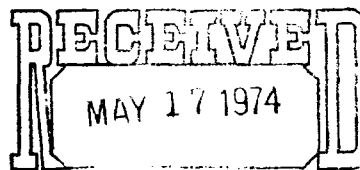




MARATHON OIL COMPANY

PRODUCTION - UNITED STATES AND CANADA

May 6, 1974



OIL CONSERVATION COMMISSION
Santa Fe

BOX 552

MIDLAND, TEXAS 79701

New Mexico Oil Conservation Commission
P. O. Box 2088
Santa Fe, New Mexico 87501

Attention: Mr. A. L. Porter, Jr.

Re: Application for Approval to
Expand the S. Eunice (Seven
Rivers, Queen) Unit Water-
flood Project, S. Eunice
(Seven Rivers, Queen) Pool,
Lea County, New Mexico

Gentlemen:

Marathon Oil Company respectfully requests administrative
approval to convert the South Eunice (Seven Rivers, Queen) Unit
wells listed below to injection wells:

Well No.	Location			
	Unit Letter	Sec- tion	Town- ship	Range
102	M	23	22S	36E
202	E	26	22S	36E
401	O	26	22S	36E
404	G	35	22S	36E
405	A	35	22S	36E
408	I	35	22S	36E
410	M	36	22S	36E
411	E	36	22S	36E
413	K	36	22S	36E
414	O	36	22S	36E
433	G	25	22S	36E
502	M	26	22S	36E
504	K	26	22S	36E
702	O	35	22S	36E

Order No. R-4217 dated November 4, 1971, authorized Marathon
Oil Company to institute a waterflood project in the South Eunice
(Seven Rivers, Queen) Unit by the injection of water into the

Mr. A. L. Porter, Jr. - NMOCC
S. Eunice (7-Rivers, Queen) Unit

Page 2

Seven Rivers-Queen formation through certain wells. This order also gave the Secretary-Director the authority to approve the expansion of the above-described waterflood project to include additional injection wells necessary to complete an efficient water injection pattern.

The interval to be injected into in these wells is defined as that subsurface portion of the Unit Area commonly known and described as that certain stratigraphic interval occurring between 100' above the base of the Seven Rivers formation and 350' below sea level. The wells in the unit area are primarily completed in the top 100' of the Queen formation and this will be the interval that will be waterflooded. The water to be used for injection will be from Skelly Oil Company's Jal Water System located near the center of Section 5, T.23S, R.37E, Lea County, New Mexico. We expect to inject approximately 3300 barrels of water per day into these fourteen injection wells.

In support of this application the following items are submitted:

1. Plat showing the location of the proposed injection wells and all other wells within a two mile radius of the proposed injection wells.
2. Log of each well
3. A diagrammatic wellbore sketch of the wells.

Offset operators to these wells are:

- Atlantic Richfield Co., P. O. Box 1610, Midland, Texas 79701.
- ✓ Continental Oil Co., P. O. Box 460, Hobbs, N.M. 88240.
- Dalport Oil Co., 3471-1st Natl. Bank Bldg., Dallas, Texas 75202.
- ✓ Skelly Oil Co., P. O. Box 1351, Midland, Texas 79701.
- Texas Pacific Oil Co., Inc., P. O. Box 4067, Midland, Texas 79701.
- Wallen Production Co., 308 N. Colorado, Midland, Texas 79701.
- Wood, McShane & Thams, Inc., P. O. Box 968, Monahans, Texas 79756.

By copy of this letter and attachments, these offset operators are being notified of this application and requested to waive objection to its approval. Should additional information be desired, please advise.

