

CASE 2020 Application of [unclear]
[unclear] for approval of a water-
flood project in SQUAN LAKE POOL.

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need to ob

CASE 2572: Application of Mrs. A.
Sullivan for approval of a water-
flood project in SQUARE LANE POOL.

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need str of

Case No.

2579

petition, Transcript,
all Exhibits, Etc.

BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico

June 7, 1962

EXAMINER HEARING

IN THE MATTER OF:

Application of Neil E. Salsich for approval of a
waterflood project, Eddy County, New Mexico.
Applicant in the above-styled cause, seeks
approval of a waterflood project in the Square
Lake Pool with the injection of water into the
Grayburg formation of the Square Lake Pool
through five wells located in Section 36, Town-
ship 16 South, Range 29 East, Eddy County, New
Mexico. Applicant requests that the waterflood
be governed by Rule 701 except that administrative
approval is sought to allow expansion of the
waterflood by the conversion of one additional
well in Unit H of Section 35 prior to response
from water injection.

CASE NO.
2579

BEFORE: Daniel S. Nutter, Examiner.

TRANSCRIPT OF HEARING

MR. NUTTER: Case 2579.

MR. MORRIS: Application of Neil E. Salsich for
approval of a waterflood project, Eddy County, New Mexico.

MR. LOSEE: I'm A. J. Losee, representing Neil Salsich.
I have one witness.

(Witness Sworn.)

(Whereupon, Applicant's Exhibits
Nos. 1 through 5 Marked for
Identification.)

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ARCHIE SPEAR,

called as a witness herein, having been first duly sworn on oath,
was examined and testified as follows:

DIRECT EXAMINATION

BY MR. LOSEE:

Q Would you state your name, please?

A Archie Spear.

Q Where do you live, Mr. Spear?

A Artesia, New Mexico.

Q What is your occupation?

A Petroleum Consultant.

Q Have you previously testified before this Commission
and had your qualifications accepted as an expert?

A Yes, sir, I have, Mr. Losee, in 1958. I do not recall
the particular case number.

MR. LOSEE: Are the witness's qualifications
acceptable?

MR. NUTTER: Yes, they are.

Q (By Mr. Losee) I'll refer you to what has been
marked Applicant's Exhibit No. 1 and ask you if you will state
what that portrays?

A This is a plat of the proposed waterflood project and
showing a two mile area around the project.

MR. LOSEE: Mr. Examiner, we only have one copy which
is the same exhibit that's attached to the Application.



MR. NUTTER: Okay.

Q (By Mr. Losee) Your plat colors in yellow two leases, one denoted the Hollis Lease and one the Leonard Lease. In addition, part of the project area, would that not include the Featherstone Lease in the Section right to the south, Section 1, 17, 29?

A Yes, sir. We do intend to include the Featherstone in the project.

Q Does that Featherstone Lease comprise the North Half Northwest Quarter and the Northwest Quarter of the Northeast Quarter?

A Yes, sir.

Q Is Mr. Salsich the operator of those three wells in that lease?

A Yes, he is.

Q Actually he is the operator of all of the wells within Section 36 except the 80-acre tract which is not colored in yellow, the North Half, Northeast?

A Yes, that's right.

Q Now, to the west of this project area is a lease which is denoted General American Oil Company of Texas, is that correct?

A Yes, it is.

Q Did General American join in this Application?

A They consented to the Application.

Q Actually as part of Mr. Salsich's Application, did you

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not request the Commission to make an exception to Rule 701 to provide that the Number 5 could be approved administratively for conversion to an injection well?

A Yes. Prior to a response of the Rule 701, paragraph E of the Rule.

Q At the time the Application was filed, did Mr. Salsich have any written agreement with General American with respect to this lease line?

A No, he did not. Only oral negotiation.

Q Since that time and, as a matter of fact, on June 4th has he entered into a written agreement with them providing that subject to the Commission's approval, they will place their No. 5 Nunnely on injection?

A Yes, they have. He has received that instrument.

Q Is that available for the Commission's examination?

A Yes.

MR. LOSEE: Mr. Examiner, would the Commission like to examine the instrument of General American?

MR. NUTTER: It is an agreement whereby General American promises to put that well on injection?

MR. LOSEE: Yes.

MR. NUTTER: I don't think we need to see the instrument.

Q (By Mr. Losee) What is the source of water for this proposed project, Mr. Spear?

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A The source of water will be purchased from a commercial water supply company. There are two in the area and tentatively it is set up with the Caprock Water Company.

Q Have they tendered the contract to Mr. Salsich?

A Yes, they have.

Q In connection with this Application you furnished electric logs on the five wells shown as injection wells, did you not?

A Yes, I did.

Q What are those five wells, the name of them?

A Starting at the top, just following on the plat would be, the Neil Salsich No. 5 Leonard-State, then, the Neil Salsich No. 1 Leonard-State, the Neil Salsich No. 4 Leonard-State, and the Neil Salsich No. 2 Leonard-State, and the Neil Salsich No. 1 Hollis-State.

Q Did these electric logs reflect the pay that was presently producing in all five of these injection wells?

A Yes, it did.

Q What zones are presently producing?

