

STATE OF NEW MEXICO

COUNTY OF LEA

IN THE DISTRICT COURT

PAUL HAMILTON,

Petitioner,

vs.

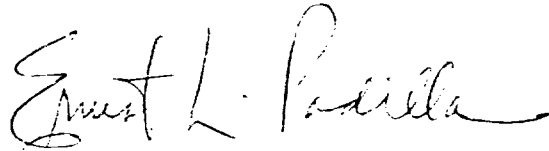
No. _____

OIL CONSERVATION COMMISSION OF
NEW MEXICO and TEXACO, INC.,

Respondents.)

ENTRY OF APPEARANCE

The Oil Conservation Commission of New Mexico hereby
makes a general appearance in this action and acknowledges receipt
of a copy of a Notice of Appeal and Petition for Review on file
herein.



Oil Conservation Commission
of New Mexico
Assistant Attorney General
P. O. Box 2088
Santa Fe, New Mexico 87501
Telephone: 827-2741



STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

BRUCE KING
GOVERNOR
LARRY KEHOE
SECRETARY

July 9, 1979

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501
(505) 827-2434

Mr. Alvin F. Jones
Attorney at Law
P. O. Box 776
Roswell, New Mexico 88201

Re: Hamilton vs. Texaco,
Inc. and New Mexico Oil
Conservation Commission
Lea County Cause No.
CV-79-312

Dear Mr. Jones:

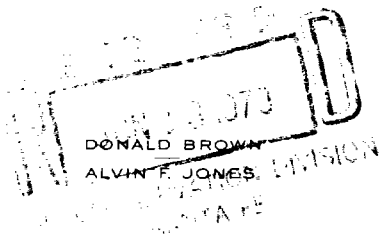
Enclosed herewith please find Entry of Appearance
and please send me a conformed copy after filing.

Very truly yours,

ERNEST L. PADILLA
General Counsel

ELP/dr

enc.



DONALD BROWN, P. A.
ATTORNEYS AT LAW
916 SECURITY NATIONAL BANK BUILDING
POST OFFICE BOX 776
ROSWELL, NEW MEXICO 88201

AREA CODE 505
622-1041

June 27, 1979

Mr. Ernest Padilla
Attorney at Law
Oil Conservation Commission Division
P. O. Box 2088
Santa Fe, New Mexico 87501

Re: Hamilton vs. Texaco, Inc., et al
Lea County Cause NO. CV-79-312

Dear Mr. Padilla:

Pursuant to our discussion over the phone the other day, enclosed is a copy of the Petition for Review of the Commission Order in Cause NO. 6222 before the Commission. Also enclosed is a copy of the Notice of the filing of the Petition which I have prepared and have sent to the Clerk in Lea County for filing.

Finally, I am enclosing an Acceptance of Service and Entry of Appearance for you to submit on behalf of the Commission to the District Court in Lea County. If you would like, return it to me and I will see to its filing and see that you are furnished with a conformed copy. If you prefer to see to the filing of the Entry of Appearance, I would appreciate your request to the Clerk that I be furnished a conformed copy thereof.

It is my understanding, also, from visiting with you over the phone that the Commission will assemble the transcript and record of the proceedings and all exhibits and see to it that they are filed with the District Court in Lea County.

I appreciate your cooperation in this matter in relieving us of the necessity of having personal service made on the Commission.

Best regards.

Sincerely yours,


Alvin F. Jones

AFJ/plk
Enclosures
cc: Paul Hamilton



STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

BRUCE KING
GOVERNOR

LARRY KEHOE
SECRETARY

July 26, 1979

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501
(505) 827-2434

Mrs. Frances M. Wilcox
Clerk of the District Court
Eddy County Courthouse
Carlsbad, New Mexico 88220

Re: Hamilton v. Oil Conservation
Commission, et al, Lea
County Cause No. CV-79-312

Dear Mrs. Wilcox:

Enclosed for filing in the above-styled and
numbered cause, please find original Response to Petition.

Thank you.

Very truly yours,

ERNEST L. PADILLA
General Counsel

ELP/dr

enc.

cc: Alvin F. Jones



STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

BRUCE KING
GOVERNOR
LARRY KELLER
SECRETARY

July 30, 1979

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501
(505) 827-2434

Clerk of the District Court
Lea County Courthouse
Lovington, New Mexico

Re: Hamilton v. Oil Conservation
Commission, et al, Lea
County Cause No. CV-79-312

Dear Madam:

Enclosed for filing in the above-styled and
numbered cause, please find original Response to Petition.

Earlier we had sent this pleading, through error,
to Eddy County.

Thank you.

Very truly yours,

ERNEST L. PADILLA
General Counsel

ELP/dr

enc.

