

CASE No.  
2795

Application,  
TRANSCRIPTS,  
SMALL Exhibits  
ETC.



**MARATHON OIL COMPANY**  
FORMERLY THE OHIO OIL COMPANY

P. O. Box 2107  
Bobbs, New Mexico

New Mexico Oil Conservation Commission  
P. O. Box 871  
Santa Fe, New Mexico

Attention: Mr. A. L. Porter, Jr.  
Secretary-Director

April 1, 1963

7:10 AM '63 32

Re: Application for multiple completion of Marathon Oil Company's State McCallister, Well No. 5, located S $\frac{1}{4}$  of S $\frac{1}{4}$  of Section 25-T.17S-R.34E, Lea County, New Mexico for production of oil from the North Vacuum Abo oil pool, the Vacuum-Wolfcamp oil pool and the Vacuum-Devonian oil pool.

Gentlemen:

Marathon Oil Company respectfully requests that the Commission grant this application for multiple completion of Marathon Oil Company's State McCallister, Well No. 5 for production of oil from the North Vacuum Abo oil pool, the Vacuum-Wolfcamp oil pool and the Vacuum-Devonian oil pool. Attached hereto is New Mexico Oil Conservation Commission form, Application for Multiple Completion properly executed, together with diagrammatic sketch reflecting the proposed method of multiple completion of the well, a copy of the electric log of such well and a plat indicating the location of all wells on Marathon Oil Company's lease and, to the best of our knowledge, all offset wells on offset leases.

Marathon Oil Company's Form C-101, Notice of Intention to Drill, covering Marathon's State McCallister, Well No. 5 was filed on or about December 14, 1962. The Commission, by order dated February 13, 1963, in Cases Number 2739, 2740 and 2741 (Commission Orders Number 2421, 2422 and 2423) established field rules for each of the pools mentioned above. Marathon Oil Company has been engaged in the drilling of its Well No. 5 since December 20, 1962 and as reflected by the Form C-101, such well was projected at all times to a depth sufficient to encounter each of the three formations covered by such orders. In each of the orders mentioned above, the Commission provided that any well then drilling to or completed in the formation covered by the rules that will not comply with the well location requirements of Rule 4 is hereby granted an exception to the requirements of Rule 4. Marathon Oil Company's State McCallister, Well No. 5 is entitled to the benefit of this exception to Rule 4 in the field rules for each of the three pools.

**DOCKET MAILED**

Date 4-11-63

WMSO - Application for Multiple Completion  
State McCallister, Well No. 1  
Page 2


The approval of the multiple completion of Marathon Oil Company's State McCallister, Well No. 5 in the manner proposed and outlined in the attached application for multiple completion will not cause waste but will prevent waste and will protect the correlative rights of Marathon Oil Company without infringing on the correlative rights of other operators in any of the pools affected by such application.

Marathon Oil Company requests that the above application for multiple completion be set for hearing at the earliest convenient date; that due notice of this application and hearing thereon be issued and published as required by law and that the hearing be held before an Examiner. Marathon Oil Company further requests that this application be granted and that the Commission enter its order authorizing the multiple completion requested herein.

The names and addresses of all interested parties known to Marathon Oil Company are listed in Section 5 on the attached form entitled Application for Multiple Completion.

Respectfully submitted,

MARATHON OIL COMPANY

By:   
John R. Barber  
Area Petroleum Engineer

WBL:bje

cc: Richard S. Morris  
Seth, Montgomery, Federici  
and Andrews  
301 Don Gasper Avenue  
Santa Fe, New Mexico

# NEW MEXICO OIL CONSERVATION COMMISSION

SANTA FE, NEW MEXICO

5-1-61

## APPLICATION FOR MULTIPLE COMPLETION

FORM 11-1-60 000

Operator Marathon Oil Company		County 1000 APR 3 AM	Date 33 3-22-63
Address P.O. Box 2107, Hobbs, New Mexico		Lease St. McCallister	Well No. 5
Location or Well	Unit M	Section 25	Township 17S
		Range 34E	

1. Has the New Mexico Oil Conservation Commission heretofore authorized the multiple completion of a well in these same pools or in the same zones within one mile of the subject well? YES ☒ NO ☐

2. If answer is yes, identify one such instance: Order No. 8-2372; Operator, Lease, and Well No.:  
Socony Mobile Oil Co., State Bridges, Well No. 95

3. The following facts are submitted:	Upper Zone	Intermediate Zone	Lower Zone
a. Name of Pool and Formation	North Vacuum Abo	Vacuum-Jolcamp	Vacuum-Devonian
b. Top and Bottom of Pay Section (Perforations)	Propose to perf. within correlative interval 9070-9199 encountered in Mobill's St. Bridges #95	Propose to perf. within correlative interval 9513-9586 encountered in	12,004-12,034
c. Type of production (Oil or Gas)	Oil	Oil	Oil
d. Method of Production (Flowing or Artificial Lift)	Anticipate flwg. compl.	Anticipate flwg. compl.	Anticipate flwg. compl.

4. The following are attached. (Please mark YES or NO)

- Yes a. Diagrammatic Sketch of the Multiple Completion, showing all casing strings, including diameters and setting depths, centralizers and /or turbolizers and location thereof, quantities used and top of cement, perforated intervals, tubing strings, including diameters and setting depth, location and type of packers and side door chokes, and such other information as may be pertinent.
- Yes b. Plat showing the location of all wells on applicant's lease, all offset wells on offset leases, and the names and addresses of operators of all leases offsetting applicant's lease.
- No c. Waivers consenting to such multiple completion from each offset operator, or in lieu thereof, evidence that said offset operators have been furnished copies of the application.\*
- Yes d. Electrical log of the well or other acceptable log with tops and bottoms of producing zones and intervals of perforation indicated thereon. (If such log is not available at the time application is filed, it shall be submitted as provided by Rule 112-A.)

5. List all offset operators to the lease on which this well is located together with their correct mailing address.

Continental Oil Co., P. O. Box 427, Hobbs, New Mexico

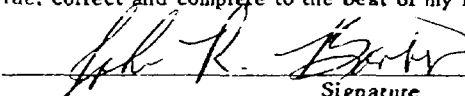
Mobill Oil Co., P. O. Box 2406, Hobbs, New Mexico

