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4010

Application  
Transcripts.

Small Exhibits

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dearnley-meier reporting service, inc.

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

1120 SIMMS BLDG. • P. O. BOX 1092 • PHONE 243-6691 • ALBUQUERQUE, NEW MEXICO



BEFORE THE  
NEW MEXICO OIL CONSERVATION COMMISSION  
Santa Fe, New Mexico  
January 8, 1969  
EXAMINER HEARING

-----  
IN THE MATTER OF: )  
)  
)

Application of John H. )  
Trigg for a waterflood )  
project, Eddy County, )  
New Mexico. )  
-----

Case No. 4010

BEFORE: Daniel S. Nutter, Examiner

TRANSCRIPT OF HEARING

MR. NUTTER: Case 4010.

MR. HATCH: Case 4010, continued from December 27, 1968 Examiner Hearing, Application of John H. Trigg for a waterflood project, Eddy County, New Mexico.

MR. HINKLE: Clarence Hinkle, of Hinkle, Bondurant & Christy, appearing on behalf of John H. Trigg.

We would like to have this case continued until the first Examiner's Hearing in February.

MR. NUTTER: Case 4010 will be continued to the Examiner Hearing scheduled for this same place at nine o'clock A.M. on February 5. We will call the next case 3709.

STATE OF NEW MEXICO     )  
                                   )     ss.  
 COUNTY OF BERNALILLO    )

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

*Samuel Mortelette*  
 COURT REPORTER

I do hereby certify that the foregoing is  
 a true and correct copy of the original  
 the original is on file in the office of the  
 Secretary of the State of New Mexico  
 1/8 4010 69  
*Samuel Mortelette*  
 New Mexico Oil Conservation Commission

dearnley-meier reporting service, inc.

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

1120 SIMAS BLDG. • P. O. BOX 1092 • PHONE 243-6691 • ALBUQUERQUE, NEW MEXICO

Mar 13 1969

BEFORE THE  
NEW MEXICO OIL CONSERVATION COMMISSION

Santa Fe, New Mexico

February 5, 1969

EXAMINER HEARING

IN THE MATTER OF:

Application of John H.  
Trigg for a waterflood  
project, Eddy County,  
New Mexico.

Case No. 4010

BEFORE: Daniel S. Nutter,  
Examiner

TRANSCRIPT OF HEARING

MR. NUTTER: We will call Case No. 4010.

MR. HATCH: Case 4010, continued, from December 27, 1968, and January 8, 1969, Examiner Hearings. Application of John H. Trigg for a waterflood project, Eddy County, New Mexico.

MR. EATON: Paul W. Eaton from the firm of Hinkle, Bondurant and Christy, Roswell, representing the applicant. We have one witness.

(Whereupon, Applicant's Exhibits Numbers 1 through 5, inclusive, were marked for identification.)

KENNETH E. ASTON

called as a witness by the Applicant, having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. EATON:

Q Please state your name, residence, employer, and occupation.

A Kenneth E. Aston, Lovington, New Mexico, assistant production superintendent, employed by John H. Trigg.

Q Are you familiar with the property and the wells involved in this case?

A Yes, sir.

Q Is Mr. Trigg the owner and operator of the property?

A He is.

Q Have you previously testified before the Oil Conservation Commission?

A No, sir.

Q Will you please state your background and experience in the oil business.

A I was first employed after graduating from Lovington High School by an oil field supply firm. I worked as a production sales representative, and began work for Mr. Trigg in May of 1959. My initial duties were production clerk. I had charge of all reports, state and federal, all production accounting, plus well records and well files. From this, Mr. Trigg later employed a petroleum engineer, and I went to assisting him in reservoir engineering, furnishing him information for reservoir engineering, calculations. At the time we were designing a waterflood, I helped him to bring out his designs and work out his calculations, and did the field work for the installation of a plant known as our Caprock Queen Waterflood.

From there, after our engineer left, I was made, you might call it a foreman in the field in charge of pulling units and well workovers. From there, for the past year, I have been responsible for the maintenance and operation of our Federal Trigg Waterflood Project, and if this proposal is accepted, I



will be responsible for its installation and operation.

Q What does Mr. Trigg seek by this application?

A He seeks to institute a secondary recovery project in the mentioned field.

Q I hand you what has been marked as Applicant's Exhibit Number 1, and ask you to state what it represents?

A It is a plat of the two-mile area surrounding the proposed project known as our Federal "J" Empire Lease, located in Section 1 of Township 18 South, Range 26 East. Indicated on the plat are all producing wells within a two-mile radius of our proposed project. Indicated also in blue on the map or on the plat is a Tokus San Andres Waterflood Project operated by Kawanee. In this project, they have two injection wells at present, and the Order R-3469 has approved the marked injection wells as listed in the blue area.

In the purple area offsetting our project, proposed project to the southeast, is the Atlantic-Richfield West Red Lake Project approved by R-3476. The pilot project is indicated in green. This injection is in progress at the present time.

This plat also indicates circled in red our proposed initial injection well known as our Federal "J" Empire No. 1.

Q The exhibit shows three wells in the project area. Are those three wells producing at this time?

A At the present time, all three wells are producing.

Q What formation are they producing from and at what depth?

A They are producing from what we know of the Slaughter A, B, and C zones. It is a producing interval, productive in this area in the upper portion of the San Andres Formation.

Q At approximately what depth are the wells?

A They are producing from 1,661 to 1,734, selected intervals.

Q Would you give the production history of these wells?

A These three wells have accumulated 91,300 barrels of oil to January 1, 1969. The current daily production is between 11 and 12 barrels of oil per day for the three wells.

Well No. 1 makes approximately one and a half to two barrels; No. 2 makes approximately eight barrels, and No. 3 makes the remainder.

Q Do you consider these wells to be stripper wells?

A They are definitely stripper wells. On a lease basis, they are stripper wells.

Q How do you propose to initiate and operate this proposed waterflood?

A We propose to convert Well No. 1, located in the southeast southeast of Section 1, by running plastic-lined tubing

with a packer set at approximately 1,100 feet, which is some 200 feet below the calculated cement top, and inject water into the perforation from 1,661 to 1,734, to promote secondary recovery of the No. 2 and No. 3 wells.

Q Have you advised the offset operators of the proposed waterflood?

A Yes, sir.

Q Have they indicated any objections?

A None whatsoever.

Q I hand you what has been marked as Exhibit Number 2, and ask you to identify that exhibit.

A This exhibit is a small-scale gamma ray neutron log of the proposed injection well, known as our Federal "J" Empire No. 1.

Q Have you brought this application to the attention of the United States Geological Survey?

A Yes, sir, written application for their approval subject to Commission approval was made December 23rd to Mr. James Knauf in Artesia.

Q I hand you what has been marked as Exhibit Number 3, and ask you to state what that represents.

A I could state what it represents by reading it. It is a letter of tentative approval from the United States Department

of Interior. It reads:

"John H. Trigg Company, Post Office Box 520, Roswell, New Mexico.

"Gentlemen: Your letter of December 23, 1968 requests approval to operate a waterflood of the San Andres Formation on oil and gas lease, Las Cruces 066445, described as follows:

"Township 18 South, Range 26 East, in Eddy County, New Mexico; Section 1, the southeast of the northeast, and the east half of the southeast.

"You propose to convert to water injection your Well No. 1 Empire Federal "J" located in the southeast southeast of above section to continue the flood pattern of the adjoining flood to the southeast. The plan for operating the above-described waterflood project as proposed in the application is satisfactory to this office, and hereby approved subject to like approval by the New Mexico Oil Conservation Commission and the following:

"1. This project will be operated in compliance with the New Mexico Oil Conservation Commission regulations governing waterflood operations.

"2. Duplicate copies of a monthly progress report, NMOCC form C-120 acceptable, are to be submitted to this office showing the volume of water injected and average pressures for

the injection wells and production for the producing wells in the project area.

"3. This approval does not preclude the necessity for further approval when the project is expanded to include other wells and leases, or the necessity to submit the usual notices and reports on wells involved.

"Sincerely yours, James A. Knauf, District Engineer."

Q Mr. Aston, I hand you what has been marked Exhibit Number 4, and ask you to state what that represents.

