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I N D E X

JOE ALLEN YOUNG

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MR. STOGNER: We will now call
Case Number 8675.

MR. TAYLOR: Application of
Mesa Petroleum Company for special pool rules, 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 Mesa Petroleum Company.

I have one witness who needs to
be sworn.

MR. STOGNER: Are there any
other appearances in this matter?

Will the witness please stand
and be sworn.

(Witness sworn.)

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

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DIRECT EXAMINATION

BY MR. CARR:

Q Will you please state your full name and place of residence?

A Joe Allen Young, Amarillo, Texas.

Q Mr. Young, by whom are you employed and in what capacity?

A Mesa Petroleum Company as a reservoir engineer.

Q Have you previously testified before this Division?

A No, sir, I have not.

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

A I attended and graduated from Texas A & M University in 1982 with a Bachelor of Science degree in petroleum engineering.

Since that time I've been employed as a reservoir engineer for Mesa Petroleum.

Q Does your area of responsibility with Mesa include the portion of southeastern New Mexico which is the subject of today's hearing?

A Yes, sir, it does.

1 Q Are you familiar with the application
2 filed in this case on behalf of Mesa?

3 A Yes, sir, I am.

4 Q And are you familiar with the subject
5 area?

6 A Yes, sir.

7 MR. CARR: Are the witness'
8 qualifications acceptable?

9 MR. STOGNER: They are.

10 Q Mr. Young, would you briefly state what
11 Mesa is seeking in this case today?

12 A Mesa is seeking to establish temporary
13 pool rules for the Northeast Eidson Mississippian Pool with
14 a GOR of 4000 standard cubic feet per barrel.

15 Q Have you prepared certain exhibits for
16 introduction in this case?

17 A Yes, sir.

18 Q Would you refer to what has been marked
19 for identification as Mesa Exhibit Number One, identify this
20 and review the information contained thereon?

21 A Exhibit Number One is a location plat.
22 The red arrow identifies the Townsend State Com No. 1, the
23 discovery well for this pool.

24 The well was drilled with the Strawn as
25 the primary objective but it was completed in the Mississip-

1 pleted in?

2 A The well you're referencing is a Siluro-
3 Devonian well.

4 Q So three are no Mississippian, other Mis-
5 sissippian wells or Chester wells within 2-1/2 miles of the
6 subject --

7 A No.

8 Q Is that 2-1/2 miles radius keyed to any-
9 thing or is that just an arbitrary figure based on the size
10 of this plat?

11 A It's just an arbitrary figure.

12 Q Are there other Mississippian pools in
13 this immediate area?

14 A Yes, sir, I believe there are two other
15 pools. Neither one of the pools are located within the 2-
16 1/2 miles radius, though.

17 Q Now, is the subject well, the Townsend
18 State Com No. 1, drilled at a standard location?

19 A No, sir, it is an unorthodox location.

20 Administrative Order NSL 1986 and the
21 attached Form C-102 indicate administrative approval for
22 this location.

23 Q And is that NSL 1986 and Form C-102 what
24 has been marked as Mesa Exhibit Number Two in this case?

25 A Yes, sir, it is.

1 Q Would you now go to Mesa Exhibit Number
2 Three, identify that and review that, please?

3 A Yes, sir. Exhibit Number Three contains
4 various forms which are summarized on the sheet in front.

5 Q Are these State forms?

6 A Yes, sir, they are.

7 Q Would you go to the summary sheet, which
8 is the first page of this exhibit, and review the informa-
9 tion to the Examiner?

10 A Yes, sir. The exhibit indicates that the
11 well was -- began drilling in February, 1985. It reached
12 total depth in March of 1985. The total depth was 12,275
13 feet.

14 The initial potential, as listed there,
15 indicating a GOR of 3200 standard cubic feet per barrel.

16 In the package you'll notice that there
17 are two GOR tests submitted. The second GOR test was per-
18 formed after the well was stimulated, which indicated a GOR
19 of 3500.

