STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION DIVISION FOR THE PURPOSE OF CONSIDERING:	)	CASE NO. 11,268
APPLICATION OF MACK ENERGY CORPORATION	)	

ORIGINAL

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

BEFORE: MICHAEL E. STOGNER, Hearing Examiner

April 20th, 1995

Santa Fe, New Mexico

This matter came on for hearing before the Oil Conservation Division on Thursday, April 20th, 1995, at the New Mexico Energy, Minerals and Natural Resources Department, Porter Hall, 2040 South Pacheco, Santa Fe, New Mexico, before Steven T. Brenner, Certified Court Reporter No. 7 for the State of New Mexico.

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Examiner Hearing
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A P P E A R A N C E S

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By: WILLIAM F. CARR

* * *

WHEREUPON, the following proceedings were had at 11:08 a.m.:

EXAMINER STOGNER: Hearing will come to order. Call next case, Number 11,268.

MR. CARROLL: Application of Mack Energy Corporation for compulsory pooling, Lea County, New Mexico.

EXAMINER STOGNER: At this time, call for appearances.

MR. CARR: May it please the Examiner, my name is William F. Carr with the Santa Fe law firm Campbell, Carr and Berge.

We represent Mack Energy Corporation, and I have two witnesses.

EXAMINER STOGNER: Are there any other appearances?

Will the witnesses please stand to be sworn at this time?

(Thereupon, the witnesses were sworn.)

JOHN T. ECHOLS,

the witness herein, after having been first duly sworn upon his oath, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. CARR:

Q. Will you state your name for the record, please?

A. My name is John T. Echols --

Q. And where do you --

A. -- and I'm from -- I'm from Midland, Texas.

Q. By whom are you employed?

A. I'm vice president of land of Tara-Jon Corporation and representing Mack Energy Corporation of Riverside, New Mexico.

Q. Mr. Echols, have you previously testified before this Division?

A. I have not.

Q. Would you summarize your educational background and work experience for Mr. Stogner?

A. I'm a 1979 graduate of Texas A&M University. I became a field landman in 1981, working for clients such as Eastland Oil Company, Samson Resources, Amoco Production Company and Arco.

In 1987 I went to work for Texaco, and left them in 1989, and have since been a consulting landman for Marathon Oil Company, Santa Fe Energy Resources, Atlantic Richfield Company, and Parker Parsley Producing.

Q. Mr. Echols, at all times since graduation, you have been employed as a petroleum landman?

A. I have not.

Q. You have not? How much of the work has been related to petroleum landman?

A. All but two years.

Q. Are you familiar with the Application filed in this case on behalf of Mack Energy Corporation?

A. Yes, I am.

Q. And are you familiar with the subject area?

A. Yes, I am.

MR. CARR: We tender Mr. Echols as an expert witness in petroleum land matters.

EXAMINER STOGNER: Mr. Echols is so qualified.

Q. (By Mr. Carr) Would you briefly state what Mack Energy Corporation seeks with this Application?

A. Mack Energy Corporation seeks an order pooling all interests from the surface to the base of the Drinkard formation, under the northeast quarter of the northwest quarter of Section 27, Township 16 South, Range 38 East, Lea County, New Mexico.

Q. Now, Mr. Echols, you propose to dedicate this acreage to a new well that's going to be drilled on the acreage at a standard location; is that right?

A. That's correct.

Q. Initially, there had been some plans to at least consider re-entering an old well on the tract. Those plans have been abandoned?

A. That's correct.

Q. Have you prepared exhibits for presentation here today?

A. Yes, I have.

Q. Let's go to what has been marked for identification as Mack Energy Exhibit Number 1, and I'd ask you to identify that and review it for Mr. Stogner.

A. This is a land plat of the area of interest, the northeast-northwest of Section 27. Also the land plat shows our location for the well and Drinkard wells in the area.

Q. And we are talking about the Garrett-Drinkard field; is that right?

A. Yes, sir.

Q. Let's go to Exhibit Number 2. Would you identify and review that?

A. Exhibit Number 2 is a working interest ownership for the well that we propose to drill.

As you can see, Chase Oil Corporation, Tara-Jon Corporation and Mark Wilson have the majority interest. Tierra Oil Corporation has agreed to join us in the well, and the remaining interests we're seeking to be force-pooled.

Q. If I look at this exhibit, we have interests to be force-pooled set forth on the bottom?

A. Yes.

Q. What percentage of the working interest at this time has been voluntarily committed to the well?

A. 94.3961 percent.

Q. And what we have set forth on the bottom portion of Exhibit 2 are certain mineral owners that you have not been able to reach a voluntary agreement with?

