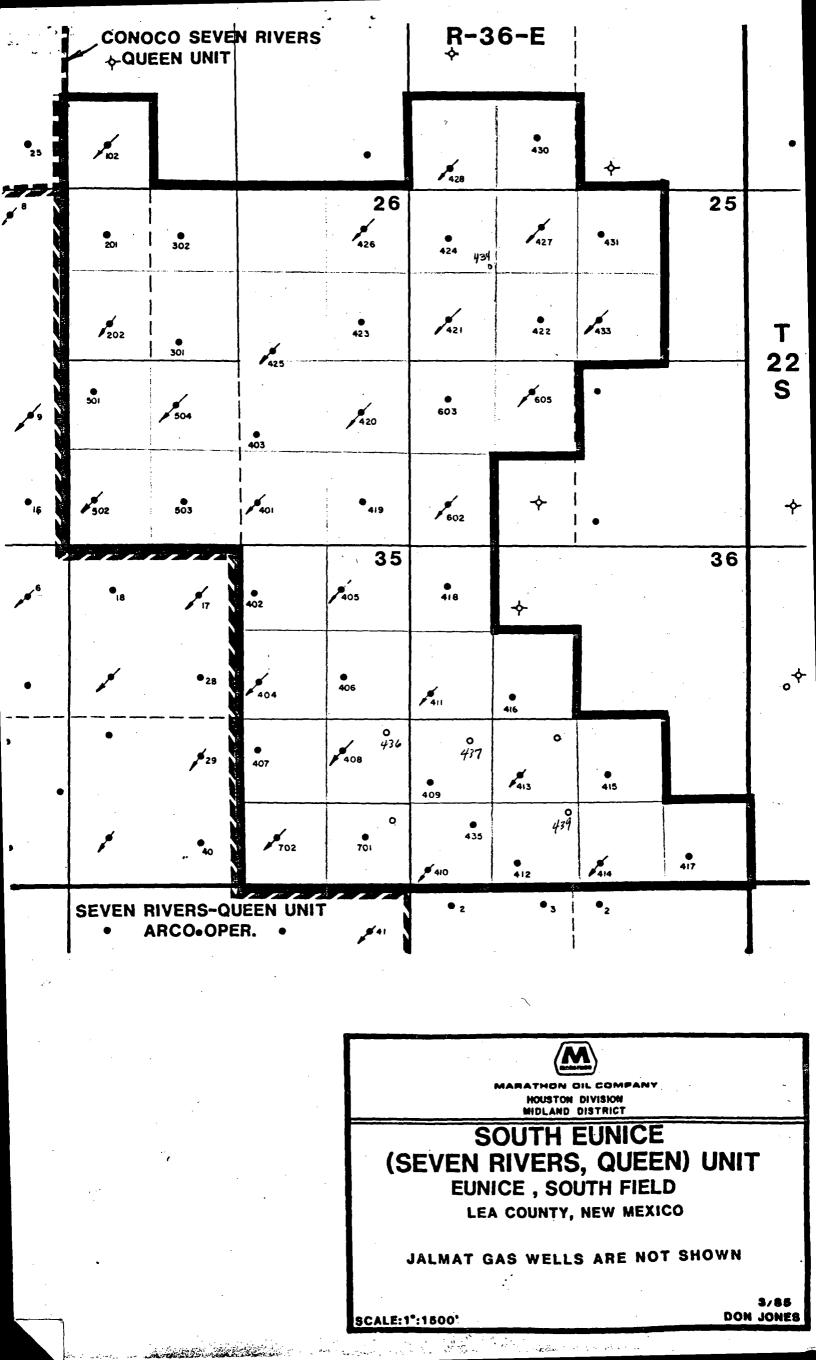
The Division may waive the ten-day waiting period requirement if the applicant furnishes the Division with the written consent to the pooling by all offset operators involved.

