

CASE 6036: E.L. LATHAM, JR., & ROY G. BARTON  
JR., FOR COM-PULSORY POOLING OF A STANDARD  
OR A NON-STANDARD OIL PRORATION UNIT &  
UNORTHODOX LOCATION OR 40-ACRE SPACING

Case Number

6036

Application

Transcripts.

Small Exhibits

ETC.

BEFORE THE  
NEW MEXICO OIL CONSERVATION COMMISSION  
Santa Fe, New Mexico  
September 14, 1977

EXAMINER HEARING

IN THE MATTER OF:

Application of Southern Union Supply  
Co., for compulsory pooling, Lea County,  
New Mexico; and Application of E. L.  
Latham, Jr., and Roy G. Barton, Jr.,  
for compulsory pooling, Lea County,  
New Mexico; and Application of E. L.  
Latham, Jr., and Roy G. Barton, Jr.,  
for compulsory pooling or in the  
alternative 40-acre spacing, Lea County,  
New Mexico.

CASES  
6035,  
6017, and  
6036  
CONSOLIDATED

BEFORE: Richard L. Stamets, Examiner.

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the New Mexico Oil Conservation Commission:	Lynn Teschendorf, Esq. Legal Counsel for the Commission State Land Office Building Santa Fe, New Mexico
For Southern Union Supply Company:	Byron Caton, Esq. TANSEY, ROSEBROUGH, ROBERTS & GERDING, P.A. Attorneys at Law 621 West Arrington Farmington, New Mexico
For E. L. Latham, Jr., and Roy G. Barton, Jr.:	Donald G. Stevens, Esq. Attorney at Law 214 Old Santa Fe Trail Santa Fe, New Mexico

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1 MR. STAMETS: Call next case. Case 6035.

2 MS. TESCHENDORF: Case 6035, application of Southern  
3 Union Supply Company for compulsory pooling, Lea County,  
4 New Mexico.

5 MR. STAMETS: Call for appearances in this case?

6 MR. CATON: Byron Caton, Tansey, Rosebrough, Roberts  
7 & Gerding, Farmington, for Southern Union Supply Company.

8 MR. STEVENS: Don Stevens, attorney in Santa Fe,  
9 representing Latham and Barton.

10 Mr. Examiner, Latham and Barton have the two next  
11 cases which are in direct opposition to the case at hand.  
12 We would suggest or ask that perhaps that the Commission might  
13 wish to consolidate these cases for the purpose of the hearing,  
14 only, or in the alternative if you don't wish to so consolidate  
15 them we might propose that our direct evidence in our two  
16 cases be considered in opposition to the case at hand.

17 MR. STAMETS: Is there any objection to consolidating  
18 these three cases?

19 MR. CATON: We have no objection -- we suggested it.

20 MR. STAMETS: Okay. Let's call Case 6017 and 6036,  
21 please.

22 MS. TESCHENDORF: Case 6017, application of E. L.  
23 Latham, Jr., and Roy G. Barton, Jr., for compulsory pooling.  
24 Lea County, New Mexico.

25 Case 6036, application of E. L. Latham, Jr., and

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1 Roy G. Barton, Jr., for compulsory pooling of a standard or  
2 a non-standard oil proration unit and an unorthodox location,  
3 or in the alternative, forty acre spacing, Lea County, New  
4 Mexico.

5 MR. STAMETS: These cases will be consolidated  
6 and separate orders may be issued or perhaps one order will  
7 suffice. That, I am sure, will make itself known.

8 MR. CATON: I have two witnesses I would like to  
9 have sworn.

10 MR. STAMETS: Will all of those who will be witnesses  
11 in this case please stand and be sworn at this time?

12 (THEREUPON, the witnesses were sworn.)

13 MR. CATON: Mr. Examiner, we will be introducing  
14 testimony regarding Case Number 6035 and in accordance with  
15 counsel's suggestion we would ask that this testimony be  
16 considered in opposition as to the other cases which have  
17 been consolidated.

18  
19 ROY SHIROCK  
20 was called as a witness by the applicant, and having been  
21 first duly sworn, testified upon his oath as follows:

22  
23 DIRECT EXAMINATION

24 BY MR. CATON:

25 Q. Would you state your name, please?

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1 A Roy Shirock and I am Chief Geologist for Southern  
2 Union Gas Company, Dallas, Texas.

3 Q Mr. Shirock, have you testified before the Oil  
4 and Gas Commission previously?

5 A Yes, I have.

6 Q Is your job involved, now, with Southern Union  
7 Supply Company, directly involved with the application that  
8 has been filed in this matter?

9 A Yes.

10 Q Are you generally familiar with the field in which  
11 this application is made?

12 A I am familiar area, the periphery of the area, of  
13 this forced pooling application that we are asking for on the  
14 north half of the northeast quarter of Section 30, Township  
15 9 South, Range 33 East.

16 MR. CATON: I would ask that Mr. Shirock's  
17 qualifications be accepted.

18 MR. STAMETS: They are.

19 Q (Mr. Caton continuing.) Mr. Shirock, can you tell  
20 the Examiner what it is that Southern Union Supply Company  
21 wants in this case?

22 A Southern Union Supply Company is seeking compulsory  
23 pooling in the north half of the northeast quarter of Section  
24 30, Township 9 South, Range 33 East, Lea County, New Mexico,  
25 and to ask for a standard location on this particular eighty-

1 acre drilling unit at the location of six hundred feet from  
2 the north line and eighteen hundred and fifty feet from the  
3 east line.

4 Also, as are asking for to be considered on the  
5 cost of drilling and the completing of this well and also  
6 we are asking for a risk factor of two hundred percent and  
7 also we are asking for one thousand dollars per month over-  
8 head expense for drilling a well and we are asking for  
9 one hundred dollars per month for administrative overhead to  
10 take care of this well.

11 Q All right, thank you. Now, counsel, would you  
12 agree that mutual attempts to pool have been made in these  
13 cases?

14 MR. STEVENS: That is so stipulated.

15 Q (Mr. Caton continuing.) Mr. Shirock, would you  
16 refer to Exhibit One through Four -- are all of these exhibits  
17 prepared under your supervision and direction or by you?

18 A They are.

19 Q Do these exhibits directly relate to your opinion  
20 as to the proper location of this particular well site?

21 A They do.

22 Q Would you refer to Exhibit One and tell the hearing  
23 officer what that is?

24 A Exhibit One is a structure map contoured on top of  
25 the P1 zone or the Slaughter porosity. This map was

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1 contoured on an interval of ten feet and the scale of this  
2 map is one inch equals one thousand feet.

3 Q Now, would you identify for the hearing officer the  
4 area for which we seek pooling, please?

5 A We seek pooling -- it is designated on this map by  
6 the hashed area of the north half of the northeast quarter  
7 of Section 30. It is so labeled as a pooling unit.

8 Q Now, would you identify the location of the well  
9 site within that pooling unit, please?

10 A The location is six hundred feet from the north  
11 line and eighteen hundred and fifty feet from the east  
12 line.

13 All right. Is that a standard location?

14 A Yes, sir, that is a standard location according  
15 to the field rules of the Flying M Field which so designates  
16 the northeast -- excuse me -- the northwest or the southeast  
17 quarter-quarter section as a drilling unit on eighty acre  
18 spacing.

19 Q All right. The standard acreage is eighty acres?

20 A That's correct.

21 Q In that field?

22 A That's correct.

23 Q All right. Now, Mr. Shirock, would you describe  
24 Exhibit One and tell the Examiner what you find significant  
25 in that particular exhibit?

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1 A As I mentioned before Exhibit One is contoured  
2 on top of the Slaughter porosity zone. It is contoured on  
3 ten foot intervals.

4 This particular map shows an east-west trending  
5 nose through the pooling unit with some closure. This  
6 east-west nosing has a structure anomaly on it and the dip  
7 rate in this particular field in the area that we mapped  
8 here has a dip to the east of about one hundred and twenty  
9 feet per mile.

