CASE 3897: Application of KERSEY-WITTKOPP AND E.A. HANSON for two waterflood projects, Eddy County.

Case Number

3897

Application Transcripts.

Small Exhibits

T/C

# BEFORE THE NEW MEXICO OIL CONSERVATION COMMISSION Santa Fe, New Mexico October 23, 1968

EXAMINER HEARING

IN THE MATTER OF:	) )
Application of Kersey-Wittkopp and E. A. Hanson for two waterflood projects, Eddy County, New Mexico.	) Case 3897 ) )

BEFORE: Daniel S. Nutter, Examiner

TRANSCRIPT OF HEARING

MR. NUTTER: We'll call as the next case Case 3897.

MR. HATCH: Application of Kersey-Wittkopp and E. A. Hanson for two waterflood projects, Eddy County, New Mexico.

MR. NUTTER: The record will show Mr. Kersey still under oath.

(Whereupon, Applicants' Exhibits
A through E marked for identification)

\* \* \* \* \* \*

HAROLD KERSEY, one of the Applicants, having been first duly sworn, testified as follows:

\* \* \* \* \* \*

MR. KERSEY: Here is a couple more copies of our Application.

This is a project down in the south Shugart area for a small flood into the Queen Sands and Exhibit A shows the area involved which is the southeast quarter of Section 6, 19, 31. There's two wells involved in the flood and before we start here, I have a letter in triplicate from Mr. E. A. Hanson that I represent their company in this case.

MR. NUTTER: Again, this is the composit application of two companies?

MR. KERSEY: Two companies. Hanson and Kersey and Wittkopp. As I said, Exhibit A shows the area with the two proposed injection wells. Exhibit B shows the detail of the location of the wells and Exhibit C and D, Exhibit C and D

show how each well is proposed to be completed. On Exhibit C, the 8 and 5/8ths casing on the No. 2 Texaco of Kersey-Wittkopp is set at 865 feet with 110 sacks. The 5 and 1/2 inch casing is at 3446 with 120 sacks and the 5 and 1/2 inch casing at 3299 with 150 sacks, the perforations in the Queen Formation. It's proposed on both of these wells, to set tension packers at 3100 feet with cement-lined tubing with inhibited fluid above the packers and inject into the Queen. At the present time, we have contacted Shenandoah and we are going to purchase the injection water from Shenandoah and return the produced water for re-injection, back into the formation. These wells are down past the economic status and producing status and primary has been about fifteen to twenty thousand barrels on each well.

### EXAMINATION

# BY MR. NUTTER:

- Now, Mr. Kersey, as far as allowable production is concerned, what is the area of the Kersey-Wittkopp lease?
- It is the north half of the southeast quarter which would only be two forty-acre tracts.
  - One injection well and one producer?
- One producer. The Hanson, I show the south half of the southeast quarter, but in reality Hanson does have the southeast of the southwest, so he could very well with this

- There is no well on that forty at the present time?

  A -He would have to drill on there, of course, later,
- but anyway, there are three forty's.
- Q Are the two forty's where he has the injection well and the producing well the same lease or are these separate leases?
- A Those are separate leases. That is one thing that was bad on our pattern because he we had made an injection well out of his well in the southeast of the southeast, that's the only well on that Federal hease and it would immediately have cancelled it. We had to make the well that we have shown, the Payne, an injection well because it is held by other production.
- O Do you know whether either of these two leases there in the south half of the southeast quarter, have any diversity of ownership, or is Mr. Hanson the sole owner and the Federal Government the sole lessor here?
- A That is my understanding, Mr. Hanson and the Federal Government, and on our lease there's a little bit of override but that's it.
  - Q But it's common throughout the entire lease?
  - A Yes, it's common throughout the entire lease.

- Q It will probably be necessary for Mr. Hanson to get these two leases consolidated in some way prior to the time we authorize the transfer of allowable across the lease line.
  - A We can certainly take care of that.
- Q It won't be difficult if there is no diversity of ownership, no overrides or anything?
  - A No, owns those 100% himself.
- Q Well, it won't be any problem then. Do you have any idea as to the top of the cement on the two injection wells?

A I would say the top of the cement in the Kersey-Wittkopp Texaco No. 2, the 8 and 5/8ths would probably be about 400 feet and the top of the production string casing would be at approximately 2000 feet. On the Hanson Payne No. 1A, with the shallow amount of the casing use, I would say that was circulated and on the 5 and 1/2 inch casing, the cement probably came up to about 1800 feet because they used 150 sacks.

