

CASE 356: Kewanee application re gas in-  
jection Pearl Wells 22, 24 and 26 in T.17 S  
R. 33 E, with Corbin A #3 in W/2 10-18S-33E  
as injection well

Case No.

356

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Application, Transcript,  
Small Exhibits, Etc.

BEFORE THE  
OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

TRANSCRIPT OF PROCEEDINGS  
CASE NO. 356

April 15, 1952

ADA DEARNLEY & ASSOCIATES  
COURT REPORTERS  
ROOM 12, CROMWELL BLDG  
PHONES 7-8845 AND 8-8846  
ALBUQUERQUE, NEW MEXICO

BEFORE THE  
OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

April 15, 1952

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In the Matter of:

Kewanee Oil Company's application  
to convert certain wells in Town-  
ship 17 South, Ranges 32 and 33  
East, from producing oil wells to  
gas-injection wells, using gas  
produced from Corbin "A" Well No.  
3 in W/2 10-18S-33E, NMPM, Lea  
County. This is injection of gas  
into the Grayburg-San Andres  
horizons of the Maljamar pool  
reservoir.

Case No. 356

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(Notice of Publication read by Mr. Graham.)

MR. COCHRAN: My name is John E. Cochran. I represent  
Kewanee Oil Company. The witness in this case is W. H. Miles.

W. H. M I L E S,

having been first duly sworn, testified as follows:

DIRECT EXAMINATION

By MR. COCHRAN:

- Q Will you state your name, please.  
A W. H. Miles.  
Q Where do you live?  
A Odessa, Texas.  
Q By whom are you employed?  
A Kewanee Oil Company.

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PHONES 7-9645 AND 5-9546  
ALBUQUERQUE, NEW MEXICO

Q In what capacity are you employed?

A Division engineer west Texas, New Mexico division.

Q Mr. Miles, have you previously testified before this Commission?

A I have not.

Q Where did you attend school?

A At the University of New Mexico.

Q What profession did you study?

A Mechanical engineering.

Q What year did you graduate from the University of New Mexico?

A February of 1947.

Q What degrees, if any, were conferred upon you by that school?

A Bachelor of Science, Degree in Mechanical Engineering.

Q Since your graduation from the University of New Mexico by whom have you been employed?

A Stanolind Oil and Gas Company in the Panhandle field of Texas and also their general office in Tulsa; Barnes Oil Company, in their general office in Tulsa; and Kewanee in the Maljamar field and also Odessa, Texas.

Q When employed by Kewanee in the Maljamar field what was the nature of your work?

A I was in charge of all district engineering functions in the Maljamar field.

Q In that capacity did you become familiar with the two leases that are involved in this application?

A I did.

MR. COCHRAN: Are the qualifications of the witness acceptable to the Commission?

MR. SPURRIER: They are.

Q Mr. Miles, in the application filed a lease is described which you designate as your Pearl lease. Would you read the description of that lease?

A All of Section 25, Township 17, South Range 32 East, NMPM, Lots 1, 2, 3, and 4 East half, West half of Section 30, Township 17, South Range 33 East, NMPM, and containing 968.56 acres more or less.

Q How many wells have been drilled on the Pearl lease?

A Twenty-seven wells.

Q How many wells are producing at the present time?

A Twenty-four.

Q To what depth are those wells producing?

A From an average depth of 4150 to 4250.

Q From what horizon?

A Grayburg-San Andres horizon.

Q What is the present oil production of this lease?

A Pearl lease produces approximately 365 barrels per day.

Q In the application a lease known as your Corbin "A" lease is described. Would you read the description of that lease

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to the Commission?

A The west half of Section 10, Township 18 South, Range 33 East, NMPM, and containing 320 acres, more or less.

Q How many wells have been drilled on the Corbin "A" lease?

A Two.

Q How many wells are producing?

A At the present time none are producing.

Q What is the present status of the two wells that were drilled?

A The Corbin No. 1 was plugged and abandoned approximately eight years ago when it would no longer produce oil in commercial quantities. The Corbin "A" No. 3 well has been shut in since its initial completion.

Q Is it an oil well or gas well?

A It is a gas well.

Q What is that well capable of producing?

A The open flow potential of that well has been figured at seven million nine hundred thousand cubic feet per day.

Q What horizon and depth is that well producing from?

A Corbin "A" No. 3 produces from the Queen sand from approximate depth of 4225 to 4327.

Q Mr. Miles, when were Pearl wells 22, 24, and 26 originally drilled?

A They were drilled in the fall of 1948.

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Q Were they regular locations or otherwise?

A They were not regular locations.

Q Were they five-spot location?

A Five-spot locations.

Q At the time the wells were drilled a hearing was had before the Commission?

A That is right.