A This is a schematic drawing of the proposed conversion and its program. The schematic sets forth the following facts pertaining to completion of our Federal "J" Empire No. 1: eight and five-eighths surface casing was set at 873 with 450 sacks circulated to surface. Five and a half production casing was set at 1,782 with 150 sacks of cement. The total depth of the well was 1,782. The plugged back total depth is 1,769. The casing was perforated with 44 holes, 1,661 to 1,672; 72 holes, 1,680 to 1,698; 20 holes, 1,703 to 1,780; 76 holes, 1,715 to 1,734.

The schematic also shows that we propose to set a string of two and three-eighths inch plastic-lined tubing, with a tension-type packer set at approximately 1,100 feet. The calculated cement top in this well is at 977 feet.

Q Do you propose to fill the casing tubing annulus with some inert fluid?

A Yes, sir.

Q Will a pressure gauge be attached to the annulus at the surface?

A Yes, sir, as a matter of course.

Q What is the water which you propose to inject?

A We propose to inject produced San Andres water that has been produced from the same formation.

Q How many barrels of water do you propose to inject?

A Initially now we propose to inject 50 barrels per day.

Q Will that water be injected under pressure?

A Tests at the well head with fresh water on this particular well prior to this application, indicates that the initial water can be injected under gravity. However, if a pump is necessary to inject the required volume, then the pump will be set and the pressure maintained to maintain the volume.

Q If an injection rate greater than 50 barrels a day is required, can you obtain the additional water?

A Yes, sir. We have made inquiries of Atlantic-Richfield to acquire pressured water at the well head to maintain the necessary injection rate.

Q How soon after you begin the waterflood will you expect

a response?

A At an estimated rate of 50 barrels a day, we have no figures to indicate a time concerning expected recovery. However, because of the circumstances and the waterflood offsetting this project, we propose to cooperate fully with both Petroleum Corporation of Texas and Atlantic-Richfield, and when they expand their project because of response to secondary recovery, then we propose to increase our injection rate to approximately 300 barrels per day. Calculations tell us that we can expect a return at this rate, or when we begin this rate of from three to four months.

Q Do you have an analysis of the water which you propose to inject at this time?

A Yes, sir, we took a well head sample of the produced water that we propose to inject to United Chemical Corporation in Hobbs. They are an independent laboratory, and we have a chemical analysis run on the produced water, setting forth all the minerals included in the produced water.

Q Is your Exhibit Number 5 the analysis?

A Yes, sir, it is.

Q Do you have an opinion as to the amount of oil you expect to recover from this waterflood?

A Based on general experience in the field of secondary

we feel that that project ought to return us at least one to one.

Q In your opinion, will the proposed waterflood be in the interest of conservation and prevention of waste?

A It will allow us to recover all the oil that can not be recovered under primary operations.

Q Have Exhibits 1 through 5 been prepared by you or under your supervision?

A Yes, sir.

MR. EATON: Mr. Examiner, I move the admission of Exhibits 1 through 5.

MR. NUTTER: John H. Trigg's Exhibits 1 through 5 will be admitted in evidence.

(Whereupon, Applicant's Exhibits Numbers 1 through 5, inclusive, were admitted in evidence.)

MR. EATON: I have no further questions.

CROSS EXAMINATION

BY MR. NUTTER:

Q I missed that primary production figure that you gave earlier.

A 91,300 barrels of primary oil to January 1st.

Q You would anticipate a one-to-one recovery?

A Yes, sir, economics anticipate a one-to-one.



Q What is the current rate of injection on the Atlantic project?

A I have no figures, because they have just begun injection operations. I understand from conversations with Atlantic that they intend to maintain between 200 and 300 barrels per day initially.

Q So what you are proposing to do is merely inject produced water for the time being in rather a holding action until they get a response? Then you would increase your rate of injection to 300 barrels a day?

A Right.

Q What about this acreage east of your acreage?

A That has been unitized, and is now a cooperative unit, operated by Petroleum Corporation of Texas, and has been recently approved as an operating waterflood by Commission order.

Q Is that Well No. 1 or 2, either one approved for water injection, do you know?

A The No. 2 well located in the -- it would be the southeast of the southwest, has been approved as a water injection well.

Q But the No. 1 or 2 directly offsetting the Trigg's property there, neither one was approved?

A     No, sir, not approved. But the understanding that I have with Petroleum Corporation is that their project pattern will comply with the spacing of Atlantic, and then they will require the No. 1 well located in the northwest of the southwest to be converted to water injection.

MR. NUTTER: Any other questions of Mr. Aston? You may be excused. Do you have anything further, Mr. Eaton?

MR. EATON: No, sir.

MR. NUTTER: Does anyone have anything they wish to offer in Case 4010? We will take the case under advisement.

I N D E X

<u>WITNESS</u>	<u>PAGE</u>
KENNETH E. ASTON	
Direct Examination by Mr. Eaton	2
Cross Examination by Mr. Nutter	11

<u>EXHIBITS</u>	<u>MARKED</u>	<u>OFFERED AND ADMITTED</u>
Applicant's Exhibits Numbers 1 through 5	2	11

STATE OF NEW MEXICO     )  
                                   )  
 COUNTY OF BERNALILLO    )     ss.

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

Samuel Mortelette  
 COURT REPORTER

I do hereby certify that the foregoing is  
 a true and correct record of the  
 hearing held on 2/5 4012  
69  
Samuel Mortelette  
 New Mexico Oil Conservation Commission

dearnley-meier reporting service, inc.

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

1120 SIMAS BLDG. • P. O. BOX 1092 • PHONE 243-6691 • ALBUQUERQUE, NEW MEXICO



BEFORE THE  
NEW MEXICO OIL CONSERVATION COMMISSION

Santa Fe, New Mexico

December 27, 1968

EXAMINER HEARING

-----  
IN THE MATTER OF: )  
)  
)

Application of John H. )  
Trigg for a waterflood )  
project, Eddy County, )  
New Mexico. )  
-----

Case No. 4010

BEFORE: Daniel S. Nutter, Examiner

TRANSCRIPT OF HEARING

MR. NUTTER: Case 4010.

MR. HATCH: Case 4010, application of John H. Trigg for a waterflood project, Eddy County, New Mexico. Mr. Examiner, we have received a request that this case be continued until January 8, 1969.

MR. NUTTER: Case 4010 will be continued until ten o'clock on January 8th.

STATE OF NEW MEXICO     )  
                                   )     ss.  
 COUNTY OF BERNALILLO    )

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

*Samuel Mortelette*  
 COURT REPORTER

I do hereby certify that the foregoing is  
 a correct record of the proceedings in  
 the New Mexico Oil Conservation Commission  
 held on or about 12/27, 1968.

*[Signature]*  
 New Mexico Oil Conservation Commission



# OIL CONSERVATION COMMISSION

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

GOVERNOR  
DAVID F. CARGO  
CHAIRMAN  
  
LAND COMMISSIONER  
ALEX J. ARMIJO  
MEMBER  
  
STATE GEOLOGIST  
A. L. PORTER, JR.  
SECRETARY - DIRECTOR

February 11, 1969

Mr. Paul Eaton  
Hinkle, Bondurant & Christy  
Attorneys at Law  
Post Office Box 10  
Roswell, New Mexico 88201

Re: Case No. 4010  
Order No. R-3671  
Applicant:  
John H. Trigg

Dear Sir:

Enclosed herewith is a copy of the above-referenced Commission order recently entered in the subject case. Letter pertaining to conditions of approval and maximum allowable to follow.

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 \_\_\_\_\_  
State Engineer x

Other \_\_\_\_\_



OIL CONSERVATION COMMISSION

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

February 18, 1969

C Mr. Paul Eaton  
Hinkle, Bondurant & Christy  
Attorneys at Law  
Post Office Box 10  
Roswell, New Mexico 88201

Dear Sir:

O Reference is made to Commission Order No. R-3671, recently entered in Case No. 4010, approving the John H. Trigg Red Lake Empire water-flood Project.

P Injection shall be through the one authorized water injection well which shall be equipped with 2 3/8-inch plastic-lined tubing set in a packer at approximately 1100 feet. The casing-tubing annulus shall be loaded with an inert fluid and equipped with a pressure gauge at the surface to facilitate detection of leakage in the casing, tubing, or packer.

Y As to allowable, our calculations indicate that when all of the authorized injection wells have been placed on active injection, the maximum allowable which this project will be eligible to receive under the provisions of Rule 701-E-3 is 84 barrels per day when the Southeast New Mexico normal unit allowable is 42 barrels per day or less.

