STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
STATE LAND OFFICE BLDG.
SANTA FE, NEW MEXICO

11 July 1984

EXAMINER HEARING

IN THE MATTER OF

Application of Doyle Hartman for hardship gas well classification, Lea County, New Mexico. CASE 8229

BEFORE: Richard L. Stamets, Examiner

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Oil Conservation Division:

For the Applicant: William F. Carr
Attorney at Law
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I N D E X

E X H I B I T S

REPORTER'S NOTE: El Paso Natural Gas Statement included with original transcript.

MR. STAMETS: We'll call now Case 8229, application of Doyle Hartman for hardship gas well classification, Lea County, New Mexico.

MR. CARR: May it please the Examiner, my name is William F. Carr with the law firm Campbell and Black, P. A., of Santa Fe, appearing on behalf of Doyle Hartman.

I have one witness in this case, William P. Aycock, and would request that the record show that Mr. Aycock has previously been sworn, remains under oath, and is qualified to testify in this matter.

MR. STAMETS: The record will so show.

WILLIAM P. AYCOCK,

being previously called and sworn upon his oath, testified as follows, to-wit:

DIRECT EXAMINATION

BY MR. CARR:

Q Mr. Aycock, will you briefly state what Mr. Hartman seeks with this application?

A Mr. Hartman has applied for a hardship gas well classification for his Bates BB&S Well No. 1, located in Unit E, Section 29, Township 25 South, Range 37 East, in the Jalmat Gas Pool, as a hardship gas well.

Mr. Hartman has applied for a status of priority access to pipeline takes in order to avoid waste.

Q When did Mr. Hartman file the application for hardship classification?

A May the 8th, 1984.

Q Were copies of this application filed with both the Santa Fe and the District Office of the Oil Conservation Division?

A Application was directed by letter to the District I Office in Hobbs and a copy was sent to the Santa Fe Office.

There are -- these copies were sent certified and they're -- attached to the letter are copies of the certification slips showing that they were both delivered.

Q Was an emergency hardship classification sought for the well?

A Yes, it was.

Q And when was that emergency classification granted?

A May 17th, 1984 by letter from Mr. Sexton, the District I Supervisor.

Q Were copies of the application provided to all offsettig operators?

A Yes, sir, and to the purchaser as well.

Q And were these submitted by certified mail?

A Yes, sir, they were.

Q And are copies of receipts for those letters included in this exhibit?

A They're attached hereto, yes.

Q Would you now refer to the application itself in Exhibit Number One and state the minimum flow rate, or minimum sustainable producing rate which is being sought for this well by Mr. Hartman?

A 132 Mcf per day.

Q Now would you refer to the plat which follows the application and review that and the accompanying table for Mr. Stamets?

A As was our previous practice, we've included both a plat and a documentation table as to the lease, the Hartman lease, with the Hartman application well and the surrounding leases.

The Hartman, the application well, the Hartman Bates BB&S No. 1 is located in Unit E of Section 19, 25 South, 37 East, produced an average during 1983 of 287 Mcf per day and has produced an average to date in '84 of 175 Mcf per day.

The Hartman Winningham lease is located immediately to the west and Mr. Stamets is well aware of the situation there where we have modest to no rates from the pre-existing wells and the No. 8 Well is located in the northeast quarter of the southeast quarter of 19 and has been granted an allowable that is limited to 160 acres, and

that is owned by Mr. Hartman and there is no problem with correlative rights in that direction.

The only wells that are producing that you'll notice in the entire area are the Hartman Winningham 8 in Unit O of 19, 25, 37; the Hartman Bates No. 1, which was the Pre-existing well where this infill well was drilled. It produces 34 Mcf per day; and the Lewis B. Burleson Gutman No. 1, located in Unit I of 29, 25 South, 37 East.

None of the other proration units have any Jalmat gas production that would be -- from which their correlative rights could be injured by granting this application.

Q Mr. Aycock, this is a Jalmat well.

A Correct.

Q And that's a prorated pool.

A Correct.

Q And what's the status of the well at this time?

A The status of the well, it is producing.