MR. NUTTER: Are there any other questions of Mr. Kersey?

#### EXAMINATION

#### BY MR. PORTER:

Q Mr. Kersey, do these wells produce water at the present time?

A Yes, they do. They make about 15 or 20 barrels of water a day. This is going to help take care of that, too.

Q Is this about the average production in the area, 15 to 20 barrels?

A I would say it was about average in that particular area. So we need to do something to get rid of the water as well as start a secondary recovery.

MR. PORTER: Yes, thank you.

MR. NUTTER: Do you have anything further, Mr.

MR. KERSEY: That's it.

Kersey?

MR. NUTTER: I presume you wish to offer Exhibits
A through D in this case?

MR. KERSEY: Right.

MR. NUTTER: And the letter from Mr. Hanson which would be Exhibit E. Exhibits A through E will be admitted in evidence.

(Whereupon, Applicants' Exhibits
A through E admitted in evidence.)

MR. NUTTER: Does anyone have anything they wish to offer in Case 3897? We will take the case under advisement.

#### $\mathbf{I} \quad \mathbf{N} \quad \mathbf{0} \quad \mathbf{E} \quad \mathbf{X}$

WITNESS		PAGE
HAROLD KERSEY		
Direct Testimony	4.	2
Examination by Mr. Nutter	•	3
Examination by Mr. Porter		5
EXHIBITS MARKED		ADMITTED
Applicants' A through E 2		6

STATE OF NEW MEXICO COUNTY OF BERNALILLO )

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

WITNESS my hand this 1st day of November, 1968.

I do hereby contify that the CoADA: DEARNLEY

il Conservation Cambiaston

CHAIRMAN

#### State of New Mexico

### **Bil** Conservation Commission

LAND COMMISSIONER GUYTON B. HAYS MEMBER



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

November 5, 1968

Mr. Harold Kersey Kersey & Company Post Office Box 316 Artesia, New Mexico 88210

Dear Sir:

Reference is made to Commission Order No. R-3547, recently entered in Case No. 3897, approving the Kersey Wittkopp Shugart Waterflood Project and the Hanson-Shugart Waterflood Project.

Injection is to be through the one water injection well authorized for each project, both of which shall be equipped with cement-lined tubing set in packers at approximately 3100 feet. The casing-tubing annulus in each well is to be loaded with inhibited fluid and equipped with a gauge to facilitate detection of leakage in the casing, tubing, or packer.

As to allowable, our calculations indicate that when both of the authorized injection wells have been placed on active injection, the maximum allowable which each 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. This is assuming of course that the two leases comprising the Hanson Shugart Project have been consolidated in accordance with the provisions of Order (2) of Order No. R-3547.

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

-2-Mr. Harold Kersey Kersey & Company Post Office Box 316 Artesia, New Mexico 88210

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.

A. L. PORTER, Jr.

Secretary-Director

#### ALP/DSN/ir

cc: Oil Conservation Commission Hobbs and Artesia, New Mexico

> U. S. Geological Survey Artesia, New Mexico

Mr. D. E. Gray State Engineer Office Capitol Building Santa Fe, New Mexico ROUGH DRAFT FOR WATERFLOOD LETTERS

Mr. Harold Kersey Kersey & Company Post Office Box 316 Artesia, New Mexico 88210

Dear Sir:

Reference in made to Commission Order No. 3547 , entered in Case No. 9

3897 , approving the Kersey Wittkap Shugart waterflood Project and Waterflood Project and

waterflood Project.

Smjection interests is to be through the one water injection, and the orized for each project, laste of which shall be equipped with coment-lined taking set in so parkers at approprinately 3100 feet the casing-tuking annulus in each well is to loaded with inhibited fluid and assimpped with a gauge to focilitate detection of leakage in the casing, tuking, or pecker

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

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

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

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

Very truly yours,

A. L. PORTER, Jr. Secretary-Director

CC e

OCC: Hobbs X

Artesia X Aztec

USGS Artesia

Mr\_\_Frank-Irby, State Engineer Office, Santa Fe, New Mexico

Mr. D. E. Gray

This is assuming of source that the two leaves comprising the Houson Shugart Project have been Consolidated in accordance with the provisions of Order (2) of Order no. R 3547 GOVERNOR DAVID F. CARGO CHAIRMAN

