

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:)
APPLICATION OF J. CLEO THOMPSON &)
JAMES CLEO THOMPSON, JR., L.P., FOR)
AN UNORTHODOX OIL WELL LOCATION AND A)
NONSTANDARD OIL SPACING AND PRORATION)
UNIT, LEA COUNTY, NEW MEXICO)

CASE NO. 14-113

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REPORTER'S TRANSCRIPT OF PROCEEDINGS
EXAMINER HEARING

BEFORE: WILLIAM V. JONES, Jr., Hearing Examiner

November 1st, 2007

Santa Fe, New Mexico

This matter came on for hearing before the New Mexico Oil Conservation Division, WILLIAM V. JONES, Jr., Hearing Examiner, on Thursday, November 1st, 2007, at the New Mexico Energy, Minerals and Natural Resources Department, 1220 South Saint Francis Drive, Room 102, Santa Fe, New Mexico, Steven T. Brenner, Certified Court Reporter No. 7 for the State of New Mexico.

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November 1st, 2007
Examiner Hearing
CASE NO. 14,013

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A P P E A R A N C E S

FOR THE APPLICANT:

JAMES G. BRUCE
 Attorney at Law
 P.O. Box 1056
 Santa Fe, New Mexico 87504

* * *

1 WHEREUPON, the following proceedings were had at
2 9:02 a.m.:

3 EXAMINER JONES: And let's call Case 14,013,
4 Application of J. Cleo Thompson & James Cleo Thompson, Jr.,
5 L.P., for an unorthodox oil well location and a nonstandard
6 oil spacing and proration unit, Lea County, New Mexico.

7 Call for appearances.

8 MR. BRUCE: Mr. Examiner, Jim Bruce of Santa Fe,
9 representing the Applicant, and I have two witnesses.

10 EXAMINER JONES: Any other appearances?
11 Will the witnesses please stand to be sworn?
12 (Thereupon, the witnesses were sworn.)

13 MR. BRUCE: Mr. Examiner, to start off with, if
14 you would refer to Exhibit 1A. In this case Applicant
15 seeks two things. It is drilling a Devonian well at a
16 location approximately 1551 feet from the west line and
17 2253 feet from the north line of Section 13, 9 South, 37
18 East. They seek approval of an unorthodox oil well
19 location, and this well is in the undesignated Sawyer-
20 Devonian Pool, which is an old oil pool. It's spaced on 40
21 acres, 330-foot setbacks.

22 They're also seeking a nonstandard unit comprised
23 of -- rather than just a well unit comprised of the
24 southeast northwest, they're seeking a nonstandard unit
25 comprised of the south half of the northwest quarter of

1 Section 13.

2 JEFF BRYDEN,

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

5 DIRECT EXAMINATION

6 BY MR. BRUCE:

7 Q. Would you please state your name and city of
8 residence for the record?

9 A. Jeff Bryden, Midland, Texas.

10 Q. Who do you work for and in what capacity?

11 A. I'm a geologist for J. Cleo Thompson.

12 Q. Have you previously testified before the
13 Division?

14 A. Yes, I have.

15 Q. And were your credentials as an expert accepted
16 as a matter of record?

17 A. Yes, they were.

18 Q. Does your area of responsibility at J. Cleo
19 Thompson include this part of southeast New Mexico?

20 A. Yes, it does.

21 Q. And are you familiar with the geology involved in
22 this Application?

23 A. Yes, I am.

24 MR. BRUCE: Mr. Examiner, I tender Mr. Bryden as
25 an expert petroleum geologist.

1 EXAMINER JONES: Mr. Bryden is qualified as an
2 expert in petroleum geology.

3 Q. (By Mr. Bruce) Mr. Bryden, could you identify
4 Exhibit 1 for the Examiner?

5 A. Exhibit 1 is a base map showing our four new
6 wells in the area, two wells that we have drilled, one well
7 that we are currently drilling, and then the well in
8 question in Section 13.

9 Q. And the two wells that are completed are the one
10 in Sections 7 and 18 --

11 A. That's correct.

12 Q. -- in 9 South, 38 East?

13 A. That's correct, the first well was in 18, second
14 well was in Section 7.

15 Q. Okay. Let's move on to your Exhibit 2. What
16 does that reflect?

17 A. Exhibit 2 is a regional structure map on the top
18 of the Mississippian lime. Subsurface depths are shown at
19 each well site.

