

CASE 2884: Appli. of CONTINENTAL
OIL CO. for a pressure maintenance
project, San Juan County, N. Mex.

Continue letter
as per
inside
JH

1952/10.

2884

edition, Transcript,

all Exhibits, Etc.

Memo

From
D. S. NUTTER
CHIEF ENGINEER

To Pete -

It doesn't look like
these people are going
to be able to get to-
gether. It looks like
we will have to
tell 'em "no" unless
they want to try
a hearing -

Sam

File - Case 2884

JAN 11 1964

P. O. Box 3312
Durango, Colorado
January 6, 1964

Mr. S. E. Reynolds
State Engineer
State Capital Building
Santa Fe, New Mexico

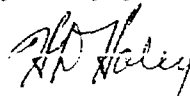
Re: Case 2884
Order R-2564

Attention: Mr. Frank E. Irby,
Chief, Water Rights Division

Gentlemen:

In reference to your letter of December 19, 1963 and the preceding communications, Continental has reconsidered the possible effects of our proposal to commingle Table Mesa and Dakota produced waters for injection into the Dakota formation. We hereby withdraw our proposal. We have started the initial planning for disposal of the Pennsylvanian produced water into the Organ Rock formation. If this does not prove feasible, we will adequately dispose of the water by the evaporation method. You will be kept informed as to our decision on disposal of the produced Pennsylvanian water.

Very truly yours,



H. D. Haley
District Manager
Durango District
Production Department

EJV/aje
cc: NMOCC (2) ✓
Santa Fe, New Mexico



STATE OF NEW MEXICO
STATE ENGINEER OFFICE
SANTA FE

S. E. REYNOLDS
STATE ENGINEER

December 19, 1963

ADDRESS CORRESPONDENCE TO:
STATE CAPITOL
SANTA FE, N. M.

Re: Case 2884
Order R-2564

Mr. A. L. Porter, Jr.
Secretary-Director
Oil Conservation Commission
Santa Fe, New Mexico

Dear Mr. Porter:

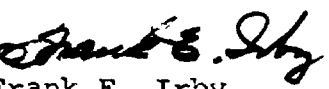
Reference is made to the above case and order and subsequent communications pertaining to this matter. I have received a response from H. D. Haley of Continental Oil Company to the letter which I wrote you on November 21, 1963 objecting to the injection of water from the Table Mesa formation into the Dakota formation. Attached to Mr. Haley's letter was a State Public Health Laboratory analyses of the water from the Dakota formation and a Core Laboratory, Inc., analyses of the Table Mesa formation water. It is noted that two copies of Mr. Haley's letter were sent to your office. I have carefully studied all the information available to me and discussed it with Mr. Reynolds. There is no supported statement, in the letter, that shows that contamination will not occur and the analyses clearly indicate that contamination will occur. The total dissolved solids in the Table Mesa water amount to 100,002 mg/l. The total dissolved solids for the Dakota water are not given in the analyses but the conductance is given as 1500 at 25° centigrade which indicates a probable maximum of 1000 mg/l total dissolved solids. Since this one point alone indicates beyond any reasonable doubt that contamination will occur, I see no reason to go into any other points.

I reiterate the statement contained in my letter to you under date of November 21, 1963. "This office objects to the intent of Continental Oil Company which their letter indicates will have a detrimental effect on the quality of water now available in the

Dakota formation, or any other plan which would have a detrimental effect on usable waters."

Very truly yours,

S. E. Reynolds
State Engineer

By: 
Frank E. Irby
Chief
Water Rights Division

FEI/ma
cc-Continental Oil Co.

PLAIN OFFICE 000

1963 DEC 12 AM 11 37

P. O. Box 3312
Durango, Colorado
November 27, 1963

Mr. S. E. Reynolds
State Engineer
State Capital Building
Santa Fe, New Mexico

Re: Case 2884
Order R-2564

Attention: Mr. Frank E. Irby, Chief,
Water Rights Division

Gentlemen:

Attached are copies of the water analyses that you requested in your letter dated November 21, 1963 to the New Mexico Oil Conservation Commission.

If we were to mix 1000 BPD of the Table Mesa water with 5000 BPD of Dakota water, the total dissolved solids should be about 21,000 Mg./ 1 . The mixed water that would be injected will contact the large volume of water in the reservoir pore space. Approximately 35 percent of the reservoir water saturation will be irreducible water, but we anticipate that 35 percent of the reservoir water is connate water. Consequently, the mixed injected water would mix with the connate water and the total dissolved solids of the resulting water produced from the wells would be greatly reduced.

All of the water that is produced will be returned to the reservoir. Consequently, there would be no contamination of other surface water in the event the mixed water was unusable.

Mr. S. E. Reynolds
Page Two

REC 2 AM 5:37

In view of the above discussion we request that you reconsider your objection to mixing the Table Mesa and Dakota waters for injection into the Dakota reservoir.

After you have examined the water analyses, please advise us of your findings.

Very truly yours,

H. D. Haley

H. D. Haley
District Manager
Durango District
Production Department

FVM/mje

cc: ~~WPC~~CC (2)
Santa Fe, New Mexico

102-0000
NOV 28 1963

P. O. Box 3312
Durango, Colorado
November 27, 1963

Mr. S. E. Reynolds
State Engineer
State Capital Building
Santa Fe, New Mexico

Re: Case 2884
Order R-2564

Attention: Mr. Frank E. Irby, Chief,
Water Rights Division

Gentlemen:

Attached are copies of the water analyses that you requested in your letter dated November 21, 1963 to the New Mexico Oil Conservation Commission.

If we were to mix 1000 BPD of the Table Mesa water with 5000 BPD of Dakota water, the total dissolved solids should be about 21,000 Mg./ l. The mixed water that would be injected will contact the large volume of water in the reservoir pore space. Approximately 35 percent of the reservoir water saturation will be irreducible water, but we anticipate that 35 percent of the reservoir water is connate water. Consequently, the mixed injected water would mix with the connate water and the total dissolved solids of the resulting water produced from the wells would be greatly reduced.

All of the water that is produced will be returned to the reservoir. Consequently, there would be no contamination of other surface water in the event the mixed water was unusable.

Mr. S. E. Reynolds
Page Two

RECEIVED DEC 2 AM 11 37

In view of the above discussion we request that you reconsider your objection to mixing the Table Mesa and Dakota waters for injection into the Dakota reservoir.

After you have examined the water analyses, please advise us of your findings.

Very truly yours,

E. D. Haley
E. D. Haley
District Manager
Durango District
Production Department

FVM/mje

cc: HNDPC (2)
Santa Fe, New Mexico



STATE OF NEW MEXICO

STATE ENGINEER OFFICE

SANTA FE

S. E. REYNOLDS
STATE ENGINEER

November 21, 1963

ADDRESS CORRESPONDENCE TO:
STATE CAPITOL
SANTA FE, N. M.

N. M. Oil Conservation Commission
Santa Fe, New Mexico

Attn. Mr. A. L. Porter, Jr.
Secretary-Director

Re: Case 2884
Order R-2564

Dear Mr. Porter:

On June 28, 1963, Continental Oil Company made application to the Commission in the following language: "Continental Oil Company herewith makes application for a hearing to obtain authority for pressure maintenance of the Dakota reservoir, Table Mesa Field, San Juan County, New Mexico. The reservoir pressure will be maintained by injection of produced water from the Dakota formation." (Emphasis added.)