## State of New Mexico Bil Conservation Commission

LAND COMMISSIONER GUYTON B. HAYS MEMBER



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

October 31, 1968

SANTA FE

Mr. Harold Kersey Kersey & Company Post Office Box 316 Artesia, New Mexico 88210 Re: Case No. 3897
Order No. R-3547
Applicant:

Kersey-Wittkopp & Hanson

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

Carbon copy of order also sent to:

Hobbs OCC X
Artesia OCC X
Aztec OCC
State Engineer X

Other	

# BEFORE THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO

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

> CASE No. 3897 Order No. R-3547

APPLICATION OF KERSEY-WITTKOPP AND E. A. HANSON FOR TWO WATERFLOOD PROJECTS, EDDY COUNTY, NEW MEXICO.

#### ORDER OF THE COMMISSION

#### BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on October 23, 1968, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 31st day of October, 1968, 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 applicants, Kersey-Wittkopp and E. A. Hanson, seek permission to institute two cooperative waterflood projects in the Shugart Pool by the injection of water into the Queen formation through two injection wells located in the NW/4 SE/4 and the SW/4 SE/4 of Section 6, Township 19 South, Range 31 East, NMPM, Eddy County, New Mexico.
- (3) That the wells in the project areas are in an advanced state of depletion and should properly be classified as "stripper" wells.
- (4) That the proposed waterflood projects should result in the recovery of otherwise unrecoverable oil, thereby preventing waste.

-2-CASE No. 3897 Order No. R-3547

- (5) That the project area comprising the SW/4 SE/4 and the SE/4 SE/4 of said Section 6 should be designated as an area wherein transfer of allowables between leases is permitted, provided said area has been unitized or otherwise consolidated, or provided all persons owning working interests and/or royalty interests within said area have so agreed and evidence of such unitization, consolidation, or agreement has been filed with the Santa Fe Office of the Commission.
- (6) That, subject to Finding No. (5), the proposed water-flood projects should be approved and the projects 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 applicants, Kersey-Wittkopp and B. A. Hanson, are hereby authorized to institute the following cooperative waterflood projects in the Shugart Pool by the injection of water into the Queen formation through the following-described wells in Section 6, Township 19 South, Range 31 East, NMPM, Eddy County, New Mexico:

#### Kersey-Wittkopp Shugart Waterflood Project

Injection well:

Kersey-Wittkopp Texaco Federal Well No. 2 - Unit J - Section 6

#### Hanson Shugart Waterflood Project

Injection well:

- E. A. Hanson Payne "A" Federal Well No. 1 Unit O Section 6
- (2) That the aforementioned Hanson Shugart Waterflood Project, comprising the SW/4 SE/4 and the SE/4 SE/4 of said Section 6, is hereby designated an area wherein transfer of allowables between leases is permitted, provided said area is unitized or otherwise consolidated, or provided all persons owning working interests and/or royalty interests within said area so agree

-3-CASE No. 3897 Order No. R-3547

and evidence of such unitization, consolidation, or agreement is furnished the Santa Fe Office of the Commission.

- (3) That the subject waterflood projects shall be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations.
- (4) That monthly progress reports of the waterflood projects herein authorized shall be submitted to the Commission in accordance with Rules 704 and 1120 of the Commission Rules and Regulations.
- (5) 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

DAVID F. CARGO, Chairman

GUYTON B. HAYS, Member

A. L. PORTER, Jr. Member & Secretary

#### DOCKET: EXAMINER HEARING - WEDNESDAY - OCTOBER 23, 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 3894: Application of Signal Oil and Gas Company for a non-standard oil proration unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of a non-standard oil proration unit comprising the W/2 NE/4 and the N/2 SE/4 of Section 17, Township 10 South, Range 34 East, Vada-Pennsylvanian Pool, Lea County, New Mexico, said unit to be dedicated to its State AP Well No. 1 located 1980 feet from the South

line and 660 feet from the East line of said Section 17.