Q Is it a marginal or nonmarginal well?

A It is a nonmarginal well.

Q Is it overproduced or underproduced?

A Just a minute, let me find our -- our certificate of --

MR. STAMETS: Bill, in this copy there's a --

Q Okay, well, I don't have the one in mine.

That's what we're looking for.

MR. STAMETS: I believe it indicates that the end of March it was overproduced by 12-million --

A Okay.

MR. STAMETS: -- 200,000.

A Okay, that's what I was looking for.

MR. STAMETS: Okay.

A I don't have one of those in this file.

Q Now, Mr. Aycock, do you find the overall plat of the area? There is a smaller plat. Could you identify this for Mr. Stamets and review it, please?

A This is a plat that shows where the well is located within the City of Jal and the important point here is that it's in close proximity to residentially developed areas, so it's -- flaring the well or anything that's unusual causes problems, complaints from the neighbors, and safety hazards, and we prefer to be as routine with operation of the wells as possible. We don't want to have to have pulling units or anything in there at any greater frequency than is absolutely necessary, for that reason alone.

Q Mr. Aycock, what acreage is dedicated to the well?

A There's 120 acres dedicated to the well.

Q And this would be 3/4 of the standard acreage required --

A Correct.

Q -- for proration purposes.

A Correct.

Q Now you stated that you're seeking a minimum sustaining producing rate of 132 Mcf per day.

A That's correct.

Q And how was this rate obtained?

A Over here is a tabulation. It was determined through a study of the performance of the well.

The well produces between 108 and 120 barrels of water per day and it has a 114-D pumping unit installed on it where the water is produced up the tubing and the gas is produced up the casing, and you can't, once again, if you shut the well completely in you can't efficiently and effectively pump the water off. The water will collect. So you have to produce it.

Q And when that water collects can it affect the permeability?

A It can affect -- temporarily or permanently it will affect the permeability. The question is is it a permanent effect or is it a temporary effect.

Q In your opinion will underground waste occur if production from the well is curtailed below this recommended limit?

A If lengthy shut-ins are caused by proration that necessitate this well being shut-in for extended periods, the probability is that the underground waste will occur through at least diminution of the ability to produce

and ultimate loss and recovery of reserves, if not shortening drastically the life of the well.

Q What attempts have been made to eliminate this problem without first coming for a hardship classification?

A You're all in the Upper Yates formation here, that's where this well is completed, and you can't, once again because of the proximity of the zones, even if the water can be -- could be determined, it would be mechanically most difficult to determine which part of the Yates zone the water was producing from because of the close proximity of the perforations.

The well would have to be killed and the tubing would have to be -- and rods would have to be withdrawn. It would have to remain killed for a minimum of several days to several weeks depending upon how much success you had with the attempt to isolate the zones.

When you did isolate the zones, then you would -- then you would be forced to attempt to selectively squeeze cement them, and once again, since the well has been fractured with 78,000 gallons and 132,000 pounds of sand in order to produce efficiently, the likelihood is you would permanently cement off all or a substantial portion of the Yates producing zone when you squeezed off the water, and if you went back and tried to do it over again the probability is you'd be right back where you started.

So it is a procedure that has a very low

probability of success.

Q Mr. Aycock, does this exhibit also contain a production history for the well?

A Yes, it does.

Q Now the well is currently producing water. What's being done with the water?

A The water is being hauled away to be properly disposed of, since it's within the City of Jal there's no way you can have immediate on-lease disposal.

Q And what costs are currently being incurred in the removal of this water?

A In -- for the first five months of 1984 they averaged $3819 per month. Water production began early in the life of the thing. It began in 1980 when -substantially when initial gas production, and the water disposal costs averaged $2,201 per month in 1980 for a total of $22,562.59 in 1980.

In 1981 they averaged $2,556 per month for a total of $30,682.22.

In 1982 they averaged $2,927 per month for a total of $35,123.45.

In 1983 the monthly water disposal costs averaged $3,519 for a total of $42,233.80.

And in 1984 for the months of January through May they averaged $3,819 for a total of $19,096.75.