Yours very truly,

MARATHON OIL COMPANY

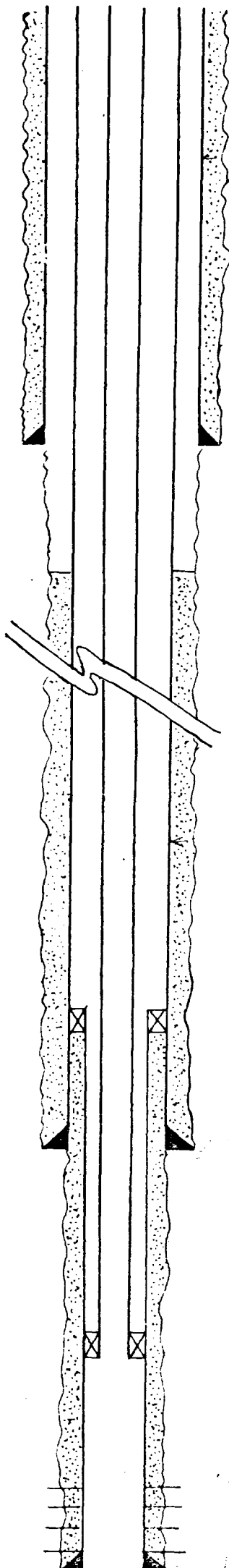


D. E. Morris
District Operations Manager

RLM:bje

SCHEMATIC INJECTION WELL COMPLETION
MARATHON SOUTH EUNICE (SEVEN RIVERS, QUEEN) UNIT
LEA COUNTY, NEW MEXICO

PROPOSED INJECTION WELL
NO. 102



Surface Casing

Size OD, Inches - 8 5/8
Depth Set, Ft. - 346
Cement Volume, Sks. - 400
Top of Cement - Circ.

Tubing

Size OD, Inches - 2 3/8

Intermediate Casing

Size OD, Inches - 5 1/2
Depth Set, Ft. - 3576
Cement Volume, Sks.-750
Top of Cement, Ft.-Circ.

Top of Queen, Ft. 3808

Packer

Type - Tension
Depth Set, Approx. Ft. - 3750

Perforations

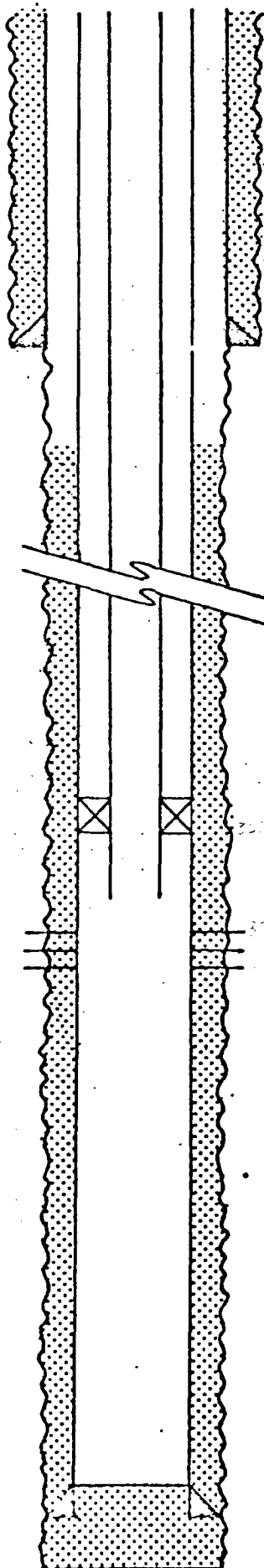
Depth - 3797-3816'

Liner

Size OD, Inches - 4
Depth Set, Ft. - From 3314-3814
Cement Volume, Sks. 125
Top of Cement, Ft. 3314