A There are two zones in the area that is productive, one of them the ~~MeTex~~ of the Grayburg and the Premier zone of the Grayburg. The ~~MeTex~~ of the Grayburg and the Premier of the Grayburg.

Q Do you anticipate that when injection is commenced in these five wells that both of those zones will take water?



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A Yes, they will.

Q Referring now to what has been marked Exhibit No. 2, would you explain to the Commission what that portrays?

A Exhibit 2 is the casing program of the five proposed injection wells. It also reflects the top, theoretical top, of the cement, calculated on the basis of 100 percent fill-up with the number of cement used and, also, reflects the perforated zone.

Q All of these injection wells have the surface pipe set in cement?

A Yes. This Exhibit 2 shows, also, the surface pipe and the number of sacks used and the depth set.

Q Do you know if that surface, the cement was circulated to the surface?

A I do not know if it was or was not.

Q Now, the production string, based upon your calculation of the theoretical top, that is above the perforations?

A Yes, it is.

Q By several hundred feet?

A It exceeds the minimum that is set out in some Commission rule about perforations, I have forgotten it. I believe it's 200 feet.

Q Isn't actually the minimum distance between the cement and the perforations based on this theoretical calculation on these five wells 290 feet?



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A Yes, it is.

Q Each well, I notice, has two sets of perforations, is the lowest one the Metex?

A The lower one is the Premier.

Q The Premier. How does Mr. Salsich propose to inject water into these five wells?

A It is proposed and requested that we be permitted to inject water down the casing.

Q Is there any fresh water available in this area for waterflood?

A There is not to my knowledge.

Q In the event the Commission were to approve such an injection program, would Mr. Salsich make periodic tests of his casing to see if he was getting any leakage?

A Yes, sir. That would be a very important procedure in the operation of the project, to be sure that we weren't losing water other than above the cement.

Q How much per well saving would accrue by reason of being allowed to inject down the casing as opposed to using a tubing and packer?

A If we calculate the salvage value of the tubing, plus the cost of setting and the cost of the packer, it's calculated at \$1,800.00 per well additional cost in order to inject down the tubing and under a casing, I mean, under a packer.

Q You've arrived at \$1,300.00 for the tubing and \$500.00



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approximately for the packer in setting it?

A Yes.

Q Now, let's turn to Exhibit 3. Would you explain to the Examiner what that portrays?

A Exhibit 3 is a decline curve on the Neil Salsich Hollis State Lease.

Q How many wells are there on the Hollis-State Lease?

A Four wells.

Q What is the present production on that lease?

A Using the last figure that we have here, which is February of '62, it is shown to be 330 barrels total for the month of all four wells.

Q Or an average of around 55 barrels per well?

A Yes.

Q Now wait. 80 to 85 barrels?

A 330 by 4 is 85 barrels, Mr. Losee.

Q Thank you.

A Thank you for the prompting.

Q Are all of these wells flowing or pumping?

A They're all pumping.

Q Do you know how much production this Hollis Lease has had, can you tell the Examiner?

A I do not believe I have that figure.

Q The cumulative production?

A I can make an estimate.



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Q Would you estimate the cumulative production of these four wells?

A It could be estimated at 105,700 barrels.

MR. NUTTER: 105,700?

A Yes.

Q (By Mr. Losee) To approximately what date?

A Excuse me, that may not be right. May I have a little time?

Q Sure.

A I can get an accurate total of the Neil Salsich Hollis-State and the Leonard-State leases and the Featherstone lease.

Q Okay.

A The combination of the Hollis-State and Leonard-State is 286,400 barrels to August 1st, 1961.

Q 286,000 barrels. Are there 9 wells on the Leonard lease?

A Yes, there are.

Q And 4 on the Hollis?

A That's right.

Q So, you would divide the 286,000 by the 13 to get the total average cumulative production?

A That is right.

Q Approximately 22,000 barrels per well?

A Yes, sir.

Q Now, referring to Exhibit No. 4, is that production



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history of the Leonard-State lease?

A Yes, it is.

Q What does that reflect to be, ~~at the~~ production of that lease?

A The month of February, 1962, 1,550 barrels for the month for the total of the 9 wells.

Q Have you also calculated what the production is on the Featherstone lease?

A Yes, I have.

Q What is the present production of that lease per month?

A December of 1961 --

Q It was producing how much?

A Just one minute. 553 barrels, for the month.

Q For the three wells?

A For the three wells, or 184 barrels per well.

Q In your opinion have those three leases; namely, the Hollis, the Leonard and the Featherstone; reached an advanced stage of depletion?

A Yes, they have.

Q Are they what would commonly be referred to as stripper wells?

A My definition, they would be stripper wells.

Q Do you have any figures on the General American lease as to those three wells?

A No, sir, I do not.



Q Do you have a general knowledge of the wells in this area so that you can state, in your opinion, whether or not those three wells are in the advance stages of depletion?

A I do know, by observation, that these three wells are of the same classification as the other wells in the area, or, in a stripper state.

Q Please refer to what has been marked as Exhibit No. 5 and explain to the Commission what that portrays.

A Exhibit 5 is a list of all of the wells that would be involved in this project area, excluding the three General American wells. There's the five proposed injection wells and 12 affected producing wells.

Q Was this Exhibit prepared for the purpose of calculating project allowable?

A Yes, it was.

