CASE 3076: Application of MARATHOP
OIL CO. for a non-standard oil
proration unit, Lea County.

ASE 300 APP/ication, Transcripts SMAII Exh. bits ETC.

BEFORE THE NEW MEXICO OIL CONSERVATION COMMISSION Santa Fe, New Mexico July 1, 1964

EXAMINER HEARING

IN THE MATTER OF:

Application of Marathon Oil Company for a non-standard oil proration unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of an 80-acre non-standard proration unit comprising the SE/4 NW/4 and NE/4 SW/4 of Section 31, Township 17 South, Range 35 East, Vacuum-Upper Pennsylvanian Pool, Lea County, New Mexico, said unit to be dedicated to its State Warn A/l Well No. 3, located in Unit F of said Section 31

Case No. 3076

BEFORE: ELVIS A. UTZ, Examiner

TRANSCRIPT OF HEARING



SANTA PE, M. M. PHONE 883-3971

DEARNLEY-MEIER REPORTING SERVICE,

MR. UTZ: We will proceed to Case 3076.

MR. DURRETT: Application of Marathon Oil Company for a non-standard oil proration unit, Lea County, New Mexico.

MR. LEACH: I am Warren B. Leach, Junior, representing Marathon Oil Company, a member of the Texas Bar. I believe that Mr. Richard Morris has made an appearance for me in this case.

MR. UTZ: Yes, I am sure he has.

MR. LEACH: I have one witness in this case.

MR. DURRETT: Let the record show that Mr. Scott has been sworn.

ROBERT P. SCOTT

called as a witness, having been first duly sworn on oath, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. LEACH:

- Your name is R. P. Scott? Q
- That's right.
- Are you the same R. P. Scott who testified in Case 3075 Q
- Α Yes, sir.
- Q Your qualifications as a petroleum engineer were there recited?
 - A Yes, sir.
 - Õ Or referred to?
 - Α Yes, sir.

You are a petroleum engineer employed by Marathon Oil Q Company?

That's right. A

Are you familiar with Marathon Oil Company's State Warn A/c Well No. 3 situated in Lea County, New Mexico?

Yes, State Warn A/c 1 Well No. 3.

I'm sorry.

(Whereupon, Applicant's Exhibit No 1 marked for identification.)

Have you prepared or had prepared under your supervision and direction, Mr. Scott, a map showing the location of this well, the leases in the area, and the structure?

Yes, sir, I have prepared such a map.

MR. LEACH: I believe that a copy of this has been marked Exhibit No. 1.

(By Mr. Leach) Referring to Exhibit No. 1, Mr. Scott, Q will you please locate the subject well on this plat?

The Marathon State Warn A/c 1 Well No. 3 is located in Section 31, Township 17 South, Range 35 East. The well location is 2,080 feet from the North line and 1908 feet from the West line. This well is located on Marathon's 80-acre State Warn A/c 1 lease.

Is that the 80 acres outlined in yellow in Section 31?

Yes, sir, it is. This 80-acre lease encompasses the Southeast Quarter of the Northwest Quarter, and the Northeast



Quarter of the Southwest Quarter of Section 31.

- Mr. Scott, has this well been the subject of another hearing before this Commission recently?
 - Yes, it has.
 - What was the nature of that hearing?
- At that hearing, Marathon asked for approval of the non-standard proration unit for the North Vacuum-Abo for this well and for the Vacuum-Wolfcamp Pool for this well; and for approval of a tubingless triple completion in three zones, the two just named, the North Vacuum-Abo, the Vacuum-Wolfcamp, and the Vacuum-Glorieta being the third zone.
 - Was Marathon's application granted by the Commission?
 - Yes, it was.
- Was the well in fact completed or triply completed in the Vacuum-Glorieta, the Vacuum-Wolfcamp, and the North Vacuum-Abo?
- No, sir, it was not. We drilled sufficient depth in the well to penetrate the Vacuum-Upper Penn interval, and logged it, evaluated the logs; and a completion has been made in the Upper Penn, the Vacuum-Wolfcamp, and the North Vacuum-Abo.
- At the previous hearing, we did call to the attention of the Commission that the well might be drilled to sufficient depth to test the Pennsylvanian?
 - Yes, we did. Α



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FE, N. M.

