

Case Number.

4205

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Application

Transcripts.

Small Exhibits

ETC.



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SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS

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BEFORE THE  
NEW MEXICO OIL CONSERVATION COMMISSION  
Santa Fe, New Mexico  
August 27, 1969

EXAMINER HEARING

-----  
IN THE MATTER OF: )

Application of Tesoro Petroleum )  
Corporation for four unorthodox )  
injection well locations and )  
amendment of Order No. R-2807, )  
McKinley County, New Mexico. )  
-----

Case No.  
4205

BEFORE: Elvis A. Utz, Examiner

TRANSCRIPT OF HEARING

MR. UTZ: Case 4205.

MR. HATCH: Case 4205. Application of Tesoro Petroleum Corporation for four unorthodox injection well locations and amendment of Order Number R-2807, McKinley County, New Mexico.

MR. UTZ: Appearances?

MR. MORRIS: I am Dick Morris; Montgomery, Federici, Andres, Hannas and Morris, Santa Fe, appearing on behalf of the applicant. We have one witness, Mr. Denman, and ask that he be sworn.

MR. UTZ: Any other appearances?

You may proceed.

(Witness sworn.)

RICHARD H. DENMAN

the witness, called by Mr. Morris, having first been duly sworn upon his oath, testified as follows:

DIRECT EXAMINATION

BY MR. MORRIS:

Q. Please state your name and where you reside?

A. My name is Richard H. Denman, and I reside in San Antonio, Texas.

Q. By whom are you employed and in what capacity?

A. I am a petroleum engineer for Tesoro Petroleum

Corporation.

Q. And have you previously testified before the Commission or one of its Examiners, and had your qualifications established as a matter of record?

A. I have.

Q. And have you previously and recently testified, Mr. Denman, concerning the Hospah Field in McKinley County, New Mexico?

A. Yes, sir.

Q. That was in connection with the unitization matters in this field, is that correct?

A. Yes, sir.

Q. Mr. Denman, am I correct in saying that Tesoro Petroleum Corporation is the operator of the Hospah Unit and of the waterflood project in that unit?

A. That's correct.

Q. Please refer to what's been marked as Exhibit Number One in this case and point out the exterior boundaries of the Hospah Unit area?

A. The exterior unit boundaries of the Hospah Unit area, starting to the north, in Section 36, includes all of Section 36, except the northeast of the northeast and the northwest of the northwest.

It extends over into Section 31, to include the southwest of the northwest and all of the southwest quarter of Section 31. In Section 1, it includes --

Q. You don't need to go into the governmental subdivisions here --

A. All right.

Q. -- but it's outlined as --

A. It's outlined by the marks there.

Q. All right. Now, point out your legend, as far as the producing and the injection wells are concerned in this waterflood project in this case unit?

A. The producing wells are simply black dots, as usual. The injection wells are double circles, concentric circles.

Q. And what type of waterflood is this? What kind of pattern do you have?

A. This is a peripheral flood.

Q. How long has this flood been in operation?

A. The injection wells -- the original injection wells were drilled in late 1965.

Q. Now, in addition to the injection wells that have already been approved in this project, do you have a present need for the approval of additional injection wells,

either to be drilled or converted from producing wells?

A. We feel that we do -- that's right.

Q. All right. Which wells are these? First, as to the wells that are to be drilled?

A. Wells to be drilled are to be designated as Number Fifty-eight and Number Fifty-nine. Number Fifty-eight is in the very south portion of Section 36 --

Q. Please give the footage locations for each?

A. This well is located forty feet from the south line and two thousand three hundred and fifty feet from the east line, and lies in the southwest of the southeast quarter of Section 36.

Q. All right. And the other wells?

A. The Number Fifty-nine is fourteen hundred and thirty feet from the south line and twenty-six hundred and twenty-five feet from the east line.

Q. And that's on Section 36?

A. Yes, also on Section 36.

Q. Now, in addition to these two wells --

MR. HATCH: Just a minute. This would show it right on the section -- it is not on the section line?

THE WITNESS: Right. The draftsman didn't quite get it over there -- it should be twenty-six twenty-five,

and it's a little hard to show fifteen feet in there -- twenty-six forty would be right on the section -- the half section line.

Q. (By Mr. Morris) Now, in addition to these two wells to be drilled, which you just mentioned, are there two other wells that you seek approval for conversion from producing wells to injection?

A. Yes, Number Sixty-two and Number Sixty-three, as outlined in red.

Q. Give the footage locations for those two wells, if you please?

A. Number Sixty-two is located nineteen hundred feet from the south line, and eleven hundred and forty feet from the west line of Section 36. Number Sixty-three is nineteen hundred and eighty feet from the north line, and twenty-three hundred and ten feet from the west line of Section 36.

Q. Would you briefly outline the reasons and the necessity for conversion and drilling of these wells as additional injection wells in this area?

A. Right -- as we noted, these wells, the injection wells were drilled, the Sixty-two and the Sixty-three -- the original injection wells were drilled in late 1965.

Number Sixty-two and Number Sixty-three originally were drilled to be injection wells, but it was found that they encountered the Hospah sand, above the water table and were completed as producers.

