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

28 November 1984

EXAMINER HEARING

IN THE MATTER OF:

Application of Samson Resources Company for compulsory pooling and an unorthodox location, Lea County, New Mexico. CASE 8421

BEFORE: Michael E. Stogner, Examiner

TRANSCRIPT OF HEARING

A P P E A R A N C E S

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

For the Applicant: W. Thomas Kellahin
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MR. STOGNER: We will call next Case Number 8421.

MR. TAYLOR: The application of Samson Resources Company for compulsory pooling and an unorthodox location, Lea County, New Mexico.

Applicant has requested that this case be continued.

MR. STOGNER: Case Number 8421 will be continued and readvertised for the Examiner Hearing scheduled for December 19th, 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. 8421, heard by me on November 28 1984.

Michael E. Stogner, Examiner
Oil Conservation Division

STATE OF NEW MEXICO
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SANTA FE, NEW MEXICO

19 December 1984

EXAMINER HEARING

IN THE MATTER OF:

Application of Samson Resources Company for compulsory pooling, and an unorthodox location, Lea County, New Mexico. CASE 8421

BEFORE: Gilbert P. Quintana, Examiner

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Oil Conservation Division: Jeff Taylor
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MR. QUINTANA: We'll call next Case 8421.

MR. TAYLOR: Application of Samson Resources Company for compulsory pooling and an unorthodox location, Lea County, New Mexico.

MR. PEARCE: May it please the Examiner, I am W. Perry Pearce of the law firm of Montgomery and Andrews, P. A., Santa Fe, New Mexico, appearing on behalf of the applicant.

I have two witnesses who need to be sworn.

MR. QUINTANA: I don't think there's any other appearances in here.

(Witnesses sworn.)

CHARLES E. LUNDEEN,

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

DIRECT EXAMINATION

BY MR. PEARCE:

Q Thank you, sir. For the record would you please state your name, employer, and position of employment?

A My name is Charles E. Lundeen, L-U-N-D-E-

E-N.

I'm a landman for Samson Resources Company.

Q Mr. Lundeen, have you previously testified before the New Mexico Oil Conservation Division or one of its Examiners?

A No, I haven't.

Q Would you please briefly for us describe your educational background and work experience?

A I graduated from the University of Oklahoma in 1979 with a Bachelor's degree in business administration, PLM.

I worked for Monsanto Petrochemical; worked for them for a year.

Worked for Union Oil Company of California for a year in Lafayette, Louisiana.

Worked for Amerada Hess Corporation.

Worked for Cotton Petroleum Corporation, and I worked for Samson Resources, all as a landman.

Handled Texas, New Mexico, Oklahoma, Louisiana, and Arkansas.

Q Okay, sir. Would you please briefly describe what it is that applicant seeks in this case?

A We seek -- Samson is wanting to drill a 9750 foot test on the northwest quarter of Section 8, 9 South, 34 East, Lea County.

There's one party in there. It's an in-

terest that we cannot ascertain as to who owns at this point.

We feel we knew who owns it and we contacted them and they have denied owning it.

It's an unusual situation.

The company who has record title is Delaware Apache Corporation. Delaware Apache Corporation was subsequently Natomas North America and Natomas North America has turned over all their interest to Apache Corporation and Apache hasn't got this in their filing system yet. They deny that they own it.

But we, Samson owns 100 percent of the unit except for this 20-acre tract.

Q Do you also seek an unorthodox location?

A Yes.

Q What is that location?

A Our location is 525 feet from the west line and 330 feet from the north line.

Q And as part of the pooling you also seek consideration of allocation of well costs, operating costs, charges for supervision, and charge for risk, is that correct?

A That's correct.

Q All right, sir. At this time would you please turn to what's been marked as Exhibit Number Two and point out for the Examiner the location of the proposed well?

A This is it right here.

Q Yes, sir. That is the triangle symbol in the northwest quarte of Section 8, 9 South, 34 East, is that correct?

A That's correct.

Q All right, sir. What is the objective formation of this well?

A This is a Penn Bough C, 9750 feet, I think.

Q And the interest which your records reflect should be held by Apache Corporation is the only interest you seek to pool in this proceeding, is that correct?

A That's correct.

Q All right, will you please turn to what we've marked as Exhibit Number One to this proceeding? That is a letter to Natomas North American. Would you briefly summarize once again your attempt to trace down ownership of this parcel?