10 Q Now, what is the significance of that structure?

11 A It is my opinion that the significance of this  
12 structure shows that the north half of the northwest quarter  
13 of Section 30 has similar geological characteristics and  
14 for this reason I believe that the north half should be  
15 pooled together for a well at a standard location.

16 Q All right. Stepping down on the same exhibit, Mr.  
17 Shirock, would you state your opinion as to whether the  
18 structure in the south half would be structurally similar?

19 A Yes, I do. The south half of the northeast quarter  
20 of Section 30 would have similar geological characteristics.

21 Q Now, Mr. Shirock, would you tell the Hearing Examiner  
22 what other wells Southern Union Supply has in this immediate  
23 area?

24 A Southern Union Supply Company owns Section 19. It's  
25 a state lease. We drilled a number -- Southern Union Supply

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1 Company No. 1, Susco State of 7/7, this year, and it was  
2 completed as a San Andres producer.

3 Last week we completed -- we set pipe on the  
4 Susco No. 2, which is located nineteen eighty from the south and  
5 nineteen eighty from the east line of Section 19. Both  
6 of these wells are drilled on a standard location.

7 We plan a conservative approach in developing our  
8 acreage out in the area by development in eighty acre spacing  
9 on standard locations and our next location that we have  
10 determined would be the re-entry of the BTA Oil Production  
11 No. 2, FMS, which is located approximately nineteen eighty  
12 from the west line and six hundred and sixty feet from the  
13 south line of Section 19.

14 Q And your re-entry, what do you plan to do in terms  
15 of completion, at what level?

16 A The San Andres, we plan to re-enter that well and  
17 also log it and if the logs show that a completion attempt  
18 is necessary at that time we will try to complete that well  
19 in the San Andres zone -- the San Andres-Slaughter zone.

20 Q All right. Does Southern Union Supply Company have  
21 any interest in the land to the south of your proposed pooling  
22 unit, Mr. Shirock?

23 A You are talking about the north half?

24 Q Yes.

25 A Yes, we have approximately fifty percent of the

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1 southwest of the northeast quarter.

2 Q All right. Now, can you describe from the structure  
3 map the other wells that are in the immediate vicinity  
4 of Susco's proposed well?

5 A Would you --

6 Q Would you describe the other wells that are in the  
7 immediate vicinity that are not Susco's wells?

8 A The other wells that are drilled in the immediate  
9 vicinity in Section 29, are the No. 1, No. 2, No. 3, and  
10 No. 4, McGuffin of Coastal States. Also, the No. 1, Nancy  
11 Trow and the No. 1, Flying M, and the No. 2, Nancy Trow,  
12 those wells are drilled in Section 29.

13 In Section 30, the Saxon Oil Company has the No. 1,  
14 Gregg Dodd, which is located in the northwest of the southeast  
15 quarter section of Section 30. Also, Section 30, Shell  
16 drilled a No. 1, Richardson and the No. 2, Richardson, which  
17 the number one did produce from the San Andres for a short  
18 time and it is now plugged and abandoned.

19 The No. 2, Richardson was a dry hole to the Bo  
20 Sea.

21 The Union Texas No. 1, McGuffin was drilled to the  
22 Bo Sea -- completed in the Bo Sea.

23 Q Mr. Shirock can you state as to whether the wells  
24 that you have described are all drilled -- original wells,  
25 have all been drilled on standard locations?

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1 A Yes, they have been.

2 Q Are there any exceptions to that?

3 A Yes, sir, the No. 2, McGuffin was drilled on an  
4 unorthodox location and approved by the New Mexico Oil  
5 Commission.

6 MR. STAMETS: That's the well drilled in the southwest  
7 quarter of the northwest quarter of Section 29?

8 A That's correct.

9 Q (Mr. Caton continuing.) There is an order of the  
10 Commission?

11 MR. STAMETS: Well, as long as we are right there,  
12 I am kind of confused on this. It is supposed to be eighty  
13 acre spacing and yet in Section 29 I see a well on every  
14 forty with the exception of the southwest of the southwest?

15 A Well, after reading many locations in the area  
16 the standard location was drilled first and they were all  
17 approved and at that time you can drill the other locations  
18 after the standard location is drilled and the allowable  
19 is counted on one eighty acre spacing.

20 MR. STAMETS: So, what we have is infill wells  
21 drilled in Section 29 in the southeast and the south half  
22 of the southwest of Section 20?

23 MR. CATON: With the exception of the one unorthodox  
24 location.

25 A They were all drilled at standard locations, first.

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1 MR. STAMETS: Okay.

2 A Even in Section 20 the Arco was drilled first at  
3 a standard location.

4 Q (Mr. Caton continuing.) Mr. Shirock, would you tell  
5 the Examiner what your conclusions -- what conclusions you  
6 would draw from Exhibit One as Susco's location of its  
7 well?

8 A My conclusion is that pooling of the north half  
9 of the northwest quarter would be applicable because it has  
10 similar structural conditions and also it would protect the  
11 correlative rights of the people in that particular eighty  
12 acre tract.

13 Q Would, in your opinion, would that well location  
14 drain that entire eighty acres?

15 A Yes, sir.

16 Q Now, can you tell me, go ahead --

17 A It's our opinion that in this particular area that  
18 these wells on eighty acre spacing will produce somewhere in  
19 the neighborhood of eighty thousand barrels. On forty  
20 acre spacing it appears to us that the recovery would be  
21 somewhere in the neighborhood of forty-five thousand barrels.

22 With this difference in the magnitude and the  
23 drilling cost out there it seems only plausible that these  
24 wells should be developed on forty acre spacing to prevent  
25 excess wells being drilled and --

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1 Q You said forty acre spacing, do you mean that?

2 A Should be developed on eighty acre spacing, I  
3 am sorry.

4 Q And what would the result be of development on  
5 forty acre spacing, Mr. Shirock?

6 A Well, it is my opinion on forty acre spacing these  
7 wells would be excessive wells drilled in the immediate  
8 vicinity.

9 Q All right. Now, let's refer to Exhibit Two, please.  
10 Mr. Shirock, can you tell the Hearing Examiner the interests  
11 that are involved in the proposed pooling?

12 A The interest in the north half of the northeast  
13 quarter of Section 30 is Southern Union Supply Company,  
14 approximately seventy-four point five percent of the working  
15 interest.

16 Roy Barton and his group approximatley twenty-three  
17 point five percent of the working interest.

18 Q Would you tell the Examiner what Exhibit Two is,  
19 please?

20 A Exhibit Two is an isopachous map or a thickness  
21 map of greater than seven percent porosity of the Slaughter  
22 zone above the oil-water contact. This is shown in footage.

23 It has been contoured with the other wells to  
24 indicate that we have an anomalous situation similar to our  
25 structural situation on Exhibit One.

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1 It is my thinking that drilling our Susco No. 1,  
2 Shell, et al, in the location as recommended would encounter  
3 about thirty-two feet of San Andres pay in the Slaughter zone  
4 having greater than seven percent porosity.

5 It is our opinion that this one well would effectively  
6 drain this eighty acres.

7 Q All right. Are the structure lines or the contour  
8 lines that you have drawn seem to me to be strongly similar  
9 to the structural map. Do you attach any significance to  
10 that similarity, Mr. Shirock?

11 A Well, I think in this particular field that probably  
12 structure and porosity are playing an important part in  
13 developing the field and we think that where you have an  
14 anomalous situation that you are going to have more porosity.

15 Q Now, looking at the eighty acre acreage directly  
16 below the forced pooling area would you tell us what the  
17 conditions are in that particular area relating to porosity?

18 A Well, it seems to me that the south half of the  
19 northwest quarter of Section 30 do have similar geological  
20 characteristics of structure and porosity.

21 It seems to me that a well in that area and at a  
22 standard location in the south would be much less attractive  
23 than a well in our present location.

