BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

IN THE MATTER OF:

CASE 1784

TRANSCRIPT OF HEARING

OCTOBER 7, 1959

NEW MEXICO OIL CONSERVATION COMMISSION

Examiner Hearing (Elvis A. Utz)

Santa Fe, NEW MEXICO

REGISTER

HEARING DATE October 7, 1959 TIME: 9 a.m.

NAME:	REPRESENTING:	LOCATION:
Ewell N. Walsh	EPNG Products Co	Farmington
James C. Vandiver	" " "	"
P.T. McGrath	U.S.G.S.	"
Bruce Vernor	Atlantic Refining Co.	Casper
[illegible]	Olsen Oils, Inc	Hobbs N.M.
John Chambers	Skelly Oil Co	Farmington, N.M.
Harold E. Aab	Skelly Oil Co.	Farmington, N.M.
L.C. White	Gilbert White & Gilbert	Santa Fe, N.M.
Thomas F. McKenna	McKenna Whitehall & Sommer	Santa Fe N.M.
Wm Federici	Tennessee Gas Trans Co	Santa Fe, N.M.
[illegible] Tracey	Tennessee Gas Trans	Durango, Colo
Dewey Watson	Olsen Oils Inc	Jal, New Mex
Chas C. Spann	[illegible]	[illegible], N.M.

BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO
OCTOBER 7, 1959

IN THE MATTER OF:

CASE 1784 Application of Tennessee Gas Transmission Company for an oil-gas dual completion. Applicant in the above-styled cause, seeks an order authorizing the dual completion of its Glen Callow Well No. 8, located 890 feet from the South line and 1850 feet from the East line of Section 27, Township 29 North, Range 13 West, San Juan County, New Mexico, in such a manner as to permit the production of oil from an undesignated Gallup oil pool and the production of gas from an undesignated Dakota gas pool through parallel strings of tubing.

BEFORE: Elvis A. Utz, Examiner.

TRANSCRIPT OF PROCEEDINGS

MR. UTZ: Case 1784.

MR. PAYNE: Case 1784. Application of Tennessee Gas Transmission Company for an oil-gas dual completion.

MR. FEDERICI: If the Commission please, Bill Federici of Seth, Montgomery, Federici & Andrews, appearing for Tennessee Gas Transmission Company. I have one witness, Mr. John J. Lacey L-a-c-e-y. I would like to have him sworn, please.

(Witness sworn)

MR. UTZ: Are there any other appearances to be made in this case?

JOHN J. LACEY,

called as a witness, having been first duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. FEDERICI:

Q Would you state your name, please?

A John J. Lacey.

Q And what is your position with Tennessee Gas Transmission Company?

A I'm District Engineer in their office in Durango, Colorado.

Q Have you testified before this Commission?

A No.

Q Will you state some of your educational background?

A I graduated as an engineer from the University of Oklahoma in 1950, and have seven years' experience in West Texas, North Texas and San Juan Basin New Mexico.

Q How long have you been with Tennessee Gas Transmission Company?

A Approximately two years.

Q In what capacity?

A As an engineer -- petroleum engineer.

Q Are you familiar with the application filed here, No. 1784?

A Yes.

Q Would you state briefly what the purpose of it is?

A We are requesting approval of an oil-gas dual completion. We want to eliminate unnecessarily a second well.

(Thereupon, Applicant's Exhibit No. 1 was marked for identification.)

Q I hand you what has been marked Applicant's Exhibit No. 1, and ask you to state what that is?

A This is a plat showing the location of the well and the name and address of offset operators to Tennessee Gas' lease.

Q Would you give the location of the well, please?

A The well is located 890 feet from the South line and 1850 feet from the East line of Section 27, Township 29 North, Range 13 West, San Juan County, New Mexico.

Q Was that Exhibit prepared by you or under your direction?

A Yes, under my direction.

(Thereupon, Applicant's Exhibit No. 2 was marked for identification.)

Q I hand you what has been marked Applicant's Exhibit No. 2, and ask you to state what that is?

A Exhibit 2 is a diagramatic sketch showing the mechanics of the dual completion installation. We've used -- there is a permanent type production packer separating the two zones, and production from both zones will be from tubing. Two parallel tubing strings have been set in the well.

Q Will you explain that a little more in detail, please, as to depth, zones and the type of packer?