A We sent it to Natomas. Natomas advised us that it had gone to Apache.

We sent a copy of the letter to Apache, talked to them. They do not show it in their filing system. They do not have record of this interest. They said they can't do anything.

We've contacted it and we've called them and they're denying it.

We called the broker who bought the

lease. He said, yes, I bought it for Delaware Apache, which they should have it.

And so until such time as they get it in their filing system, I guess, they -- they have just not claimed it.

And they're aware of what we're doing.

Q Okay. Mr. Lundeen, what is the total estimated cost of this well?

A The total well cost is $663,300.

Q Okay.

MR. PEARCE: Mr. Examiner, we have not marked the proposed AFE as an exhibit. We do, however, have one, and I would propose to mark that as our last numbered exhibit subsequent to the hearing, if I may.

Q Mr. Lundeen, what are Samson Resources usual charges for overhead during drilling and producing of wells?

A Our drilling well rate for a well at this depth, a gas well, is $4350 and the producing well rate at this depth is $585.

Q And in your opinion are those rates reasonable for a depth of this -- for a well of this depth?

A Yes.

Q And do you propose that those rates be included in any order issued by the Division in this matter?

A Yes, I do.

MR. PEARCE: Mr. Examiner, we

have nothing further of this witness at this time.

MR. QUINTANA: What -- didn't you want to mark this now, Exhibit Number Six, I assume it is?

MR. PEARCE: That becomes Number Eight, Mr. Examiner.

CROSS EXAMINATION

BY MR. QUINTANA:

Q I have a question for you, Mr. Lundeen.

A Okay.

Q On what do you base your determination that these costs are within line?

A The drilling well rate?

Q The drilling well rate, the producing rate?

A We just have a set company policy as to depth in a gas or oil well, and I don't really know how they were determined.

It's -- we -- we make company surveys. It's done by our drilling department.

MR. PEARCE: Excuse me, if I may, Mr. Examiner, can I get in the middle of this?

Are those the rates that are usually charged by Samson Resources for wells to this depth which it operates in other producing areas?

A Yes.

MR. PEARCE: And that -- that is in fact the set company rate which is applied to all of their wells at this depth and the rate varies depending upon the depth of the well, is that correct?

A That's correct.

MR. PEARCE: Thank you, sir. Nothing further, Mr. Examiner. I apologize for interrupting.

MR. QUINTANA: I don't have anything further of the witness either.

Anybody else have anything?

CROSS EXAMINATION

BY MR. TAYLOR:

Q Did you give actual notice to them of compulsory pooling?

MR. PEARCE: Yes, sir, they were told that we were proceeding to this step if we could not get them into the case -- I'm sorry.

You will notice by the application, Mr. Examiner, that there are a number of other companies listed as being pooled. Those companies have all either joined or agreed to join in the future, and so we are not attempting to pool those interests.

Q Either a copy of that or a letter went to Natomas or Delaware Apache, whoever they are?

MR. PEARCE: Yes.

MR. TAYLOR: Is there a copy of that in our file?

MR. PEARCE: I'm not sure but we'll provide that, sir.

MR. TAYLOR: Okay, thank you.

A I've got an exhibit where -- do they have the exhibit where the letter came back?

MR. QUINTANA: Where it says no such address?

MR. PEARCE: Yes.

A Yes.

MR. PEARCE: That was initially sent to Natomas, was then forwarded to Apache Corporation.

MR. TAYLOR: But that doesn't inform them that you're going to compulsory pool, and if you did send a letter we need a copy of that.

A Okay, I can get that for you.

MR. QUINTANA: I have no further questions of the witness.

He may be excused.

MR. PEARCE: Thank you, sir.

GEORGE LAMBERT,

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

DIRECT EXAMINATION

BY MR. PEARCE:

Q Would you please state your name, employer, and position?

A My name is George Lambert. I am a geologist with Samson Resources Company in Tulsa, Oklahoma.

Q Mr. Lambert, let's begin, if you would direct your attention, please, to what's been marked as Exhibit Number Two to this proceeding. Discuss that for the Examiner, please, and the information contained on it.

A This is a production map of the wells immediately surrounding the 160-acre unit that we are trying to set up in the northwest quarter of Section 8.

What is shows is the cumulative oil production and any average daily production rate on existing or wells that are currently still producing, as well as cumulative gas production on those wells.