Alvin F. Jones



STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

BRUCE KING
GOVERNOR
LARRY KEHOE
SECRETARY

November 9, 1979

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501
(505) 827-2434

Clerk of the District Court
Lea County Courthouse
Lovington, New Mexico

Re: Hamilton v. Oil Conservation
Commission, et al, Lea County
Cause No. CV-79-312

Dear Madam:

Enclosed please find our Transcript on Appeal for filing
in the above-styled and numbered cause.

Thank you.

Very truly yours,

ERNEST L. PADILLA
General Counsel

ELP/dr

enc.

COCHRAN AND JONES, LTD.

ATTORNEYS AT LAW

Suite 916 — Security National Bank Building

Roswell, New Mexico 88201

A. TOM COCHRAN
ALVIN F. JONES

(505) 622-7663

P.O. BOX ~~XXX~~ 598

February 8, 1980

RECEIVED
FEB 11 1980
COUNTY CLERK
LEA COUNTY
SANTA FE

Ms. Georgia Camp, Clerk
Lea County Courthouse
Lovington, New Mexico 88260

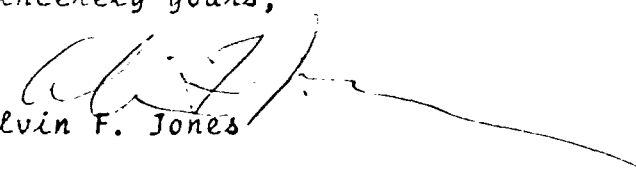
Re: Paul Hamilton vs. Oil Conservation Commission
of New Mexico and Texaco, Inc.
Lea County Cause No. CV-79-312

Dear Ms. Camp:

Please find enclosed for filing a Notice of
Dismissal regarding the above matter. A true copy
has been sent to opposing counsel.

Best regards.

Sincerely yours,


Alvin F. Jones

AFJ/plk
Enclosure
cc: Harold Hensley
cc: Ernest Padilla/

COPY

STATE OF NEW MEXICO

COUNTY OF LEA

IN THE DISTRICT COURT

PAUL HAMILTON,

Petitioner,

vs.

No. CV-79-312

OIL CONSERVATION COMMISSION
OF NEW MEXICO and TEXACO, INC.,

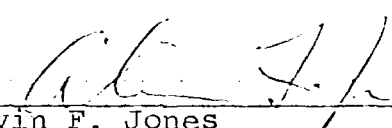
Respondents.

NOTICE OF DISMISSAL


The undersigned hereby gives notice on behalf of
the Petitioner that this appeal is dismissed by the
Petitioner.

COCHRAN & JONES, LTD.

By


Alvin F. Jones
Attorney for Petitioner
P. O. Box 598
Roswell, New Mexico 88201
505-622-7663

I certify that a true copy
of the foregoing pleading
was mailed to opposing
counsel of record on
February 8, 1980.


Alvin F. Jones

STATE OF NEW MEXICO

COUNTY OF LEA

IN THE DISTRICT COURT

PAUL HAMILTON,

Petitioner,

vs.

OIL CONSERVATION COMMISSION
OF NEW MEXICO and TEXACO, INC.,

Respondents.

No. CV-79-312

TRANSCRIPT ON APPEAL

1. Application of Paul Hamilton for an order requiring shut-in and plugging of Texaco Inc. Salt Water Disposal Well located in the Moore-Devonian Pool, Lea County, New Mexico.

2. Certified transcript of May 10, 1978, Oil Conservation Commission Hearing.

3. Certified transcript of May 31, 1978, Oil Conservation Commission Hearing.

4. Exhibits introduced by Paul Hamilton at May 31, 1978, Oil Conservation Commission Hearing.

5. Certified copy of Oil Conservation Commission Order No. R-5753.

6. Application of Paul Hamilton for Rehearing.

7. Certified copy of Oil Conservation Commission Order No. R-5753-A.

8. Motion of Paul Hamilton.

9. Response to Motion.

10. Certified transcript of August 9, 1978, Oil Conservation Commission Hearing.

11. Certified transcript of August 23, 1978, Oil Conservation Commission Hearing.

12. Exhibit introduced by Texaco Inc. at August 23, 1978,
Oil Conservation Commission Hearing.

13. Exhibits introduced by Paul Hamilton at August 23, 1978,
Oil Conservation Commission Hearing.

14. Certified transcript of March 2, 1979, Oil Conservation
Commission Hearing.

15. Certified transcript of March 15, 1979, Oil Conservation
Commission Hearing.

16. Exhibits introduced by Texaco Inc. at March 15, 1979,
Oil Conservation Commission Hearing.

17. Certified copy of Oil Conservation Commission Order
No. R-5753-B.

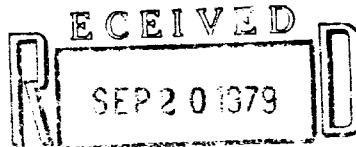
Respectfully submitted,

NEW MEXICO OIL CONSERVATION COMMISSION

By: _____

ERNEST L. PADILLA
P. O. Box 2088
Santa Fe, New Mexico 87501

Ernest Padilla



STATE OF NEW MEXICO

OIL CONSERVATION DIVISION COUNTY OF LEA

SANTA FE
IN THE DISTRICT COURT

PAUL HAMILTON,

Petitioner,

vs.