Original T.D., Ft. - 3816

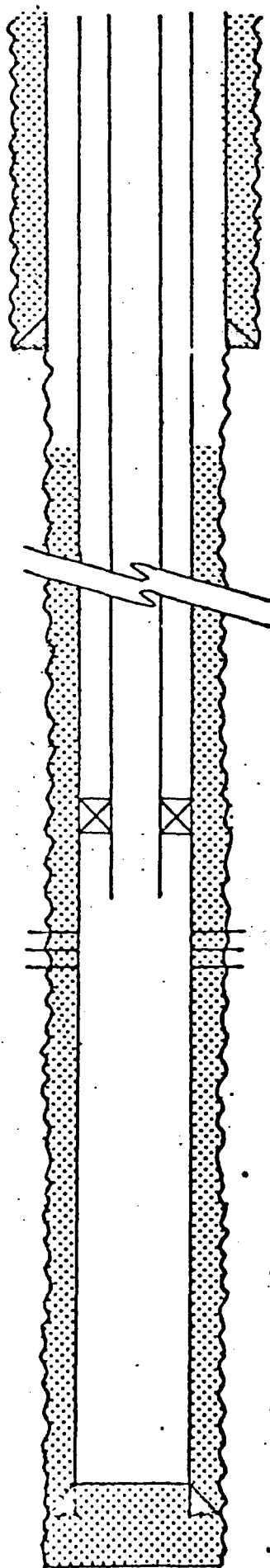
SCHEMATIC INJECTION WELL COMPLETION
MARATHON SOUTH EUNICE (SEVEN RIVERS, QUEEN) UNIT
LEA COUNTY, NEW MEXICO



PROPOSED INJECTION WELLS

	<u>#202</u>	<u>#401</u>	<u>#404</u>	<u>#405</u>	<u>#408</u>
SURFACE CASING					
Size O.D., inches	8 5/8	9 5/8	9 5/8	9 5/8	9 5/8
Depth set, ft.	372	389	397	391	389
Cement volume, sks.	300	250	250	250	250
Top of Cement	Circ.	Circ.	Circ.	Circ.	Circ.
TUBING					
Size, O.D., inches	2 3/8	2 3/8	2 3/8	2 3/8	2 3/8
TOP OF QUEEN, ft.					
	3723	3680	3705	3692	3676
PACKER					
Type	Tension	Tension	Tension	Tension	Tension
Depth set, approx. ft.	3650	3650	3650	3650	3625
PERFORATIONS					
Depth	3726- 3748	3678- 3705 3713- 3759	3712- 3742 3748- 3782	3692- 3723 3731- 3748	3676- 3747
PRODUCTION CASING					
Size, inches	5 1/2	5 1/2	5 1/2	5 1/2	5 1/2
Depth set, ft.	3792	3799	3814	3794	3799
Cement Volume, Sks.	800	700	700	1035	1500
Top of Cement, Ft.	Circ.	1860	2190	360	Circ.
PLUG BACK TD, ft.					
	3786	3796	3813	3772	3794
ORIGINAL TD, ft.					
	3794	3800	3815	3795	3800

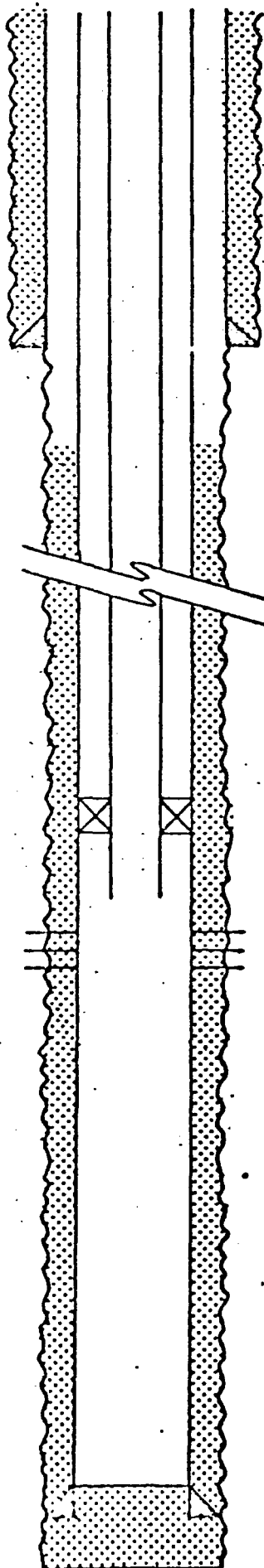
SCHEMATIC INJECTION WELL COMPLETION
MARATHON SOUTH EUNICE (SEVEN RIVERS, QUEEN) UNIT
LEA COUNTY, NEW MEXICO