Further on in the application near the end (paragraph 6) the following statement is made: "Although the water is being consumed by livestock and occasionally used for irrigation, it is of poor quality. It is not recommended for domestic use by the New Mexico State Public Health Laboratory."

On September 4, 1963, hearing was held before Examiner Elvis A. Utz on the subject application.

On September 11, 1963, the Commission issued Order R-2564 granting the application.

On November 15, 1963, Continental Oil Company addressed a letter to New Mexico Oil Conservation Commission stating their intent to use salt water from the Pennsylvanian formation in addition to the waters from the Dakota formation in this pressure maintenance project.

In paragraph 1 of this letter the following statement is made: "..... we proposed the use of Dakota produced water for injection into the Dakota reservoir. The

authority to institute pressure maintenance of the Dakota reservoir was granted on September 11, 1963 by Order R-2564 without restriction on the type of water to be used." It is true that the subject order did not contain any restriction on the type of water to be used and it is my position that this point was not at issue at the hearing since no mention was made of the use of any water in this project, other than that being produced from the Dakota formation. You may be assured that with this and other information available to me, I would have objected, at the time of the hearing, to the use of salt water in this project.

The second paragraph of this letter contains the following statement: "Testing of this well has shown that about 1000 barrels per day of salt water must be produced in order to produce commercial rates of oil and gas." This statement refers to Table Mesa Well #28 in the Table Mesa Zone of the Pennsylvanian formation. This statement clearly indicates the very poor quality of the water in the Pennsylvanian formation.

Paragraph 3 contains the following statement: "The ratio of Pennsylvanian water to Dakota water will be in the order of 1 to 5 parts. This should not create a problem of contamination of the Dakota water." Since analyses of the Pennsylvanian water and the Dakota water have not been submitted, I cannot agree with the conclusion stated. I would like to have copies of these analyses if they are available.

Paragraph 4 of the letter contains the following statement: "It provides a convenient and satisfactory method for subsurface disposal of Pennsylvanian salt water." This again indicates the extremely poor quality of the water to be injected into a zone containing usable water.

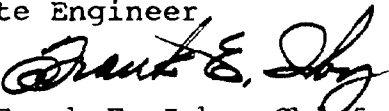
Paragraph 5, which is the last paragraph, states: "We intend to proceed with these plans as soon as possible unless you require additional information."

This office objects to the intent of Continental Oil Company which their letter indicates will have a detrimental effect on the quality of water now available in the Dakota formation, or any other plan which would have a detrimental effect on usable waters.

Very truly yours,

FEI/ma
cc-Continental Oil Co.
James L. Williams

S. E. Reynolds
State Engineer

By: 
Frank E. Irby, Chief,
Water Rights Division



MAIN OFFICE OCC

1963 NOV 19 PM 1:19

CONTINENTAL OIL COMPANY

P. O. Box 3312
Durango, Colorado
November 15, 1963

New Mexico Oil Conservation Commission (3)
P. O. Box 871
Santa Fe, New Mexico

Re: Case No. 2884
Order No. R-2564

Gentlemen:

In our application for a pressure maintenance project of the Dakota reservoir, Table Mesa Field, San Juan County, New Mexico, we proposed the use of Dakota produced water for injection into the Dakota reservoir. The authority to institute pressure maintenance of the Dakota reservoir was granted on September 11, 1963, by Order No. R-2564 without restriction on the type of water to be used.

Continental has recently completed Table Mesa No. 28 in the Table Mesa Zone of the Pennsylvanian formation. The well is located 660' FSL, 1980' FWL, Unit N, Section 33, T28N, R17W, San Juan County, New Mexico. Testing of this well has shown that about 1000 barrels per day of salt water must be produced in order to produce commercial rates of oil and gas. Surface disposal of this volume of water would require a considerable investment in evaporation pits.

The purpose of this letter is to inform appropriate parties of our proposal to dispose of the Penn. water in the Dakota reservoir along with Dakota produced water. The water will be injected into Table Mesa No. 25 as proposed in our application. We will have compatibility studies run prior to commingling the waters. The ratio of Penn. water to Dakota water will be in the order of 1 to 5 parts. This should not create a problem of contamination of the Dakota water.

This plan is in the best interest of Conservation for two reasons. It provides a convenient and satisfactory method for subsurface disposal of Penn. salt water. It will also allow us to produce oil and helium gas from the Penn. "oil-ring" at a downstructure location. No. 28 is located 64 feet

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Page Two

MAIN OFFICE OGC

low to No. 24 and 151 feet low to No. 18, the 2803 gas well. It appears that sufficient gas can be produced from No. 28 to allow us to shut in No. 18. This would prevent loss of oil to the gas cap and allow maximum recovery from the reservoir.

We intend to proceed with these plans as soon as possible unless you require additional information.

Please advise us if this plan meets with your approval.

Very truly yours,



H. D. Haley
District Manager
Durango District
Production Department

EJV/cb

cc: Mr. E. A. Austin, Continental Oil Company, Denver, Colorado
Navajo Tribal Council
State Engineers Office, P. O. Box 1079, Santa Fe, New Mexico
Holly Oil Company, P. O. Box 1781, Colorado Springs, Colorado
U. S. Geological Survey, P. O. Box 959, Farmington, New Mexico
U. S. Geological Survey, P. O. Box 1857, Roswell, New Mexico



MAIN OFFICE ODD

1963 NOV 13 PM 1:19

CONTINENTAL OIL COMPANY

P. O. Box 3312
Durango, Colorado
November 15, 1963

New Mexico Oil Conservation Commission (3)
P. O. Box 871
Santa Fe, New Mexico

Re: Case No. 2884
Order No. R-2564

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NMOCC
Page Two

MAIN OFFICE OCC

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We intend to proceed with these plans as soon as possible unless you require additional information.

Please advise us if this plan meets with your approval.

Very truly yours,



H. D. Haley
District Manager
Durango District
Production Department

RJV/cb

cc: Mr. E. A. Austin, Continental Oil Company, Denver, Colorado
Navajo Tribal Council
State Engineers Office, P. O. Box 1079, Santa Fe, New Mexico
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U. S. Geological Survey, P. O. Box 959, Farmington, New Mexico
U. S. Geological Survey, P. O. Box 1857, Roswell, New Mexico



MAIN OFFICE OCC

1963 NOV 19 PM 1:19

CONTINENTAL OIL COMPANY

P. O. Box 3312
Durango, Colorado
November 15, 1963

New Mexico Oil Conservation Commission (3)
P. O. Box 871
Santa Fe, New Mexico

Re: Case No. 2884
Order No. R-2564

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The purpose of this letter is to inform appropriate parties of our proposal to dispose of the Penn. water in the Dakota reservoir along with Dakota produced water. The water will be injected into Table Mesa No. 25 as proposed in our application. We will have compatibility studies run prior to commingling the waters. The ratio of Penn. water to Dakota water will be in the order of 1 to 5 parts. This should not create a problem of contamination of the Dakota water.

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Page Two

MAIN OFFICE OCC

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Please advise us if this plan meets with your approval.

