

Case Number

4569

Application

Transcripts

Small Exhibits

ETC.

dearnley-meier reporting service, inc.

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

209 SIMMS BLDG. • P.O. BOX 1092 • PHONE 243-6491 • ALBUQUERQUE, NEW MEXICO



BEFORE THE

NEW MEXICO OIL CONSERVATION COMMISSION

Santa Fe, New Mexico

July 28, 1971

Examiner Hearing

-----  
IN THE MATTER OF: )

Application of Barber Oil, Inc., for )  
an unorthodox oil well location, Eddy )  
County, New Mexico. )  
----- )

Case 4569

BEFORE: Elvis A. Utz, Examiner

TRANSCRIPT OF HEARING

1 MR. UTZ: Case 4569.

2 MR. HATCH: Case 4569. Application of Barber Oil,  
3 Inc., for an unorthodox oil well location, Eddy County, New  
4 Mexico.

5 MR. HATCH: Would you identify yourself for the re-  
6 cord, please?

7 MR. LIGHT: I am Robert Light, president of Barber  
8 Oil, Carlsbad, New Mexico.

9 MR. HATCH: Would you stand and be sworn?

10 (Witness sworn)

11 MR. LIGHT: I would like to submit this well location  
12 plat just for your own personal reference there concerning  
13 the well, unorthodox location that we wish to drill.

14 MR. HATCH: Let's mark this as an exhibit. We'll  
15 call it Exhibit No. 1. You don't have any of these marked,  
16 do you?

17 MR. LIGHT: No. None of them have been marked.

18 (Whereupon, the applicant's exhibits 1 and 2 were marked for  
19 identification.)

20 MR. LIGHT: This is an unorthodox location which we  
21 are requesting in the Russell Pool, Eddy County, New Mexico,  
22 and we have already received approval to drill well No. 46  
23 indicated in the red pencil, and we are asking location No.  
24 47 which is unorthodox, since it is near the section line.  
25

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1 We have had permission in the past for the unorthodox  
2 locations, many of which have been drilled in this field, and  
3 we are able to either inject or produce at our discretion from  
4 these wells.

5 We would like to have the same permission for location 47,  
6 and that well location would be--let's see, 1326 from the south  
7 line and 58 from the west line, section 13, township 20 south,  
8 range 28 East, Eddy County.

9 Our survey has already been done on it, and we hope we can  
10 get approval of this location.

11 The purpose of this, of course, is to further extend the  
12 economic limit of the field, and I want to offer this perform-  
13 ance curve as an exhibit supporting our effort to maintain injec-  
14 tion, and thereby, increase production in the future.

15 You notice on the performance curve that each time we have  
16 drilled additional five acre spacing locations that it has  
17 raised the curve and ultimately extended the economic limit.

18 I think that essentially sums up my request to the exami-  
19 ner's hearing. There are no offset operators, and we operate  
20 the entire field under the name of Barber Oil Corporation.

21 MR. UTZ: Do you want to offer these two exhibits into  
22 the record?

23 MR. LIGHT: Oh, yes.

24 MR. UTZ: Exhibits 1 and 2 of the applicant will be  
25 entered into the record of this case.

1 ROBERT S. LIGHT

2 having been duly sworn, testified as follows:

3 DIRECT EXAMINATION

4 BY MR. UTZ.

5 Q Mr. Light, you say you own all the offset acreage?

6 A Well, we have no offset operators, as such. I don't think  
7 there has been any operations offsetting this particular  
8 sand, and this sand is the only production in the area  
9 of this type close by, within, say, a half a mile.

10 Q Do you anticipate any more of this type of location?

11 A Not at this time. We still have undrilled a few other  
12 unorthodox locations that we have never drilled. We  
13 didn't attach any well number to them at the time we  
14 released the locations, because we weren't sure at that  
15 time that they would all be drilled, so we have fixed a  
16 well number as we have drilled these locations.

17 We still have a few that are approved that we don't intend  
18 to drill. They are either on an edge where the sand plays  
19 out and gets very tight, or there is a development of the  
20 sand which isn't satisfactory for our flood.

21 Q This dark curve is the oil production; is that correct?

22 A That is true.

23 Q And it is for the entire pool?

24 A That is for the entire pool. That is adding all tank  
25 batteries.

1 Q Is that about 2500?

2 A That is approximately what it is. We are at a level of  
3 about 70 barrels a day, 70 barrels a day production.

4 Q I see.

5 A Our economic limit is somewhere at approximately 2000  
6 barrels a month, so you can see there why we are trying  
7 to keep this curve above it, at our present type of oper-  
8 ation, 2000 barrels a month is approximately our economic  
9 limit.

10 Now, at the time we reached that, then, we will make a  
11 considerable change in the way we operate.

12 Q Now, this is a producing well; is that correct?

13 A This well put on production, and then, of course, we would  
14 like to have permission to change it over at our discretion  
15 to injection, which we have for all the wells in the field  
16 at the present time.

17 This has been done with a prior order. We merely notify  
18 the U.S.G.S. and tell them what we are doing and get auto-  
19 matic approval.