PROPOSED INJECTION WELLS

	<u>#410</u>	<u>#411</u>	<u>#413</u>	<u>#414</u>
SURFACE CASING				
Size O.D., inches	9 5/8	9 5/8	9 5/8	9 5/8
Depth set, ft.	382	383	403	388
Cement volume, sks.	225	225	225	225
Top of Cement	Circ.	Circ.	Circ.	Circ.
TUBING				
Size, O.D., inches	2 3/8	2 3/8	2 3/8	2 3/8
TOP OF QUEEN, ft.	3651	3672	3650	3652
PACKER				
Type	Tension	Tension	Tension	Tension
Depth set, approx. ft.	3600	3600	3600	3600
PERFORATIONS				
Depth	3651- 3724	3672- 3706 3712- 3726	3665- 3667 3671- 3673 3680- 3682 3700- 3730	3652- 3654 3662- 3664 3672- 3674 3694- 3718
PRODUCTION CASING				
Size, inches	5 1/2	5 1/2	5 1/2	5 1/2
Depth set, ft.	3772	3779	3759	3741
Cement Volume, Sks.	1281	1070	1200	1200
Top of Cement, Ft.	Circ.	Circ.	Circ.	Circ.
PLUG BACK TD, ft.	3770	3775	3757	3738
ORIGINAL TD, ft.	3776	3780	3760	3742

SCHEMATIC INJECTION WELL COMPLETION
MARATHON SOUTH EUNICE (SEVEN RIVERS, QUEEN) UNIT
LEA COUNTY, NEW MEXICO



PROPOSED INJECTION WELLS

	<u>#433</u>	<u>#502</u>	<u>#504</u>	<u>#702</u>
SURFACE CASING				
Size O.D., inches	7 7/8	9 5/8	9 5/8	8 5/8
Depth set, ft.	415	390	395	377
Cement volume, sks.	300	250	250	300
Top of Cement	Circ.	Circ.	Circ.	Circ.
TUBING				
Size, O.D., inches	2 3/8	2 3/8	2 3/8	2 3/8
TOP OF QUEEN, ft.	3680	3720	3701	3674
PACKER				
Type	Tension	Tension	Tension	Tension
Depth set, approx. ft.	3700	3650	3650	3600
PERFORATIONS				
Depth	3766- 3769	3720- 3748 3764- 3778	3701- 3726 3734- 3780	3678- 3747
PRODUCTION CASING				
Size, inches	4 1/2	5 1/2	5 1/2	5 1/2
Depth set, ft.	3801	3824	3814	3777
Cement Volume, Sks.	975	225	325	1150
Top of Cement, Ft.	Circ.	2880	2780	Circ.
PLUG BACK TD, ft.	3776	3822	3811	3777
ORIGINAL TD, ft.	3802	3825	3815	3780



MARATHON OIL COMPANY

PRODUCTION - UNITED STATES AND CANADA

P.O. BOX 552
MIDLAND, TEXAS 79701

May 6, 1974

(SEE ATTACHED DISTRIBUTION LIST)

Gentlemen:

Submitted herewith is a copy of an application to the New Mexico Oil Conservation Commission requesting its approval to expand Marathon's South Eunice (Seven Rivers, Queen) Unit Water-flood Project, South Eunice (Seven Rivers, Queen) Pool, Lea County, New Mexico, by converting fourteen additional wells to water injection service.

It is respectfully requested that you waive objection to the proposed expansion by signing the two enclosed copies of this letter, and forwarding one copy to the New Mexico Oil Conservation Commission, P. O. Box 2088, Santa Fe, New Mexico 87501, and returning the second copy to us at your earliest convenience. Enclosed for your convenience are addressed, stamped envelopes.

