

CASE 4452: Application of DAVID
C. COLLIER FOR A WATERFLOOD
PROJECT, EDDY COUNTY, N. MEX.

Case. Number.

4452

Application,
Transcripts.

Sm all Exhibts.

ETC.

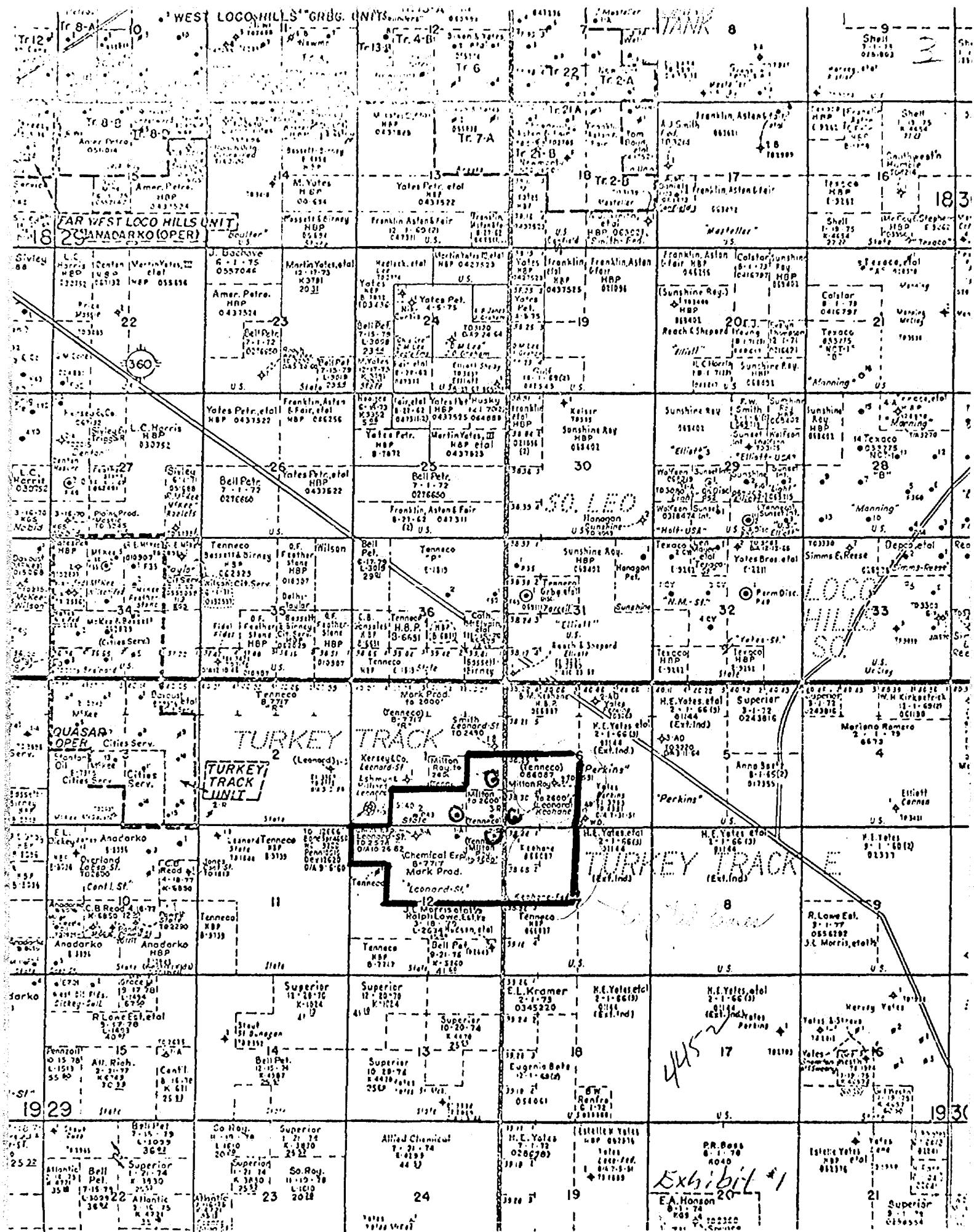

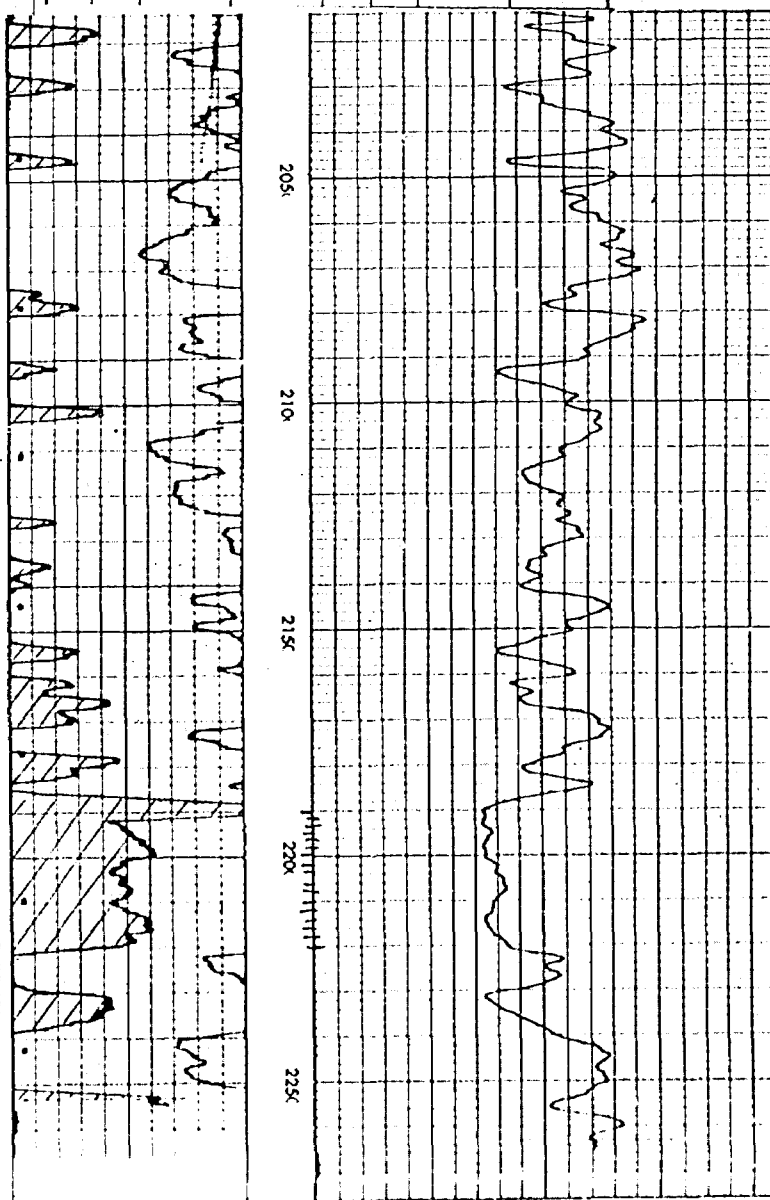


Exhibit 1

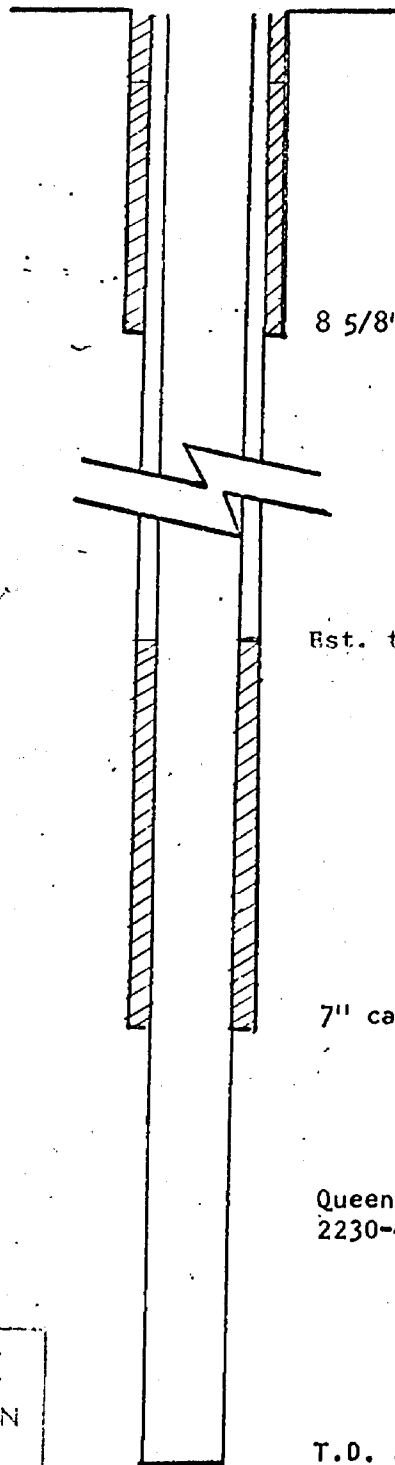
		RADIOGRAPHY																																	
		1106																																	
COMPANY Chemical Express, Inc.																																			
WELL LEONARD-STATE # 1																																			
FIELD EAST TURKEY TRACK																																			
COUNTY EDDY STATE NEW MEXICO																																			
Location 30 fsl 1650 FEL		Other Services:																																	
Sec 1 Twp 19-S Rge 29-E																																			
Permanent Datum: Ground Level		Elev. K.B.																																	
Log Measured from: Derrick Floor		D.F.																																	
Drilling Measured from: Derrick Floor		G.C.																																	
Date	5-24-62	5-24-62																																	
Run No.	One	One																																	
Type Log	Gamma	Neutron																																	
Depth - Driller	2250	2250																																	
Depth - Welex	2253	2253																																	
Bottom Logged Interval	2253	2253																																	
Top Logged Interval	40	50																																	
Type Fluid in Hole	Oil	Oil																																	
Salinity, PPM Cl																																			
Density	1.493	1.493																																	
Level	87	87																																	