A The Exhibit shows the lower zone is the Dakota formation a gas condensate zone, the top at 5761, and the bottom of 5984; permanent type production packer set at 5340, and the upper Gallup oil zone top at 4867, and the bottom of 5253. We've used two parallel tubing strings and have protected the upper producing zone through the cement collar set at 1463.

Q What is the size of the pipe?

A It is 7 inch casing, 23 pounds, set at 5960, and cemented in two stages with 200 sacks of cement.

Q Does that packer have a standard name?

A That's a Baker Model "D" production packer.

Q Was that Exhibit prepared by you or under your direction and supervision?

A Yes, it was.

(Thereupon, Applicant's Exhibit No. 3 was marked for identification.)

Q I hand you what has been marked Applicant's Exhibit No. 3, and ask you to state what that is?

A Exhibit 3 is an electric log showing the two zones from which we propose to produce, and showing that there are separate reservoirs on the electric logs.

Q Are those electric logs under your supervision and control?

A No. You mean -- I didn't run them, no. Why, yes.

Q Kept in your office?

A Yes.

Q You are acquainted with them?

A Yes.

(Thereupon, Applicant's Exhibit No. 4 was marked for identification.)

Q I hand you what is shown as Applicant's Exhibit No. 4, and ask you to state what that is?

A Exhibit 4 is a letter written by Tennessee Gas & Oil Company to the offset operators telling them of our intention to submit an application for dual completion.

Q Have you filed copies of that Exhibit with the Commission?

A Yes.

Q Have productivity tests been made of this well?

A Yes, they have.

Q And how, the manner in which --

A The well was -- both zones have been tested for short periods of time.

Q The number of barrels flowed, have you --

A The Gallup formation was flowed four hours, and we recovered approximately eighty-four barrels of oil. The Dakota formation was flowed for three hours at a rate of three million cubic feet of gas per day on a 20/64 inch choke.

Q Was any drill stem test made?

A No.

Q You mentioned this letter to offset acreage. Will this proposed dual completion permit you to contract adjacent production on adjacent lands and protect correlative rights in the area?

A Yes.

Q Have the tests which you have made on the well indicated -- indicate that the well is capable of production of oil or gas in more than one zone?

A Yes, they have.

Q In your opinion, do you feel there is a possibility of communication or migration of the fluids between the Dakota and the Gallup formations?

A No, I do not.

Q Are all of the fresh water and other producing horizons protected?

A Yes.

Q In your opinion, is the proposed dual completion installation in accordance with good engineering practices and principals?

A Yes.

Q Is this a standard type dual completion used in the area in question?

A Yes, it is a standard type completion for the San Juan

Basin, dual completion.

Q Is this dual completion technique requested in the application recognized and accepted, in general, by the oil industry and other State regulatory agencies?

A Yes, it is.

Q Is this sweet or sour crude?

A This is sweet crude and sweet gas, both zones are sweet.

Q Does the method for dual completion which you have outlined possess any more possibilities for leakage or migration of the reservoir than any other accepted practice?

A No, it does not.

Q Under the proposed method of dual completion, is it possible to make bottom hole pressures on separate zones?

A Yes, it is.

Q Regarding the economics of the application, will you state what would be saved by this dual completion?

A By producing both zones, it will save us the cost of an additional well and approximately fifty to sixty thousand dollars.

Q If the Commission approves this application, would the proposed dual oil-gas completion conserve oil and gas, --

A Yes, it would.

Q -- in your opinion?

A Yes, it would.

Q Would it prevent waste?

A Yes, it would.

Q Would it protect correlative rights?

A Yes.

MR. FEDERICI: Mr. Examiner, we offer in evidence Applicant's Exhibits 1 through 4.

MR. UTZ: Without objection, they will be accepted.

MR. FEDERICI: I believe that's all for this witness.

CROSS EXAMINATION

BY MR. UTZ:

Q Mr. Lacey, do you have any fluid gravity of the Gallup and Dakota for this area?

A Yes. The Gallup is approximately forty degrees API, sixty degrees Fahrenheit, and the Dakota condensate is approximately 55.

Q Do you have any bottom hole pressures?

A Yes, sir, we've taken bottom hole pressures on both zones. The Dakota is approximately 2600 PSIA, and the Gallup is approximately 1600.

Q And bottom hole temperatures?

A No, sir, we don't. We have not taken a bottom hole temperature.

Q Do you have any idea --

A Approximately 160 degrees Fahrenheit.