All of which is substantiated by invoices which are attached hereto.

Q Will you now go to the gas/water ratio and the graph depicting this production and review that for Mr. Stamets?

A We have a graph that shows the performance of the well wherein it shows once again that the -- this graph is a plot of the semilog of water/gas ratio, monthly gas prouction, monthly water production, and average pumping pressure, as functions of time from initial production through March of 1984.

The consequential things that I would call Mr. Stamets' attention to are the following:

The water production is increasing slightly. The gas production has been variable but has -- would -- since proration really started in May of '82, there was no indication of it for this well but in July of '82 there is a proration induced decline in gas production that has been very severe in the first quarter of 1984. As you'll notice the production has been way off.

Since the water production is invariant and the gas production varies, then the water/gas ratio was fairly constant through the middle of 1982 and increased at a modest rate during the remainder of 1982 and '83 and increased at a very rapid rate because of the low gas production in the first quarter of 1984.

Q Now behind the graph is a table which contains the raw data from which you --

A This is Mr. Hartman's computerized pro-

duction printout which includes all of the data plus additional data -- all of the data which is included on this graph, plus additional as backup.

Q Mr. Aycock, would you now review the wellbore sketch on the subject well?

A The wellbore sketch shows that there's 8-5/8ths inch surface casing set at 420 feet cemented with 225 sacks.

It shows that there are 12 perforations between depths of 2692 feet and 2762 feet.

There's a 2-inch insert pump inside of 2-3/8ths inch EUE tubing set at 2787 feet and there's 5-1/2 inch production casing set at 3350 feet and cemented with 1000 sacks of cement.

Q Now behind the sketch is a portion of a log. Would you identify that, please?

A That is the portion of a log with a summary of drilling and completion for the application well, showing that it was spudded on the 26th of December, 1979; completed on the 6th of February in 1980. It shows all of the information that I've previously reviewed from the sketch. The perforated interval shows the stimulation. This initial, after only acid, the initial potential after only acid treatment was 130 -- 103 Mcf per day. The shut-in casing pressure was 180 psi and after frac a test that -- considered representative was on the 25th of April, 1983; gas at 360 Mcf per day; water at 106 barrels per day on a

41/64th choke with 50 psi tubing pressure.

And it is pumped at 8-1/2 strokes a minute, a 64-inch stroke with a 1-1/2 inch pump.

Q Mr. Aycock, if a hardship classification is not granted for this well, could it result in the premature abandonment of the well?

A Yes, it could.

Q Could reserves be lost if a harship classification is not granted?

A Yes, they could be.

Q Would you estimate the reserves that might be lost?

A The estimated remaining recovery as of April 1st, 1984 by extrapolation of decline curve was 487-million cubic feet of gas and with deliverability projection would range between 405-million and 568-million cubic feet of gas.

Q In your opinion is there anything reasonable or prudent that could be done to avoid this problem without seeking a hardship gas well classification?

A No. Not that I'm aware of because once again the water is probably not native to the Jalmat zone. It probably comes from somewhere else, but you're in an area of the field that's the oldest and there are all kinds of wells that have been completed in here for numerous years, many of which have the casing tacked on bottom and so there's inter-zone migration of any water that comes from

any source whatsoever could occur, and that's likely what's happening here.

In addition to the reservoir loss, the substantial cost of hauling the water dictates that the economic limit of this well is fairly high when produced and if unduly restricted it would be put in a position of loss.

Q Will granting this application prevent underground waste of natural gas?

A Yes, in my opinion it would.

Q Will granting the application be in the best interest of conservation of natural gas?

A I believe that it would.

Q Would granting the application impair the correlative rights of any offsetting or any other operator?

A As we've previously shown, the only other operators in the immediate vicinity that have any substantial gas production are Mr. Hartman.

Q And so there would be none?

A There would be none.

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

A It was.

MR. CARR: At this time, Mr. Stamets, we would offer Hartman Exhibit Number One into evidence.

MR. STAMETS: Exhibit Number One will be admitted.

MR. CARR: That concludes my direct examination of Mr. Aycock.