Yours very truly,

MARATHON OIL COMPANY

D. E. Morris
District Operations Manager

RLM:bje

C. R. Leggett, Jr., Dist. Eng.
Name & Title

Atlantic Richfield Company
Operator

May 30, 1974
Date



MARATHON OIL COMPANY

PRODUCTION - UNITED STATES AND CANADA

P.O. BOX 552
MIDLAND, TEXAS 79701

May 6, 1974

(SEE ATTACHED DISTRIBUTION LIST)

Gentlemen:

Submitted herewith is a copy of an application to the New Mexico Oil Conservation Commission requesting its approval to expand Marathon's South Eunice (Seven Rivers, Queen) Unit Water-flood Project, South Eunice (Seven Rivers, Queen) Pool, Lea County, New Mexico, by converting fourteen additional wells to water injection service.

It is respectfully requested that you waive objection to the proposed expansion by signing the two enclosed copies of this letter, and forwarding one copy to the New Mexico Oil Conservation Commission, P. O. Box 2088, Santa Fe, New Mexico 87501, and returning the second copy to us at your earliest convenience. Enclosed for your convenience are addressed, stamped envelopes.

Yours very truly,

MARATHON OIL COMPANY

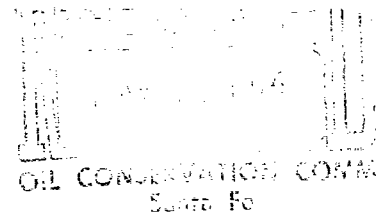
D. E. Morris
District Operations Manager

RLM:bje

Name & Title DIVISION MANAGER

CONTINENTAL OIL CO
Operator

May 20, 1974
Date



PRODUCTION - UNITED STATES AND CANADA

May 6, 1974

Gentlemen:

It is respectfully requested that you waive objection to the proposed expansion by signing the two enclosed copies of this letter, and forwarding one copy to the New Mexico Oil Conservation Commission, P. O. Box 2088, Santa Fe, New Mexico 87501, and returning the second copy to us at your earliest convenience. Enclosed for your convenience are addressed, stamped envelopes.

MARATHON OIL COMPANY

D. E. Morris
District Operations Manager

RLM:bje

W. T. Treadwell, President
Name & Title

LaPort Air Corp.
Operator

May 28, 1974
Date



MARATHON OIL COMPANY

PRODUCTION - UNITED STATES AND CANADA

P. O. BOX 552
MIDLAND, TEXAS 79701

May 6, 1974

(SEE ATTACHED DISTRIBUTION LIST)

Gentlemen:

Submitted herewith is a copy of an application to the New Mexico Oil Conservation Commission requesting its approval to expand Marathon's South Eunice (Seven Rivers, Queen) Unit Water-flood Project, South Eunice (Seven Rivers, Queen) Pool, Lea County, New Mexico, by converting fourteen additional wells to water injection service.

It is respectfully requested that you waive objection to the proposed expansion by signing the two enclosed copies of this letter, and forwarding one copy to the New Mexico Oil Conservation Commission, P. O. Box 2088, Santa Fe, New Mexico 87501, and returning the second copy to us at your earliest convenience. Enclosed for your convenience are addressed, stamped envelopes.

Yours very truly,

MARATHON OIL COMPANY

D. E. Morris
District Operations Manager

RLM:bje

Name & Title
R. J. Womack - District Manager
Texas Pacific Oil Company, Inc.
Operator

May 30, 1974
Date

MAY 8 1974

Note:

* Objection waived provided the injection rate into Well No. 410 be limited to 100 barrels of water per day in order that a thorough and efficient sweep of oil may be achieved on the Texas Pacific operated N. W. King Lease comprising the northwest quarter of Section 1, T-23-S, R-36-E.