24 Q Would you refer to Exhibit Three, please? Would you  
25 explain to the Examiner what Exhibit Three is, please?

1 A Exhibit Three is an average daily production for  
2 June 1977 of wells around the periphery of the requested  
3 pooling unit.

4 However, our No. 1, Susco State, went on production  
5 on July 8th and the average production is from July the 8th  
6 through July the 31st for that particular well.

7 This well was contoured on twenty barrels of oil  
8 per day, producing. This shows -- indicates with this  
9 particular map -- shows that the north half of the northwest  
10 quarter of Section 30. the requested pooling unit has similar  
11 characteristics and that a well drilled at our requested  
12 location on eighty acre spacing should produce somewhere in  
13 the neighborhood of approximately eighty-two barrels of oil  
14 a day.

15 MR. STAMETS: Where was that well that was producing  
16 twenty barrels of oil a day, the location of it?

17 A Which well?

18 MR. CATON: Well, where is the well that was  
19 brought in that was --

20 MR. STAMETS: The original well?

21 A Oh, the well that we just completed, the Susco No. 2?

22 MR. STAMETS: In the northwest southeast of Section  
23 19?

24 A We just set pipe on that. The well, according to  
25 the electric log analysis and core analysis there the well

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1 appears similar to our No. 1. It is -- can I go back to  
2 Exhibit One?

3 From the electric log on top of the Slaughter zone  
4 the datum is plus sixty-one which increases this nose  
5 effect to the north.

6 Q (Mr. Caton continuing.) What you are saying, Mr.  
7 Shirock, is that if that datum was incorporated into Exhibit  
8 Three and Exhibit One the nosing effect that you see up in  
9 Section 19 would be expanded?

10 A That's correct. And possibly that even the structural  
11 high anomaly would probably be expanded to go on up into  
12 Section 19, too.

13 Q Now, is there a difference between the production  
14 that exhibit was used in this particular well and what you  
15 have actually produced on it?

16 A I don't understand your question.

17 Q Well, you said that this exhibit that the Susco  
18 Well No. 2, was drawn in at twenty barrels, is that correct,  
19 or am I wrong?

20 A Yes, drawn in at about sixty-three barrels of oil  
21 per day. What I am saying is that the electric log and the  
22 core analysis looks similar to our No. 1 Susco so we anticipate  
23 that it will make similar production as the No. 1.

24 Q And what does the No. 1 make?

25 A Eighty-four barrels a day.

1 Q All right. Now, what are the conclusions you  
2 draw as to our proposed well location from Exhibit Three,  
3 please?

4 A Well, by Southern Union Supply Company taking a  
5 conservative approach in developing our acreage in Section 19  
6 and the acreage in Section 30 on eighty acre spacing we  
7 think that the north half of the northeast quarter of  
8 Section 30 have similar characteristics on this particular  
9 map. And a well drilled at our location would produce some-  
10 where in the neighborhood of eighty plus barrels per day.

11 Q Would you take a look at Exhibit Four, please?

12 A Yes, sir.

13 Q Tell the examiner what that is?

14 A Exhibit Four is a cross section labeled AA prime  
15 and it runs from the Shell Oil Company No. 1, Richardson  
16 on the east through the Union Texas No. 1, McGuffin and  
17 continues eastward through our proposed location of Southern  
18 Union Supply Company's Shell et al, No. 1, and on the east  
19 to Coastal States Gas Production Company McGuffin No. 4.

20 Q Is the location of those wells by section as shown  
21 down in the lower left corner and would you describe to the  
22 Examiner the significance of that particular exhibit, please?

23 A We think that this particular exhibit is showing a  
24 thinning of the P1 Slaughter zone over to the east and also  
25 it is showing that the P1 Slaughter zone is becoming structurally

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1 higher.

2 Also, it shows that the perforations in the Coastal  
3 States well and the perforations over in the Shell Oil Company  
4 No. 1, Richardson are much higher.

5 With this information, data, it appears to me to  
6 prove that our structure map and porosity map are validated.

7 Q This supports the previous conclusion that you have  
8 drawn?

9 A Yes, sir.

10 Q Now, Mr. Shirock, in your opinion what would be the  
11 result of the joinder of the south half of this area of the  
12 field with wells in either of the north quarters?

13 A Would you rephrase the question?

14 Q All right. What would be the result of the drilling  
15 in the south half of the area below the proposed pooling area?  
16 Do you think that would be a good well?

17 A My personal opinion is that I think that the south  
18 half of that quarter section has similar geological characteristics  
19 and I think a well drilled at the standard location would be  
20 a marginal economical well.

21 Q What would be the result, then, of turning the  
22 proposed pooling acreages up on end and joining the north half  
23 with the south half for two proposed wells?

24 A It appears to me when you try to run the unit where  
25 the one unit would be the east half and the other one would be

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1 the west half that you are trying to average out the good  
2 with the poor and average out different geological similarities  
3 whereby they will average out.

4 When you do that you are not protecting the  
5 correlative rights of the people that have the structural  
6 high areas.

7 Q Now, Mr. Shirock, in your opinion would the  
8 correlative rights of Southern Union Supply Company be protected  
9 by spacing which would, setting the eighty acre spacing units  
10 on end, be protected in this case?

11 A No, I don't think so. I think it should be run  
12 east and west in this particular instance.

13 Q Do you have an opinion as to whether a well in the  
14 north half of the Susco proposed well would drain the acreage,  
15 the eighty acres?

16 A It is my opinion that that one well would drain that  
17 eighty acres.

18 Q Now, Southern Union is asking for a risk factor to  
19 be established in this case. I don't think we are in  
20 disagreement on that, are we, Mr. Stevens? Are we both asking  
21 for the same risk?

22 MR. STEVENS: Not by any means.

23 Q (Mr. Caton continuing.) Okay. I thought I read two  
24 hundred percent. Would you tell us your opinion as to what  
25 risk factor should be established in this case?

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1 A I think a risk factor of two hundred percent should  
2 be established.

3 Q And on what do you base that, Mr. Shirock?

4 A Well, I base that particular thing on that that is  
5 the maximum amount the Commission will let us obtain on our  
6 investment and also that we do have risk anytime we do drill  
7 a well.

8 Q All right. Mr. Shirock, you are asking that Southern  
9 Union Supply be appointed operator of this particular field?

10 A That's correct.

11 Q Do you have a recommendation as to the cost of  
12 that?

13 A Yes, sir. My recommendation for the cost of drilling  
14 the Shell and others is two hundred and seventeen thousand  
15 nine hundred and fifty-two dollars.

16 Q Now, that's your estimate of the cost of the well,  
17 is it not?

18 A That's correct. That's the cost of the completed  
19 well.

20 Q Now, is that estimate supported by recent data in  
21 the completion of the wells that just have been done out  
22 there?

23 A Yes, sir. I have an exhibit here which indicates or  
24 shows that drilling our Susco No. 1, State which is located  
25 six hundred sixty feet from the south line and six sixty from

1 the west line of Section 19, Township 9 South, Range 33 East,  
2 we estimate the cost at one hundred seventy-four thousand  
3 seven hundred and five dollars and the actual cost of drilling  
4 this particular well was one hundred and ninety-eight thousand  
5 and thirty-six dollars.

6 Also I might mention that our cost in drilling the  
7 Shell well on a footage rate will be nine dollars and twenty-  
8 five cents. That's the same price that they charged us in  
9 drilling the Susco No. 2.

10 I think that is the difference to where the two  
11 hundred and seventeen thousand from the one hundred and  
12 ninety-eight thousand in drilling the first well.

13 Q Now, do you have a recommendation as to a monthly  
14 cost for during the drilling time, Mr. Shirock.

15 A Yes, sir. It is my recommendation that our  
16 administrative overhead fee be based on one thousand dollars  
17 per month for drilling and completing the well or any workover.

18 Q And as for operation, what is your recommendation?

19 A My recommendation is for administrative overhead and  
20 is one hundred dollars per month with pumping to be billed  
21 directly to the individual companies at whatever rate that  
22 would be.