Q How many wells do you calculate in the project that are owned by Mr. Salsich?

A 17 wells, total.

Q So that the project area allowable applicable to his leases would be .714 barrels?

A That is right.

Q Also, are not the three General American wells, one an injection well and two a producer, would they not be in the project area as defined by the Commission rules?

A Yes.

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Q They would be entitled to an allowable of 126 barrels?

A Yes.

Q How much water, initially, is proposed to be injected into each of these wells per day?

A It is calculated 100 barrels per day per well at the initial pressure of 1,000 pounds.

Q Have you notified the offset operators and the royalty and overriding royalty owners of this pending Application?

A I have notified the offset operators, I have not notified overriding royalty owners. I have notified the State Land Office, the State Engineer, and the U.S.G.S.

Q In your opinion, do you feel like the institution of this project would be in the interest of conservation and prevent waste of oil?

A Yes, it would.

Q What would you estimate the secondary recovery, times the primary, would be in this project?

A A rough estimation of that would be the secondary recovery would equal the primary recovery, or one to one ratio.

Q Is it Mr. Salsich's intention to operate under Rule 701 as far as this project is concerned?

A Yes, it is.

Q Were Exhibits 1 through 5 prepared by you or under your direction?

A Yes, they were.



MR. LOSEE: I move the introduction of the Exhibits 1 through 5.

MR. NUTTER: Applicant's Exhibits 1 through 5 will be admitted in evidence.

(Whereupon, Applicant's Exhibits Nos. 1 through 5 Introduced and Admitted into Evidence.)

MR. LOSEE: I have no further questions.

MR. NUTTER: Does anyone have any questions of Mr. Spear?

MR. IRBY: Yes.

MR. IRBY: Mr. Irby.

MR. IRBY: Frank Irby, State Engineers Office.

CROSS EXAMINATION

BY MR. IRBY:

Q What will be the source of the water for this flood?

A Mr. Irby, our tentative plans, it would be purchased from the Caprock Water Company and I believe that water would be supplied through their Watson Lease, so referred to as their Watson Lease, which is in Township 17, 28 and parts of 16, 28 which is approximately six miles west of this.

Q That's where the source wells are?

A Yes.

Q That's the end of the pilot plan?

A That is their water supply.

Q Would you give me that township and range again, please?

A 16, 28 and 17, 28. And I am not familiar with the

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exact locations of those leases, Mr. Irby. I know it's in the general area, there.

Q In your Application you say that the Hollis-State No. 1, the surface casing is set at 491 feet and cemented with 75 sacks. Can you tell me what type of formation there is at 491, that depth?

A Mr. Irby, I cannot testify as to the exact formation. I think I would be fairly accurate in assuming that all of the wells, the surface pipe was set in the salt of the Salado formation, as some refer to it.

Q Can you testify that it is below the sand and caliche?

A Yes, it is.

MR. IRBY: Thank you. That's all.

Q (By Mr. Irby) That's in each case?

A In each of the five wells, Mr. Irby.

MR. IRBY: Yes, thank you.

BY MR. NUTTER:

Q Mr. Spear, what type of test did you have in mind when you said that Mr. Salsich was willing to make periodic tests to insure that water wasn't going into the wrong place in these wells?

A If there were any particular test in mind it would be that a packer would be set above the perforations and tested.

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Q Pressure test above the packer?

A Yes, I think we could work out a procedure that would be less expensive than that, and also satisfactory to the Commission. During the course of operation, we would like to reserve that in case that condition does exist, such as injectivity test or an injection profile that we could file in lieu of a pressure test.

Q The pressure test would be one alternative and some other satisfactory means might be suggested later?

A Yes. If it is necessary during the course of operation to run those other tests.

Q Does Mr. Salsich plan or would it eventually be the plan to convert a couple of wells down there on that Featherstone lease to injection?

A If all of the if's of the project could be worked out, I'm sure that those would be converted to injection wells.

Q Would the No. 2 and the No. 3 be the ones?

A They would be the proposed wells if the project reached that state.

Q That is a Federal lease there?

A Yes, it is.

Q And under the existing flood as requested you have two wells on State Land, being the Hollis No. 1 and the Leonard No. --

A 2.

Q Wait a minute, what is the number of that?



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A Oh, that's 5.

Q That's No. 5 I believe?

A Excuse me.

Q Pushing oil to a Federal lease and only one well on a Federal lease reciprocating by pushing some oil back, if two wells were put on injection on the Featherstone lease, then, that would even things up maybe, wouldn't it?

A Yes, it would.

Q That would have to remain to be seen after the project has been tried and the success of it evaluated?

A Determined by the response to the pilot project.

Q Do you know what General American's plans are as far as putting that Federal well on injection? What does the agreement call for?

A Could I discuss that --

MR. LOSEE: I can make a statement. The agreement calls for subject to the Commission's approval and the availability of the water, it will be put on injection.

MR. NUTTER: It will be put on injection simultaneously with the Salsich wells?

MR. LOSEE: Yes.

MR. NUTTER: That's the essence of the agreement to commence injection on the other side of the line?

MR. LOSEE: Yes.

MR. NUTTER: Are there any further questions of Mr.



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Spear?

MR. LOSEE: I have a couple of questions, please.