- And if it appeared to be productive, Marathon might then attempt to complete a completion in that horizon?
 - Yes, sir.
 - And this, in fact, has occurred? Q
 - Α This has occurred.
- I believe you testified that non-standard 80-acre pro-0 ration units then have been approved for the other two completions in this well?
 - Yes, sir. Α
- And this application is for approval of a non-standard 80-acre proration unit for the Vacuum-Upper Pennsylvanian completion?
 - That's right. Α
- Are their Pool rules for the Vacuum-Upper Pennsylvanian Q Pool, Mr. Scott?
 - Yes, they are. Α
- What do they provide with regard to well location and Q proration size?
- They provide for 80-acre proration units, being the North Half, South Half, East Half, or West Half of a governmental quarter section. They provided for standard well locations to be in the Northwest Quarter or Southeast Quarter of a governmenta quarter section.
 - This well then is at a regular location in this pool? Q



Going back to the manner in which the well is completed, Mr. Scott, what applications have been filed by Marathon to secure authorization to triply complete this well in the three zones in which it is now completed?

Marathon filed an application asking administrative approval of a tubingless triple completion between the three zones. The application was asked to be granted administratively, since there are already other tubingless triple completions of a like nature in this field area.

Marathon is the owner and operator of the entire 80 acres proposed for this non-standard 80-acre unit, is that correct?

Yes, it is. Ά

Will you state, please, why Marathon considers it desirable to create a non-standard 80-acre unit for this pool of this acreage?

The operation of a triple completion -- let's back up a minute. In order to secure an 80-acre allowable, we must have an 80-acre proration unit assigned to the well. If Marathon is not allowed to assign all of its State A/c l lease to this well, then Marathon could ask pooling with one of the other



SANTA PE, N. M. PHONE 983-3971

ILBUQUEROUE, N. M. PHONE 243-6691

operators in a quarter quarter section near there, which would give us a standard 80-acre proration unit. However, two of the three completions in this well would be 100 percent Marathon, and if there were another operator, the third completion would be partly owned by another operator. This would give us considerable difficulty in the operation of the well, in the accounting and allocation of costs of the well. Will you describe generally, Mr. Scott, the nature of

- the production in the Upper Pennsylvanian Pool? The Upper Penn as it's found in this area is productive
- from a limestone. There have been several wells, as is shown on the map, several wells completed and the well symbols as shown in the legend indicate different wells that have been completed.
 - Is it oil? Q
 - It is an oil zone. A
 - What gravity is the oil?
 - The gravity is approximately 42 degrees API. Q Α
 - Are there other completions in this well, also oil?
 - In this zone, yes, the other completions are all oil In this Well, the other completions in the Wolfcamp Q A
 - and in the North Vacuum-Abo are oil completions. Referring to Exhibit 1, Mr. Scott, Will you explain completions.
 - what your contour lines on there represent?



These contours represent the top of the Upper Penn There is a dashed line shown as an estimated oilwater contact at minus 6215. This is an estimate of the oilwater contact in this reservoir. This estimate of an oil-water structure. contact is gained through production information on other wells Do you know whether or not the trapping here is strucin this field.

No, sir, we are not certain what nature the trapping is Q tural or stratigraphic?

However, although there is structure indicated on the map, we know that the carbonate buildup, carbonate deposit here is, in many places, very shallow. For this reason I would anticipate that this might well be a stratigraphic trap.

Based upon the information available to you, Mr. Scott, is it your opinion that all of the proposed non-standard, 80-acre non-standard proration unit might be deemed to be productive?

yes. Α

In the Upper Pennsylvanian?