Getty Oil Company (Tidewater), P. O. Box 547, Hobbs, New Mexico

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

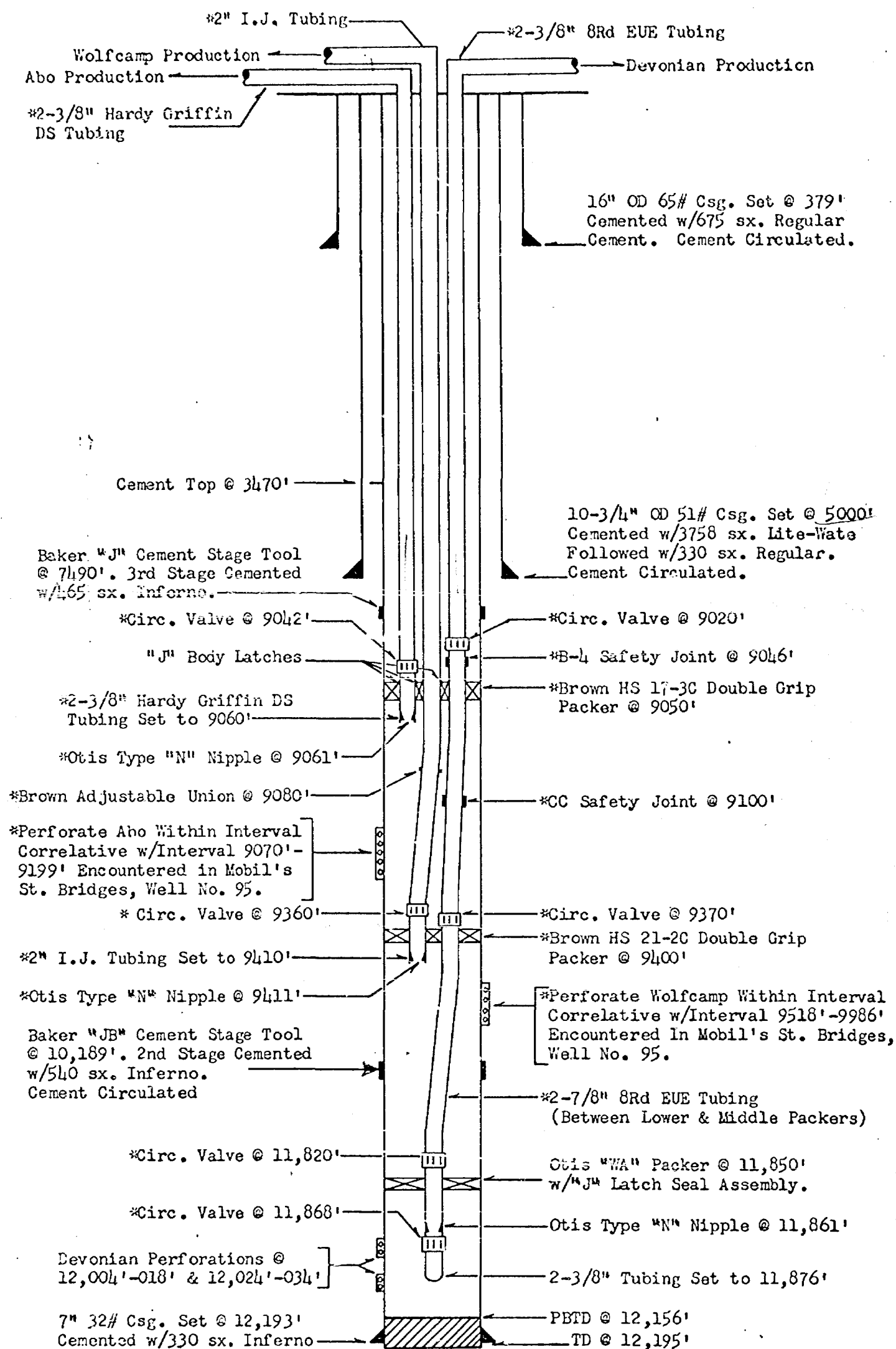
6. Were all operators listed in Item 5 above notified and furnished a copy of this application? YES ☒ NO ☐ . If answer is yes, give date of such notification 4-2-63

CERTIFICATE: I, the undersigned, state that I am the Area Petroleum Engineer of the Marathon Oil Company (company), and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.