Q Would you tell the Commission, Mr. Miles, what you propose to do with the three wells on the Pearl lease wells 22, 24, 26, and also what you propose to do with the gas that you produce from Corbin "A" well No. 3?

A We propose to convert Pearl Nos. 22, 24, and 26 from a producing oil status to a gas in-put status. We propose also to produce gas from Corbin "A" No. 3 and transport it to these three wells and inject approximately 545,000 cubic feet per day into the three wells, segregated as follows: Pearl No. 22 200 MCF per day, Pearl 24 175 MCF, and Pearl No. 26 155 MCF per day.

Q Mr. Miles, as an engineer, in your opinion would this gas-injection program be in the interest of conservation?

A I believe it will be.

Q Is it your opinion that it would enable you to obtain a greater recovery of oil from the Pearl lease?

A It would.

Q Would waste be prevented by such an operation?

A We think it would.

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Q You have stated the volume that you propose to inject into these three wells. Would that be changed from time to time?

A Yes, sir, it would. As the results of gas injection become known and are studied, we will at all times try to inject a sufficient volume of gas so that at all times the oil being withdrawn from offset wells will be comparable.

Q Mr. Miles, when you convert the three Pearl wells mentioned from producing wells to gas-injection wells, what is your situation or what do you propose to do with reference to oil allowable for these wells?

A As far as Pearl 22, 24, and 26 are concerned, we do not claim or wish to claim or transfer allowables from these wells, in other words transfer the allowable, the present allowable, from these three wells to other wells on the Pearl lease.

Q The current allowable set up for these three wells would simply be eliminated from the proration schedule?

A That is right.

Q The two leases that you have mentioned are both federal leases, are they not?

A That is right.

Q Have you conferred with anyone in the Roswell office of the United States Geological Survey?

A Yes, sir, I have talked to Mr. Foster Morrell and also Mr. Canfield in the Roswell office.

Q Did they indicate approval or did they have any objection

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to such a proposed injection program?

A They indicated verbal approval of the overall injection plan.

MR. COCHRAN: Does the Commission have any questions?

MR. GRAHAM: What is the production from the five-spot wells at the present time?

A Approximately 52 barrels per day for the three wells.

MR. SPURRIER: Is there any other question of the witness?

MR. MACEY: Your Corbin 3 "A", is that well in any defined oil or gas pool at the present time, to your knowledge?

A As far as we know, the Corbin "A" 3 gas well is not in any defined pool gas or oil.

MR. GRAHAM: What are the market possibilities of that gas well?

A When the well was initially completed I understand the Southern Union Gas Company considered tying into that well but at that time the reserves in connection with the gas well were not known. In other words, there was one well setup and they were a little leery about making an investment to come in there and take that gas. There is no other commercial outlet for the gas at the present time.

MR. GRAHAM: Is that near Southern Union's line?

A I could not tell you how close it is. It is in proximity to their line.

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PHONES 7-9646 AND 5-2846  
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MR. MACEY: Are these wells in Section 26 or in Section 23, are any of those wells involved in the Maljamar cooperative?

A The wells in Section 26 and 23 are all included in the Maljamar repressuring cooperative agreement; however, there is no active gas-injection program in connection with those wells at this time.

MR. SPURRIER: Any further questions?

MR. FOSTER: I would like to ask a question or two.

MR. SPURRIER: Mr. Foster.

MR. FOSTER: You propose to transfer the allowable on these injection wells to other wells?

A As I stated we do not propose to transfer the allowable from these injection wells to other wells on the Pearl lease.

MR. COCHRAN: They would simply be eliminated from the proration schedule.

MR. WHITE: How much increased production do you expect to get from this program?

A Our figures indicate that as a result of gas injection we will increase our reserves by approximately one million barrels of oil.

MR. SPURRIER: Any further questions? If not, the witness may be excused. Is that all your testimony?

MR. COCHRAN: That is all.

MR. SPURRIER: Anyone have a statement in the case? The case will be taken under advisement.

ADA DEARNLEY & ASSOCIATES  
COURT REPORTERS  
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PHONES 7-9645 AND 5-9846  
ALBUQUERQUE, NEW MEXICO

The next case is 357.

(Witness excused.)

STATE OF NEW MEXICO     )  
                              :  
COUNTY OF BERNALILLO    )

I HEREBY CERTIFY that the foregoing and attached transcript of hearing in Case No. 356 before the Oil Conservation Commission, State of New Mexico, at Santa Fe, on April 15, 1952, is a true and correct record of the same to the best of my knowledge, skill and ability.

DATED at Albuquerque, New Mexico, this 21<sup>st</sup> day of April, 1952.