Yes, in the Upper Penn. Q

In your opinion, would the granting of this 80-acre non-standard proration unit in this pool cause waste?

In your opinion, would the granting of the proposed No, sir. A Q



non-standard 80-acre unit injure the correlative rights of any party?

A No.

Marathon is proposing, then, that the three completions in this well be developed on the same proration unit, is that correct?

Yes, the same acreage assigned to each of the three Α completions.

MR. LEACH: I believe that's all, Mr. Examiner. will offer Exhibit 1 in evidence.

MR. UTZ: Without objection- Exhibit 1 will be entered into the record of this case.

> (Whereupon, Applicant's Exhibit No. 1 received in evidence.)

MR. UTZ: Any questions of the witness? The witness may be excused.

(Witness excused.)

MR. UTZ: Any statements in this case? The case will be taken under advisement, and the hearing is adjourned.



DEARNLEY-MEIER REPORTING SERVICE, Inc.

STATE OF NEW MEXICO SS COUNTY OF BERNALILLO

I, ADA DEARNLEY, Notary Public in and for the County of Bernalillo, State of New Mexico, do hereby certify that the foregoing and attached Transcript of Hearing before the New Mexico Oil Conservation Commission was reported by me, and that the same is a true and correct record of the said proceedings to the best of my knowledge, skill and ability.

WITNESS my Hand and Seal this 17th day of July, 1964.

My Commission Expires: June 19, 1967.

> I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 3.07.6)06.4.1

Examiner New Mexico Oil Conservation mission

4000 to 1. Applicant further seeks the establishment of an administrative procedure whereby interference tests could be conducted and allowables transferred.

CASE 3074: Application of Continental Oil Company for an amendment of Order No. R-2385, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of Order No. R-2385 to substitute for water injection purposes a well located in Unit H of Section 9, Township 17 South, Range 29 East, Eddy County, New Mexico, for the presently authorized well in Unit I of said Section 9.

CASE 3075: Application of Marathon Oil Company for a special gas well test, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to produce and flare approximately 1000 MCF per day for a period of not less than three nor more than 30 days from Tom Brown Drilling Company's Antelope Sink Unit Well No. 1, located in Unit G of Section 18, Township 19 South, Range 24 East, Eddy County, New Mexico, in an effort to evaluate the reservoir.

CASE 3076:

Application of Marathon Oil Company for a non-standard oil proration unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of an 80-acre mon-standard proration unit comprising the SE/4 NW/4 and NE/4 SW/4 of Section 31, Township 17 South, Range 35 East, Vacuum-Upper Pennsylvanian Pool, Lea County, New Mexico, said unit to be dedicated to its State Warn A/1 Well No. 3, located in Unit F of said Section 31.

(Reopened)
Application of Kennedy Oil Company for a waterflood project and for designation of a waterflood buffer zone, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project in the Square Lake Pool by the injection of water into the Grayburg-San Andres formation through one well located in Unit 1 L of Section 20, Township 16 South, Range 31 East, Eddy County, New Mexico. Applicant further seeks the designation of the N/2 SW/4 of said Section 20 as a buffer zone offsetting Newmont Oil Company's Waterflood Project immediately south.

DOCKET: EXAMINER HEARING - WEDNESDAY - JULY 1, 1964

9 A.M. - OIL CONSERVATION COMMISSION CONFERENCE ROOM, STATE LAND OFFICE BUILDING, SANTA FE, NEW MEXICO

The following cases will be heard before Elvis A. Utz, Examiner, or Daniel S. Nutter, alternate examiner:

- CASE 3063: (Continued from June 10th Examiner Hearing)

