

EARLOUGHER ENGINEERING

PETROLEUM CONSULTANTS - CORE ANALYSES

319 EAST FOURTH STREET

TULSA 3, OKLAHOMA

September 12, 1951

Aurora Gasoline Company
Wright Building
Tulsa, Oklahoma

Attention - Mr. Maurice Shiller

Re - Core Analysis
T. O. May Well No. 5
Sec. 34, T.22-S., R.37-E.
Lea County, New Mexico

Gentlemen:

Attached are results of analysis, together with profile and summary, covering core received from your above well.

The Penrose (Queen) sand was diamond cored and results of the analysis indicate 33.8 net feet of oil sand with low porosity and low permeability. The oil sand occurs in 4 separate sections throughout an interval of 102 feet from 3577.8 to 3679.8 feet.

Based on the data from this one core alone it may be calculated that a primary oil recovery by gas expansion of 4100 barrels per acre should be obtained from the area of which this core is representative. An effective water flood following primary depletion may yield an additional oil recovery of 2300 barrels per acre. The average recovery to date from this property has been only 1380 barrels per acre indicating a possible 5020 barrels per acre of primary and secondary oil yet to be produced.

If the low primary recovery to date is due to poor drainage caused by the low permeability, it is possible that closer spacing should yield substantially more oil. Therefore, it is recommended that the present core well be completed possibly by hydraulic fracturing. Bottom hole pressure test and production test data might then indicate whether or not there is sufficient oil yet to be recovered under primary methods to be economically attractive. If this should prove to be possible then water injection would be advisable.

Yours very truly

EARLOUGHER ENGINEERING



R. C. Earlougher, Engineer

JMR f

Encl - 5

cc - Mr. R. DeChicco (2)

S C H L U M B E R G E R

WELL SURVEYING CORPORATION

Location of Well

660 FSL & 510 F.L
SEC. 34 22S-37E

Elevation: D.F.: **3335**
K.B.:
or G.L.:

COMPANY: SKELLY OIL CO.