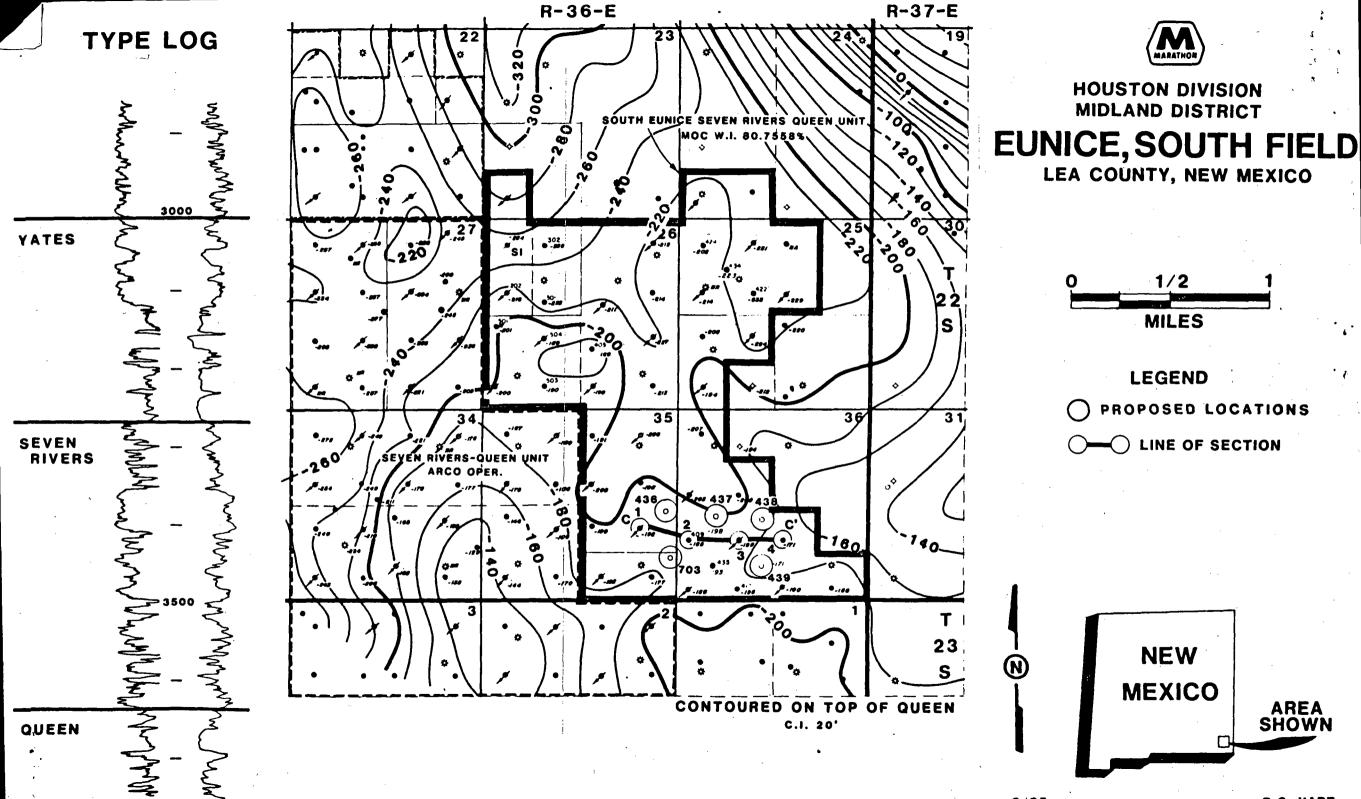
The Division may consider that the requirements of subparagraphs 2 and 3 of paragraph M of this rule have been fulfilled if the applicant furnishes with each copy of each application to the Division a copy of an executed pooling agreement communitizing the units involved.











n / 11407

AREA SHOWN

9/95

• .

CERTIFICATE OF SERVICE

I hereby certify that I have this day served a copy, via registered mail, of Marathon Oil Company's request for Infill Well Finding for South Eunice Unit Well No. 437, South Eunice (Seven Rivers Queen) Field, Lea County, New Mexico upon all offset operators as listed below as required by New Mexico Order No. R-6013-A.

> Arco Oil and Gas P. O. Box 1610 Midland, Texas 79702 Attn: Jerry Tweed

Conoco, Inc. 726 E. Michigan Hobbs, New Mexico 88240 Attn: Mark Mosley

Sun Production Company P. O. Box 1861 Midland, Texas 79702 Attn: Tom Hobbs

Texaco, Inc. P. O. Box 728 Hobbs, New Mexico 88240

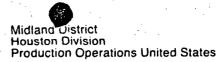
R. J. Peterman, Manager Contracts & Regulatory Compliance

Subscribed and sworn to before me, a Notary Public,

1985 toper 2

KAYLA RAE PIGMAN Notary Public, State of Texas My Commission Expires 7-16-89





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

July 18, 1985

New Mexico Oil Conservation Division P. O. Box 2088 Santa Fe, New Mexico 87501 Attn: David Catanach

RE: Unorthodox Locations South Eunice (Seven Rivers, Queen) Unit Well Nos. 436, 437 and 439 Sec. 35 and 36, T-22-S, R-36-E Lea County, New Mexico

Marathon Oil Company, as operator of the referenced unit, respectfully requests administrative approval to drill three infill producing wells, Nos. 436, 437, and 439, at the following unorthodox locations: .