The Number Sixty-nine subsequently was drilled to take the place of Number Sixty-two and Sixty-three.

We have had very little response in that north fault block.

In fact, virtually none, as a result of injection into Number Sixty-nine -- injection into the Number Sixty-eight to the north, and to the Number Sixty-four, to the northeast.

We feel that the best thing we can do at this point is move our injection updip into the Number Sixty-two and the Number Sixty-three, and attempt to achieve some response in that fault block.

The wells to be drilled -- and let's set the record straight -- those wells have been drilled.

Q. All right.

A. Those wells have been drilled, but they will be completed as producers originally, to see what they will produce, and we hope eventually then to convert them



to injection wells.

MR. UTZ: That is the Sixty-two and the Sixty-three?

THE WITNESS: No, I'm talking about Number Fifty-eight and Fifty-nine now.

MR. UTZ: I see.

THE WITNESS: These wells, we would like to have as injection wells, eventually, to achieve a little better sweep pattern. In the north fault block, because of our lack of response, we would like to have an updip well -- the Number Fifty-eight in the central fault block, we would like to have, because we have achieved very little response in the -- from the east in that fault block.

It appears to be a permeability barrier to the east, and we would like to have an injection well high on the structure to sweep in an easterly direction, as well as from the west to the east.

Now, I'm getting too many in here, but Number Sixty and Sixty-one, to the southwest, are also injection wells. We have had some response from them -- but in that fault block, that is the only response we had.

Q. At what rate do you anticipate injecting water into these wells?

A. Approximately six hundred barrels a day, per day.

Q. Now, what is the source of this water?

A. The source of the water is in our Number Fifty-three Well, in the south of Section 36 and it is produced from the Dakota.

Q. And do you also have considerable produced water from your --

A. We mingled the Dakota water with the produced water, and we injected it.

Q. I see. In addition to these four wells, for which you seek specific approval, do you also propose the amendment of the waterflood project order to establish an administrative procedure for conversion of producing wells to injection wells in the future or for the drilling of new wells for injection in the future?

A. Yes, we have a procedure, an administrative procedure, and here, with your permission, I would like to read it in the record.

Q. Yes.

A. "If the well to be drilled or converted is not unorthodox in the sense that it is closer than three hundred and thirty feet to the outer boundary of the Hospah Unit,

applicant shall submit to the Commission a plat showing the location of the well and a statement for the need for such well, and the Commission may issue its administrative order, approving said well for injection and approving its unorthodox location."

Paragraph two -- "If the proposed injection well is to be located more than three hundred and thirty feet from the outer boundary of the Hospah Unit, the applicant shall submit the information required under subparagraph A, above, to the Commission, and also to the operator of the offsetting lease that will be crowded by the proposed location. If no objection is received from the offset operator within a period of twenty days following the mailing of such information, the Commission may issue its administrative order approving of said well for injection, and approving its unorthodox location."

Q. If the Commission should see fit to grant an administrative procedure and deviate from your proposal here, in some regard, you would have no objection to that, I assume?

A. No, we would have no objection.

Q. Do you foresee the need for this administrative approval in the future operation of this unit in waterflood?

A. Yes, we feel that the flexibility in the changing of our injection points should be written into the order, as the life of the field progresses, we anticipate that the water table will rise, and more efficient performance should be obtained by moving our injection wells updip.

Q. Was this Exhibit One prepared by you or someone under your direction?

A. Under my direction, yes, sir.

MR. MORRIS: We move the introduction of Exhibit One into evidence.

MR. UTZ: Without objection, Exhibit One will be entered into the record in this case.

(Whereupon, Applicant's Exhibit Number 1 was duly admitted.)

MR. MORRIS: That's all I have.

CROSS EXAMINATION

BY MR. UTZ:

Q. Does Order Number R-2807 include the upper and lower Hospah?

A. No, just the upper.

Q. Just the upper?

A. Yes, sir.

Q. Now, you didn't show how you were going to complete the wells you are going to inject through tubing, I presume, under a packer?

A. Yes, that's correct.

Q. And the water you are using is sweet water?

A. Well, let's see --

Q. Non-corrosive?

A. There is some salt content to it.

Q. How had the other wells been approved? Well, how are you completing them? Are you lining the tubing?

A. Yes, sir. We inject through tubing.

Q. Lined tubing?

A. No -- we treat the water with chemicals in an attempt to keep the corrosion down.

Q. I see.

A. The original injection wells were -- have, in three or four, have fiberglass tubing in them.

MR. UTZ: Any other questions?

MR. HATCH: Do I understand you to say that you are going to produce Fifty-eight and Fifty-nine?

THE WITNESS: Temporarily -- we would like to see what a producing well in that particular part of the field would do if completed under today's methods. So many of

these wells were drilled in the early days and we don't know really, what we had in many instances.

(Whereupon, a brief discussion was held off the record.)

MR. HATCH: I have one other question.

Former cases have slipped my mind a little -- this was not -- as shown on here, this was not the original unit boundary; was it?

THE WITNESS: No, sir. The original unit boundary included all of Section 1.

MR. HATCH: And the order itself did not decrease the size --

THE WITNESS: That's true.