 Application of R. C. Davoust Company for a unit agreement, Eddy County,

 New Mexico. Applicant, in the above-styled cause, seeks approval of
 the Turkey Track Section 3 Unit Area comprising 480 acres of State land
 in Section 3, Township 19 South, Range 29 East, Eddy County, New Mexico.
- CASE 3064: (Continued from June 10th Examiner Hearing)
 Application of R. C. Davoust Company for a waterflood expansion, Eddy
 County, New Mexico. Applicant, in the above-styled cause, seeks the
 expansion of the Turkey Track Queen Waterflood Project in Section 34,
 Township 18 South, Range 29 East and Section 3, Township 19 South,
 Range 29 East, Turkey Track Field, Eddy County, New Mexico, to include
 the Grayburg formation.
- CASE 3070: Application of Nearburg & Ingram and Kincaid & Watson Drilling Company for a waterflood project, Eddy County, New Mexico. Applicants, in the above-styled cause, seek authority to institute a waterflood project in the Square Lake Pool by the injection of water into the Grayburg formation through three wells located in Section 6, Township 17 South, Range 30 East, Eddy County, New Mexico.
- CASE 3071: Application of Texas Pacific Oil Company for a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the dual completion (conventional) of its J. P. Collier Well No. 1 located in Unit F of Section 10, Township 11 South, Range 33 East, Lea County, New Mexico, to produce oil from the North Bagley-Upper Pennsylvanian Pool and an undesignated Middle Pennsylvanian Pool through 2 1/16 inch tubing.
- CASE 3060: (Reopened)
 Application of Frank Darden for a waterflood project, Eddy County,
 New Mexico. Applicant, in the above-styled cause, seeks authority to
 institute a waterflood project in the Artesia Pool in his Cowtown Unit
 Area by the injection of water into the Grayburg and San Andres formations through two injection wells in Sections 13 and 24, Township 18
 South, Range 28 East, Eddy County, New Mexico.
- CASE 3072: Application of Coastal States Gas Producing Company for the extension of a pool and for special temporary pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the extension of the Flying "M" San Andres Pool in Township 9 South, Range 33 East, Lea County, New Mexico, and temporary special rules therefor, including a provision for 80-acre well spacing and proration units.
- CASE 3073: Application of Texaco Inc., for the creation of a new oil pool and for special temporary pool rules, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new oil pool for Pennsylvanian production for its Navajo Tribal AL Well No. I located in Unit H of Section 28, Township 26 North, Range 18 West, San Juan County, New Mexico, and for the establishment of temporary pool rules including a provision for 160-acre spacing and a GOR limitation of



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HOUSTON 1, TEXAS

June 11, 1964

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MARATHON OIL COMPANY 1954 UN 12 M 11: 28

LEGAL DEPARTMENT

J. O. TERRELL COUCH DIVISION ATTORNEY

JOHN H. BEVAN, JR.

WARREN B. LEACH, JR

JACK FARISS

RICHARD G. RORSCHACH

ATTORNEYS

New Mexico Oil Conservation Commission P. O. Box 2088

Santa Fe, New Mexico

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

Secretary-Director

Application for approval of a non-standard 80-acre oil proration unit in the Vacuum-Upper Pennsylvanian Pool, consisting of the SE/4 of the NW/4 and the NE/4 of the SW/4 of Section 31, Township 17 South, Range 35 East,

Lea County, New Mexico

Gentlemen:

Marathon Oil Company respectfully requests that the Conservation Commission approve the designation of an 80-acre non-standard oil proration unit for Marathon Oil Company's State Warn A/1 Well No. 3 in the Vacuum-Upper Pennsylvanian Pool, Lea County, New Mexico, such 80-acre non-standard proration unit to consist of the SE/4 of the NW/4 and the NE/4 of the SW/4 of Section 31, Township 17 South, Range 35 East, Lea County, New Mexico. The plat attached hereto shows the location of the proposed unit and the surrounding tracts. Marathon Oil Company owns the oil and gas leasehold estate on the entire 80 acres within the proposed non-standard proration unit. According to Marathon's records, Mobil Oil Company, Phillips Petroleum Company, Shell Oil Company, and Skelly Oil Company are the owners of oil and gas leases covering offset acreage.