No. CV-79-312

OIL CONSERVATION COMMISSION

OF NEW MEXICO and TEXACO, INC.,

Respondents.

ENTRY OF APPEARANCE

The undersigned attorneys at law hereby enter their appearance in this cause for and on behalf of the Petitioner, Paul Hamilton, as co-counsel.

COCHRAN & JONES, LTD.

By /s/ Alvin F. Jones
Alvin F. Jones
Attorneys for Petitioner
Suite 916 Security National Bank
Building
P. O. Box 1194
Roswell, New Mexico 88201
505 622-7663

I certify that a true copy of the foregoing pleading was mailed to opposing counsel of record on September 18, 1979.

/s/ Alvin F. Jones
Alvin F. Jones

STATE OF NEW MEXICO

COUNTY OF LEA

IN THE DISTRICT COURT

PAUL HAMILTON,)	
)	
Petitioner,)	
)	
vs.)	No. CV-79-312
)	
OIL CONSERVATION COMMISSION)	
OF NEW MEXICO and TEXACO, INC.,)	
)	
Respondents.)	

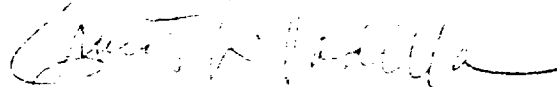
RESPONSE TO PETITION

Respondent Oil Conservation Commission for its response to the Petition on file herein states as follows:

1. This Respondent admits the allegations of Paragraphs 1 and 2 of the Petition.
2. Responding to the allegations of Paragraph 3 of the Petition, this Respondent admits that in Case No. 6222 before the Respondent Commission, Petitioner sought to show that the subject salt water disposal well had leaked extensively destroying the ground water supply of the Petitioner and endangering fresh water supplies in the area adjacent to said well, but denies the remainder of the paragraph.

WHEREFORE, having fully responded to the petition on file herein, this Respondent prays that the Petition be dismissed and for such other and further relief that the Court shall deem proper.

Respectfully submitted,



ERNEST L. PADILLA
Assistant Attorney General
P. O. Box 2088
Santa Fe, New Mexico 87501
Telephone: 827-2741

I hereby certify that on the
..... day of,
19....., a copy of the fore-
going pleading was mailed to
opposing counsel of record.
.....

COUNTY OF LEA

PAUL HAMILTON,

VS.

Respondents.

No. CV-79-312

ERNEST L. PADILLA
Assistant Attorney General for the
Oil Conservation Commission
P. O. Box 2088
Santa Fe, New Mexico 87501

STATEMENT OF THE CASE

This case is a statutory petition brought pursuant to Section 70-2-25B NMSA, 1978 Compilation, for judicial review of an action of the Oil Conservation Commission (Commission). The action in question concerns the Commission's denial of Petitioner's application for an order shutting down salt water disposal operations in the Texaco, Inc. New Mexico State "BO" SWD Well No. 3, located in the NW/4 NW/4 of Section 24, Township 11 South, Range 32 East, Moore Devonian Pool, Lea County, New Mexico. Petitioner's allegations were that the above mentioned salt water disposal well had and was leaking salt water into the Ogallala formation, a shallow fresh water aquifer, underlying Petitioner's farm.

STATEMENT OF THE PROCEEDINGS

On October 16, 1972, the Commission, by its Order No. R-4422, authorized Texaco, Inc. to utilize its New Mexico "BO" State Well No. 3 ("BO" Well No. 3) located in the NW/4 NW/4 of Section 24, Township 11 South, Range 32 East, N.M.P.M., Moore-Devonian Pool, Lea County, New Mexico, to dispose of salt water produced in connection with its oil and gas operations into the Devonian formation at a depth interval from approximately 10,600 feet to 10,780 feet.

Pursuant to Petitioner's application for an order to shut in the "BO" Well No. 3 a hearing was held before the Commission on May 31, 1978. As a result of this hearing, by Order No. R-5753, the Commission denied Petitioner's application.

Upon Petitioner's timely application, the Commission through Order No. R-5753-A granted a rehearing with the scope of the hearing limited to evidence relating to data regarding water quality and water levels obtained from an observation well completed next to the "BO" Well No. 3 and

to other new evidence unavailable at the time of original hearing on May 31, 1978.