Very truly yours,



H. D. Haley
District Manager
Durango District
Production Department

RJV/cb

cc: Mr. E. A. Austin, Continental Oil Company, Denver, Colorado
Navajo Tribal Council
State Engineers Office, P. O. Box 1079, Santa Fe, New Mexico
Holly Oil Company, P. O. Box 1781, Colorado Springs, Colorado
U. S. Geological Survey, P. O. Box 959, Farmington, New Mexico
U. S. Geological Survey, P. O. Box 1857, Roswell, New Mexico

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

EXAMINER HEARING

IN THE MATTER OF: (Continued from August 21,)
1963 examiner hearing))
Application of Continental Oil Company for a)
pressure maintenance project, San Juan)
County, New Mexico. Applicant, in the)
above-styled cause, seeks authority to in-)
stitute a pressure maintenance project by)
the injection of water into the Dakota for-)
mation through its Table Mesa Well No. 25,)
located in Unit K, Section 34, Township 28)
North, Range 17 West, Table Mesa Pool, San)
Juan County, New Mexico.)

Case No. 2884

BEFORE: Elvis A. Utz, Examiner.

TRANSCRIPT OF HEARING

September 4, 1963.

DEARNLEY-MEIER REPORTING SERVICE, Inc.

FARRINGTON, N. M.
PHONE 325-1182

SANTA FE, N. M.
PHONE 983-3071

ALBUQUERQUE, N. M.
PHONE 243-6691

DEARNLEY-MEIER REPORTING SERVICE, Inc.

FARMINGTON, N. M.
PHONE 325-1182

SANTA FE, N. M.
PHONE 983-3971

ALBUQUERQUE, N. M.
PHONE 243-6691

MR. UTZ: Case 2884.

MR. DURRETT: Application of Continental Oil Company for a pressure maintenance project, San Juan County, New Mexico.

MR. KELLAHIN: If the Examiner please, Jason Kellahin, Kellahin & Fox, Santa Fe, appearing on behalf of the Applicant in association with Mr. William Griffith, a member of the Colorado Bar. He will present the case.

MR. GRIFFITH: We have one witness we would like to have sworn.

(Witness sworn.)

MR. UTZ: Are there any other appearances in this case? You may proceed.

FRED VAN MATRE

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

DIRECT EXAMINATION

BY MR. GRIFFITH:

Q Would you please state your name and address?

A Fred Van Matre, Durango, Colorado.

Q By whom are you employed and in what capacity?

A I am employed by Continental Oil Company as the District Engineer in the Durango District.

Q Have you previously testified before the New Mexico Oil



DEARNLEY-MEIER REPORTING SERVICE, Inc.

FARMINGTON, N. M.
PHONE 355-1182

ALBUQUERQUE, N. M.
PHONE 243-6691

ALBUQUERQUE, N. M.
PHONE 243-6691

and Gas Commission as a petroleum engineer?

A Yes, sir, I have.

MR. GRIFFITH: Will the Commission accept Mr. Van Matre's qualification as an expert in this field?

MR. UTZ: Yes, sir, they will.

Q Are you familiar with Continental's application in this Case No. 2884?

A Yes, I am.

Q What is the purpose of the application?

A Continental Oil Company requests approval to initiate a water injection pressure maintenance program of the Dakota formation in the Table Mesa field. Water would be injected into the Table Mesa Well No. 25, which is located 1980 feet from the south line, 1980 feet from the west line of Section 34, Township 28 North, Range 17 West, San Juan County, New Mexico.

MR. GRIFFITH: Would you mark this as Exhibit No. 1?

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

Q I show you what has been marked as Exhibit No. 1 for identification, and ask you if this exhibit was prepared by you or under your supervision?

A Yes, it was.

Q What does Exhibit 1 purport to show?



A Exhibit 1 is a lease ownership plat showing the Table Mesa field and the jointly-owned Continental Oil Company and Holly Oil Company acreage, the acreage ownership within two miles of the proposed injection well, Table Mesa No. 25.

Q And the proposed injection well is indicated by a red arrow?

A Yes, it is.

Q On the Exhibit 1 it indicates the ownership of our block as Continental, 75%, Holly Oil Company 25. Is this true for all formations?

A No, sir, this is in error. The Dakota formation is Continental Oil Company 50% and Holly Oil Company 50%, as shown on Exhibit 1, the 75, 25% is for the Pennsylvanian zone.

Q On Exhibit 1, Well No. 9, located in Section 3 is indicated as a producing well in the Dakota formation. Is this well still a producing well?

A No, sir. Well No. 9 is completed in the Dakota formation, but it has been shut-in since our application was filed, due to the production of one barrel of oil per day and 44 barrels of water per day, this rate is uneconomical.

Q When was Table Mesa No. 25 completed?

A Table Mesa No. 25 was completed June 1, 1962.



DEARNLEY-MEIER REPORTING SERVICE, Inc.

FARMINGTON, N. M.
PHONE 325-1182

SANTA FE, N. M.
PHONE 983-3971

ALBUQUERQUE, N. M.
PHONE 243-6691

(Whereupon, Applicant's Exhibit No. 2 was marked for identification.)

Q I call your attention to Exhibit No. 2 for identification and ask you if this exhibit was prepared by you or under your supervision?

A Yes, it was.

Q Would you explain what Exhibit No. 2 shows?

A Exhibit 2 is a schematic diagram of the completion of Table Mesa No. 25, the well was drilled to a total depth of 1456 feet, the top of the Dakota formation was encountered at 1415 feet. 5- $\frac{1}{2}$ " 14 pound J-55 casing was set on top of the Dakota sand at 1415 feet and cemented to the surface with 300 sacks of cement.

Q Do you have a log on the Table Mesa Well No. 25?

A No, sir, a log was not run on this well.

Q Would you give a brief description of the history of the well?

A Table Mesa 25 was completed June 1, 1962. On June 4, 1962 pumping equipment was installed. The well was pumped, tested from June 4, 1962 to August 4, 1962. The final producing rate of the well was 1617 barrels of water per day and no oil. On August 4, 1962 the well was shut-in and has been shut-in since.

Q What is the producing mechanism of the Dakota reservoir?



A Producing mechanism of the Dakota reservoir Table Mesa is water drive.

Q Have you recently made a study of the Dakota reservoir pressure?

A Yes, sir. We have recently made a study of the pressure performance of the Dakota reservoir.

(Whereupon, Applicant's Exhibit No. 3 was marked for identification.)

MR. GRIFFITH: I would like to call to the Commission's attention that Exhibit 3 just offered differs somewhat from the application in that we have data up to July, before we only had it up to May, so we have a couple more months on there.

Q (By Mr. Griffith) I show you what has been marked Exhibit 3 for identification and ask you if this was prepared by you or under your supervision?

A Yes, it was.

Q Would you explain to the Commission what Exhibit 3 shows?

A Exhibit 3 is a performance curve of the Table Mesa Dakota reservoir. Shown on this curve is the monthly water production, the monthly oil production and the pressure data from 1955 through 1963.

Q What is the relationship between the pressure performance and the oil and water production?



A Pressure data was first obtained in the reservoir when Continental Oil Company drilled off core holes 337 and 338 in 1955. The pressure at that time was approximately 620 pounds. In the latter part of 1961, Well No. 23, a pressure was taken, and pressure at that time was approximately 470 pounds. Subsequent pressure have been taken on Wells No. 19 and 25 in 1962 and '63.