RE-DIRECT EXAMINATION

BY MR. LOSEE:

Q With respect to this agreement, Mr. Spear, has a copy of that been submitted to the State Land Office for their approval?

A It has not.

Q Will Mr. Salsich do that?

A Yes, he will.

Q Now, this Section 36 is all land owned by the State of New Mexico, do you know if that is one common beneficiary?

A I do not know for sure. I believe it is a common school beneficiary.

MR. LOSEE: I think that's all.

MR. NUTTER: Any further questions of Mr. Spear?

He may be excused.

(Witness Excused.)

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

MR. LOSEE: If there's any question in the Commission's mind about the procedure of asking on this General American well, we intended they couldn't join in the Application because they had not reached an agreement. We intend by our testimony today to lay the foundation for administrative approval which, of course, they will have to make the Application and submit the



date for.

MR. NUTTER: Does anyone have anything further they wish to offer in Case 2579?

We'll take the case under advisement.

Take a ten minute recess.

STATE OF NEW MEXICO)
) ss
COUNTY OF BERNALILLO)

I, ADA DEARNLEY, Notary Public in and for the County of Bernalillo, State of New Mexico, do hereby certify that the foregoing and attached transcript of Hearing was reported by me in Stenotype and that the same was reduced to typewritten transcript under my personal supervision and contains a true and correct record of said proceedings, to the best of my knowledge, skill and ability.

Ada Dearnley
NOTARY PUBLIC

My Commission Expires:
June 19th, 1963.

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 2579, heard by me on June 7, 1962.
Asst. Examiner, Examiner
New Mexico Oil Conservation Commission

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BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

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

CASE No. 2579
Order No. R-2269

APPLICATION OF NEIL E. SALSICH
FOR APPROVAL OF A WATERFLOOD
PROJECT, EDDY COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on June 7, 1962, at Santa Fe, New Mexico, before Daniel S. Nutter, Examiner duly appointed by the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission," in accordance with Rule 1214 of the Commission Rules and Regulations.

NOW, on this 21st day of June, 1962, the Commission, a quorum being present, having considered the application, the evidence adduced, and the recommendations of the Examiner, Daniel S. Nutter, 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, Neil E. Salsich, seeks approval of a waterflood project in the Square Lake Pool with the injection of water into the Grayburg formation to be through five wells located in Section 36, Township 16 South, Range 29 East, NMPM, Eddy County, New Mexico.

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

(4) That approval of the subject application will neither cause waste nor impair correlative rights; provided, however, that unless agreed to by all parties, the transfer of allowables across lease lines where royalty ownership is diverse should not be authorized.

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CASE No. 2579
Order No. R-2269

(5) That an administrative procedure should be established whereby the General American Oil Company of Texas may be authorized to convert to water injection its Eunice Federal Well No. 5, located in Unit H of Section 35, Township 16 South, Range 29 East, MNPM, Eddy County, New Mexico, upon application and notification to offset operators.

IT IS THEREFORE ORDERED:

(1) That the applicant, Neil E. Salsich, is hereby authorized to institute a waterflood project in the Square Lake Pool with the injection of water into the Grayburg formation through the following-described wells located in Section 36, Township 16 South, Range 29 East, MNPM, Eddy County, New Mexico:

Hollis State Well No. 1, Unit L;
Leonard State Well No. 1, Unit F;
Leonard State Well No. 2, Unit H;
Leonard State Well No. 4, Unit J; and
Leonard State Well No. 5, Unit D.

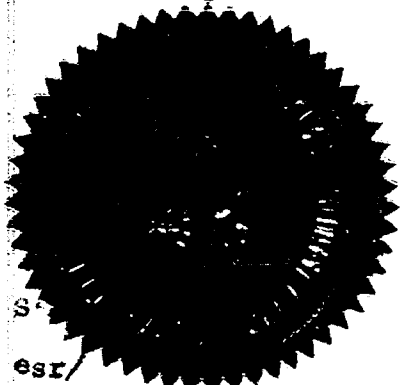
(2) That an administrative procedure is hereby established whereby the General American Oil Company of Texas may be authorized to convert to water injection its Eunice Federal Well No. 5, located in Unit H of Section 35, Township 16 South, Range 29 East, MNPM, Eddy County, New Mexico, upon application to the Commission and notification of such application to the State Engineer Office and to all offset operators.

(3) That the waterflood project shall be governed by Rule 701, including the allowable provisions thereof.

PROVIDED HOWEVER, That unless otherwise agreed to by all parties and evidence thereof furnished the Commission, the transfer of allowables within the project area of this waterflood shall be authorized only insofar as the transfer is made between wells having common royalty ownership.

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

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



STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

E. L. Mechem
EDWIN L. MECHEM, Chairman

E. S. Walker
E. S. WALKER, Member

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

GOVERNOR
EDWIN L. MECHEM
CHAIRMAN

State of New Mexico
Oil Conservation Commission

LAND COMMISSIONER
E. S. JOHNNY WALKER
MEMBER



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

P. O. BOX 871
SANTA FE

June 21, 1962

Mr. A. J. Losse
Losse and Stewart
Carper Building
P. O. Drawer 239
Artesia, New Mexico

Re: Case No. 2579
Order No. A-2269
Applicant:
NEIL E. SALSICH

Dear Sir:

Enclosed herewith are two copies of the above-referenced
Commission order recently entered in the subject case.