MR. HATCH: Has it been --

THE WITNESS: It has not been approved yet. We are still in the process of getting approval from our participants, our royalty owners and so forth.

MR. MORRIS: I think it is correct -- I think it's correct as shown on the legend here, that this is the proposed revised unit area, which has not been actually accomplished yet to contract it to this configuration. I don't know that that is pertinent in this particular hearing --

MR. UTZ: As I recall, we did reduce the size of this on some previous hearing.

THE WITNESS: You reduced it subject to our getting approval from our participants --

MR. HATCH: But not the pool --

THE WITNESS: Yes.

MR. MORRIS: Yes.

MR. UTZ: Any other questions?

The witness may be excused. The case will be taken under advisement.

The hearing is adjourned and we will resume in the morning at eight thirty.

(Whereupon, the hearing was adjourned at 5:10 o'clock, P. M., to be resumed at 8:30 o'clock, A. M., the following day, August 28, 1969.)

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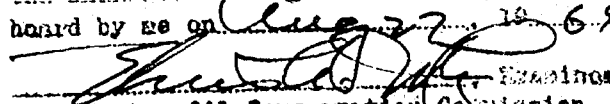
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STATE OF NEW MEXICO )  
COUNTY OF BERNALILLO ) ss

I, CA FENLEY, Court Reporter 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 14th day of November, 1969.

  
COURT REPORTER

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 4205, heard by me on Aug 27, 1969.  
  
Examiner  
New Mexico Oil Conservation Commission

OIL CONSERVATION COMMISSION

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

September 8, 1969

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

O Dear Sir:

Enclosed herewith is Commission Order No. R-2807-A, entered in Case No. 4205, approving the addition of certain injection wells to the Tesoro Hospah Unit Waterflood Project.

P Additional injection is to be through the four newly authorized water injection wells, each of which shall be equipped with a string of tubing set in a packer located as near as practicable to the uppermost perforation, or in the case of open-hole completions, as near as practicable to the casing shoe. The casing-tubing annulus should be loaded with a corrosion-inhibited fluid and equipped with a pressure gauge at the surface or left open to facilitate detection of leakage in the casing, tubing, or packer.

Y  
Very truly yours,

A. L. PORTER, Jr.  
Secretary-Director

ALP/DSN/ir

cc: Oil Conservation Commission  
Hobbs and Aztec, New Mexico

Mr. D. E. Gray  
State Engineer Office  
Santa Fe, New Mexico

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. 4205  
Order No. R-2807-A

APPLICATION OF TESORO PETROLEUM CORPORATION  
FOR FOUR UNORTHODOX INJECTION WELL LOCATIONS  
AND AMENDMENT OF ORDER NO. R-2807, MCKINLEY  
COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on August 27, 1969,  
at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this 8th day of September, 1969, 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, Tesoro Petroleum Corporation, is  
the operator of a waterflood project in its Hospah Unit Area,  
Hospah Upper Sand Oil Pool, McKinley County, New Mexico, approved  
by Commission Order No. R-2807.

(3) That the applicant now seeks authority to expand said  
waterflood project by the injection of water into the Upper Hospah  
Sand through four additional injection wells at orthodox and  
unorthodox locations in Section 36, Township 18 North, Range 9  
West, NMPM, McKinley County, New Mexico, as follows:

Well No. 62 located 1900 feet from the South  
line and 1140 feet from the West line;

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CASE No. 4205

Order No. R-2807-A

Well No. 63 located 1980 feet from the North line and 2310 feet from the West line;

Well No. 59 to be drilled 1430 feet from the South line and 2625 feet from the East line;

Well No. 58 to be drilled 30 feet from the South line and 2350 feet from the East line.

(4) That the proposed orthodox and unorthodox locations are necessary to provide an efficient water injection pattern.

(5) That the applicant further seeks the amendment of said Order No. R-2807 to provide for the establishment of an administrative procedure whereby the Secretary-Director of the Commission may authorize additional injection wells at orthodox and unorthodox locations within the Hospah Unit Area as may be necessary to complete an efficient injection pattern without the necessity of showing well response.

(6) That approval of the aforesaid amendment will afford the applicant the opportunity to produce its just and equitable share of the oil in the Hospah Upper Sand Oil Pool, and will otherwise prevent waste and protect correlative rights, provided said injection wells are drilled no closer than 330 feet to the outer boundary of said Hospah Unit nor closer than 10 feet to any quarter-quarter section or subdivision inner boundary.

(7) That said waterflood project should be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations; provided, however, that the showing of well response as required by Rule 701 E-5 shall not be necessary before obtaining administrative approval for the conversion of additional wells to water injection.

IT IS THEREFORE ORDERED:

(1) That the applicant, Tesoro Petroleum Corporation, is hereby authorized to expand its waterflood project in the Hospah Unit Area, Hospah Upper Sand Oil Pool, McKinley County, New Mexico, approved by Commission Order No. R-2807, by the injection of water into the Upper Hospah Sand through the following additional water injection wells at orthodox and unorthodox locations in Section 36,

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CASE No. 4205

Order No. R-2807-A

Township 18 North, Range 9 West, NMPM, McKinley County, New Mexico

Well No. 62 located 1900 feet from the South line and 1140 feet from the West line;

Well No. 63 located 1980 feet from the North line and 2310 feet from the West line;

Well No. 59 to be drilled 1430 feet from the South line and 2625 feet from the East line;

Well No. 58 to be drilled 30 feet from the South line and 2350 feet from the East line.