The reservoir pressure has declined to the point now that it is about 320 pounds. As shown on the Exhibit 3, there was a significant oil and water production increase in the first part of 1961. This was the result of drilling of additional wells, and with the drilling of additional wells the total fluid withdrawal from the reservoir was increased after this high volume lift equipment was installed as shown about September of 1961. There again the total fluid withdrawal from the reservoir was increased, which has been the result of this decrease in the reservoir pressure.

As noted in 1962 and '63, the pressures on Wells No. 19 and 25, the reservoir pressure has nearly stabilized during this nine-month period.

Q Do you see any correlation from Exhibit 3 between the withdrawal rate of oil and water and the natural influx of water?

A Yes, sir, this stabilized pressure, or nearly so as



indicated in '62 and '63, total fluid withdrawal from the reservoir appears to be equivalent to the water influx into the reservoir.

Q What is the present producing rate of water and oil in this field?

A Present production is 3,000 barrels of oil per month and 125,000 barrels of water per month.

Q Do you feel that this proposed injection program will supplement the natural water influx into the reservoir and help maintain the reservoir pressure?

A Yes, we anticipate that with the injection of water, that the reservoir pressure can be maintained and that the oil production rate can be increased or maintained at its present level.

Q Where is Table Mesa Well No. 25 located structurally in this field?

A No. 25 is located on the north extremity of the field. It is completed 25 foot structurally to any producing well within the reservoir.

(Whereupon, Applicant's Exhibit No. 4 was marked for identification.)

Q I show you what has been marked Exhibit 4 for identification and ask you if this was prepared by you or under your



DEARNLEY-MEIER REPORTING SERVICE, Inc.

FARMINGTON, N. M.
PHONE 325-1182

SANTA FE, N. M.
PHONE 883-3971

ALBUQUERQUE, N. M.
PHONE 243-6691

supervision?

A Yes, it was.

Q What does Exhibit 4 purport to show?

A Exhibit 4 is a structure contour on top of the Dakota formation. The red arrow indicates Table Mesa Well No. 25, the proposed injection well. The dotted lines shown on Exhibit 4 indicate the primary path of water influx into the reservoir with water movement from north to south.

Q What do you anticipate the initial volume of water injection will be in the Table Mesa No. 25?

A Initially we plan to inject 3,000 barrels of water per day. As mentioned earlier, the current water production from the reservoir is about 4,000 barrels per day. However, 3,000 barrels of this are produced to a battery that is located close to Well No. 25, this 3,000 being injected initially.

If the water injection is beneficial to the reservoir performance, it is proposed to obtain the additional thousand barrels of water per day that are being produced in a battery located in about the center of Section 3, and this water would be taken to the injection facility and injected into Well No. 25.

Q What would be the total volume of your increased water injection?

A With the initial injection of 3,000 barrels per day,



and bringing the other thousand barrels a day to that location for a total of 4,000, we anticipate with the injection of 4,000 barrels per day that the total fluid withdrawal from the reservoir can be increased to approximately 6,000 barrels per day. This total 6,000 would be reinjected.

Q Would you describe the character of the water which will be injected?

A The produced water from the Dakota is fresh. It does contain some sulphate-reducing bacteria. At the present time we are treating for the sulphate-reducing bacteria with a bactericide. It is injected between the tubing casing annulus of the producing wells.

Q Has an analysis been made of this water by the State Engineer's office?

A Yes, an analysis was prepared by the State Engineer's office. The water was of poor quality. However, it could be consumed by livestock or used for irrigation purposes.

Q What is the present system of water disposal that's now in use in this field?

A At the present time the water is routed to pits where it is aerated and allowed to go to the natural drainage.

(Whereupon, Applicant's Exhibit No. 5 was marked for identification.)



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 I show you what has been marked Exhibit 5 for identification and ask you if this was prepared by you or under your supervision?

A Yes, it was.

Q What does Exhibit 5 show?

A It is a schematic diagram of the North Battery referred to that was located near Well No. 25; beginning in the Northwest Quarter of the schematic diagram, the total fluid production passes through a horizontal precipitator where the oil and water are separated. The water comes out of the precipitator and would pass to a water storage tank. From this tank it would go to a charging pump or small centrifugal pump which would pump the water through the filters, and from the filters the water would go to the injection pump, at which time it would be metered from the output of the pump and injected into Well No. 25 down the casing.

Q At what pressure would you inject this?

A We anticipate a surface injection pressure of 100 pounds.

Q Was a copy of this application mailed to the State Engineer's office?

A Yes, it was.

Q How long do you intend to continue this pressure maintenance program?



A We anticipate that six months to one year will be required to evaluate the pressure maintenance program. In the event at the end of this year's time that it is determined that the pressure maintenance program is not beneficial to increasing or maintaining oil production rates, it is our intent to discontinue the injection and route the water back to the natural drainage.

Q In your opinion would the granting of this application be in the best interest of conservation and the prevention of waste?

A Yes, it would.

MR. GRIFFITH: I would like to offer Exhibits 1, 2, 3, 4 and 5 into evidence.

MR. UTZ: Without objection, Exhibits 1, 2, 3, 4 and 5 will be entered into the record.

(Whereupon, Applicant's Exhibits
1, 2, 3, 4, & 5 were offered
and admitted in evidence.)

MR. GRIFFITH: That's all of the direct examination of this witness we have.

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

MR. IRBY: I have one question, please. Frank Irby,
State Engineer's office.



CROSS EXAMINATION

BY MR. IRBY:

Q You intend to inject all this water through the one well, is that correct?

A Initially we plan to inject into the Table Mesa 25, as the well shown on Exhibit 1, or Exhibit 4, Table Mesa Wells No. 22 and 23 converted to water injection at the time that they became watered out.

Q Is that part of your application here today?

A No, sir, just Table Mesa 25.

Q And you expect to come in on another application as you need other injection wells?

A Yes, sir, we would.

MR. IRBY: Thank you.

MR. UTZ: Are there any other questions? The witness may be excused.

(Witness excused.)

MR. UTZ: Any other statements in this case? The case will be taken under advisement. We will have a recess.

(Whereupon, a recess was taken.)

FARMINGTON, N. M.
PHONE 325-1162

DEARNLEY-MEIER REPORTING SERVICE, Inc.

SANTA FE, N. M.
PHONE 983-3971

ALBUQUERQUE, N. M.
PHONE 243-6691



STATE OF NEW MEXICO)
COUNTY OF BERNALILLO) SS

I, ADA DEARNLEY, Court Reporter, do hereby certify that the foregoing and attached transcript of proceedings before the New Mexico Oil Conservation Commission at Santa Fe, New Mexico, is a true and correct record to the best of my knowledge, skill and ability.

IN WITNESS WHEREOF I have affixed my hand and notarial seal this 9th day of September, 1963.

Ada Dearnley
Notary Public-Court Reporter

My commission expires:
June 19, 1967.

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 2884, heard by me on Sept 4, 1963.
[Signature] Examiner
New Mexico Oil Conservation Commission

DEARNLEY-MEIER REPORTING SERVICE, Inc.

FARMINGTON, N. M.
PHONE 325-1162

SANTA FE, N. M.
PHONE 983-3971

ALBUQUERQUE, N. M.
PHONE 243-6691



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

EXAMINER HEARING

IN THE MATTER OF:

Application of Continental Oil Company for
a pressure maintenance project, San Juan
County, New Mexico. Applicant, in the
above-styled cause, seeks authority to in-
stitute a pressure maintenance project by
the injection of water into the Dakota for-
mation through its Table Mesa Well No. 25,
located in Unit K, Section 34, Township 28
North, Range 17 West, Table Mesa Pool,
San Juan County, New Mexico.