Very truly yours,

A handwritten signature in cursive script, reading "A. L. Porter, Jr.", written over the typed name.

A. L. PORTER, Jr.
Secretary-Director

iz/

Carbon copy of order also sent to:

Hobbs OCC x

Artesia OCC x

Aztec OCC

OTHER

OIL CONSERVATION COMMISSION

P. O. BOX 871

SANTA FE, NEW MEXICO

December 5, 1962

**Mr. A. J. Losee
Losee & Stewart
Post Office Drawer 239
Artesia, New Mexico**

Dear Sir:

Reference is made to Order No. R-2269, Case No. 2579, entered by the Commission approving Neil E. Salsich's Waterflood Project, Square Lake Pool, Eddy County, New Mexico.

According to our calculations, 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 714 barrels per day.

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

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OIL CONSERVATION COMMISSION

P. O. BOX 871

SANTA FE, NEW MEXICO

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are acquired through purchase or unitisation, 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. POSTER, Jr.
Secretary-Director

ALP/lr

cc: Oil Conservation Commission
Artesia, New Mexico

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A. J. Loece
Loece & Stewart
P.O. Drawer 289 Astoria

Reference is made to
Order No R 2269 Case
No 2579 entered by
The Commission approving
Neil E. Salsich's
Square Lake Leonard
Water Flood Project
Square Lake Pool
Eddy County, New
Mexico

714 BPD

No. 17-62

DOCKET: EXAMINER HEARING - THURSDAY - JUNE 7, 1962

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, as Alternate Examiner:

CASE 2571: Application of Randall F. Montgomery for an exception to
Order R-111-A, or in the alternative for three unorthodox
oil well locations, Lea County, New Mexico. Applicant,
in the above-styled cause, seeks exception to the pro-
visions of Order R-111-A, insofar as it pertains to the
re-entry and casing program on five plugged and abandoned
wells in the Salt Lake Pool, four of which are located in
Section 7, and one of which is located in Section 18, all
in Township 20 South, Range 33 East, Lea County, New Mexico.
Applicant further seeks permission, as an alternative
request, to drill three new wells at unorthodox locations
in the Salt Lake Pool as follows:

- (1) Brooks - 7 Well No. 6, to be located 10 feet from
the South line and 2310 feet from the East line;
- (2) Brooks - 7 Well No. 7, to be located 330 feet from
the South line and 1320 feet from the West line;
- (3) Brooks - 7 Well No. 8, to be located 1320 feet from
the South line and 1980 feet from the West line;

all in Section 7, Township 20 South, Range 33 East, Lea
County, New Mexico.

CASE 2572: Application of Tenneco Oil Company for an exception to
Rule 21-a of Order No. R-1670, Basin-Dakota Gas Pool, San
Juan County, New Mexico. Applicant, in the above-styled
cause, seeks permission to commingle the gas production
from two wells in the Basin-Dakota Gas Pool located on the
H. O. Watson Lease in Section 22, Township 27 North, Range
12 West, San Juan County, New Mexico, as an exception to
the provisions of Rule 21-a of the Rules for the prorated
gas pools of Northwestern New Mexico, Order No. R-1670.
Applicant proposes to install one common tank battery and
separating facility and to allocate monthly gas production
to each well on the basis of deliverability tests and
average flowing tubing pressures.

- CASE 2573: Application of Phillips Petroleum Company for approval of an unorthodox oil well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval to locate its Santa Fe Well No. 68 at an unorthodox oil well location in the Vacuum-Abo Pool, 1650 feet from the North line and 1090 feet from the East line of Section 34, Township 17 South, Range 35 East, Lea County, New Mexico.
- CASE 2574: Application of J. Gregory Merrion and Associates for compulsory pooling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks an order of the Commission force pooling all interests in the Basin-Dakota Pool in the W/2 of Section 35, Township 25 North, Range 6 West, Rio Arriba County, New Mexico.
- CASE 2575: Application of Val R. Reese & Associates, Inc. for the creation of a new oil pool and for special pool rules, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new oil pool for Gallup production in Township 23 North, Range 7 West, Rio Arriba County, New Mexico, and further seeks the adoption of special rules and regulations for said pool similar to the special rules presently governing the Escrito-Gallup Oil Pool which provide for 320-acre gas proration units and 80-acre oil proration units (Order No. R-1793-A).
- CASE 2576: Application of Sinclair Oil & Gas Company for approval of a waterflood project, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval of a waterflood project in the Grayburg-Jackson Pool, Eddy County, New Mexico, with the injection of water to be through seven wells located on the H. E. West "A" and "B" leases in Sections 3 and 4, Township 17 South, Range 31 East; applicant proposes to operate the waterflood project under the provisions of Rule 701.
- CASE 2577: Application of Newmont Oil Company for approval to drill a water injection well, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks permission to drill the State "A" Well No. 3, to be located 1295 feet from the South line and 2615 feet from the East line of Section 36, Township 17 South, Range 29 East, Eddy County, New Mexico, for use as a water injection well in the Loco Hills Pool Waterflood Project.
- CASE 2578: Application of Newmont Oil Company for approval of a development plan for the Loco Hills Waterflood Project, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval of a plan of development for the Loco Hills Waterflood Project, Eddy County, New Mexico, which would permit

CASE 2578: (Continued)

the conversion of wells to water injection by stages. The applicant proposes to operate said waterflood project under the terms and conditions of Order No. R-2178 which established a buffer zone in a portion of the project area.