Ada Dearnley  
REPORTER

ADA DEARNLEY & ASSOCIATES  
COURT REPORTERS  
ROOM 12, CROMWELL BLDG.  
PHONES 7-9646 AND 5-9546  
ALBUQUERQUE, NEW MEXICO

OIL CONSERVATION COMMISSION

P. O. BOX 871  
SANTA FE, NEW MEXICO

April 2, 1952

Mr. John E. Cochran, Jr.  
308 Carper Building  
Artesia, N. M.

Dear John:

OCC Case 356

This may be considered notification to you and your client, Kewanee Oil Company, that application received by the Oil Conservation Commission on March 27, 1952, (as described on the attached docket) has been set for hearing on April 15, 1952, as Case 356.

Legal advertisement has been issued.

Very truly yours,

W. B. Macey  
Chief Engineer

WBM:nr

C  
O  
P  
Y

*Proposed Order*

BEFORE THE OIL CONSERVATION COMMISSION  
OF THE STATE OF NEW MEXICO

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

CASE NO. 356

ORDER NO. \_\_\_\_\_

THE APPLICATION OF KEWANEE OIL COMPANY  
TO CONVERT PEARL WELLS NOS. 22 AND 24,  
IN SECTION 25, TOWNSHIP 17 SOUTH, RANGE  
32 EAST, N.M.P.M., AND PEARL WELL NO.  
26, IN THE W/2 SECTION 30, TOWNSHIP 17  
SOUTH, RANGE 33 EAST, N.M.P.M., IN LEA  
COUNTY, NEW MEXICO, FROM PRODUCING OIL  
WELLS TO GAS INJECTION WELLS, AND FOR  
PERMISSION TO INJECT GAS PRODUCED FROM  
CORBIN "A" WELL NO. 3, IN THE W/2 SEC-  
TION 10, TOWNSHIP 18 SOUTH, RANGE 33  
EAST, N.M.P.M., IN LEA COUNTY, NEW MEX-  
ICO, INTO THE GRAYBURG-SAN ANDRES HORI-  
ZONS OF THE MALJAMAR POOL RESERVOIR,  
THROUGH PEARL WELLS NOS. 22, 24 AND 26.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This matter came on for hearing at 10:00 o'clock  
A. M. on April 15, 1952, at Santa Fe, New Mexico, before  
the Oil Conservation Commission of New Mexico, hereinafter  
referred to as the "Commission".

NOW, on this \_\_\_\_\_ day of \_\_\_\_\_, 1952,  
the Commission, having before it for consideration the  
testimony adduced at said hearing and being fully advised  
in the premises,

FINDS:

1. That due public notice having been given as  
provided by law, the Commission has jurisdiction of this  
cause.

2. That the acreage involved in the Application

is Federally owned, and the Supervisor of the United States Geological Survey interposes no objections to the Application.

3. That Kewanee Oil Company is the owner and holder of Federal Oil and Gas Lease Las Cruces Serial No. 058697(b) insofar as said lease covers the following described land in Lea County, New Mexico, to-wit:

All Section 25, Township 17 South, Range 32 East, N.M.P.M.; Lots 1, 2, 3 and 4, E/2 W/2 Section 30, Township 17 South, Range 33 East, N.M.P.M., and containing 968.56 acres, more or less,

which said lease is designated as Kewanee Oil Company's Pearl Lease.

4. That a total of twenty-seven wells, three of which are abandoned or were dry holes, have been drilled upon said lands. That each of said wells were drilled to a sufficient depth to test the Grayburg-San Andres Horizons encountered from a depth ranging from 4150 feet to 4250 feet. That at the present time there are twenty-four producing wells on said lease, producing from the Grayburg-San Andres Horizons. That the present oil production from said lease is 365 barrels per day.

5. That Kewanee Oil Company is the owner and holder of Federal Oil and Gas Lease Las Cruces Serial No. 029489(a) insofar as said lease covers the following described land in Lea County, New Mexico, to-wit:

W/2 Section 10, Township 18 South, Range 33 East, N.M.P.M., and containing 320 acres, more or less,

which said lease is known as its Corbin "A" Lease.

6. That there is located on said Corbin "A" Lease one gas well which, although shut in at the present time, is capable of producing 7,900,000 cubic feet of gas per twenty-four hours; that said gas well produces from the Queen Sand, encountered from a depth of 4225 feet to 4327 feet.

7. That Pearl Wells Nos. 22, 24 and 26 were originally drilled as unorthodox five-spot locations, after hearing before and approval by the New Mexico Oil Conservation Commission.

8. That it would be in the interest of conservation, prevent waste and enable Kewanee Oil Company to obtain a greater ultimate recovery of oil and hydrocarbons if Pearl Wells Nos. 22, 24 and 26 were converted from producing wells to gas injection wells, and gas produced from Corbin "A" Well No. 3 injected in the reservoir underlying the Pearl Lease through said three wells, as gas injection wells.