Case No. 2884

BEFORE: Daniel S. Nutter, Examiner.

TRANSCRIPT OF HEARING

August 21, 1963.

DEARNLEY-MEIER REPORTING SERVICE, Inc.

WASHINGTON, D. C.
PHONE 325-1162

SANTA FE, N. M.
PHONE 983-3971

ALBUQUERQUE, N. M.
PHONE 243-6191

MR. NUTTER: We'll call Case 2884.

MR. PAYNE: Application of Continental Oil Company for a pressure maintenance project, San Juan County, New Mexico.

We received a communication from Continental Oil Company asking that this case be continued until the next hearing scheduled for September 4, 1963.

MR. NUTTER: Case 2884 will be continued to the next examiner hearing, September 4, and the same place.

STATE OF NEW MEXICO)
) SS
COUNTY OF BERNALILLO)

I, ADA DEARNLEY, Court Reporter, do hereby certify that the foregoing and attached transcript of proceedings before the New Mexico Oil Conservation Commission at Santa Fe, New Mexico, is a true and correct record to the best of my knowledge, skill and ability.

IN WITNESS WHEREOF I have affixed my hand and notarial seal this 13th day of September, 1963.

Ada Dearnley
Notary Public-Court Reporter

My commission expires:

June 19, 1967.

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. **2884**, heard by me on **8/21**, 19**63**.

[Signature], Examiner
New Mexico Oil Conservation Commission

DEARNLEY-MEIER REPORTING SERVICE, Inc.

FARMINGTON, N. M.
PHONE 325-1182

SANTA FE, N. M.
PHONE 983-3971

ALBUQUERQUE, N. M.
PHONE 243-6691



DRAFT

DSN/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. 2884

Order No. R-2564

APPLICATION OF CONTINENTAL OIL COMPANY
FOR A PRESSURE MAINTENANCE PROJECT, SAN
JUAN COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on September 4, 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 _____ day of September, 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, Continental Oil Company, seeks ^{authority} ~~permission~~ to institute a pressure maintenance project in ~~that~~ ~~portion of the Table Mesa-Dakota Oil Pool underlying the S/2 N/2~~ ~~and the S/2 of Section 34, Township 28 North, Range 17 West, NMPM,~~ ~~San Juan County, New Mexico,~~ with the injection of water into the Dakota formation initially ~~to be~~ through the Continental Table Mesa Well No. 25, located in Unit K of ~~said~~ Section 34, ^{Township 28} ~~North, Range 17 West, NMPM, San Juan County, New Mexico.~~

(3) That no special rules or regulations governing said project are requested at this time.

(4) That approval of the subject application ~~will not cause~~ ^{should} ~~waste nor impair correlative rights and may~~ result in the recovery of otherwise unrecoverable oil, ~~thereby preventing waste.~~

IT IS THEREFORE ORDERED:

- (1) That Continental Oil Company is hereby authorized to institute a pressure maintenance project in ~~that portion of the Table Mesa-Dakota Oil Pool underlying the S/2 N/2 and the S/2 of Section 34, Township 28 North, Range 17 West, NMPM, San Juan County, New Mexico,~~ with the injection of water into the Dakota formation initially through the Continental Table Mesa Well No. 25, located in Unit K of ~~said~~ Section 34, *Township 28 north, Range 17 west, NMPM, San Juan County, New Mexico.*
- (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 herein-above designated.

DOCKET: EXAMINER HEARING - WEDNESDAY - SEPTEMBER 4, 1963

9:00 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 examiner:

- CASE 2890: Application of S. P. Yates for an unorthodox location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to drill and complete an oil well in the Seven Rivers formation at an unorthodox location 1435 feet from the North line and 1155 feet from the East line of Section 12, Township 20 South, Range 26 East, Eddy County, New Mexico.
- CASE 2891: Application of Continental Oil Company for the creation of a new oil pool, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new oil pool comprising portions of Sections 30 and 31, Township 26 South, Range 32 East, Lea County, New Mexico, said pool to be designated the Battleaxe Delaware Pool.
- CASE 2892: Application of Continental Oil Company for a waterflood project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project in the Baish Pool, Lea County, New Mexico, by the injection of water into the Yates formation through four wells located in the NE/4 of Section 21, Township 17 South, Range 32 East.
- CASE 2893: Application of Murphy H. Baxter for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order force-pooling all mineral interests in the Indian Hills Upper Pennsylvanian Gas Pool underlying all of Section 32, Township 21 South, Range 24 East, Eddy County, New Mexico.
- CASE 2894: Application of Murphy H. Baxter for an unorthodox location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to drill his Marathon State Well No. 1 at an unorthodox Indian Hills Upper Pennsylvanian location 844 feet from the North line and 473 feet from the West line of Section 32, Township 21 South, Range 24 East, Eddy County, New Mexico.
- CASE 2895: Application of Texaco Inc. for a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the dual completion (conventional) of its J. B. McGhee Well No. 1, located in Unit I of Section 31, Township 24 South, Range 38 East, Lea County, New Mexico, to produce oil from the Dollarhide-Drinkard and Dollarhide-Devonian Pools through parallel strings of tubing.
- CASE 2896: Application of Texaco Inc. for a triple completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the triple com-

pletion (tubingless) of its L. R. Kershaw Well No. 8, located in Unit D of Section 13, Township 20 South, Range 37 East, Lea County, New Mexico, to produce gas from the Eumont Gas Pool and oil from the Skaggs-Glorieta and East Weir-Blinebry Pools through parallel strings of tubing cemented in a common well bore.

CASE 2884:

(Continued from August 21, 1963 examiner hearing)

Application of Continental Oil Company for a pressure maintenance project, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a pressure maintenance project by the injection of water into the Dakota formation through its Table Mesa Well No. 25, located in Unit K, Section 34, Township 28 North, Range 17 West, Table Mesa Pool, San Juan County, New Mexico.

CASE 2888:

(Continued from the August 21, 1963 examiner hearing)

Application of the British American Oil Producing Company for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the Jalmat Deep Unit Area comprising 10,568.81 acres of State land in Townships 21 and 22 South, Range 35 East, Lea County, New Mexico.



Case
2884

JUN 1 21

CONTINENTAL OIL COMPANY

P. O. Box 3312
Durango, Colorado
June 28, 1963

New Mexico Oil Conservation Commission (3)
P. O. Box 871
Santa Fe, New Mexico

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

Gentlemen:

Continental Oil Company herewith makes application for a hearing to obtain authority for pressure maintenance of the Dakota reservoir, Table Mesa Field, San Juan County, New Mexico. The reservoir pressure will be maintained by injection of produced water from the Dakota formation.

We propose to install the required facilities to inject the produced water down the casing into Table Mesa No. 25, located 1530' FSL, 1980' FWL, Section 34, T28N, R17W. The attached lease ownership plat shows the location of the proposed injection well. The well was drilled to 1456' and completed open-hole with 5 1/2-inch casing set on top of the Dakota formation at 1415'. The casing was cemented to surface with 300 sacks of cement (see attached diagrammatic sketch). The Dakota sand was pump tested from June 4, 1962 to August 4, 1962, and found to be non-commercial. The final pumping rate prior to temporarily shutting in the well was 1617 barrels of water per day and no oil.