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

In order that the allowable assigned to the project may be kept current, and in order that the operator may fully benefit from the allowable provisions of Rule 701, it behooves him to promptly notify both of the aforementioned Commission offices by letter of any change

OIL CONSERVATION COMMISSION

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

-2-

Mr. Paul Eaton  
Hinkle, Bondurant & Christy  
Attorneys at Law  
Roswell, New Mexico 88201

C in the status of wells in the project area, i.e., when active injection commences, when additional injection or producing wells are drilled, when additional wells are acquired through purchase or unitization, when wells have received a response to water injection, etc.

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

Very truly yours,

A. L. PORTER, Jr.  
Secretary-Director

P ALP/DSH/ir

Y cc: Oil Conservation Commission  
Artesia, New Mexico

U. S. Geological Survey  
Artesia, New Mexico

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

ROUGH DRAFT FOR WATERFLOOD LETTERS

Mr. Paul Eaton  
Hinkle, Bondurant & Christy  
Attorneys at Law  
Post Office Box 10  
Roswell, New Mexico 88201

Dear Sir:

Reference is made to Commission Order No. <sup>renewed</sup> R-3671, entered in Case No. 4010, approving the John H. Trigg Red Lake Empire Waterflood Project.

Injection shall be through the one authorized water injection well, which shall be equipped with 2 $\frac{3}{8}$ -inch plastic-lined tubing set in a packer at approximately 1100 feet. The casing-tubing annulus shall be loaded with an inert fluid and equipped with a pressure gauge at the surface to facilitate detection of leakage in the casing, tubing, or packer.

As to allowable, our calculations indicate that when all of the authorized injection wells have been placed on active injection, the maximum allowable which this project will be eligible to receive under the provisions of Rule 701-E-3 is 84 barrels per day when the Southeast New Mexico normal unit allowable is 42 barrels per day or less.

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

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

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

Very truly yours,

A. L. PORTER, Jr.  
Secretary-Director

cc: OCC: ~~Hobbs~~

Artesia X

~~Artesia~~

USGS Artesia

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

Mr. D. E. Gray

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. 4010  
Order No. R-3671

APPLICATION OF JOHN H. TRIGG  
FOR A WATERFLOOD PROJECT, EDDY  
COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on February 5, 1969, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 11th day of February, 1969, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

- (1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.
- (2) That the applicant, John H. Trigg, seeks permission to institute a waterflood project in the Red Lake Grayburg-San Andres Pool by the injection of water into the San Andres formation through his Empire "J" Federal Well No. 1, located in Unit P of Section 1, Township 18 South, Range 26 East, NMPM, Eddy County, New Mexico.
- (3) That the wells in the project area are in an advanced state of depletion and should properly be classified as "stripper" wells.
- (4) That the proposed waterflood project should result in the recovery of otherwise unrecoverable oil, thereby preventing waste.

-2-

CASE No. 4010  
Order No. R-3671

(5) That the subject application should be approved and the project should be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations.

IT IS THEREFORE ORDERED:

(1) That the applicant, John H. Trigg, is hereby authorized to institute a waterflood project in the Red Lake Grayburg-San Andres Pool by the injection of water into the San Andres formation through his Empire "J" Federal Well No. 1, located in Unit P of Section 1, Township 18 South, Range 26 East, NMPM, Eddy County, New Mexico.

(2) That the subject waterflood project is hereby designated the Trigg Red Lake Empire Waterflood Project and shall be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations.

(3) That monthly progress reports of the waterflood project herein authorized shall be submitted to the Commission in accordance with Rules 704 and 1120 of the Commission Rules and Regulations.

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

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

STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION

  
DAVID F. CARGO, Chairman

ALEX J. ARMISTE, Member

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

  
esr/

DOCKET: EXAMINER HEARING - WEDNESDAY - JANUARY 8, 1969

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. Nutter, Examiner, or A. L. Porter, Jr., Alternate Examiner:

CASE 4016: Application of American Trading and Production Corporation for a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion (conventional) of its Southeast Lea Unit Well No. 2 located in Unit L of Section 25, Township 20 South, Range 35 East, Lea County, New Mexico, in such a manner as to permit the production of gas from an undesignated Wolfcamp gas pool and gas from an undesignated Morrow gas pool through parallel strings of tubing.

CASE 3709: (Reopened)

In the matter of Case No. 3709 being reopened pursuant to the provisions of Order No. R-3366, which order established 80-acre spacing units for the Akah Nez-Devonian Oil Pool, San Juan 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 40-acre spacing units.

CASE 4017: Application of Corinne Grace for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Morrow formation underlying Section 8, Township 21 South, Range 24 East, North Indian Hills-Morrow Gas Pool, Eddy County, New Mexico. Said acreage to be dedicated to a well to be drilled in the SE/4 of said Section 8. Also to be considered will be the costs of drilling said well, a charge for the risk involved, a provision for the allocation of actual operating costs, and the establishment of charges for supervision of said well.

CASE 4018: Application of Solar Oil Company for a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause seeks approval for the dual completion (conventional) of its Fanning "B" Well No. 1 located in Unit A of Section 33, Township 23 South, Range 37 East, Lea County, New Mexico, to produce oil from the Teague-Blaine and underlain by the Drinkard Pools through parallel strings of tubing.

CASE 4019: Application of Sinclair Oil Corporation for salt water injection, Lea County, New Mexico. Applicant, in the above styled cause, seeks authority to inject produced salt water into the Yates formation in the perforated interval from approximately 3860 feet to 4050 feet in its Mescalero Ridge Unit Well No. 2 located in Unit B of Section 28, Township 19 South, Range 34 East, Quail Ridge-Yates Pool, Lea County, New Mexico.

CASE 4020: Application of Burk Royalty Company for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Yates formation in the perforated interval from 3564 to 3585 feet in its Hanson "C" Well No. 4 located in Unit K of Section 23, Township 20 South, Range 34 East, Lynch Yates-Seven Rivers Pool, Lea County, New Mexico.

CASE 4015: (Continued from December 27, 1968, Examiner Hearing)

Application of Wilson Oil Company for salt water disposal, Lea County, New Mexico. Applicant, in the above styled cause, seeks authority to dispose of produced salt water into the Yates-Seven Rivers formations, Wilson Yates-Seven Rivers Pool, Lea County, New Mexico, through the following six wells:

TOWNSHIP 21 SOUTH, RANGE 34 EAST

Wilson State Well No. 9 located in Unit F of Section 13;

Shell State Well No. 13 located in Unit H of Section 13;

Wilson State Well No. 8 located in Unit O of Section 13;

Wilson State Well No. 20 located in Unit B of Section 23;

Wilson State Well No. 21 located in Unit J of Section 23;

TOWNSHIP 21 SOUTH, RANGE 35 EAST

Wilson State Well No. 1-A located in Unit G of Section 7;

Applicant further seeks an administrative procedure whereby other wells in said pool may be approved for disposal purposes without the requirement of notice and hearing.

CASE 4010: (Continued from December 27, 1968, Examiner Hearing)

Application of John H. Trigg for a waterflood project, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project by the injection of water into the Grayburg-San Andres formations through his Empire "J" Federal Well No. 1 located in Unit P of Section 1, Township 18 South, Range 26 East, Red Lake Grayburg-San Andres Pool, Eddy County, New Mexico.

CASE 4013: (Continued from December 27, 1968, Examiner Hearing)

Application of Redfern Development Corporation and Wil-Mc Oil Corporation for salt water disposal, Lea County, New Mexico. Applicants, in the above-styled cause, seek authority to dispose of produced salt water into the San Andres formation in the interval from approximately 4042 feet to 4179 feet in the Wil-Mc State "K" Well No. 1, located in Unit O of Section 11, Township 10 South, Range 32 East, Mescalero-San Andres Pool, Lea County, New Mexico. (The above perforated interval is in lieu of the originally advertised interval from 4200 feet to 4300 feet.)



Docket No. 4-69

DOCKET: EXAMINER HEARING - WEDNESDAY - FEBRUARY 5 1969

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. Nutter, Examiner,  
or Elvis A. Utz, Alternate Examiner:

CASE 4036: Application of Mobil Oil Corporation for a dual completion, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion (conventional) of its C. L. O'Brien Well No. 1 located in Unit A of Section 7 Township 8 South, Range 30 East, Chaves County, New Mexico, to produce oil from an undesignated Pennsylvanian oil pool and the Lightcap (Devonian) Pool through parallel strings of tubing.