- CASE 3895: Application of Sun Oil Company for a pressure maintenance project, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a pressure maintenance project in its New Mexico State "H" Lease by the injection of water into the San Andres formation through its New Mexico State "H" Well No. 13 located in the SE/4 SE/4 of Section 16, Township 8 South, Range 30 East, Cato-San Andres Pool, Chaves County, New Mexico. Applicant further seeks the promulgation of special rules to govern operation of said pressure maintenance project.
- CASE 3887: (Continued from the October 9, 1968, Examiner Hearing)

Application of Kersey & Company 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 Premier sand of Grayburg formation through two wells to be located in Units E and K of Section 12, Township 18 South, Range 28 East, Artesia Pool, Eddy County. New Mexico. Applicant further proposes to produce oil from the Upper Grayburg through parallel strings of tubing, if sail zones are productive in the subject wells.

CASE 3896: Application of Kersey & Hanson, Yates Drilling Company, and John H. Trigg for several waterflood projects, Eddy County, New Mexico. Applicants, in the above-styled cause, seek authority to institute several cooperative waterflood projects by the injection of water into the Queen and Grayburg formations through four injection wells located in Sections 21

Docket No. 31-68

#### CASE 3896 continued

and 28, Township 18 South, Range 29 East, Turkey Track Queen-Grayburg Pool, Eddy County, New Mexico.

CASE 3897:

Application of Kersey-Wittkopp and E. A. Hanson for two waterflood projects, Eddy County, New Mexico. Applicants, in the above-styled cause, seek authority to institute two cooperative waterflood projects by the injection of water into the Queen formation through two injection wells located in the NW/4 SE/4 and the SW/4 SE/4 of Section 6. Township 19 South, Range 31 East, Shugart Pool, Eddy County, New Mexico.

CASE 3898:

Application of Tenneco 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 Queen formation in the open-hole interval from approximately 3258 feet to 3341 feet in its Ginsberg-Federal Well No. 6 located in Unit E of Section 31, Township 25 South, Range 38 East, Langlie-Mattix Field, Lea County, New Mexico.

CASE 3899:

Application of Cities Service 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 San Andres formation in the interval from approximately 4087 feet to 4176 feet in its State AD Well No. 8 located in Unit J of Section 22, Township 10 South, Range 32 East, Mescalero-San Andres Pool, Lea County, New Mexico.

CASE 3900:

Application of Continental Oil Company for downhole comminoling, Lea County, New Mexico. Applicant, in the abovestyled cause, seeks authority to commingle production from the Vacuum Wolfcamp Pool and the North Vacuum Abo Pool in the well-bore of its State H-35 Well No. 7 located 660 feet from the North line and 1780 feet from the East line of Section 35, Township 17 South, Range 34 East, Lea County, New Mexico.

CASE 3901:

Application of Continental 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 in the perforated interval from approximately 3330 feet to 3552 feet in its Lynn A-28 Well No. 6 located in Unit H of Section 28, Township

Docket No. 31-68

#### (CASE 3901 continued)

23 South, Range 36 East, Jalmat Pool, Lea County, New Mexico.

- CASE 3902: Application of Continental Oil Company for a waterflood project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a pilot water-flood project by the injection of water into the Queen formation through its Stevens "B" Well No. 8 located in Unit A of Section 12 Township 23 South, Range 36 East, Langlie-Mattix Pool, Lea County, New Mexico.
- CASE 3903: Application of Continental Oil Company for a waterflood project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project by the injection of water into the Delaware formation in the perforated intervals from approximately 4675 feet to 4765 feet in its Payne Well No. 11 and from 4666 feet to 4740 feet in its Payne Well No. 12 located 660 feet from the South line and 1650 feet from the West line of Section 30, 1935 feet from the North line and 2090 feet from the West line of Section 31, respectively, Township 26 South, Range 33 East, El Mar-Delaware Pool, Lea County, New Mexico.
- CASE 3904: Application of Continental Oil Company for a waterflood project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a pilot water-flood project by the injection of water into the Delaware formation through its Thompson Federal 19 Well No. 2 located in Unit F of Section 19, Township 26 South, Range 32 East, North Mason-Delaware Pool, Lea County New Mexico.
- CASE 3905: Application of Texas Pacific 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 Devonian formation in the open-hole interval from approximately 12,269 feet to 12,541 feet in its State "O" Well No. 1 located in Unit J of Section 15, Township 10 South, Range 36 East, South Crossroads-Devonian Pool, Lea County, New Mexico.