A study of the reservoir was recently conducted by Continental Oil Company's engineers to determine what effect water injection could have on future reservoir performance. The Dakota sand in the proposed injection well is located 25 feet downstructure from the structurally lowest oil producing well in the reservoir (see attached structure map). The reservoir producing mechanism is water drive with influx from the north. The recent decline in reservoir pressure coincides with recent increases in withdrawal rates (see attached reservoir performance curve). The proposed injection program will supplement the natural water influx into the reservoir and should be beneficial in maintaining reservoir pressure. Therefore, it will be in the best interest of conservation to inject the produced water at this

DOCKET MAILED

Date _____

NMOCC
Page Two

downstructure location. It is proposed to evaluate the pressure maintenance program for approximately six months. If the pressure maintenance program is not beneficial to reservoir performance, it is our intent to discontinue injection and return the water to the natural drainage.

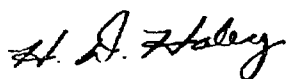
The water will be injected with a centrifugal pump at an estimated surface pressure of 100 psig. The projected volumes are 3,000 BWPD initially and 6,000 BWPD after 6 months (includes cycled water).

The injection facility will be a closed type system. A schematic diagram of the water injection system is attached. The produced fluids are presently being treated down-hole for sulfate reducing bacteria. The bacteria treatment will be continued, which will minimize corrosion caused by bacteria. The water will be filtered prior to injection to prevent formation blockage.

The proposed pressure maintenance program will also alleviate the present water disposal problem. The water is presently being aerated in pits and disposed to the natural drainage. Aeration releases part of the hydrogen sulfide present. Although the water is being consumed by livestock and occasionally used for irrigation, it is of poor quality. It is not recommended for domestic use by the New Mexico State Public Health Laboratory.

We respectfully request an early hearing to present further testimony and secure approval for the pressure maintenance program outlined herein.

Vary truly yours,



H. D. Haley
District Superintendent
Durango District
Production Department

EJV/cb

Attachments

cc: R. E. White, Continental Oil Company, Denver, Colorado (2)
Navajo Tribal Council
State Engineer's Office, P. O. Box 1079, Santa Fe, New Mexico
Holly Oil Company, P. O. Box 1781, Colorado Springs, Colorado
U. S. Geological Survey, P. O. Box 959, Farmington, New Mexico
U. S. Geological Survey, P. O. Box 1857, Roswell, New Mexico



100 JUL 21 PM 1 21

CONTINENTAL OIL COMPANY

LEGAL DEPARTMENT

DENVER 2, COLORADO
80202
July 23, 1963

A. T. SMITH
GENERAL ATTORNEY
C. R. HAMPTON
F. E. RADLOFF
W. M. GRIFFITH
G. H. MAYBERRY
C. R. ROBERTS
J. D. TRENNER
ATTORNEYS

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

ATTENTION A. L. Porter, Secretary-Treasurer

Gentlemen:

Enclosed is a copy of Continental's application for a hearing for pressure maintenance in the Dakota reservoir, Table Mesa field, San Juan County, New Mexico. The application is in conformity with Rule 701. Please notify me when the hearing is set down.

Very truly yours,

William M. Griffith
William M. Griffith *W*

WMG:pk
Encl.

cc: R. E. White - Denver
Navajo Tribal Council
State Engineer's Office, Box 1079, Santa Fe
Holly Oil Company, Box 1781, Colorado Springs
U.S.G.S., Box 959, Farmington
U.S.G.S., Box 1857, Roswell

DOCKET MAILED

Date 8-9-63
JV



1963 AUG 12 PM 1:00
CONTINENTAL OIL COMPANY
LEGAL DEPARTMENT

A. T. SMITH
GENERAL ATTORNEY
C. R. HAMPTON
F. E. RADLOFF
W. M. GRIFFITH
G. H. MAYBERRY
C. R. ROBERTS
J. D. TRESNER
ATTORNEYS

1755 GLENARM PLACE
DENVER 2, COLORADO
80202
August 12, 1963

Mr. Daniel S. Nutter
Oil Conservation Commission
State Land Office Building
Santa Fe, New Mexico

Re: Case 2884

Dear Dan:

Pursuant to our conversation, I would like to request that Continental Oil Company's application for pressure maintenance in San Juan County, New Mexico, case 2884, be postponed until the next hearing scheduled for September 4, 1963.

I appreciate your consideration in this matter.

Very truly yours, .

William M. Griffith
William M. Griffith

WMG:pk

DOCKET MAILED

Date ~~8/19/63~~
8/26/63

DOCKET: EXAMINER HEARING - WEDNESDAY - AUGUST 21, 1963

9:00 A.M., - OIL CONSERVATION COMMISSION CONFERENCE ROOM,
STATE LAND OFFICE BUILDING, SANTA FE, NEW MEXICO

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

- CASE 2355: (Reopened and continued from August 7, 1963 examiner hearing)
In the matter of Case 2355 being reopened pursuant to the provisions of Order No. R-2051-A, which order extended the temporary 320-acre proration units for the Bluit-Wolfcamp Gas Pool, Roosevelt County, New Mexico, for a period of one year. All interested parties may appear and show cause why said pool should not be developed on 160-acre proration units.
- CASE 2883: Application of Pan American Petroleum Corporation for an unorthodox location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to drill a Tubb gas, Blinebry oil and Paddock gas triple completion, Fowler Field, at an unorthodox location for the Fowler Blinebry Oil Pool 990 feet from the South and West lines of Section 15, Township 24 South, Range 37 East, Lea County, New Mexico.
- CASE 2884: Application of Continental Oil Company for a pressure maintenance project, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a pressure maintenance project by the injection of water into the Dakota formation through its Table Mesa Well No. 25, located in Unit K, Section 34, Township 28 North, Range 17 West, Table Mesa Pool, San Juan County, New Mexico.
- CASE 2885: Application of John H. Trigg for four unorthodox locations, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks approval of the following four unorthodox oil well locations in his waterflood project, Caprock Queen Pool, Chaves County, New Mexico, all in Section 4, Township 14 South, Range 31 East:
- 1320 feet from the North line and 2475 feet from the East line;
2764 feet from the North line and 2557 feet from the East line;
1320 feet from the North line and 1320 feet from the East line;
1320 feet from the North line and 1485 feet from the West line.
- CASE 2886: Application of Ambassador Oil Corporation for a capacity waterflood project, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a capacity allowable waterflood project on its Federal "Q" lease comprising the NW/4 of Section 3, Township 17 South, Range 30 East, Eddy County, New Mexico, by the injection of water into the Square Lake Pool through 2 wells located in the NW/4 of said Section 3.