CASE 3975 (Reopened): In the matter of Case No. 3975 being reopened pursuant to the provisions of Order No. R-3618, which order established 80-acre spacing units for the East Bluitt-San Andres Pool, Roosevelt County, New Mexico, for a period of approximately two months. All interested parties may appear and present evidence as to whether the subject area is indeed a separate common source of supply or an extension of the Bluitt-San Andres Gas Pool.

CASE 4010: (Continued from December 27, 1968 and January 8, 1969 Examiner Hearings)

Application of John H. Trigg for a waterflood project, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project by the injection of water into the Grayburg-San Andres formations through his Empire "J" Federal Well No. 1 located in Unit P of Section 1, Township 18 South, Range 26 East, Red Lake Grayburg-San Andres Pool, Eddy County, New Mexico.

CASE 4037: Application of Anadarko Production Company for several waterflood projects and waterflood buffer zones, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute several waterflood projects by the injection of water into the Grayburg and San Andres formations of the Square Lake Pool by the conversion to water injection of its Etz Federal Well No. 3 and its Grier Well No. 14 located, respectively, in Sections 19 and 20 of Township 16 South, Range 31 East, Eddy County, New Mexico. Applicant further seeks the designation of the S/2 SW/4 of said Section 19, the N/2 SE/4 of said Section 19, and the N/2 SE/4 of said Section 20 as waterflood buffer zones with capacity allowables.

CASE 4038: Application of Kennedy Oil Company for a waterflood project and waterflood buffer zone, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project by the injection of water into the Grayburg and San Andres formations of the Square Lake Pool by the conversion to water injection of its Carper Federal Well No. 2 located in Unit K of Section 19, Township 16 South, Range 31 East, Eddy County, New Mexico. Applicant further seeks the designation of the N/2 SW/4 of said Section 19 as a waterflood buffer zone with capacity allowable.

CASE 4039: The application of the Oil Conservation Commission upon its own motion for an order granting an exception to the ninth paragraph of Chapter II, Section 2 of Order No. R-333-F to permit shutting in gas wells for the required shut-in test at some period during the 1969 test season other than immediately following the 7-day deliverability flow test; further to permit measuring the shut-in test pressure during the 8th to 15th day of shut-in of the well rather than on the 8th day as presently required. The above exceptions would be for the 1969 annual deliverability test season only and would be applicable to all wells in San Juan, Rio Arriba, McKinley and Sandoval Counties, New Mexico, subject to the testing requirements of Chapter II of Order No. R-333-F.

CASE 4023: (Continued and readvertised from the January 15, 1969 Regular Hearing)

Application of Ernest A. Hanson for salt water disposal, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Queen formation in the perforated interval from approximately 1724 feet to 1736 feet in his Welch Federal Well No. 2 located 1650 feet from the North line and 2310 feet from the West line of Section 22, Township 19 South, Range 28 East, East Millman Queen-Grayburg Pool, Eddy County, New Mexico.

CASE 4040: Application of Cities Service Oil Company for the institution of gas prorationing in the Buffalo Valley-Pennsylvanian Gas Pool, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks the limitation of gas production from the Buffalo Valley-Pennsylvanian Gas Pool in Chaves County, New Mexico, to reasonable market demand and to the capacity of gas transportation facilities, and that the subject pool be governed by the general rules and regulations for the prorated gas pools of Southeastern New Mexico insofar as said general rules and regulations are not inconsistent with the special rules and regulations governing the subject pool. Further, the applicant proposes that the allowable production from the pool be allocated among the wells in the pool on a 100% surface acreage basis.

CASE 4041: Application of Tamarack Petroleum Company, Inc. for salt water injection, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to inject produced salt water into the Queen formation in the perforated interval from 4955 feet to 5030 feet in its Texaco Moran Well No. 2, located in Unit H of Section 22, Township 19 South, Range 35 East, Pearl Queen Pool, Lea County, New Mexico.

CASE 4042: Application of El Paso Natural Gas Company for an amendment to Order No. R-2948, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of Order No. R-2948, which order established a number of non-standard gas proration units in the Basin-Dakota Gas Pool, Rio Arriba County, New Mexico. Applicant proposes to change the acreage dedication comprising units 12 and 13 of Township 28 North, Range 6 West and Units 16 and 17 of Township 28 North, Range 7 West to comprise the following:

<u>TOWNSHIP 28 NORTH, RANGE 6 WEST</u>		
Unit	Acres	Description
12	320	Section 33: N/2
13	330.71	Section 33: S/2

<u>TOWNSHIP 28 NORTH, RANGE 7 WEST</u>		
Unit	Acres	Description
16	320	Section 35: N/2
17	332.40	Section 35: S/2

CASE 4017: (Continued from the January 8, 1969 Examiner Hearing)

Application of Corinne Trice for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Morrow formation underlying Section 8, Township 21 South, Range 24 East, North Indian Hills-Morrow Gas Pool, Eddy County, New Mexico. Said acreage to be dedicated to a well to be drilled in the SE/4 of said Section 8. Also to be considered will be the costs of drilling said well, a charge for the risk involved, a provision for the allocation of actual operating costs, and the establishment of charges for supervision of said well.

CASE 4043: Application of David Fasken for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Morrow formation underlying Section 8, Township 21 South, Range 24 East, North Indian Hills-Morrow Gas Pool, Eddy County, New Mexico. Said acreage to be dedicated to a well to be drilled 1980 feet from the North line and 2105 feet from the East line of said Section 8. Also to be considered will be the costs of drilling said well, a charge for the risk involved, a provision for the allocation of actual operating costs, and the establishment of charges for supervision of said well. Case No. 4043 will be consolidated for purposes of hearing with Case No. 4017 which is the application of Corinne Grace for compulsory pooling of the same section.

CASE 4044: Application of Continental Oil Company for a non-standard gas proration unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the consolidation of two existing non-standard gas proration units into one 481-acre unit comprising the E/2 and E/2 W/2 of Section 3, Township 20 South, Range 36 East, Eumont Gas Pool, Lea County, New Mexico, to be dedicated to its Reed A-3 Wells Nos. 2 and 3 located in Units H and I, respectively of said Section 3, to be effective as of January 1, 1967. Applicant further seeks authority to produce the allowable assigned to said unit from either of the aforesaid wells in any proportion.

CASE 4045: Application of H & S Oil Company for an amendment to Order No. R-3357, as amended by Order No. R-3357-A, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of Order No. R-3357, as amended by Order No. R-3357-A, which order authorized the H & S West Artesia Unit Waterflood Project. Applicant proposes to substitute the Roach Drilling Company-Leonard Well No. 18 located in Unit D of Section 17 as a water injection well in said project in lieu of the Cities Service-Mell Well No. 17 located in Unit M of Section 8, both in Township 18 South, Range 28 East, Artesia Pool, Eddy County, New Mexico.

CASE 4030: (Continued from the January 22, 1969 Examiner Hearing)

Application of Argus Production Company for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Seven Rivers formation in the perforated and open-hole interval from approximately 3554 feet to 3775 feet in its J. T. Lynn A-28 Well No. 3 located 2310 feet from the South line and 1650 feet from the East line of Section 28, Township 23 South, Range 36 East, Jalmat Yates-Seven Rivers Pool, Lea County, New Mexico.

ir/

CLARENCE E. HINKLE  
W. E. BONDURANT, JR.  
S. B. CHRISTY IV  
LEWIS C. COX, JR.  
PAUL W. EATON, JR.  
CONRAD E. COFFIELD  
HAROLD L. HENSLEY, JR.  
MICHAEL R. WALLER  
  
STUART D. SHANOR  
C. D. MARTIN  
PAUL J. KELLY, JR.

LAW OFFICES  
**HINKLE, BONDURANT & CHRISTY**  
600 HINKLE BUILDING  
ROSWELL, NEW MEXICO 88201

December 27, 1968

MIDLAND, TEXAS OFFICE  
521 MIDLAND TOWER  
(915) MU 3-4691  
OF COUNSEL: HIRAM M. DOW

TELEPHONE (505) 622-6510  
POST OFFICE BOX 10

Mr. Dan S. Nutter  
New Mexico Oil Conservation Commission  
P. O. Box 2088  
Santa Fe, New Mexico 87501

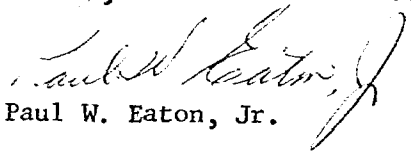
Re: Case No. 4010  
John H. Trigg

Dear Dan:

As Jason Kellihin advised you, weather conditions prevented Mr. Trigg's witness and myself from making the December 27 hearing of the above case. I would appreciate you setting the date for hearing at the next examiner hearing which I understand is January 8.

