

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

7 October 1987

EXAMINER HEARING

IN THE MATTER OF:

Application of Santa Fe Energy Oper- CASE
ating Partners, L. P., for four non- 9234
standard gas proration units, Eddy
County, New Mexico.

BEFORE: Michael E. Stogner, 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 Santa Fe Energy:	James. G. Bruce Attorney at Law HINKLE LAW FIRM Post Office Box 2068 Santa Fe, New Mexico 87504-2068
For Union Oil of Cal- ifornia:	William F. Carr Attorney at Law CAMPBELL & BLACK P. A. Post Office Box 2208 Santa Fe, New Mexico 87501-2208

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1
2 MR. STOGNER: Call next Case
3 9234.

4 MR. TAYLOR: Application of
5 Santa Fe Energy Operating Partners, L. P., for four
6 nonstandard gas proration units, Eddy County, New Mexico.

7 MR. STOGNER: Call for appear-
8 ances in this case.

9 MR. BRUCE: May it please the
10 Examiner, I'm Jim Bruce from the Hinkle Law Firm in Santa
11 Fe, on behalf of Santa Fe Eergy Operating Partners, and I
12 have three witnesses to be sworn.

13 MR. CARR: May it please the
14 Examiner, I'm William F. Carr, from the law firm of Campbell
15 & Black, P. A., of Santa Fe, appearing on behalf of Union
16 Oil of California.

17 MR. STOGNER: Will the witnes-
18 ses please stand at this time to be sworn?

19
20 (Witnesses sworn.)

21
22 PATRICK J. TOWER,

23
24 being called as a witness and being duly sworn upon his
25 oath, testified as follows, to-wit:

1

2

DIRECT EXAMINATION

3

BY MR. BRUCE:

4

Q

Will you please state your full name and your city of residence?

6

A

It's Patrick J. Tower. I live in Midland, Texas.

8

Q

And what is your occupation and who is your employer?

10

A

Landman with Santa Fe Energy Company.

11

Q

And have you previously testified before the OCD and had your credentials as a landman accepted as a matter of record?

14

A

Yes, I have.

15

Q

Were you in charge of the land matters involved in Case Number 9234?

17

A

Yes, I was.

18

MR. BRUCE: Mr. Examiner, are

19

the witness' credentials acceptable?

20

MR. STOGNER: They are.

21

Q

Briefly, Mr. Tower, what does Santa Fe seek in this application?

23

A

We seek, or Santa Fe seeks four nonstandard units in the Wolfcamp formation comprised of the west half of Section 2 and the west half of Section 11 of

25

1 Township 22 South, Range 27 East, Eddy County, New Mexico.

2 The southwest quarter of Section 2
3 currently has a well on it; for the other quarter sections
4 we have proposed additional wells.

5 Q Would you please refer to Exhibit Number
6 One and discuss its contents?

7 A Okay. Exhibit Number One is a land plat
8 and yellow identifies Santa Fe's acreage in which we own 100
9 percent working interest in the involved tracts.

10 The outlined blue area is a working
11 interest unit in which Union of California is currently the
12 operator, and basically shows the position of the other
13 non-operators in the area.

14 Q What field is the Chase State 2-1 Well in
15 the southwest quarter of Section 2 and -- what field is that
16 well in and what field would the proposed wells be in?

17 A In both cases it would be in the East
18 Carlsbad Wolfcamp Gas Pool.

19 The pool was originally created in --
20 under Order No. R-5015 on June 1st, 1975, and was originally
21 spaced on 160-acre units.

22 Under Order No. R-5144 it was subsequent-
23 ly increased, the spacing was subsequently increased to 320
24 acres.

25 Under statewide Rule 104-C this pool

1 would be on 160-acre spacing.

2 Currently it should be noted that there
3 -- the two wells in the east half of Section 2 and the two
4 wells in the north half of Section 1 are currently under the
5 -- or currently have assigned 160 acres to each well.