- CASE 3906: Application of Skelly Oil Company for a waterflood project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project by the injection of water into the Queen formation through its Mattix "A" Well No. 4 located in Unit K of Section 2, Township 24 South, Range 37 East, Langlie-Mattix Oil Pool, Lea County, New Mexico. Applicant further seeks a procedure whereby said project may be expanded administratively without a showing of well response.
- CASE 3907: Application of Skelly Oil Company for a waterflood project, Roosevelt County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a pilot water-flood project by the injection of water into the San Andres formation through its Hobbs "W" Well No. 9 located in Unit f of Section 29, Township 7 South, Range 34 East, Chaveroo-San Andres Pool, Roosevelt County, New Mexico. Applicant further seeks a procedure whereby said project may be expanded administratively without a showing of well response.
- CASE 3908: Application of Pan American Petroleum Corporation for salt water disposal, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the San Andres formation in the perforated interval from approximately 3932 feet to 4027 feet in its Miller Federal Well No. 4 located in Unit L of Section 35, Township 7 South, Range 31 East, Tom-Tom San Andres Pool, Chaves County, New Mexico.
- CASE 3909: Application of Champlin Petroleum Company for salt water disposal, Roosevelt County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into San Andres formation, Chaveroo-San Andres pool, Roosevelt County, New Mexico, through the following two wells located in Township 7 South, Range 33 East:

Champlin Lauck-Federal Well No. 12, Unit J of Section 29; Disposal Interval -4202 feet to 4404 feet;

Champlin State 32-7-33 Well No. 5, Unit J of Section 32; Disposal Interval - 4303 feet to 4425 feet.

Docket No. 31-60

CASE 3910:

Application of Atlantic Richfield Company for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Bough "C" zone of the Pennsylvanian formation underlying the SW/4 of Section 17, Township 10 South, Range 34 East, Vada-Pennsylvanian Pool, Lea County, New Mexico, Said acreage to be dedicated to a well located in the NE/4 SW/4 of said Section 17.

CASE 3911:

Application of Atlantic Richfield Company for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Bough "C" zone of the Pennsylvanian formation underlying the SE/4 of Section 8, Township 10 South, Range 34 East, Vada-Pennsylvanian Pool, Lea County, New Mexico. Said acreage to be dedicated to a well located in the NW/4 SE/4 of said Section 8. In the alternative applicant seeks approval of a non-standard oil proration unit comprising the E/2 SE/4 of Said Section 8 and the W/2 SW/4 of Section 9, said Township and Range, said unit to be dedicated to a well to be drilled in the NE/4 SE/4 of said Section 8.

CASE 3882:

(Continued from the October 9, 1968, Examiner Hearing)
Application of Solar Oil Company for a special gas-oil ratio
limitation, Lea County, New Mexico. Applicant, in the
above-styled cause, seeks an exception to Rule 506 of the
Commission Rules and Regulations to provide for a limiting
gas-oil ratio of 6,000 cubic feet of gas per barrel of oil
in the Teague Blinebry Pool, Lea County, New Mexico.

CASE 3883:

(Continued from the October 9, 1968, Examiner Hearing)
Application of Solar Oil Company for a special gas-oil
ratio limitation, Lea County, New Mexico. Applicant, in
the above-styled cause, seeks an exception to Rule 506 of
the Commission Rules and Regulations to provide for a
limiting gas-oil ratio of 6,000 cubic feet of gas per barrel
of oil in the Imperial Tubb-Drinkard Pool, Lea County,
New Mexico.

# KERSEY & COMPANY

DRILLING AND OIL PRODUCTION
Phone SII 6-3671 • P. O. Box 316 • 808 W. Grand ARTESIA, NEW MEXICO 88210

October 2, 1968

Water Flood Project, Shugart Field

State of New Mexico: Oil Conservation Commission P. O. Box 2088 Santa Fe, New Mexico 87501

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

It is respectfully requested in order to promote conservation Dear Sir: and prevent waste that Kersey-Wittkopp and E. A. Hanson be given approval for a water flood project which includes the wells hereinafter listed.

This project will be a cooperative flood with each party hereto injecting into their own well, producing his own oil and having an allowable based on his total productive acreage.

The pattern is a simple line drive involving two injection wells. Pressured water will be purchased from the Shenandoah Corporation which has a flood in the area.

Hereinafter are listed the two injection wells involved.

Kersey-Wittkopp Texaco No. 2, located in the NW SE, Section 6, T19S, R31E, Eddy County, New Mexico.