A. That is correct.

Q. Now, these are not all the mineral owners in the proposed spacing unit?

A. That is correct.

Q. How many were there initially?

A. Sixty-seven.

Q. And you have been able to reach voluntary agreement with all but those interest owners shown on this exhibit?

A. That is correct.

Q. Could you briefly summarize for the Examiner the efforts that you have made to identify, locate these people, and obtain their voluntary participation in this well?

A. The first thing that was done was, of course, a mineral takeoff from the records of Lea County, New Mexico, at which we took the last address in the records.

We sent letters to these people. After a certain time period, we sent second requests, sometimes third requests to some people.

We tried telephone calls, we tried death

certificates, we tried everything that we knew how to do, including the National Phone Book on CD-ROM, to try to locate these people if they had moved somewhere else in the country. We tried every way we knew to locate these people.

Q. Now, of the 11 individuals that are shown on Exhibit Number 2, you have addresses for them, and you've attempted to reach them at those addresses?

A. Yes, I have.

Q. You've been unable to date to make contact with any of the individuals shown on this --

A. I have been able to be in contact with two of the people, the Allie V. Cargill estate, and also David Neale.

Q. And have you been able to reach agreement with those individuals?

A. I was not able to.

Q. Is Exhibit Number 3 a compilation of the correspondence addressed to the people shown on Exhibit Number 2 with whom you've been unable to reach agreement?

A. Yes, it is.

Q. And these letters also contain copies of certified return receipts --

A. Yes, sir.

Q. -- and things of that nature, which confirm that you have, in fact, attempted to reach agreement --

admitted into evidence at this time.

Q. (By Mr. Carr) Mr. Echols, will Mack Energy also call a geological witness to review the technical portions of this case?

A. Yes, they will.

MR. CARR: That concludes my examination of Mr. Echols.

EXAMINER STOGNER: Thank you, Mr. Carr.

EXAMINATION

BY EXAMINER STOGNER:

Q. Mr. Echols, as far as those parties that do not appear on Number 2, have they all signed your agreement?

A. Yes, they have.

Q. Or have they just indicated that they'll --

A. The only one that we haven't got signed has been AnSon Gas Corporation, who had leasehold in there, and they agreed to farm out to us.

Q. And you expect to get an instrument signed -- what? The next day or two?

A. Next day or two. Also, Tierra Oil Corporation, you received a fax from them. That was a case of misunderstanding between Bill Barnhill, the president, and Chris Barnhill, the new president, and also a delay in the mail.

We mailed them the AFE and operating agreement on

April 6th. They did not receive it until April 17th. They did call and say they were happy to participate with us in this well.

EXAMINER STOGNER: Okay. Thank you for covering that, because that fax will be made part of the record --

MR. CARR: Yes, sir.

EXAMINER STOGNER: -- from Tierra Oil Company that was faxed from the San Antonio yesterday.

Q. (By Examiner Stogner) So tell me about that last party, the 11th one. Is that really Shirley MacLaine?

A. I think it is. I had no response from Shirley McClain McLarty at all.

(Off the record)

Q. (By Examiner Stogner) And these are all undivided interests?

A. Yes, they are.

Q. That 40 acres is an undivided --

A. Yes, sir.

Q. This interest that you're force-pooling today, or interests in this well, is that just unique to this quarter-quarter section, or does that cover that quarter section?

A. It covers the entire quarter section.

Q. So if you step out, you're going to have to do the same thing again?

A. Yes, sir.

Q. How about the northeast of Section 27? Is that under the same lease or is that --

A. No, sir, it's different leases, of which we own the majority interest in there.

Q. Okay. So it's just unique to the northeast of 27 -- or northwest --

A. Northwest.

Q. -- of 27?

A. Yes, sir.

Q. And the plan to re-enter the old well has been abandoned? That's not to be considered in this case?

A. That's not to be considered.

EXAMINER STOGNER: Okay, I have no other questions of this witness.

MR. CARR: Thank you, Mr. Stogner.

At this time we call Mark Wilson.

EXAMINER STOGNER: You may continue, Mr. Carr.

