



BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION

Santa Fe, New Mexico

February 19, 1969

REGULAR HEARING

)
 IN THE MATTER OF:)
)
 Application of Texaco,)
 Inc., for an exception to)
 Order No. R-3221, as)
 amended, Eddy County, New)
 Mexico.)
)

Case No. 4050

BEFORE: A. L. Porter, Jr., Secretary, Director
Alex J. Armijo, Land Commissioner
George Hatch, Counsel

TRANSCRIPT OF HEARING

MR. PORTER: Case 4050.

MR. HATCH: Case 4050, Application of Texaco, Inc., for an exception to Order No. R-3221, as amended, Eddy County, New Mexico.

MR. WHITE: May the record show the same appearances, and the same witness, and that he has duly been sworn?

MR. PORTER: Let the records so show.

(Witness sworn.)

(Whereupon, Applicant's Exhibits Numbers 1 through 7, inclusive, were marked for identification.)

CARL L. WHIGHAM

called as a witness on behalf of the Applicant, having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. WHITE:

Q Mr. Whigham, this is a similar application for an exception to R-3221 for Texaco's T. W. Heflin Federal Well No. 1, is it not?

A Yes, sir.

Q Will you refer to Exhibit Number 1, and explain the plat?

A Exhibit 1 is a map of the Cotton Draw Unit area. The hatched line encompasses a broad area, in excess of 50 or 60

square miles, which is known as the Cotton Draw Exploration Unit. All of the oil pools and gas pools that produce in this vicinity are marked, and Texaco's T. W. Heflin lease is located in the pool shown and designated as the Cotton Draw Brushy Canyon Pool. This is located in Section 24, Township 24 South, Range 31 East.

Again, in this map as in the previous case, we have designated the water wells in this vicinity numerically in red circles. The nearest well is shown on this map to be located about three miles southwest from the Cotton Draw Brushy Canyon Oil Pool.

The No. 2 well is located about six miles northeast of the Cotton Draw Brushy Canyon Pool.

The No. 3 well is about a mile south of the No. 2 well.

Then the No. 4 well is located three miles southwest from the Cotton Draw Brushy Canyon Oil Pool. This particular pool is a one-well pool, producing from Texaco's Heflin lease well No. 1.

Q How much water does this one well produce?

A This well is producing approximately two barrels of water daily.

Q So what we are asking for is an exception for seven barrels?

A Two barrels daily, or one barrel in excess of what is

already permitted by the Commission.

Q How much oil does this well produce?

A Oil production is less than 2 and a half barrels a day.

Q In your opinion, has that well reached its economic limit?

A It is at its economic limit. It makes a very small profit on an annual basis, if no work is required on the well.

Q And production is declining both in oil and water?

A Yes, sir.

Q What is the approximate amount of water that has been disposed of in this pit up to date?

A Since the well was completed in 1959, approximately 22,000 barrels of water have been disposed of in that pit.

Q What additional amount of water in the future do you figure it will produce?

A At two barrels a day for another year would be less than a thousand barrels of water.

Q When do you anticipate the life of this well to expire?

A Based upon the production performances and curves, it could be estimated that the well would require abandonment in approximately one year.

Q Will you refer to Exhibit Number 2, and explain the well performance?

A Yes, this exhibit is a plat of the gas-oil ratio, the oil production, and the water production since the well was completed in 1959. The gas-oil ratios are averaging about 1,500 cubic feet per day. The oil production has declined to approximately two to two and a half barrels of oil per day. And the water production is down to approximately two barrels of water daily.

Q Would you explain Exhibit 3?

A Exhibit 3 is a listing of the water wells that were mentioned in conjunction with our explanation of Exhibit Number 1.

Number 1 well is located about three miles southwest of the subject lease, and producing from the Triassic at a depth of about 420 feet.

Well No. 2 is located in Section 3, approximately six miles northeast of the subject lease, and also produces from the Triassic at a total depth of 500 feet.

Immediately south of well No. 2 is well No. 3, listed here as being in Section 3, and it produces from the Quaternary alluvium at a depth of about 60 feet.