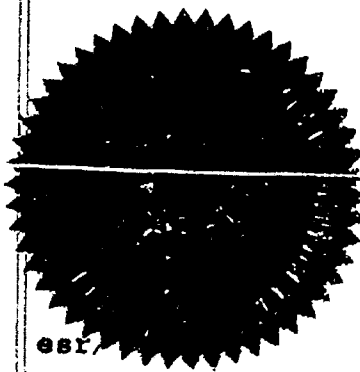
(2) That Order (2) of Commission Order No. R-2807 is hereby amended to read in its entirety as follows:

"(2) That the subject waterflood project shall be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations;

PROVIDED HOWEVER, that the Secretary-Director of the Commission may approve such additional injection wells at orthodox and unorthodox locations within the Hospah Unit Area as may be necessary to complete an efficient injection pattern; provided said wells are drilled no closer than 330 feet to the outer boundary of said Hospah Unit nor closer than 10 feet to any quarter-quarter section or subdivision inner boundary, and provided that the application therefor has been filed in accordance with Rule 701 B of the Commission Rules and Regulations. The showing of well response as required by Rule 701 E-5 shall not be necessary before obtaining administrative approval for the conversion of additional wells to water injection."

(3) 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

DAVID F. CARGO, Chairman

ALEX J. ARMISTEAD, Member

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

CASE 4194 - Continued from Page 1 -

seeks authority to inject gas through two additional wells located in Unit L of Section 34, Township 17 South, Range 35 East and Unit B of Section 4, Township 18 South, Range 35 East and to expand said project area to include the SE/4 NE/4 of Section 33 and the NW/4, N/2 SE/4, and SW/4 SE/4 of Section 34 Township 17 South, Range 35 East. Applicant further seeks authority to dually complete all gas injection wells in the project in such a manner as to permit the production of oil from the lower section of the Abo Reef through tubing and the injection of gas into the upper section of the Abo Reef through the casing-tubing annulus.

CASE 4195: Application of Continental Oil Company for eight non-standard gas proration units and a non-standard gas well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the rededication of acreage to establish the eight following non-standard gas proration units in Township 20 South, Range 37 East, Eumont Gas Pool, Lea County, New Mexico:

A 120-acre non-standard unit comprising the SE/4 NE/4 and E/2 SE/4 of Section 14, to be dedicated to the "SEMU" Well No. 46, located in Unit A of said Section 14;

A 240-acre non-standard unit comprising the NE/4 and E/2 SE/4 of Section 26, to be dedicated to the "SEMU" Well No. 64, located in Unit G of said Section 26;

A 560-acre non-standard unit comprising the W/2 and W/2 SE/4 of Section 26 and the E/2 E/2 of Section 27, to be dedicated to the "SEMU" Well No. 65, located in Unit L of said Section 26;

A 640-acre non-standard unit comprising the W/2 and the W/2 E/2 of Section 14 and E/2 E/2 of Section 15, to be dedicated to the "SEMU" Well No. 66, located in Unit L of said Section 14;

DOCKET No. 24-69

DOCKET: EXAMINER HEARING - WEDNESDAY - AUGUST 27, 1969

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 4191: Application of Gulf Oil Corporation for salt water disposal, Roosevelt County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the San Andres formation in the perforated interval from approximately 4408 feet to 4415 feet in its Roosevelt "AN" State Well No. 3 located in the NW/4 SE/4 of Section 32, Township 7 South, Range 36 East, adjacent to the Todd-Lower San Andres Pool, Roosevelt County, New Mexico.

CASE 4192: Application of Southwest Production Corporation for an unorthodox gas well location, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks authority to drill its Buffalo Valley "Com" Well No. 2 at an unorthodox location 1650 feet from the North line and 990 feet from the East line of Section 35, Township 14 South, Range 27 East, Buffalo Valley-Pennsylvanian Gas Pool, Chaves County, New Mexico, in exception to the provisions of Rule 2 of the special rules for said pool.

CASE 4193: Application of Humble Oil & Refining Company for a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion (conventional) of its Bowers "A" Federal Com 33 Well No. 33 located in Unit D of Section 29, Township 18 South, Range 38 East, Lea County, New Mexico, in such a manner as to permit the production of oil from the Hobbs (Grayburg-San Andres) Pool and the Hobbs-Blinbry Pool through parallel strings of tubing.

CASE 4194: Application of Phillips Petroleum Company for an amendment of Order No. R-3181 and dual completions, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of Order No. R-3181, which order established special rules regulating the operation of the Phillips Petroleum Company Vacuum Abo Pressure Maintenance Project, Vacuum-Abo Reef Pool, Lea County, New Mexico. Applicant

CASE 4197 - Continued from Page 3 -

Applicant now seeks authority to locate said well at an unorthodox location 1980 feet from the North line and 1450 feet from the West line of said Section 35 in the Forest (San Andres) Pool.