23 MR. CATON: We will offer Exhibits One through Five.

24 MR. STAMETS: Any objection? They will be  
25 admitted.

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1 MR. CATON: That completes our direction examination,  
2 Mr. Stamets.

3 MR. STAMETS: Are there any questions of the  
4 witness?

5 MR. STEVENS: Yes, Mr. Examiner.

6  
7 CROSS EXAMINATION

8 BY MR. STEVENS:

9 Q Mr. Shirock, I believe that you testified and please  
10 correct me if I say that you testified to something that is  
11 erroneous --

12 I believe that you testified that you consider that  
13 there are similar geological conditions in the north half of  
14 the northeast quarter.

15 Could you state why Southern Union Supply Company  
16 staked this location eighteen hundred fifty feet from the east  
17 as opposed to nineteen hundred and eighty feet which would be  
18 in the center of the northwest-northeast?

19 A At the time we staked the location we owned that  
20 particular lease that this location was staked on.

21 Q Now, you are proposing to force pool it. With these  
22 new conditions in mind would you object to it being staked  
23 nineteen eighty from the east as opposed to the eighteen fifty?

24 A I think we staked the location at a good point.

25 MR. STAMETS: I missed your answer to the first

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1 question and I wish that you would repeat it. I don't  
2 remember the question --

3 MR. STEVENS: Why it was staked eighteen hundred  
4 and fifty feet from the line.

5 A Yes, because we owned that particular lease at that  
6 time and we owned all of the leases now but at that particular  
7 time when we staked that particular location we didn't know  
8 for sure if we was going to get the lease that would have the  
9 center point of nineteen eighty and six sixty.

10 Q (Mr. Stevens continuing.) Do you consider it a  
11 superior location, the eighteen fifty from the east, as  
12 opposed to nineteen hundred eighty from the east, geologically?

13 A Well, I think geologically we staked the location  
14 in the best point available that we think is a legal, standard,  
15 location.

16 Q If you had the opportunity disregarding the field  
17 rules and any other Southern Union wells in the area would  
18 you, concerned solely with geology and not with correlative  
19 rights --

20 A May we shut the door, Mr. Examiner, I can barely  
21 understand him --

22 Would you repeat your question?

23 Q Sure, if you had the opportunity to stake that  
24 location again solely based upon geological and reservoir  
25 conditions as opposed to the correlative rights of any other

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1 wells Southern Union might have in the area would you stake  
2 it further east? This is a hypothetical question, of course,  
3 of an expert witness.

4 A Well, probably if we didn't have to worry about  
5 landowners or the New Mexico Commission, I would probably  
6 overlay both the porosity map and the structure map and at  
7 those points I would probably stake my location that-a-way.

8 But as this shows or indicates that these maps are  
9 made solely on the information that is available to us at  
10 that time.

11 Q If you did overlay those two where would you stake  
12 your location, at the present location or further to the  
13 east or further to the west?

14 A I can't move it.

15 Q If you could, hypothetically, I am asking?

16 A Well, that's a hypothetical question and you asked  
17 me a hypothetical question, and I would probably might  
18 probably want to drill it in the center of the eighty acres.

19 Q You don't consider the northeast quarter of the  
20 northeast quarter to be a superior location geologically and  
21 reservoir-wise to the northwest quarter of the northeast  
22 quarter?

23 MR. CATON: Are you disregarding correlative rights,  
24 again?

25 MR. STEVENS: I am speaking strictly of geology.

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1 A I think that that particular location will make  
2 a good well. I think that our Southern Union Supply Company's  
3 location is going to make a good well. I think that one  
4 well up in that area will drain the whole eighty acres.

5 Q Do you consider the wells drilled in 29 should not  
6 have been drilled off of the standard locations?

7 These wells are drilled mainly on forty acre spacing  
8 as opposed to eighty acre spacing.

9 A Well, I can't -- the thing about it is that each one  
10 of these wells in Section 29, I am talking now about the  
11 wells that I have -- where I have datum points on it and I  
12 know about those wells.

13 These wells were drilled, the first well in each  
14 location was drilled on a standard location.

15 Q Do you consider the alternate wells that were not  
16 drilled on standard locations to be unnecessary wells to be  
17 drilled?

18 A I can't say for other companies.

19 Q Can you say from your own geological opinion?

20 A Our own geological thing, what our company is doing  
21 is to take a conservative approach in developing our acreage  
22 out there which is in Section 19 and the acreage that we have  
23 in Section 30, or the northwest quarter of Section 30.

24 Q You will not state any opinion as to the geological  
25 merits of alternate locations in Section 29, is that correct?



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1 A Well, I think that your alternate locations, and  
2 I just mentioned, that without your well in the northeast  
3 of the northeast, I said, I thought that it would make a  
4 good oil well. But I also mentioned, I think, that our well  
5 over there, the Susco's Shell and others, would make a good  
6 well and drain the whole eighty acres.

7 Q Mr. Shirock, I am not trying to badger you --

8 MR. CATON: Will you let him finish the answer?

9 MR. STEVENS: Sure, excuse me.

10 A What I am trying to do is develop this area on a  
11 logical manner in which the New Mexico Oil Commission in its  
12 wisdom suggested eighty acre spacing out there and our  
13 company, you know, Southern Union goes by the conservative  
14 approach on anything.

15 Q Do you consider that Section 29 was developed  
16 illogically?

17 A I can't come back and say what other people done.  
18 I didn't have any control over that.

19 Q Do you consider that a well that would be drilled  
20 in the northeast quarter of the northeast quarter would better  
21 recover the oil under solely the northeast quarter of the  
22 northeast quarter better than a well to be drilled in the  
23 northwest quarter of the northeast quarter? Being concerned  
24 solely with correlative rights of the owners under the north-  
25 east quarter of the northeast quarter?

1 A I think that a well in that -- are you talking about  
2 this forty acres, is that correct?

3 Q Yes, sir.

4 A I think that a well in that particular location would  
5 make a good well. The thing about it is that we don't have  
6 forty acre spacing out there to begin with.

7 So, what the next best thing to do or the best thing  
8 to do is drill a well which is our Susco well and try to drain  
9 that whole eighty acres on a conservative approach.

10 Q If this Commission approved forty acre spacing in  
11 this field or granted an unorthodox location in the northeast  
12 quarter of the northeast quarter do you think that that well  
13 drilled in the northeast quarter under the approval of this  
14 Commission would better protect the correlative rights of  
15 the owners of the northeast quarter of the northeast quarter  
16 than a well drilled in the northwest quarter of the northeast  
17 quarter?

18 A Are you talking about a well in this forty acre  
19 spacing as compared to a well over here in this forty acre  
20 spacing, is that correct?

21 Q Yes, sir, and I am being concerned solely with  
22 correlative rights of the owners under the northeast quarter  
23 of the northeast quarter.

24 A What I am trying to do is protect the correlative  
25 rights on the whole eighty acre spacing because we don't have

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1 forty acre spacing.

2 Q I know. I asked you a hypothetical question. If  
3 the Commission granted either forty acre spacing in this  
4 field or granted an unorthodox location whereby a well could  
5 be drilled in the northeast quarter of the northeast quarter  
6 do you consider a well drilled in the northeast quarter of  
7 the northeast quarter would better protect the rights of the  
8 parties underlying the northeast quarter of the northeast  
9 quarter than a well drill in the northwest quarter of the  
10 northeast quarter?

11 A Well, the smaller the spacing the better protection  
12 correlative rights and the landowners will have or the people  
13 will have but sometimes it becomes illogical to do that.

14 Q Mr. Shirock, you show an isopach map greater than  
15 seven percent porosity in Exhibit Number Two. Do you consider  
16 that the porosity is the determinate as to the amount of oil  
17 recoverable under any particular well site?