On August 23, 1978, the Commission held a rehearing and after taking additional evidence the Commission, after agreement by the parties and coordination with the Commission staff, recessed the hearing until March 15, 1979, to enable the parties to conduct a radioactive tracer survey test on the "BO" Well No. 3. As a result of the August 23, 1978, and March 15, 1979, rehearing, the Commission, by Order No. R-5753-B, affirmed its earlier decision and in doing so made the following findings, among others:

"(6) That the evidence presented at the aforesaid May 31 hearing of this case established that there is an area in the general vicinity of the subject salt water disposal well in which there is an apparent anomalous 'nose' in the water levels in the Ogallala formation, and also an unnatural concentration of chloride in the ground waters in the basal Ogallala.

"(7) That there was no definitive evidence presented at said May 31 hearing that the subject well had leaked or was leaking injected fluids (salt water) into the Ogallala formation in the area, or that said well was or had been a contributory factor to the aforesaid 'nose' and chloride concentration in the Ogallala water, but there was evidence which indicated that the well is mechanically sound.

.

"(11) That although water levels in wells drilled to the contaminated ground water in the 'nose' described in Finding No. (6) above had declined subsequent to the May 31, 1978, hearing and prior to the August 31, 1978, hearing, such decline cannot be accepted as evidence that the subject well had previously leaked and was no longer leaking, inasmuch as said decline could very well be the result of the stabilization of the ground water gradient in the Ogallala formation due to cessation of pumping 'downstream' from said 'nose.'

.

"(15) That a wide variety of tests have been conducted on the subject well, and all tests to date show that the casing, cement, and tubing in the well are sound, and that there is no channeling of salt water from the disposal zone into the Ogallala formation.

"(16) That although the specific cause of the 'nose' in the Ogallala water table, as described in Finding No. (6) above, and the source of the choride (sic) concentration, also as described in Finding No. (6), cannot be determined, there is no reason to believe that the continued disposal of produced salt water into the subject well is having or will have any detrimental effect on the ground waters in the Ogallala formation, and the denial of the application in this case, as decreed by Order No. R-5753, should be affirmed.

"(17) That the affirmation of said Order No. R-5753 will not cause waste nor impair correlative rights, nor unreasonably endanger fresh water supplies."

. . . .

Thereafter, Petitioner filed his petition for judicial review with this Court claiming that the foregoing findings were unsupported by substantial evidence.

SCOPE OF REVIEW

The scope of review in this case is limited by the fact that this is an appeal from an administrative order issued pursuant to hearings before the Commission. The Court, therefore, may only look at the record made in the administrative hearing. Continental Oil Company vs. Oil Conservation Commission, 70 N.M. 310, 325, 326, 373 P.2d 809 (1962). It should determine if the Commission acted arbitrarily, capriciously or unreasonably by issuing an order not supported by substantial evidence. Otero vs. New Mexico State Police Board, 495 P.2d 374, 83 N.M. 594 (1972). In the absence of a determination that the Commission acted in one of the above ways, the decision of the Commission should be affirmed. Furthermore, the Court is not to weigh the evidence but its inquiry is limited to whether the Commission could reasonably make its findings based on the record before it. Grace vs. Oil Conservation Commission, 87 N.M. 205, 531 P.2d 939 (1975). Also, the Court is to give "...special weight and credence to the experience, technical competence and specialized knowledge of the Commission." Grace, supra, at 208.

There is a conflict in the technical evidence in this case, but in this proceeding, the real question is whether there is substantial evidence which supports the orders of the Commission. "Substantial evidence" is "such relevant evidence as a reasonable mind might accept as adequate to support a conclusion." Fort Sumner Municipal School Board vs. Parsons, 82 N.M. 610, 485 P.2d 366 (1971); Wickersham vs. New Mexico State Board of Education, 81 N.M. 188, 464 P.2d 918, Ct. of App. (1970). In deciding whether a finding has substantial support, the Court must review the evidence in the most favorable light to support the finding and reverse only if convinced that the evidence thus viewed together with all reasonable inferences to be drawn therefrom, cannot sustain the finding. Any evidence unfavorable to the finding will not be considered. Martinez vs. Sears Roebuck & Company, 81 N.M. 371, 467 P.2d 37, Ct. of App. (1970); United Veterans Organization vs. New Mexico Property Appraisal Department, 84 N.M. 114, 500 P.2d 199, Ct. of App. (1972).

Since this case must be decided by the Court solely on the basis of the record made before the Commission without the aid of additional evidence, a review of the evidence on each point raised by the petitioner in its Application for Rehearing is essential.

THE COMMISSION FINDINGS
ARE SUPPORTED BY SUBSTANTIAL
EVIDENCE

Three separate hearing transcripts of significance in this case were prepared at the administrative level. These three transcripts are dated May 31, 1978; August 23, 1978; and March 15, 1979, respectively. References to these transcripts will identify each by date (eg. Tr. 100; 5-31-79).