E. A. Hanson Payne 1-A. located in the SW SE, Section 6, T19S, R31E, Eddy County, New Mexico.

Exhibit "A" shows the flood area and wells within a two mile radius.

Exhibit "B" shows a detailed plat of the flood area.

Exhibit "C" and "D" shows how each injection well is to be completed.

Copies of this application will be sent to all offset operators as listed below and to the U.S.G.S. office.

Page 2 October 2, 1968 Oil Conservation Commission

The operators of this cooperative flood will upon approval of the flood immediately notify the New Mexico Oil Conservation Commission of injection operations and abide by the rules and regulations as set out in the Order and will also file and maintain accurate records as required by the New Mexico Oil Conservation Commission.

Yours very truly,

KERSEY - WITTKOPP

Harold Kersey

HK:cg

CC: U.S.G.S.

Texaco Texam Penroc

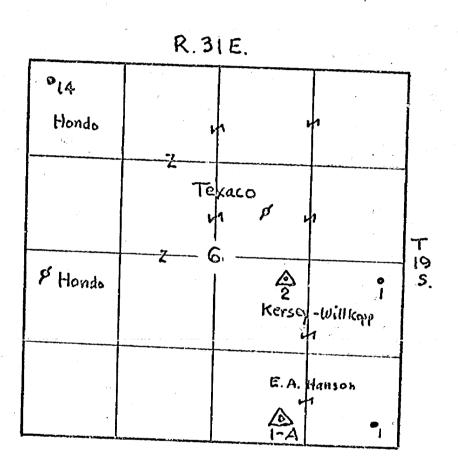
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### EXHIBIT "A"

Shows proposed Flood Area and other wells within

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Detail Showing Kersey-Witlkopp & Hanson Cooperative Flood. Sec. 6-19-31

A Injection Well

BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMENT
OIL EXHIBIT NO. 13
CASE NO. 3897

Exhibit "B"

2 % Tubing @ 3100 Tension Packer E Perforations-Queen formation 85" Casing & 865 BEFORE EXAMINED & OF CONSERVATION C LEXHIDIT NO.D

18% casing @ 54x

52" csg 3446 120 Sax

Kersey-Wittkopp No. 2 Texaco

Exhibit "C"

7 25 CE @ 3299 Tension Packer Perforations. Queen formation

E A. Hanson Payne 1-A

.d. Pigiyx3

\$ 13

ERNEST A. HANSON
OIL OPERATOR
P. D. BOX 1515
ROSWELL, NEW MEXICO
B8201
October 7, 1968

Kersey & Company P. O. Box 316 Artesia, New Mexico, 88210

Attention: Mr. Harold Kersey

Re: Cooperative Water Flood Project SE/4 Sec. 6, T-19-S, R-31-E Eddy County, New Mexico Shugart Field

Dear Mr. Kersey:

Confirming our discussion of the water flood covering 160 acres in the Shugart Field, we have examined a copy of your Application to the New Mexico Oil Conservation Commission for approval of this project, and we request that you act as our Agent in any matters that may come up before the Commission in regard to this flood Application.

Yours very truly,

ERNEST A. HANSON

EAH/1m

BEFORE EXAMINER MUTTER
OIL CONSERVATION CO.

affec EXHIBIT NO. E

ASE NO. 389

#### KERSEY & COMPANY

ORILLING AND OIL PRODUCTION

Phone SH 6-3671 • P. O. Box 316 • 808 W. Grand

ARTESIA, NEW MEXICO 88210

October 2, 1968

Care 3897

Re: Water Flood Project, Shugart Field

State of New Mexico Oil Conservation Commission P. O. Box 2088 Santa Fe, New Mexico 87501

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

Dear Sir:

It is respectfully requested in order to promote conservation and prevent waste that Kersey-Wittkopp and E. A. Hanson be given approval for a water flood project which includes the wells hereinafter listed.

This project will be a cooperative flood with each party hereto injecting into their own well, producing his own oil and having an allowable based on his total productive acreage.

The pattern is a simple line drive involving two injection wells. Pressured water will be purchased from the Shenandoah Corporation which has a flood in the area.

Hereinafter are listed the two injection wells involved.

Kersey-Wittkopp Texaco No. 2, located in the NW SE, Section 6, T19S, R31E, Eddy County, New Mexico.