CROSS EXAMINATION

BY MR. STAMETS:

Q Mr. Aycock, could a logoff test be run on this well in the same manner as we discussed in an earlier case?

A Yes, with the -- as long as we recognize that the consequential parameter is when the water will be efficiently lifted.

Q Uh-huh, correct.

A We could.

Q Is there any reason to believe that this well, like the one in the last case, couldn't be shut-in for two weeks without damage?

A No. For limited periods, Mr. Stamets, we don't have any problems with what we've been allowed to do in the past.

Our problem is that as we understand it, El Paso had allowed these to be -- these water-producing wells an automatic hardship classification before and they had gone out of their way to keep them producing, and our problem is that if they're treated like any other well and shut in for some indefinite period and just thrown in the hopper where they make their market access available whenever they can in order to provide this equal access, those

periods, we don't think and we're not able to determine from them, what they would be, and we know from our experience that they can be as long as a month easily, and if -- a two-week shut-in would not bother us because we've had that before, but extended periods of shut-in are what disturb us and that's the reason we're here with these applications.

Q And that would be true of each of these --

A Yes, sir.

Q -- cases that we're talking about today?

A Yes, sir, it would be.

MR. STAMETS: Let's go off the record a second.

(Thereupon a discussion off the record was had.)

MR. STAMETS: Are there any other questions of Mr. Aycock?

MR. CARR: I have no further questions.

MR. STAMETS: He may be excused.

Anything further in this case?

MR. CARR: Nothing further.

MR. STAMETS: The case will be taken under advisement.

We will note El Paso's state-

ment that they've asked to be included in all of these cases.

(Hearing concluded.)

C E R T I F I C A T E

I, SALLY W. BOYD, C.S.R., DO HEREBY CERTIFY that the foregoing Transcript of Hearing before the Oil Conservation Division was reported by me; that the said transcript is a full, true, and correct record of the hearing, prepared by me to the best of my ability.

Sally W. Boyd CSR

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 8229 heard by me on 7-11 1984.

Richard L. Stamets Examiner
Oil Conservation Division

El Paso
Natural Gas Company

P. O. BOX 1492
EL PASO, TEXAS 79978
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El Paso Natural Gas Company neither concurs with nor objects to this application. El Paso recognizes that some wells should definitely be recognized as "hardship" wells. El Paso believes it must express to the New Mexico Oil Conservation Division that anytime a well is declared a "hardship" well, then the extra production from that well must be taken from the total production from all other wells on our system. This increases the non-controllable gas taken into our system thereby reducing our flexibility of pipeline operations to take ratably and protect correlative rights.

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OIL CONSERVATION DIVISION
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SANTA FE, NEW MEXICO

20 June 1984

EXAMINER HEARING

IN THE MATTER OF

Application of Doyle Hartman for hardship gas well classification, Lea County, New Mexico. CASE 8229

BEFORE: Michael E. Stogner, Examiner

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Oil Conservation Division: W. Perry Pearce
Attorney at Law
Legal Counsel to the Division
State Land Office Bldg.
Santa Fe, New Mexico 87501

For the Applicant:

MR. STOGNER: Next we'll call Cases Numbers 8226, 8227, 8228, and 8229.

MR. PEARCE: Each of those cases is on the application of Doyle Hartman for hardship gas well classification, in Eddy or Lea County, New Mexico.

Mr. Examiner, applicant has requested that each of those matters be continued until July the 11th, 1984.

MR. STOGNER: Thank you, Mr. Pearce.

Cases Numbers 8226, 8227, 8228, and 8229 will be so continued to the Division Hearing scheduled for July 11th, 1984.

(Hearing concluded.)

C E R T I F I C A T E

I, SALLY W. BOYD, C.S.R., DO HEREBY CERTIFY that the foregoing Transcript of Hearing before the Oil Conservation Division was reported by me; that the said transcript is a full, true, and correct record of the hearing, prepared by me to the best of my ability.

Sally W. Boyd CSR

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 8223, heard by me on June 20, 1984.

Oil Conservation Division, Examiner