20 Current production rate indicates a GOR
21 of somewhat less than 3700 standard cubic feet per barrel.

22 Q And that is the reason you're seeking the
23 special gas/oil ratio?

24 A Yes, sir, it is.

25 Q What is the gas/oil ratio that's provided

1 for by statewide rules?

2 A I believe it's 2000.

3 Q 2000-to-1?

4 A Standard cubic feet per barrel.

5 Q How would you describe the Mississippian
6 formation in this general area?

7 A In Mesa's experience the Mississippian
8 limestone, as encountered in this area, is made up of small,
9 discrete, discontinuous reservoirs.

10 Q Now would you to Mesa Exhibit Number
11 Four, identify what it is, and review it, please?

12 A Yes, sir. Exhibit Number Four is a copy
13 of the porosity induction logs, the Townsend State Com No.
14 1.

15 The logs indicate a perforated interval
16 from 12,208 to 13,215. The zone is a limestone; average po-
17 rosity of about 9 to 10 percent; average water saturation of
18 about 12 to 15 percent.

19 On the density logs you'll notice that
20 over the perforated -- over the entire perforated interval
21 the density and neutron logs indicate a crossover effect.
22 This can be attributed to several things; primarily, litho-
23 logy, the present of silica or quartz in a log that's run on
24 a limestone matrix will cause crossover of this nature, re-
25 gardless of (not understood.)

1 Q Now, do you have here an oil well or a
2 gas well?

3 A This is an oil well.

4 Q Does Mesa have plans for any additional
5 development in this immediate area?

6 A It's currently under evaluation.

7 Q And will that further development be de-
8 pendent upon the performance of the Townsend Com No. 1?

9 A Yes, sir.

10 Q Mr. Young, what would be the effect on
11 Mesa if this application for temporary pool rules is denied?

12 A It would create undue economic hardship
13 and prevent Mesa from supporting their correlative rights in
14 this single well reservoir.

15 Q Does Mesa -- would it affect Mesa's abil-
16 ity to gather additional data on the reservoir?

17 A Yes, sir, it would.

18 Q For what period of time are you seeking
19 temporary rules that provide for a special gas/oil ratio?

20 A We believe two years would be appro-
21 priate.

22 Q And at the end of that time do you be-
23 lieve you would have information that would either support
24 or refute the establishment of permanent special pool rules?

25 A Yes, sir, we would. We'd have additional

1 production data and possibly information from the second
2 well.

3 Q In your opinion will granting this appli-
4 cation be in the best interest of conservation, the preven-
5 tion of waste, and the protection of correlative rights?

6 A Yes, sir, it would.

7 Q Were Exhibits One through Four prepared
8 by you or drawn from records of Mesa Petroleum Company?

9 A Yes, sir, they were.

10 MR. CARR: Mr. Stogner, at this
11 time we would offer into evidence Mesa Exhibits One through
12 Four.

13 MR. STOGNER: Exhibits One
14 through Four will be admitted into evidence.

15 MR. CARR: And that concludes
16 my direct examination of Mr. Young.

17 MR. STOGNER: The record in
18 Case Number 8670 will be taken under administrative notice
19 in this case.

20

21

CROSS EXAMINATION

22 BY MR. STOGNER:

23 Q Mr. Young, the green outline in Exhibit
24 One is the proposed pool boundary of the proposed pool, is
25 that correct?

1 A Yes, sir, it is.

2 Q And what's the acreage dedicated to a
3 Mississippian well in this pool, or proposed pool?

4 A 40 acres.

5 Q Does Mesa at this time control the other
6 three 40-acre spacing units?

7 A There are -- I can't tell you precisely.
8 The interests in the various zones --as you can see that
9 this is not a Mississippian area; that primarily, the prim-
10 ary producing zones in this area are Strawn and Wolfcamp,
11 and the interests in the deeper zones are not evenly divided
12 so that it's not -- I can't tell you that we own all the
13 interest in the Mississippian formation in the entire 160
14 acres.