MARK WILSON,

the witness herein, after having been first duly sworn upon his oath, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. CARR:

Q. Would you state your name for the record, please?

A. Mark Wilson.

Q. Where do you reside?
A. Midland, Texas.
Q. By whom are you employed and in what capacity?
A. I'm self-employed.
Q. And in what capacity?
A. As a petroleum geologist.
Q. Mr. Wilson, have you previously testified before this Division and had your credentials as a petroleum geologist accepted and made a matter of record?
A. I have.
Q. Are you familiar with the Application filed in this case on behalf of Mack Energy Corporation?
A. I am.
Q. And are you familiar with the subject area?
A. I am.
MR. CARR: Are the witness's qualifications acceptable?
EXAMINER STOGNER: Mr. Wilson is so qualified.
Q. (By Mr. Carr) Mr. Wilson, you've prepared exhibits for presentation here today, have you not?
A. I did.
Q. Let's go to what has been marked for identification as Mack Energy Exhibit Number 5, the structure map, and I would ask you to review that exhibit for Mr. Stogner.

A. Okay, Exhibit 5 is a structure map on top of the main Drinkard pay zone, in the Garrett-Drinkard field.

The oil wells are shown with green triangles. Most of them are grouped in Section 28 and around 21. There is one stepout to the east in Section 22, the southeast-southeast of 22, a well that was drilled in 1991 by Fina.

The field was discovered, the Garrett-Drinkard field, in 1971, in the course of drilling for the Abo reef. The first well was completed 8-30-1971.

This Garrett-Drinkard field is about 13 miles east and three miles south of Lovington town site. It's on the north edge of the San Simon Channel, which connects the Midland Basin and the Delaware Basin, same Abo time and Drinkard time.

It's a stratigraphic trap in dolomites. It's in a belt of steep dip along the south side to the Abo reef trend, and the reef trend is shown by an anticlinal axis in the south part of 21, 22 and 23.

Our proposed drill site is shown with a red dot in the northeast quarter of the northwest quarter of Section 27. It's 1780 feet from the west line and 330 feet from the north line.

It is also about 350 feet northwest of an old well that was drilled by Texas Company, the Texas Ertel, a

Devonian test to 13,310 feet. It was plugged on 3-31-1950, about 20 years before the discovery of the Garrett field.

The Fina well is the most recent completion in the area. As I said, it's about a mile and a quarter east of where the main developed part of the field is, and this well was completed in 1991.

It's produced only about 9283 barrels of oil, up to 1-1-93. It has very low porosity and permeability, probably on the north edge of the porosity belt.

We have no good data to really tell us whether the porosity will improve as we go from there toward the field.

Q. All right. Let's go now to Exhibit Number 6. Can you identify that?

A. Exhibit Number 6 is a portion of the well log on the old Texas Ertel well that's on our spacing unit. The well was drilled in 1950.

And the second included on this log is the Tubb section and the Drinkard section and equivalent to the upper part of the Abo formation.

This is the only log that was ever released on the well. There was no porosity log released that we can find anywhere.

And on the right-hand side of this log there are two resistivity curves, there's a 32-inch limestone curve

and a short normal curve, which is the solid curve.

On the left side of the log there are two curves. The solid curve is an SP curve. And the broken curve, kind of wandering around all over the place, is a gamma-ray curve. In those days they didn't have very good calibration of the gamma ray.

On the far left side of the log are the stratigraphic units that we'll be discussing. The Tubb section is shown there from about 7900 to 8000. It's a sand zone. Immediately under that are four cycles in the upper part of the Drinkard, and they're labeled D-1 through D-4.

In correlating this well with the wells to the west over in the field, we found that the main field pay, which is D-4, is present in this wellbore. Also, the D-3 zone is partially developed here.

We can't judge how much absolute porosity there is here, because we have no porosity log and we would have to rely upon these resistivity curves here. We can only say qualitatively that there is porosity in the D-3 and D-4 zones, which are the main pays.

Also in the samples, on the left side of the log column, there is a series of X's from about 8200 down to nearly 8300 -- 8400 -- and that's porosity that was seen in samples.

There was some testing done when they drilled the well. DST number 4 was -- They tested the D-2 zone, which, looking at the resistivity curves, looks almost entirely tight. They recovered some oil- and gas-cut mud, about 30 feet of oil- and gas-cut mud. And then they tested the upper part of the D-3 zone with about the same results, 52 feet of oil- and gas-cut mud.

They didn't report any pressures. Probably if they had run them, they would have been 15-minute shut-ins and they wouldn't have had too much bearing on anything anyway.

The other thing I've plotted on this log is the oil-water contact, which can be seen there at just above 8300 on the log, and that's derived from a study of the wells over in the field to the west and near those wells. I think it's quite accurate. You'll notice that it falls almost in the middle of the D-4, which is the main pay zone.

One reason we decided not to re-enter this well was that we felt like we needed to get all that D-4 pay zone up in the oil column. So we moved the location a little bit further north, which enabled us to do that.