18 A Well, that and permeability. The thing about it I  
19 can't map permeability.

20 Q It is impossible to map permeability?

21 A Well, I can't. Maybe other people can.

22 Q This twenty-five feet in the southeast of the  
23 northeast of 19 for the Shell stake -- that well is a dry  
24 hole -- does that tend to suggest that the porosity is not a  
25 very good determinate of the ultimate productivity of any well?

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1 A No. I think that that particular well had the  
2 porosity and the porosity is there and the thing about it is  
3 that my thinking of that particular well is that it might have  
4 been -- excuse me, I think I am talking about the wrong well.  
5 Would you tell me --

6 Q The southeast quarter of the northeast quarter of  
7 Section 19, the Shell No. 1, State well --

8 A Excuse me. I was looking at a different well. I  
9 have that particular area mapped up there at twenty-three  
10 feet of porosity in that particular area. I think that at  
11 that time when that well was drilled is that possibly they  
12 might not have had a good completion job or something of that  
13 sort.

14 I cannot tell you what the situation is. The only  
15 thing I can tell you is what we are planning to do if the  
16 Susco No. 2 comes in similar as to the Susco No. 1 and that  
17 I will recommend to management that we drill the southwest --  
18 I mean the southeast of the northeast quarter at a standard  
19 location.

20 Q How about the well in the southwest quarter of the  
21 northeast quarter of Section 30, that well shows twenty-four  
22 feet of porosity and a plugged producer and do you know why  
23 it was plugged?

24 A Which?

25 Q The well in the southwest quarter of the northeast

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1 quarter of Section 30, the BTA well?

2 A The BTA well did produce in the Bo Sea and it is my  
3 understanding that they did come up and completed that well  
4 in the San Andres-Slaughter zone. They completed it for a  
5 small producer.

6 It is now plugged and I couldn't tell you why. I  
7 am sure that it was uneconomical.

8 Q This twenty-four feet porosity that you show, then,  
9 apparently doesn't affect that well in a positive sense, is  
10 that a fair statement?

11 MR. CATON: To clarify it, isn't that well at a  
12 different depth?

13 A This well is here but they did come back and try to  
14 complete in the San Andres, is my understanding, is that not  
15 right?

16 Q (Mr. Stevens continuing.) That's my understanding,  
17 yes, sir.

18 A Yes, sir.

19 Q Phrased another way, is porosity very determinative  
20 or is it permeability that is determinative in this field?

21 A It is my understanding that the San Andres in this  
22 particular field, area, Section 19 where we drilled our well,  
23 that the porosity factor is one factor for completion in the  
24 area and that some people map porosity less than six percent.  
25 We happen to think it is seven percent that you have got. We

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1 think that in this particular area we have got from fifteen  
2 to twenty feet greater than seven percent porosity and we  
3 have other porosities in there of six and five and that these  
4 other porosities will contribute to the production of seven  
5 percent.

6 It is our contention that you have to have seven  
7 percent porosity to produce in the area.

8 Coring the Susco No. 2 and, again, getting the core  
9 description over the telephone my understanding is that the  
10 core is fractured, vertically fractured, for additional  
11 permeability.

12 I know in our core analysis that some feet had quite  
13 a bit more permeability than other footage in the area and  
14 I attribute this to fracturing in the area.

15 Q Are you familiar with the well in the southeast  
16 quarter of the northwest quarter of Section 29, the No. 1,  
17 McGuffin which shows twenty feet of porosity?

18 MR. CATON: The No. 1, McGuffin?

19 MR. STEVENS: Yes, sir.

20 A Yes, sir, I am familiar with the well as far as  
21 looking at the logs.

22 Q (Mr. Stevens continuing.) Do you know what it has  
23 produced?

24 A I don't know the cumulative production, sure don't.  
25 I can give you the daily production.

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1 Q You contoured your Exhibit Three according to your  
2 legend as to average daily production after June of 1977.

3 I note in the southeast quarter of Section 19 you  
4 have one well which shows eighty-four barrels a day production  
5 and yet north of that well, between there and the dry hole  
6 you have a contour line showing one hundred twenty barrels of  
7 oil per day. What is the basis for that?

8 A The basis for that particular contour if you will  
9 notice to the north it is dotted there and the basis of putting  
10 that contour in is the same thing -- you have the basis for  
11 the one hundred and twenty contour down at the bottom. We  
12 could have left that --

13 Q Just above the Susco No. 1 the lines aren't dotted  
14 and yet they go up to one hundred and twenty barrels a day and  
15 between there and the Shell dry hole to the north could you give  
16 me the basis for drawing in that one hundred and twenty?

17 A I disagree with you there, sir. They are dotted  
18 from the barrels of oil per day all of the way over to the  
19 No. 3, Arco.

20 Q I am speaking of one inch north of your Susco State  
21 No. 1, north on the map and that line is not dotted and I am  
22 wondering what is the basis for the one hundred and twenty  
23 barrels a day that you have there?

24 A It was my determinate at that time that that particular  
25 area could have a well that would make one hundred and twenty

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1 barrels. Can you say that it doesn't?

2 Q No, sir, I can't say it. But I can't see why you  
3 did it and I am asking you if you can give me a reason why  
4 you did it because nothing on this map apparently shows a  
5 reason.

6 A Well, the thing about it is that this particular  
7 well come in, our Susco No. 1, and we potentialled that well  
8 for one hundred and sixty barrels a day, of oil per day, and  
9 thirty-three barrels of water per day.

10 Q And you consider that you are going to make more  
11 to the north of that location although you have no evidence  
12 to justify that?

13 A The only evidence that I have at this time is the  
14 Susco No. 2. I am certainly optimistic about it.

15 Q Are the electric logs very definitive of what you  
16 are going to make out of a well in this field?

17 A Well, from the electric logs we do, in this particular  
18 area, we were on a stand of logs where we could get a movable  
19 oil plot. The movable oil plot was similar to the movable  
20 oil plot in the Susco No. 1. And using similarities we think  
21 that well will be similar to our Susco No. 1.

22 Q So, basically you are basing it on those two wells,  
23 alone, is that correct?

24 A That's correct. Arco now is drilling their No. 3.  
25 I am sure that the rig that drilled our No 2 moved over to drill

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1 their No. 3, Flying M. I am sure as soon as that is down  
 2 we will have additional information up there.

3 Q The well in the southeast of the southeast of 19  
 4 shows eighty-four barrels a day. The well in the southwest-  
 5 northeast of Section 30 is a plugged producer and do you know  
 6 how much it produced before it was plugged?

7 A Which, the BTA well?

8 Q Yes, sir.

9 A I have no idea.

10 Q Between those two wells you show contour lines from  
 11 eighty-four up to one hundred and one twenty. You pull those  
 12 contour lines over into the northeast quarter of the northwest  
 13 quarter of Section 30.

14 I see nothing over there to justify that. Could  
 15 you explain why it was done?

16 A Well, if you continue contouring on the basis that  
 17 for these wells are producing, the No. 4, McGuffin, is  
 18 producing ninety-five barrels a day and the Arco No. 2 is  
 19 producing ninety-one barrels a day and our well is producing  
 20 eighty-four barrels a day and you continue with the same contour  
 21 interval in contouring this thing why you come out with a  
 22 hundred up to one hundred and twenty barrels.

23 Q Would you have to draw that contour line between the  
 24 well in the southeast-southeast of 19 and the well in the  
 25 northwest-northwest of 29 to properly do contouring? I can't

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1 imagine why you draw it to the west?

2 A You went too fast for me, mister. You are either  
 3 going to have to backtrack or come over here and show me.

4 Q I'll be glad to backtrack. The well in the southeast  
 5 southeast of 19 is your well?

6 A Okay.

7 Q The well in the northwest-northwest of 29 is a well  
 8 making ninety-five barrels a day.

9 No well to the west or south of those two locations  
 10 makes more than twenty-six point seven barrels a day. Can  
 11 you explain how you justify putting one hundred to one hundred  
 12 twenty or eighty or sixty or forty barrels a day west of the  
 13 line drawn between your Susco No. 1 and the No. 4, McGuffin?