20 Q How much water is this pool producing now?

21 A At our latest report, our water oil ratio is 20--in June--  
22 was at 26 barrels of water to 1 barrel of oil. That is  
23 quite high. That is higher than it has normally been.  
24 We have been somewhere between 15 to 20. For some reason,  
25 we injected in June considerably more water than we did in

1 May, and we think the reason for it is we had worked over  
2 our injection pump and had put some water into an unpro-  
3 ductive zone, which can happen by merely raising the  
4 pressure a little bit and getting it into these zones and  
5 those wells, while we restrict back with a manual valve,  
6 so the injection in June, which was 60,000 barrels of  
7 water, is higher than our normal.

8 Q Are you re-injecting the produced water?

9 A Oh, yes. All the water that we produce, we put back into  
10 the system.

11 We have a pretty good quality injected water. We maintain  
12 a pretty good quality. It is all filtered and treated  
13 and put back in the system.

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

15 CROSS EXAMINATION

16 BY MR. PORTER:

17 Q Mr. Light, just as a matter of information, what percentage  
18 of the oil in place in this pool do you expect to ulti-  
19 mately recover with this flood, or with primary and  
20 secondary?

21 A Well, I would base that merely on the offhand opinion of  
22 our engineering firm, which is Stevens Engineering out of  
23 Wichita Falls, and they indicate that we will leave almost  
24 half of the oil in place after we finish our flood, which  
25 we would like to find some way to get out of the ground.

1 Q But you do expect to recover perhaps better than 50  
2 percent?

3 A Better than 50 percent.

4 Q Yes, sir.

5 A We should at the end of our flood recover better than  
6 50 percent of the oil.

7 Q Yes, sir.

8 A It is interesting to note that our water flood oil is--  
9 the total accumulated barrels at this time are 2,200,000  
10 barrels, prior to flooding, and the field was just about  
11 at its economic limit.

12 You will notice on that curve that just prior to 1952  
13 when this pilot flood was started, the production was  
14 down to 2000 barrels a month, which is about its economic  
15 limit, and at that time they produced 842,000 and at this  
16 time we have produced a total of 2,200,000, which is a  
17 1,400,000 in secondary recovery.

18 Q Yes, sir. Now, this is the Russell Pool, isn't it?

19 A This is the Russell Pool.

20 Q Yes, sir.

21 A It has been a very successful flood, and we know there is  
22 a lot of oil still there.

23 Q Well, haven't you had a water flood project going here for  
24 twenty years or more?

25 A This flood was--pilot flood--was installed in 1952 and it

1 is now 19 years in operation.

2 Q I see. I knew it was one of the olders, perhaps, the  
3 first successful water flood in the southeast New Mexico.

4 A Yes. We consider it very successful, and it is economic  
5 and this is what is important.

6 MR. PORTER: Thank you very much.

7 MR. UTZ: Well, I would think economic would be  
8 important, all right.

9 THE WITNESS: Oh, yes, we have a total of approximately  
10 64 wells in this pool at the present time, and we will have 6--  
11 excuse me. I think there are 67 wells at this time, and this  
12 will make approximately 69.

13 MR. PORTER: I see.

14 THE WITNESS: I don't actually count them. I mean  
15 we try to utilize them, all of them, to some advantage.

16 MR. PORTER: Yes, sir.

17 THE WITNESS: And we hope that through tertiary  
18 recovery we might accomplish even more production in the future.

19 REDIRECT EXAMINATION

20 BY MR. UTZ:

21 Q Mr. Light, you don't have a diagrammatic sketch of how  
22 you intend to complete this well, do you?

23 A No, I don't. You mean as far as drilling and completion?

24 Q That's right.

25 A Casing program?

1 Q That's right. Particularly when you want to reconvert it  
2 to an injection well.

3 A Our casing program, of course, is set seven inch through  
4 the surface water, and then we run five inch on top of  
5 the pay, cement it with 50 sacks, drill the pay, and shoot  
6 it with nitroglycerin.

7 It is a rather old type of completion, and still works  
8 good. We don't drill through the pay and perforate and  
9 fract or anything like that. We merely set on top of the  
10 pay, cement the oil strain, and drill out the pay zone,  
11 shoot it, and then run our production string.

12 MR. PORTER: They are all open hole completion?

13 THE WITNESS: Oh, yes.

14 MR. PORTER: This has always been true of your primary  
15 and everything, has it?

16 THE WITNESS: Well, I am not sure of that. I think  
17 the majority of the wells, I am saying 90 percent of them,  
18 are completed in this manner.

19 MR. PORTER: Yes, sir.

20 THE WITNESS: We usually try for the economic  
21 drilling program to do at least two wells when we do them,  
22 because we can get two wells shot for almost the price of one,  
23 and there is very little more cost in drilling to get our own  
24 drilling unit, which we drill our own wells, to get it ready  
25 to go and hire a driller, why, usually you would like to do a

1 two program, and it takes about a month to each well.

2 MR. PORTER: I see.

3 THE WITNESS: We drill--it is a very economical  
4 thing. We can drill and complete the well for approximately  
5 \$2500, which is very reasonable drilling cost.