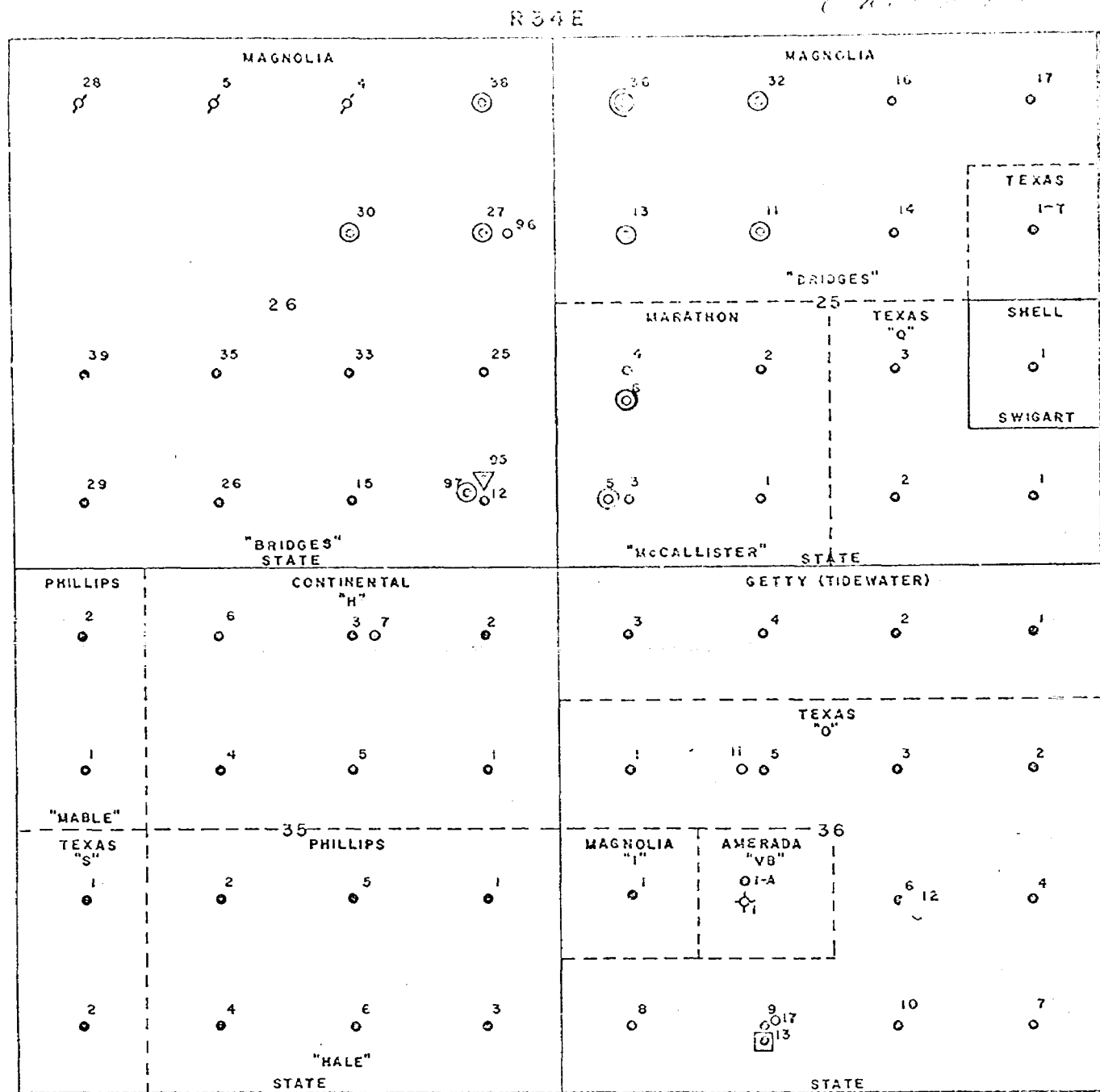
  
Signature

- \* Should waivers from all offset operators not accompany an application for administrative approval, the New Mexico Oil Conservation Commission will hold the application for a period of twenty (20) days from date of receipt by the Commission's Santa Fe office. If, after said twenty-day period, no protest nor request for hearing is received by the Santa Fe office, the application will then be processed.
- NOTE: If the proposed multiple completion will result in an unorthodox well location and/or a non-standard proration unit in either or both of the producing zones, then separate application for approval of the same should be filed simultaneously with this application.

MARATHON OIL COMPANY  
 "Diagrammatic Sketch of Proposed Triple Completion"  
 State McCallister, Well No. 5  
 Unit M, Sec. 25, T-17-S, R-34-E  
 Lea County, New Mexico



\* PROPOSED EQUIPMENT AND DEPTHS



# MARATHON OIL COMPANY

"Plat of St. McCallister Lease"

Lea County, New Mexico

SCALE: 1" = 1500'

4-1-63

## LEGEND

- VACUUM (GRAYBURG-SAN ANDRES)
- ⊙ VACUUM BLINEBRY
- ⊙ VACUUM & VACUUM BLINEBRY
- △ VACUUM DEV. & VACUUM WLFCHP & N. VAC. ABO
- ⊙ VACUUM GLORIETTA
- ⊙ PROPOSED VAC. DEV. & VAC. WLFCHP & N. VAC. ABO
- ⊙ PROPOSED VACUUM GLORIETTA & VAC. BLINEBRY
- DRILLING
- ⊙ PBA
- ⊙ TEMPORARILY ABANDONED

DOCKET: EXAMINER HEARING - WEDNESDAY - APRIL 24, 1963

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, as alternate examiners:

- CASE 2792: In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit Everett D. Burgett and all other interested parties to appear and show cause why the Meyers Union Well No. 1, located in Unit I of Section 11, Township 23 South, Range 27 East, and the Richardson-Bass State Well No. 1, located in Unit B of Section 5, Township 25 South, Range 28 East, both in Eddy County, New Mexico, should not be plugged in accordance with a Commission-approved plugging program.
- CASE 2793: In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit Everett D. Burgett and all other interested parties to appear and show cause why the Pure State Wells Nos. 1, 2, 3, and 7, located in Units E and O of Section 16, and the Magnolia State Well No. 1, located in Unit E of Section 14, all in Township 21 South, Range 27 East, Eddy County, New Mexico, should not be plugged in accordance with a Commission-approved plugging program.
- CASE 2794: Application of Ambassador Oil Corporation for a unit agreement, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval of the Grayburg-Jackson Unit Area comprising 1600 acres of Federal and State lands in Township 17 South, Range 30 East, Eddy County, New Mexico.
- CASE 2795: Application of Marathon Oil Company for a multiple completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order authorizing the triple completion (conventional) of its State McCallister Well No. 5, located in Unit M of Section 25, Township 17 South, Range 34 East, Lea County, New Mexico, to produce oil from the North Vacuum Abo, the Vacuum-Wolfcamp, and the Vacuum-Devonian Pools through parallel strings of tubing.
- CASE 2796: Application of Texaco Inc. for an unorthodox well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to drill its L. R. Manning Federal "3" Well No. 4 at an unorthodox location 330 feet from the South line and 1491 feet from the East line of Section 28, Township 18 South, Range 30 East, North Benson Queen-Grayburg Pool, Eddy County, New Mexico.

- CASE 2797: Application of Texaco Inc. for a non-standard gas proration unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of a 360-acre non-standard gas proration unit comprising the SW/4, N/2 SE/4, and SE/4 SE/4 of Section 31, and the S/2 SW/4 of Section 32, Township 23 South, Range 37 East, Jalmat Gas Pool, Lea County, New Mexico, to be dedicated to its E. E. Blinebry "A" Well No. 2, located in Unit I of said Section 31.
- CASE 2798: Application of Pan American Petroleum Corporation for a salt water disposal dual completion, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks authority to dually complete its Navajo "C" Well No. 1, located in Unit D of Section 1, Township 29 North, Range 17 West, San Juan County, New Mexico, to produce hydrocarbons from the Pennsylvanian-Paradox formation and to dispose of produced salt water through the intermediate casing annulus into the open hole interval from 2300 feet to approximately 500 feet.
- CASE 2784: (Continued from April 10, 1963 Examiner Hearing)  
Application of Continental Oil Company for authority to conduct interference tests, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to shut-in all wells in the Oil Center-Blinebry Pool, Lea County, New Mexico, for approximately 7 days to achieve stabilization, to leave one well shut-in for a period not to exceed 90 days to observe pressure behavior, and to transfer the allowables and make-up underproduction from the shut-in wells.
- CASE 2799: Application of Phillips Petroleum Company for a waterflood project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project by the injection of water into the Grayburg-San Andres formations, Maljamar Pool, Lea County, New Mexico, through one well in Unit J, Section 2, Township 17 South, Range 32 East.
- CASE 2800: Application of Olen F. Featherstone for a special allowable, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order authorizing the assignment of a special allowable to his Valentine Well No. 1, located in Unit M of Section 27, Township 16 South, Range 31 East, Eddy County, New Mexico. Said well offsets and has received a response from Newmont's East Square Lake Waterflood Project.



-3-

Docket No. 13-63

CASE 2801: Application of Socony Mobil Oil Company, Inc. for a multiple completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the triple completion (conventional) of its State Bridges Well No. 96, located in Unit H of Section 26, Township 17 South, Range 34 East, Lea County, New Mexico, to produce oil from the Vacuum-Pennsylvanian, Vacuum-Wolfcamp, and North Vacuum-Abo Pools through parallel strings of tubing.

iqg/

Case 2795

Heard 4-24-63

Rec. 4-25-63

1. Grant Marathons request for a triple completions (conventional) for their St. McCallister #5, 660/S, 560/W  
lines ser. 25-125-34E.

2. The Producing zones will be:

A. Vacuum - Abo - Upper,

Vacuum - Wolfcamp, middle

Vacuum - Shinarump - Lower

3. A slurry of tubing shall be run to each zone.

Thick D.H.