Max. rec. temp. deg. F.	87	87																																	
Operating Log Time	2 hrs																																		
Recorded by	P. C. Harris																																		
Witnessed by	M. England																																		
<table border="1"> <thead> <tr> <th colspan="4">BOTH-HOLE RECORD</th> <th colspan="4">CASING RECORD</th> </tr> <tr> <th>Run</th> <th>From</th> <th>To</th> <th>Size</th> <th>Wgt.</th> <th>From</th> <th>To</th> <th></th> </tr> </thead> <tbody> <tr> <td>10</td> <td>0</td> <td>360</td> <td>8-5/8</td> <td></td> <td>0</td> <td>360</td> <td></td> </tr> <tr> <td>8</td> <td>360</td> <td>2250</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>				BOTH-HOLE RECORD				CASING RECORD				Run	From	To	Size	Wgt.	From	To		10	0	360	8-5/8		0	360		8	360	2250					
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8	360	2250																																	



BEFORE EXAMINER UTZ
OIL CONCENTRATION 0.000000
EXAMINER
CASE NO. 4452

Exhibit #2

David C. Collier
Kochane Federal No. 1
330 FSL & 330 FWL
Sec. 6-T19S-R30E



8 5/8" casing at 362' with 75 sacks
Circulated.

Est. top of cement at 1500'.

7" casing at 2170' with 50 sacks

Queen oil pay
2230-44

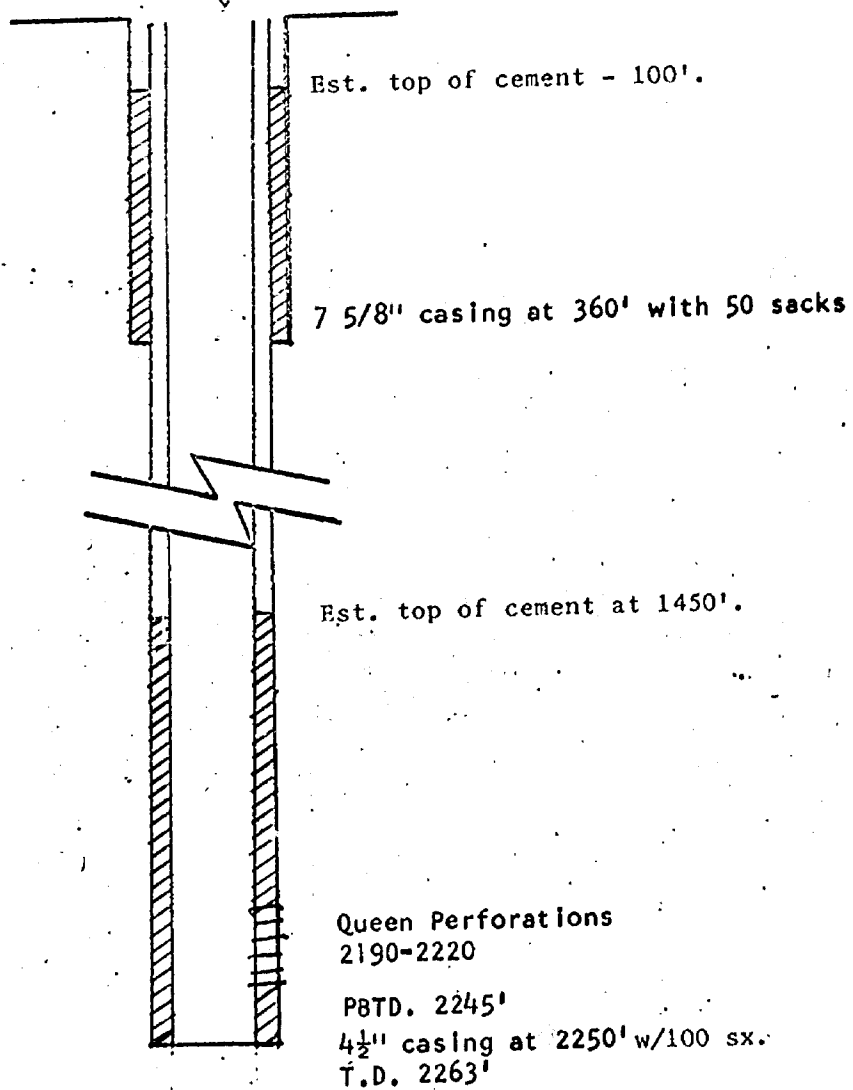
T.O. 2250

*water source
start with fresh water
from well in the vic.
200 BWD for well
1000 PSI*

BEFORE EXAMINER UTZ	
OIL CONSERVATION COMMISSION	
app. _____	EXHIBIT NO. <u>3</u>
CASE NO. <u>4452</u>	

Exhibit #3

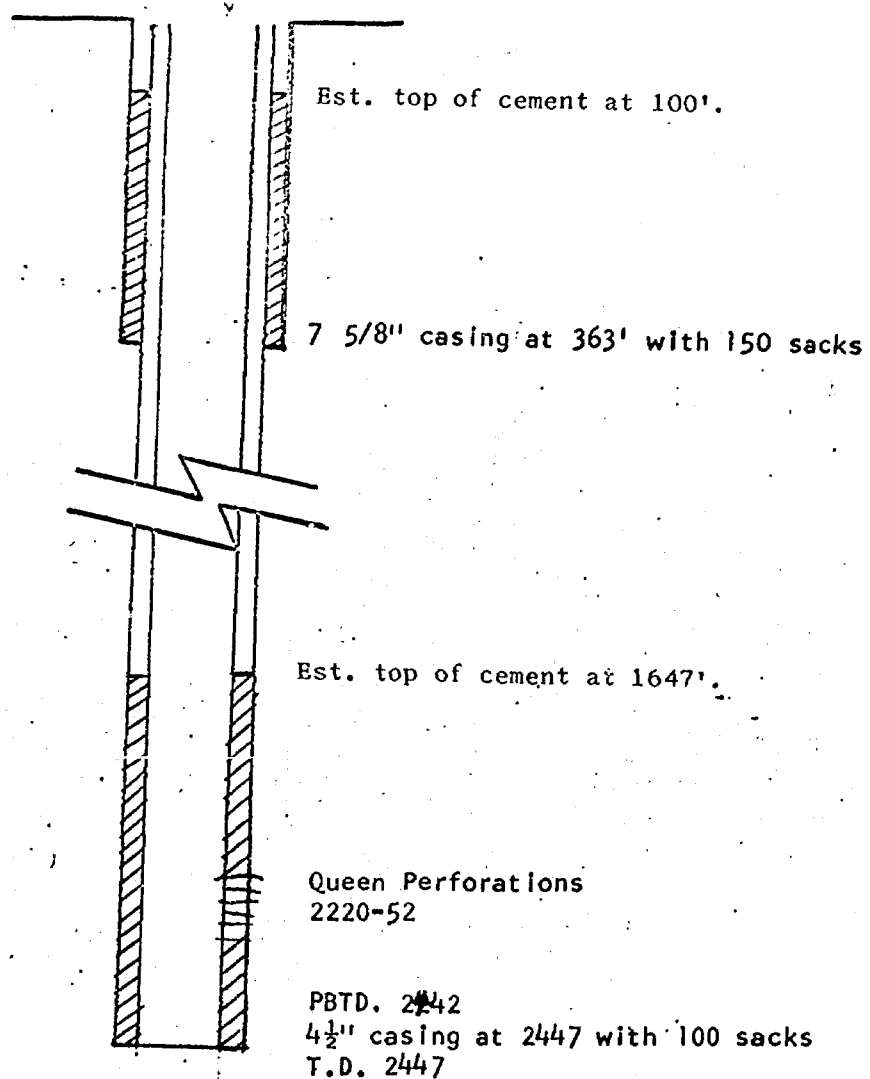
David C. Collier
Leonard State No. 1
330 FSL & 1650 FEL
Sec. 1-T19S-R29E