As I say, data is inadequate to really make porosity calculations in here. Looking at resistivity curves showing lower porosity readings -- or lower

resistivities, rather -- down through the lower part of the D-3 and through the D-4, which would sort of correspond with the first porosity we see in the samples, and where there is a bulge in the SP curve, you would get the idea there is porosity there.

Whether or not there will be enough porosity to make a commercial well, we won't know until we get a modern porosity log on here -- say, a density neutron -- and do some testing.

At the moment, we are willing to take the chance, but we think that probably the odds are about one in three or one in four that we would come up with enough porosity to make the grade, especially in view of the fact that the Fina well back up to the northeast is relatively low in porosity. That will be the fight we'll have, is getting enough porosity.

Q. Mr. Wilson, are you prepared to make a recommendation to Mr. Stogner concerning the risk penalty that should be assessed against any nonparticipating interests in this well?

A. I am. I think it's relatively high risk, and I think that the 200-percent penalty will be what we'll be looking for.

Q. Have you made an estimate of overhead and administrative costs to be incurred while drilling the well

and also while producing it if in fact it is successful?

A. Yeah, the -- On drilling-well basis, we figure about $5000 per month, and I would prorate it. And on a producing-well basis, $500 a month.

Q. Are these figures consistent with the figures in the joint operating agreement that's been accepted by other interest owners who are voluntarily in this --

A. That is correct.

Q. Do you recommend that these figures be incorporated into the Order that results from today's hearing?

A. I do.

Q. Could you Identify what has been marked as Mack Energy Exhibit Number 7?

A. Okay, that's an AFE that was prepared by Mack Energy, who will be the operator.

And we have a dryhole cost there of $284,500 and a completed well cost of $537,800, and that would include pumping equipment and treatment of the Drinkard if necessary.

Q. Are these costs in line with what's charged for similar wells in the area?

A. I believe they are.

Q. Does Mack Energy Corporation seek to be designated operator of the well?

A. They do.

Q. In your opinion, will approval of this Application and the drilling of this well be in the best interests of conservation, the prevention of waste, and the protection of correlative rights?

A. I think so.

Q. How soon does Mack Energy plan to actually commence the well?

A. Probably in the first half of May.

Q. Were Exhibits 5 through 7 prepared by you or compiled under your direction?

A. They were prepared by me, except for 7.

Q. And you have reviewed 7, and it is in fact an accurate AFE for this well for Mack Energy?

A. That's correct.

MR. CARR: Mr. Stogner, at this time I would move the admission of Mack Energy Corporation Exhibits 5 through 7.

EXAMINER STOGNER: Exhibits 5 through 7 will be admitted into evidence.

MR. CARR: And that concludes my examination of Mr. Wilson.

EXAMINATION

BY EXAMINER STOGNER:

Q. Mr. Wilson, the original proposal to re-enter the

well, could you enlighten me a little bit more on that since you are the technical witness?

A. I can. First off, the well was drilled in 1950, and so it is a relatively old well.

They ran the intermediate casing string down to around 5200 feet. And then after several attempts to cement that string, three or four attempts, they finally got to cement back up to about 800 feet from the surface.

And when they did not make a well here, then they went in and cut the casing off, about 792 feet. And we don't know how they did it, whether they shot it off, which they probably did back in those days. But assuming that they did that, then we figured that it would be awfully tough to get back into the place where they shot the casing off.

Also, there was another factor that entered into it, which I mentioned. That is that the oil-water contact plots in about the middle of this D-4 zone, which is the main pay, over in the field to the west. And we would prefer to have all of the D-4 zone in a higher structural position where we think it would be oil-bearing. That finally weighted it in favor of drilling a new hole.

Q. Okay. On the $5000 and $500 overhead charges, those figures appeared on the signed operating agreements --

A. Yes.

Q. -- of the other parties?

A. As a matter of fact, that's right. We put the deal together, we took in Mack as partners and operators in the thing. I'm carrying the working interest, and Tara-Jon Corporation is.

And when we made our agreement, we had to arrive at some numbers in the COPAS, and that's what we arrived at in the agreement. And those numbers were incorporated into the operating agreement, which is submitted to the other working interest owners.

Q. And this well is going to a TD of 8500; is that correct?

A. That's correct.

Q. Now, that won't quite make the Abo, but you're well within the Drinkard?

A. Yes, I think so. It's in a belt of steep dip here, and you don't have to move very far to change your drilling depths.

Q. And your casing program, 5 1/2 -- The other zones of interest, could you elaborate a little bit on that?

A. I really haven't done that much work on the other zones in here. There are scattered San Andres wells around the area.

For instance, there are two San Andres wells up