20 It shows that the previous well, previous
21 producer in the area, is in the southwest corner of Section
22 7. That was the Sawyer Federal Number 1, drilled back in
23 the '40s, and it shows that we do have one broad structure
24 in the area, in the southwest corner of Section 7 and the
25 northwest corner of Section 18, and it's just sort of how

1 the regional geology fits up. There's one main bump, but
2 all the subsequent bumps are much more subtle and can only
3 be seismically defined.

4 Q. What about that initial well? What did that
5 produce?

6 A. I've included a -- it produced 177,000 barrels of
7 oil and 293,000 barrels of water.

8 Q. And when did that well cease producing?

9 A. Mid-fifties. So we have no -- we have some
10 cumulative numbers, but no curves to see well performance.

11 Q. And is that reflected on Exhibit 3?

12 A. Yes, it is.

13 Q. You mentioned that these bumps have to be
14 seismically defined. What is --

15 A. That's correct.

16 Q. What is Exhibit 4?

17 A. Exhibit 4 is a shotpoint base map showing where
18 our shot points lie in relation to Section 13, showing the
19 location.

20 It's listed on here -- and I just noticed this
21 -- as the JCT Brown 13-1. That was the initial in-house
22 location. We've permitted it as the JCD Federal 13-1.

23 Q. Okay.

24 A. It also shows the relationship of a previous dry
25 hole, the Cobra 13-1.

1 Q. Was that Cobra well drilled on the same seismic
2 data that you are employing?

3 A. Same seismic data, different processing.

4 Q. Okay. Now Exhibit 4 shows your seismic lines.
5 Why don't you do them together --

6 A. Okay.

7 Q. -- Exhibits 5 and 6, and what do they --

8 A. Exhibits 5 and 6, I've included an east-west --
9 or a west-to-east seismic line through the location and a
10 north-to-south seismic line through the location.

11 The red line -- The green line is the proposed
12 well location. The red line at the bottom is actually the
13 top of the lower Mississippian. It's the easiest marker to
14 map on. Down at that point the Devonian's internal
15 structure is difficult to define, so I've included the
16 Mississippian structure here.

17 And it shows the sharp peak that we are getting
18 here and the small bump and the reason for our unorthodox
19 location. It is four traces wide, that's approximately 400
20 to 450 feet wide on this bump where we need to drill, which
21 lies right across that quarter-section line.

22 EXAMINER JONES: Oh, okay.

23 Q. (By Mr. Bruce) So it's very important that you
24 be right at the top of that --

25 A. Very much so.

1 Q. -- little bump?

2 A. Very much so.

3 Q. Does this also show that the bump extends over
4 into the southwest quarter of the northwest quarter --

5 A. Yes, it does.

6 Q. And to the adjoining -- what would be a normal
7 well unit?

8 A. Yes, it does.

9 Q. Also in your opinion, does the Devonian structure
10 in this area include more than 40 acres?

11 A. Yes, it does.

12 Q. And so drilling at this location is necessary to
13 maximize your chances of making a commercial well?

14 A. That's correct.

15 Q. And furthermore, because of matters which will be
16 discussed by the engineer from a geologic perspective, will
17 the well drain the entire bump?

18 A. Yes, it will.

19 Q. And therefore an 80-acre well unit is necessary?

20 A. That's correct.

21 Q. Now insofar -- you mentioned the prior Cobra
22 well.

23 Obviously -- How far away is that well from this
24 location?

25 A. Oh, approximately 1500 feet.

1 Q. And that well tested the Devonian?

2 A. Yes, it did.

3 Q. And it was a dry hole?

4 A. Yes, it was.

5 Q. So you have to be very precise in the locatio of
6 these wells?

7 A. Yes, you do.

8 Q. Were Exhibits 1A through 6 prepared by you or
9 compiled from company business records?

10 A. Yes, they were either compiled for me or
11 consultants.

12 Q. And in your opinion is the granting of this
13 Application in the interests of conservation and the
14 prevention of waste?