No.	436	2475 '	FSL	and	330'	FEL,	Sec.	35-22S-36E,	Lea	Co.
No.	437	2310'	FSL	and	890'	FWL,	Sec.	36-22S-36E,	Lea	Co.
No.	439	990 '	FSL	and	2220'	FWL,	Sec.	36-22S-36E,	Lea	Co.

All of these wells will be drilled to about 3850' to test the Seven Rivers and Queen formations in the South Eunice (Seven Rivers, Queen) pool. It is expected that these wells will recover additional reserves within this secondary recovery project.

Copies of this application have been sent to the offset operators by registered mail.

Attached for your information is a map showing the proposed locations and a list of offset operators to these locations.

Very truly yours,

what

C. R. Hubacher District Operations Engineer

DGJ/jdt/I

Attachments

xc: NMOCD - District I (Hobbs)
 Offset Operators

Request for Infill Well Finding South Eunice Unit Well No. 437 South Eunice (Seven Rivers Queen) Field Lea County, New Mexico

In compliance with Rule 8 of Filing Requirements for Natural Gas Policy Act Infill Findings, Marathon is submitting a plat showing 40-acre spacing within the South Eunice Unit and a description of all wells drilled on the proration unit (including the completed infill well) which are completed in the same pool or reservoir as the proposed infill well. Also attached is a statement indicating why the existing well on the proration unit cannot effectively and efficiently drain the portion of the reservoir covered by the proration unit.

: 1	A.	Lease Name & Well Location: South Eunice Unit No. 437
		Unit L, Section 36, T-22-S, R-36-E, 2310' FSL & 890' FWL,
		Lea County, New Mexico
J	Β.	Spud Date: 8-10-85
(c.	Completion Date: N/A
, I	D.	Mechanical Problems: None
1	E.	Current Rate of Production: N/A
]	F.	Date of P&A: None
	EXI A.	STING WELL ON PRORATION UNIT Lease Name & Well Location: South Eunice Unit No. 409
		Unit L, Section 36, T-22-S, R-36-E
		Lea County, New Mexico
]	B.	Spud Date: 1-27-58
(c.	Completion Date: 2-5-58
1	D.	Mechanical Problems: None
	E.	Current Rate of Production: 14 BOPD, 3.0 MCFPD, 7.5 BWPD
		

South Eunice Unit Well No's. 434, 435, 436, 437, & 439 Lea County, New Mexico

Reserves of 80,000 barrels of oil and 24,000 MCF of gas are expected from each of the wells listed above. This reserve figure was derived from volumetric calculations, using the following parameters: average porosity 15%, drainage area = 10 acres, net pay thickness = 50 feet, water saturation = 35%, formation volume factor = 1.2, recovery efficiency = 25%, and gas-oil ratio = 300 SCF/STB.

The area was originally developed on 40 acre spacing in the late 1950's and early 1960's. In the mid-1970's a pilot and later a unit-wide waterflood were implemented, utilizing the existing wells. It is believed that only a small portion of the unitized reservoir has been successfully waterflooded, due to the low permeability of the fine-grained Queen sandstone and the presence of high permeability streaks in portions of the Unit. Two-thirds of the waterflood production has come from several wells that encounter one particular high permeability sand member in the northeastern portion of the Unit.

Due to this low permeability of the majority of the Queen pay, each well has drained considerably less than the 40 acres currently assigned. As shown above, reserves of 80,000 barrels can be calculated assuming only 10 acre drainage, and many wells in the unit have not made that much. It is expected that these infill wells can recover primary reserves from tight Queen sands after adequate stimulation.

It is also believed that these wells will help to recover additional secondary reserves from higher permeability intervals which are floodable. Pressure testing of wells has indicated an unusually low reservoir pressure in some producing wells, indicating inadequate injection support. This may be caused by reservoir discontinuities between producing wells and injection wells. By infill drilling in the South Eunice Unit, more continuous pay will be developed which should improve waterflood recoveries. OFFSET OPERATORS South Eunice (Seven Rivers, Queen) Unit Marathon Oil Company, Operator Well Nos. 436, 437 and 439

ARCO Oil and Gas P. O. Box 1610 Midland, Texas 79702 Attn: Jerry Tweed

. . .