BEFORE EXAMINER UTZ	
OIL CONSERVATION COMMISSION	
EXHIBIT NO.	4
CASE NO.	4452

Exhibit *4

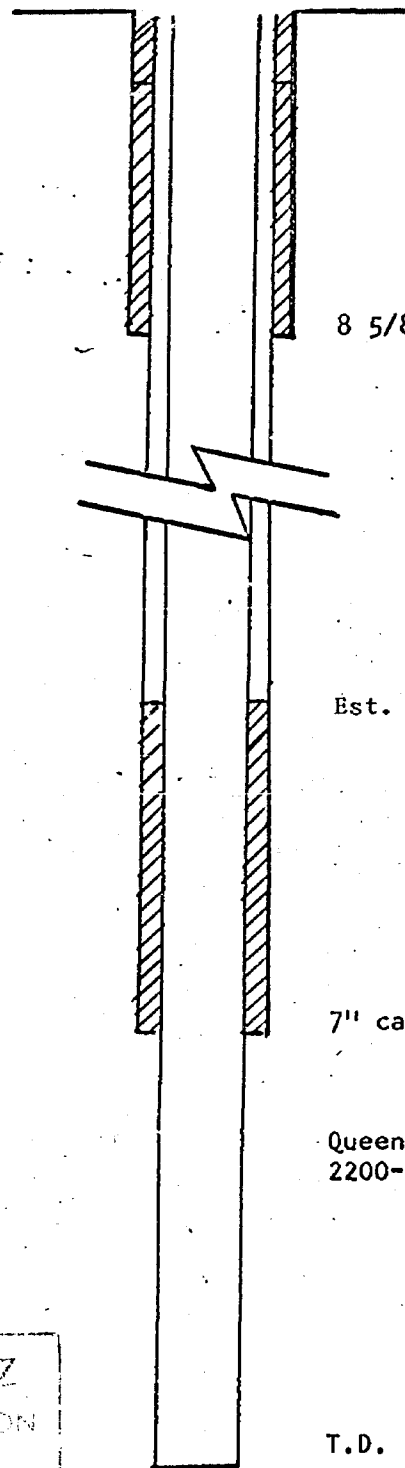
David C. Collier
Leonard State No. 4
1650 FSL & 330 FEL
Sec. 1-T19S-R29E



BEFORE EXAMINER UTZ	
OIL CONSERVATION COMMISSION	
<i>aff</i>	EXHIBIT NO. <u>5</u>
CASE NO.	<u>4452</u>

Exhibit *5

David C. Collier
State "S" No. 2
330 FNL & 330 FEL
Sec. 12-T19S-R29E



8 5/8" casing at 345' with 50 sacks
Circulated.

Est. top of cement - 1512'.

7" casing at 2182' with 50 sacks

Queen oil pay
2200-2222

T.D. 2443

BEFORE EXAMINER UTZ	
OIL CONSERVATION COMMISSION	
<i>afp</i>	EXHIBIT NO. <i>6</i>
CASE NO.	<i>4452</i>

Exhibit #6

WELL PRODUCTION DATA
EAST TURKEY TRACK QUEEN POOL

LOCATION	Unit D-Sec.7	Unit M-Sec.6	Unit O - Sec. 1	N-Sec. 1	I - Sec. 1	B - Sec. 12	P-Sec.1	A-Sec.12
	KEOHANE KEOHANE FED. WELL #1 OIL	KEOHANE FED. WELL #1 OIL	WELL #1 OIL	WELL #2 OIL	WELL #4 OIL	LEONARD STATE WELL #1-A OIL	STATE R WELL #3 OIL	STATE S WELL #2 OIL
YEAR & MONTH			WELL #1 WATER	WELL #2 WATER	WELL #4 WATER	WELL #1-A WATER		
Cumulative	6,696	34,734	16,543	12,815	17,198	19,583	37,057	17,745
1970								
Jan.	17	0	44	43	43	31	11	6
Feb.	15	0	49	49	49	24	8	7
Mar.	16	0	44	43	43	20	8	3
Apr.	10	1	40	39	39	32	6	9
May	8	0	37	37	36	31	0	0
June	9	0	0	0	0	0	0	0
July	8	0	26	26	26	17	0	10
	83	1	240	237	236	155	33	35
Cumulative	6,779	34,735	16,783	13,052	17,434	19,738	37,090	17,780

JOEL M. CARSON

LAW OFFICES
A. J. LOSEE
CARPER BUILDING - P. O. DRAWER 239
ARTESIA, NEW MEXICO 88210

12 October 1970

70 OCT 13 AM 10 00

AREA CODE 505
746-3508

JA

Case 4452

Mr. A. L. Porter, Jr.
Secretary-Director
New Mexico Oil Conservation Commission
P. O. Box 2008
Santa Fe, New Mexico

Dear Mr. Porter:

Enclosed herewith, you will please find triplicate copies of
Application of David C. Collier for a waterflood project,
East Turkey Track Pool, Eddy County, New Mexico.

I understand that this matter has been set for hearing before
an examiner on October 28, 1970.

Very truly yours,

A. J. Losee
A. J. Losee

AJL:jw
Enclosures

cc: Mr. David C. Collier w/enclosure

DOCKET MAILED

Date 10-14-70

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION OF
DAVID C. COLLIER FOR A WATERFLOOD
PROJECT, EAST TURKEY TRACK POOL,
EDDY COUNTY, NEW MEXICO.

No. 4452

APPLICATION

COMES DAVID C. COLLIER, by his attorney, A. J. Losee,
and states:

1. Applicant is designated as Operator of the Queen
formation, comprising a portion of the East Turkey Track Pool
underlying the following lands in Eddy County, New Mexico,
which comprise the project area covered by this application,
to-wit:

Township 19 South, Range 29 East, N.M.P.M.

Section 1: SE/4 SW/4, S/2 SE/4, NE/4 SE/4
Section 12: NE/4, E/2 NW/4, NW/4 NW/4

Township 19 South, Range 30 East, N.M.P.M.

Section 6: SW/4
Section 7: NW/4

containing 760 acres, more or less.

2. There is attached hereto and by reference made
a part hereof, a plat showing the location of the proposed
injection wells and the location of all other wells and lessees
adjoining the proposed project area.

3. Applicant proposes to inject water into the
Queen formation through four injection wells in Eddy County,
New Mexico, and described as follows:

Township 19 South, Range 29 East, N.M.P.M.

Well No. 1 - Unit O - Section 1
Well No. 4 - Unit I - Section 1
Well No. 2-S - Unit A - Section 12

Township 19 South, Range 30 East, N.M.P.M.

Well No. 1 - Unit M - Section 6

4. That all of the wells in the project area are in an advanced state of depletion and should be classified as "stripper" wells.

5. There is attached hereto and by reference made a part hereof, a diagrammatic sketch of a typical completed injection well.

6. There is attached hereto and by reference made a part hereof, a typical well log of a proposed injection well in the project area.

7. Injection of water obtained from shallow ground water is proposed to be made at the rate of approximately 200 barrels per day per injection well at a pressure of approximately 1,000 pounds.

8. Applicant proposes to conduct this waterflood project under the allowable provisions of Rule 701 of the Commission.

9. The proposed waterflood project will prevent waste in that it will result in the recovery of oil that would not otherwise be recovered in the project area.

WHEREFORE, applicant prays:

A. That this matter be set for hearing before an examiner duly appointed by the Commission, and that due public notice be given as required by law.

B. That an order be entered authorizing the institution of the aforesaid waterflood project in the East Turkey Track Oil Pool, and for such other relief as may be just in the premises.