15 A. Yes, it is.

16 MR. BRUCE: Mr. Examiner, I'd move the admission
17 of Exhibits 1A through 6.

18 EXAMINER JONES: Exhibits 1A through Number 6
19 will be admitted into evidence.

20 EXAMINATION

21 BY EXAMINER JONES:

22 Q. Were you able to also see a bump on that -- the
23 previous producer out here, that little knob that you've
24 drawn over in -- you know, southwest of -- northwest of 18?
25 I mean --

1 A. Yes.

2 Q. -- is this 2-D seismic here?

3 A. This is 3-D seismic.

4 Q. 3-D?

5 A. Yes, sir.

6 Q. Recent stuff?

7 A. I'm not sure the vintage. It's newer data
8 though, yes, sir.

9 Q. The interpretation is brand-new?

10 A. Yes.

11 Q. Did you guys do that in house?

12 A. We have a consultant, Steve Blalock, who does all
13 of our seismic interpretations.

14 Q. Okay.

15 A. But yes, we did have a bump over on the Federal
16 7.

17 Q. Okay, so it did show it over there --

18 A. Yes, it does.

19 Q. And you've got sonic logs or something to --

20 A. Some, yes.

21 Q. Some?

22 A. Right.

23 Q. I remember a lot of sonic logs were run out in
24 the -- I know this Capital area, and --

25 A. Yeah.

1 Q. I guess all that oil was produced at a dollar a
2 barrel --

3 A. Yes, it was.

4 Q. -- back in those days? Wow. Okay.

5 EXAMINER JONES: Well, it appears -- You've got
6 two witnesses, you're not going to have a landman?

7 MR. BRUCE: Not a landman, but we do have some
8 land information.

9 Q. (By Examiner Jones) Okay. Okay. Well, this --
10 it sounds like, you know, this structure map -- I don't
11 know how you draw these little valleys in here, unless
12 you've got more control than it seems on there, but I -- I
13 guess that Number 24 down in the -- or in Section 24, there
14 must have been something --

15 A. There is.

16 Q. -- down -- okay.

17 A. There is another seismic bump down there.

18 Q. Okay. Well, it sounds logical that you need both
19 40-acre tracts, at least from this data.

20 And how much well do you need to make a payout,
21 big a well?

22 A. Typically our economics run at a 3 to 1, so a --
23 I'm trying to think our last AFE. I don't remember the
24 last. So 100,000 barrels was kind of a good number to
25 shoot for, so that target well that produced 180 is --

1 Q. So it's a 3-to-1 --

2 A. That's --

3 Q. -- reservoir --

4 A. -- in-house --

5 Q. -- that --

6 A. -- that's correct.

7 Q. -- ratio? Okay.

8 And what about the Wolfcamp up here? Is there
9 any Wolfcamp above the Devonian?

10 A. We have seen no other economic zones yet.

11 Q. Nothing. What are you going to do with the
12 water?

13 A. We do have disposal in the area, potential
14 disposal in the San Andres in the area.

15 The base maps that I supplied only show wells
16 greater than 10,000 feet. I've taken off all the shallow
17 San Andres wells that are in the area, just for the ease of
18 the maps.

19 Q. Okay.

20 A. So we do have disposal in the San Andres.

21 Q. What about the old wells? Are you going to re-
22 enter them and try to skim some more oil or anything?

23 A. We have no plans to at this time.

24 EXAMINER JONES: Okay. Okay, that's -- Thanks a
25 lot, Mr. Bryden.

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JIM STEVENS,

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

DIRECT EXAMINATION

BY MR. BRUCE:

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

A. Jim Stevens.

Q. Where do you reside?

A. Odessa, Texas.

Q. Who do you work for and in what capacity?

A. I work for J. Cleo Thompson, I'm a petroleum engineer, I'm the operations manager.

Q. Have you previously testified before the Division?

A. Yes, I have.

Q. And were your credentials as an expert petroleum engineer accepted as a matter of record?

A. Yes, they were.

Q. And are you familiar with the engineering matters involved in this Application?

A. Yes, I am.

MR. BRUCE: Mr. Examiner, I'd tender Mr. Stevens as an expert petroleum engineer.

EXAMINER JONES: Mr. Stevens is qualified as an expert in petroleum engineering.

1 Q. (By Mr. Bruce) Mr. Stevens, I think the data in
2 your first three exhibits is pretty simple. Why don't you
3 run through that and explain what those graphs show?

4 A. Exhibit 7 is a pressure-versus-time chart from a
5 drill stem test, a bottomhole pressure gauge, and it showed
6 a very unique character. I've drill stem tested for many
7 years, and this was the first chart I ever saw that --
8 where -- the shut-in point is right here in the graph --

9 EXAMINER JONES: Yeah.

10 THE WITNESS: -- and we shut it in, and the
11 pressure came up immediately and turned a corner, showing
12 an indication of extremely high permeability.