DRAFT

JMD/esr  
April 25, 1963

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. 2795

Order No. R-2479

APPLICATION OF MARATHON OIL  
COMPANY FOR A TRIPLE COMPLE-  
TION, LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on April 24, 1963, at Santa Fe, New Mexico, before Elvis A. Utz, Examiner duly appointed by the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission," in accordance with Rule 1214 of the Commission Rules and Regulations.

NOW, on this May day of April, 1963, the Commission, a quorum being present, having considered the application, the evidence adduced, and the recommendations of the Examiner, Elvis A. Utz, 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 authority to complete its State McCallister Well No. 5, located in Unit M of Section 25, Township 17 South, Range 34 East, NMPM, Lea County, New Mexico, as a triple completion (conventional) to produce oil from the North Vacuum-Abo, <sup>Pool through 2 3/8 inch tubing</sup> the Vacuum-Wolfcamp, <sup>Pool through a parallel</sup> and the Vacuum-  
<sup>string of 2 inch tubing, and the Vacuum-Levonian Pool</sup> ~~Devonian Pools~~ through parallel strings of 2 3/8-inch tubing, with separation of zones by packers set at approximately 8912 ~~9672~~ feet, and 9672 feet, and 11,850 feet.

(3) That the mechanics of the proposed triple completion are feasible and in accord with good conservation practices.

(4) That approval of the subject application will neither cause waste nor impair correlative rights.

IT IS THEREFORE ORDERED:

(1) That the applicant, Marathon Oil Company, is hereby authorized to complete its State McCallister Well No. 5, located in Unit M of Section 25, Township 17 South, Range 34 East, NMPM, as a triple completion (conventional) Lea County, New Mexico, to produce oil from the North Vacuum-Abo, the Vacuum-Wolfcamp, <sup>Pool through a parallel string of 2 inch tubing</sup> and the Vacuum-Devonian Pools ~~through parallel~~ <sup>through a parallel</sup> strings of 2 3/8 -inch tubing, with separation of zones by packers set at approximately 8917 feet, ~~and 9672 feet,~~ and 11,850 feet.

PROVIDED HOWEVER, That the applicant shall complete, operate, and produce said well in accordance with the provisions of Rule 112-A of the Commission Rules and Regulations insofar as said rule is not inconsistent with this order.

PROVIDED FURTHER, That the applicant shall take packer-leakage tests upon completion and annually thereafter during the Gas-Oil Ratio Test Period for the Vacuum-Devonian Pool.

(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

*Pool through 2 3/8 inch tubing*

State of New Mexico  
Oil Conservation Commission



STATE GEOLOGIST  
A. L. PORTER, JR.  
SECRETARY • DIRECTOR

Re: Case No. 2795  
 rews Order No. R-2479  
 Applicant:  
Marathon Oil Company

**OTHER** \_\_\_\_\_

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. 2795  
Order No. R-2479

APPLICATION OF MARATHON OIL  
COMPANY FOR A TRIPLE COMPLE-  
TION, LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on April 24, 1963, at Santa Fe, New Mexico, before Elvis A. Utz, Examiner duly appointed by the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission," in accordance with Rule 1214 of the Commission Rules and Regulations.

NOW, on this 8th day of May, 1963, the Commission, a quorum being present, having considered the application, the evidence adduced, and the recommendations of the Examiner, Elvis A. Utz, 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 authority to complete its State McCallister Well No. 5, located in Unit M of Section 25, Township 17 South, Range 34 East, NMPM, Lea County, New Mexico, as a triple completion (conventional) to produce oil from the North Vacuum-Abo Pool through 2 3/8-inch tubing, the Vacuum-Wolfcamp Pool through a parallel string of 2-inch tubing, and the Vacuum-Devonian Pool through a parallel string of 2 3/8-inch tubing, with separation of zones by packers set at approximately 8917 feet, 9672 feet, and 11,850 feet.

(3) That the mechanics of the proposed triple completion are feasible and in accord with good conservation practices.

(4) That approval of the subject application will neither cause waste nor impair correlative rights.

-2-

CASE No. 2795  
Order No. R-2479

IT IS THEREFORE ORDERED:

(1) That the applicant, Marathon Oil Company, is hereby authorized to complete its State McCallister Well No. 5, located in Unit M of Section 25, Township 17 South, Range 34 East, NMPM, Lea County, New Mexico, as a triple completion (conventional) to produce oil from the North Vacuum-Abo Pool through 2 3/8-inch tubing, the Vacuum-Wolfcamp Pool through a parallel string of 2-inch tubing, and the Vacuum-Devonian Pool through a parallel string of 2 3/8-inch tubing, with separation of zones by packers set at approximately 8917 feet, 9672 feet, and 11,850 feet.

PROVIDED HOWEVER, That the applicant shall complete, operate, and produce said well in accordance with the provisions of Rule 112-A of the Commission Rules and Regulations insofar as said rule is not inconsistent with this order.

PROVIDED FURTHER, That the applicant shall take packer-leakage tests upon completion and annually thereafter during the Gas-Oil Ratio Test Period for the Vacuum-Devonian Pool.

(2) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

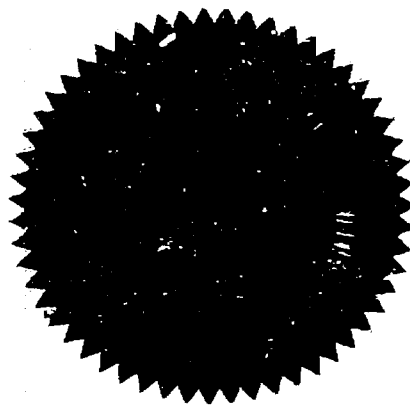
DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION

*Jack M. Campbell*  
JACK M. CAMPBELL, Chairman

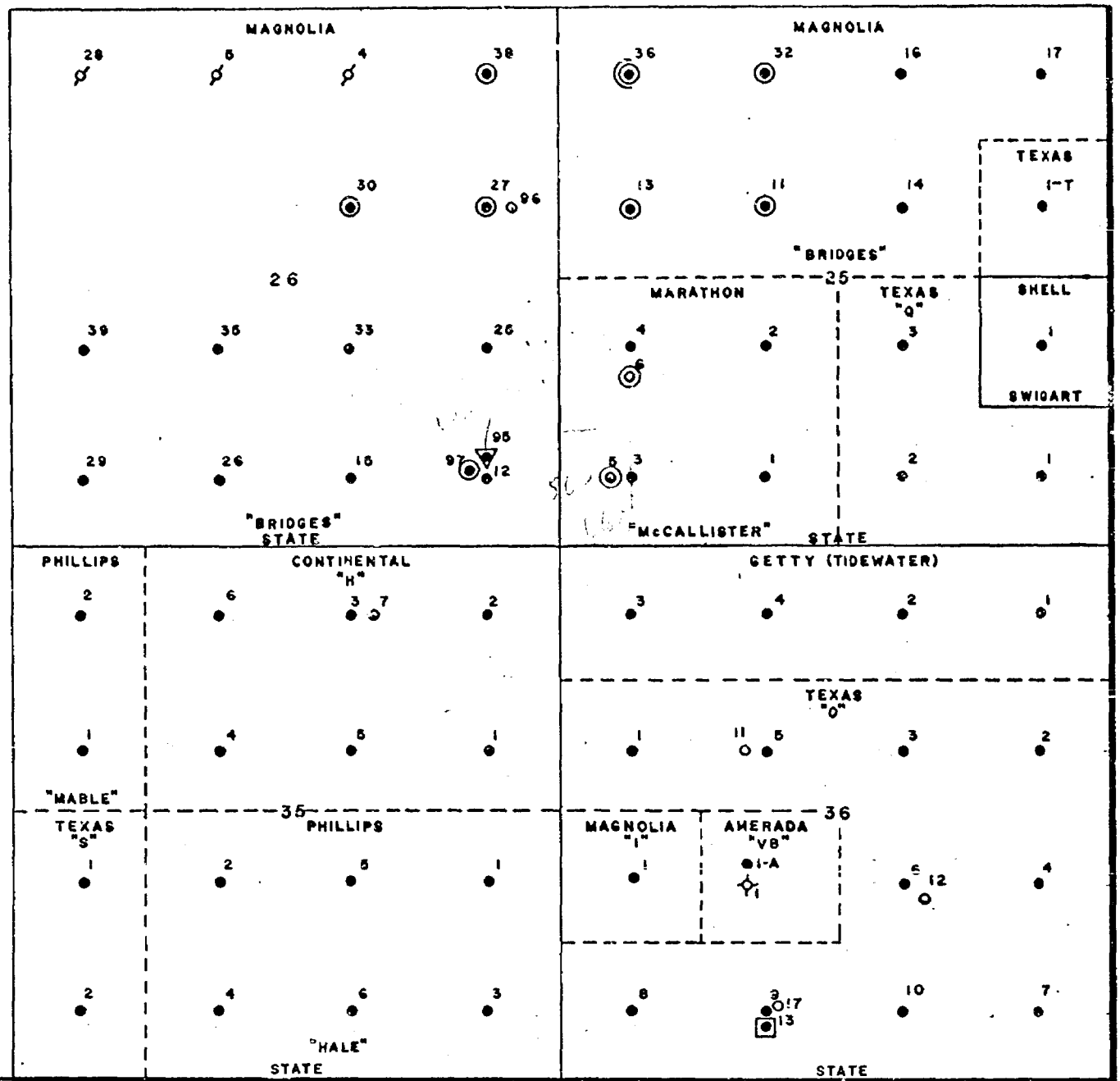
*E. S. Walker*  
E. S. WALKER, Member

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



esr/

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S

BEFORE EXAMINER UTZ

OIL CONSERVATION COMMISSION

EXHIBIT NO. 1

CASE NO. 2795

MARATHON OIL COMPANY

"Plat of St. McCallister Lease"

Lea County, New Mexico

SCALE: 1" = 1600'

4-1-63

CASE NO. 2795

EXHIBIT NO. 1

LEGEND

- VACUUM (GRAYBURG-SAN ANDRES)
- ⊙ VACUUM BLINEBRY
- ⊕ VACUUM & VACUUM BLINEBRY
- △ VACUUM DEV. & VACUUM WLFCHR & N. VAC. ASO
- ⊞ VACUUM GLORIETTA
- ⊙ PROPOSED VAC. DEV. & VAC. WLFCHR & N. VAC. ASO
- ⊙ PROPOSED VACUUM GLORIETTA & VAC. BLINEBRY
- DRILLING
- ◇ P & A
- ⊘ TEMPORARILY ABANDONED



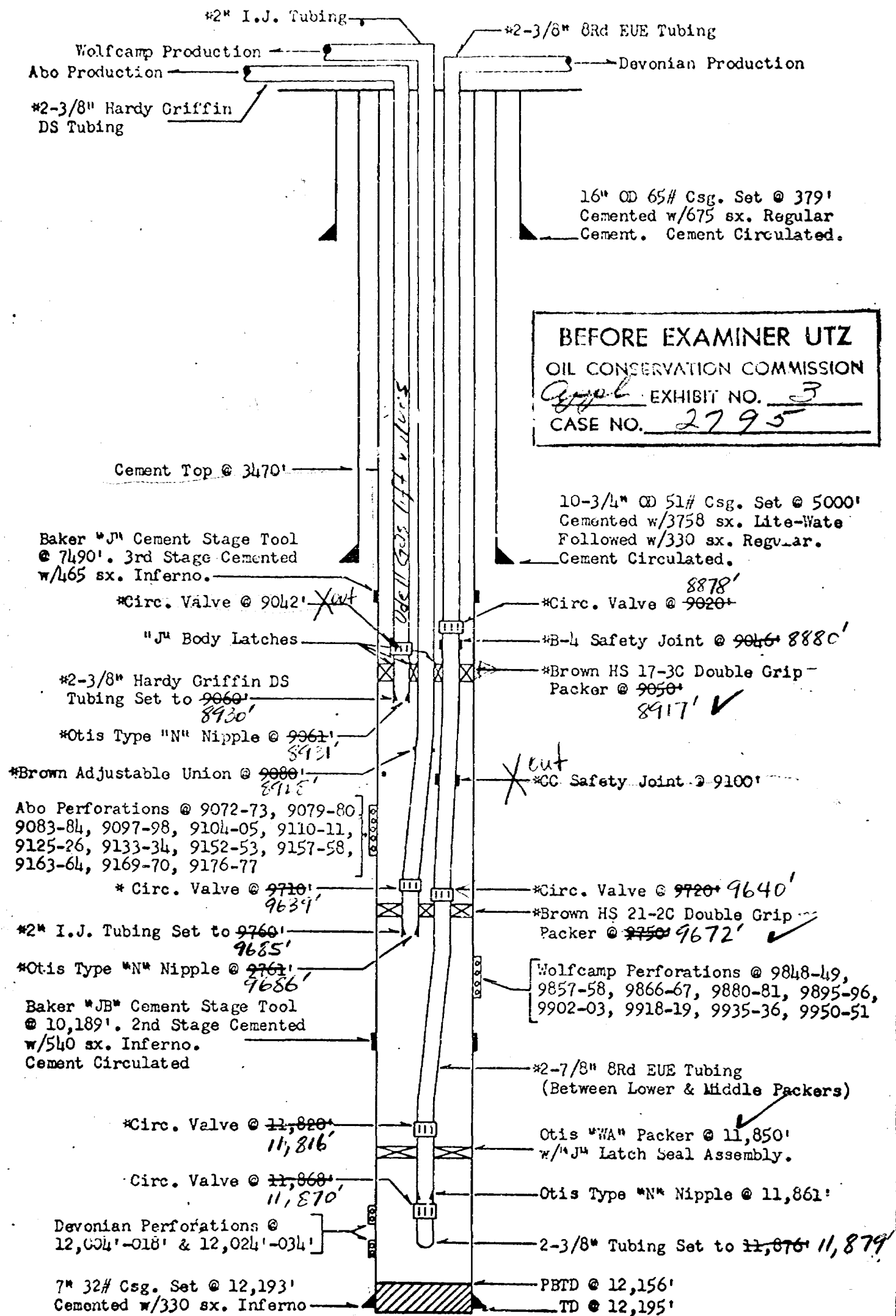
CASE NO. 2795

EXHIBIT NO. 3

## MARATHON OIL COMPANY

\*Diagrammatic Sketch of Proposed Triple Completion\*

State McCallister, Well No. 5  
Unit M, Sec. 25, T-17-S, R-34-E  
Lea County, New Mexico