9. That Kewanee Oil Company does not desire the current oil allowable produced from Pearl Wells Nos. 22, 24 and 26 to be transferred to other wells on the Pearl Lease by reason of said three wells being converted from producing oil wells to gas injection wells.

IT IS THEREFORE ORDERED by the Commission that the Application for an Order to convert Pearl Wells Nos. 22 and 24, in Section 25, Township 17 South, Range 32 East, N.M.P.M., and Pearl Well No. 26, in the W/2 Section 30, Township 17 South, Range 33 East, N.M.P.M., in Lea County, New Mexico, from producing oil wells to gas injection wells, and for permission to inject gas produced from Corbin "A" Well No. 3, in the W/2 Section 10, Township 18 South, Range 33 East, N.M.P.M., in Lea County, New Mexico, into the Grayburg-San Andres Horizons of the Maljamar Pool Reservoir, through Pearl Wells Nos. 22, 24 and 26, is hereby granted and approved.

IT IS FURTHER ORDERED that no oil allowable produced from Pearl Wells Nos. 22, 24 and 26, be transferred to other wells on the Pearl Lease by reason of said three wells



being converted from producing oil wells to gas injection wells.

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

STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION

CHAIRMAN

MEMBER

SECRETARY

BEFORE THE OIL CONSERVATION COMMISSION  
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING  
CALLED BY THE OIL CONSERVATION  
COMMISSION OF THE STATE OF NEW  
MEXICO FOR THE PURPOSE OF CON-  
SIDERING:

CASE NO. 356  
ORDER NO. R-146

THE APPLICATION OF KEWANEE OIL  
COMPANY TO CONVERT PEARL WELLS  
NOS. 22 AND 24, SEC. 25, TWP. 17 SOUTH,  
RANGE 32 EAST, NMPM, AND PEARL WELL  
NO. 26, W/2 SEC. 30, TWP. 17 SOUTH, RANGE  
33 EAST, NMPM, MALJAMAR POOL, LEA  
COUNTY, NEW MEXICO, FROM PRODUCING  
OIL WELLS TO GAS-INJECTION WELLS, AND FOR  
PERMISSION TO INJECT GAS PRODUCED FROM  
CORBIN 'A' WELL NO. 3, NW/4 SEC. 10, TWP.  
18 SOUTH, RANGE 33 EAST, NMPM, LEA COUNTY,  
NEW MEXICO, INTO THE GRAYBURG-SAN ANDRES  
HORIZONS OF THE MALJAMAR POOL RESERVOIR,  
THROUGH PEARL WELLS NOS. 22, 24 AND 26.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This matter came on for hearing at 9 o'clock a.m. on April  
15, 1952, at Santa Fe, New Mexico, before the Oil Conservation Com-  
mission of New Mexico, hereinafter referred to as the "Commission."

NOW, on this ~~6th~~ day of May, 1952, the Commission, a quorum  
being present, having considered the testimony adduced at said hearing,  
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 acreage involved in the application is Federally  
owned, and the Supervisor of the United States Geological Survey interposes  
no objection to the application.

(3) That Kewanee Oil Company is the owner and holder of  
Federal Oil and Gas Lease Las Cruces Serial No. 058697 (b) insofar as  
said lease covers the following described land in Lea County, New Mexico,  
to-wit:

All Sec. 25, Twp. 17 South, Range 32 East, NMPM;  
Lots 1, 2, 3, and 4, E/2 W/2 Sec. 30, Twp. 17 South,  
Range 33 East, NMPM, and containing 968.56 acres,  
more or less,

which said lease is designated as Kewanee Oil Company's "Pearl" Lease.

(4) That a total of 27 wells, three of which are abandoned or were dry holes, have been drilled upon said lands; that each of said wells was drilled to a sufficient depth to test the Grayburg-San Andres horizons encountered from a depth ranging from 4150 feet to 4250 feet; that at the present time there are 24 producing wells on said lease, producing from the Grayburg-San Andres horizons; that the present oil production from said lease is approximately 365 barrels per day.

(5) That Kewanee Oil Company is the owner and holder of Federal Oil and Gas Lease Las Cruces Serial No. 029489(a) insofar as said lease covers the following described land in Lea County, New Mexico, to-wit:

W/2 Sec. 10, Twp. 18 South, Rge. 33 East, NMPM,  
and containing 320 acres, more or less,

which said lease is known as its Corbin "A" Lease.

(6) That there is located on Corbin "A" Lease one gas well which, although shut in at the present time, has an open-flow potential of 7,900,000 cubic feet of gas per 24 hours; that said gas well produces from the Queen sand, encountered from a depth of 4225 feet to 4327 feet.

(7) That, in accordance with the provisions of Order No. 763 and Order No. 770, Pearl Wells Nos. 22, 24 and 26 were originally drilled as unorthodox five-spot locations.