WELL: H. O. SIMS #16

FIELD: DRINKARD

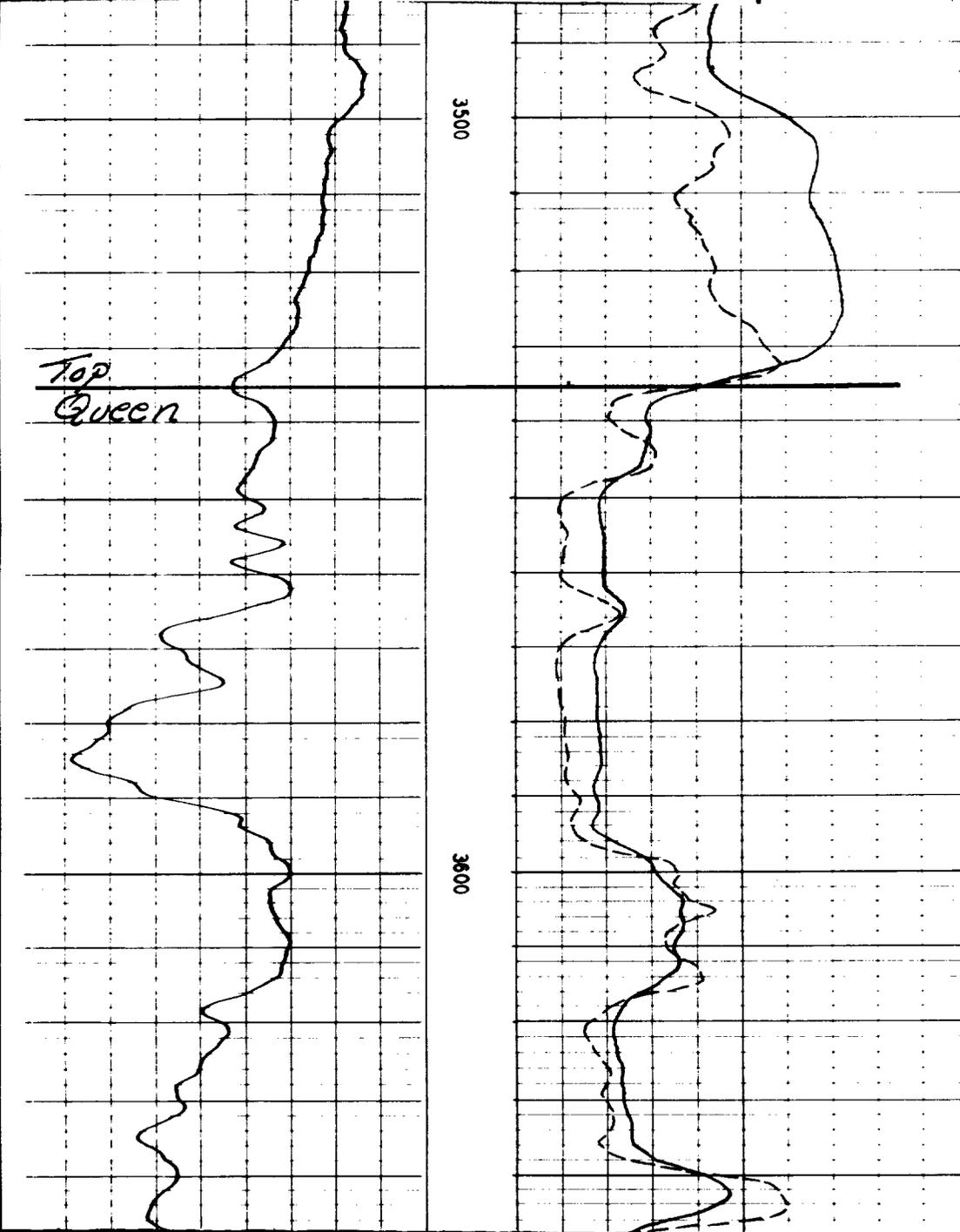
LOCATION: SEC. 34 22S-37E

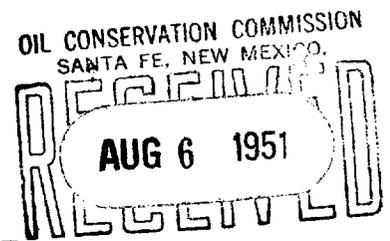
COUNTY: LEA

STATE: NEW MEXICO

COUNTY: LEA
FIELD OR
LOCATION: DRINKARD
WELL: H. O. SIMS #16
COMPANY: SKELLY OIL CO.

FILING No.





SKELLY OIL COMPANY

PRODUCTION DEPARTMENT

J. S. FREEMAN
VICE PRESIDENT

E. A. JENKINS
GENERAL SUPERINTENDENT

TULSA 2, OKLAHOMA

August 3, 1951

W. P. WHITMORE
CHIEF PETROLEUM ENGINEER

G. W. SELINGER
PRORATION ATTORNEY

J. H. MCCULLOCH
CHIEF CLERK

Re: Case No. 297

Oil Conservation Commission
State of New Mexico
Box 871
Santa Fe, New Mexico

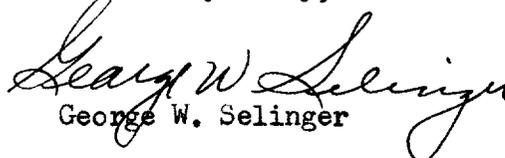
Gentlemen:

We are in receipt of notice in Case 297 in the matter of the application of Aurora Gasoline Company for an order authorizing an unorthodox well location and approval of a water flooding program for secondary recovery in the NE/4 of Section 34, Township 22 South, Range 37 East, NMPM, in the Penrose-Skelly Pool, Lea County, New Mexico.