6 MR. PORTER: I don't believe I have heard of any  
7 like that lately.

8 Q (Question by Mr. Utz.) Do you use cable tool or a rotary?

9 A We use a rotary. At 15 foot falling, and it is just  
10 perfect for this 850 foot production.

11 We use our own men. In fact, that is the big advantage  
12 of our operation. We do everything ourselves. We do  
13 not shoot our wells. That is the only thing we don't do  
14 is shoot our wells.

15 Q Did you say the oil through tubing?

16 A Yes. Two and three-eighths tubing.

17 Q Do you inject water through tubing?

18 A We inject water through tubing. Now, when we have a good  
19 oil string, and if it is a good five inch string, we will  
20 inject through the five inch.

21 Q Without a packer?

22 A Without a packer. See, it is shallow, and there are no  
23 really shallow water that you protect in the area, and if  
24 we have any leakage in the oil string, then we set a packer  
25 and inject through the injection.

1 Q Most of your injection wells, then, do not have packers?

2 A Oh, no. Most of them do have packers at this point.

3 Q I see.

4 A Most of them have packers for the reason that there is a  
5 Connally Son just above the pay zone, and this is a thief  
6 zone for us, and we have to sometimes fit a packer just  
7 below it in order to sell it off.

8 We try to set our oil string just below nine, and it is  
9 hard to do sometimes.

10 Q I see.

11 A But we use the line packer, which are very successful,  
12 and especially if we have enough open hole that isn't  
13 fractured in it when they shoot it.

14 Q Do you know whether you have given us diagrammatic sketches  
15 prior to this that we might have in the file?

16 A I rather doubt we have. This, I am not sure. It has been  
17 a long time. The last hearing I was here for was approxi-  
18 mately five years ago.

19 Q How far do you run your cement back?

20 A Well, we usually cement the surface, oh, fifteen or twenty  
21 sacks, and we cement the oil string with fifty sacks, and  
22 it comes back to the salt section.

23 We have never run a temperature survey. It is such a  
24 shallow drilling program that it--just from--we have been  
25 doing it so many years that we just know about what it is

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1 going to do, and your salt section, of course, would be  
2 enlarged some from drilling, even though we drill with  
3 brine, and we use a brine water for drilling, while it  
4 is still enlarged some.

5 MR. UTZ: Other question? Witness may be excused.

6 (Witness excused)

7 MR. UTZ: Statements in the case? The case will be  
8 taken under advisement.

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I N D E XWITNESSPAGE

ROBERT LIGHT

2

Direct Examination by Mr. Utz

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Cross Examination by Mr. Porter

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Redirect Examination by Mr. Utz.

8

EXHIBITMARKEDOFFERED AND  
ADMITTED

Applicant's 1

2

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Applicant's 2

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dearnley-meier reporting service, inc.

1 STATE OF NEW MEXICO )  
2 )  
3 COUNTY OF BERNALILLO )

4 I, LINDA MALONE, Court Reporter, do hereby certify that  
5 the foregoing and attached Transcript of Hearing before the  
6 New Mexico Oil Conservation Commission was reported by me; and  
7 that the same is a true and correct record of the said  
8 proceedings, to the best of my knowledge, skill and ability.  
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*Linda Malone*  
Court Reporter

22 I do hereby certify that the foregoing is  
23 a true and correct record of the proceedings in  
24 the hearing of Case No. 4568  
25 heard by me on July 28, 1971.  
\_\_\_\_\_  
New Mexico Oil Conservation Commission

dearnley-meier reporting service, inc.

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

205 SIMMS BLDG. • P.O. BOX 1092 • PHONE 243-6691 • ALBUQUERQUE, NEW MEXICO



BEFORE THE  
NEW MEXICO OIL CONSERVATION COMMISSION  
Santa Fe, New Mexico  
July 14, 1971

EXAMINER HEARING

-----  
IN THE MATTER OF: )

Application of Barber Oil, )  
Inc., for an unorthodox )  
oil well location, Eddy )  
County, New Mexico. )  
-----

Case No. 4569

BEFORE: DANIEL S. NUTTER, EXAMINER

TRANSCRIPT OF HEARING

1 MR. NUTTER: Call Case Number 4569.

2 MR. HATCH: Case 4569. Application of Barber Oil,  
3 Inc., for an unorthodox oil well location, Eddy County, New  
4 Mexico.

5 MR. NUTTER: Do we have a representative here  
6 from Barber Oil Company?

7 Call the case later.

8 MR. NUTTER: Call Case Number 4569 again.

9 MR. HATCH: Case 4569. Application of Barber Oil,  
10 Inc., for an unorthodox oil well location, Eddy County, New  
11 Mexico.

12 If the Examiner please, I called his office and  
13 talked to the secretary.

14 He is out of town. She was unaware that he  
15 was to be here for a hearing, and she didn't know.

16 I suggested to her that I would recommend that  
17 the case be continued to July the 28th, and she would  
18 contact him immediately and tell him.

19 Possibly he had applied for this to be  
20 administratively approved, and I had written him a letter  
21 that it would have to be set for a hearing, but there may  
22 be some misunderstanding.

23 MR. NUTTER: And he is out of town, but he  
24 didn't go to Santa Fe?

25 MR. HATCH: No. So I would recommend that it

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would be continued to July 28th.

