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

23 September 1987

EXAMINER HEARING

IN THE MATTER OF:

Application of Zia Energy, Inc. for two nonstandard proration units and an unorthodox gas well location, Lea County, New Mexico. CASE 9221

BEFORE: David R. Catanach, Examiner

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Division: Jeff Taylor
Attorney at Law
Legal Counsel to the Division
State Land Office Bldg.
Santa Fe, New Mexico 87501

For the Applicant: W. Thomas Kellahin
Attorney at Law
KELLAHIN, KELLAHIN & AUBREY
P. O. Box 2265
Santa Fe, New Mexico 87504

I N D E X

DON BRATTON

E X H I B I T S

MR. CATANACH: We're going to call Case 9221.

MR. TAYLOR: The applicaiton of Zia Energy, Incorporated, for two nonstandard proration units and an unorthodox gas well location, Lea County, New Mexico.

MR. CATANACH: Are there appearances in this case?

MR. KELLAHIN: If the Examiner please, I'm Tom Kellahin of Santa Fe, New Mexico, appearing on behalf of the applicant and I have one witness to be sworn.

MR. CATANACH: Are there any other appearances?

Will the witness please stand and be sworn.

(Witness sworn.)

DON BRATTON,

being called as a witness and being duly sworn upon his oath, testified as follows, to-wit:

DIRECT EXAMINATION

BY MR. KELLAHIN:

Q Mr. Bratton, for the record would you please state your name and occupation?

A My name is Don Bratton. I'm a petroleum engineer employed by Zia Energy.

Q Mr. Bratton, have you previously testified as a petroleum engineer before the Division?

A I have.

Q And pursuant to your employment with Zia Energy, Inc., have you made a study fo the engineering facts surrounding this application?

A I have.

MR. KELLAHIN: We tender Mr. Bratton as an expert petroleum engineer.

MR. CATANACH: He is so qualified.

Q Mr. Bratton, let me direct your attention to Exhibit Number One.

Would you take a moment and identify for us generally where your proration and spacing unit is located in relation to highways or communities Lea County, New Mexico?

A The proration unit that we'll be discussing today, which is the northwest quarter of the southwest

quarter of Section 4, Township 22 South, Range 37 East, is located approximately one an a half miles southwest of the City of Eunice.

Q This is a proration and spacing unit consisting of how many acres?

A It consists of 40 acres.

Q Within that 40-acre tract how many wells do you have?

A We have two wells.

Q How are those identified? What are the wells names?

A The wells, if you'll look at Exhibit Number Two, the area highlighted in yellow is the 40-acre proration unit that we're discussing in Section 4.

The two wells to be discussed are Zio Energy's Brunson No. 1 and Zia Energy's Brunson No. 4.

Q What formation or pool are these wells completed and producing from ?

A Both of these wells are currently completed and producing from the Penrose Skelly Grayburg Field.

Q What are you requesting the Examiner to do for Zia Energy, Inc., with this application?

A What we would like to do is take that 40-acre proration unit, split it in half, allocate 20 acres to

Well No. 1 and 20 acres to Well No. 4, with half of the standard 40-acre proration unit allowable assigned to each well.

Q The north 20 acres, then, of the 40 would be assigned to the No. 1 Well and the south 20 of that 40 would be the No. 4 Well.

A That's correct.

Q What has caused you to request that type of application be approved by the Examiner, Mr. Bratton?

A Since initial completion of Well No. 4 in February of 1985 the gas/oil ratio for that well has run between 90 and 100,000 and as a result of severe scaling problems and high water production, it's been very difficult to keep that gas/oil ratio below 100,000.

Tests that we've run recently indicate that the GOR is exceeding 100,000 and as a result, it's becoming increasingly difficult for us to keep that well classified as an oil producer.

Q You propose, then, that the No. 4 Well be reclassified as a gas well in this pool?

A That's correct.

Q Are you seeking to have an increase in the total allowables for either of the wells based upon approval of this application?

A No, we are not.

Q Let's turn to Exhibit Number Three, Mr. Bratton, and have you describe to the Examiner your proposal on how to make an allocation of the allowable.

A As shown on this exhibit, the Penrose-Skelly-Grayburg Field allowable as it appears in the September through December, 1987, Oil Proration Order No. A-261, Schedule No. 46, Volume 1 of the Hobbs District, the 40-acre proration unit allowable for the Penrose-Skelly-Grayburg provides for a top allowable of 80 barrels of oil per day with a top casinghead gas limit of 800 MCF per day.

What we're requesting is that each 20-acre tract assigned to the two Zia Energy wells on this 40-acre standard proration unit be allocated half of the current 40-acre proration unit allowable. In other words, each well would be assigned a top oil allowable of 40 barrels of oil per day with a top casinghead gas limit of 400 MCF per day.

Q All right, sir, let's turn to what has been the production history from the Bronson No. 4 Well, and I'll ask you to identify now Exhibit Number Four.

A Exhibit Number Four is a tabulation since the well was originally completed in March of 1985, of oil, water, and gas production from the No. 4 Well, and as you can see from this, it's been a marginal oil producer throughout its productive history and it has produced large

volumes of water.

Q How does the historical gas/oil ratio compare to the 100,000-to-1 gas/oil ratio for classification of a gas versus an oil well?