And then the well designated as No. 4 is located in Section 33, about three miles southeast from the subject lease, and produces from the Triassic at a depth of about 367 feet.

Then No. 5 designates the numerous water wells that have been drilled in Section 2, completed in the Triassic and also in the Rustler. There are five wells here. This group of water wells supplies the makeup water for the water flooding operation conducted down in the Paduca-Delaware Pool, located in the southern portion of the Cotton Draw Unit.

Q Refer to Exhibits 4, 5, and 6, and explain those, please?

A Exhibits 4, 5, and 6 are the water analyses for the wells designated 1 through 5 just discussed. The analyses shows that most of this water is of good quality. Well No. 1 has--

Q I don't believe their exhibits show the well numbers.

A Exhibit Number 4 contains three analyses. The one to the extreme right designated by a windmill is the one that applies to well No. 1, and shows that the water is brackish with chlorides in the amount of 1,400 parts per million.

Exhibit Number 5 contains three analyses, and reading from left to right, they would be numbered 2, 3, and 5.

And then Exhibit Number 6 is the water analysis for well No. 4. Well No. 4 is shown to exhibit a chloride content of 14,000 parts per million. Water is hauled into this area to give to the stock.

Q Now, will you explain the oil gas water production as

shown on Exhibit 7?

A This exhibit shows the pertinent information concerning all of the fields in this immediate vicinity. The Paduca-Delaware Pool produces practically all of the brine water, or the produced salt water in this area. It produces 300 barrels per day. However, all of this is reinjected into the water flood area there in the Paduca-Delaware Unit. The only other pool producing significant quantities of water is the Double X Delaware, where Tenneco and Continental hold most of the leases up there. That field produces 110 barrels of water daily. All of the other pools produce less than 25 barrels of water daily and, of course, the first one listed here is Texaco's one-well pool, the Cotton Brushy Canyon, producing only two barrels of water daily.

Now, it might be appropriate at this time to mention that the Paduca-Delaware East produces 13 barrels of water a day. This is a one-well pool located in Section 14, Township 25 South, Range 32 East. And on a recent date, O'Neill, the operator of this well, made application and received approval for an exception to the no pit order for the Paduca-Delaware East.

Q Since the preparation of this exhibit, did you ascertain the chloride content in this lease 13 in this Paduca-Delaware East?

A Yes, sir. The chloride content of the produced water there, I believe, is in excess of 150,000 parts per million.

Q Will this pit provide adequate storage space and evaporative surface?

A Yes, sir, it surely will.

Q In your opinion, will the granting of this application prevent waste and prolong the economic life of this well?

A It will provide for the continued operation of this well.

Q Does that complete your testimony?

A Yes, sir.

Q Were these exhibits prepared by you or under your direction?

A Yes, they were.

MR. WHITE: At this time, we offer the exhibits.

MR. PORTER: The exhibits will be admitted into the record.

(Whereupon, Applicant's Exhibits Numbers 1 through 7, inclusive, were admitted in evidence.)

MR. WHITE: That concludes our testimony.

MR. PORTER: Any questions?

CROSS EXAMINATION

BY MR. NUTTER:

Q Simply to recap your testimony, Mr. Whigham, your big map is Exhibit Number 1?

A Yes, sir.

Q Now, in Exhibit Number 1, you show all the water wells that exist in this area?

A Yes, sir.

Q How many of those water wells could be classified as shallow Quaternary water wells?

A Only No. 3.

Q What is the distance of that well No. 3 to your disposal pit?

A About three and a half miles northeast.

MR. NUTTER: Thank you.

MR. PORTER: Does anyone else have any questions?
The Commission will take the case under advisement.

MR. HATCH: I notice that on the docket the location of this well was incorrectly shown as located in Township 23 South. If the legal advertisement is correct, it should read 24 South.

MR. PORTER: Will it be necessary to readvertise?

MR. HATCH: No.

MR. PORTER: The Commission will take the case under advisement.

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

I, SAMUEL MORTELETTE, 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.


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