MR. NUTTER: Case Number 4569 will be continued to the Examiner hearing to be held at this same place at 9:00 o'clock A.M., July 28th, 1971.

With that, the hearing is adjourned.

dearnley-meier reporting service

PAGE 4

1 STATE OF NEW MEXICO )  
2 )  
3 COUNTY OF BERNALILLO )

4 I, LINDA MALONE, Court Reporter, do hereby certify  
5 that the foregoing and attached Transcript of Hearing before  
6 the New Mexico Oil Conservation Commission was reported by  
7 me; and that the same is a true and correct record of the  
8 said proceedings, to the best of my knowledge, skill and  
9 ability.

10 Linda Malone  
11 Court Reporter

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22 I do hereby certify that the foregoing is  
23 a complete record of the proceedings at  
24 the hearing of Case No. 4569  
25 heard by me on 7/14/77.  
New Mexico Oil Conservation Commission



## OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO  
P. O. BOX 2088 - SANTA FE  
87501

GOVERNOR  
BRUCE KING  
CHAIRMAN

LAND COMMISSIONER  
ALEX J. ARMIJO  
MEMBER

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

August 10, 1971

Mr. Robert S. Light  
Barber Oil, Inc.  
901 West Pierce  
Carlsbad, New Mexico 88220

Re: Case No. 4569  
Order No. R-4177  
Applicant:  
Barber Oil Company

Dear Sir:

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

Very truly yours,

A. L. PORTER, Jr.  
Secretary-Director

ALP/ir

Copy of order also sent to:

Hobbs OCC x  
Artesia OCC x  
Aztec OCC       

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. 4569  
Order No. R-4177

APPLICATION OF BARBER OIL, INC.,  
FOR AN UNORTHODOX OIL WELL  
LOCATION, EDDY COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on July 14, 1971,  
at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 9th day of August, 1971, 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, Barber Oil, Inc., is the operator  
of the Russell (Yates) Waterflood Project in the Russell (Yates)  
Pool, Eddy County, New Mexico.

(3) That the applicant seeks authority to drill a  
producing oil well as an infill well in said waterflood project  
at an unorthodox location 1325 feet from the South line and 5  
feet from the West line of Section 13, Township 20 South, Range  
28 East, NMPM, Russell (Yates) Pool, Eddy County, New Mexico.

(4) That the applicant further seeks authority to convert  
the above-described well to a water injection well at such time  
as injection through said well becomes necessary to complete  
an efficient injection pattern.

-2-

CASE NO. 4569  
Order No. R-4177

(5) That approval of the proposed location should increase the efficiency of the Russell (Yates) Waterflood Project and result in greater ultimate recovery of oil, thereby preventing waste.

(6) That approval of the subject application will afford the applicant the opportunity to produce its just and equitable share of the oil in the pool, and will otherwise prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

(1) That the applicant, Barber Oil, Inc., is hereby authorized to drill a producing oil well as an infill well in the Russell (Yates) Waterflood Project Area at an unorthodox location in the Russell (Yates) Pool 1326 feet from the South line and 5 feet from the West line of Section 13, Township 20 South, Range 28 East, NMPM, Eddy County, New Mexico.

(2) That the Secretary-Director of the Commission is hereby authorized to approve the conversion to water injection of the above-described well whenever such conversion becomes necessary to complete an efficient injection pattern and that the showing of well response as required by Rule 701 E-5 shall not be necessary before obtaining such approval.

(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

  
BRUCE KING, Chairman

  
ALEX J. ARMIJO, Member

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

  
S E A L

dr/

Case 4569

Heard 7-28-71

Rec. 7-29-71

Grant Barker Oil Co. an NSL  
for their Producing well to be  
drilled 1326/5 + 5/W Lease of  
13-20-28. This in the Russell  
waterflood.

Also grant permission to con-  
vert this well to Injection  
by administrative approval.

Thos. D. [Signature]

OIL CONSERVATION COMMISSION

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

June 25, 1971

*Case 4569*

C  
O  
P  
Y

Barber Oil, Inc.  
901 West Pierce  
Carlsbad, New Mexico

Attention: Mr. Robert S. Light

Re: Unorthodox location, 1326 feet from  
the South line and 5 feet from the  
West line of Section 13, Township 20  
South, Range 28 East, Russell Pool,  
Eddy County, New Mexico.

Gentlemen:

As I have been unable to locate an order  
authorizing administrative approval for the above-  
described location, the matter is being set for  
hearing before an examiner on July 14, 1971.

Very truly yours,

GEORGE M. HATCH  
Attorney

GMH/dr

DOCKET MAILED

Date 7-16-71

*Case 4569*

BARBER OIL, INC.

901 WEST PIERCE

PHONE TU 7-2566

CARLSBAD, NEW MEXICO

June 23, 1971

Oil Conservation Commission,  
Box 2088,  
Santa Fe, New Mexico 87501

71 JUN 24 PM 1 20

Gentlemen:

Under previous order R-2511, Barber Oil Inc. was authorized to drill and complete for either injection or producing purposes certain unorthodox locations in the Russell Field, Eddy County, New Mexico. It is now necessary in order to maintain our pressure maintenance program to drill one additional location as follows:

1326' FSL 5' FWL  
Unit Letter L  
Sec. 13, T.20S., R.28E NMPM

I would appreciate your administrative approval of this unorthodox location in order that we can continue an efficient water flood in the Russell Pool. There are no offset operators in this area, and this location is 1320' from the nearest lease line.