- CASE 2887:** Application of Apache Corporation for the creation of the West Kemnitz Wolfcamp Oil Pool, and for special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new oil pool for Lower Wolfcamp production in Section 31, Township 16 South, Range 33 East, and the establishment of temporary rules therefor, including provisions for 80-acre spacing and restricted well locations.
- CASE 2888:** Application of the British American Oil Producing Company for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the Jalmat Deep Unit Area comprising 10,568.81 acres of State land in Townships 21 and 22 South, Range 35 East, Lea County, New Mexico.
- CASE 2889:** Application of A. O. Wooden for the creation of a gas pool, 80-acre spacing therefor, and a dual completion, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a Queen gas pool for his Harbold Well No. 16 located in Unit N of Section 26, Township 17 South, Range 27 East, Eddy County, New Mexico. Applicant also seeks the establishment of 80-acre spacing for said pool. Applicant further seeks approval of the dual completion (conventional) of the said Harbold Well No. 16 to produce oil from the Premier Sand of the Grayburg formation, Red Lake Pool, through the tubing, and to produce gas from the Penrose sand of the Queen formation through the casing-tubing annulus.
- CASE 2876:** (Continued from August 7, 1963 Examiner Hearing)
Application of Consolidated Oil & Gas, Inc. for an unorthodox location, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks permission to recomplete its Jicarilla No. 4-8 at an unorthodox Blanco-Mesaverde Pool location 1550 feet from the North line and 890 feet from the West line of Section 8, Township 26 North, Range 5 West, Rio Arriba County, New Mexico.

Case 2884

Heard 9-4-63

Rec. 9-4-63

1. Grant Cont. a secondary recovery project for their Table Mesa - Dakota Oil Pool.

2. Grant permission to inject water into their Table Mesa #25 located 1980 S + W line section 34, 28 N - 17 W.

Thurston

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. 2533
Order No. R-2236

APPLICATION OF AMERADA PETROLEUM
CORPORATION FOR A PRESSURE MAIN-
TENANCE PROJECT, 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 25, 1962, 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, 1962, 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, ~~Amerada Petroleum Corporation~~, seeks permission to institute a pressure maintenance project in that portion of the Saunders Permo-Pennsylvanian Pool underlying the ~~S/2 N/2 of Section 3 and the N/2 of Section 10~~, Township 15 ~~28~~ North, Range 19 East, NMPM, ~~Lea~~ ^{Lea} County, New Mexico, with the injection of water into the Pennsylvanian formation initially to be through the Amerada State "S-E" Well No. 1, located in Unit ~~4~~ of said Section 10.

(3) That no special rules or regulations governing said project are requested at this time.

(4) That approval of the subject application will ^{not} ~~neither~~ cause waste nor impair correlative rights.

IT IS THEREFORE ORDERED:

(1) That Amerada Petroleum Corporation is hereby authorized to institute a pressure maintenance project in that portion of the

-2-

CASE No. 2533
Order No. R-2236

Saunders Permo-Pennsylvanian Pool underlying the S/2 S/2 of Section 3 and the N/2 of Section 10, Township 15 South, Range 33 East, NMPM, Lea County, New Mexico, with the injection of water into the Pennsylvanian formation initially through the Amerada State "S-E" Well No. 1, located in Unit C of said Section 10.

(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

EDWIN L. MECHEM, Chairman

E. S. WALKER, Member

S E A L

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

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. 2884
Order No. R-2564

**APPLICATION OF CONTINENTAL OIL COMPANY
FOR A PRESSURE MAINTENANCE PROJECT, SAN
JUAN COUNTY, NEW MEXICO.**

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on September 4, 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 11th day of September, 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, Continental Oil Company, seeks authority to institute a pressure maintenance project in the Table Mesa-Dakota Oil Pool with the injection of water into the Dakota formation initially through the Continental Table Mesa Well No. 25, located in Unit K of Section 34, Township 28 North, Range 17 West, NMPM, San Juan County, New Mexico.
- (3) That no special rules or regulations governing said project are requested at this time.
- (4) That approval of the subject application should result in the recovery of otherwise unrecoverable oil, thereby preventing waste.
- (5) That approval of the subject application will not impair correlative rights.

-2-

CASE No. 2884
Order No. R-2564

IT IS THEREFORE ORDERED:

(1) That Continental Oil Company is hereby authorized to institute a pressure maintenance project in the Table Mesa-Dakota Oil Pool with the injection of water into the Dakota formation initially through the Continental Table Mesa Well No. 25, located in Unit K of Section 34, Township 28 North, Range 17 West, NMPM, San Juan County, New Mexico.

(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

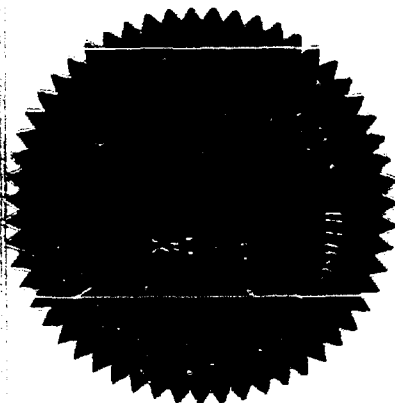
JACK M. CAMPBELL, Chairman

E. S. Walker

E. S. WALKER, Member

A. L. Porter, Jr.

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



esr/

C
O
P
Y

January 10, 1964

Re: Oil Conservation Commission
Case 2884
Order R-2564

Mr. H. D. Haley
District Manager
Durango District
Production Department
Continental Oil Co.
Durango, Colorado

Dear Mr. Haley:

Your letter of January 6, 1964 pertaining to the above referenced matter is gratefully acknowledged. I sincerely appreciate your reconsideration in this matter and your withdrawal of the proposal. I also sincerely appreciate the fact that you will keep me informed as to your decision on disposal of the produced Pennsylvanian water.

Very truly yours,

S. E. Reynolds
State Engineer

By:

Frank E. Irby
Chief
Water Rights Division

FEI/ma
cc-A. L. Porter, Jr.

GOVERNOR
JACK M. CAMPBELL
CHAIRMAN

State of New Mexico
Oil Conservation Commission



LAND COMMISSIONER
E. E. JENNIFER WALKER
MEMBER

P. O. BOX 871
SANTA FE

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

September 11, 1963

Mr. Jason Kellahin
Kellahin & Fox
Attorneys at Law
Post Office Box 1713
Santa Fe, New Mexico

Re: Case No. ~~2884~~ and ~~2892~~
Order No. ~~R-2564~~ & ~~R-2566~~
Applicant:

Continental 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.