13 Q. (By Mr. Bruce) And this is for one of the two
14 wells that J. Cleo Thompson has drilled out there, is it
15 not?

16 A. Yes, this is for the JCT Federal 18 Number 1. It
17 says Junction, but that's JCT, that's the initials of our
18 owner.

19 Q. And you said you've looked at how many DSTs over
20 the last number of years?

21 A. Oh, 70 or 80 or 90.

22 Q. And is this the first one you've ever seen that
23 exhibited this characteristic?

24 A. Yes.

25 Q. So after that, what did you have done with that

1 data?

2 A. We had the analyst from Rig Testers,
3 Incorporated, model it to try to come up with permeability,
4 which is indicated on Exhibit 8. The graph itself is
5 pretty meaningless, but the solution is in the bottom right
6 corner, and it indicates a permeability of 1340
7 millidarcies.

8 Q. Pretty high?

9 A. Very high. It seems -- which matches the
10 character we saw on the pressure gauge.

11 Q. Okay. And then what is reflected in Exhibit 9?

12 A. Exhibit 9 was a similar drill stem test we
13 performed on the JCT Federal 7 Number 1. And it's the same
14 type of pressure chart, and this is the second time I'd
15 ever seen this type of behavior before, where the pressure
16 just turned the corner immediately.

17 Q. So it appears that the Devonian bumps in this old
18 pool have extremely high permeability?

19 A. That's correct.

20 Q. And based on this data and the fact that the well
21 is at an unorthodox location, is it your opinion that the
22 proposed 13-1 well will drain both the southeast quarter of
23 the northwest quarter and the southwest quarter of the
24 northwest quarter?

25 A. Yes, it is.

1 Q. Next I'd refer you to Exhibit 10, Mr. Stevens.
2 Is that simply a land plat highlighting the proposed well
3 unit?

4 A. Yes, it is.

5 Q. And is that 80 acres covered by a single federal
6 lease?

7 A. Yes, it is.

8 Q. Did J. Cleo Thompson have a title opinion
9 prepared on that acreage?

10 A. Yes, we did.

11 Q. And are the highlights of that title opinion
12 summarized on Exhibit 11?

13 A. Yes, it is.

14 Q. And that shows the federal lease number. A
15 couple of items. There is common overriding royalty, and
16 obviously royalty interest throughout this 80 acres?

17 A. Yes, there is.

18 Q. And then it lists working interest owners other
19 than J. Cleo Thompson, but J. Cleo Thompson has acquired
20 term assignments from those interest owners, has it not?

21 A. Yes, they have.

22 Q. And those term assignments have a continuous
23 drilling provision?

24 A. Correct.

25 Q. If you didn't get the 80 acres in order to

1 maintain the term assignments in effect, would you have to
2 drill a second well on the southwest quarter of the
3 northwest quarter?

4 A. Yes, we would.

5 Q. And in your opinion would that be wasteful, based
6 on the engineering matters that you've seen from the other
7 wells in this area?

8 A. Absolutely, yes.

9 Q. You don't think that two wells are necessary to
10 drain this 80 acres?

11 A. That's correct.

12 Q. And were the working interest owners who gave you
13 the term assignments notified of this Application?

14 A. Yes, they were.

15 Q. And is that reflected on Exhibit 12?

16 A. Yes, sir.

17 Q. And were Exhibits 7 through 9 either prepared by
18 you or compiled from company business records?

19 A. Yes, sir.

20 Q. And in your opinion is the granting of this
21 Application in the interest of conservation and the
22 prevention of waste?

23 A. Yes, sir.

24 MR. BRUCE: Mr. Examiner, I'd move the admission
25 of Exhibits 7 through 12.

1 EXAMINER JONES: Exhibits 7 through 12 will be
2 admitted.

3 EXAMINATION

4 BY EXAMINER JONES:

5 Q. This is interesting, you've got such high
6 permeability. Of course the DSTs, they're real short
7 duration, and to model them -- you've obviously seen a lot
8 more than I have, so... You've pretty much made your case
9 for big -- good perm in this area.

10 Is it lenticular rock or something, or is it
11 bottom -- is bottom water going to bother you on this
12 stuff?

13 A. It's possible. You know, late in the life of the
14 well it's very possible for it to make a lot of water, so
15 we try to really complete it in the very top of these
16 little structures.