15 Q Do you know if Mesa is planning on drill-
16 ing another Mississippian well out here?

17 A It's currently under evaluation, yes,
18 sir.

19 Q And where would that proposed well be or
20 has that been --

21 A No, sir, we haven't decided.

22 Q Let's go to your well logs, Exhibit Num-
23 ber Four. What type of reservoir would you say this Missis-
24 sippian was?

25 What's the driving mechanism?

- 1 A Solution gas drive.
- 2 Q In your opinion do you think this 4000-
- 3 to-1 could hamper this type of a gas drive, allowing so much
- 4 gas to be taken out?
- 5 A No, sir, I do not believe so.
- 6 Q Why is that?
- 7 A We do not believe that we're perforated
- 8 in the gas cap. We believe we're perforated in the oil
- 9 section of the reservoir.
- 10 Q Where do you propose, or where do you
- 11 think the gas cap is? How far up does it extend?
- 12 A Currently we do not believe a gas cap
- 13 exists.
- 14 Q Where's the uppermost impermeable layer
- 15 in this particular well in the Mississippian?
- 16 A In our experience, if I understand your
- 17 question, sir, the shale barrier immediately above 12,208.
- 18 Q And your first perforation is at 12,208,
- 19 is that correct?
- 20 A Yes, sir.
- 21 Q So if a gas cap was to form you'd be
- 22 right there in it?
- 23 A Yes, sir, we would.
- 24 Q Where's the lowermost impermeable layer
- 25 in this pool?

1 A We believe that the permeable interval is
2 confined to the perforated interval.

3 Q So you would have perforations throughout
4 the gas cap and the liquid portion of this --

5 A Yes, sir --

6 Q -- reservoir.

7 A -- we would.

8 Q When did this well first go on stream?

9 A There was a series of testing and evalua-
10 tion done on the well but, as you can see from Exhibit Num-
11 ber Three, the well was TD'ed in March of 1985. Subsequent
12 completion and testing continued through April and May.

13 Q So it really hasn't been put on line.

14 A Yes, sir, it has.

15 Q It has. Okay, and Warren Petroleum is
16 taking the gas for sale.

17 A Yes, sir, I believe that is correct.

18 MR. STOGNER: Are there any
19 other questions of Mr. Young?

20 If not, he may be excused.

21 Anything further in Case Number
22 8675?

23 MR. CARR: Nothing further.

24 MR. STOGNER: Does anybody else
25 have anything further in Case Number 8675?

 If not, this case will be taken
under advisement.

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. 8675, heard by me on 14 August 1985.

Michael E. Higgins, Examiner
Oil Conservation Division

NEW MEXICO OIL CONSERVATION COMMISSION

EXAMINER HEARING

SANTA FE, NEW MEXICO

Hearing Date AUGUST 14, 1985 Time: 8:00 A.M.

NAME	REPRESENTING	LOCATION
WILLIAM R. MIERTSCHIN	MESA PETROLEUM Co.	AMARILLO, TEXAS
JOE A. YOUNG	MESA PETROLEUM Co.	AMARILLO, TEXAS
R.P. Babe Kanderich	El Paso Natural Gas Co.	El Paso, TX
W.L. McCay	Consultant - W. Scott	Santa Fe
Paul Kuhn	Byram	Santa Fe
J.W. Kellorhin	Kellorhin & Kellorhin	Santa Fe
William A. Fair	Campbell and Jack	Santa Fe
Eugene L. Parba	ATTY AT LAW	Santa Fe
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Floyd Serris	Self	Emery N.M.
R. D. Serris	Self	Emery N.M.
A.L. Jans	Southland Royalty Co.	Midland, TX
Duke Stevens	" "	" "
E.R. Anderson	" "	" "
Steve Falco	" "	Fort Worth, TX.
Eric Busch	NMOC	Agree