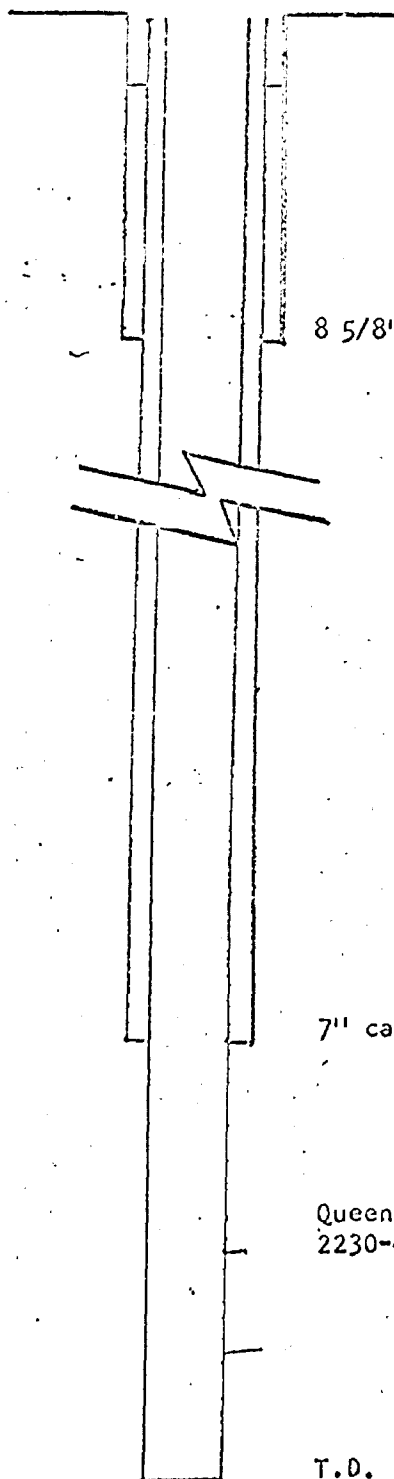
DATED this October 8th, 1970.

DAVID C. COLLIER

By: 

A. J. Losee
Attorney at Law
P. O. Drawer 239
Artesia, New Mexico 88210

David C. Collier
Koehane Federal No. 1
330 FSL & 330 FWL
Sec. 6-T19S-R30E



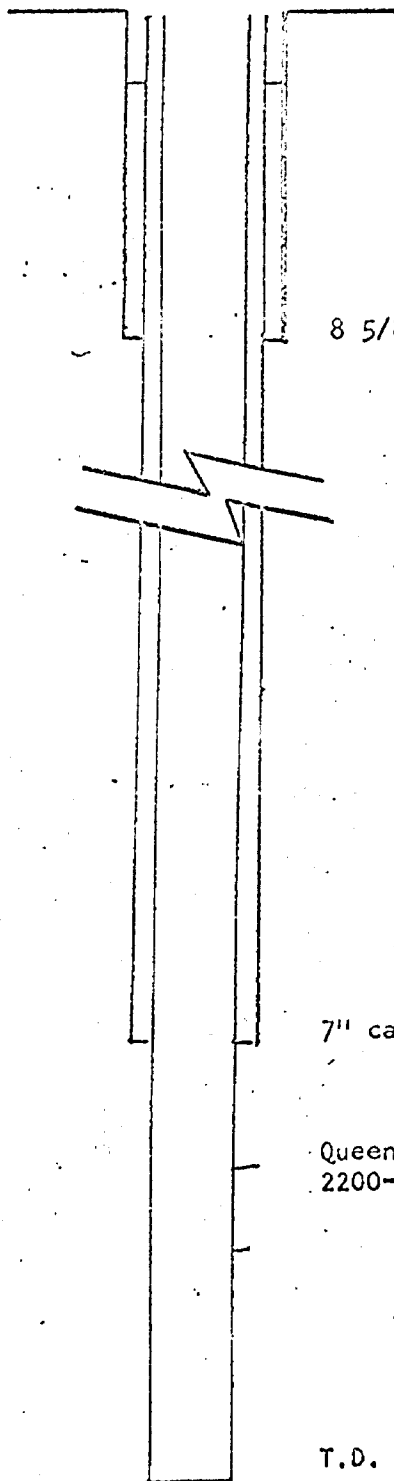
8 5/8" casing at 362' with 75 sacks

7" casing at 2170' with 50 sacks

Queen oil pay
2230-44

T.O. 2250

David C. Collier
State "S" No. 2
330 FNL & 330 FEL
Sec. 12-T19S-R29E



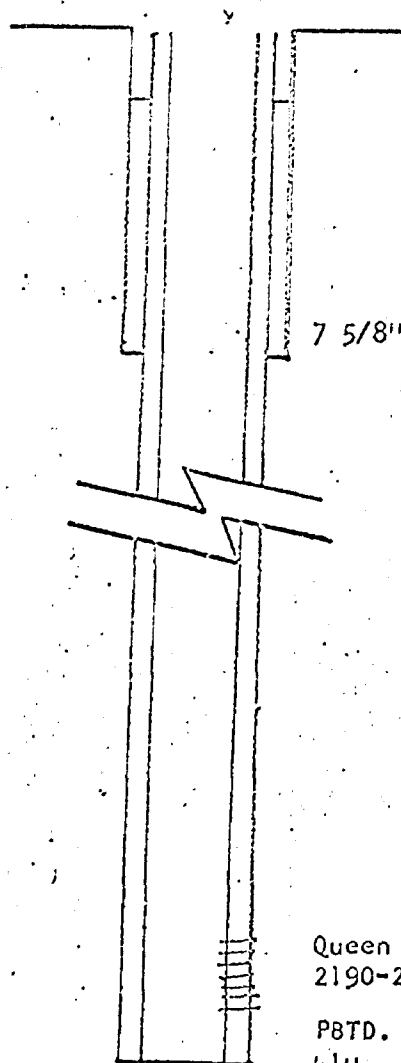
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7" casing at 2182' with 50 sacks

Queen oil pay
2200-2222

T.D. 2443

David C. Collier
Leonard State No. 1
330 FSL. & 1650 FEL
Sec. 1-T19S-R29E

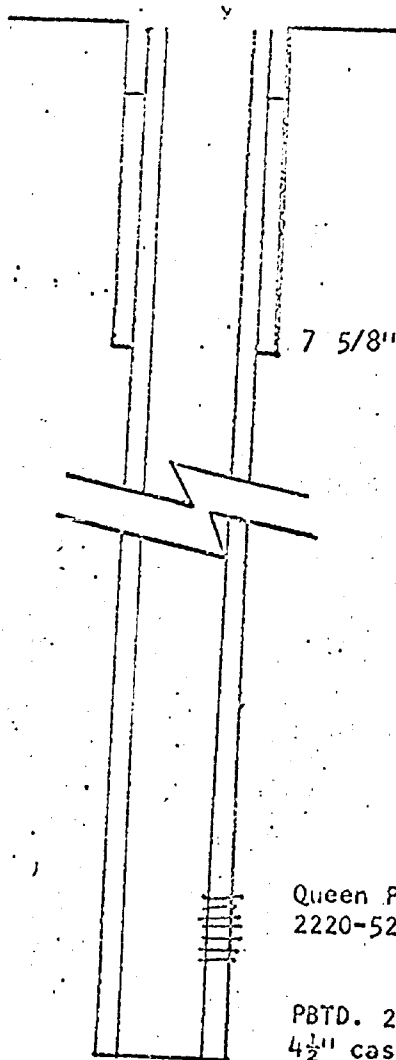


7 5/8" casing at 360' with 50 sacks

Queen Perforations
2190-2220

P8TD. 2245'
4 1/2" casing at 2250'
T.D. 2263'