6 Q Who are the offset operators to the pro-
7 posed units?

8 A To the east we have -- or in Section 2,
9 excuse me, in the east half of Section 2, TXO Production
10 Company, Champlin Petroleum Company.

11 To the north we have Champlin again, Wes-
12 tern; to the northwest, Cities Service.

13 To the west, Union Oil Company of Cali-
14 fornia being the operator of their working interest unit.

15 To the southwest we have Santa Fe again
16 and Exxon.

17 To the east in Section 11 we have Western
18 Oil Producers.

19 Q And to the south?

20 A And to the south, excuse me, we have
21 again TXO and Union Oil Company of California, and Santa Fe.

22 Q Four proposed nonstandard units, how many
23 royalty interest owners are there?

24 A There are five, being two in the west
25 half of Section 2, and then three in the west half of Sec-

1 tion 11.

2 Q Were all offset operators and royalty
3 interest owners in the four proposed units notified of this
4 hearing by certified mail, and I refer you to Exhibit Number
5 Two?

6 A Yes, they were. Exhibit Number Two is
7 the certificate of mailing to the involved parties and
8 copies of the return receipts from all involved parties, as
9 well as the original letter of notification in which waiver
10 of the -- of their -- any objection was sought. Waiver was
11 obtained from all parties with the exception of a few. Al-
12 though they did not voice any objections, they did not
13 return their waiver letters, those parties being Exxon,
14 Union Oil Company of California, who I understand is
15 represented today, the royalty owner in the north half of
16 the northwest quarter of section, and one of the royalty
17 owners under Union's tract in the east half of the southwest
18 of Section 13.

19 All other parties did sign the waiver
20 letter.

21 Q What are the names of the two royalty
22 interest owners who did not sign?

23 A In the north half of the northwest sec-
24 tion is Frankie Viola Lehman. In the east half southwest
25 Section 11 is currently under a revocable trust into I think

1 it's Josephine Tracy Eddy and George D. Tracy, George D.
2 Tracy, Junior, Trustees of the Josephine Tracy Eddy
3 revocable trust, which is dated 12-16-77.

4 Q In your opinion is the granting of this
5 application in the interests of conservation and the
6 prevention of waste?

7 A Yes, it is.

8 Q And were Exhibits One and Two prepared by
9 you or under your supervision?

10 A Yes, they were.

11 MR. BRUCE: Mr. Examiner, I
12 move the admission of Exhibits One and Two.

13 MR. STOGNER: Exhibits One and
14 Two will be admitted into evidence at this time.

15 MR. BRUCE: I have no further
16 questions of the witness at this time.

17 MR. STOGNER: I don't have any
18 questions at this time, either, but I might. I might before
19 the case is over.

20 Continue, Mr. Bruce.

21
22 CURTIS ANDERSON,
23 being called as a witness and being duly sworn upon his
24 oath, testified as follows, to-wit:
25

1

2

DIRECT EXAMINATION

3

BY MR. BRUCE:

4

Q

Will you please state your name and city

5

of residence?

6

A

My name is Curtis Anderson. I live in

7

Midland, Texas.

8

Q

And who is your employer and what are you

9

employed as?

10

A

I am a geologist for Santa Fe Energy Com-

11

pany.

12

Q

Have you previously testified before the

13

OCD as a geologist?

14

A

Yes, I have.

15

Q

And are you familiar with the geological

16

matters involved in this case?

17

A

Yes.

18

MR. BRUCE: Mr. Examiner, is

19

the witness acceptable?

20

MR. STOGNER: Mr. Anderson is

21

so qualified.

22

Q

Mr. Anderson, will you please refer to

23

Exhibit Number Three and discuss its contents?

24

A

Exhibit Number Three is a structure map

25

on top of the what I'm calling Lower Wolfcamp A pay zone.