SOUTH EUNICE (SEVEN RIVERS, QUEEN) UNIT
OFFSET OPERATORS DISTRIBUTION

Atlantic Richfield Company
P. O. Box 1610
Midland, Texas 79701

Continental Oil Company
P. O. Box 460
Hobbs, New Mexico 88240

Wallen Production Company
308 N. Colorado
Midland, Texas 79701

Dalport Oil Company
3471 - 1st National Bank Bldg.
Dallas, Texas 75202

Skelly Oil Company
P. O. Box 1351
Midland, Texas 79701

Texas Pacific Oil Company, Inc.
P. O. Box 4067
Midland, Texas 79701

Wood, McShane & Thames, Inc.
P. O. Box 968
Monahans, Texas 79756



MARATHON OIL COMPANY

PRODUCTION - UNITED STATES AND CANADA

May 28, 1974

P. O. BOX 552
MIDLAND, TEXAS 79701

New Mexico Oil Conservation Commission
P. O. Box 2088
Santa Fe, New Mexico 87501

Attention: Mr. A. L. Porter, Jr.

Re: Supplement to Application
for Approval to Expand the
S. Eunice (Seven Rivers,
Queen) Unit Waterflood
Project, S. Eunice (Seven
Rivers, Queen) Pool,
Lea County, New Mexico

Gentlemen:

In regard to Marathon Oil Company's letter dated May 6, 1974, requesting administrative approval of the above described project, this letter is being submitted to provide additional information to our application.

Oil production from the South Eunice (Seven Rivers, Queen) Unit has been increasing steadily since January, 1974, due to the injection of water in the pilot area. Production for the month of March, 1974, was 5422 barrels of oil. More than ninety percent of this production is being obtained from eight wells in the pilot waterflood area. Therefore, it is felt that the water injection pattern being used is an efficient one. Due to the increasing production and the apparent efficiency of the injection pattern, Marathon Oil Company respectfully requests approval of the expansion of this waterflood project.

Shell Oil Company and Gulf Oil Company are working interest owners in this unit and have already approved this expansion. Therefore, neither company was notified as an offset operator.

Yours very truly,

MARATHON OIL COMPANY

D. E. Morris
District Operations Manager

RLM:bje

xc: NMOCC-Santa Fe 0/2 ✓
NMOCC-Hobbs
C. S. Hilton
File



MARATHON OIL COMPANY

PRODUCTION - UNITED STATES AND CANADA

June 11, 1974

P. O. BOX 552
MIDLAND, TEXAS 79701

New Mexico Oil Conservation Commission
P. O. Box 2088
Santa Fe, New Mexico 87501

Attention: Mr. A. L. Porter, Jr. Re: Revised Map of Marathon's
S. Eunice (Seven Rivers,
Queen) Unit, Lea County,
New Mexico

Gentlemen:

Attached is a revised map of Marathon's South Eunice (Seven Rivers, Queen) Unit, Lea County, New Mexico. The original map which was submitted with our Application for Approval to expand the South Eunice (Seven Rivers, Queen) Unit Waterflood Project did not show Marathon's Well No. 605 located in Section 25, T.22S, R.36E, as an injection well. This well was one of the original injectors in the pilot area and this correction has been made on the attached map.

Yours very truly,

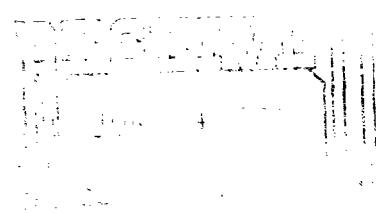
MARATHON OIL COMPANY

D. E. Morris
District Operations Manager

RLM:bje

Encl.

xc: NMOCC-Santa Fe 0/2 Maps
NMOCC-Hobbs 1 Map
C. S. Hilton
File



LARGE FORMAT
EXHIBIT HAS
BEEN REMOVED
AND IS LOCATED
IN THE NEXT FILE



MARATHON OIL COMPANY

PRODUCTION - UNITED STATES AND CANADA

RECEIVED

NOV 20 1971

PROD. DEPT.