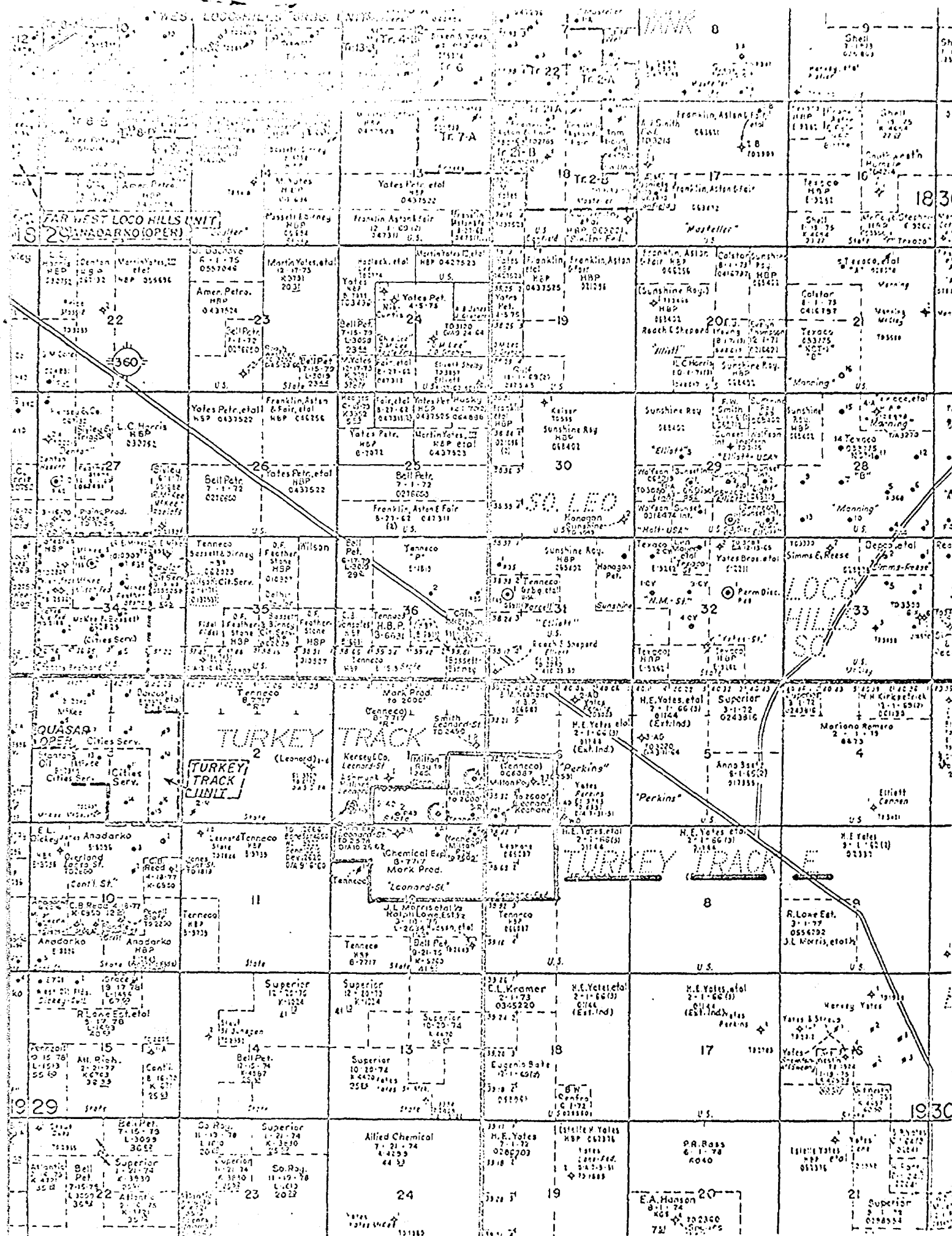
David C. Collier
Leonard State No. 4
1650 FSL & 330 FEL
Sec. 1-T19S-R29E



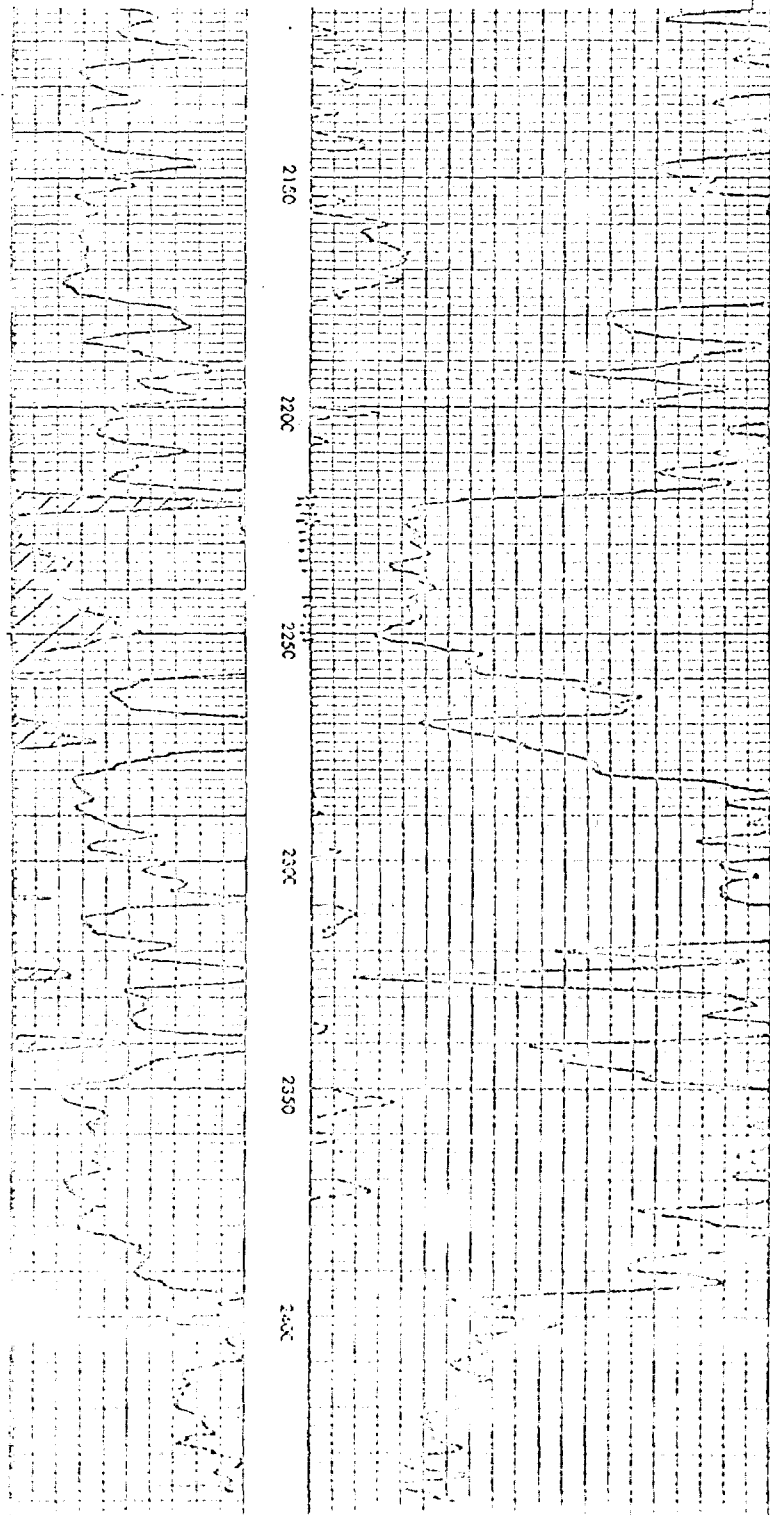
7 5/8" casing at 363' with 150 sacks

Queen Perforations
2220-52

PBTD. 2242
4 1/2" casing at 2447 with 100 sacks
T.D. 2447



COMPANY <u>CONCRETE PRODUCTS, INC.</u>	
TRUCK # <u>4</u>	
TYPE <u>CONCRETE TRUCK</u>	
CITY <u>NEW</u>	STATE <u>NEW MEXICO</u>
MOTOR <u>1650 FSL 350 FEL</u>	
Other Service	
From <u>1</u>	To <u>10-8</u>
Driver <u>1</u>	
Date <u>7-17-62</u>	
Time <u>7:15</u>	
Mileage <u>100</u>	
Fuel <u>10.0</u>	
Oil <u>0.5</u>	
Tires <u>0.0</u>	
Wash <u>0.0</u>	
Total <u>10.5</u>	
Per Mile <u>0.105</u>	
Per Hour <u>0.105</u>	
Per Day <u>0.105</u>	
Per Week <u>0.105</u>	
Per Month <u>0.105</u>	
Per Year <u>0.105</u>	



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BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO

October 28, 1970

EXAMINER HEARING

IN THE MATTER OF:

Application of David C. Collier for a
waterflood project, Eddy County, New
Mexico.

Case No. 4452

BEFORE: Elvis A. Utz, Examiner

TRANSCRIPT OF HEARING

MR. UTZ: We have an apparent hardship case. This is Case No. 4452.

MR. HATCH: This is the application of David C. Collier for a waterflood project, Eddy County, New Mexico.

MR. LOSEE: Mr. Examiner, A. J. Losee of Artesia, appearing on behalf of the applicant. We have one witness, Mr. Ralph Gray.

RALPH GRAY,

a witness, having been first duly sworn, according to law, testified as follows:

DIRECT EXAMINATION

BY MR. LOSEE:

Q State your name, residence and occupation.

A Ralph L. Gray, Artesia, New Mexico; Petroleum Engineering Consultant.

Q You have previously testified before this Commission and had your qualifications accepted?

A Yes, sir.

MR. LOSEE: Are Mr. Gray's qualifications acceptable, Mr. Examiner?

MR. UTZ: They are acceptable.