CASE 4198: Application of Continental Oil Company for amendment of Order No. R-3487, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of Order No. R-3487 which authorized the applicant to utilize its Eaves "A" Well No. 10, located in Unit P of Section 19, Township 26 South, Range 37 East, Scarborough Yates-Seven Rivers Pool, to dispose of salt water into the Seven Rivers formation in the interval from 3208 feet to 3255 feet. Applicant now seeks authority to inject produced salt water into the Yates and Seven Rivers formations in the perforated and open-hole interval from approximately 3107 feet to 3410 feet in said well and the reclassification of said salt water disposal well to a pressure maintenance injection well.

CASE 4199: Application of Burleson & Huff for compulsory pooling and a non-standard gas proration unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Jalmat Gas Pool underlying the SE/4 of Section 28, Township 25 South, Range 37 East, Lea County, New Mexico. Said 160-acre non-standard gas proration unit to be dedicated to the Burleson & Huff "Cook" Well No. 2, a recompleted well, located 660 feet from the South and East lines of said Section 28. Also to be considered will be the costs of drilling and/or recompleting said well, a charge for the risk involved, a provision for the allocation of actual operating costs, and the establishment of charges for supervision of said well.

CASE 4200: Application of Burleson & Huff for compulsory pooling and a non-standard gas proration unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Jalmat Gas Pool underlying the NE/4 of Section 29, Township 25 South, Range 37 East, Lea County, New Mexico. Said 160-acre non-standard gas proration unit to be dedicated to a well.



CASE 4195 - Continued from Page 2 -

A 320-acre non-standard unit comprising the SE/4, S/2 NE/4, and E/2 SW/4 of Section 24, to be dedicated to the "SEMU" Well No. 67, located in Unit K of said Section 24;

A 640-acre non-standard unit comprising the E/2 and E/2 W/2 of Section 23 and W/2 W/2 of Section 24, to be dedicated to the "SEMU" Well No. 68, located in Unit J of said Section 23;

An 80-acre non-standard unit comprising the E/2 NW/4 of Section 24, to be dedicated to the "SEMU" Well No. 69, located in Unit F of said Section 24;

A 320-acre non-standard unit comprising the E/2 E/2 of Section 22 and the W/2 W/2 of Section 23, to be dedicated to the "SEMU" Well No. 90, to be completed at a non-standard location 650 feet from the South and East lines of said Section 22.

CASE 4196: Application of Continental Oil Company for a non-standard gas proration unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the consolidation of three existing non-standard gas proration units into one 360-acre non-standard unit comprising the W/2 and the NW/4 NE/4 of Section 18, Township 23 South, Range 37 East, Jalmat Gas Pool, Lea County, New Mexico, to be dedicated to its Stevens "B" Wells Nos. 15 and 16, located in Units F and K, respectively, of said Section 18. Applicant further seeks authority to produce the allowable assigned to said unit from either of the aforesaid wells in any proportion.

CASE 4197: Application of Continental Oil Company for an amendment to Order No. R-37, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of Order No. R-3756 which authorized, among other things, the drilling of a water injection well in the Forest Donahue Waterflood Project area at a location 1980 feet from the North line and 1650 feet from the West line of Section 35, Township 16 South, Range 29 East, Eddy County, New Mexico.

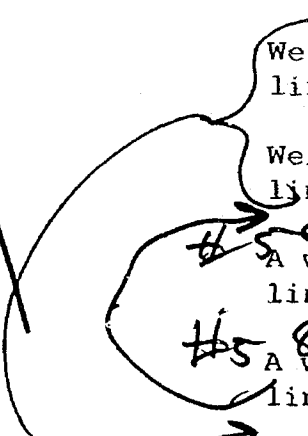
CASE 4204 - Continued from Page 5 -

and unorthodox locations in Sections 3 and 4, Township 25 South, Range 37 East, Langlie-Mattix Pool, Lea County, New Mexico. Applicant further seeks a procedure whereby additional injection wells at orthodox and unorthodox locations may be approved for said project administratively.

CASE 4205: Application of Tesoro Petroleum Corporation for four unorthodox injection well locations and amendment of Order No. R-2807, McKinley County, New Mexico. Applicant, in the above-styled cause, seeks authority to inject water into the Hospah Upper Sand Oil Pool in its Hospah Unit Waterflood Project Area through four additional injection wells at unorthodox locations in Section 36, Township 18 North, Range 9 West, McKinley County, New Mexico, said wells to be located as follows:

Well No. 62 located 1900 feet from the South line and 1140 feet from the West line;

Well No. 63 located 1980 feet from the North line and 2310 feet from the West line;

  
A well to be drilled 1430 feet from the South line and 2625 feet from the East line;

A well to be drilled 30 feet from the South line and 2350 feet from the East line.

Applicant further seeks the amendment of Order No. R-2807, which order authorized the aforesaid waterflood project, to establish a procedure whereby additional injection wells at unorthodox locations, as may be necessary to complete an efficient injection pattern, may be approved administratively.