*will produce  
and then inject -  
Bob says there is another order -*

Very truly yours,  
Barber Oil Inc.

*[Signature]*  
Robert S. Light, President

RSL:pg  
cc: Oil Conservation Commission  
Artesia, New Mexico

WFX-140

DOCKET MAILED

Date 7-2-71

DOCKET: EXAMINER HEARING - WEDNESDAY - JULY 14, 1971

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

The following cases will be heard before Daniel S. Nuttner, Examiner,  
or Elvis A. Utz, Alternate Examiner:

- ALLOWABLE: (1) Consideration of the allowable production of gas for August, 1971, from fifteen prorated pools in Lea, Eddy, Chaves and Roosevelt Counties, New Mexico.
- (2) Consideration of the allowable production of gas from nine prorated pools in San Juan, Rio Arriba, and Sandoval Counties, for August, 1971.

CASE 4565: Application of Tom L. Ingram to directionally drill, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to directionally drill his State M Well No. 1, having a surface location 330 feet from the South line and 1650 feet from the East line of Section 18, Township 17 South, Range 36 East, Vacuum-Abo Reef Pool, Lea County, New Mexico. Applicant proposes to plug the well back to approximately 7200 feet and whipstock the well to a bottom-hole location northwest of the surface location and no nearer than 330 feet to the boundary of the dedicated proration unit.

CASE 4566: Application of W & H Production-Drilling, Inc. for an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks, as an exception to Rule 104 of the Commission Rules and Regulations, approval of an unorthodox gas well location for the Black River Corporation Cities-Federal Well No. 1, located 1650 feet from the North and West lines of Section 34, Township 25 South, Range 24 East, undesignated Morrow gas pool, Eddy County, New Mexico.

CASE 4568: Application of W. W. West for a unit agreement, Otero County, New Mexico. Applicant, in the above-styled cause, seeks approval of the West Dog Canyon Unit Area comprising 37,782 acres, more or less, of Federal, State and fee lands in Townships 25 and 26 South, Ranges 19 and 20 East, Otero County, New Mexico.

Examiner Hearing

July 14, 1971

-2-

Docket No. 14-71

CASE 4569: Application of Barber Oil, Inc., for an unorthodox oil well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to drill a producing oil well at an unorthodox location 1326 feet from the South line and 5 feet from the West line of Section 13, Township 20 South, Range 28 East, as an infill well in its waterflood project in the Russell (Yates) Pool, Eddy County, New Mexico.

CASE 4567: Southeastern New Mexico nomenclature case calling for an order for the creation, extension and contraction of certain pools in Lea, Chaves, Eddy and Roosevelt Counties, New Mexico.

(a) Create a new pool in Eddy County, New Mexico, classified as a gas pool for Morrow production and designated as the Sand Dunes-Morrow Gas Pool. The discovery well is the Texas American Oil Corporation Todd 36 State No. 1 located in Unit F of Section 36, Township 23 South, Range 31 East, NMPM. Said pool would comprise:

TOWNSHIP 23 SOUTH, RANGE 31 EAST, NMPM  
SECTION 36: W/2

(b) Contract the Red Lake Pool in Eddy County, New Mexico, by the deletion of the following described area:

TOWNSHIP 18 SOUTH, RANGE 27 EAST, NMPM  
SECTION 18: SW/4 NW/4

(c) Extend the Atoka-San Andres Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 18 SOUTH, RANGE 27 EAST, NMPM  
SECTION 18: SW/4 NW/4

(d) Extend the Buffalo Valley-Pennsylvanian Gas Pool in Chaves County, New Mexico, to include therein:

TOWNSHIP 15 SOUTH, RANGE 27 EAST, NMPM  
SECTION 12: E/2

Examiner Hearing

July 14, 1971

-3-

Docket No. 14-71

(Case 4567 continued)

(e) Extend the Eagle Creek-San Andres Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 17 SOUTH, RANGE 25 EAST, NMPM

SECTION 14: SE/4 NW/4

SECTION 22: W/2 NE/4

SECTION 23: W/2 SW/4

SECTION 26: N/2 NW/4

SECTION 27: NE/4 NE/4

(f) Extend the Southwest Gladiola-Devonian Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 12 SOUTH, RANGE 37 EAST, NMPM

SECTION 26: N/2

(g) Extend the Haystack-Cisco Gas Pool in Chaves County, New Mexico, to include therein:

TOWNSHIP 6 SOUTH, RANGE 27 EAST, NMPM

SECTION 28: All

(h) Extend the Vada-Pennsylvanian Pool in Lea and Roosevelt Counties, New Mexico, to include therein:

TOWNSHIP 8 SOUTH, RANGE 35 EAST, NMPM

SECTION 32: SW/4

TOWNSHIP 9 SOUTH, RANGE 34 EAST, NMPM

SECTION 3: SE/4

CASE 4560: (Continued from the June 30, 1971, Examiner Hearing

Application of Rijan Oil Company, Inc. for a pressure maintenance project, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a pilot pressure maintenance project in the Slick Rock-Dakota Pool by the injection of water into the Dakota formation through its Rijan Wells Nos. 10, 12, and 14 located, respectively, in Units F, L, and K of Section 31, Township 30 North, Range 16 West, San Juan County, New Mexico.