14 A Would you please come and show me. I lost you, sir?

15 Q Surely, I'll be happy to. This well shows eighty-  
 16 four barrels a day and this well shows ninety-five barrels  
 17 of oil a day. No wells west of there show any production.  
 18 No wells south of there show any production except in the  
 19 southwest-northwest of 29 and the northwest of the southwest  
 20 of 29 which have seven point four and twenty-six point two  
 21 barrels a day and the well in the northwest-southeast of 30  
 22 shows four point four barrels a day. How can you justify a  
 23 line greater than perhaps twenty-six point two barrels a day  
 24 between the location of the southeast-southeast of 19 and  
 25 the northwest-northwest of 29?

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1 A Well, the way I am suggesting is that this is the  
2 way I contoured it. You can have other people contour it  
3 anyway they want to.

4 Q It's just your opinion, though?

5 A It's my opinion.

6 Q You have no basis for your opinion that you are  
7 showing on this map?

8 A My basis is that the contour interval is twenty  
9 barrels of oil per day and we used the same contour interval  
10 and the same equal distant spacing and equal distant contouring  
11 is the same thing.

12 Q I want to come back to this again and I am sorry to  
13 have to keep reiterating this but how did you go upward from  
14 eighty-four barrels a day in a southeast direction from your  
15 Susco No. 1 to one hundred and one hundred twenty barrels a  
16 day?

17 A I am optimistic.

18 Q I believe you are. What is the basis of your state-  
19 ment regarding Exhibit Four that you have pay thinning to the  
20 east?

21 A The basis is the Slaughter porosity zone is thinning  
22 to the east according to the electric log analysis -- I am  
23 sorry thinning to the west.

24 Q The Slaughter zone is thinning to the west?

25 A To the west.

1 Q To the west, okay, sir. Therefore, would it be  
2 a fair presumption to state that the further west you go  
3 the poorer wells you might get from east to west on your  
4 cross section?

5 A Well, that's an assumption between the Coastal States  
6 No. 4 and the Shell because the Coastal is still producing  
7 and the Shell didn't produce very long.

8 So, my contention is that with this particular thing  
9 with the thinning of the Slaughter zone I think we are going  
10 to get greater area of porosity.

11 Q Is that evidenced in those wells to the west on  
12 your cross section?

13 A Well, it seems like the Shell Richardson going back  
14 to the porosity map, Exhibit Two, and the Shell well was  
15 completed there and it shows that they had nine feet of --

16 MR. STAMETS: Which Shell well? When I start  
17 reading this transcript --

18 A The Shell No. 1, Richardson --

19 MR. STEVENS: Northwest-northwest of 30.

20 MR. STAMETS: Northwest-northwest of 30, okay.

21 A Are you located?

22 MR. STAMETS: I am located.

23 A Okay. You are having the same problem that I am.  
24 The Shell Oil Company's No. 1, Richardson over there the way  
25 I see the electric log and the way I interpret the electric log

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1 had nine feet of porosity, greater than seven percent. The  
2 Union Texas well up there which never was tested and I don't  
3 have any idea. There was no drill stem test. There was one  
4 drill stem test made from forty-three hundred to forty-four  
5 thirty-eight and they recovered thirty feet of slightly oil  
6 cut mud plus five hundred and ten feet of water cut mud.

7 I think that this particular well had twenty-one  
8 feet of porosity over here. I think that possibly that the  
9 permeability can come into play over here.

10 Q How, then, can you support your statement that you  
11 think that porosity will improve to the west?

12 A West of what?

13 Q To the west of your north half northeast of Section  
14 30 based on your cross section, Exhibit Number Four?

15 A Well, again, when you come into contouring the thing  
16 with our Susco well up there, the Number Two Exhibit, and I  
17 have got that contoured at thirty feet. The electric log  
18 shows in that exhibit twenty-six feet of pay greater than  
19 seven percent porosity.

20 So, when you take similar characteristics where you  
21 have got one similarity here and this was my interpretation  
22 of the field and that is the way I interpreted it here.

23 Q Yet, that well didn't recover any oil on the drill  
24 stem tests?

25 A We didn't take a drill stem test on the No. 2.

1 Q I am sorry, I was speaking of the well in the  
2 northeast-northwest.

3 A The Union Texas No. 1, McGuffin?

4 Q Yes, sir.

5 A My understanding on a drill stem test from forty-  
6 three hundred to forty-four thirty-eight which covered the  
7 whole Slaughter zone they recovered thirty feet of slightly  
8 cut oil-cut mud plus five hundred and ten feet of sulfa water  
9 cut mud.

10 It is my understanding from this type of a drill  
11 stem test that certainly didn't show very much permeability.

12 Q So, really, the determinative factor may be  
13 permeability to the west as opposed to porosity?

14 A Well, it could be from the Union Texas well, it  
15 could be.

16 Q What traps this oil?

17 A In this field, it is my understanding what traps  
18 this oil is up-dip determination of porosity and permeability.

19 Q Which way is up-dip from the common corner of 19,  
20 20, 29, and 30?

21 A I would say up-dip would be to the west.

22 Q On that basis, then, you would say you would tend  
23 to have a greater chance of drilling a dry hole the farther  
24 west you went from that common corner?

25 A I think probably the risk would probably be higher

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1 and I think you have got to remember that my recommendation  
2 to management that we re-enter the BTA No. 2, FMS which is  
3 in the southeast of the southwest of Section 19.

4 Q If the risk would be higher going west the risk,  
5 conversely, would be less going east from your location in the  
6 northwest quarter of the northeast quarter of 30, the subject  
7 of this hearing --

8 A What about the subject?

9 Q The subject well is your Susco staked location in  
10 the northwest quarter of the northeast quarter would it be  
11 riskier going east from that location or would it be riskier  
12 going west from the common corner of 19, 20, 29, and 30?

13 A I think you would have an analogous situation there  
14 but that is that is the way I have interpreted the geology  
15 there.

16 Q Did I understand your statement that it would be  
17 less risky going east?

18 A No, I didn't say that. I said that this is the  
19 way that I interpreted it -- interpreted the geology in this  
20 particular area and I think the Susco well that we propose  
21 I think it will be a good well.

22 I think that the well that you suggested over  
23 there in the northeast of the northeast, I think, is going  
24 to be a good well, too, but I think that the Southern Union's  
25 well is going to be a good well.

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1           What I am trying to do is put this thing on an  
2 eighty acre spacing and get a unit where we could drill one  
3 well that has similar geological characteristics whereby  
4 that one well will recover all of the oil on the eighty  
5 acre spacing.

6           Q     Do you thing that that well in the northwest of the  
7 northeast will recover more oil out from the northeast-  
8 northeast than the wells in the southeast-southeast 19,  
9 scuthwest-southwest 20, northwest-northwest 29, the three  
10 wells?

11          A     You went too fast for me. Are you talking about  
12 this well, the No. 2, Flying M and the Susco No. 1, and the  
13 No. 4, McGuffin, is that correct?

14          A     Yes, sir.

15                Now, you say that these wells will recover more oil  
16 than these wells over here?

17          Q     No, sir, I asked you if it would recover more of the  
18 oil out from under the northeast quarter of the northeast  
19 quarter of Section 30 than a well drilled in the northwest  
20 quarter of the northeast quarter of Section 30?

21          A     Well, I think if you drilled one on eighty acre  
22 spacing I think that you are going to recover more oil than  
23 if you drilled one on forty acre spacing.

24          Q     Will you answer the question that I asked you, though  
25 will a well drilled on the northeast quarter of the northeast

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1 quarter recover more oil out from under the northeast quarter  
2 of the northeast quarter than a well drilled in the northwest  
3 quarter of the northeast quarter?

4 A I would probably have to grant that to you.

5 Q All right. Mr. Shirock, you asked for two hundred  
6 percent risk factor on this and would you call this a field  
7 well?

8 A I would call it a field development well, yes, sir.

9 Q How much of a risk factor would you give to a wildcat  
10 well drilled, let's say, perhaps DeBaca County, New Mexico?