The approval of the 80-acre non-standard proration unit herein proposed will not cause waste and will not infringe upon the correlative rights of any other operator in this pool.

Marathon Oil Company requests that this application be included on the Docket of the Examiner's hearing scheduled for July 1, 1964, or on the Docket of the next Examiner's hearing thereafter. Marathon requests that due notice of this application and hearing thereon be issued and published as required by law and that following hearing on this application the Commission enter its order approving the 80-acre non-standard oil proration unit herein requested.

The names and addresses of all interested parties known to Marathon are attached hereto.

Respectfully submitted,

DOCKET MAILED

MARATHON OIL COMPANY

WBL: MK

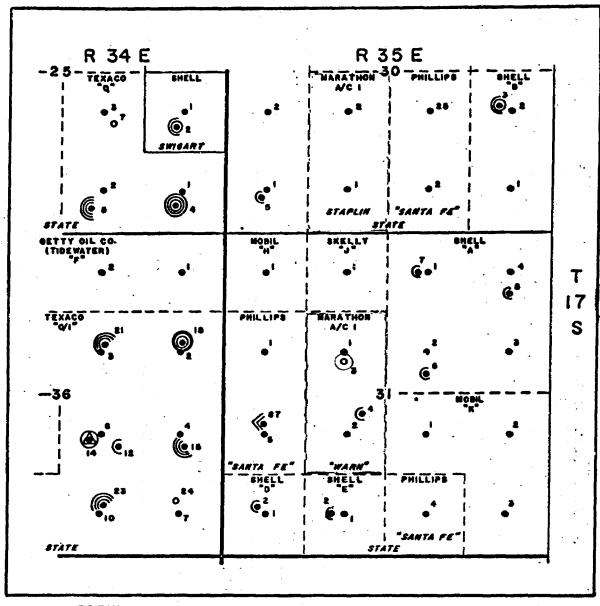
NAMES AND ADDRESSES OF ALL INTERESTED PARTIES KNOWN TO MARATHON IN CONNECTION WITH MARATHON'S APPLICATION DATED JUNE 11, 1964, FOR APPROVAL OF AN 80-ACRE NON-STANDARD OIL PRORATION UNIT IN THE VACUUM-UPPER PENNSYLVANIAN POOL:

Mobil Oil Company P. O. Box 2406 Hobbs, New Mexico 88240

Phillips Petroleum Company P. O. Box 2130 Hobbs, New Mexico 88240

Shell Oil Company P. O. Box 1858 Roswell, New Mexico 88240

Skelly Oil Company P. O. Box 730 Hobbs, New Mexico 88240



LEGEND

- . VACUUM GRAYBURG-SAN ANDRES
- WACUUM BLINEBRY
- WACUUM GLORIETA
 - DUAL VACUUM (GLORIETA & BLINEBRY)
 - DUAL VACUUN (WOLFCAMP) & N. VACUUM (ABO)
 - TRIPLE VACUUM (WOLFCAMP, PENN) & N. VACUUM (ABO)
 - TRIPLE- VACUUM (WOLFCAMP, BLORIETA) & M. VACUUM (ABO)
 - PROPOSED TRIPLE-YAC. (WOLFCAMP, UPPER PENN) & N. VACUUM (ABO)
- O DRILLING

MARATHON OIL COMPANY
"Plat of St. Warn A/c i Lease"

Lea County, New Mexico

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Case 3076
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BEFORE THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION COMMISSION OF NEW MEXICO FOR THE PURPOSE OF CONSIDERING:

> CASE No. 3076 Order No. R-2740

APPLICATION OF MARATHON OIL COMPANY FOR A NON-STANDARD OIL PRORATION UNIT, LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on July 1, 1964, at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this 8th day of July, 1964, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