P. O. BOX 552

MIDLAND, TEXAS 79701

November 19, 1971

TO: WORKING INTEREST OWNERS
Marathon South Eunice
(Seven Rivers, Queen) Unit
Lea County, New Mexico

JEP	WJN
WCP	HGV
TEL	NS
VIA	MP
MT	UT
GSO	
DB	
Circ	NR
F - #	145-14-1.5

Re: Minutes of the Working Interest
Owners Meeting
November 18, 1971

Working Interest Owners met on November 18, 1971 in Marathon's Conference Room, Midland National Bank Building, Midland, Texas, to dispose of matters relative to effecting the unit. Representatives of 95.5% (Final Participation) of the working interest owners were present. An attendance list is attached.

Execution of the Unit Agreement and Unit Operating Agreement, as applicable, have been obtained from 100% of both working interest owners and royalty interest owners. The hearing on the application for approval of the Unit Agreement and waterflood program was held before the New Mexico Oil Conservation Commission on October 27, 1971. That body approved the application on November 4, 1971. The approval included injection through eight wells and the expansion of the project by administrative procedure without showing response. The Commissioner of Public Lands approved the Unit Agreement on November 8, 1971 for an effective date of December 1, 1971. With all the required approvals in hand the unit will become effective December 1, 1971. A Certificate of Effectiveness will be filed in Lea County along with Unit Agreements and counterparts prior to the effective date of the unit.

The Initial Participation is to end when 91,004 barrels of oil have been produced from the unit area after October 1, 1969. The cumulative oil production from October 1, 1969 to September 1, 1971 is approximately 70,000 barrels. The Final Participation is expected to begin at approximately mid-year 1972.

AFE's have been prepared for the initial waterflood expenditure according to the plan submitted by the Engineering Subcommittee in its report of November 1969. Eight wells will be converted to injection in the initial phase and expansions will occur in the future as response and adjoining operations indicate. Continental Oil Company has developed a water supply well with capacity to supply water to their South Eunice Unit, Atlantic Richfield's South Eunice Unit and to the subject unit. Marathon is presently negotiating a water supply contract with Continental at a cost of 2½¢ per barrel, the same price offered by Skelly from their Jalmat supply system. Marathon is also negotiating with Atlantic Richfield toward a joint water supply line serving Atlantic Richfield's unit and the subject unit. A significant savings can be realized if this joint line can be developed.

AFE's, which will be submitted for construction of the water supply system, a water injection plant, injection well conversion and a certain amount of tank battery consolidation, will approximate \$150,000. About one-half of this money is expected to be spent during the current year. This total is less than originally estimated by the Engineering Subcommittee for the same facilities because of the shorter distance to the water supply and the availability of a used plant from another project. Further reduction will be realized if the joint water supply pipeline develops.

A letter ballot dated November 12, 1971, offering a Marathon-owned gas lift system to the unit on a rental basis was discussed. The compression equipment and distribution system offered by Marathon would serve eleven wells producing 33 BOPD. The economics of continued operation of wells producing at such a low rate was questioned. Marathon agreed to supply economics showing whether or not continued operation of the wells on gas lift would be justified.

A plan for allocating gas between the two purchasers presently contracted with owners in the unit was handed out. The method by which Marathon, as unit operator, expects to deliver and account to the gas purchasers, Phillips Petroleum and Warren Petroleum, is an attempt to honor the prior contractual obligations. A copy of the gas allocation plan is attached.

The inventory and pricing procedure attached to the November 18, 1971 letter scheduling the meeting was approved after addition of a rule to the effect that electrical distribution lines and transformers would be inventoried and priced. During the discussion of inventory and pricing procedure, it was explained that many of the tank batteries presently in the unit would not be needed and could be released very soon after the effective date. These tank batteries will be omitted from the inventory. The inventory schedule will be distributed by Mr. Bill Smith, Chairman of the Inventory Committee.