CASE 2579:

Application of Neil E. Salsich for approval of a waterflood project, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval of a waterflood project in the Square Lake Pool with the injection of water into the Grayburg formation of the Square Lake Pool through five wells located in Section 36, Township 16 South, Range 29 East, Eddy County, New Mexico. Applicant requests that the waterflood be governed by Rule 701 except that administrative approval is sought to allow expansion of the waterflood by the conversion of one additional well in Unit H of Section 35 prior to response from water injection.

CASE 2580:

Application of Waterflood Associates, Inc., for approval of a waterflood project, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval of a waterflood project in the Robinson Pool with the injection of water to be through six wells located in Section 35, Township 16 South, Range 31 East, Eddy County, New Mexico; applicant requests that the waterflood project be governed by Rule 701.

CASE 2581:

Application of Waterflood Associates, Inc. for approval of a waterflood project, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval of a waterflood project in the Square Lake Pool by the injection of water to be through two wells located in the NE/4 of Section 3, Township 17 South, Range 30 East, Eddy County, New Mexico; applicant requests that the waterflood project be governed by Rule 701.

CASE 2582:

Applicant of Waterflood Associates, Inc., for approval of a waterflood project, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval of a waterflood project in the Artesia Pool by the injection of water to be through one well located in the W/2 NW/4 of Section 21, Township 18 South, Range 28 East, Eddy County, New Mexico; applicant requests that the waterflood project be governed by Rule 701.

OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

Date 6/12/62

CASE 2579

Hearing Date 9am 6/7/62
DSN @ SF

My recommendations for an order in the above numbered cases are as follows:

Enter an order approving Neil E. Salsich application for waterflood project in ~~Grayburg formation of the~~ 1 Square Lake Pool. Authorize conversion to water injection applicants'

Hollis State No 1	Unit L	See 35 T16SR29E
Leonard State No 1	" F	" " " "
" " " 2	" N	" " " "
" " " 4	" J	" " " "
" " " 5	" D	" " " "

Also provide administrative procedure whereby Gulf American Oil Co of Texas may be authorized to convert its Nunlee Federal No 5, Unit H, See 35 T16SR29E to water injection upon application & notification of offset operators. Otherwise use std waterflood order.


Neil E. Salsich

ARCHIE M. SPEIR
P. O. Drawer 40
Artesia, New Mexico

May 10, 1962

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

Dear Sir:

In be half of Neil E. Salsich, 716 First National Bank Bldg., Midland, Texas, a request is made for a hearing for the purpose of considering a water flood project in Eddy County, New Mexico. The hearing may be held before the full Commission or an Examiner selected by the Commission.

It is requested that the waterflood project be authorized in order to prevent waste. It is agreed the project should be governed by the provisions of Rule 701 of the Commission Rules and Regulations, including those regarding allocation of allowables.

The project would be initiated by injecting water into the Grayburg formation through the following-described wells:

- Hollis State well No. 1 in unit L (NW/4 SW/4)
- Leonard State well No. 1 in unit F (SE/4 NW/4)
- Leonard State well No. 2 in unit N (SE/4 SW/4)
- Leonard State well No. 4 in unit J (NW/4 SE/4)
- Leonard State well No. 5 in unit D (NW/4 NW/4)

all in Section 36, Township 16 South, Range 29 East, Eddy County New Mexico.

The Casing program of the proposed injection wells are as follows:

Hollis State No. 1
8 5/8" set @ 491' cemented with 75 sax
5 1/2" set @ 2665' cemented with 50 sax
perforated @ 2467-79 & 2616-38
theoretical top of cement @ 2078'

Leonard State No. 1
8 5/8" set @ 370' cemented with 75 sax
5 1/2" set @ 2710' cemented with 75 sax
perforated @ 2506-16 & 2670-88
theoretical top of cement @ 2221'

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Leonard State No. 2

8 5/8" set @ 355' cemented with 50 sax
5 1/2" set @ 2695' cemented with 100 sax
perforated @ 2505-20 & 2652-72
theoretical top of cement @ 2043'

Leonard State No. 4

8 5/8" set @ 306' cemented with 50 sax
4 1/2" set @ 2710' cemented with 125 sax
perforated @ 2519-31 & 2674-94
theoretical top of cement @ 2081'

Leonard State No. 5

8 5/8" set @ 495' cemented with 50sax
4 1/2" set @ 2670' cemented with 100 sax
perforated @ 2461-66 & 2630-46
theoretical top of cement @ 2167'

permission is requested to inject water through the casing of the above wells.

It is requested that an exception to Rule 701 par E sub-par 5 be granted for the purpose of allowing Administrative approval of the expansion of the water flood prior to any response to water injection to include the General American Oil Co. of Texas' Nunlee Federal well No. 5 in unit H Section 35, Township 16 South, Range 29 East NMPM. This well would complete the Six well pilot project as originally planned. The request for this expansion will be made when an agreement of operation with General American is consummated. The pertinent information submitted to the Commission for this approval shall contain copies of the agreement of operation.