CASE 4206: Application of Shell Oil Company for an unorthodox oil well location and amendment to Order No. R-2538, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to drill a producing oil well at an unorthodox location 1315 feet from the North line and 2625 feet from the West line of Section 34, Township 19

CASE 4200 - Continued from Page 4 -

to be recompleted, located 660 feet from the East line and 1980 feet from the North line of said Section 29. Also to be considered will be the costs of drilling and/or recompleting said well, a charge for the risk involved, a provision for the allocation of actual operating costs, and the establishment of charges for supervision of said well.

CASE 4201: Application of Mobil Oil Corporation for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the Langlie-Mattix Queen Unit Area comprising 1120 acres, more or less, of federal and fee lands in Sections 10, 11, 14, 15, 22, and 23, Langlie-Mattix Pool, Lea County, New Mexico.

CASE 4202: Application of Mobil Oil Corporation for a waterflood project and unorthodox injection well locations, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project in its Langlie-Mattix Queen Unit Area by the injection of water into the Queen sand through 17 wells at orthodox and unorthodox locations in Sections 10, 11, 14, 15, 22, and 23, Township 25 South, Range 37 East, Langlie-Mattix Pool, Lea County, New Mexico. Applicant further seeks a procedure whereby additional injection wells at orthodox and unorthodox locations may be approved for said project administratively.

CASE 4203: Application of Mobil Oil Corporation for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the Humphrey Queen Unit Area comprising 751 acres, more or less, of federal and fee lands in Sections 3 and 4, Township 25 South, Range 37 East, Langlie-Mattix Pool, Lea County, New Mexico.

CASE 4204: Application of Mobil Oil Corporation for a waterflood project and unorthodox injection well locations, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project in its Humphrey Queen Unit Area by the injection of water into the Queen sand through 11 wells at orthodox

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EXAMINER HEARING - August 27, 1969

DOCKET No. 24-69

CASE 4208 - Continued from Page 7 -

several waterflood projects by the injection of water into the Seven Rivers formation through his Mary Lou Well No. 1 located in Unit H of Section 29 and his Caroline Well No. 4 located in Unit E of Section 28, both in Township 19 South, Range 28 East, East Millman-Seven Rivers Pool, Eddy County, New Mexico.

CASE 4209: Application of Harvey E. Yates Company of Artesia for several pressure maintenance projects, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute several pressure maintenance projects by the injection of water into the Seven Rivers and Queen formations, McMillan (Seven Rivers-Queen) Pool, Eddy County, New Mexico, through the following-described wells in Township 20 South, Range 27 East:

Page & Yates Well No. 8 - Unit M - Section 5  
Page & Yates Well No. 6 - Unit I - Section 6  
Page & Yates Well No. 7 - Unit J - Section 6  
Lillie Yates Well No. 2 - Unit B - Section 7

CASE 4206 - Continued from Page 6 -

South, Range 35 East, as an infill well in its East Pearl-Queen Unit Waterflood Project area, East Pearl-Queen Pool, Lea County, New Mexico. Applicant further seeks the amendment of Order No. R-2538, which order authorized the aforesaid waterflood project, to establish a procedure whereby additional producing wells at unorthodox infill locations in the aforesaid project area, as may be necessary to complete an efficient producing pattern, may be approved administratively.

CASE 4207: Application of C. W. Trainer and DEL-LEA, Inc., for an unorthodox gas well location, Lea County, New Mexico. Applicants, in the above-styled cause, seek an exception to Rule 104 C II to permit the drilling of a well at an unorthodox gas well location 330 feet from the North line and 660 feet from the West line of Section 35, Township 12 South, Range 34 East, West Ranger Lake-Devonian Gas Pool, Lea County, New Mexico. The N/2 of said Section 35 to be dedicated to the well.

CASE 4186: (Readvertised)

Application of Tenneco Oil Company for compulsory pooling and an unorthodox gas well location, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Basin-Dakota Gas Pool underlying the North half of Section 11, Township 29 North, Range 13 West, San Juan County, New Mexico. Said acreage to be dedicated to a well to be drilled at an unorthodox gas well location 2250 feet from the North line and 600 feet from the East line of said Section 11. Also to be considered will be the costs of drilling said well, a charge for the risk involved, a provision for the allocation of actual operating costs, and the establishment of charges for supervision of said well. In the absence of a valid objection an order will be issued upon the record entered in the subject case August 6, 1969.

CASE 4208: Application of John A. Yates of Artesia for several waterflood projects, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute

Case 4205  
Hear 8-27-69  
Rec. 9-3-69

Grant, Tesoro Petr. Corp.  
permissions ~~for~~ for  
4 additional injection wells  
at Non-Std location in the  
Hooper upper Sand Water  
flood project.

The well locations & No's.  
are as listed on the docket  
application. The #'s 62 & 63 are  
oil to injection conversions.  
The # 59 & 59.

Grant A. Allen procedure  
for further injection  
wells 330 from centerline  
& 10 ft. from 1/4" sec. line.