- (1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.
- (2) That the applicant, Marathon Gil Company, seeks approval of an 80-acre non-standard oil proration unit in the Vacuum-Upper Pennsylvanian Pool comprising the SE/4 NW/4 and NE/4 SW/4 of Section 31, Township 17 South, Range 35 East, NMPM, Lea County, New Mexico, to be dedicated to the State Warn A/c 1 Well No. 3, located in Unit F of said Section 31.
- (3) That approval of the subject application will prevent the economic loss caused by the drilling of unnecessary wells, avoid the augmentation of risk arising from the drilling of an excessive number of wells, and otherwise prevent waste and protect correlative rights.

-2-CASE No. 3076 Order No. R-2740

IT IS THEREFORE ORDERED:

- (1) That an 80-acre non-standard oil proration unit in the Vacuum-Upper Pennsylvanian Pool comprising the SE/4 NW/4 and NE/4 SW/4 of Section 31, Township 17 South, Range 35 East, NMPM, Lea County, New Mexico, is hereby established and dedicated to the Marathon Oil Company State Warn A/c 1 Well No. 3, located in Unit F of said Section 31.
- (2) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

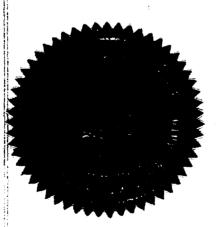
DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

JACK M. CAMPBELL, Chairman

E. S. WALKER, Member

A. L. PORTER, Jr., Member & Secretary



BOVERNOR JACK M. CAMPBELL CHAIRMAN

State of New Mexico Bil Conserbation Commission

LAND COMMISSIONER E. S. JOHNNY WALKER MEMBER



BANTA FE

July 8, 1964

STATE SECLOSIST A L PORTER JR. SECRETARY - DIRECTOR

Mr. Richard S. Morris Seth, Montgomery, Federici & Andrews Attorneys at Law Post Office Box 2307 Santa Fe, New Mexico

3076 Case No._ Order Ho. R-2740 Applicants

Marathon Oil Company

Dear Sire

Enclosed herewith are two copies of the above-referenced Commission order recently entered in the subject case.

Very truly yours,

A. L. PORTER, Jr. Secretary-Director

ir/ Carbon copy of order also sent to: Bobbs OCC ____X Artesia OCC_ Astec OCC _ Mr. Warren B. Leach, Jr. OTHER

JMD/esr July 6, 1964

BEFORE THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION COMMISSION OF NEW MEXICO FOR THE PURPOSE OF CONSIDERING:

CF Subj. Non-Standard

Oil Provestion

Unit-Warn No. 3

CASE No. 3076

Order No. R-3740

APPLICATION OF MARATHON OIL COMPANY FOR A NON-STANDARD OIL PRORATION UNIT, LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

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NOW, on this ____day of __July __, 1964 , the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

- (1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.
- (2) That the applicant, Marathon Oil Company, seeks approval of an 80-acre non-standard oil proration unit in the Vacuum-Upper Pennsylvanian Pool comprising the SE/4 NW/4 and NE/4 SW/4 of Section 31, Township 17 South, Range 35 East, NMPM, Lea County, New Mexico, to be dedicated to the State Warn A/c 1 Well No. 3, located in Unit F of said Section 31.
- (3) That approval of the subject application will prevent the economic loss caused by the drilling of unnecessary wells, avoid the augmentation of risk arising from the drilling of an

-2-CASE No. 3076

excessive number of wells, and otherwise prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

- (1) That an 80-acre non-standard oil proration unit in the Vacuum-Upper Pennsylvanian Pool comprising the SE/4 NW/4 and NE/4 SW/4 of Section 31, Township 17 South, Range 35 East, NMPM, Lea County, New Mexico, is hereby established and dedicated to the Marathon Oil Company State Warn A/c 1 Well No. 3, located in Unit F of said Section 31.
- (2) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.