One thing that I might point out in just visibly looking at this map, as you can see, most of the wells on here have been depleted and plugged and those wells that are still producing are at a close to economic limit.

We're looking at a mature reservoir that is largely drained at this point.

Q All right, sir, let's refer now to what's been marked as Exhibit Number Three. Would you discuss that briefly, please?

A Okay. This is a subsurface structure map

with respect to sea level.

What is shows is regional southeast dip. There is no visible structuring occurring within the formation on which this map is made, which is the top of the Penn Bough C limestone.

Our location, in the northwest quarter of Section 8, is anticipated at a -5300 foot subsea depth and which puts it basically on strike to wells -- the two wells up in Section 5, the south half of Section 5, as well as the two wells in the north half of Section 7 to the west.

Q Okay, let's now -- let's now look at Exhibit Number Four, and if you'll discuss that, please, sir.

A This is an Isopach map showing the gross interval of the Penn Bough C limestone in the area surrounding the proposed location.

Basically what this map shows is that there are -- the zone is relatively uniform throughout the area. There are no wells in here in which the zone has been found absent.

What it shows is basically that we are anticipating a thickness of somewhere between about 25 to about 28 feet, or so.

Q All right, sir.

A Gross thickness.

Q And Exhibit Number Five, is that the basis upon which Exhibit Number Four was prepared?

A Yes, this is more or less a -- shows the

wells within the immediate offset. In fact, they're -- if you'll look on the little index map to the -- on the cross section there, if you'll locate Section 8, our proposed location in the northwest quarter there, you can see that this cross section, basically, kind o rings around that location there with the wells to north, east, and south.

Q Anything else you'd like to comment on about that exhibit at this time?

A Basically it just shows the uniform nature of the zone. It shows what tests were conducted on each of these wells, what intervals were perforated.

It also shows a couple of the dry holes in here, and we may refer back to this later in terms of discussing the inherent risk in terms of finding porosity within this formation.

Q All right, sir. With regard to porosity, then, let's turn to what has been marked as Exhibit Number Six, if you would, please.

A This is an Isopach map of the thickness of porosity greater than, or equal to four percent within the Bough C limestone interval.

What is shows is that there's about a maximum thickness in this area of around 15 to 16 feet of porosity. The proposed location we have mapped somewhere in the vicinity of about 10 to 12 feet of porosity through there.

There is a dry hole in the -- or a string

of dry holes in the north half of Section 5, extending on into Section 6, and there's a little isolated dry hole in the southeast of the northwest of Section 8, which lies within the 160-acre unit that we are trying to put together in there, and the part of the -- the purpose of this map is to illustrate the potential risk in terms of finding porosity within the Bough C limestone.

Q All right, sir, with regard to that risk, in view of the dry holes in the sections immediately north and the dry hole to the direct southeast of your proposed location, do you believe that the maximum statutory penalty of 200 percent is appropriate for imposition on the pooled interest?

A Yes, I do, for this and other reasons.

Q All right, sir, would you like to discuss --

A The other --

Q -- them?

A The other reason being primarily the potential for depletion within the formation here.

There are wells to the north and to the west here and once again, this is largely a depleted reservoir and these wells have produced a substantial amount of oil and potential does exist in here for depletion.

The well in the southeast of the southeast of Section 5 there, which shows 12 feet of porosity, was a TXO well that was drilled back in 1983, and in refer-

ring back to Exhibit Number Three, which is the structure map, you can see that well fell down dip from the two producing wells in the south half of Section 5, and that TXO well was on production test substantially drained.

And so there is a distinct inherent risk in here of significant drainage, and this is one reason why we feel we need to move as far to the northwest of Section 8 as we can.

Q All right, sir. In addition to moving to the northwest for that reason, would you now address -- focus your attention, please, on what's been marked as Exhibit Number Seven.

A Right.

Q And discuss that for the Examiner?

A This is a map showing the location of a salt water disposal system in the immediate area of our proposed location. In fact, our original location had been chosen on this map, as indicated here, at 600 feet from the north line, 525 feet from the west line.

In staking this location our field personnel determined that there was a pipeline in the area and that we were going to have to move our location either north or south.

A south, moving to the south would have put us at a less preferable structural position or an unacceptable structural position, and so we at that point moved the location, proposed location, to 330 from the north line

and 525 from the west line at that time.