DOCKET: EXAMINER HEARING - WEDNESDAY - JULY 28, 1971

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

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

CASE 4539: (Continued from the June 30, 1971, Examiner Hearing)

In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit Doanbuy Lease & Company, Inc., and all other interested persons to appear and show cause why its following described wells in Section 27, Township 14 South, Range 33 East, Saunders Pool, Lea County, New Mexico, should not be plugged and abandoned in accordance with a Commission-approved plugging program.

Atlantic State AC-1	Well No. 1	Unit M
Atlantic State AC-2	Well No. 2	Unit M
Atlantic State AC-2	Well No. 3	Unit O
Atlantic State AC-3	Well No. 4	Unit L
Atlantic State AC-3	Well No. 5	Unit J
Atlantic State AC-4	Well No. 6	Unit P
Atlantic State AC-4	Well No. 7	Unit I

CASE 4558: (Continued from the June 30, 1971, Examiner Hearing)

Application of Midwest Oil Corporation for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the Little Inbe (Bough "C") Unit Area comprising 2,240 acres, more or less, of state lands in Sections 10, 11, 14 and 15 of Township 10 South, Range 33 East, Inbe Permo-Pennsylvanian Pool, Lea County, New Mexico.

CASE 4559: (Continued from the June 30, 1971, Examiner Hearing)

Application of Midwest Oil Corporation for a waterflood project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project in its Little Inbe (Bough "C") Unit Area, Inbe Permo-Pennsylvanian Pool, Lea County, New Mexico, by the injection of water through three wells located in Sections 11 and 14 of Township 10 South, Range 33 East, Lea County, New Mexico.

CASE 4563: (Continued from the June 30, 1971, Examiner Hearing)

Application of Corinne Grace for special gas-oil ratio limitation and pressure maintenance project, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks authority to produce her State Well No. 1 located in Unit A of Section 1, Township 15 South, Range 29 East, Double L-Queen Pool, Chaves County, New Mexico, with no gas-oil ratio limitation, strip the liquids, and institute a pressure maintenance project by the injection of all said gas back into the producing formation through her State Well No. 2 located in Unit B of said Section 1. Applicant further seeks to transfer an oil allowable from said Well No. 2 to said Well No. 1.

CASE 4561: (Continued and readvertised from the June 30, 1971, Examiner Hearing)

Application of Great Plains Land Company for an exception to Order No. R-3221, as amended, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an exception to Order No. R-3221, as amended, to dispose of water produced by its well located in the NW/4 NW/4 of Section 31, Township 18 South, Range 31 East, Shugart Field, Eddy County, New Mexico.

CASE 4570: Application of Shenandoah Oil Corporation for salt water disposal, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the San Andres formation in the interval from 1760 feet to 1840 feet by injection down the annulus of its Read & Stevens "M" Federal Well No. 1 located in Unit K of Section 28, Township 6 South, Range 27 East, Haystack-Cisco Gas Pool, Chaves County, New Mexico.