Conoco, Inc. 726 E. Michigan Hobbs, New Mexico 88240 Attn: Mark Mosley

Sun Production Company P. O. Box 1861 Midland, Texas 79702 Attn: Tom Hobbs

Texaco, Inc. P. O. Box 728 Hobbs, New Mexico 88240

					and when any MCCub-	FROCE W B. Yorport
	5 10 1900 Pil	1 H Co. 1 ex, 2 H fici el 1 1 8 1 9 1 9 1 9 1 1 1 1 1 1 1 1 1 1 1	· • • • • • • • • • • • • • • • • • • •	•1 • ³	4 • Gulf • 5 • 53 0703 0' • 5 • 57 0703 0' • 5 • 5 • 57 0703 0' • 5 • 5 • 5 • 5 • 5 • 5 • 5 • 5 • 5 •	(Duel) W 8.Yor bors (Duel) 9/8
• • •	30 JI 57 52	Horrington 4 5 5 5 5	42			() •3 •• B* •
	50 0 47 WI 9	U.R.Cottle Co. U.A Caltie Calif.	11 iš	12 25 13 12 35 13 12 35 13 12 35 13 12 51 13 13 51	Sun	andes is a moti?6
0'0	ARCer (wes	1248 HANNA		A.R.Co *157-0*	A Martindale Sphip	B WITEL BITT
.54 # 55	• ⁴ • ¹ • ** ³	raine UN Cuttle Cols)	¢ ³⁶ Store	(woligers of the states)	Ste SteMattern Tr.	fain. Tintere .
-ory Perzo	WiserOil Marathan Bind Al Carathan Sigil Sei Masweri, Cant'i	4 Motothom Acct. IA • ²¹ 4A-2614 · ARCO	ARCC		Constant of the second se	Sun i Sohio I i i i Sun i Sohio I i i Marcada - o Filiari I i i i i i Contactori i i i i i Contactori i i i i i i Contactori i i i i i i Contactori i i i i i i i i Contactori i i i i i i i i i Contactori i i i i i i i i i i Contactori i i i i i i i i i i i i i Contactori i i i i i i i i i i i i i i i i i i
	Cont'	Gas rights is	Gas rights Wh	AUT 2	Type Gulf 3 II Giller 2 gul and 1 gul Children	Charles is a under a United
	¹⁶ 22		14		Aniliard Jeck (S) Saco Jane J a Lom Exnon Forda	The for I and I Zio
• • ••• 702	• ⁴ • ¹⁰ • ³ • ⁵⁹ * <i>Mc Janaia</i> *	•1 · · · · · · · · · · · · · · · · · · ·	*		(Pro) Amerado Petro Lewis PA 1 Pa 1 For Lewis PA 1 Pa 1 For Lewis	1 Sidore Kudris Biner U.S. Frant 1956 Laco M. Decading J. Janes And Benki, Throas Magnis 12 Sand 28 Rese: 3 1 Sal
یا در ۱ ۱	• ⁸ • ⁶ • ⁷ • ⁴	Vr. Janaldi Jovidson : Store	445Concid" 	Heline a Tata	¢ 35/2 3 3 8 334 The state	IZ Gunt 2 Repe 9 Bal
ARCE HIL		* Gi / Juni	Conoculator Herres ON 13126 (5-1) Record 14 8 Charco conging Lamond	Acct 18	14 80 44 1Exx00) (FTF) 0 3 40 8 934 6 101 74 6 744 101 74 6	
6 daren 2001 1997 - 2001 100 - 2001 100 - 2001	SUP Barnet O MCC15.000	سا لتتنار	TDISE15	Gas rights 🍼 🛡		8/20 051/256 .2
and Deck	Guif 2 Carri Statu Guif 2 Carri Statu Statu Guif 2 Carri Statu Statu Guif 2 Carri Statu Stat	Henry Record UR Cartie Co.S) 2222	Meyer" & Millard Oeck, ISI "CITPT (Shell) 23 JA (Shell) 2 Contil. etal	24 	stana I 19 Gert	20 72
10 4000 18	Surface	21 3 4 29 24 Contl.etgl 24 030193	Casiond "B"	29, 10 SO EUNICE TAMER (SEVEN RIV. QN.)		
Jectus Deitor	310 - a the sthe	25	Moronovit O ² joz Juliard Degh Aleyer	678 STOTE 1 20 3000	31 29 24 0 30 TO3600 0	10 5862 Uniters
si Conoco, etai sa	Contlemi	ARCO ARLO	zon Getty Morathan aze	Maranori	15. 16 105 15. 10 105 15. 101 10 10 105	306 Petro Lewis 12 Tr.29
L.		ATT NICELA	Cetty ARCO SET Dil 202 D'Ghell O 423	ALL	"M" co PV I	Ound 8-934 Tur
020123	C Minard Jeck (S)	¶ ≱s •s [≱rm. O.]	" Decusar JDT 26 WN		61 38 57 57 51 38 57 57	te ban () 10 "1 orine. Dist. (Humble) ac. 2006