A. L. PORTER, Jr.
Secretary-Director

ix/

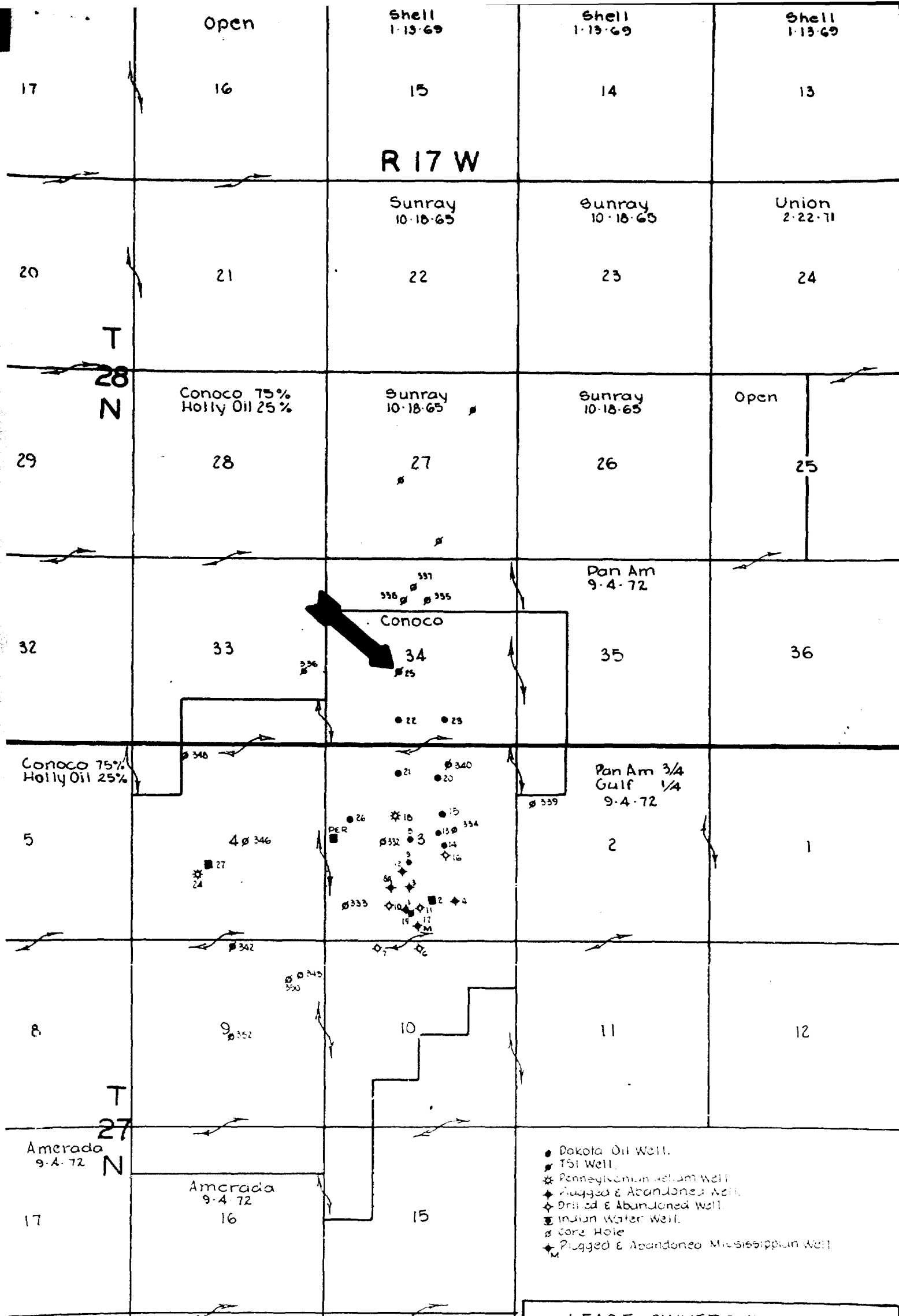
Carbon copy of order also sent to:

Hobbs OCC x

Artesia OCC

Astec OCC x

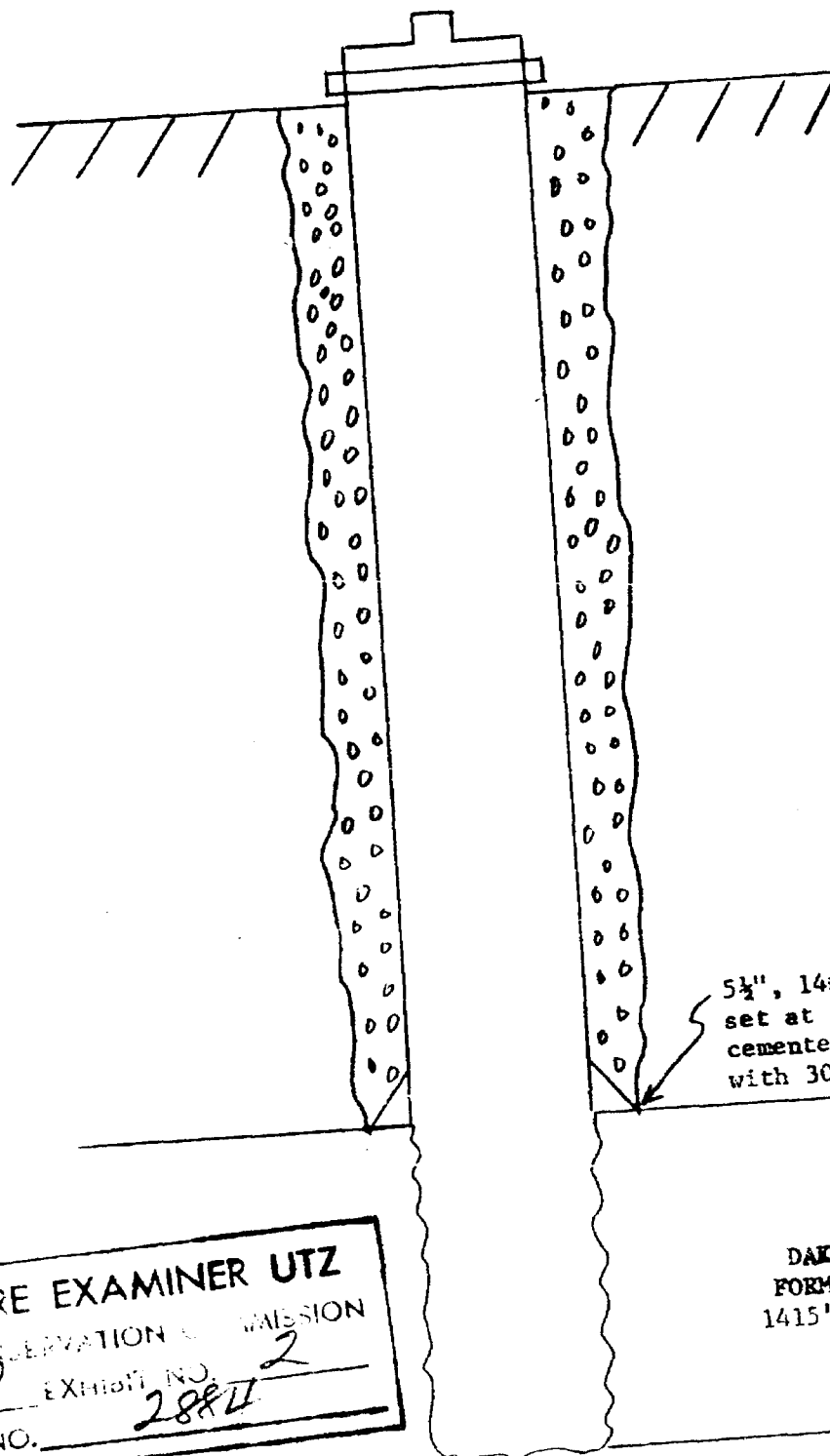
OTHER (~~2884~~ to Frank Irby and ~~2884~~ to William Griffith)



BEFORE EXAMINER UTZ
OIL CONSERVATION COMMISSION
EXHIBIT NO. 2884
CASE NO. 2884

LEASE OWNERSHIP PLAT
TABLE MESA BLOCK
San Juan Co., N.M.
Scale 1" = 3000' 4-17-63

TABLE MESA NO. 25
WATER INJECTION WELL



5 1/2", 14#, J-55 Casing
set at 1415' and
cemented to surface
with 300 sacks.

DAKOTA
FORMATION
1415'-1456'

BEFORE EXAMINER UTZ
OIL CONSERVATION COMMISSION
CASE NO. 2884 EXHIBIT NO. 2

T.D. 1456'