E. A. Hanson Payne 1-A, located in the SW SE, Section 6, T19S, R31E, Eddy County, New Mexico.

Exhibit "A" shows the flood area and wells within a two mile radius.

Exhibit "B" shows a detailed plat of the flood area.

Exhibit "C" and "D" shows how each injection well is to be completed.

Copies of this application will be sent to all offset operators as listed below and to the U.S.G.S. office.

DOCKET AT LED

Dute 10-11-68

October 2, 1968
Oil Conservation Commission Page 2

The operators of this cooperative flood will upon approval of the flood immediately notify the New Mexico Oil Conservation Commission of injection operations and abide by the rules and regulations as set of injection operations and abide by the rules and regulations as set out in the Order and will also file and maintain accurate records as out in the Order and will also file and maintain accurate records as out in the order and will also life and maintain accuration to the New Mexico Oil Conservation Commission. Yours very truly,

Harold Kersey

HK:cg

cc: U.S.G.S.

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EXHIBIT "A"

Shows proposed Flood Area and other wells within 2 mile radius.

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		E. A. Hanson	•,

Detail Showing Kersey-Willkopp & Hanson Cooperative Flood. Sec. 6-19-31

A Injection Well

Exhibit "B"

Artesia, N. Mex. 912/68 12 % Tubing @ 3100 SE Casing & Best

Kersey-Wittkopp No. 2 Texaco

Exhibit "C"

5½" csg 3446 120 Sax

= Perforations-Queen formation

E A. Hanson
Payne 1-A Exhibit "D"

150 SAX Tension Packer Perforations. Queen formation

Cacl 3897

18% casing @

Spec for

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. 3897

Order No. R-3

APPLICATION OF KERSEY-WITTKOPP AND E. A. HANSON FOR TWO WATERFLOOD PROJECTS, EDDY COUNTY, NEW MEXICO.

# ORDER OF THE COMMISSION

# BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on October 23, 1968, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

, 1968, the Commission, a day of Gox quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

- (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 applicants, Kersey-Wittkopp and E. A. Hanson, seek permission to institute two cooperative waterflood projects in the Shugart Pool by the injection of water into the Queen formation through two injection wells located in the NW/4 SE/4 and the SW/4 SE/4 of Section 6, Township 19 South, Range 31 East, NMPM, Eddy County, New Mexico.
  - That the wells in the project areas are in an advanced state of depletion and should properly be classified as "stripper" wells.

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

(5)(8) That the project area comprising the SW14 SF14 and the SF14 SF14 of said feeling to should be designated as an area wherein transfer of allowables between blooses in primitted, provided by the thete said area has been unitized or atturied correspondently, or provided all persons arming working interests and/or royalty interests within said area hone-so agreed and suicleuse of such unitization, consolidation, or agreement has been flied with the Saits Te office or the Commission

Injection well: Jedual
Kersey-Willkop Texaso, Will no. 2 - Nuit J - Lestin 6

E.A. Homon Skucjart Water flood Praject.

Injection well:

E. A. Homon Poyne & A Jedus Well Xe. 1 - Unit 0 - Lection 6

(2) That the afrementioned Et. Housan Shargert waterflood Project, Comprising the 5w/45E/4 and the SE/4 SE/4 of Said Stelin b, is hereby designated are area inherein transfer of allowables hetween leases is permitted, provided said area function, unitized or atherines consolidated, or provided all present owning water interest and for rayally interests within said area the as agreed and evidence of such unity ation, consolidation, or agreement is furnished the faula Te office of the Commission.

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# UNITED STATES DEPARTMENT OF THE INTERIOR GEOLOGICAL SURVEY

P. O. Drawer U Artesia, New Mexico 88210

September 8, 1969

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Kersey and Company Post Office Box 316 Artesia, New Mexico 88210

Gentlemen:

Your letter of September 3, 1969 requests approval for Kersey-Wittkopp to operate a waterflood of the Queen formation on that portion of oil and gas lease New Mexico 016789 described as follows:

T. 19 S., R. 31 E., N.M.P.M., Eddy County, New Mexico sec. 6: W2SE2

You propose to convert to a water injection well the No. 2 Texaco located in the NW\SE\ sec. 6 above.

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 pressure 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,

(Orig. Sgd.) JAMES A. KNAUF

James A. Knauf District Engineer

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