Various tests to determine whether the "BO" Well No. 3 was leaking and thereby contaminating the fresh water aquifer were made. A discussion of these tests follows:

Radioactive Tracer Survey

This test resulted from a motion filed by Petitioner prior to the August 23, 1978, hearing, asking for a Commission order directing that an experiment, consisting of placing a fluorescent dye in the "BO" Well No. 3, be conducted. The purpose of the experiment was to determine whether or not the fluorescent dye would appear in an observation well which would be completed near the salt water disposal well.

Texaco opposed the Motion on the grounds that the fluorescent dye test would be duplicative and that such testing could result in permanent contamination of ground water. However, Texaco suggested that should the Commission be inclined to require further testing, then a radioactive tracer test should be run by a competent third party qualified in such testing procedures.

The Commission rules on the motion by granting Petitioner's motion. Tr. 134-139; 8-23-78. Thereupon Texaco, of the opinion that a radioactive tracer survey would be a more reliable form of testing, agreed to underwrite the cost of a radioactive tracer survey. Tr. 141; 8-23-78. Details of

the survey were then left up to the parties to coordinate with the Oil Conservation Division's staff.. Tr. 142; 8-23-78.

A further hearing to take evidence on the results of the radioactive survey was held on March 15, 1979. In short, the results of the survey indicated that the well was not leaking thereby affirming the results of every test taken of the "BO" Well No. 3 in connection with the proceedings at the administrative level.

In view of the clear and concise testimony given at the March 15, 1979, hearing, by Texaco's witnesses, it appears unnecessary to repeat that testimony herein. See Tr. 4-8, 13-22; 3-15-79. It suffices to say that Petitioner did not present any evidence to rebut the fact that there was no trace of the radioactive material injected into the salt water reservoir and the samples taken from the observation well by either the third party running the testing procedure or by Petitioner, who himself had his own samples independently analyzed. Tr. 8, 20-21; 3-15-79.

Stevens Water Level Recorder

The testimony of Jim Wright, a field engineer for the Water Resources Division of the Natural Resources Department of the State of New Mexico, lays the foundation for a very significant point in this appeal. Tr. 103-104; 8-23-78.

The testimony of Mr. Wright, insofar as water level testing is concerned, reveals to us that the water level in the immediate vicinity of the "BO" Well No. 3 did not vary or coincide with varying salt water injection levels.

Petitioner, with the consultation of the Water Resources Division, drilled an observation well located near the "BO" Well No. 3 salt water disposal well. Tr. 105; 8-23-78.

A recording device called a Stevens Recorder was then placed by personnel of the Water Resources Division in the observation well for the purpose of determining whether or not there were changes in the fluid level in the fresh water aquifer which could be attributed to salt water injections in the disposal well.

The following verbatim testimony sums the results of this experiment:

. . . .

"Q. Have you had a recording device placed that monitors the water level in the observation well?

A. Yes, sir, we have a Stevens recorder on it with a continuing water level chart. This operates on a float mechanism and a time clock.

Q. What -- what's the purpose of installing this device on the observation well?

A. Well, the purpose of installing it is to see whetheror (sic) not we got any fluctuations in the water table flowed through the Texaco salt water disposal well.

Q. The idea being that when the well was injected there would be some change in the fluid level in the observation well, is that right?

A. The idea being that there might be.

Q. Has any such change been detected up to this point?

A. No, sir, I looked at the chart and the fluctuations in the chart are really, in my opinion, insignificant.

Q. Well, in your opinion does that indicate that there is no communication between the disposal well and the aquifer?

A. Well, I wouldn't say that it guarantees that there's no connection at all, but at least the recorder doesn't show any connection.

. . . .

On cross-examination, Mr. Wright again reiterated the results of the Stevens recorder testing at pages 120-123 of the August 23, 1978, hearing transcript. The following dialogue is found at pages 121-122 of that transcript:

. . . .

"Q. Let me hand you what's been marked for identification, Mr. Wright, as Texaco Exhibit One, and ask you, sir, if you can identify this exhibit?

A. Yes, sir, this is an Ozlaid print of a water stage recorder chart, which was taken from an observation well located in Section 24, Township 11 South, Range 32 East, and identified as hole number 20, Hamilton hole number 20.

Q. Approximately how far is that from the wellbore of the Texaco "BO" No. 3 Salt Water Disposal Well?

A. Oh, as I recall, it's something like 60, 75 feet.

Q. Does the graph on this chart, does it reflect that there has been no indicated change in the water level during the period of injection while this recorder has been on the observation well?

A. In general the changes are in the neighborhood of two hundredths of a foot and are probably due to barometric fluctuation.

Q. In effect, then, what we have is a straight line curve?

A. Essentially, except for one spot where we had a change of about, oh, four hundredths of a foot, which occurred sometime after midnight on August the 18th, 1978.

Q. How long was this recorder on the well?

A. The recorder was installed on August the 7th and the chart was pulled August the 21st, so that would be approximately two weeks.