The water to be injected in this project will be supplied by the Caprock Water Co., a commercial water supply company. One hundred (100) API barrels per day per well is the anticipated volume to be injected, at an initial pressure of one thousand (1000) pounds per square inch.

Any communication in regards to this application should be directed to the writer.

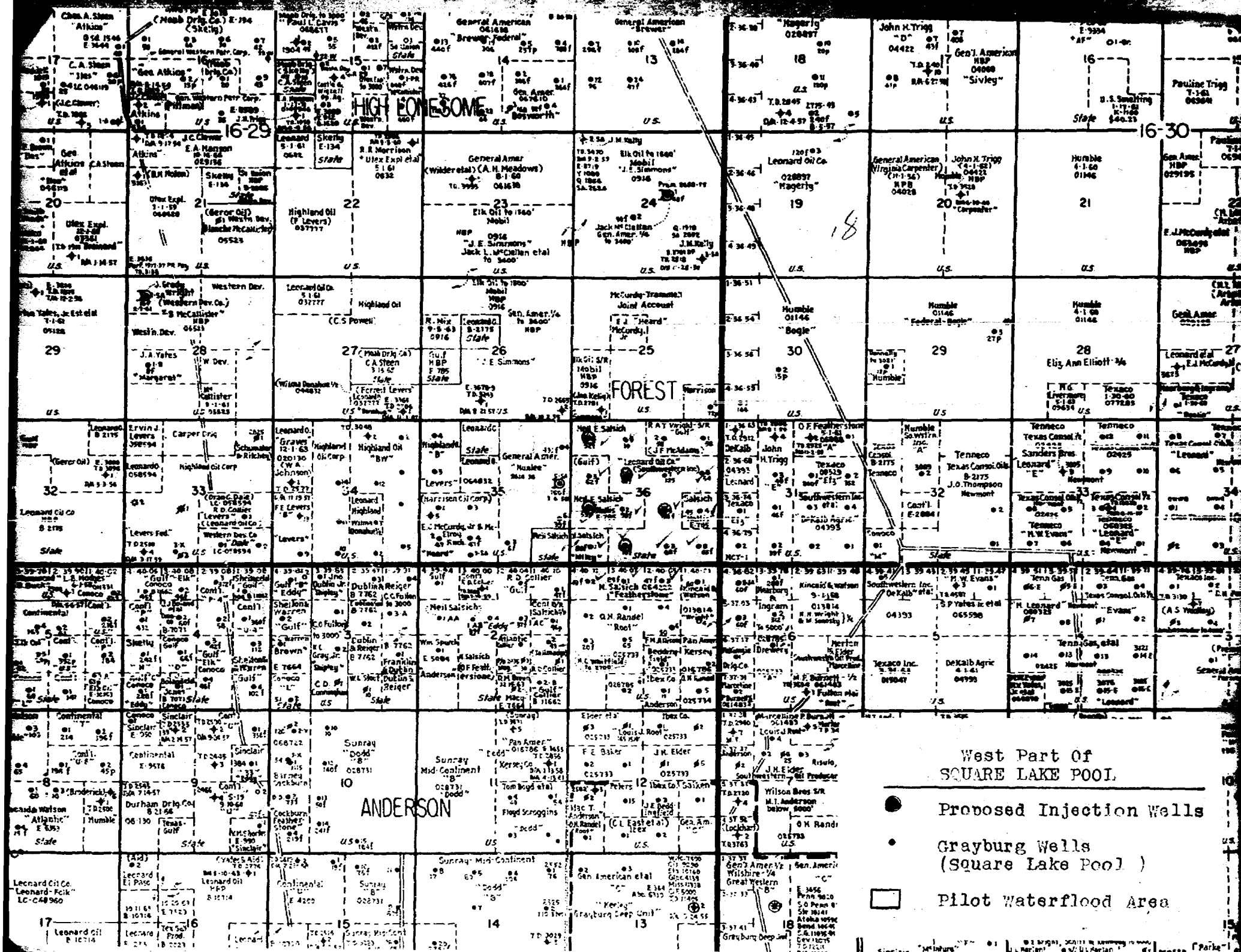
Enclosed are Electric Logs of each of the injection wells and a plat showing the project area.

Yours very truly,

Archie M. Speir
Archie M. Speir

AMS/ds
Encls.

cc: State Engineer of New Mexico
State Land Office of New Mexico
United State Geological Survey (2)