1 This is the pay zone that is the producing interval in the
2 offset Wolfcamp wells to our proration units.

3 The green colored circles are Wolfcamp
4 producers. The red squares are Santa Fe's proposed loca-
5 tions on the 160-acre unit.

6 The purpose of this map is to show that
7 these locations are either on strike or up dip to production
8 within the field and that the structure is regional dip to
9 the east/southeast direction.

10 Q Before we move on, what are the locations
11 for the three proposed wells?

12 A The three proposed wells, beginning in
13 Section 2, 1980 -- excuse me, 1980 feet out of the north and
14 west and 660 feet out of the south and west.

15 Q The last mentioned location is in the
16 southwest quarter of Section 11, is that correct?

17 A Yes.

18 Q All right, would you please now move on
19 to Exhibit Number Four.

20 A Exhibit Number Four is an Isopach map of
21 the porosity within the Lower Wolfcamp A pay zone. Again
22 here the Wolfcamp producers are colored in green and the

23

24

25

1 cumulative production is noted by each well and that cumula-
2 tive is through 1-1 of '87.

3 The Isopach of porosity greater than or
4 equal to 3 percent. The interpretation for the formation is
5 this is a wedge of clastic, carbonate clastic material that
6 was deposited along the Wolfcamp Shelf edge.

7 Q Thank you. Would you now please move on
8 to Exhibit Five and describe its contents?

9 A Exhibit Number Five is a stratigraphic
10 cross section A-A' with A to the south beginning at the
11 Western Oil Producers No. 1 Bass, located in the northwest
12 quarter northeast quarter of Section 11, then to the TXO No.
13 1 Delta Phi, located in the southeast quarter of Section 2,
14 on to the Santa Fe Operating Partners No. 1 Chase, located
15 in the southwest of Section 2, and finally, to Champlin No.
16 1 Nix Yates located in the northwest quarter of Section 2.

17 And the purpose of this cross section is
18 to show the interval productive in what I'm calling the
19 Lower Wolfcamp A pay zone and that it is continuous through
20 these four wells and throughout the field.

21 Q Does the geology indicate that your three
22 proposed wells will be productive of gas and condensate?

23 A Yes.

24 Q And of the three proposed wells which
25 well does Santa Fe propose to drill first?

1 A Our first proposed location is that
2 located in the northwest quarter of Section 11.

3 Q In your opinion is the granting of this
4 application in the interest of conservation, the prevention
5 of waste, and the protection of correlative rights?

6 A Yes.

7 MR. BRUCE: Mr. Examiner, I
8 move the admission of Exhibits Three through Five.

9 MR. STOGNER: Exhibits Three
10 through Five will be admitted into evidence.

11 MR. BRUCE: I have nothing
12 further of the witness at this time.

13

14 CROSS EXAMINATION

15 BY MR. STOGNER:

16 Q Mr. Anderson, the Well No. 1 in the
17 southwest quarter of Section 2.

18 A Yes, sir.

19 Q The cumulative is what, that's 889.3 MCF?

20 A Excuse me, yes. In this, in the case of
21 this well it is not on pipeline or producing at the present
22 time, so this number is a potential number that was submit-
23 ted when the well was completed. So this is a calculated
24 open flow rate.

25 Q Okay. Do you know what kind of pressures

1 were saw on that well?

2 A I think my memory wouldn't do justice to
3 the numbers. I think our next witness would show that.

4 Q He's your engineer, I assume.

5 A Yes, sir.

6 MR. STOGNER: Mr. Bruce, is
7 that correct?

8 MR. BRUCE: That's -- that's
9 correct.

10 MR. STOGNER: I have no further
11 questions of Mr. Anderson at this time.

12 Mr. Carr?

13

14 CROSS EXAMINATION

15 BY MR. CARR:

16 Q Mr. Anderson, if you know, does Santa Fe
17 have plans to drill all three of these wells?

18 A Yes.

19 Q And if -- once the well that you propose
20 to drill first in the northwest of Section 11 is drilled,
21 that would leave 160 acres being the southwest of Section 11
22 not dedicated or not an approved unit, is that correct? Do
23 you know that? If you don't --

24 A In drilling, if it was on 160-acre
25 spacing the drilling of the northwest quarter of Section 11

1 would allow for a second well, yes, in the southwest quar-
2 ter.