Q. If I understood your testimony on direct, it was your conclusion that based on the results of this graph, that there can be no indication, or there is no indication, of any change in the water level during periods of injection into the salt water disposal well.

A. Well, there's no significant change. It didn't stay exactly the same, but the changes are small.

Q. If there had been any communication at all, considering the proximity of this observation well, to the wellbore of the disposal well, isn't it true, sir, that the changes would be substantial and immediately detected?

A. I would expect them to be, yes.

Q. So this -- this would indicate then no communication at least during the period that the graph was on the well.

A. That would be my interpretation at this time. A longer period might indicate something else, but I doubt it.

. . . .

Injectivity Profile Survey

This test on the "BO" Well No. 3, like the radioactive tracer survey, was conducted by an independent third party. This survey consisted of radioactive tracing of the flow of injected salt water through the 3 1/2-inch tubing string to ultimate point of disposal. Tr. 28-29; 5-31-78.

The conclusions reached as a result of this test were that there had been no fluid loss within the 3 1/2-inch tubing and no loss in fluid at any point in the wellbore until after the open hole section in the Devonian formation, the disposal zone, had been reached. Tr. 29; 5-31-78. See also Paul Hamilton Exhibit 2 introduced at the May 31, 1978, hearing which details the test results.

At pages 100-101 of the May 31, 1978, hearing transcript, on cross-examination of Mr. Wright, a witness for Petitioner, we gather additional information dealing with the integrity of the casing in the "BO" Well No. 3. The following exchange took place there:

. . . .

"Q. Have you looked at the tracer log that was made?

A. Yes, I've looked at the tracer log.

Q. And every ounce of fluid that was pumped into this well bore went into the Devonian formation, did it not?

A. Yes.

Q. And if it hadn't gone in there would be some possibility of a casing leak, is that correct?

A. That would be correct.

Q. That's why it was run and it showed that every bit of it went into the injection formation?

A. I think I stated that there is no casing leak in this well.

Q. I'm talking about channeling behind the casing. The conclusion of the service that ran this test was also that there were no indications of any channeling.

A. Yes, sir. I agree with that statement, there's no indication."

. . . .

Mr. Wright's last response above leads to another point relevant to the issue of whether or not the salt water once having been injected into the disposal interval then channeled behind the casing back up to the fresh water aquifer. In this instance again the injectivity profile survey is very helpful in that its second function showed that the injected water was not channeling back up behind the casing. Tr. 29; 5-31-78.

Regarding this channeling issue, Charles Joy, a witness for Petitioner, attempted to discredit the validity of this test (beginning at Tr. 105; 5-31-78). However, on cross-examination Mr. Joy finally admitted that he had no evidence that channeling was occurring. Tr. 118; 5-31-78. Similarly, Mr. Wright also testified of having no evidence of channeling. Tr. 95; 5-31-78.

A close scrutiny of Mr. Joy's testimony indicates that his testimony is really couched in terms of possibilities and speculation, and his testimony is of little value in aiding the Commission insofar as giving something positive which would directly relate to the test itself and the well site.

Nevertheless, a point worth noting is illustrated by a schematic of the well which is attached hereto as Exhibit 1.

This exhibit has been prepared from well records which were admitted into evidence at the hearings. The point is that, if the channeling hypothesis is correct, the injected salt water would have had to channel back up a height of two miles!

A final note on this issue relative to Mr. Joy's testimony is that he was not aware of any other situation where channeling had occurred from a depth of 10,000 or 12,000 feet. Tr. 123; 5-31-78.

The testimony of Sherman E. Galloway sums the essence of this test. If there was communication between the "BO" Well No. 3 and the Ogallala formation, Mr. Galloway expected the water table to fluctuate with injection through the disposal well. Tr. 42-43; 8-23-78. We already know, however, that there were no fluctuations.

Casing and Tubing Pressure Tests

At pages 29-31 of the May 31, 1978, hearing transcript, Mr. John V. Gannon acquainted the Commission with a series of pressure tests that were carried out on the "BO" Well No. 3. See also Exhibit 3, a memorandum dated March 28, 1978, outlining one of these tests.

The obvious purpose of this experiment was to determine whether there were any leaks in any of the casing strings or the tubing.

This test was designed to show pressure equalization between the tubing string and the 5 1/2-inch casing, between the 5 1/2-inch casing and the 8 5/8-inch casing, or between the 8 5/8-inch casing and the 13 3/8-inch casing, respectively. For example, a rise in pressure in the 5 1/2-inch casing which had a lower pressure than the tubing string would have been evidence of communication between the tubing string and the 5 1/2-inch casing. Similarly, a tendency toward

equalization in the pressures between the 5 1/2-inch casing which had a higher pressure than the 8 5/8-inch casing would have indicated a leak between those two casing strings.