Thos. A. Allen

AUG 7 7 20 06

BEFORE THE OIL CONSERVATION COMMISSION  
OF THE STATE OF NEW MEXICO

APPLICATION OF TESORO PETROLEUM )  
CORPORATION FOR PERMISSION TO )  
DRILL FOUR INJECTION WELLS AT )  
UNORTHODOX LOCATIONS, AND FOR )  
AMENDMENT OF ORDER NO. R-2807 )  
TO ESTABLISH AN ADMINISTRATIVE )  
PROCEDURE FOR APPROVAL OF )  
FUTURE INJECTION WELLS, HOSPAH )  
UPPER SAND OIL POOL, MCKINLEY )  
COUNTY, NEW MEXICO. )

Case No. 4205

A P P L I C A T I O N

Comes now Tesoro Petroleum Corporation and applies to the New Mexico Oil Conservation Commission for approval of four injection wells and for amendment of Order No. R-2807 to establish administrative procedure for approval of future injection wells, Hospah Upper Sand Oil Pool, McKinley County, New Mexico, and in support of its application states:

1. Applicant is the operator of the Hospah Unit as approved by Orders Nos. R-2797 and 2797-A and is the operator of a water-flood project therein as approved by Order No. R-2807.

2. Applicant proposes to inject produced salt water into the Hospah Upper Sand Oil Pool (as designated by Order No. 2797-A) through four additional injection wells located within the Hospah Unit area as follows:

Section 36, Township 18 North, Range 9 West,  
McKinley County, New Mexico.

Well No. 62 located in Unit L 1900 feet  
from the south line and 1140 feet from  
the west line of Section 36.

Well No. 63 located in Unit F 1980 feet  
from the north line and 2310 feet from  
the west line of Section 36.

DOCKET MADE

Date 8-15-69

Well to be drilled 1430 feet from the south line and 2625 feet from the east line of Section 36.

Well to be drilled 30 feet from the south line and 2350 feet from the east line of Section 36.

3. Applicant anticipates the injection of an average of 600 barrels of salt water per day into each of the said injection wells. The water to be injected is primarily produced water from the waterflood project but some additional, make-up water is derived from the Dakota Formation through a source well located in the SW/4SE/4 of Section 36.

4. Approval of the said injection wells is necessary to stimulate and maintain the waterflood project that is being conducted in the Hospah Unit area. The location of the said injection wells will not impair the correlative rights of any operator.

5. Applicant anticipates that additional wells may be needed, either by way of new drilling or by way of conversion of producing wells, and seeks an amendment of Order No. R-2807 to establish an administrative procedure for approval of such wells as follows:

A. If the well to be drilled or converted is ~~not~~ <sup>more</sup> ~~unorthodox in the sense that it is~~ closer than 330 feet to the outer boundary of the Hospah Unit, applicant shall submit to the Commission a plat showing the location of the well and a statement of the need for such well, and the Commission may issue its administrative order approving the said well for injection and approving its unorthodox location.



B. If the proposed injection well is to be located ~~more~~<sup>less</sup> than 330 feet to the outer boundary of the Hospah Unit, the applicant shall submit the information required under subparagraph A above to the Commission and also to the operator of the offsetting lease that will be crowded by the proposed location. If no objection is received from the offset operator within a period of twenty days following the mailing of such information, the Commission may issue its administrative order approving the said well for injection and approving its unorthodox location.

6. The establishment of the administrative procedure will facilitate the prompt and efficient operation of the waterflood project being conducted in the Hospah Unit.

WHEREFORE, applicant requests that this application be set for hearing before the Commission or one of its examiners and that the Commission enter its order approving this application.

MONTGOMERY, FEDERICI, ANDREWS,  
HANNAHS & MORRIS

By

*Richard J. Morris*  
Post Office Box 2307

Santa Fe, New Mexico 87501  
Attorneys for Tesoro Petroleum  
Corporation.

DRAFT

GMH/esr

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. 4205

Order No. R-2807-A

APPLICATION OF TESORO PETROLEUM CORPORATION  
FOR FOUR UNORTHODOX INJECTION WELL LOCATIONS  
AND AMENDMENT OF ORDER NO. R-2807, MCKINLEY  
COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on August 27, 1969,  
at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this September day of August, 1969, 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, Tesoro Petroleum Corporation, is  
the operator of a waterflood project in its Hospah Unit Area,  
Hospah Upper Sand Oil Pool, McKinley County, New Mexico,  
approved by Commission Order No. R-2807.

(3) That the applicant now seeks authority to expand said  
waterflood project by the injection of water into the Hospah <sup>Upper</sup> Sand  
through four additional injection wells at <sup>orthodox and</sup> unorthodox locations  
in Section 36, Township 18 North, Range 9 West, NMPM, McKinley  
County, New Mexico, as follows:

Well No. 62 located 1900 feet from the South  
line and 1140 feet from the West line;

Well No. 63 located 1980 feet from the North  
line and 2310 feet from the West line;

*No. 59*

A Well, to be drilled 1430 feet from the South line and 2625 feet from the East line;

*No. 58*

A Well, to be drilled 30 feet from the South line and 2350 feet from the East line.

*orthodox and*  
(4) That the proposed, unorthodox locations are necessary *provide* to ~~complete~~ an efficient water injection pattern.