Q Mr. Gray, would you explain the purpose of this application of Mr. Collier?

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A Mr. Collier purposes to initiate a waterflood injection project in the East Turkey Track Queen Pool. He also purposes to convert four of the present producing wells to water injection wells.

(Whereupon, Applicant's Exhibits No. 1 through 7 were marked for identification.)

Q Please refer to what has been marked as Exhibit 1 and explain what is portrayed on this exhibit.

A Exhibit 1 shows the applicant's leases in the yellow coloring and the border line for the proposed project is indicated by the red line. The proposed water injection wells are shown with the wells circled.

Q How many producing wells are there in the project area at this time, Mr. Gray?

A There are eight wells.

Q Now, is this project area composed of one lease or are there more than one lease involved?

A There are more than one.

Q All right. For the Examiner, would you define the location of the different leases, two of which are State and two which are Federal?

A One Federal lease is located in the southwest quarter of Section 6, Township 19 South, Range 30 East. Another

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Federal lease occupies the northwest quarter of Section 7 in the same Township. One State lease occupies the northeast quarter of the northeast quarter of Section 12, Township 19 South, Range 29 East. The remaining acreage in Sections 1 and 12 constitute the other lease.

Q Is the working interest ownership throughout this project area common?

A Yes, sir.

Q Now, the one well in the southwest, southwest quarter of Section 6, is that the only producing well on that Federal lease?

A Yes, sir. It is.

Q And has the applicant proposed to do anything with respect to unitization or pooling of this project area?

A Yes. The applicant has stated, if it is required, he will start work to form a unit.

Q And he is aware of the fact that although it can be approved as a project area, that the allowables cannot be transferred between these leases without an agreement between the lessor?

A Yes.

Q Please refer to what has been marked as Exhibit 2, being the log on one of the wells, and explain what is shown

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on this exhibit.

A Exhibit 2 is a typical radioactive log. This is on the Leonard State No. 1 well and this log shows that the casing is perforated from 2,190 to 2,220 feet and indicates the producing sand. This just represents a typical log.

Q Okay. Please refer to what has been marked Exhibits 3, 4, 5 and 6, being the diagrammatic sketch of the proposed injection wells, and explain what is shown by these sketches.

A These sketches show the location of the surface casing, the amount of cement that was used and in most cases the cement either circulated or came to a point near the surface. This also shows the location of the production string, size and amount of cement and the estimated top of cement behind the casing. In two cases the wells have an open section through the pay section below the casing and in two cases the production string was cemented through the pay and perforated.

Q Now, does the applicant propose to inject water down the casing in these wells?

A Yes. That is right.

Q What is the source of the water for this project?

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A There is a shallow water well which was drilled several years ago to furnish water for drilling purposes and the applicant proposes to at least start the project with this water.

Q What will be the volumn and the pressure, injection pressure proposed by the applicant?

A It is estimated that these volumns will range up to about two hundred barrels per day per well and possibly with a maximum pressure of a thousand PSI.

Q Do you know anything about the quality of the water that is going to be utilized?

A I don't have an analysis on the water from this particular well. There is very little information on the water in this area. I was able to obtain a small amount of information from the Oil Commission office in Artesia and one well, water well, located in Section 10 of Township 18 South, Range 29 East showed a chloride content of two thousand thirty parts per million; a total solids of 5,670 parts per million. Another water well located in Section 24, Township 18 South, Range 29 East showed a chloride content of only fifty and total solids of 1,125.

Q Please refer to what has been marked as Exhibit 7, being the production history of the wells in the field, and

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point out the important data shown on this exhibit.

A Exhibit 7 shows monthly oil production and water production and cumulative oil production through July, 1970 for each of these wells. I might call your attention to the fact that this table shows the ownership as it appears in the July, 1970 statistical report of the Oil Commission and, of course, the present owner is David Collier. It is evident from a study of this tabulation that these wells are very small and certainly are in the depleted category. Most of them produce in the neighborhood of one barrel per day or less. Apparently two wells make a small amount of water. The Leonard State No. 4 is shown to produce maybe two barrels of water per day and the Leonard State A No. 1 well produces smaller amounts. The cumulative recoveries show low primary recoveries as a whole and these -- most of these are in the nature of sixteen to eighteen thousand barrels per well. One well, the State R Well No. 3, has produced thirty seven thousand ninety barrels and this was the most recovery for any of these wells.

Q Now, would you care to hazard an opinion as to what might be recovered from secondary recovery operations in ratio to primary?

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A Well, I don't really have any basis for predicting what might be recovered. Information on these wells is very scarce. Very little information and data are available, and, personally, I would hesitate to predict what the recovery would be.

Q It would be a marginal waterflood operation, would it not?

A Yes. I would say that it would be in the poor prospect category -- certainly not anything very prolific.

Q Would you assume that was one of the reasons the operator wished to inject down the casing rather than the utilization of tubing and packer?

A Yes. I think it is an economical situation and certainly you can't justify very large expenditures on this type of production.

Q Were Exhibits 1 through 7 prepared by you or under your direction?

A Yes, sir.

MR. LOSEE: I move the introduction of Exhibits 1 through 7. I have no further questions.

MR. UTZ: Without objection, Exhibits 1 through 7 will be entered into the record of this case.

MR. LOSEE: That completes our direct examination.



CROSS EXAMINATION

BY MR. UTZ:

Q Mr. Gray, how old is the casing in these wells?

A Most of these wells were drilled, I think, in 1962, so they are relatively recent wells and approximately eight years old.

Q Do you propose to test the casing before you inject water?

A I haven't actually been informed by the applicant just what his procedure would be in converting these wells. I can't actually answer that question.

Q What would a string of tubing cost on a twenty-one hundred foot well?

A Well, by the time you -- it depends on whether or not you are going to coat the tubing. I don't really have a present day price of tubing. I'd just hazard a guess of somewhere around seventy-five cents a foot and then if the tubing is coated say with a cement liner or plastic lining, you'd have to add an additional twenty-five to thirty-five cents per foot.

Q Is this fresh water you are going to use for injection?

A Yes. It is relatively fresh.

Q It would be in the neighborhood of a thousand pounds,

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would it not, the pressure?

A Yes. That would be close. This casing should be adequate for pressures substantially larger than that. I would guess that -- well, let's see -- some of this is four and a half inch casing. Yield pressure on that would be above four thousand pounds a square inch and on a seven inch -- I don't have the weight, but certainly the yield pressure on the seven inch would be very substantially in excess of what the injection pressure will be.

Q Now, I believe that you stated that you had four leases here.

A Yes, sir.

Q Now, is the Federal leases in Section 6 and Section 7 the same lease?

A No. They are different leases.

Q I can't read that bottom number. Is that 055087?

A 06, I believe it is, 066087 and I think the upper lease should have an A on it. Really it is 066087A.

MR. LOSEE: They are segregated portions of the same lease, but they are different leases under the Federal rules.

Q You stated that Collier would try to unitize or get a lease line agreement or which?

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A Well, the applicant would like to initiate a partial flood, I think, to start with, with just possibly one injection well. I think he has in mind the Leonard State No. 4 well in the Northeast quarter of the Southeast quarter of Section 1 and he can get a lot of information in regard to the injectivity characteristics and also the capabilities of the water supply well and he can proceed with this part of the flood and then he stated that if it were necessary to form a unit, that this was what would be done then and I think that probably it will be necessary to unitize that.

Q Now, as to the Federal leases, is there a different interest in them?

MR. LOSEE: There may be a difference in a production payment or an override, Mr. Examiner. The working interest is the same throughout the unit. I kind of think one of these has a production payment to Tenneco and one of them has an override to Read Co. Incorporated.

Q As to the two State leases, how about the beneficiary and interest in those -- are they different?

MR. LOSEE: I cannot tell you with respect to the beneficiaries. The working interest is the same and, here again, I suspect there is a production payment on one and an override

dearnley-meier reporting service, inc.

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

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on the other. I don't have any title opinions.

MR. UTZ: Any other questions?

MR. HATCH: One of the Federal leases would not have an injection well and one of your State leases would not have a producing well.

THE WITNESS: Yes.

MR. LOSEE: He is either going to have to unitize it or drill two other wells with this injection pattern.

THE WITNESS: I think the applicant feels that he can just inject into this one well while this unitization is going on and he can learn a great deal of information that would help them and then it can be all incorporated together.

MR. UTZ: I think it is pretty obvious we can't make one unit.

MR. HATCH: I think you already testified that the applicant realizes he cannot transfer any allowables or anything unless it is unitized or an agreement among all the parties of interest.

MR. UTZ: Any other questions of the witness?

You may be excused.

Statements in this case?