دم ر [Peserve Longieu-Grafin	Darothy Casey 27	501 504 403	C MCCostonetos 2 (Cancel Oil eas B 2900' ro 3500'	035 18 Petro-Lewis to 3062 67 48	25 Bin 1/55/32 also - Store
	Aritard Seck (S) ARICO Sun - M ARICO SUN - M ARI	Shipley Life Est 3 1 4 4 4 5 5	SOE Q SOS ADI Q 419	SOR A B I M Deck.	9 M • 11 J415 - 46 - 36	Store L'Anodariza
Conoro	ARCO AND	A900	A CONTRACT OF A	44 ARCO ACC110	17 fer (Exton)	Store 1 21100
to anon	Anonriet Hew	ARCO (OPER.)	Glan Rien 402 D'	C LAT & C 6	Petro-Lewis, etal	C ZI Stell
· •	J L Seiby Conney Esmoneeral	SEVEN RIVERS ON. UT.	"Janes"	All All Lewis-St	0 11 3421 0 11 3421 1 7 3 3510 Store 141 Cale J St 141	Tri Start
	م وقع - B - 50 معروم 7 هو 104 b 3013 هو 60	ARCO 60 34 32ARCO 31 34 WN 33 (J.M. Hendris) 34 Jonger	4 Gothie ** 467		2 5/H /SE	B.3480 PTS Bourg
* ⁵	DintTrial Meyer 62 61	; (M.L.Kiem); 35 #37 0 #Male 36 5001 + 38	Alle Long Long La DiA	VIS 4 Conoid Of	String Mine divised to	rg 13, J4 Skelly Prig. se
	13/28 Fill Willard Deckiss	11516 Drisk Jones	willord Beer an State A Rea	510 A	Million Decking and Steve mill	
14 +3 Inental 45	103157.0 0 0 44 543	ARCO BEISON ARCO	44 5 Guilt , -A R Ca 47 F 16 - 229 432 WWD	Sun Emery field Children	Marolo K	Ja Tr.8 Tr.9
3157	*A 1 ⁻ ∂7 45 ★ 15 07 45 S.1, Dual	45 50 451 51	\$53 .54 \$55 21. 64	o' \$'	0 ¹⁰	Light 1 /27 28 23 Vota E.F. King 28 23 4052 Millard Decala
*`		•44 47 # Sun • 61 •53 	El Paso Not el -6 1.1	Getty Dil 10 02	(101 m) (Terty Sun 33 Ditt (201 4) (101 m) (21 10 101 m) (21 101m	Sheily eloli Sheily 934 A 633 1 432 631 14 10 1330 1 1 132 131
Ŧ	Tex.Pae, 1103627	• ⁴ • ¹³ • ¹⁴ • ⁶⁵	Gerry 21 -11		Tr. II	PENROSE B UNIT
15:8/2	Q (0(0) + 5 (0) (0/0) + 5 (0) (0/0) + 5 (0) (0/0) + 5 (0) (1/1) + 1/1 (1/1) +	State Sun (Cit Serv)	B-1327 Show Vex C	Millerd Circles And Continental etal	Cu Deck, (5) 1 9 7 14- (5) Th	12 Benj. F. Horrison
* ³ L3 Mil	Sun Duel	0"5 - A 3' + 0 'Su	n 2 ³¹ 83 - ^{A-1} - 62 - 441 2 ³⁰ V/A		Richards Tr.II Sh	ant ponyas Gur Shi
*	*14 ¹¹⁵ A 1 100 *14 ²⁵¹ A 1 400	53 O 66 T.P.O. A3		REA NEAR THE		· · · · · · · · · · · · · · · · · · ·
ert field O	•10		95 4 5	SOUTH EUNICE (SEV	VEN RIVERS, QUEEN)	UNIT
412 07 **		Q ³⁷ e ¹² e ⁶		I-22-S, R-36-E LEA COUNTY, NEW N	(FX100	54 Tel7
	Store	e#3 } e* Store	Stare	LA COUNTI, NEW 1	ILA 100	8
. *	Witemett 60.6red Turon	Arer 51 5un	، ایند عد: ۱۰۸٬۱۶	PROPOSED INFILL	OCATIONS SHOWN	DK.
	V Preka	5/0 00ml 01 00,00	• [• • • • • · · · · · · · · · · · · ·	ROIOSED INFILL	LOCATIONS SHOWN	VROSE . YB) Unity
 1-1	Liter Margale 2	3-36 300 2 Conoco.etoi 15	Stote ARCO 93'WN"#4 1	•		
-161. 3	Super ar Highland Pool Ame Super ar Durf St 1 Pert UN Event (Mehi) 1 8 165 1 Highland Fred 17es	Slevens Pet. I ww	Duel "Bild" #1	Har man Shur Ster	1.258AT	2 L Steeler Oil Sta
<u>.</u>	E BIOS Inchistr CR 24 Inchistr CR 24 Inchi	US Car (and Date)	IM Abola one	stote	2 Srevens 612776 ! 3 U.S. J.I. O Austra Rat Orme U.R. Codde Co. (5) Austra !	S MI
		* * ² 34 (Esson)	• ⁵⁵ 11.0 ₀ •34 •	ice Sun (bernaGylt)	ARIO	1