(8) That it would be in the interest of conservation, prevent waste and enable Kewanee Oil Company to obtain a greater ultimate recovery of oil and hydrocarbons if Pearl Wells Nos. 22, 24 and 26 were converted from producing wells to gas-injection wells, and gas produced from Corbin "A" Well No. 3 injected in the reservoir underlying the Pearl Lease through said three wells, as gas-injection wells.

(9) That Kewanee Oil Company does not desire the current oil allowable produced from Pearl Wells Nos. 22, 24 and 26 to be transferred to other wells on the Pearl Lease by reason of said three wells being converted from producing oil wells to gas-injection wells.

IT IS THEREFORE ORDERED:

That the Kewanee Oil Company be, and the same hereby is granted permission:

(1) To convert Pearl Wells Nos. 22 and 24, in Sec. 25, Twp. 17 South, Rge. 32 East, NMPM, and Pearl Well No. 26, in the W/2 Sec. 30, Twp. 17 South, Rge. 33 East, NMPM, Maljamar Pool, Lea County, New Mexico, from producing oil wells to gas-injection wells;

(2) To inject gas produced from Corbin "A" Well No. 3, in the W/2 Sec. 10, Twp. 18 South, Rge. 33 East, NMPM, Corbin Pool, Lea County, New Mexico, into the Grayburg-San Andres horizons of the Maljamar Pool reservoir, through Pearl Wells Nos. 22, 24 and 26.

-3-

Case No. 356

Order No. R-146

IT IS FURTHER ORDERED:

That no oil allowable produced from Pearl Wells Nos. 22, 24 and 26, be transferred to other wells on the Pearl Lease by reason of said three wells being converted from producing oil wells to gas-injection wells.

DONE at Santa Fe, New Mexico, on the day and year herein-  
above designated.

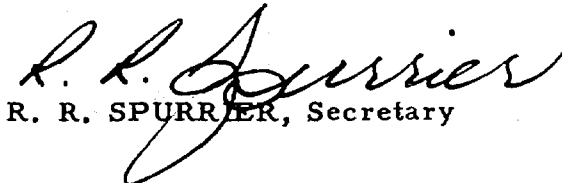
STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION



EDWIN L. MECHEM, Chairman



GUY SHEPARD, Member



R. R. SPURRER, Secretary

S E A L

BEFORE THE OIL CONSERVATION COMMISSION  
OF THE STATE OF NEW MEXICO

IN THE MATTER OF APPLICATION OF KEWANEE OIL COMPANY TO CONVERT PEARL WELLS NOS. 22 AND 24, IN SECTION 25, TOWNSHIP 17 SOUTH, RANGE 32 EAST, N.M.P.M., AND PEARL WELL NO. 26, IN THE W/2 SECTION 30, TOWNSHIP 17 SOUTH, RANGE 33 EAST, N.M.P.M., IN LEA COUNTY, NEW MEXICO FROM PRODUCING OIL WELLS TO GAS INJECTION WELLS, AND FOR PERMISSION TO INJECT GAS PRODUCED FROM CORBIN "A" WELL NO. 3, IN THE W/2 SECTION 10, TOWNSHIP 18 SOUTH, RANGE 33 EAST, N.M.P.M., IN LEA COUNTY, NEW MEXICO, INTO THE GRAYBURG-SAN ANDRES HORIZONS OF THE MALJ-AMAR POOL RESERVOIR, THROUGH PEARL WELLS NOS. 22, 24 AND 26.

NO. 356

APPLICATION

KEWANEE OIL COMPANY, Applicant herein, in connection herewith, respectfully shows to the Oil Conservation Commission:

1. That Applicant is a corporation, organized under the laws of the State of Delaware, and is duly licensed to transact business in the State of New Mexico; that in connection with this Application, its mailing address is P. O. Box 3786, Odessa, Texas.

2. That Applicant is the owner and holder of Federal Oil and Gas Lease Las Cruces Serial No. 058697(b) insofar as said lease covers the following described land in Lea County, New Mexico, to-wit:

All Section 25, Township 17 South, Range 32 East, N.M.P.M.; Lots 1, 2, 3 and 4, E/2 W/2 Section 30, Township 17 South, Range 33 East, N.M.P.M., and containing 968.56 acres, more or less,

which said lease is designated as Applicant's Pearl Lease.

3. That a total of twenty-seven wells, three of

which are abandoned or were dry holes, have been drilled upon said lands. That each of said wells were drilled to a sufficient depth to test the Grayburg-San Andres Horizons encountered from a depth ranging from 4150 feet to 4250 feet. That at the present time there are twenty-four producing wells on said lease, producing from the Grayburg-San Andres Horizons. That the present oil production from said lease is 365 barrels per day.