Yours very truly,

HINKLE, BONDURANT & CHRISTY

  
Paul W. Eaton, Jr.

PWE:jg

cc: Mr. John H. Trigg

DOCKET MAILED

Date 1-23-69

DOCKET: EXAMINER HEARING - FRIDAY - DECEMBER 27, 1968

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. Nutter, Examiner, or  
Elvis A. Utz, Alternate Examiner:

CASE 4005: Application of Petroleum Corporation of Texas for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Pennsylvanian formation in the perforated interval from 9783 to 9946 feet in the State RTB Well No. 1 located in Unit D of Section 31, Township 12 South, Range 34 East, East Hightower-Upper Pennsylvanian Pool, Lea County, New Mexico.

CASE 4006: Application of Petroleum Corporation of Texas for a water-flood project, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project by the injection of water into the San Andres formation through its Paton Federal Well No. 2 located in Unit N of Section 6, Township 18 South, Range 27 East, Red Lake Pool, Eddy County, New Mexico.

CASE 4007: Application of Paul Deshaye for a dual completion and salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dually complete his Bagley State Well No. 1 located in the NW/4 NW/4 of Section 34, Township 11 South, Range 34 East, Lea County, New Mexico, in such a manner as to produce oil from the Bagley-Pennsylvanian Pool and to dispose of produced salt water down the annulus between the production casing and the intermediate casing into the San Andres, Giariera, and possibly other formations in the interval from approximately 7708 feet to 7358 feet.

CASE 4008: Application of Paul Deshaye for a dual completion and salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dually complete his Shell State Well No. 1 located in the NW/4 NE/4 of Section 19, Township 11 South, Range 34 East, Lea County, New Mexico, in such a manner as to produce oil from the Ince-Pennsylvanian Pool and to dispose of produced salt water down the annulus between the production casing and the intermediate casing into the San Andres, Giariera, and possibly other formations in the interval from approximately 7774 feet to 7358 feet.

CASE 4009: Application of Humble Oil & Refining Company 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 perforated interval from approximately 4273 feet to 4329 feet in its New Mexico "BX" State Well No. 3 located in Unit G of Section 16, Township 8 South, Range 33 East, Chaveroo-San Andres Pool, Chaves County, New Mexico.

CASE 4010: Application of John H. Trigg for a waterflood project, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project by the injection of water into the Grayburg-San Andres formations through his Empire "J" Federal Well No. 1 located in Unit P of Section 1, Township 18 South, Range 26 East, Red Lake Grayburg-San Andres Pool, Eddy County, New Mexico.

CASE 4011: Application of Sam D. Ares for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Yates-Seven Rivers formation in the open-hole interval from approximately 3520 feet to 3639 feet in his Charles Whitten Well No. 5 located in Unit B of Section 4, Township 24 South, Range 36 East, Jalmat Pool, Lea County, New Mexico.

CASE 4012: Application of Sam D. Ares for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of Order No. R-3602 to authorize the disposal of produced salt water into the Yates-Seven Rivers formations in the open-hole interval from approximately 3363 feet to 3650 feet in his Everett Well No. 4, located in Unit M, Section 35, Township 24 South, Range 36 East, Jalmat Pool, Lea County, New Mexico. The subject disposal well would be in lieu of the Everett Well No. 2, previously authorized for disposal by Order No. R-3602.

CASE 4013: Application of Redfern Development Corporation and Wil-Mo Oil Corporation for salt water disposal, Lea County, New Mexico. Applicants, in the above-styled cause, seek authority to dispose of produced salt water into the San Andres formation in the interval from approximately 4200 feet to 4300 feet in the Wil-Mo State Well No. 1-K, located in Unit O of Section 11, Township 10 South, Range 32 East, Mescalero-San Andres Pool, Lea County, New Mexico.

CASE 4014: Application of Ralph Lowe for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Lower Devonian formation in the perforated interval from approximately 12,350 feet to 12,455 feet in his "C" Devonian Unit Well No. 1 located in Unit O of Section 16, Township 10 South, Range 36 East, South Crossroads-Devonian Pool, Lea County, New Mexico.

CASE 3991: (Continued and Readvertised)

Application of Roger C. Hanks, Ltd., for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the lower Devonian formation in the open-hole interval from approximately 10,804 feet to 10,885 feet in its Monterey State Well No. 1 located in Unit A of Section 11, Township 10 South, Range 32 East, Mescalero Field, Lea County, New Mexico.

CASE 4015: Application of Wilson Oil Company for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Yates-Seven Rivers formations, Wilson Yates-Seven Rivers Pool, Lea County, New Mexico, through the following six wells:

TOWNSHIP 21 SOUTH, RANGE 34 EAST

Wilson State Well No. 9 located in Unit F of Section 13;

Shell State Well No. 13 located in Unit H of Section 13;

Wilson State Well No. 8 located in Unit O of Section 13;

Wilson State Well No. 20 located in Unit B of Section 23;

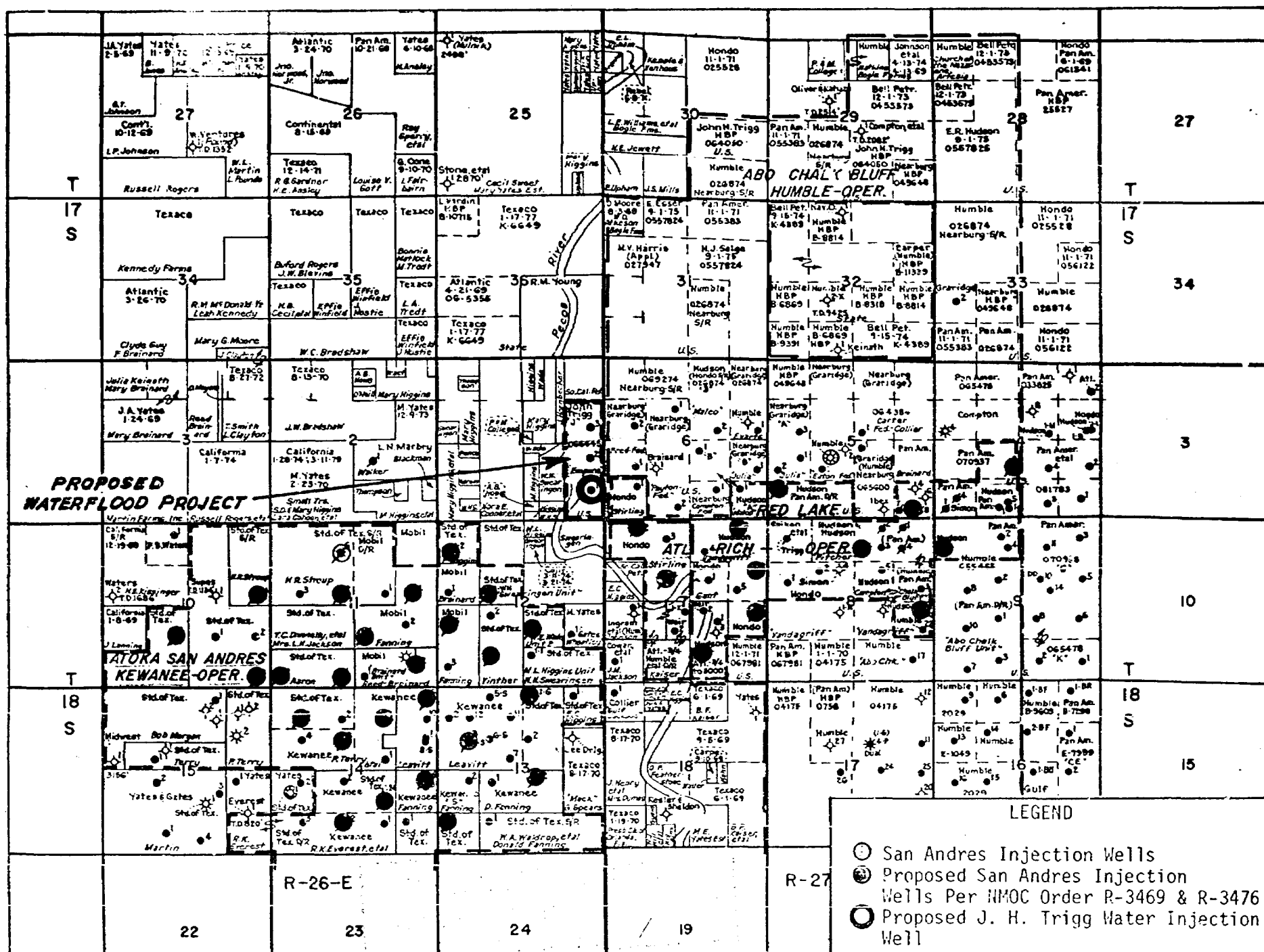
Wilson State Well No. 21 located in Unit J of Section 23;

TOWNSHIP 21 SOUTH, RANGE 35 EAST

Wilson State Well No. 1-A located in Unit G of Section 7;

Applicant further seeks an administrative procedure whereby other wells in said pool may be approved for disposal purposes without the requirement of notice and hearing.