3 Q But that would -- 160 acres would be the
4 only undedicated acreage in that section, isn't that cor-
5 rect?

6 A That's correct.

7 Q Do you know what order you plan to go
8 after drilling the first well? Do you plan to go up to
9 Section 2 or --

10 A Well, what we -- our plans are -- is to
11 drill the well that we have indicated to be the first one,
12 using that information to select our location for the second
13 well.

14 Q Do you have any rough estimate as to the
15 time frame within which you propose to drill all of these
16 wells?

17 A We intend to drill the first well in the
18 first quarter of 1988, and then the subsequent wells
19 sometime thereafter, one -- you know, in order.

20 Q Do you know if that would be in 1988 by
21 the current plans or do you have (unclear)?

22 A Not for certain. I would assume that at
23 least one other well would be in 1988.

24 Q Okay. That's all. Thank you.

25 MR. STOGNER: I have no further

1 questions. He may be excused.

2 Mr. Bruce?

3 MR. BRUCE: Before we begin
4 with this witness, Mr. Examiner, I don't think Santa Fe
5 Energy is opposed to a reasonable time frame to be estab-
6 lished regarding the drilling of the subsequent wells.

7 MR. STOGNER: Maybe you need to
8 explain to me about a reasonable time frame for the drilling
9 of wells. I don't know what you mean, Mr. Bruce.

10 MR. BRUCE: Well, Mr. -- as our
11 witness stated, they plan to drill the first well in the
12 first quarter of 1988 and then drill the other two wells one
13 at a time thereafter, and if the Division sets some
14 reasonable deadline for spudding the well, we have no
15 objection.

16 MR. STOGNER: But you're in
17 here today asking for nonstandard proration units. A few of
18 these wells are nonstandard locations and you're not asking
19 for that today.

20 MR. BRUCE: Well, if they would
21 not be -- they would be standard for 160-acre units.

22 MR. STOGNER: But you're not
23 asking for the whole pool to turn into 160-acre spacing.
24 You've still got to go by what the statewide rules or what
25 the rules for that pool are, but that shouldn't affect what

1 today is. If you need an unorthodox location for a couple
2 of these, then you can come in later.

3

4

5

JOSEPH R. PARADISO,

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

8

9

DIRECT EXAMINATION

10 BY MR. BRUCE:

11 Q Mr. Paradiso, would you please state your
12 full name and city of residence?

13 A I'm Joseph R. Paradiso, Midland, Texas.

14 Q And what is your occupation, Mr. Para-
15 diso, and who is your employer?

16 A Petroleum engineer with Santa Fe Energy.

17 Q And have you previously testified before
18 the OCD as an engineer?

19 A Yes, I have.

20 Q And are you familiar with the engineering
21 matters related to the application for the four nonstandard
22 units?

23 A Yes, I am.

24 MR. BRUCE: Mr. Examiner, is
25 the witness acceptable?

MR. STOGNER: They are.

1 Q Mr. Paradiso, have you made calculations
2 on acreage drained by offset or should I say just Wolfcamp
3 wells in this immediate area of interest?

4 A Yes. I've calculated drainage on the Nix
5 Yates Well in the northeast quarter of Section 2 and the
6 Western Bass Well in the northeast quarter of Section 11.

7 The calculations are given on Exhibit
8 Six.

9 Q Would you please discuss those calcula-
10 tions?

11 A What I -- what I have done is by decline
12 analysis I've estimated what the gross ultimate recovery of
13 these two wells are and then plugged that number back into
14 the basic volumetric -- basic formula for volumetric reser-
15 voir calculations, and thusly calculated the A, being the
16 drainage.