\* PROPOSED EQUIPMENT AND DEPTHS

FARMINGTON, N. M.  
PHONE 325.1182

SANTA FE, N. M.  
PHONE 983-3971

ALBUQUERQUE, N. M.  
PHONE 243-6691

EXAMINER HEARING

IN THE MATTER OF:

Application of Marathon Oil Company for a multiple completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order authorizing the triple completion (conventional) of its State McCallister Well No. 5, located in Unit M of Section 25, Township 17 South, Range 34 East, Lea County, New Mexico, to produce oil from the North Vacuum Abo, the Vacuum-Wolfcamp, and the Vacuum-Devonian Pools through parallel strings of tubing.

)CASE 2795

BEFORE: Elvis A. Utz, Examiner

## TRANSCRIPT OF HEARING

MR. UTZ: Case 2795.

MR. DURRETT: Application of Marathon Oil Company for a multiple completion, Lea County, New Mexico.

MR. MORRIS: Mr. Examiner, I'm Richard Morris of  
Seth, Montgomery, Federici and Andrews, Santa Fe, New Mexico,  
appearing in this case on behalf of the Applicant, Marathon Oil  
Company. We will have one witness in this case, Mr. John Barber.  
I ask that he stand and be sworn in at this time.

(Witness sworn.)

MR. UTZ: Are there other appearances in this case?

You may proceed.



(Whereupon, Applicant's Exhibits 1, 2, and 3 marked for identification.)

JOHN R. BARBER

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

DIRECT EXAMINATION

BY MR. MORRIS:

Q Mr. Barber, will you please state your name and position?

A John R. Barber, employed by the Marathon Oil Company in the capacity of Area Petroleum Engineer at Hobbs, New Mexico.

Q Mr. Barber, have you previously testified before the Oil Conservation Commission or one of its Examiners?

A No, sir, I have not.

Q Then would you briefly outline your education and experience in the oil business?

A I graduated from Texas A & M College in May, 1954. I reported to Hobbs in June, 1954, for employment with the Ohio Oil Company as a Petroleum Engineer. I have worked in and around Hobbs since that date, and I was appointed to a supervisory capacity in February, 1963.

Q In the past few years, Mr. Barber, has your work entailed working with multiple completions in the Hobbs area?

A Yes, sir, it has.

Q Are you familiar with the application of Marathon in

DEARNLEY-MEIER REPORTING SERVICE, Inc.

FARMINGTON, N. M.  
PHONE 325-1182

SANTA FE, N. M.  
PHONE 983-3971

ALBUQUERQUE, N. M.  
PHONE 243-6691



DEARNLEY-MEIER REPORTING SERVICE, Inc.

FARMINGTON, N. M.  
PHONE 325-1182

SANTA FE, N. M.  
PHONE 933-3971

ALBUQUERQUE, N. M.  
PHONE 243-6691

this case?

A Yes, sir, I am.

Q Would you state what it is that Marathon is seeking by its application?

A Marathon seeks authority to complete its State McCallister Well No. 5 located in Unit M, Section 25, Township 17 South, Range 34 East, as a triple completion, conventional, to produce oil from the North Vacuum Abo, Vacuum-Wolfcamp, and Vacuum-Devonian Pools through parallel tubing strings.

Q Do you have prepared an exhibit showing a plat of the area and the well which is the subject of this hearing?

A Yes, sir, I have.

Q Has that been marked as Exhibit No. 1 in this case?

A Yes, sir, it has.

Q Referring to that exhibit, would you point out the pertinent data?

A Exhibit No. 1 is a plat of the State McCallister lease. This lease contains 160 acres and has been outlined in yellow. Marathon owns a 100 percent working interest in this lease. The offset operators have been indicated, to the best of my knowledge, as well as the pool designation for each individual well.

Now the State McCallister Well No. 5, the subject of this application, has been outlined in red. It is located 660 feet from the south line, 560 feet from the west line of Section 25.



DEARNLEY-MEIER REPORTING SERVICE, Inc.

FARMINGTON, N. M.  
PHONE 325-1182

SANTA FE, N. M.  
PHONE 983-3971

ALBUQUERQUE, N. M.  
PHONE 243-6691

Q Also shown on this plat, Mr. Barber, is Well No. 95, the Mobile Bridges State Well No. 95, which is a west offset of your Well No. 5, is that correct?

A Yes, that is correct.

Q And has that well been completed in the same pools as your Well No. 5?

A Yes, sir, it has.

Q And you will be referring to that Well No. 95 at various times in this hearing?

A I will.

Q Still referring to the Exhibit No. 1, would you state the acreage that has been dedicated to each zone of your proposed triple completion?

A The Vacuum-Devonian zone was created by Commission Order R No. 2410. Temporary special rules were set forth in Commission Order No. 2423, and provides for 80-acre proration units. A form C-128 has been filed with the Conservation Commission dedicating the West Half of the Southwest Quarter of Section 25 to the Vacuum-Devonian Pool.

Q With respect to the Wolfcamp, what is the situation?

A The Wolfcamp or Vacuum-Wolfcamp Pool was created by Commission Order R No. 2422. It also provides for 80-acre proration units, and a form C-128 has been filed with the Conservation Commission dedicating the West Half of the Southwest Quarter of Section 25 to the Vacuum-Wolfcamp zones.



DEARNLEY-MEIER REPORTING SERVICE, Inc.

FARMINGTON, N. M.  
PHONE 325-1182

SANTA FE, N. M.  
PHONE 983-3971

ALBUQUERQUE, N. M.  
PHONE 243-6691

Q With respect to the Abo formation, what is the situation?

A The North Vacuum-Abo Pool was created by Commission Order R-2421, and it also provides for 80-acre proration units. Here again we have submitted form C-128 dedicating the West Half of the Southwest Quarter of Section 25 to the Abo zone.

Q Has your Well No. 5 already been drilled?

A Yes, sir, it has.

Q What is the present state of its completion?

A It's at the present in the final stages of completion.

Q Has the well been logged?

A Yes, it has.

Q Do you have its log available at this time?

A Exhibit No. 2, a gamma ray sonic log on the State McCallister Well No. 5.

Q Mr. Barber, would you state when the well was spudded, and give some additional information concerning the actual drilling of the well?