(5) That the applicant further seeks the amendment of said Order No. R-2807 to provide for the establishment of an administrative procedure whereby the Secretary-Director of the Commission may authorize additional injection wells at orthodox and unorthodox locations, *within the Hospah Unit Area* as may be necessary, *to* complete an efficient injection pattern without the necessity of showing well response.

(6) That approval of the aforesaid amendment will afford the applicant the opportunity to produce its just and equitable share of the oil in the Hospah Upper Sand Oil Pool, and will otherwise prevent waste and protect correlative rights, provided said injection wells are drilled no closer than 330 feet to the outer boundary of said Hospah Unit nor closer than 10 feet to any quarter-quarter section or subdivision inner boundary.

(7) That said waterflood project *should* ~~shall~~ be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations; provided, however, that the showing of well response as required by Rule 701 E-5 shall not be necessary before obtaining administrative approval for the conversion of additional wells to water injection.

IT IS THEREFORE ORDERED:

(1) That the applicant, Tesoro Petroleum Corporation, is hereby authorized to expand its waterflood project in the Hospah Unit Area, Hospah Upper Sand Oil Pool, McKinley County, New Mexico, approved by Commission Order No. R-2807, by the injection of water into the *Upper* Hospah Sand through the following additional water injection  
^

*orthodox and*  
wells at <sup>A</sup>unorthodox locations in Section 36, Township 18 North,  
Range 9 West, NMPM, McKinley County, New Mexico:

Well No. 62 located 1900 feet from the South  
line and 1140 feet from the West line;

Well No. <sup>63</sup>~~62~~ located 1980 feet from the North  
line and 2310 feet from the West line;

<sup>No. 59</sup>  
~~Well~~ <sup>A</sup>to be drilled, 1430 feet from the South  
line and 2625 feet from the East line;

<sup>No. 58</sup>  
~~X Well~~ <sup>A</sup>to be drilled 30 feet from the South  
line and 2350 feet from the East line.

(2) That Order (2) of Commission Order No. R-2807 is hereby  
amended to read in its entirety as follows:

✓ "(2) That the subject waterflood project shall be governed  
by the provisions of Rules 701, 702, and 703 of the Commission  
Rules and Regulations;

PROVIDED HOWEVER, that the Secretary-Director of the Commis-  
sion may approve such additional injection wells at orthodox and  
*within the Hospah Unit Area*  
unorthodox locations <sup>A</sup>as may be necessary to complete an efficient  
injection pattern; provided said wells are drilled no closer than  
330 feet to the outer boundary of said Hospah Unit nor closer  
than 10 feet to any quarter-quarter section or subdivision  
inner boundary, and provided that the application therefor has  
been filed in accordance with Rule 701 B of the Commission Rules  
and Regulations. The showing of well response as required by  
Rule 701 E-5 shall not be necessary before obtaining administrative  
approval for the conversion of additional wells to water injection."

(3) That jurisdiction of this cause is retained for the  
entry of such further orders as the Commission may deem neces-  
sary.

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

ROUGH DRAFT FOR WATERFLOOD LETTERS

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

*Taser Hoopah Unit*

*End here is*  
*Reference is made to* Commission Order No. R-2807-A entered in Case No.  
4205, approving the *recently* addition of certain injection wells to the

Waterflood Project.

*Additional injection*  
*Injection* is to be through the *face*  
newly authorized water injection wells,  
each of which shall be equipped with  
a string of tubing set in a *packer* located  
as near as practicable to the uppermost

As to allowable, our calculations indicate that when all of the authorized injection wells have been placed on active injection, the maximum allowable which this project will be eligible to receive under the provisions of Rule 701-E-3 is \_\_\_\_\_ barrels per day when the Southeast New Mexico normal unit allowable is 42 barrels per day or less.

Please report any error in this calculated maximum allowable immediately, both to the Santa Fe office of the Commission and the appropriate district proration office.

In order that the allowable assigned to the project may be kept current, and in order that the operator may fully benefit from the allowable provisions of Rule 701, it behooves him to promptly notify both of the aforementioned Commission offices by letter of any change in the status of wells in the project area, i.e., when active injection commences, when additional injection or producing wells are drilled, when additional wells are acquired through purchase or unitization, when wells have received a response to water injection, etc.

Your cooperation in keeping the Commission so informed as to the status of the project and the wells therein will be appreciated.

Very truly yours,

A. L. PORTER, Jr.  
Secretary-Director

cc: OCC: Hobbs X  
Artesia         
Aztec X

USGS

Mr. Frank Irby, State Engineer Office, Santa Fe, New Mexico

Mr. D. E. Gray

*perforation, as in the case of open-hole*  
*completions, as near as practicable to*  
*the casing shoe. The casing-tubing*  
*annulus should be loaded with a*  
*corrosion-inhibited fluid and equipped with*  
*a pressure gauge at the surface or left*  
*open to facilitate detection of leakage in the*  
*casing, tubing, or packer.* • *PERIOD!*

CASE 4206: Application of SHELL  
FOR UNORTHODOX OIL WELL LOCATION  
AND AMENDMENT TO ORDER R-2538.