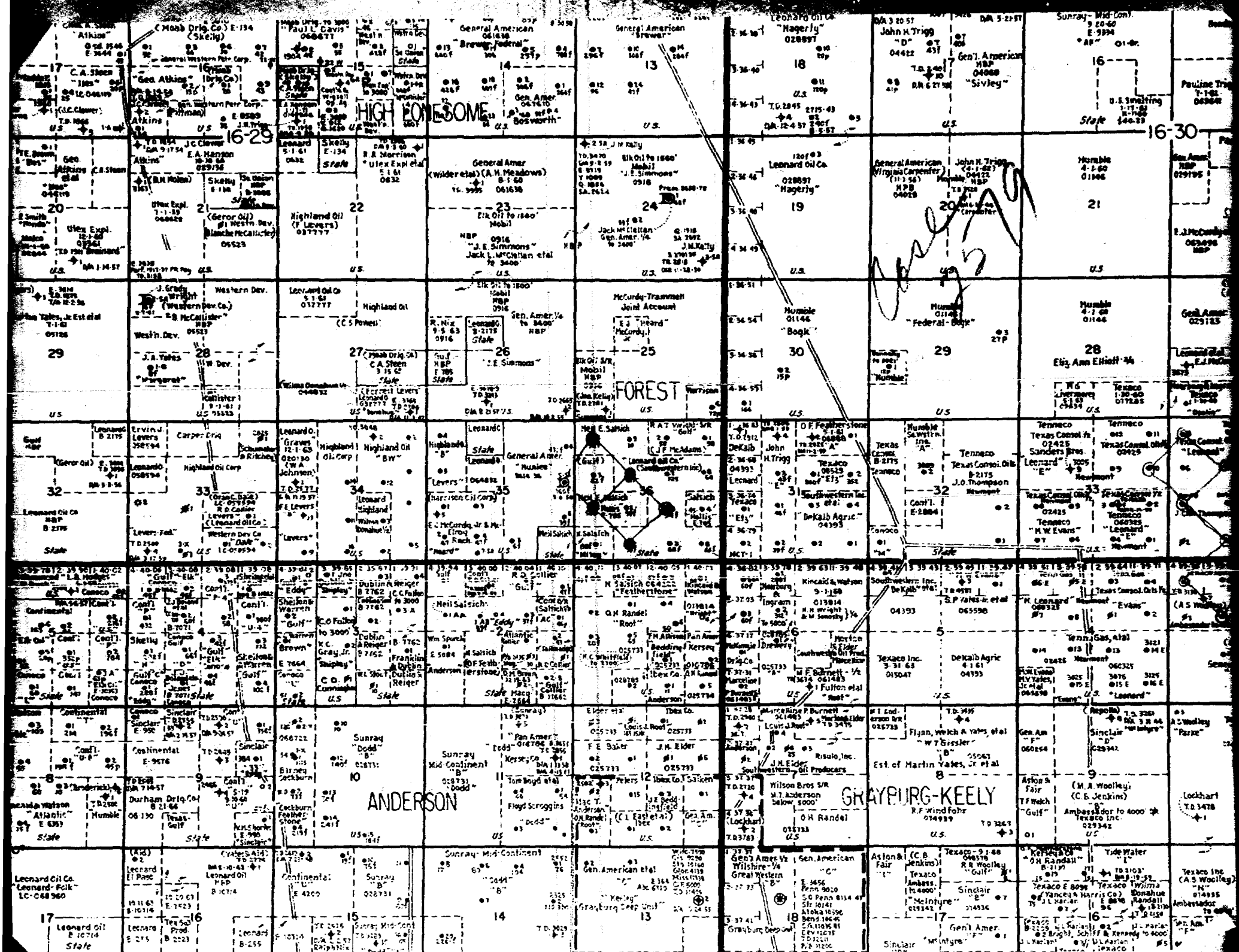


West Part Of
SQUARE LAKE POOL

Proposed Injection Wells

Grayburg Wells
(Square Lake Pool)

Pilot Waterflood Area



PROPOSED INJECTION WELL'S CASING PROGRAM

Lease & Well No.	Surface Pipe Size Set @ Sacks	Pred. (Injection) Pipe Size Set @ Sacks	Theoretical top of Cement	Perforations
Leonard-State 1	8 5/8 370 75	5 1/2 2710 75	2221	2506-16 2670-88
2	8 5/8 355 50	5 1/2 2695 100	2043	2505-20 2652-72
4	8 5/8 306 50	4 1/2 2710 125	2081	2519-31 2674-94
5	8 5/8 495 50	4 1/2 2670 100	2167	2461-66 2630-46
Hollis-State 1	8 5/8 491 75	5 1/2 2665 50	2078	2467-79 2616-38

BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
EXHIBIT NO. 2
CASE NO. 2579

PROPOSED INJECTION WELLS

Hollis-state	1	L	(NW/4 SW/4)
Leonard-State	1	F	(SE/4 NW/4)
	2	N	(SE/4 SW/4)
	4	J	(NW/4 SE/4)
	5	D	(NW/4 NW/4)

Total Injection Units-----5

EFFECTED PRODUCTION WELLS

Hollis-State	2	K	(NE/4 SW/4)
	3	E	(SW/4 NW/4)
	4	I	(NE/4 SE/4)
Leonard-State	3	O	(SW/4 SE/4)
	6	P	(SE/4 SE/4)
	7	B	(SW/4 NE/4)
	8	H	(SE/4 NE/4)
	9	C	(NE/4 NW/4)
Miley-State	1	M	(SW/4 SW/4)

All in Section 36, T16S, R29E

Featherstone-Federal	1	C	(NE/4 NW/4)
	2	D	(NW/4 NW/4)
	3	B	(NW/4 NE/4)

All in Section 1, T17S, R29E

Total Production Units-----12

TOTAL PROJECT UNITS-----17

PROJECT ALLOWABLE (17x42)-714 Barrels.