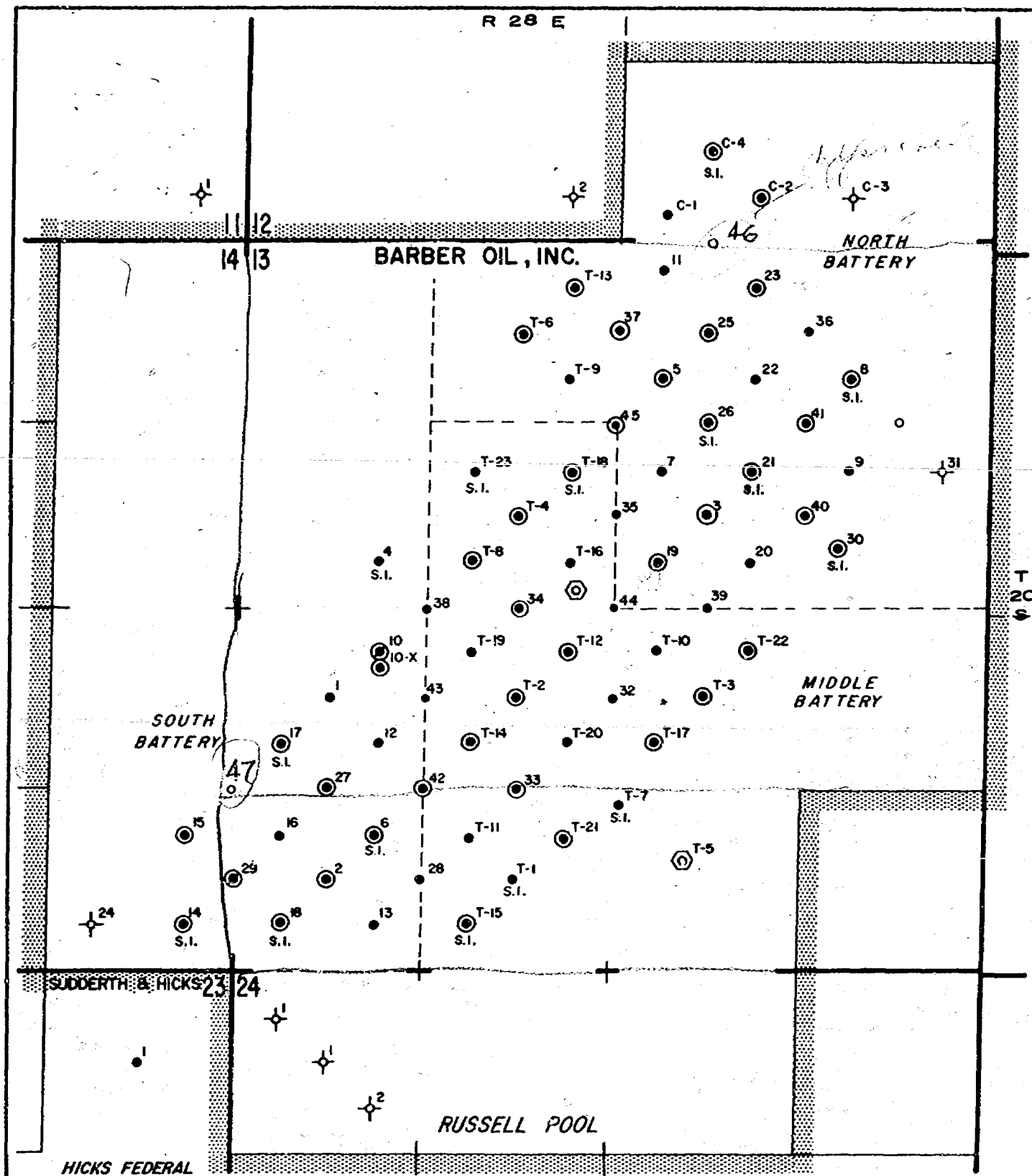
CASE 4571: Application of Read & Stevens for an unorthodox gas well location, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks an exception to the special rules and regulations governing the Buffalo Valley-Pennsylvanian Gas Pool to permit the drilling of a well at an unorthodox gas well location 990 feet from the South and West lines of Section 5, Township 15 South, Range 28 East, Chaves County, New Mexico, the S/2 of said Section 5 to be dedicated to the well.

CASE 4572: Application of Franklin, Aston & Fair, Inc., for salt water disposal, Roosevelt County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the "B" zone of the Slaughter section of the San Andres formation in its Cook State Well No. 1 located in Unit L of Section 32, Township 7 South, Range 36 East, Todd-San Andres Field, Roosevelt County, New Mexico.

CASE 4573: Application of Tenneco Oil Company for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the Sand Springs South Unit Area comprising 2536 acres, more or less, of state lands in Township 11 South, Ranges 34 and 35 East, Lea County, New Mexico.

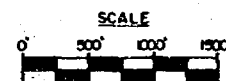
CASE 4574: In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit Tenneco Oil Company to appear and show cause why it should not take immediate action to repair the production casing in its Bolack "B" Well No. 5 located in Unit J of Section 31, Township 27 North, Range 8 West, Basin-Dakota Pool, San Juan County, New Mexico.

CASE 4569: (Continued from the July 14, 1971, Examiner Hearing)  
Application of Barber Oil, Inc., for an unorthodox oil well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to drill a producing oil well at an unorthodox location 1326 feet from the South line and 5 feet from the West line of Section 13, Township 20 South, Range 28 East, as an infill well in its waterflood project in the Russell (Yates) Pool, Eddy County, New Mexico.