A Yes, sir, I might add that the total depth, the tops of the producing zones, and the respective perforated intervals have been indicated on this log. The subject well was spudded on December 20, 1962, and it was drilled to a total depth of 12,195 feet. After we ran the open hole logs, 7-inch, 32-pound casing was run and set to 12,193 feet.

Q Referring to Exhibit No. 2 where applicable, give to



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the Examiner the information concerning the completion and testing data on each of the three zones in this well.

A The Devonian zone was perforated from 12,004 to 12,018 and from 12,024 to 12,034. It was tested on April 2nd, 1963, after treatment with a total of 6,250 gallons of acid, for 229.35 barrels of oil and 3.54 barrels of acid water in 12 hours, flowing on a 17/64ths inch choke with a GOR of 2282 to 1. The gravity of the crude was 47.8 degrees API at 60 degrees Fahrenheit.

The top allowable for wells in the Vacuum-Devonian Pool is 279 bopd. From this test, we assume that the well will produce top allowable.

We have not run a static bottom hole pressure in this well as yet, except on DST. Now we obtained a pressure of 4514 psig in the Devonian zone from 12,065 to 12,117. The pay section for the Devonian is a fine crystalline dolomite, pinpoint to vuggy porosity. It is my opinion that the reservoir mechanism for the Devonian zone is an active water drive.

Q The perforations that you indicated for the Devonian are indicated on your Exhibit No. 2?

A Yes, sir, they are.

Q Now referring to the Wolfcamp formation, could you give the information concerning that?

A The Wolfcamp zone was selectively perforated from 9848 to 9951. It was tested on April the 9th, 1963, after treat-



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PAGE 8

ment with a total of 6,000 gallons of acid for 114 barrels of oil and 6 barrels of acid water in eight hours, flowing through a 16/64ths inch choke with a GOR of 1509 to 1. The gravity of its crude was 39.2 degrees API, 60 degrees Fahrenheit.

The top allowable for wells in the Vacuum-Wolfcamp Pool is 172 bopd. From this test it may be noted that this well is capable of producing top allowable. This Wolfcamp zone remains shut in at the present time. We have not determined a static bottom hole pressure for the Wolfcamp zone. However, Mobile on their State Bridges No. 95 obtained a pressure of 3624 psig for the Wolfcamp zone on DST.

Q And because of the proximity, in the absence of other information, you would expect a test on your well to be similar?

A Yes, sir, we would.

Q Do you have some information concerning the Wolfcamp pay section?

A The pay section in the Wolfcamp zone, a light color dense to fine crystalline chalky lime. It contains up to seven percent porosity, and it is my opinion that the reservoir mechanism for this zone is a solution gas drive.

Q Now referring to the Abo formation, would you give the Examiner the completion and testing data concerning that?

A The Abo zone was selectively perforated from 9,072 to 9,177. It was tested on April the 18th, 1963, after treatment with a total of 13,500 gallons of acid. It flowed 148.7 barrels





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PAGE 9

of oil and 4.6 barrels of water in twelve hours through a 22/64ths inch choke with a GOR of 991 to 1. The gravity of its crude was 40.0 degrees API, 60 degrees Fahrenheit.

Here again we have not determined a static bottom hole pressure in this well. However, a pressure for the Abo zone of 3205 was determined in Mobile's State Bridges No. 95 on DST. The pay section for this Abo zone is a light-colored finely crystalline dolomite containing up to five percent porosity. It is my opinion this is also a solution gas drive type of reservoir.

Q Would you care to make any comparisons, Mr. Barber, on the data that you have obtained on your Well No. 5 with the Mobile Bridges State Well No. 95?

A . The gas-oil ratios that we obtained on our well compares very favorably with the GOR's obtained on Mobile's well, except that in the Abo zone our ratio was slightly lower. The gravity of the crudes were very close to the gravity that Mobile obtained on their State Bridges No. 95.

Q I believe you stated previously, Mr. Barber, that the Well No. 5 is in the final stages of completion at this time. Are you far enough along that you can give to the Examiner the mechanical installation that will exist in that well?

A Yes, sir.

Q Do you have that information prepared in the form of an exhibit?



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A Exhibit No. 3 is a diagrammatic sketch of the proposed triple completion illustrating the down hole equipment that we used in completion of this well. The casing program which was utilized is indicated thereon. This program conforms with the provisions of Rules 106 and 107 of the General Rules and Regulations, and adequately protects all oil, gas, and water-bearing strata which were encountered in the drilling of this well.

Q Mr. Barber, on the Exhibit No. 3 that we are submitting, I'm sure it will be noted by the Examiner and by the Commission that some of the information that was originally placed on the exhibit, typed in, has been marked out and changed. Were the changes that have been indicated, are they due to the very recent completion of this well; and does this information that is shown now on this represent the very latest and up-to-date information concerning the mechanical installation of this well?

A Yes, sir, it does. We just yesterday completed the final stages of setting our packers. That brought about the changes in the exhibit.

Q Would you briefly describe the procedure that has been used or will be used to effect this completion?

A After we perforated the Devonian section, we ran an Otis Type WA packer on wireline and set this packer at 11,850 feet. This packer was run with the tailpipe, the end nipple, and the circulating valve attached. Following this, the Devonian



section was treated and tested. Upon completion of the test of the Devonian section, the circulating valve was closed. This isolated the Devonian section.

We then ran a Halliburton retrievable bridge plug and set it at 10,050 feet. We then perforated the Wolfcamp zone, treated and tested it. The bridge plug was then moved to 9264 and the Abo zone was perforated, treated, and tested.

Following the test on the Abo zone, the bridge plug was removed from the well and the number one or Devonian tubing string was run, and this tubing string included the upper and middle packers. Also the Wolfcamp tubing string between the upper and middle packers was run at the same time that the number one tubing string was run. Next the number two or Wolfcamp tubing string was run and latched into the upper packer. Finally, the number three tubing string was run and latched into the upper packer.

The I.D. of the number one and number three tubing strings is the same, or 1.995 inches, while the I.D. of the number two string is 1.67 inches. The well head equipment that we used conforms with the provisions of Rule 115 of the General Rules and Regulations.

Q Mr. Barber, you have referred to these various packers that have been used in the completion of this well. Would you describe in a little more detail the operation, the characteristics of those packers?



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A The upper packer is a Brown HS-173C packer. This packer is set running a blanking plug and putting in the landing nipple on the number three tubing string. Pressure is then applied to the tubing. This actuates a cylinder built within the packer, which engages your slips against the casing. This pressure is maintained by check valve arrangement built within the packer.

Now the middle packer is a Brown HS-212C. This is very similar to the upper packer, with the exception it has two three-quarter inch steel rods built within the packer. These rods have slips that are actuated against them when you set the packer. These slips on these two rods maintain a mechanical positive set of the packer at all times.

Q Have you covered the bottom-most packer?