Simply summarized, under no circumstances did the pressure equalize between any of the sets of casing strings. Moreover, Mr. Gannon testified that between 1974 and 1976 Texaco had replaced several joints of tubing string whenever the tubing annulus went on a vacuum or depressurized. Tr. 10-14; 5-31-78. In other words in those instances where something extraordinary was discovered in the 3 1/2-inch tubing or injection string, the problem was investigated and corrected, followed by testing for further leakage.

At this juncture we move from specific testing to a water level study which consumed considerable attention at the May 31 and August 23, 1978, hearings. It seems that Petitioner's witnesses attributed a bulging or mounding in the water table in the immediate vicinity of the "BO" Well No. 3 to leakage from the disposal well. See Tr. 61, 65; 5-31-78 and Tr. 10, 26, 58, 8-23-78.

A careful analysis of Petitioner's theories points to an illogical set of facts.

First, Mr. Galloway's studies of the water table show that the water table has declined in the vicinity of the disposal well. Tr. 23; 8-23-78.

Secondly, Mr. Galloway appears to rely heavily on a theoretical assumption that the disposal well would have had to leak about 100 gallons per minute or about one-third of the total injected volume (Tr. 11, 15, 60; 8-23-78) to raise the water level in the Ogallala high enough to push the water across topographical difficulties imposed by a geologic structure or ridge called the Red Bed high. Tr. 15; 8-23-78.

Thereafter the salt water would migrate southeasterly to Petitioner's water wells.

Third, Mr. Galloway attributed the decline in water levels to a stoppage or reduction in leakage, but is unable to explain how such a large leak could have cured itself. Tr. 58-61; 8-23-78. Further, he has problems sustaining his water level decline theory in the absence of pumping in the vicinity of the disposal well. Tr. 86; 8-23-78.

Finally, Mr. Galloway, in explaining Exhibit 5, prepared by him for the August 23, 1978, hearing, admits that under normal circumstances, water from outside a cone of depression would flow into the cone to equalize the water level. Tr. 101-103; 8-23-78. While Mr. Galloway would not attribute the decline in water level in the vicinity of the "BO" Well No. 3 to an equalization with the increase in water level caused by Petitioner's cessation of pumping from his water wells southeast of the "BO" Well No. 3, it is submitted that such an occurrence would not be an unreasonable assumption.

In the final analysis, it seems inconceivable, considering the magnitude of the assumed leak, that a better explanation for the decline in the water level in the vicinity of the disposal well cannot be given.

CONCLUSION

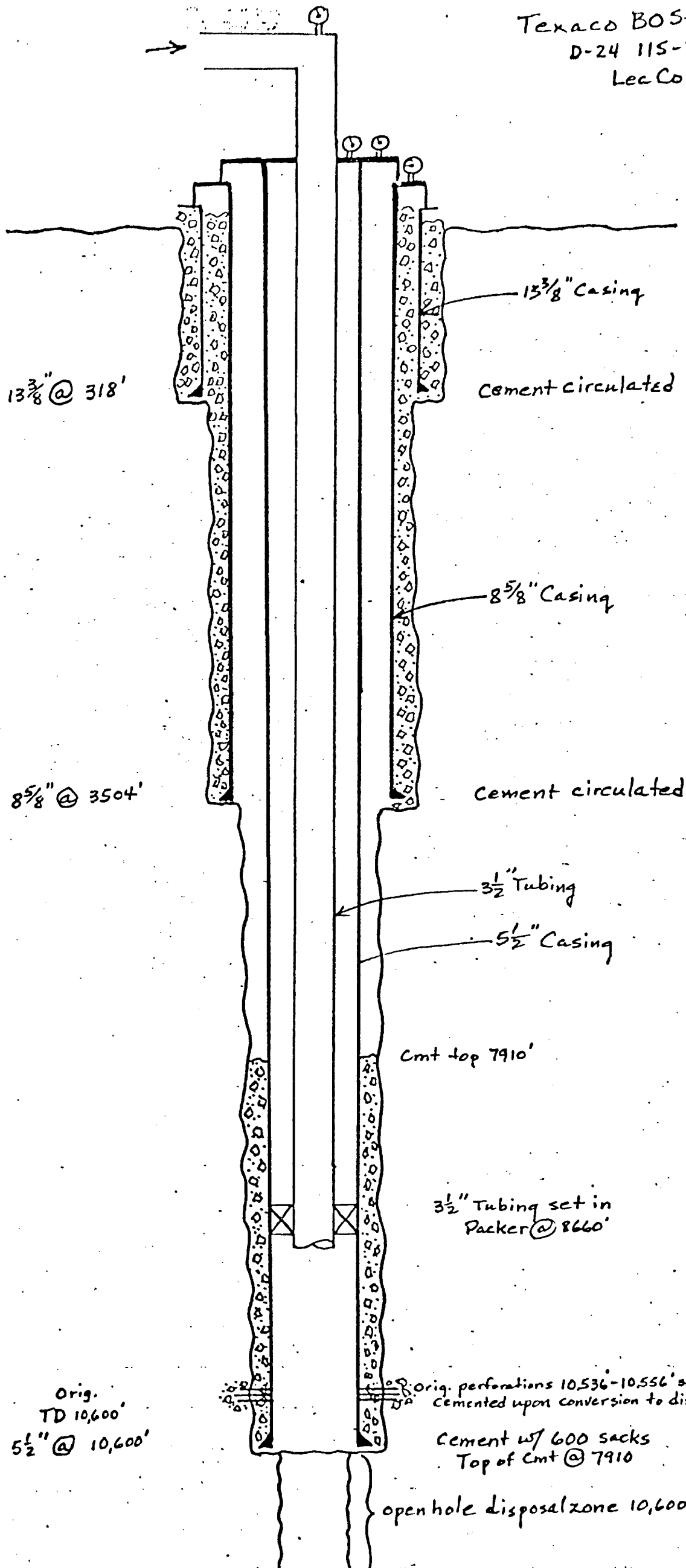
In summary, the results of all tests administered on the "BO" Well No. 3 were negative. Essentially, there was absolutely no concrete evidence which would prove that there was communication between the disposal well and the fresh water aquifer.