A Well, the gas/oil ratio on this particular well has averaged approximately 95,000 throughout its productive history. From time to time as you can see, in September and October of 1985 we exceeded the 100,000-to-1 ratio. That anomaly I can't explain; however, because of the severe scaling and the high water production, we've had to periodically go in and stimulate the well with acid to continue to produce large enough volumes of oil to keep the well classified as an oil producer.

With the drop in oil and gas price, this is becoming increasingly difficult to justify from an economic standpoint.

Q Mr. Bratton, let's turn now to Exhibit Number Five and have you identify and describe that exhibit.

A Number Five is a graphical display of the production history showing oil and GOR for the Brunson No. 4 and as you can see, we've been just below the 100,000-to-1 ratio for most of the productive history of the No. 4 Well.

Q Can you describe for the Examiner what appears to have occurred in the early portion of 1987 when we see the oil production has increased, and --

A That --

Q -- then dropped back down?

A There's a combination of factors there. One, because of the severe cold weather that was encountered in November and December and a couple of mechanical problems on the well, you see that there was a corresponding decrease in oil production in the months preceding that increase.

Q All right, let's turn to Exhibit Number Six. Would you show us on Exhibit Number Six where the current perforations are in the Brunson 4-J Well?

A Current perforations extend from 3769 to 3972. All of these intervals were perforated and completed in -- following initial drilling of the well in the spring of 1985, with acid stimulation to each zone.

Q Do you have an opinion, Mr. Bratton, as to whether or not reservoir energy is being wasted by the reclassification of this well as a gas well to allow it to produce additional volumes of gas?

A We don't believe that reservoir energy is being wasted. In fact, if you will look back at Exhibit Number Two, you'll see that most of the offsetting production has either been temporarily or permanently abandoned by other operators.

As a result, we feel like the Oil Commission's allowing us to reclassify the No. 4 as a gas well and

continue to produce it, will allow us to efficiently recover remaining reserves that exist in the reservoir.

Q Would it be reasonable to expect you to squeeze off certain perforations in order to reduce your gas/oil ratio in this well?

A We don't feel like the economics would justify that expenditure at this point in time.

Q Do you believe there's any adverse consequences to continuing to produce this well in this manner in terms of your ultimate oil recovery?

A We do not.

Q Turn to Exhibit Number Seven, Mr. Bratton, and have you identify and describe that exhibit.

A Exhibit Number Seven is a gas/oil ratio test that was conducted by Zia Energy and turned into the Oil and Gas Commission in Hobbs, showing the GOR for this particular well on the day that it was tested on August 14th, 1987, at 121,000.

Q All right, sir.

MR. KELLAHIN: Finally, Mr. Examiner, we have Exhibit Number Eight, which constitutes the certified mail return receipt notifications and the affidavit attesting to those mailings, Exhibit A, shows the offset operators and the balance of that certificate shows return receipt cards.

Q In response to any notification to offset operators, have you been advised, Mr. Bratton, of any objection by any other operator?

A We have not.

Q Were Exhibits One through Seven prepared by you or compiled under your direction and supervision?

A They were.

MR. KELLAHIN: We move the introduction of Exhibits One through Eight, Mr. Examiner.

MR. CATANACH: Exhibits One through Eight will be admitted as evidence.

MR. KELLAHIN: That concludes my examination of Mr. Bratton.

CROSS EXAMINATION

BY MR. CATANACH:

Q Mr. Bratton, is Exhibit Number Seven a pretty representative test of the well's current production capability?

A Yes, it is. We have three wells that produce on this lease, all from the Penrose-Skelly Field; however, Well No. 4, because of the fact that it was drilled and classified as Section 103 gas in 1985, the production from that well is handled through separate production facilities on the lease, so we feel very confident that the GOR

test is representative.

Q I assume there are other wells in the Penrose-Skelly Pool classified as gas wells?

A Yes, I believe that's' correct.

Q And are they just -- they're not assigned an allowable, they're just assigned -- how do they --

A They're classified as gas wells in an oil pool and they're limited to the allowable as assigned in the proration schedule.

Q A casinghead gas allowable?

A The casinghead gas allowable.

Q Which in this case would be 400 MCF. Has the well made over that, or does it generally make under that amount?

A In August the well made an average of 269 MCF of gas per day and 2.4 barrels of oil per day.

Initially, when the well was originally completed, it exceeded that volume for a short period of time; however, in the recent past it has not, and we don't anticipate that it will in the future.

Q Okay, the No. 4 Well would be an unorthodox location, is that correct?

A Neither well is an unorthodox location for an oil well on a standard 40-acre proration unit; however, because of the fact that it would be reclassified as a

gas well, it would make it an unorthodox location for a gas well.

Q How will the production from the No. 1 be affected? Is that going to be -- will it reduce that?

A No, it will not. The No. 1 Well does not currently exceed, nor do we anticipate that it will exceed in the future, the allowable that would be assigned it based on the 20-acre allocation.

MR. CATANACH: I think that's all I have of the witness.

He may be excused.

Okay, is there anything further in Case 9221?

MR. KELLAHIN: No, sir.

MR. CATANACH: It will be taken under advisement.

(Hearing concluded.)

C E R T I F I C A T E

I, SALLY W. BOYD, C.S.R., DO HEREBY CERTIFY the foregoing Transcript of Hearing before the Oil Conservation Division (Commission) 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. 9221, heard by me on Sept 23, 1987.

David R. Catanach, Examiner
Oil Conservation Division