17 The Nix Yates is 140 acres and the Bass
18 No. 1 being 177 acres, for an average of the two of 158
19 acres.

20 Q Why were similar calculations not made on
21 the Delta Phi Well in the southeast quarter of Section 2 and
22 the Chase State 2-1 Well?

23 A I have insufficient data to make a deter-
24 mination there to try to make a drainage calculation. Our
25 Chase State Well, as it's been indicated before, is not on

1 production and the Delta Phi Well has not been on production
2 enough to establish any type of decline that I can -- that I
3 can make a determination of reserves, and I've had no P/z
4 data for that well, either, so --

5 Q Have you made a rough reserve calculation
6 on those two wells?

7 A Yes. I did go ahead and make a calcula-
8 tion on the -- what would be a reasonable ultimate recovery
9 based on 160 acres to show that they have similar reserves
10 to other wells in the field.

11 Q And is that submitted as Exhibit Number
12 Seven?

13 A Our Exhibit Number Seven, yes.

14 Q Referring to Exhibits Six and Seven,
15 earlier the Examiner asked about pressures on these wells.
16 Would you please identify the pressures on these four wells,
17 bottom hole pressure?

18 A Okay. They are -- on the Delta Phi No. 1
19 the bottom hole pressure, this is absolute, 4528.4 psia.

20 The Chase State 2 is 5433 psia.

21 And the Nix Yates No. 1 is 4700 and
22 that's not -- that's not exactly right. From the P/z curves
23 that I have from Dwight's, a z is in that number. I would
24 have to take that out, but they're very close, 4700 pounds;
25 same way with the Bass No. 1, 4800 pounds; be very, very

1 little, the z's are close to l.

2 Q Based on your calculations, in your
3 opinion will wells drilled to the Wolfcamp formation in
4 Section 2 and Section 11 drain 320 acres?

5 A No, in my opinion drilling wells on 320
6 acres would result in unrecovered reserves.

7 Q Does Santa Fe request that wells on its
8 nonstandard units be allowed to produce at their full
9 productive capacities?

10 A Yes, because the wells will only drain
11 160 acres.

12 Q Would you please refer to Exhibit Number
13 Eight and describe it for the Examiner?

14 A Okay. That Exhibit Number Eight is a well
15 cost estimate for the proposed well in the northwest quarter
16 of Section 1, which Santa Fe Energy plans to drill
17 commencing early in '88. The completion cost for a
18 producing well is approximately \$607,000.

19 Q In your opinion is the granting of this
20 application in the interests of conservation, the prevention
21 of waste, and the protection of correlative rights?

22 A Yes, sir.

23 MR. BRUCE: Mr. Examiner, I
24 move the admission of Exhibits Six, Seven and Eight.

25 MR. STOGNER: Exhibits Six,

1 Seven and Eight will be taken under advisement, if there are
2 no objections.

3 I'm sorry, they will be admit-
4 ted into evidence.

5 MR. BRUCE: I have no further
6 questions of the witness.

7 MR. STOGNER: Mr. Carr?

8 MR. CARR: No questions.
9

10 CROSS EXAMINATION

11 BY MR. STOGNER:

12 Q Gentlemen, I'm still confused as to why
13 you want four 160-acre spacings out there. Is it your
14 intent that two wells cannot adequately drain these two 320-
15 acre proration units?

16 A Yes, sir.

17 Q Okay. Why is that?

18 A Because of the calculations that I have
19 shown here. I'm coming up with 140 acres on one, 177 on
20 another.

21 Q Is this unstimulated flow or did they do
22 some stimulation?

23 A I'm not sure on the wells that we don't
24 -- that we don't operate, to be honest with you.

25 Our well is -- has had a little clean up

1 acid and we may stimulate it when and if we ever get a pipe
2 on it.