It is our understanding that the proposed well for water flooding purposes is to be located 1310' from the North line and 1310' from the East line of the NE/4 of Section 34. Skelly owns offset acreage to the South and Southwest, and this is to advise that we do not have any objection to the location of such well for the purposes indicated in the notice thereof, and urge the Commission to approve the location of the well as indicated in the notice for the purposes stated therein.

We presume that the hearing, which we will be unable to attend, will be confined to the matters indicated in the notice, and the presentation of additional information would necessarily have to await the results of the drilling of such well which could be the subject matter of an additional hearing in the event same becomes necessary.

Yours very truly,


George W. Selinger

GWS:dd

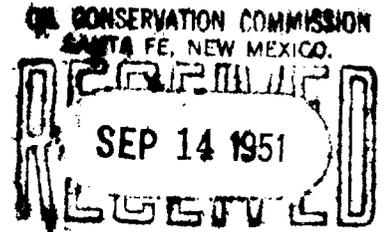
cc: Aurora Gasoline Company
Wright Building
Tulsa, Oklahoma

J. M. HERVEY
HIRAH M. DOW
CLARENCE E. HINKLE
W. E. BONDURANT, JR.
GEORGE H. HUNKER, JR.

ROSS MADOLE
WILLIAM C. SCHAUER

LAW OFFICES
HERVEY, DOW & HINKLE
ROSWELL, NEW MEXICO

September 12, 1951



R. R. Spurrier
New Mexico Oil
Conservation Commission
Santa Fe, New Mexico

Dear Dick:

We enclose original and several copies of an Order which we have prepared for the approval by the Commission of an unorthodox well location of the Aurora Gasoline Company in the NE $\frac{1}{4}$ Sec. 34, Twp. 22 S, Rge. 37 E., N.M.P.M.

You will note that this Order simply provides for the approval of the location and the drilling of the well as an experimental well to determine the feasibility of water flooding in the area. In the event water flooding does not appear to be practicable and the well is capable of producing oil in paying quantities it is to be completed and an allowable assigned by the Commission at a subsequent hearing. This was Mr. Madole's understanding of the decision of the Commission.

We would appreciate your having the Order signed and sending us a signed copy at your very earliest convenience.

Yours sincerely,

HERVEY, DOW & HINKLE

By 

CEH:gc

Encs.

Aug 7 *Hervey*

LAW OFFICES

HERVEY, DOW & HINKLE
ROSWELL, NEW MEXICO

J. M. HERVEY
HIRAM M. DOW
CLARENCE E. HINKLE
W. E. BONDURANT, JR.
GEORGE H. HUNKER, JR.

ROSS MADOLE
WILLIAM C. SCHAUER

July 19, 1951

G. Schauer

Mr. R. R. Spurrier
Executive Secretary
New Mexico Oil Conservation Commission
Santa Fe, New Mexico

*Recd
Sat. July 21*

Dear Dick:

You will recall that I talked to you over the telephone in regard to the proposed application of the Aurora Gasoline Company for the purpose of having approved an unorthodox well location to be used as an injection well in connection with a proposed water flooding secondary recovery program in the Penrose-Skelly Field. We enclose the application in triplicate and would like for you to give notice by publication as quickly as possible, to the end that a hearing may be had at an early date.

I believe that you stated that you thought it would be possible to set the hearing on August 8, as you thought perhaps you had another matter which would be set at that time.

Anything you can do to expedite the hearing will be appreciated.

Yours very truly,

HERVEY, DOW & HINKLE

BY *George H. Hunker*

CEH:vb

Enc.