11 A I would probably ask for quite a bit.

12 Q The Commission has empowered only two hundred per-  
13 cent and would you consider that the two hundred percent  
14 should be the same for a well drilled in this location as a  
15 well drilled in DeBaca County?

16 A I don't think the question is similar. I don't  
17 think the two things are comparable.

18 Q You won't attempt to answer it then?

19 A No, sir, because I don't think it is comparable about  
20 drilling this well and one in DeBaca. The only thing is  
21 that you can put your money into banking and earn a one  
22 hundred percent with no risk on it, and don't have any risk  
23 at all, and you know if you are going to drill a well that  
24 you are going to have risk.

25 Q What is the chance of this well making oil in your

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1 opinion?

2 A At our proposed location?

3 Q Yes, sir.

4 A I think it will be a well.

5 Q If you had to evaluate this and I understand as  
6 an expert geologist you have to evaluate the risk factor  
7 in drilling wells all of the time, what would you say the  
8 risk factor would be on a one to ten basis that this well  
9 will hit, on a percentage basis, or any other formula that  
10 you normally use in your operation in evaluating a risk of  
11 completing a well in a field or completing a commercial  
12 producer, or whatever you use --

13 MR. CATON: Mr. Hearing Officer, I object to the  
14 question. I don't think that is really relevant to establish  
15 a risk percentage in this particular case.

16 MR. STAMETS: I think the question is a valid  
17 question and the Examiner would have to weigh the impact of the  
18 question on risk factors and whether or not that is something  
19 which should be considered and I will allow the question to  
20 be answered.

21 A Can I make a statement concerning this before I  
22 answer the question?

23 MR. CATON: Well, why don't you answer the question,  
24 first, and I will give you a chance to --

25 A Well, my statement was that I think -- well, I think

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1 it has probably a fifty-fifty chance of making a well.

2 Q (Mr. Stevens continuing.) When you say making  
3 a well is that making any oil?

4 A I am talking about a commercial producer.

5 Q Fifty-fifty chance of commercial production?

6 A Yes, sir.

7 Q On that basis, then, two hundred percent if the  
8 well costs two hundred thousand dollars you will recover  
9 six hundred thousand dollars? That is what your two hundred  
10 percent will allow you to recover.

11 Shouldn't you recover only four hundred thousand  
12 dollars presuming my figures are correct for purposes here?

13 A Apparently, I don't understand the risk factor. My  
14 understanding was that we returned two times the -- at two  
15 hundred percent you would return four hundred if the cost  
16 was two hundred thousand.

17 Q I think it would be -- I think it would be two times  
18 the cost -- it would be two hundred in addition to the  
19 cost.

20 MR. STAMETS: That is a correct interpretation --

21 Q (Mr. Stevens continuing.) On that basis then --

22 A Well, I misinterpreted the risk factor, then. My  
23 understanding of the risk factor is that at two hundred percent  
24 you would return two times your drilling cost on the thing  
25 which would be -- plus your operating cost and everything like

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1 that which would be if it was two hundred thousand dollars  
2 it would be four hundred thousand dollars. I am mistaken  
3 there.

4 Q With that in mind you would ask for a risk factor of  
5 one hundred percent based on your present understanding of  
6 the risk factor?

7 A Would that give us two times our cost?

8 Q I think so and I'll look around here --

9 A Yes.

10 MR. STEVENS: All right, sir, and we have no further  
11 questions on cross examination.

12 MR. CATON: We have a couple of questions --

13 MR. STAMETS: I have some, too.

14 MR. CATON: Why don't you go ahead, first --

15

16

CROSS EXAMINATION

17 BY MR. STAMETS:

18 Q Oh Exhibit Three, the highest daily rate of production  
19 I see is ninety-five barrels and I know Mr. Stevens covered  
20 this a little bit but with ninety-five barrels being the  
21 highest figure that you have shown what justification do you  
22 have for putting on rates up to one hundred and twenty barrels?

23 A Well, first, the justification is that these wells  
24 I peak are greater than that they are producing now. For  
25 example, our No. 1, Susco I peaked for one hundred and sixty

1 barrels plus thirty-three barrels of water in the No. 4.

2 Q Well, I understand that from your earlier answers.  
3 Let me get to the point. What basis, then, are you trying  
4 to show with this map, what the initial potential is going  
5 to be or what the sustained rate of production might  
6 be?

7 A This particular map was developed to show three  
8 maps that have similar characteristics to show that the north  
9 eighty acres is the one, the north half, is the unit that  
10 should be put together.

11 MR. CATON: Roy, I don't think you understood his  
12 question.

13 If I may, Mr. Examiner, he wanted to know if the  
14 lines that you have contoured on production relate to an  
15 initial production or production overall --

16 A He asked me why did I go up to one hundred and twenty  
17 barrels. I was trying to explain to him that the main reason  
18 I went up to one hundred and twenty barrels of oil -- I peak  
19 these wells for more than one hundred and twenty barrels from  
20 what I contoured there. It continues to keep an equal distant  
21 amount of contouring. I could have stopped the thing at  
22 eighty and then you would have asked me why didn't I fill in  
23 all of this space.

24 MR. CATON: All right. What you have done is that  
25 you have looked at the initial production of these wells and

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1 you concluded from your study of the history of the production  
2 of the wells -- you have made certain conclusions and you  
3 have drawn them into that Exhibit Three, am I right?

4 A That's correct.

5 MR. CATON: And that exhibit would demonstrate the  
6 production of these wells over an extended period of time,  
7 is that correct?

8 A Right.

9 MR. CATON: Does that answer your question, Mr.  
10 Examiner?

11 MR. STAMETS: The total answer, I think, did that.

12 Q (Mr. Stamets continuing.) On Exhibit Number One,  
13 the well that you indicated that you were going to re-enter  
14 is the Shell well in the northeast quarter of Section 19?

15 A No, sir, the one that we -- the BTA Well, No. 2  
16 FMS which is in the southeast of the southwest of Section 19.

17 Q Okay. I got that right. I got confused later in  
18 the testimony, then, what was going to be re-entered.

19 A This is a recommendation that I put together to  
20 management.

21 Q Okay. How deep is the San Andres formation in  
22 that area?

23 A We drill these wells to a total depth of about  
24 forty-five hundred feet. The rate of dip in this area is  
25 about one hundred and twenty feet per mile to the east.

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1 Q Does this particular pool in your opinion lend  
2 itself to secondary recovery?

3 A I think these particular wells are -- the reservoir  
4 drive for these particular wells are solution gas and water  
5 drive.

6 Q Well, then, getting back to my question, in your  
7 opinion does this field lend itself to secondary recovery?

8 A Yes, sir.

9 Q In your opinion will a second well have to be  
10 drilled on all of these eighties to install an effective  
11 secondary recovery operation in this pool?

12 A I think that is getting out of my field a little  
13 bit because I am sure that from my idea of water flooding  
14 this particular area and some petroleum engineer's idea of  
15 water flooding the area would be different.

16 Q That's outside your area of expertise?

17 A Well, I can give you an opinion but I don't know  
18 whether it would mean much or not.

19 Q If that's the way you fell, then, I don't want to  
20 get it into the record.

21 A Okay.

22 MR. STAMETS: That's all I have. Mr. Caton, do you  
23 have a little on redirect?

24 MR. CATON: Yes, I do.  
25

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## REDIRECT EXAMINATION

BY MR. CATON:

Q Mr. Shirock, you were asked if drilling in the northeast-northeast would better drain that or protect the correlative rights of the people in that section.

What would be the effect of correlative rights of those persons in the northeast of the northeast if an upright spacing unit is drilled on an unorthodox location as proposed by the Barton group?

A Well, their correlative rights would not be protected either, on the northeast of the northeast is the way I see it.

Q Would the total effect of drilling in the unorthodox location in the northeast on an upright spacing damage Susco's correlative rights in the northeast of the northeast, in your opinion?