The case will be taken under advisement.

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

I, PETER A. LUMIA, a 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.

Peter A. Lumia
Peter A. Lumia, C.S.R.

do hereby verify that the foregoing is a true and correct record of the proceedings at the hearing of Case No. 4452 held by me on 10-28-70 at
[Signature] President
New Mexico Oil Conservation Commission

dearnley-meier reporting service, inc.

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

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I N D E X

WITNESS

PAGE

RALPH GRAY

Direct Examination by Mr. Losee

2

Cross Examination by Mr. Utz

9

E X H I B I T S

APPLICANT'S

MARKED

OFFERED AND
ADMITTED

Nos. 1 through 7

3

8

OIL CONSERVATION COMMISSION

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

November 11, 1970

Mr. A. J. Losce
Attorney at Law
Post Office Box 239
Artesia, New Mexico 88210

Dear Sir:

Reference is made to Commission Order No. R-4062, recently entered in Case No. 4452, approving the Collier East Turkey Track Water-flood Project.

Injection is to be through the casing in the four authorized water injection wells. Prior to injection the casing of each well shall be pressure-tested to a minimum of 2000 psi. Also, on Leonard State Wells Nos. 1 and 4, cement shall be placed in the hole outside the surface casing from the present top of cement (estimated at 100 feet) to the surface. This may be accomplished through one-inch tubing or other means satisfactory to the Commission's District Supervisor at Artesia. You are requested to please notify said supervisor when the aforementioned pressure tests and cement jobs are to be conducted.

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 336 barrels per day when the Southeast New Mexico normal unit allowable is 42 barrels per day or less, provided the four leases are unitized or otherwise consolidated pursuant to the terms of Order No. R-4062. Until such time, each lease will be required to stand on its own allowable without allowable transfer privileges.

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.

OIL CONSERVATION COMMISSION

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

-2-

Mr. A. J. Losee
Attorney at Law
Post Office Box 239
Artesia, New Mexico 88210

November 11, 1970

C
O
P
Y
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

ALP/DSN/1r

cc: OCC-Hobbs and Artesia, New Mexico
Mr. D. E. Gray, State Engineer Office,
Santa Fe, New Mexico



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

November 10, 1970

Mr. A. J. Losee
Attorney at Law
Post Office Box 239
Artesia, New Mexico 88210

Re: Case No. 4452
Order No. R-4062
Applicant:
David C. Collier

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 _____

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. 4452
Order No. R-4062

APPLICATION OF DAVID C. COLLIER
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 October 28, 1970,
at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this 10th day of November, 1970, 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, David C. Collier, is the owner and
operator of four leases in Eddy County, New Mexico, comprising
the following-described acreage:

TOWNSHIP 19 SOUTH, RANGE 29 EAST, NMPM

Section 1: SE/4 SW/4, S/2 SE/4, and
NE/4 SE/4

Section 12: NE/4, E/2 NW/4, and NW/4 NW/4

TOWNSHIP 19 SOUTH, RANGE 30 EAST, NMPM

Section 6: SW/4

Section 7: NW/4

(3) That the applicant, David C. Collier, seeks authority
to institute a waterflood project in the East Turkey Track-Queen

-2-

CASE No. 4452

Order No. R-4062

Pool on the above-described acreage by the injection of water into the Queen formation through four wells located in Sections 1 and 12 of Township 19 South, Range 29 East, and in Section 6 of Township 19 South, Range 30 East, NMPM, Eddy County, New Mexico.

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

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

(6) 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, provided, however the above-described area should be designated as an area wherein the transfer of allowables between leases is not permitted until such time as 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 filed with the Santa Fe Office of the Commission.

IT IS THEREFORE ORDERED:

(1) That the applicant, David C. Collier, is hereby authorized to institute a waterflood project in the East Turkey Track-Queen Pool by the injection of water into the Queen formation through four wells on his four leases comprising the following-described acreage in Eddy County, New Mexico:

TOWNSHIP 19 SOUTH, RANGE 29 EAST, NMPM

Section 1: SE/4 SW/4, S/2 SE/4, and
NE/4 SE/4

Section 12: NE/4, E/2 NW/4, and NW/4 NW/4

TOWNSHIP 19 SOUTH, RANGE 30 EAST, NMPM

Section 6: SW/4

Section 7: NW/4

PROVIDED HOWEVER, that the above-described area is hereby designated as an area wherein the transfer of allowables between

-3-

CASE No. 4452

Order No. R-4062

leases shall not be permitted until such time as 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.

(2) That the injection of water in the above-described project shall be through the following-described wells:

Operator	Well	Unit	Section	Township	Range
Collier -	Leonard State No. 1	O	1	19 South	29 East
Collier -	Leonard State No. 4	I	1	19 South	29 East
Collier -	State "S" No. 2	A	12	19 South	29 East
Collier -	Keohane Federal No. 1	M	6	19 South	30 East

(3) That the subject waterflood project is hereby designated the Collier East Turkey Track Waterflood Project and 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 project 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
OIL CONSERVATION COMMISSION

DAVID F. CARGO, Chairman

ALEX J. ARMIJO, Member

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

ccr/

ROUGH DRAFT FOR WATERFLOOD LETTERS

Mr. A. J. Losee
Attorney at Law
Post Office Box 239
Artesia, New Mexico 88210

COLLIER EAST TURKEY TRACK
WATERFLOOD PROJECT

Dear Sir:

Return is made to Commission Order No. *recently* R-4062, entered in Case No. 4452, approving the *Collier East Turkey Track* Waterflood Project.

through the casing in
Injection is to be *made* *the four authorized* water injection wells. Prior to injection, the casing of each well shall be pressure-tested to a minimum of 2000 psi. Also, on *two* *the* Leonard Street wells Nos. 1 and 4, cement shall be placed in the *hole* *annulus* outside the *the* surface casing from the present top of cement.

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 336 barrels per day when the Southeast New Mexico normal unit allowable is 42 barrels per day or less *provided the four are unitized or otherwise consolidated pursuant to the terms*. 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 well 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 x
Artesia x
Aztec

USGS

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

Mr. D. E. Gray,

(estimated at 100 feet) to the surface.
This may be accomplished through one-
inch tubing or other means satisfactory
to the Commission's District Supervisor at
Artesia. You are requested to please
notify said supervisor when the aforementioned
pressure tests and cement jobs are to be
conducted.

42
8
336

Order No. R-4062, that's another time, each well will be required to stand on its own allocated without allocated transfer privileges.

Case 4452

Leased 10-28-70

Rec. 11-4-70

Grant David C. Collier permission to convert the following 4-wells to waterflood injectors.

~~1. Collier - Cockame Ded #1~~

1. Collier - Cockame Ded #1, 330/S+W 6-19-30

2. " - Leonard St. #1, 330/S, 165/E 1-19-29

3. " - " - #4, 1650/S, 330/E 1-19-29.

4. " - St. S #2, 330/N, 330/E, 12-19-29.

The area involves 4 leases therefore, no. transfers of allowable can be permitted until area is unitized.

The Leonard St. #1 + 4 shall have the upper portion of the surface casing cemented before injection.

Since injection is to be thru 4 1/2" casing we should require the casing to be tested to 2000#, before injection.

— The D. W. S.

DOCKET: EXAMINER HEARING - WEDNESDAY - OCTOBER 28, 1970

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

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

- CASE 4443: Application of Pan American Petroleum Corporation for down-hole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks authority to commingle production from the BS Mesa-Gallup and Basin-Dakota Gas Pools in the wellbores of its Jicarilla Apache 102 Wells Nos. 7, 9, 11, and 12, located respectively in Sections 3, 4, 10, and 9, Township 26 North, Range 4 West, Rio Arriba County, New Mexico. Applicant further seeks a procedure whereby other wells on said Jicarilla Apache 102 lease now daily completed in said pools may be approved administratively for downhole commingling.
- CASE 4444: Application of Tenneco Oil Company for an unorthodox oil well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an exception to the rules governing the Allison-Pennsylvanian Pool to permit the completion of an oil well at an unorthodox location 1830 feet from the North line and 660 feet from the West line of Section 10, Township 9 South, Range 36 East, Lea County, New Mexico.
- CASE 4445: Application of Byron McKnight for an exception to Order No. R-111-A, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an exception to the potash-oil area casing and cementing rules as set forth in Commission Order No. R-111-A. Applicant proposes to drill two exploratory wells in the NW/4 NW/4 of Section 35 and the NE/4 NE/4 of Section 34, both in Township 19 South, Range 33 East, Lea County, New Mexico, in such a manner as to eliminate the necessity of running the salt protection string required by said Order No. R-111-A, provided the production string would be cemented to the surface.
- CASE 4446: Application of Ford Chapman for salt water disposal, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Delaware formation in the open-hole interval from 2899 feet to 2905 feet in his Gulf Pipkin Federal Well No. 1 located 330 feet from the South line and 605 feet from the East line of Section 34, Township 26 South, Range 29 East, Pecos-Delaware Pool, Eddy County, New Mexico.