R. W. Byram & Co., - Mar., 1984

(C - DRILLING - Cont'd.)

In the event gas production is encountered in a well which was projected to an oil-producing horizon and which is located accordingly but does not conform to the above gas well location rules, it shall be necessary for the operator to bring the matter to a hearing before approval for the production of gas can be given.

III. All counties except Lea, Chaves, Eddy, Roosevelt, San Juan, Rio Arriba, and Sandoval (As Amended by Order No. R-6870, February 1, 1982.)

wildcat well which is projected as an oil well in any Anv county other than Lea, Chaves, Eddy, Roosevelt, San Juan, Rio Arriba, and Sandoval shall be located on a tract consisting of approximately 40 surface contiguous acres substantially in the form of a square which is a legal subdivision of the U.S. Public Land Surveys, or on a governmental quarter-quarter section or lot and shall be located not closer than 330 feet to any boundary of such tract.

Any wildcat well which is projected as a gas well to a formation and in an area which, in the opinion of the Division representative approving the application to drill, may reasonably be presumed to be productive of gas rather than oil shall be located on a drilling tract consisting of 160 surface contiguous acres, more or less, substantially in the form of a square which is a quarter section, being a legal subdivision of the U. S. Public Land Surveys, and shall be located not closer than 660 feet to any outer boundary of such tract nor closer than 330 feet to any quarter-quarter section or subdivision inner boundary.

- ACREAGE AND WELL LOCATION REQUIREMENTS FOR DEVELOPMENT WELLS (As Amended by Order No. R-4383, September 6, 1972, and Order No. R-5113, С. November 1, 1975.)
- I. Oil Wells, All Counties (As Amended by Order No. R-4383, September 6, 1972.)

Unless otherwise provided in special pool rules, each development well for a defined oil pool shall be located on a tract consisting of approximately 40 surface contiguous acres substantially in the form of a square which is a legal subdivision of the U.S. Public Land Surveys, or on a governmental quarterquarter section or lot, and shall be located not closer than 330 feet to any boundary of such tract nor closer than 330 feet to the nearest well drilling to or capable of producing from the same pool, provided, however, only tracts committed to active secondary recovery projects shall be permitted more than four wells.

Gas Wells

(a) Lea, Chaves, Eddy, and Roosevelt Counties
(b) Lea, Chaves, Eddy, and Roosevelt Counties
(c) Unless otherwise provided in special pool rules, each development well for a defined gas pool in a formation younger than the Wolfcamp formation, or in the Wolfcamp formation which was created and defined by the Division prior to November 1, 1975, or in a Pennsylvanian age or older formation which was created and defined by the Division prior to June 1, 1964, shall be located on a designated drilling tract consisting of 1964, shall be located on a designated drilling tract consisting of 160 surface contiguous acres, more or less, substantially in the form of a square which is a quarter section being a legal subdivision of the U. S. Public Land Surveys, and shall be located not closer than 660 feet to any outer boundary of such tract nor closer than 330 feet to any quarter-quarter section or which is a section of the secti subdivision inner boundary nor closer than 1320 feet to the nearest well drilling to or capable of producing from the same pool.