Case  
4010

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY  
P. O. Drawer U  
Artesia, New Mexico 88210

IN REPLY REFER TO:

RECEIVED BY MAIL
ON NOV 21 1968
FILE NO. 3
CASE NO. 4010

December 23, 1968

John H. Trigg Company  
Post Office Box 520  
Roswell, New Mexico 88201

Gentlemen:

Your letter of December 23, 1968 requests approval to operate a waterflood of the San Andres formation on oil and gas lease Las Cruces 066445 described as follows:

T. 18 S., R. 26 E., N.M.P.M., Eddy County, New Mexico

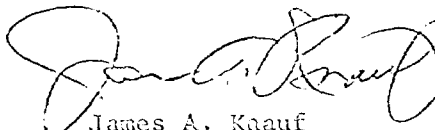
section 1; SE $\frac{1}{4}$ NE $\frac{1}{4}$ , E $\frac{1}{2}$ SE $\frac{1}{4}$

You propose to convert to water injection your well No. 1-Empire Federal "J" located in the SE $\frac{1}{4}$ SE $\frac{1}{4}$  of above section to continue the flood pattern of the adjoining flood to the southeast.

The plan for operating the above described waterflood project as proposed in the application is satisfactory to this office and hereby approved subject to like approval by the New Mexico Oil Conservation Commission and the following:

1. This project will be operated in compliance with the New Mexico Oil Conservation Commission regulations governing waterflood operations.
2. Duplicate copies of a monthly progress report (N.M.O.C.C. form C-120 acceptable) are to be submitted to this office showing the volume of water injected and average pressures for the injection wells and production for the producing wells in the project area.
3. This approval does not preclude the necessity for further approval when the project is expanded to include other wells and leases or the necessity to submit the usual notices and reports on wells involved.

Sincerely yours,

  
James A. Knauf  
District Engineer

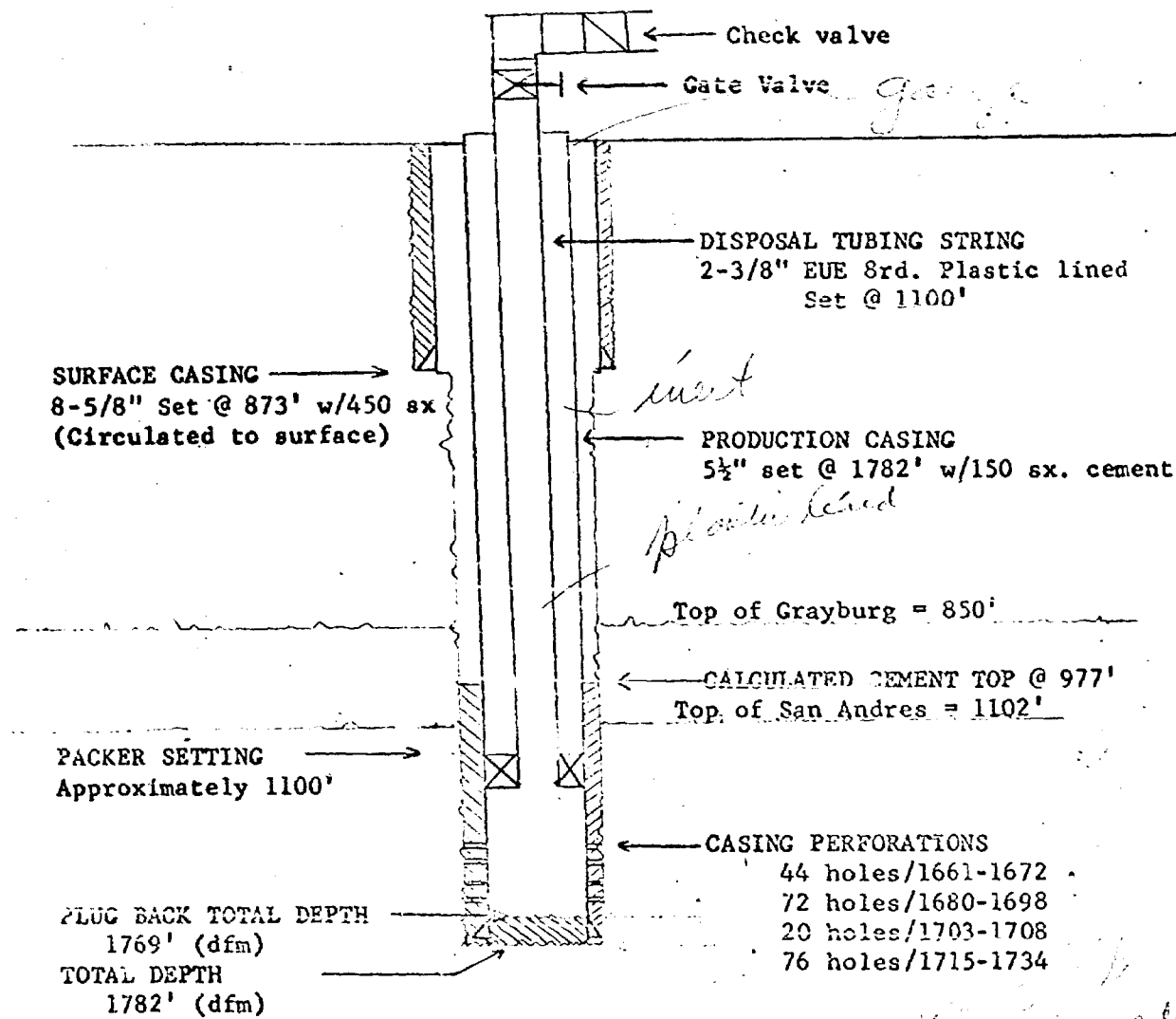
cc: N.M.O.C.C., Santa Fe  
Roswell  
File - Accounts

# JOHN H. TRIGG COMPANY

P. O. BOX 106  
MALJAWAR, NEW MEXICO

John H. Trigg Company  
Empire "J" Federal No. 1  
990/S & 365/E  
Sec. 1, T18S, R26E

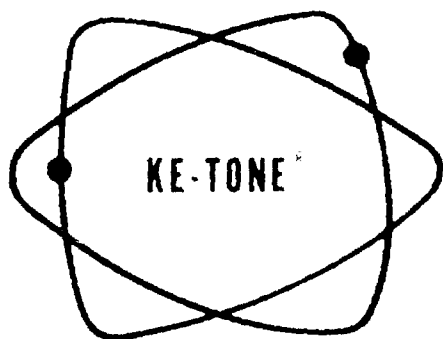
## Proposed Water Injection Schematic (San Andres Formation)



WELL EXAMINATION  
ON COMPLETION  
WELL NO. 4  
CASE NO. 4010

*Produced water - later up to 300 BOPD*

TELEPHONE: HOBBS 393-6215



# UNITED CHEMICAL CORPORATION

OF NEW MEXICO

601 NORTH LEECH

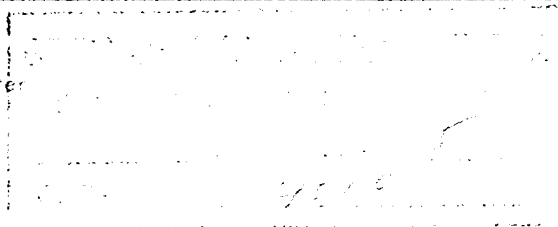
P. O. BOX 1499

HOBBS, NEW MEXICO 88240

Company John H. Trigg  
 Field Eddy County San Andres  
 Lease Federal J. Empire Sampling Date 12/23/68  
 Type of Sample \_\_\_\_\_