After that point, we were able to obtain this plat showing the actual location of the -- the particular salt water disposal line that was causing our problem and as the tract, the little square around our proposed location shows, we lie within that area that they would prefer that we stay out of in drilling that or in drilling our well.

Q And in fact, in view of the state of this reservoir and your estimate as to structure, you believe that this unorthodox location is more appropriate?

A Right, yes, sir.

Our main reason for needing to move, in addition to the problems that we would have in locating next to this pipeline, would be the necessity for gaining the structure that we feel would be necessary to avoid significant drainage.

Q And the proposal of Samson Resources in this matter is that Samson Resources be named the operator of this well, is that correct?

A Yes, sir.

Q Do you have anything further that you would like to address to the Examiner?

A One -- one additional thing, and that would be in terms of the risk involved in drilling a well here, concerning the aspect of depletion, and that would be that in drilling the well we would not be able to determine

the -- whether the reservoir was drained except by attempting to complete the well, and from that standpoint, that adds substantially to your risk dollars that you're considering in terms of drilling the well, and I would add that as a point in terms of our feeling the necessity of the maximum penalty.

Q Thank you, sir.

MR. PEARCE: Mr. Examiner, we have nothing further on direct.

At this time I would move that Samson Resources Exhibit One -- Exhibits One through Eight be admitted.

MR. QUINTANA: Exhibits One through Eight will be admitted into evidence.

CROSS EXAMINATION

BY MR. QUINTANA:

Q To the northeast and to the southwest of the well, the proposed well, I notice there's -- it shows on your Exhibit Number Two, it shows cumulative production of oil in terms of average daily oil production and gas production next to each of the wells.

A Right.

Q And noticing to the northwest, to the northeast of the proposed injection -- producing well, the M. L. Brown Well produced 205,892 barrels of oil and the one right next to that, directly east of that one, produced

146,534 barrels of oil.

A Yes, sir.

Q Relatiavely close together.

Looking to the southwest, the lease in Section 7 to the southwest, the P&A'd well there in the furthest to the northeast of Section 7, northwest of Section 7, produced 170,118, and the one directly east of that well produced 145,925, and directly south of that produced 150,588.

The point I was trying to make was all these wells are relatively close together, producing substantial amount of oil.

A Right.

Q In light of that fact, taking into account the large distance between those wells to the northeast and the southwest, do you still -- is it still your professional opinion that you will have occurred -- drainage will have occurred in that area, to the -- to allow me to grant the maximum penalty for risk?

A Yes, sir. The reason why is because these wells were all drilled within a relatively short span of time, ranging from about 1971 to about 1975, and most of them were actually in '72 to '73 time frame.

And so it's unlikely that any of these wells, because of the -- the timing involved in those wells, I'm not sure how well, you know, how they might have affected each other.

My main concern about the risk does center from the standpoint of the TXO Well drilled in the southeast portion of Section 5.

That well, as I said, was drilled last year, 1983, and in completing that well TXO found that well to be noncommercial. It was drained. They got back minimal returns, in the neighborhood of maybe 10 to 15 barrels of fluid a day, of which very small amounts, maybe trace amounts of oil were incurred there.

So their location was substantially drained in here.

So these wells, I mean that well alone provides significant evidence that these wells can drain large enough areas here.

We would not be able to consider drilling a location -- the location that we were considering drilling here if there was a well located in the southeast portion of Section 6 somewhere that had produced, say, a similar amount of oil in here. We would have severe doubts as to whether we could drill there without incurring substantial drainage in here.

As it is, it's unlikely that we are going to be substantially draining the offsetting acreage in here because of the nature of the wells which have already produced.

So I feel like there is evidence in here to substantiate the concern that we have over the drainage.

Q Samson owns 100 percent except for that small acreage that you're pooling, is that correct?

A Yes, sir. They -- they -- we have either obtained through farmouts or other means all of the interest except for the 20 acres in question.

Q Had you acquired these 20 acres voluntarily would you still have drilled the well?

A Excuse me, would you --

Q Would you still have -- would you have drilled the well had you acquired these 20 acres under lease, had you leased these 20 acres?

A Oh, yes. Yes.

MR. QUINTANA: No further questions.

Does anybody have questions of the witness?

It not, he may be excused.

Case 8321 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 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. 8421 heard by me on Dec. 19 1984.

Gilbert P. Quintana, Examiner
Oil Conservation Division