Case 297

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PETROLEUM CONSULTANTS - CORE ANALYSES

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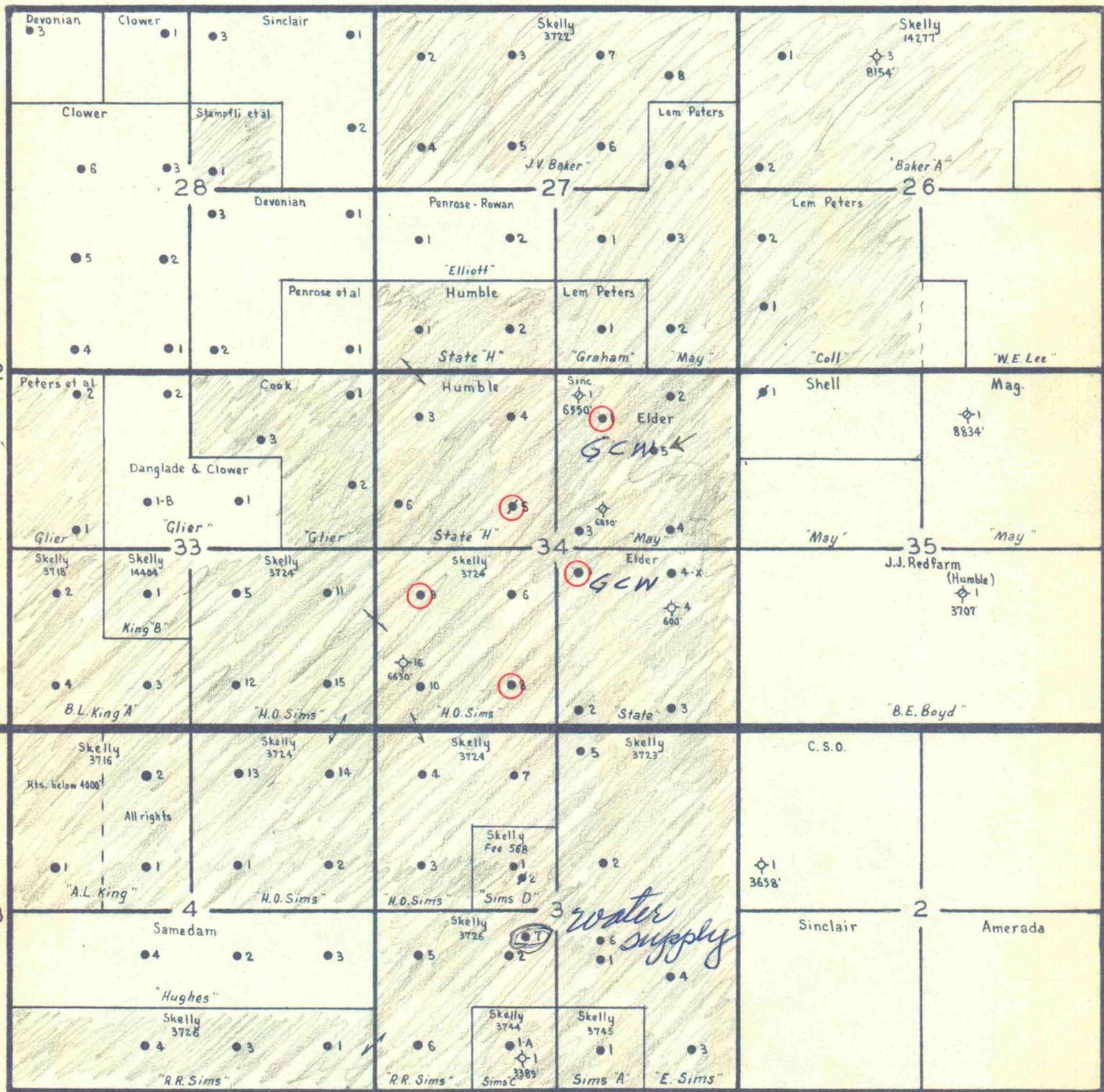
Case 354 Ex #1 Skelly

LEA COUNTY - NEW MEXICO

DATE _____

R-37E

○ INJECTION WELL



T 22 S

T 22 S

T 23 S

T 23 S

R-37E

SCALE 1"=2000'