Unless otherwise provided in the special pool rules, each development well for a defined gas pool in the Wolfcamp formation which was created and defined by the Division after November 1, 1975, or of Pennsylvanian age or older which was created and defined by the Division after June 1, 1964, shall be located on a designated drilling tract consisting of 320 surface contiguous acres, more or less, comprising any two contiguous quarter sections of a single governmental section, being a legal subdivision of the U. S. Public Land Surveys. Any such well

SECTION I

having more than 160 acres dedicated to it shall be located not closer than 660 feet to the nearest side boundary of the dedicated tract nor closer than 1980 feet to the nearest end boundary nor closer than 330 feet to any quarter-quarter section or subdivision inner boundary. (For the purpose of this rule, 'side' boundary and 'end' boundary are as defined in Section B I (a) of this rule.)

(b) San Juan, Rio Arriba, and Sandoval Counties

Unless otherwise provided in special pool rules, each development well for a defined gas pool shall be located on a designated drilling tract consisting of 160 surface contiguous acres, more or less, substantially in the form of a square which is a quarter section, being a legal subdivision of the U. S. Public Land Surveys, and shall be located not closer than 790 feet to any outer boundary of the tract nor closer than 130 feet to any quarter-quarter section line or subdivision inner boundary.

All counties except Lea, Chaves, Eddy, Roosevelt, (c) San Juan, Rio Arriba, and Sandoval

Unless otherwise provided in special pool rules, each development well for a defined gas pool shall be located on a designated drilling tract consisting of 160 surface contiguous acres, more or less, substantially in the form of a square which is a quarter section, being a legal subdivision of the U. S. Public Land Surveys, and shall be located not closer than 660 feet to any outer boundary of such tract nor closer than 330 feet to any quarter-quarter section or subdivision inner boundary nor closer than 1320 feet to the nearest well drilling to or capable of producing from the same pool.

ACREAGE ASSIGNMENT, COMPLETED WELLS Well Tests and Classification D. I.

It shall be the responsibility of the operator of any wildcat gas well or development gas well to which more than 40 acres has been dedicated to conduct a potential test within 30 days following completion of the well and to file the same with the Division within 10 days following completion of the tests. (See Rule 401.)

Date of completion for a gas well shall be the date a Christmas tree is installed or 30 days following conclusion of active comple-

tion work on the well, whichever date comes first. Upon making a determination that the well should not properly be classified as a gas well, the Division will reduce the acreage dedicated to the well.

Failure of the operator to file the aforesaid tests within the specified time will also subject the well to such acreage reduction.

II. Non-Standard Units

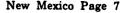
:

Any completed gas well which does not have the required amount of acreage dedicated to it for the pool or formation in which it is completed may not be produced until a standard unit for the well has been formed and dedicated or until a nonstandard unit has been approved.

The Division-Director may grant administrative approval to non-standard gas units without notice and hearing when an application has been filed for a non-standard unit and the unorthodox size or shape of the unit is necessitated by a variation in the legal subdivision of the U. S. Public Land Surveys, or the following facts exist and the following provisions are complied with:

(a) The non-standard unit consists of quarter-quarter sections or lots that are contiguous by a common bordering side.

(b) The non-standard unit lies wholly within a single governmental quarter section if the well is completed in a pool or formation for which 160 acres is the standard unit size or wholly within a single governmental half section if the well is completed in a pool or formation for which 320 acres is the standard unit size.



SECTION I

(C - DRILLINC - Cont'd.)

Page 8 New Mexico

(c) The applicant presents written consent in the form of waivers from all offset operators and from all operators owning interests in the quarter section (for 160-acre pools or formations) or the half section (for 320-acre pools or formations) in which the non-standard unit is situated and which acreage is not included in said non-standard unit.

(d) In lieu of paragraph (c) of this rule, the applicant may furnish proof of the fact that all of the aforesaid operators were notified by registered or certified mail of his intent to form such non-standard unit. The Director may approve the application if no such operator has entered an objection to the formation of such non-standard unit within 30 days after the Division Director has received the application.

E. (As Amended by Order No. R-2761, January 1, 1965.) Form C-101, Application for Permit to Drill, Deepen, or Plug Back for any well shall designate the exact legal subdivision allotted to the well and no Form C-101 will be approved by the Division or any of its agents without such proper designation of acreage.

F. Unorthodox Locations (As Amended by Order No. R-3038, February 9, 1966. Order No. R-5890. December 29, 1978, Order No. R-6870. February 1, 1982, and Order No. R-7451, March 2, 1984.)