Q Both zones --

A That would be the Dakota. The Gallup would be approximately 130.

Q In reference to your Exhibit 2, I note here that your 9 5/8 was cemented with 75 sacks. Was that circulated?

A Yes, it was.

Q Well, your Exhibit 2 doesn't show your squeeze job, does it, but one of your other sketches does? The 7 inch production string which you say was cemented in two stages with 218 sacks. Now, how far does this cement reach?

A The top of the cement on the upper stage is approximately 1150.

Q 1150?

A Yes. Protects the shallow producing zone in the area.

Q That cement reaches from 5914 to --

A No, sir. We have no way of knowing the top of the cement below the stage collar. We did not run a temperature survey, and we can only calculate a theoretical fill, but it should be at least two hundred feet above the Gallup, the top of the cement on the lower -- on the lower stage.

Q And you don't know for sure whether this is cemented behind the 7 inch or not in this area?

A Yes, sir, we are reasonably sure that it is. When casing is cemented with a stage collar, in order to run a temperature survey below the stage collar would require a shutdown period of six to eight hours, and the cement is a continuous job,

and once the stage collar has been operated and closed, you can't run a temperature tool below it.

Q It was cemented in continuous stages?

A Well, it is a continuous operation in two stages. One follows immediately after the other.

Q I wonder if you would go into a little more detail, for the record, in regard to the Baker tubing receptacle that you have set at 5256.

A The Baker tubing receptacle is a device that permits you to part the tubing deliberately and then put it back, and it has a seal assembly in it which makes it tight or leak proof, so to speak. The reason that device was used in the completion of this well, the Dakota formation has an extremely high pressure, and after perforating and stimulating the Dakota, we set the Baker Model "D", run the tubing into the Baker Model "D" and then release it, pull the tubing out, leaving the tubing in the packer down, and that way it permits us to work on the Gallup without having to control the high pressures in the Dakota formation.

Q How is the Dakota shut off in the packer when you pull the tubing?

A Well, the tubing is actually parted. You actually -- the tubing actually comes out of this device, and the seals in this device are seal nipples and a seal is made in the same manner that the tubing is sealed in the production packer so that it -- when the tubing is inserted into this receptacle it is an

airtight single continuous string with no communication.

Q When you pull the long string, you pull the tubing out of the tubing receptacle?

A That's right. Actually, it is a device that you pull the tubing out from.

Q Is there an automatic shutoff or flapper valve that shuts the Dakota from the --

A This is an Otis circulating sleeve. This would be closed, and then you would pull the tubing out, and the Dakota would be confined outside of the tubing.

Q What is the length of your seal in the tubing receptacle?

A Oh, approximately two feet, two and a half feet, approximately. The same length as the sealing device in the packer.

Q What type packing --

A Chevron.

Q Neoprene?

A I think it is a Chevron type packing inside of a smooth polished inside diameter. Like I say, the sealing device in a Baker tubing receptacle is almost identical, and for practical purposes, is the same as the sealing device in the Baker Model "D."

MR. UTZ: Are there any other questions of the witness?

QUESTIONS BY MR. PAYNE:

Q Mr. Lacey, are these still undesignated pools?

A Yes, they are.

Q And you propose to use a Baker Model "D" permanent production packer?

A Yes, we do.

MR. PAYNE: Thank you.

MR. UTZ: Any other questions? If not, the witness may be excused.

(Witness excused)

MR. UTZ: Any statements to be made in this case? If there are none, the case will be taken under advisement.

We will take a fifteen-minute recess, and if the attorney does not show at that time, we will take Cases 1778 and 1779.

STATE OF NEW MEXICO)
) ss
COUNTY OF BERNALILLO)

I, J. A. Trujillo, Notary Public in and for the County of Bernalillo, State of New Mexico, do hereby certify that the foregoing and attached Transcript of Proceedings before the New Mexico Oil Conservation Commission was reported by me in Stenotype and reduced to typewritten transcript by me, and that the same is a true and correct record to the best of my knowledge, skill and ability.

WITNESS my Hand and Seal this, the 27th day of October, 1959, in the City of Albuquerque, County of Bernalillo, State of New Mexico.

Joseph A. Trujillo
NOTARY PUBLIC

My Commission Expires:

October 5, 1960

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 1784, heard by me on Oct. 7, 1959.

Elvis A. Utz, Examiner
New Mexico Oil Conservation Commission