4. That Applicant is the owner and holder of Federal Oil and Gas Lease Las Cruces Serial No. 029489(a) insofar as said lease covers the following described land in Lea County, New Mexico, to-wit:

W/2 Section 10, Township 18 South, Range 33  
East, N.M.P.M., and containing 320 acres,  
more or less,

which said lease is known as its Corbin "A" Lease.

5. That there is located on said Corbin "A" Lease one gas well which, although shut in at the present time, is capable of producing 7,900,000 cubic feet of gas per twenty-four hours; that said gas well produces from the Queen Sand, encountered from a depth of 4225 feet to 4327 feet.

6. That on Plat attached hereto, marked Exhibit "A" and by reference made a part hereof, is shown the Pearl Lease and the Corbin "A" Lease, together with all wells drilled thereon.

7. That Pearl Wells Nos. 22, 24 and 26, as shown on said Exhibit "A", attached hereto, and which wells it is proposed to convert to gas injection wells, were originally drilled as unorthodox five-spot locations, after hearing before and approval by the New Mexico Oil Conservation Commission.

8. That as a result of engineering studies of reservoir conditions, it is Applicant's belief that it would be in the interest of conservation, prevent waste, and enable Applicant to obtain a greater ultimate recovery of oil and hydrocarbons if Pearl Wells Nos. 22, 24 and 26 are converted from producing wells to gas injection wells, and gas produced from Corbin "A" Well No. 3 injected in the reservoir underlying the Pearl Lease through said three wells, as gas injection wells.

9. That attached hereto are copies of Logs of Pearl Wells Nos. 22, 24 and 26, showing the formations encountered from the top of the Grayburg Lime to the total depth of each well, the description and size of the casing run and set in each well and the quantity of cement with which each string of casing is cemented.

10. Applicant proposes at the beginning of this gas injection program to inject each day the following volumes of gas into the three gas injection wells, respectively:

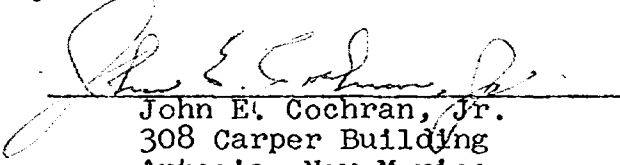
<u>INJECTION WELL NO.</u>	<u>VOLUME MCF PER DAY</u>
Pearl No. 22	200
Pearl No. 24	175
Pearl No. 26	155

As results of gas injections become known and are studied the above gas injection volumes will be gradually increased so that at all times the volume of gas injected into each of said three gas injection wells will be consistent with withdrawals from offset producing oil wells.

11. Applicant does not now ask, nor is it Applicant's intention to ask that the current oil allowable produced

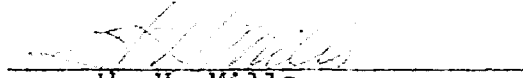
from Pearl Wells Nos. 22, 24 and 26 be transferred to other wells on the Pearl Lease by reason of said three wells being converted from producing oil wells to gas injection wells.

WHEREFORE, Applicant prays that the Commission set a date for hearing this Application, in accordance with its rules and regulations; that upon presentation hereof Applicant be granted permission to convert Pearl Wells Nos. 22, 24 and 26, as hereinabove described, from producing oil wells to gas injection wells, and that Applicant be further granted permission to inject gas produced from Corbin "A" Well No. 3 gas well, hereinabove described, into the Grayburg-San Andres Horizons of the Maljamar Pool Reservoir, through Pearl Wells Nos. 22, 24 and 26, as gas injection wells.

  
John E. Cochran, Jr.  
308 Carper Building  
Artesia, New Mexico  
Attorney for Applicant  
Kewanee Oil Company

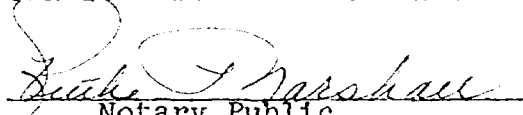
STATE OF NEW MEXICO        )  
                                  : ss.  
COUNTY OF EDDY            )

W. H. MILLS, being first duly sworn upon his oath, deposes and states: That he is Division Engineer for New Mexico properties of Applicant, KEWANEE OIL COMPANY, in the within and foregoing Application; that he has read the same and from personal knowledge knows the matters therein contained to be true and correct, except such statements as are alleged upon information and belief and as to those, he verily believes them to be true.

  
W. H. Mills

SUBSCRIBED AND SWORN TO before me this 12th day of March, 1952.

My commission expires:  
April 15, 1954

  
Notary Public



KEWANEE OIL COMPANY

SAMPLE ANALYSIS OF PEARL NO. 22

Surface string - 1264' of 24#, J-55, 8-5/8" O.D. Casing  
and cemented with 100 sacks cement.