17 Q. Okay. And are you going to drill stem test the
18 well you drill?

19 A. Yes.

20 Q. Okay.

21 A. That's a common practice for us.

22 Q. Okay.

23 A. We call it a scratch-and-sniff operation. We
24 drill 10 foot of Devonian and then drill stem test
25 immediately, because of the bottom water --

1 Q. Okay.

2 A. -- can be a problem.

3 Q. So you're looking for water -- I mean, you're
4 hoping to --

5 A. Stay away from the water.

6 Q. -- stay away from the water?

7 A. But like Jeff said, we do have a disposal
8 prospect there in the San Andres with an offset operator
9 and the landowner.

10 Q. Okay. That San Andres, I better mention, in some
11 areas it's really high corrosive. And you know that, I'm
12 sure, lower San Andres, upper Glorieta. And there's been
13 some problems especially right on the outskirts of
14 Lovington there. And just as long as all the wells are
15 cemented in the area of review all the way across those
16 zones, you know -- otherwise you might have to go down
17 deeper in the Devonian here and --

18 A. Yes.

19 Q. -- or something.

20 A. The San Andres production there is approximately
21 4900 feet, and we set our intermediate casing at 5100 feet
22 and cover the San Andres before we drill our longhole.

23 Q. What do you see on your mudlog when you drill
24 through the San Andres out here? Do you see any shows?

25 A. We don't mudlog the San Andres because we're not

1 interested in the San Andres. We put a mudlogger on after
2 our intermediate casing, and from that point down we've
3 seen very little.

4 Q. What about through the Devonian? Do you see
5 any --

6 A. Yes.

7 Q. Did you see lots of good shows --

8 A. Yes.

9 Q. -- on top of the Devonian? So it's real easy to
10 see --

11 A. Yes, sir.

12 Q. -- if you go through it?

13 In the Saunders field, we -- when I was working
14 out there, we didn't have mudloggers for the San Andres,
15 and all of a sudden there was oil all over the pits, you
16 know. And then I come back to New Mexico years later and
17 there's a Saunders-San Andres field out there, so...

18 A. Yeah, this little San Andres field is mainly a
19 gas field.

20 Q. Okay.

21 A. Yeah, it makes a little bit of oil but it's
22 mostly gas.

23 Q. So it's -- Okay.

24 A. It's kind of unusual in the San Andres to have a
25 gas field like that.

1 Q. Hm. Sounds like you've been working out here a
2 long time?

3 A. Yes, sir, a long time.

4 Q. The -- all of the -- So this is one lease, and
5 you would have to drill another well if you don't have this
6 and you've made a case that you can drain the 80 acres
7 easily. I notice there's a west -- or one of the Sawyer
8 fields is spaced on 80 acres --

9 MR. BRUCE: Yeah, I think that's --

10 EXAMINER JONES: -- from a long time ago.

11 MR. BRUCE: Yeah, that's a little further away.

12 Q. (By Examiner Jones) But it's optional second
13 well too, so...

14 But this one, you haven't needed to drill -- you
15 do have three wells right in the San Andres -- in the --

16 A. We have two completed, we're drilling the Federal
17 24 Number 1 now --

18 Q. Okay.

19 A. -- and the Federal 13 is permitted, we have
20 received a permit on that.

21 Q. And those look like they could drain plenty 80
22 acres easily then?

23 A. Yes, sir.

24 EXAMINER JONES: Okay, I don't have any more
25 questions.

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MR. BRUCE: Mr. Stevens did say that they just received an API number for the well, Mr. Examiner.

THE WITNESS: That's what we were trying to get, right when you were swearing us in.

MR. BRUCE: It's 30-025-38597.

EXAMINER JONES: Thank you. Okay, Mr. Stevens, Mr. Bryden, Mr. Bruce, thank you.

(Thereupon, these proceedings were concluded at 9:24 a.m.)

* * *

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. _____, heard by me on _____.
_____, Examiner
Oil Conservation Division

CERTIFICATE OF REPORTER

STATE OF NEW MEXICO)
) ss.
 COUNTY OF SANTA FE)

I, Steven T. Brenner, Certified Court Reporter and Notary Public, HEREBY CERTIFY that the foregoing transcript of proceedings before the Oil Conservation Division was reported by me; that I transcribed my notes; and that the foregoing is a true and accurate record of the proceedings.

I FURTHER CERTIFY that I am not a relative or employee of any of the parties or attorneys involved in this matter and that I have no personal interest in the final disposition of this matter.

WITNESS MY HAND AND SEAL November 2nd, 2007.



STEVEN T. BRENNER
 CCR No. 7

My commission expires: October 16th, 2010