The Division Director shall have authority to grant an exception to the well location requirements of Sections B and C above without notice and hearing when the necessity for such unorthodox location is based upon topographical conditions, the recompletion of a well previously drilled to a deeper horizon, provided said well was drilled at an orthodox or approved unorthodox location for such original horizon, or to permit the completion of an efficient production and injection pattern within a secondary recovery or pressure maintenance project. provided that any such unorthodox location within such project is no closer than 330 feet to the outer boundary of the lease, or the unitized area, nor closer than 10 feet to any quarter-quarter section line or subdivision inner boundary.

II. The Division Director shall have authority to grant an exception to the well location requirements of Rule 104 B.I. (a) and Rule 104 C.II. (a) without notice and hearing when the necessity for such unorthodox location is based upon geologic conditions provided that any such unorthodox location shall be no closer than 660 feet to the nearest side boundary nor closer than 990 feet to the nearest end boundary of the proration unit.

III. Applications for administrative approval of unorthodox locations shall be filed in triplicate and shall be accompanied by plats, showing the ownership of all leases offsetting the proration or spacing unit for which the unorthodox location is sought, and also all wells completed thereon. If the proposed unorthodox location is based upon topography, the plat shall also show and describe the existent topographical conditions. If the proposed unorthodox location is based upon completion of an efficient production and injection pattern, the plat shall also show the project outline identifying all producing and injection wells therein, and the applicant shall further include a statement setting forth the necessity for such location. If the proposed unorthodox location is based upon geology as provided in Paragraph II above, the application shall include appropriate geologic maps, cross-sections, and/or logs, and a discussion of the geologic conditions which result in the necessity for the unorthodox location.

IV. All operators of proration or spacing units offsetting the unit for which the unorthodox location is sought shall be notified of the application by certified or registered mail, and the application shall state that such notification has been given. The Division Director may approve the unorthodox location upon receipt of waivers from all offset operators or if no offset operator has entered an objection to the unorthodox location within 20 days after the Director has received the application. V. The Division Director may, at his discretion, set any application for administrative approach of the application.

application for administrative approval of an unorthodox location for public hearing.

R. W. Byram & Co., - Mar., 1984

Whenever an exception is granted, the Division may take G. such action as will offset any advantage which the person securing the exception may obtain over other producers by reason of the unorthodox location.

If the drilling tract is within an allocated oil pool or is placed within such allocated pool at any time after completion of the well and the drilling tract consists of less than 39-1/2 acres or more than 40-1/2 acres, the top unit allowable for such well shall be increased or decreased in the proportion that the number of acres in the drilling tract bears to 40.

I. If the drilling tract is within an allocated gas pool or is subsequently placed within an allocated gas pool, and the drilling tract consists of less than 158 acres or more than 162 acres in 160-acre pools, or less than 316 acres or more than 324 acres in 320-acre pools, the top allowable for such well shall be decreased or increased in the proportion that the number of acres in the drilling tract bears to a standard unit for the pool.

In computing acreage under H and I above, minor fractions of an acre shall not be counted but 1/2 acre or more shall count as 1 acre.

K. The provisions of H and I above shall apply only to wells completed after January 1, 1950. Nothing herein contained shall affect in any manner any well completed prior to the effective date of this rule and no adjustments shall be made in the allowable production for any such wells by reason of these rules.

In order to prevent waste the Division may, after notice and hearing, fix different spacing requirements and require greater acreage for drilling tracts in any defined oil pool or in any defined gas pool notwithstanding the provisions of B and C above.

M. The Division may approve the pooling or communitization of fractional lots of 20.49 acres or less with another oil proration unit when:

1. The units involved are contiguous;

2. They are part of the same basic lease, carrying the same royalty interest; and

3. The ownership of the units involved is common.

Application to the Division for pooling shall be accompanied by three (3) copies of a certified plat showing the dimensions and acreage involved in the pooling, the ownership of all leases and royalty interests involved, and the location of any proposed wella

Applicant shall furnish all operators who directly and diagonally offset the units involved a copy of the application to the Division, and shall include with his application a written statement that all offset operators have been properly notified. Offset operators shall include only those operators who have offset properties within the State of New Mexico. The Division shall wait at least ten days before approving any such pooling, and shall approve such pooling only in the absence of objection from any offset operator. In the event that an operator objects to the pooling, the Division shall consider the matter only after proper notice and hearing.

The Division may waive the ten-day waiting period requirement if the applicant furnishes the Division with the written consent to the pooling by all offset operators involved.

The Division may consider that the requirements of subparagraphs 2 and 3 of paragraph M of this rule have been fulfilled if the applicant furnishes with each copy of each application to the Division a copy of an executed pooling or communitying the units involved agreement communitizing the units involved.