Top of Lime: 3790'

8-26-48	3755' to 3770'	Anhydrite
	3770' to 3790'	Anhydrite
	3790' to 3798'	Lime
8-27-48	3798' to 3814'	Gray sandy lime
	3814' to 3835'	Red Sandy shale
8-28-48	3835' to 3849'	Sandy lime
	3849' to 3864'	Brown sandy lime and shale
8-29-48	3864' to 3875'	Sandy lime, slightly broken
	3875' to 3885'	Sandy lime, slightly broken
	3885' to 3895'	Lime
8-30-48	3895' to 3911'	Lime
8-31-48 to 9-4-48		Ran 3907' of new 23#, J-55, 7" OD casing, cemented with 200 sacks, drilling plugs and testing water shut off.
9-4-48	3911' to 3915'	Gray lime
9-5-48	3915' to 3930'	Gray lime
	3930' to 3940'	Gray lime
	3940' to 3950'	Gray lime
9-6-48	3950' to 3959'	Gray lime
	3959' to 3970'	Gray lime
	3970' to 3980'	Gray lime
9-7-48	3980' to 3985'	Gray lime
	3985' to 3990'	Gray lime
	3990' to 3993'	Gray sandy lime, little show of oil and gas
	3993' to 4001'	Sandy lime, little show of oil. Little free oil.
9-8-48	4001' to 4005'	Light brown sandy lime, little show of oil
	4005' to 4015'	Light brown sandy lime, little tan stain
	4015' to 4024'	Light brown sandy lime, little tan stain
9-8-48	4024' to 4038'	Light brown sandy lime, fair tan stain
9-9-48	4038' to 4048'	Gray lime
9-9-48 to 9-13-48		Repairing rig
9-13-48	4048' to 4058'	Gray lime
9-15-48	4058' to 4062'	Gray lime
	4062' to 4066'	Gray lime
	4066' to 4072'	Gray lime
	4072' to 4081'	Gray lime
9-16-48	4081' to 4085'	Light sandy lime
	4085' to 4088'	Light sandy lime
	4088' to 4093'	White lime
	4093' to 4100'	White lime
9-17-48	4100' to 4106'	White lime
	4106' to 4108'	White lime
	4108' to 4112'	White lime
	4112' to 4116'	White lime
	4116' to 4127'	White lime

9-18-48	4127' to 4134'	White sandy lime, good porosity & fair tan stain
	4134' to 4137'	White sandy lime, no oil. Bailed hole dry
	4137' to 4143'	White lime, no oil. Bailed hole dry. 1/3 bailer oil.
	4143' to 4149'	Light brown sandy lime, good oil stain. Bailed hole dry. 1/3 bailer of oil.
	4149' to 4155'	Light brown sand, fair saturation. Little increase in gas and oil. About 6 or 8 gallons. Bailed hole dry.
	4155' to 4161'	Soft, light brown sand, fair saturation, little increase in oil. Bailed hole dry.
9-19-48	4161' to 4165'	Soft gray sand, little more gas, good porosity. Bailed hole dry.
	4165' to 4170'	Soft light brown sand, good porosity, increase in oil and gas. Bailed hole dry.
	4170' to 4175'	Good rich brown sand, good saturation and porosity. Hole started to fill and could not bail oil. Hole filled 1000' with oil in about 2 hours while drilling 5'.
	4175' to 4181'	Brown sand, good saturation and porosity.
		Shut down and tested at this point. Swabbed hole down to bottom of pipe and made 28.60 barrels. Shut down 2 hours and swabbed to bottom of pipe again and well made 4.60 barrels of oil. Started drilling ahead.
9-20-48	4181' to 4184'	Some pieces of good sand and oil show, some gray dry sand.
	4184' to 4189'	White lime.
	4189'	Total Depth.

KEWANEE OIL COMPANY

SAMPLE ANALYSIS OF PEARL NO. 24

Surface String - 1232' of new 24# and 28# H-40, 8-5/8" OD casing cemented with 100 sacks.

Top of Lime : 3750'