As a consequence, in reaching its decision not to shut in the disposal well, the Commission based its decision on substantial evidence. Therefore its decision should be affirmed.

Respectfully submitted,

ERNEST L. PADILLA
Assistant Attorney General for the
Oil Conservation Commission
P. O. Box 2088
Santa Fe, New Mexico 87501

Texasco BOSTate #3
D-24 115-32E
Lec Co.



13 3/8" @ 318'

13 3/8" Casing

Cement circulated

8 5/8" Casing

8 5/8" @ 3504'

Cement circulated

3 1/2" Tubing

5 1/2" Casing

Cmt top 7910'

3 1/2" Tubing set in
Packer @ 8660'

Orig.
TD 10,600'
5 1/2" @ 10,600'

Orig. perforations 10,536-10,556' squeeze-
Cemented upon conversion to disposal

Cement w/ 600 sacks
Top of Cmt @ 7910'

open hole disposal zone 10,600'-10,767'

IN THE DISTRICT COURT OF LEA COUNTY
STATE OF NEW MEXICO

PAUL HAMILTON,

Plaintiff

No. CV-79-312

OIL CONSERVATION COMMISSION,

Defendant

NOTICE OF SETTING

To Alvin F. Jones, P. O. Box 776, Roswell, New Mexico 88201

Attorney(s) for Plaintiff


To Ernest L. Padilla, P. O. Box 5674, Santa Fe, New Mexico 87501

Attorney(s) for Defendant


You are hereby notified that the above styled and numbered cause has been set for hearing at
9:00 o'clock a.m., on the 12th day of February 19 80

at the Court House in Lovington, County of Lea, New Mexico before the Honorable

N. Randolph Reese.


Secretary

By: _____
Deputy



District Judge

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

I, Secretary of the District Court of the Fifth Judicial District of the State of New Mexico, within and for the County of Lea, do hereby certify that the above and foregoing instrument is an exact copy of the NOTICE OF SETTING which was on the 14th day of November, 19 79, mailed to the party therein named, to the address given, with sufficient postage thereon to carry same to the destination stated above; and that said letter was deposited in the United States Post Office at Hobbs, New Mexico.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the seal of said Court, at Hobbs, New Mexico, on this the 14th day of November, A.D., 19 79

(SEAL)


Secretary

By: _____
Deputy

DISTRICT COURT OF THE FIFTH JUDICIAL
DISTRICT FOR THE COUNTY OF LEA

TO: PADILLA ERNEST L.
P. O. BOX 3674
SANTA FE NM 87501

CASE STATUS REPORT

RETURN DATE: OCTOBER 15, 1979

CASES TO BE TRIED FROM: DECEMBER 1, 1979 TO: FEBRUARY 29, 1980

STYLE OF CASE	JUDGMENT ENTERED	READY FOR TRIAL	TRIAL TIME	NOT READY FOR TRIAL			DATES NOT AVAILABLE	OTHER COMMENTS
				ADDITIONAL DISCOVERY	DAYS TILL READY	NAME OF TRIAL ATTORNEY		
CV7900312 HAMILTON, PAUL VS. OIL CONSERVATION COMM.								

This case involves an appeal to the District Court from an order of the Oil Conservation Commission, and as such no additional testimony or evidence should be taken other than the record developed at the administrative level. Oral arguments by counsel probably should not exceed two hours.

Trif Attorney: ERNEST L. PADILLA

Dates Not Available: Dec. 3-6, 1979