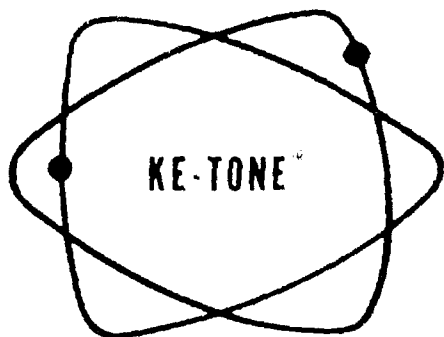
WATER ANALYSIS		E P M	P P M
IONIC FORM		<del>xxxx</del>	<del>xxxx</del>
Calcium (Ca++)		91.07	1825
Magnesium (Mg++)		37.17	452
Sodium (Na+) (Cal.)		3114.21	71,596
Bicarbonate (HCO <sub>3</sub> -)		11.41	696
Carbonate (CO <sub>3</sub> -)		NOT	FOUND
Hydroxide (OH-)		NOT	FOUND
Sulphate (SO <sub>4</sub> -)		89.48	4298
Chloride (Cl-)		3141.56	111,403
6.8ph c @ 68 °F			
Dissolved Solids on Evap. at 103° - 105° C			
Hardness as Ca CO <sub>3</sub>		128.24	6412
Carbonate Hardness as CaCO <sub>3</sub> (temporary)		11.41	571
Non-Carbonate Hardness as CaCO <sub>3</sub> (permanent)		116.83	5842
Alkalinity as CaCO <sub>3</sub>		11.41	571
Specific Gravity c 68 °F		1.140	

\* mg/l = milligrams per Liter  
 \* me-l = milliequivalents per Liter



*Makes Water Work*

TELEPHONE: HOBBS 393-6215



# UNITED CHEMICAL CORPORATION

OF NEW MEXICO

601 NORTH LEECH

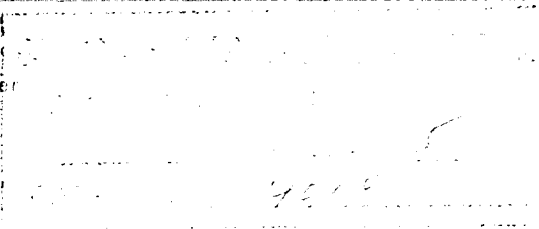
P. O. BOX 1499

HOBBS, NEW MEXICO 88240

Company John H. Trigg  
 Field Eddy County San Andres  
 Lease Federal J. Empire Sampling Date 12/23/68  
 Type of Sample \_\_\_\_\_

WATER ANALYSIS		E P M	P P M
IONIC FORM		<del>xxxx</del>	<del>xxxx</del>
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6.8 ph c @ 68 °F			
Dissolved Solids on Evap. at 103° - 105° C			
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Alkalinity as CaCO <sub>3</sub>		11.41	571
Specific Gravity c 68 °F		1.140	

\* mg/l = milligrams per Liter  
 \* me.l = milliequivalents per Liter



*Makes Water Work*

CLARENCE E. HINKLE  
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STUART D. SHANOR  
C. D. MARTIN  
PAUL J. KELLY, JR.

LAW OFFICES  
**HINKLE, BONDURANT & CHRISTY**  
600 HINKLE BUILDING  
ROSWELL, NEW MEXICO 88201

December 6, 1968

MIDLAND, TEXAS OFFICE  
521 MIDLAND TOWER  
(915) MU 3-4891  
OF COUNSEL: HIRAM M. DOW

TELEPHONE (505) 622-6510  
POST OFFICE BOX 10

*Rec'd 12-7-68*

New Mexico Oil Conservation Commission  
P. O. Box 2088  
Santa Fe, New Mexico

*Case 4010*

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

Re: John H. Trigg Water Flood Application  
Eddy County New Mexico

Gentlemen:

We enclose in triplicate application of John H. Trigg for a water floor project, Eddy County, New Mexico. We also enclose with the application a plat of the area, log of proposed injection well, and diagrammatic sketch of proposed injection well.

Yours very truly,

HINKLE, BONDURANT & CHRISTY

*Paul W. Eaton, Jr.*  
Paul W. Eaton, Jr.

PWE/jw

cc: USGS  
Artesia, N.Mex.

cc: John H. Trigg

DOCKET MAILED

Date 12-30-68

DOCKET MAILED

Date 12-17-68

BEFORE THE OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO

APPLICATION OF JOHN H. TRIGG FOR A )  
WATER FLOOD PROJECT, EDDY COUNTY, )  
NEW MEXICO. )

Case No. 4010

John H. Trigg, by his undersigned attorneys, herewith makes application for authority to inject water for a water flood project in Eddy County, New Mexico and states:

1. Applicant is the owner and operator of United States Oil and Gas Lease LC 066445 covering the following described lands in Eddy County, New Mexico, being the project area, to-wit:

Township 18 South, Range 26 East, N.M.P.M.  
Section 1 :  $SE\frac{1}{4}NE\frac{1}{4}$ ,  $E\frac{1}{2}SE\frac{1}{4}$   
Containing 120 acres.

2. The production wells in the project area are in an advanced state of depletion and are commonly referred to as "stripper wells". The proposed water flood project will result in the recovery of otherwise unrecoverable oil, thereby preventing waste.

3. Applicant proposes to inject produced salt water into the Grayburg San Andres formation at a depth of approximately 1,661 feet to 1,734 feet, said water to be injected in the John H. Trigg Empire "J" Federal No. 1 well located 990 feet from the South line and 365 feet from the East line of Section 1, Township 18 South, Range 26 East, N.M.P.M., Red Lake Grayburg San Andres Pool. Initially approximately 50 barrels of water per day will be injected.

4. Applicant seeks the establishment of the usual allowable for the project area as provided by the rules of the Commission.

5. The plat, log and diagrammatic sketch required by Rule 701(B) are filed herewith.

6. A copy of this application with attachments has been sent to the United States Geological Survey, Artesia, New Mexico.

7. Applicant desires a hearing before an examiner as promptly as possible.

HINKLE, BONDURANT & CHRISTY

By Paul W. Eator Jr.  
P. O. Box 10  
Roswell, New Mexico  
Attorneys for John H. Trigg