CASE 4447: Application of Morris R. Antweil for a dual completion, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion (conventional) of his Allen Well No. 1 located in Unit J of Section 31, Township 22 South, Range 27 East, Eddy County, New Mexico, in such a manner as to permit the production of gas from the South Carlsbad-Strawn and South Carlsbad-Morrow Gas Pools through parallel strings of tubing.

CASE 4173: Reopened - (Continued from the September 30, 1970 Examiner Hearing)

In the matter of Case 4173 being reopened pursuant to the provisions of Order No. R-3811-A, which order extended 80-acre spacing units and a limiting gas-oil ratio of 4000 cubic feet of gas per barrel of oil for the Hobbs-Drinkard Pool, Lea County, New Mexico, for a period of 90 days. All interested parties may appear and show cause why said pool should not be developed on 40-acre spacing, why the limiting gas-oil ratio should not revert to 2000 to one, and/or why all casinghead gas produced by wells in the pool should not be reinjected.

CASE 4448: Application of MWJ Producing Company for pool redelineation and the creation of a new pool and special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the redelineation of the Mescalero Permo-Pennsylvanian Pool by the deletion of all lands in Sections 28 and 33, Township 10 South, Range 32 East, Lea County, New Mexico, from said pool. Applicant further seeks the creation of a new pool for the production of oil from the Permo-Pennsylvanian formation for its Huber State Well No. 1 located in Unit K of said Section 33, and for the promulgation of special rules therefor including a provision for 160-acre spacing units and the assignment of 80-acre allowables.

CASE 4449: Application of Petro-Thermo Corporation for authority to operate an oil treating plant, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to install and operate a water-bath and heat-treatment type oil treating plant in the SW/4 NW/4 of Section 31, Township 18 South, Range 37 East, Lea County, New Mexico, for the reclamation of sediment oil.

CASE 4450: Application of Anderson Oil and Gas Company for a dual completion and salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dually complete the New Mexico State B. T. (Q) Well No. 1 located 660 feet from the South and East lines of Section 33, Township 11 South, Range 33 East, Lea County, New Mexico, in such a manner as to permit the production of oil through tubing from the Bagley-Pennsylvanian Pool and the disposal of produced salt water through tubing into the Devonian formation, Bagley-Siluro-Devonian Pool at a depth of approximately 11,075 feet.

CASE 4451: Application of Union Oil Company of California for a non-standard oil proration unit, Roosevelt County, New Mexico. Applicant, in the above-styled cause, seeks approval for an 80-acre non-standard oil proration unit comprising the SW/4 SE/4 of Section 17 and the NW/4 NE/4 of Section 20, Township 8 South, Range 38 East, Bluitt-San Andres Associated Pool, Roosevelt County, New Mexico, to be dedicated to a well to be drilled at a standard location in the SW/4 SE/4 of said Section 17.

CASE 4423: Continued from the September 30, 1970 Examiner Hearing

Application of Union Oil Company of California for compulsory pooling, Roosevelt County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests down to and including the San Andres formation underlying the N/2 NE/4 of Section 20, Township 8 South, Range 38 East, Bluitt-San Andres Associated Pool, Roosevelt County, New Mexico. Said acreage to be dedicated to a well to be drilled at an orthodox location in the NW/4 NE/4 of said Section 20. Also to be considered will be the cost 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 4434: (Continued from the September 30, 1970, Examiner Hearing)

Application of Union Oil Company of California for the creation of a new gas pool and special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new gas pool for its Pipeline Federal Well No. 1 located in Section 4, Township 19 South, Range 34 East, Lea County, New Mexico. Applicant further seeks the promulgation of special rules therefor, including a provision for 640-acre spacing and proration units and fixed well location requirements.

CASE 4452: Application of David C. Collier for a waterflood project, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project by injection into the Queen formation through 4 wells located in Sections 1 and 12 of Township 19 South, Range 29 East, and Section 6 of Township 19 South, Range 30 East, East Turkey Track-Queen Pool, Eddy, County, New Mexico.

OIL CONSERVATION COMMISSION
Post Office Box 2088
Santa Fe, New Mexico
87501

M E M O R A N D U M

TO: ALL OPERATORS

FROM: A. L. PORTER, Jr., Secretary-Director

SUBJECT: 1971 Hearing Dates

Publication of the 1971 regular hearing dates will be made between January 1, 1971 and January 10, 1971. For your information, the dates selected by the Commission are set out below. Following each date of the oil allowable hearing is the name of the crude oil purchasing company that will be expected to present testimony or statement pertaining to the crude oil market outlook at that particular hearing.

January 13	Wednesday	Gas	
February 17	Wednesday	Oil and Gas	Permian
March 17	Wednesday	Gas	
April 14	Wednesday	Oil and Gas	Famariss
May 19	Wednesday	Gas	
June 16	Wednesday	Oil and Gas	Pan American
July 14	Wednesday	Gas	
August 18	Wednesday	Oil and Gas	Shell
September 15	Wednesday	Gas	
October 13	Wednesday	Oil and Gas	Cities Service
November 17	Wednesday	Gas	
December 15	Wednesday	Oil and Gas	Navajo

Unless otherwise advertised and announced, all regular hearings will be held in MORGAN HALL, STATE LAND OFFICE BUILDING, SANTA FE, NEW MEXICO, at the usual time of 9 a.m.

The Commission has no objection to the exchanging of appearance dates by the companies as long as the Commission is notified in writing prior to the hearing date.

November 1, 1970

ir/

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. 4452

Order No. R-4062

APPLICATION OF DAVID C. COLLIER
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 October 28, 1970,
at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this day of November, 1970, 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, David C. Collier, is
the owner and operator of four leases in
comprising Eddy County, New Mexico, comprising
the following described acreage:

Township 19 South, Range 29 East, N.M.P.M.
Section 1: SE/4 SW/4, S/2 SE/4, and NE/4 SE/4
Section 12: NE/4, E/2 NW/4, and NW/4 NW/4

Township 19 South, Range 30 East, N.M.P.M.
Section 6: SW/4
Section 7: NW/4 (under)

the recovery of otherwise unrecoverable oil, thereby preventing
waste.

(b) 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, provided however, the above-described area should be designated as an area wherein the transfer of allowables between leases is not permitted until such time as 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 filed with the Commission.

following area: North, South, Range West, East, NMPM, Eddy

County, New Mexico:

Township 19 South, Range 29 East, NMPM

Section 1: SE 1/4 SW 1/4, S 1/2 SE 1/4, NE 1/4 SE 1/4

Section 12: NE 1/4, E 1/2 NW 1/4, NW 1/4 NW 1/4

Township 19 South, Range 30 East, NMPM

Section 6: SW 1/4

Section 7: NW 1/4

Provided however, that the above-described area is hereby designated as an area wherein the transfer of allowables between leases shall not be permitted until such time as 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.

(3) That the subject waterflood project is hereby designated the Collier East Turkey Track Waterflood Project and 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 project 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.

(2) That the injection of water in the above-described project shall be through the following described wells:

~~Donald C. Collier Leonard State Well No. 1 and No. 4~~

Collier - Leonard State Well No. 1 - Unit 0 - Sec 1 - 1

Operator Well - Unit - Section - Township - Range

Collier - Leonard State No. 1 - 0 - 1 - 19S - 29E

Collier - Leonard State No. 4 - 1 - 1 - 19S - 29E

Collier - State "S" No. 2 - A - 12 - 19S - 29E

Collier - Keshone Federal No. 1 - M - 6 - 19S - 30E

Provided However, that prior to injection the
Cement shall be circulated ~~on said Leonard~~
~~State Wells Nos. 1 and 4~~ on the surface casing on
said Leonard State wells, Nos. 1 and 4, and
the long string of casing on each of the above-
described four wells shall be tested to
2000 pounds.

App. David C. Collier for
W/F

Sec 1 - 195-29E -
→ SW/SE, E/2 SE, SE/SW

Sec 12 - NE/4, W/2 NW/4, NW/NW

19-30

Sec 6: SW/4
" 7 NW/4

4 inj wells - ini

NE/SE - 1 sec

SW/SE - 1

NE/NE - 12

SW/SW - 6

Conclusions

Eddy County

- Grayburg - formation -
- Turkey Track pool -

Turkey Track