A The bottom-most packer is an Otis WA packer. This is run and set on a wireline and it has opposing sets of slips and is very similar to a Baker Model "D" packer.

Q Mr. Barber, in your opinion is the installation as you have described it in accordance with sound engineering and conservation practices?

A Yes, sir, it is. This type of installation has proven satisfactory throughout the Permian Basin.

Q Will it be possible with this installation to make the necessary tests required by the Commission and for your own use?



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A Yes, sir. By utilizing this equipment it is possible to measure the reservoir pressure from each separate zone without having to shut in the zones not being tested. The surface equipment is such that the oil and gas production can be separately and accurately measured.

Q Will you have a corrosion problem with respect to any of these three zones?

A We anticipate no corrosion problem with these zones. This conclusion is arrived at due to the fact that these zones are characteristically sweet and offer little or no corrosion problem.

Q Now referring to the Devonian reservoir here, would you amplify your remarks concerning the drive mechanism that you expect in that pool and then go into the method by which you expect to produce that zone?

A As I have stated, it is my opinion that the Devonian zone is under an influence of an active water drive. Therefore it is reasonable to assume that it will have a relatively long flowing life. It should not be necessary to install artificial lift facilities until our water production is such that the well will not flow with the available bottom hole pressure. If artificial lift does become necessary, it is my opinion that we can efficiently lift the Devonian zone by gas lift means.

It may be noted, as I pointed out, that we have a Brown HS-173C packer. We could install gas lift valves above



this packer and be able to lift the Devonian production. By equipping this 2-3/8ths inch tubing with gas lift valves approximately 1,000 barrels of fluid per day could be lifted from the Devonian zone. It is my opinion that this zone, the Devonian zone, could be safely, efficiently, and effectively depleted by this method.

Q Those gas lift valves that you are referring to are not presently installed for this zone, however?

A No, sir, that is true. The gas lift valves which are shown on Exhibit No. 3, or in the number three are in the Abo tubing strings. They have been installed at this time.

Q Could you give us the same information concerning the method by which you expect to produce the Wolfcamp and Abo formations?

A We assume that the Wolfcamp and Abo zones are solution gas drive types of reservoirs. Therefore, they should experience long flowing lives. However, the test that we obtained on the Abo zone was not a real strong test. Therefore, we ran gas lift valves on this tubing string on the initial completion in the form of, you might say, insurance. If we do have to utilize this string of gas lift valves and install gas lift valves on the Wolfcamp zone, I believe that these two zones can efficiently be lifted by gas lift means.

We anticipate approximately four barrels of oil per day can be lifted from the Wolfcamp zone, and approximately 200



barrels of oil per day from the Abo zone through gas lift means. It is my opinion that these two zones can safely, efficiently and effectively be depleted by this method.

Q In addition, Mr. Barber, to the method by which you expect to produce these zones, could you also pump the zones by conventional rod pumping methods, if that should be necessary?

A Yes, sir, we could. It would not probably be the best installation, pumping from beneath packers, but it has been done and is being done.

Q You don't expect to have to do that?

A No, sir, we don't.

Q Do you have an estimate of the cost of drilling and completing in this well?

A The calculated cost for drilling and triple completing the State McCallister Well No. 5 is estimated to be \$341,355.00. The calculated cost for drilling a single well to each of these three zones is estimated to be \$690,075.00. Based on these calculations, by triple completing State McCallister Well No. 5 would result in a savings of \$348,720.00.

Q In view of the data that you have on the Abo formation at the present time, would a single zone completion in that formation be feasible?

A No, sir, it would not. As indicated on Exhibit No. 2, we had up to five percent porosity in this zone, and the well did not display strong flowing tendencies. Therefore, it would

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seem uneconomical to drill a single well to this zone.

Q Then completion in the Abo would be feasible in this area only as part of this multiple completion?

A Yes, sir, that is true.

Q For that reason, would you say that the ultimate recovery of oil from these three zones would be enhanced by being allowed to complete multiply in the three zones?

A Yes, sir, I believe that it would.

Q By your completion in the manner as you've described it, will oil from any of the three zones be sacrificed?

A No, sir. We can recover ultimately as much oil through a triple completion as we could through single wells to these three zones.

Q Would you state generally, Mr. Barber, your opinion with reference to the effect of the approval of this application upon conservation?

A This authority to triple complete this well is in the interest of conservation and will protect correlative rights. It is my opinion it will prevent the drilling of unnecessary wells.

Q Were Exhibits 1 and 3 prepared under your direction, and the information that you have yourself placed on Exhibit No. 2 done by you?

A Yes, sir, that is true.

MR. MORRIS: We offer at this time, Mr. Examiner,





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Exhibits 1, 2, and 3, and that concludes our presentation at this time.

MR. UTZ: Without objection, Exhibits 1, 2, and 3 will be entered into the record of this case.

(Whereupon, Applicant's Exhibits Nos. 1, 2, and 3 admitted in evidence.)

CROSS EXAMINATION

BY MR. UTZ:

Q In regard to your cementing program on your seven-inch, the 330 sacks Inferno, I gather Inferno is the type cement?

A Yes, sir, it's a slow-set type of cement.

Q What is the top of that cement?

A Our seven-inch?

Q Yes.

A The top is marked at 3470.

Q Where is that marked?

A It's right above the casing shoe of the intermediate string on the left-hand side of the exhibit.

Q It was so obvious I couldn't see it.

A We have two D.V. tools in the seven-inch casing string. This will cement it by three stages.

Q So you have a solid column of cement from the bottom of the seven-inch up to 3470?

A Yes, that is true.

Q Now with reference to the circulating valves shown on



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Exhibit 3, what is the purpose of those valves?

A For spacing the annulus.

Q I see.

A The one on the number three tubing string has been omitted. The short tubing string, the Abo, it's no longer in there.

Q Oh, yes. Where did you say your gas lift valves were located?

A They are located in the number three or Abo tubing string. I don't have the spacing on those valves.

Q If you use those valves, you will use gas from the surface?

A Yes, sir, that is correct.

Q And it will be metered and accounted for?

A Yes, sir, that is correct.

Q Have you accomplished packer leakage tests on this well yet?

A No, sir, we have not had sufficient time to do that.

Q You do intend to accomplish those tests and report them?

A Yes, sir, we do.

MR. UTZ: Are there other questions of the witness?

The witness may be excused.

(Witness excused.)

MR. MORRIS: That's all we have to offer, Mr. Examiner.

MR. UTZ: Are there any statements to be made in this



case? The case will be taken under advisement.

\* \* \* \*

STATE OF NEW MEXICO )  
COUNTY OF BERNALILLO ) ss

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 3rd day of May, 1963.

*Ada Dearnley*  
NOTARY PUBLIC

My Commission Expires:

June 19, 1963.

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner Hearing of Case No. 2795 heard by me on April 24, 1963.  
*Thos. A. [Signature]*, Examiner  
New Mexico Oil Conservation Commission

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