- LEGEND**
- PRODUCING OIL WELL
  - ⊙ WATER INJECTION WELL
  - ⊕ WATER SUPPLY WELL
  - ✦ DRY HOLE
  - ▨ LEASE AREA

**BARBER OIL, INC.**  
**RUSSELL POOL**  
 EDDY COUNTY, NEW MEXICO



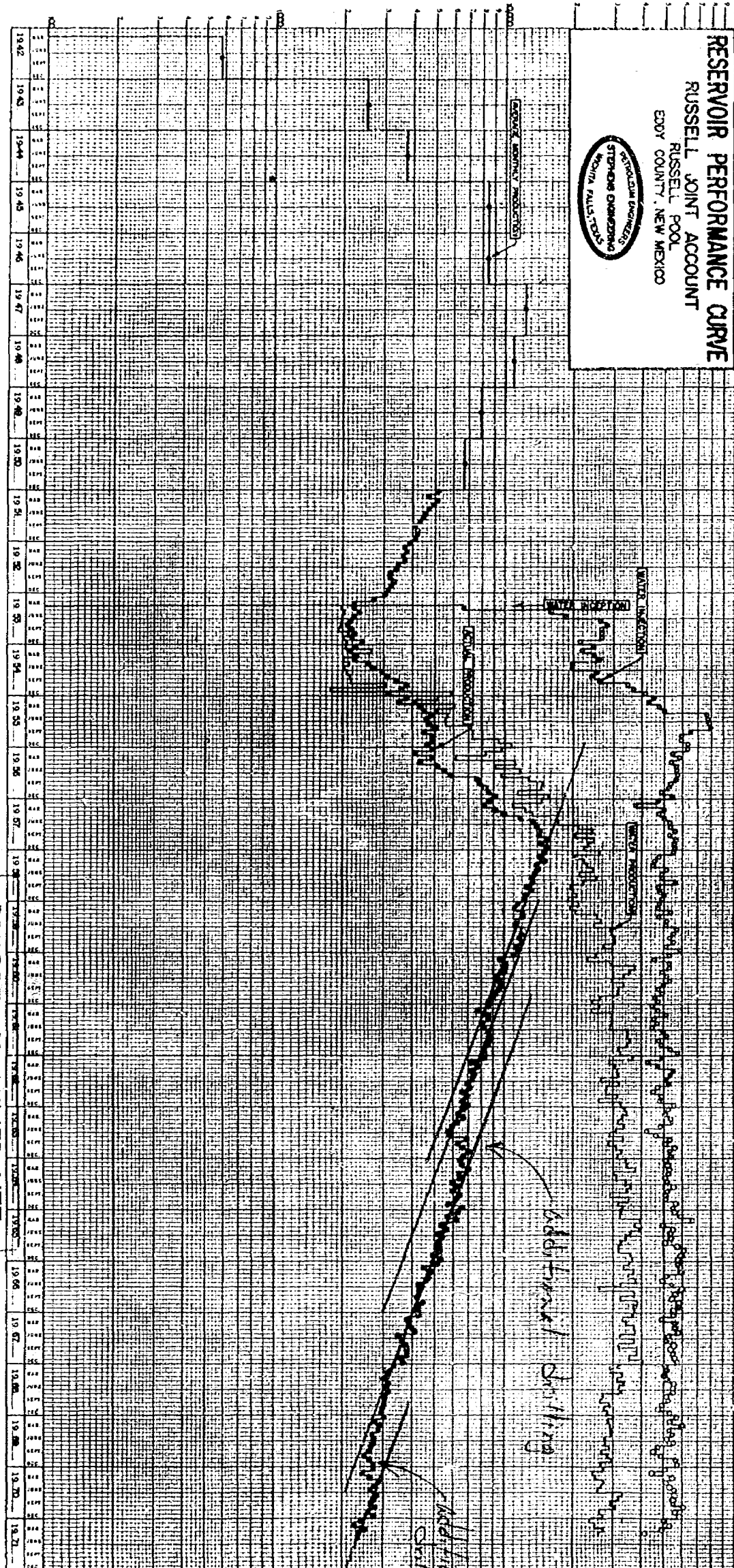
**BEFORE EXAMINER UTZ**

OIL CONSERVATION COMMISSION  
 EXHIBIT NO. 1  
 CASE NO. 4559

# RESERVOIR PERFORMANCE CURVE

RUSSELL JOINT ACCOUNT

RUSSELL POOL  
EDOT COUNTY, NEW MEXICO



BEFORE EXAMINER UTZ

OIL CONSERVATION COMMISSION

EXHIBIT NO. 2

CASE NO. 4559

DRAFT

GMH/dr

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. 4569

Order No. R- 4177

APPLICATION OF BARBER OIL, INC.,  
FOR AN UNORTHODOX OIL WELL  
LOCATION, EDDY COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on July 14, 1971,  
at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this August day of July, 1971, 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, Barber Oil, Inc., is the operator  
of the Russell (Yates) ~~Unit~~ Waterflood Project in the Russel (Yates)  
Pool, Eddy County, New Mexico.

(4) That the applicant further seeks authority to convert the above-described well to a water injection well at such time as injection through said well becomes necessary to complete an efficient injection pattern.

(3) That the applicant seeks authority to drill ~~its~~ ~~well~~ a producing oil well as an infill well in said waterflood project at an unorthodox location 1326 feet from the South line and 5 feet from the West line of Section 13, Township 20 South, Range 28 East, NMPM, Russell (Yates) Pool, Eddy County, New Mexico.

(5)(4) That approval of the proposed location should increase the efficiency of the Russell (Yates) ~~Unit~~ Waterflood Project and result in greater ultimate recovery of oil, thereby preventing waste.

(6)(5) That approval of the subject application will afford the applicant the opportunity to produce its just and equitable share of the oil in the pool, and will otherwise prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

(1) That the applicant, Barber Oil, Inc., is hereby authorized to drill ~~its well~~ a producing oil well as an infill well in the Russell (Yates) ~~Unit~~ Waterflood Project Area at an unorthodox location in the Russell (Yates) Pool 1326 feet from the South line and 5 feet from the West line of Section 13, Township 20 South, Range 28 East, NMPM, Eddy County, New Mexico.

(3)(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.

(2) That the Secretary - Director of the Commission is hereby authorized to approve the conversion to water injection of the above-described well whenever such conversion becomes necessary to complete an efficient injection pattern and that the showing of well response as required by Rule 701 E-5 shall not be necessary before obtaining such approval.

CASE 4570: Appli. of SHENANDOAH  
OIL CORP. FOR SALT WATER DISPOSAL,  
CHAVES COUNTY, NEW MEXICO.