11-5-48	3690' to 3705'	Lime
	3705' to 3730'	Red sandy shale
	3730' to 3750'	Anhydrite
11-6-48	3750' to 3765'	Lime
	3765' to 3775'	Lime
	3775' to 3790'	Lime
11-7-48	3790' to 3805'	Lime
	3805' to 3820'	Lime
	3820' to 3835'	Lime
11-8-48	3835' to 3855'	Lime
	3855' to 3865'	Lime
	3865' to 3880'	Lime
11-9-48	3880' to 3892'	Lime
11-9-48 to 11-13-48		Ran 3891' of new 23#, J-55, 7" OD casing and cemented with 200 sacks, drilling plugs and testing water shut off.
11-14-48	3892' to 3905'	White lime, dolomite
	3905' to 3920'	White lime, dolomite
	3920' to 3932'	White lime, trace of sand
	3932' to 3944'	White and gray sandy lime
11-15-48	3944' to 3950'	White lime
	3950' to 3965'	White lime, trace of sand
	3965' to 3975'	White lime
	3975' to 3985'	White lime
11-16-48	3985' to 3996'	White lime
	3996' to 4011'	White lime
	4011' to 4027'	White, lime, little sand, slight show of oil and gas.
11-17-48	4027' to 4044'	White lime, little sand
	4044' to 4055'	White sandy lime
	4055' to 4075'	White sandy lime
	4075' to 4096'	White sandy lime, trace of oil stain
	4096' to 4110'	White sandy lime
11-18-48	4110' to 4127'	Gray sand
11-18-48 to 11-19-48		Fishing for tools
11-20-48	4127' to 4135'	Gray sand, fair oil stain, show of white lime. Hole started to fill.
	4135' to 4140'	White lime, very slight show of sand
	4140' to 4144'	White lime, trace of sand
	4144' to 4150'	White lime
	4150' to 4156'	White lime
11-21-48	4156' to 4163'	White lime
	4163' to 4171'	White lime
	4171' to 4175'	White lime
	4175' to 4182'	White lime
	4182' to 4184'	White lime
11-22-48	4184' to 4191'	White lime
	4191'	Total Depth

KEWANEE OIL COMPANY

SAMPLE ANALYSIS OF PEARL NO. 26

Surface String - 1272' of new 24# and 28# H-40, 8-58" OD casing, cemented with 100 sacks.

Top of Lime: 3833'

11-3-48	3815' to 3825'	Anhydrite
	3825' to 3833'	Anhydrite
	3833' to 3835'	Gray lime
	3835' to 3845'	Gram lime
11-4-48	3845' to 3855'	Gray lime
	3855' to 3865'	Gray lime
	3865' to 3875'	Gray lime
11-5-48	3875' to 3885'	Gray lime
	3885' to 3890'	Gray lime
		Ran steel line measurement and hole corrected to 3923'
	3923' to 3925'	Gray lime
	3925' to 3931'	Gray lime
11-6-48 to 11-10-48		Ran 3930' of new 23# J-55, 7" OD casing, and cemented with 200 sacks, drilling plugs and testing water shut off.
11-1-48	3931' to 3944'	White and gray lime
11-11-48	3944' to 3948'	White and gray lime, some crystalline lime
	3948' to 3953'	White lime
	3953' to 3959'	White lime
	3959' to 3965'	White lime, little show of anhydrite
	3965' to 3970'	White lime, little show of anhydrite
11-12-48	3970' to 3975'	White lime, and anhydrite
	3975' to 3980'	White lime, sand, and anhydrite break
	3980' to 3993'	White lime, and sand and anhydrite break
	3993' to 4000'	White lime, trace of anhydrite
11-13-48	4000' to 4004'	White lime
	4004' to 4010'	White lime, trace of stain
	4010' to 4023'	White lime, light stain, little gas
	4023' to 4032'	White lime, trace of oil stain
11-14-48	4032' to 4047'	Gray sand, trace of oil, little more gas
	4047' to 4053'	White lime and gray sand
	4053' to 4055'	White lime
	4055' to 4065'	White lime, little gray sand
11-15-48	4065' to 4070'	Gray sand, trace of oil stain
	4070' to 4075'	White lime
	4075' to 4080'	White lime, trace of gray sand
11-16-48	4080' to 4094'	White lime, trace of gray sand
	4094' to 4100'	White lime, little of oil stain
11-17-48	4100' to 4107'	White lime
	4107' to 4110'	White lime
	4110' to 4120'	White lime
	4120' to 4132'	White lime, some gray sand
11-18-48	4132' to 4147'	White lime, some gray sand
	4147' to 4150'	White lime
	4150' to 4156'	White lime, some gray sand
	4156' to 4170'	White lime, some gray sand

11-19-48	4170' to 4175'	White lime, trace of gray sand
	4175' to 4178'	White lime
	4178' to 4183'	White lime, some good light brown sand, good oil show (Tools showed top of pay at 4180')
	4183' to 4190'	White lime, some good light brown sand, good oil show
	4190' to 4200'	White lime, some good sand, fair stain (150' of oil in hole)
	4200' to 4205'	White lime, very little stain in sand. (200' of oil in hole)
11-20-48	4205' to 4212'	White lime, gray sand, light stain
	4212' to 4220'	Gray sand, trace of oil stain
	4220' to 4225'	Gray sand, fair oil stain
	4225' to 4230'	Gray sand and white lime, fair stain
	4230'	Total Depth

CASE 357: Southern Production Co. for unitizing for proration purposes lots 1 & 2 w/NE of SE4 2-11S-37E, Lea County in the Echols (Devonian) pool.