3 Q You're referring to your well in the --

4 A Our Chase State, yes.

5 Q Now there presently are two 160-acre
6 proration units in the east side of Section 2, is that cor-
7 rect?

8 A That's correct.

9 Q Do you know if those were old -- grand-
10 fathered in or I mean old nonstandard proration units that
11 were dedicated years ago or were they just recently ap-
12 proved?

13 A I do not know that.

14 MR. BRUCE: Our land witness
15 could answer that question, Mr. Examiner.

16 MR. STOGNER: Okay.

17 A I think he's answered it.

18 MR. TOWER: I believe the
19 northeast quarter of that Nix Yates Well was the original
20 well that was, let's see here, created that East Carlsbad
21 Pool, and I believe it's 1975, let me check here.

22 Yeah, it was established, I
23 think, 6-1-75 under that Order Number R-5015.

24 The TXO Delta Phi, I believe,
25 was drilled in '86.

A Yes, that is correct.

1 MR. TOWER: And we are a part-
2 ner with TXO in that particular well.

3 A In the Delta Phi?

4 Mr. Examiner, I do have the data here
5 now in front of me. I found the wells were stimulated,
6 acidized and with anywhere from 10,000 gallons to 5,000 gal-
7 lons of acid.

8 Q Okay. Now where actually is that Bass
9 No. 1?

10 A It is in the northeast quarter of Section
11 11.

12 Q And then the Nix Yates?

13 A Northeast quarter of Section 2.

14 Q Did you run similar calculations on those
15 two wells down in Section 14?

16 A No, sir, I just stuck to the offset
17 wells.

18 Q And how -- well, isn't there a well off-
19 setting to the south of Section 11? Isn't that an offset
20 well? Would you consider that one?

21 A Oh, the -- well, they are recently
22 drilled wells but I did not consider them.

23 Q Okay, are they spaced on 160-acre or 320?

24 A 320.

25 Q Okay, and did you do similar calculations

1 to the two Wolfcamp producing wells in Section 35?

2 A No, sir, I didn't.

3 Q Are those spaced on 320 or 160?

4 A 320, it looks like.

5 Q Okay, and just for the record, the West-
6 ern well, that's -- that's spaced on 320 acres, is it not?

7 A Yes, sir.

8 Q Okay. Do you know how many 160-acre pro-
9 ration units there are in this particular pool?

10 A I believe there are two.

11 Q And those are the ones in Section 2?

12 MR. BRUCE: And also the two
13 wells in the north half of Section 1, Mr. Examiner.

14 A Oh, yeah, the two wells in the north
15 half.

16 Q Okay, so there's essentially four.

17 A Four, right.

18 MR. BRUCE: Mr. Examiner, not
19 shown on this map is the Western Oil Producers' well which
20 was the subject of Case Number 9207 today, which will be in
21 the south half of Section 1.

22 Q Okay. I'll take notice of that.

23 MR. BRUCE: And that well is in
24 the extreme western portion of the south half of Section 1.

25 MR. STOGNER: I have no further

1 questions.

2 Mr. Carr, Do you have --

3 MR. CARR: No questions.

4 MR. STOGNER: -- any other

5 questions?

6 Mr. Bruce, do you have any?

7 MR. BRUCE: No, Mr. Examiner.

8 MR. STOGNER: All right. You

9 may be excused.

10 Do you have anything further in

11 this case, Mr. Bruce?

12 MR. BRUCE: No, sir.

13 MR. STOGNER: Mr. Carr, do you

14 have any --

15 MR. CARR: Nothing, Mr.

16 Examiner, thank you.

17 MR. STOGNER: Does anybody else

18 have anything further in Case Number 9234?

19 The case will be taken under

20 advisement.

21

22 (Hearing concluded.)

23

24

25

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. 9234,
heard by me on 7 October 1987.

Marion E. Hagan Examiner
Oil Conservation Division