A joint gauging procedure, handed out during the meeting, was approved. A copy is attached. Owners were reminded of Marathon's need for records and reports and for instructions pertaining to distribution and correspondence. No other matters were offered for consideration and the meeting adjourned.

Yours very truly,

A handwritten signature in dark ink, appearing to read "D. E. Morris". The signature is fluid and cursive, with a large initial "D" and a stylized "E".

D. E. Morris

JWP/sg

MARATHON SOUTH EUNICE
(SEVEN RIVERS, QUEEN) UNIT
NOVEMBER 18, 1971

<u>Name</u>	<u>Company</u>	<u>Location</u>
V. T. Lyon	Conoco Oil Company	Hobbs
Bill Southerland	Getty Oil Company	Midland
R. R. Grant	Marathon Oil Company	Hobbs
C. S. Hilton, Jr.	Marathon Oil Company	Hobbs
Bill Smith	Marathon Oil Company	Houston
D. E. Morris	Marathon Oil Company	Midland
Jack Paxton	Marathon Oil Company	Midland
W. E. Buck	Shell Oil Company	Midland
H. L. Melton	Shell Oil Company	Houston
C. D. Pannell	Shell Oil Company	Midland

GAS ALLOCATION PLAN
MARATHON SOUTH EUNICE (SEVEN RIVERS, QUEEN) UNIT
LEA COUNTY, NEW MEXICO

GENERAL

The following procedure for allocating casinghead gas delivered from the Marathon South Eunice (Seven Rivers, Queen) Unit between the companies currently purchasing gas under contracts covering the tracts which are to be included in the Unit will be followed by Marathon Oil Company. Subsequent to the effective date of the Unit, Marathon, as Unit Operator, will contact the gas purchasers and will determine the procedures for administering this gas allocation plan.

The Unit Agreement provides that all unitized substances produced, except those used in Unit operations or unavoidably lost, shall be allocated to the tracts in accordance with the respective tract participations. The amount of unitized substances will be allocated to each tract in accordance with the Unit Agreement and applicable proration orders and will be deemed for all purposes to have been produced from such tract.

ALLOCATION OF CASINGHEAD GAS AND TEST GALLONS

When the Unit becomes effective, each purchaser of casinghead gas will be entitled to receive that portion of gas produced from the Unit which is equal to the sum of the volumes of gas allocated to each tract and attributable to the interest of the seller, or sellers, of gas to such gas purchaser in each tract. Marathon, as Unit Operator, will endeavor to deliver to each gas purchaser each month a quantity of casinghead gas produced from the Unit equal to the purchaser's allocated share. In addition, Marathon will attempt to deliver casinghead gas of comparable quality to each gas purchaser. To accomplish this result, gas quality will be determined on the basis of test gallons in accordance with the standard field tests provided for in the gas purchase contracts.

Marathon will maintain an over-and-short account on both casinghead gas volumes and test gallons. The records and computations necessary for maintaining the over-and-short account will be available for inspection by the gas purchasers at all reasonable hours. Marathon will endeavor to make deliveries of gas in such a manner as to minimize overages and shortages.

JOINT GAGE PROCEDURE
MARATHON SOUTH EUNICE (SEVEN RIVERS, QUEEN) UNIT
LEA COUNTY, NEW MEXICO

1. Representatives that are to participate in joint gaging are to meet at 7:00 A.M., MST, December 1, 1971, at Marathon's field compressor station near Marathon's McDonald State A/C 1-B Well No. 3 (J Unit of Section 26).
2. The correct gravity, tank temperature and BS&W content of tenderable stocks in lease tankage shall be considered to be that of the last run from each such lease prior to the effective date. Each representative that is to participate in the joint gage is requested to furnish a copy of the last run ticket from leases operated by his company. Tanks will be thieved to determine any water level that may exist above the pipe line connection.
3. Article 16 of the Unit Agreement will be observed regarding oil in storage on the effective date of the unit.