Skelly Cr #1

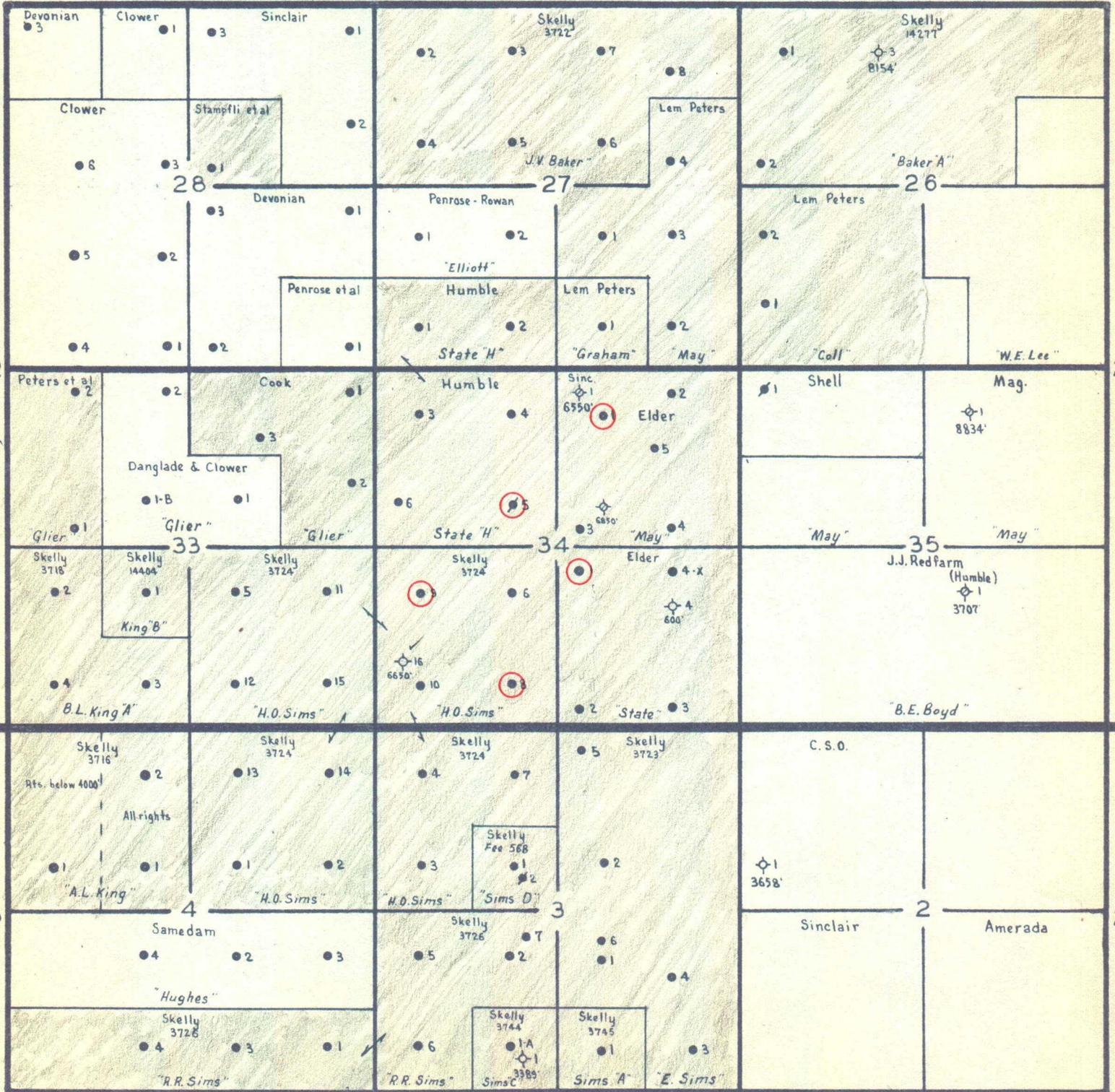
Case 354

LEA COUNTY - NEW MEXICO

DATE 11-20

○ INJECTION WELL

R-37E



R-37E

SCALE 1"=2000'