JOHN H. TRIGG COMPANY

P. O. BOX 106

MALJAMAR, NEW MEXICO

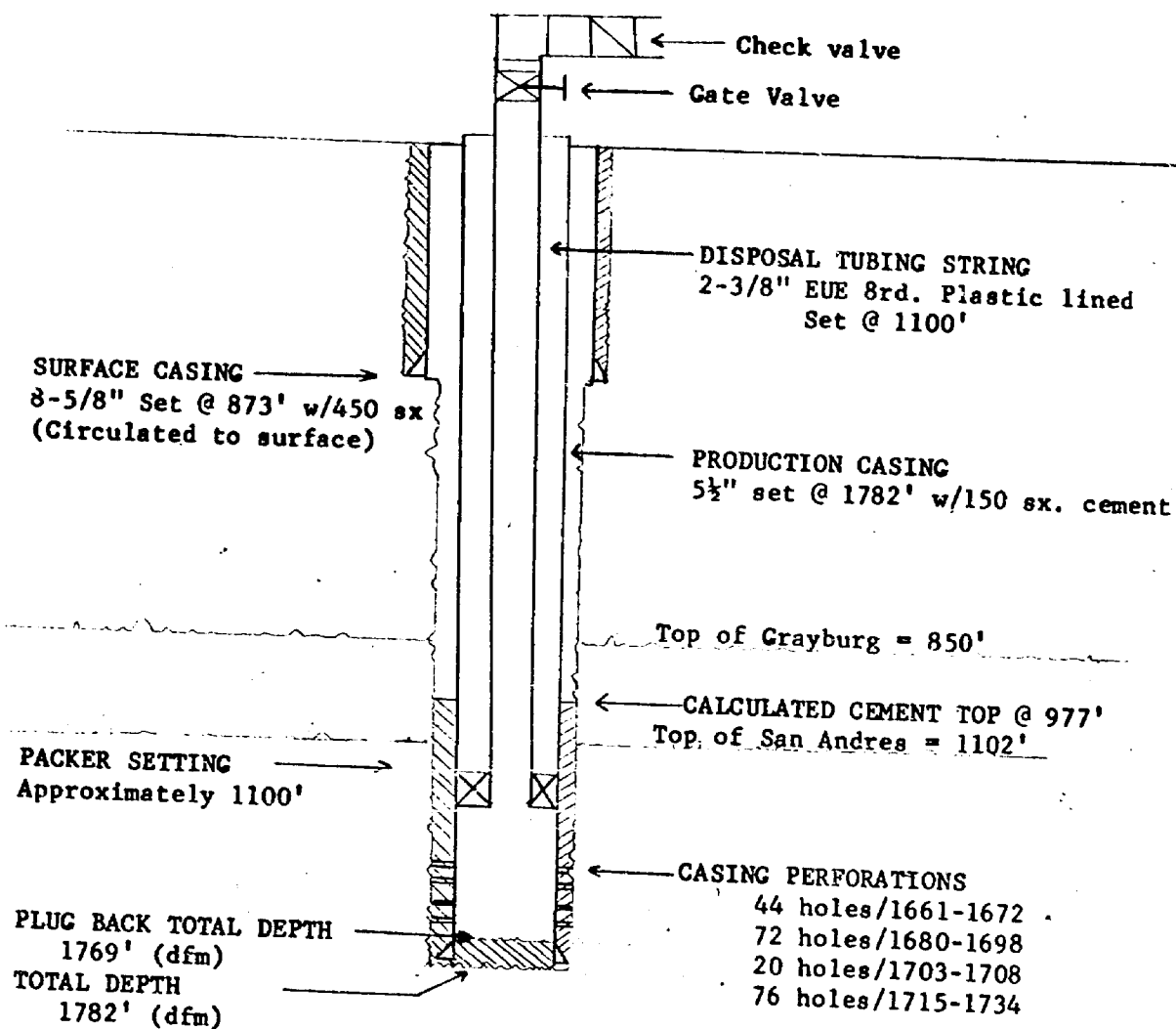
John H. Trigg Company  
Empire "J" Federal No. 1

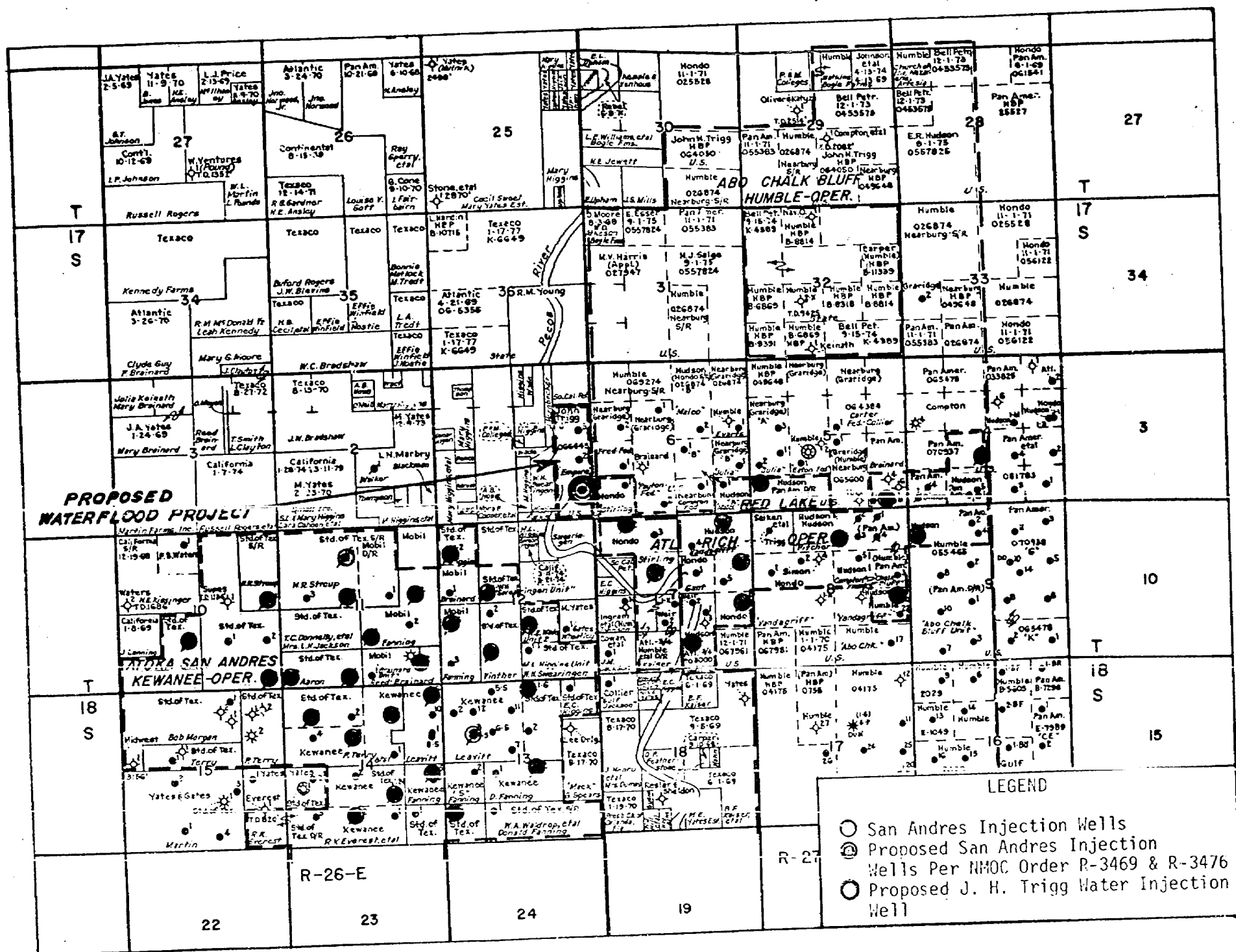
990/S & 365/E

Sec. 1, T18S, R26E

PROPOSED SALT WATER DISPOSAL SCHEMATIC

(San Andres Formation)





Case 4010

DRAFT

GMH/esr

BEFORE THE OIL CONSERVATION COMMISSION  
OF THE STATE OF NEW MEXICO

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

CASE No. 4010

Order No. R- 3671

APPLICATION OF JOHN H. TRIGG  
FOR A WATERFLOOD PROJECT, EDDY COUNTY,  
NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on February 5, 1969,  
at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this \_\_\_\_\_ day of February, 1969, the Commission, a  
quorum being present, having considered the testimony, the record,  
and the recommendations of the Examiner, and being fully advised  
in the premises,

FINDS:

(1) That due public notice having been given as required by  
law, the Commission has jurisdiction of this cause and the subject  
matter thereof.

(2) That the applicant, John H. Trigg,

seeks permission to institute a waterflood project in the \_\_\_\_\_  
Red Lake Grayburg-  
===== ~~Unit Area~~, San Andres Pool by

the injection of water into the Grayburg-San Andres formations  
his Empire "J" Federal Well No. 1, located in Unit P of Sec-  
through /===== ~~injection wells in Section~~ =====

-tion 1, Township 18 ~~Northern~~ South, Range 26 ~~West~~ East, NMPM,  
Eddy County, New Mexico.

(3) That the wells in the project area are in an advanced  
state of depletion and should properly be classified as "stripper"  
wells.

(4) That the proposed waterflood project should result in  
the recovery of otherwise unrecoverable oil, thereby preventing  
waste.

(5) That the subject application should be approved and the project should be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations.

IT IS THEREFORE ORDERED:

(1) That the applicant, John H. Trigg,  
is hereby authorized to institute a waterflood project in the  
Red Lake-Grayburg  
Unit Area San Andres Pool  
by the injection of water into the Grayburg-San Andres formation  
through the following described wells in Township  
North, South, Range West, East, NMPM,  
County, New Mexico.

through his Empire "J" Federal Well No. 1, located in Unit P of  
Section 1, Township 18 South, Range 26 East, NMPM, Eddy County,  
New Mexico.

(2) That the subject waterflood project is hereby designated  
the Trigg Red Lake Empire Waterflood Project and shall  
be governed by the provisions of Rules 701, 702, and 703 of the  
Commission Rules and Regulations.

(3) That monthly progress reports of the waterflood project  
herein authorized shall be submitted to the Commission in accor-  
dance with Rules 704 and 1120 of the Commission Rules and Regula-  
tions.

(4) 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.