A Yes, sir.

Q What would be the ultimate result of such a well in terms of production as it relates to Susco's interest?

A My thinking on there is if you come back through with the question --

Q What would be the ultimate result in terms of recovery based on Susco's interest in the northeast of the northeast if that well as proposed by the Barton interest is drilled, what would be the ultimate result in the amount of

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1 oil that would be recovered and attributable to Susco's  
2 interest?

3 A Well, my thinking of the well is that nature of  
4 forty acre spacing would recover somewhere in the neighborhood  
5 of forty to forty-five thousand barrels and Southern Union  
6 Supply Company would own about fifty percent of it.

7 Q Would the ultimate result be that Southern Union  
8 Supply Company's interest in that area would be averaged out  
9 with the lower forty?

10 A Yes, sir.

11 Q What affect would that have on Southern Union's  
12 interest, Mr. Shirock?

13 A It lowers our interest in the amount of oil we  
14 would recover.

15 Q All right. Now, can you tell the hearing officer  
16 what you feel the significance structurally similar areas  
17 that you have found in both the north half and the south  
18 half of the proposed pooling unit, Susco's proposed pooling  
19 unit, and a unit that would be made up of the half that is  
20 directly south of the proposed pooling unit?

21 A It is my opinion that the north half of the northeast  
22 quarter of Section 30 has the same geological characteristics  
23 of structure, of porosity, and also probably barrels of oil  
24 production -- average barrels of oil production made in this  
25 particular north half, has similar characteristics, and this

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1 unit should be putting together for drilling the proposed  
2 Susco well.

3 Now, the south half of the northeast quarter of  
4 Section 30 would be another unit that does have similar  
5 geological characteristics on this thing. I think if a well  
6 was drilled in a standard location would be much less  
7 attractive than our proposed well.

8 Q Now, Mr. Shirock, as a matter of fact does it make  
9 much difference to Southern Union Supply whether this well  
10 is drilled at a central location as expressed by counsel or  
11 in the unorthodox location or in the standard location so long  
12 as the pooling unit is laid down? Does it make any difference?

13 A Well, we would certainly object to the Commission  
14 about if the unit is running north and south of drilling  
15 an unorthodox location.

16 Q But if the unit is laid over as we have proposed  
17 do you have any objection or do you have any particular  
18 desires other than compliance and a conservative development  
19 of this field with any location of the well other than the  
20 standard location?

21 A We are just trying to develop the field on a  
22 conservative approach and want to stay with a standard  
23 location.

24 MR. CATON: I have nothing further.

25 MR. STAMETS: Any other questions of the witness.

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1 If there are no other questions we will take about a  
2 fifteen minute recess.

3 (THEREUPON, the hearing was in recess  
4 and the witness excused.)

5 MR. STAMETS: The hearing will please come to  
6 order.

7 Mr. Stevens are you ready?

8 MR. STEVENS: Yes, Mr. Examiner, and with your leave  
9 I would like to make a very short introductory statement.

10 MR. STAMETS: Go ahead.

11 MR. STEVENS: Basically, Mr. Examiner, the applicants  
12 herein have two cases applied for. One, is a forced pooling  
13 of an eighty acre tract northeast of the northeast of Section  
14 30 and a well to be drilled in a location in the southeast  
15 of the northeast and that is 6017 and that includes the usual  
16 charges for supervision and risk and so forth.

17 They also have case 6036 which has some alternatives.  
18 One, is forced pooling of the east half of the northeast  
19 quarter of Section 30 with an unorthodox location to be  
20 drilled within two hundred feet of the center of the northeast-  
21 northeast of Section 30 and a well, again, to be located within  
22 two hundred feet of the center of the northeast-northeast.

23 Further, another option we ask the Commission to  
24 respace the pool on forty acre spacing as opposed to the  
25 eighty acre spacing as much of the pool already is.

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Commission?

A Yes, I have.

MR. STEVENS: Mr. Examiner, are the witness' qualifications acceptable?

MR. STAMETS: They are.

Q (Mr. Stevens continuing.) We have stated, Mr. Allen, what we are seeking here. Do you know of any change in a particular location that the applicants might make, subject to the Commission's approval, and a location of a well in the northeast quarter of the northeast quarter?

A Yes, the applicant would change the location of their well in the northeast of the northeast of Section 30 to the center of that proration unit.

It is presently located two hundred feet north of the center of that proration unit, that forty acre tract, Unit A in Section 30.

The application calls for it to be drilled two hundred feet north of the center of Unit A. We would concede that perhaps drilling it in the center of Unit A would be a better location or would be just as good.

Q I might state that the application says within two hundred feet but it has been previously staked at that two hundred feet north location --

MR. STAMETS: That relates to 60367

MR. STEVENS: Yes, Mr. Examiner.

1 Q (Mr. Stevens continuing.) Referring to what has  
2 been marked as Exhibit Number Five would you explain it, Mr.  
3 Allen?

4 A Number Five?

5 Q Pardon me, Number One, I am sorry.

6 A Exhibit Number One is a copy of a land map in the  
7 area of the Flying M Pool, Lea County, New Mexico. I submit  
8 this copy of the land map in that area to, one, to show the  
9 location of the contested acreage in the northeast quarter  
10 of Section 30, Township 9 South, Range 33 East.

11 Secondly, I also introduce this Exhibit to show  
12 those wells colored in red which are, in fact, drilled on  
13 a forty acre spacing.

14 Q The other wells in the field that are San Andres  
15 producers are in accordance with the eighty acre spacing  
16 pattern?

17 A Yes. The other wells that you see here are eighty  
18 acre spaced wells except those in the northwest quarter of  
19 30 and the southwest of 19, those for the most part are Bo  
20 Sea wells.

21 Let me point out that Section 29, as the Examiner  
22 has previously noted, is immediately offsetting the tract  
23 in question to the east is already effectively drilled on  
24 forty acre spacing as well as most of the south half of  
25 Section 20.

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1 Q Are about half of the wells in the pool effectively  
2 drilled on forty acre spacing?

3 A That is correct.

4 Q Referring, then, to what has been marked as Exhibit  
5 Number Two would you explain it, please?

6 A This is a Xerox copy of Costal States Gas Producing  
7 Company No. 4, McFuggin which is located in the northwest of  
8 the northwest of Section 29, Township 0 South, Range 33 East.

9 It is a direct east offset to our proposed primary  
10 location. It is presented, one, to illustrate the pay zone  
11 which is located slightly below forty-three hundred feet in  
12 this particular well.

13 Approximately seventy feet of section was perforated  
14 in this well. It also illustrates the structure marker  
15 horizon which I used in preparing my structure map which in  
16 this particular well is located at a depth of forty-three  
17 hundred and eight feet.

18 It also illustrates the depth and the datum to  
19 the pay zone.

20 Q Is this log and are other logs in this deal in your  
21 opinion definitive as to quality of wells that may be expected  
22 by looking at a log or logs?

23 A No, sir. This particular well log is not very  
24 definitive. As a log analyst and working for many years as  
25 a log analyst there are some companies that have high quality

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1 logs and some intermediate quality logs and some low  
2 quality logs. Therefore, during the course of drilling  
3 up a field there are some of each of these types of logs  
4 that are run on the various wells through the field making  
5 it extremely difficult to prepare the high quality maps  
6 necessary to determine various things such as net pay and  
7 so on and so forth. For the most part it has to be an  
8 educated guess, especially the particular company that ran  
9 this log.

10 Q Referring, then, to what has been marked as Exhibit  
11 Number Three would you explain it, please?

12 A This is my structure contour map on the top of the  
13 porosity zone that is producing in the Flying M Pool and I  
14 have restricted my map to the four sections in question which  
15 have a common corner in Sections 29, 20, 29, and 30, of  
16 Township 9 South, Range 33 East.

17 On this particular well I show generally east  
18 dipping structure at the San Andres horizon all through Eddy,  
19 Chaves and Lea Counties. There is a very gentle dip with very  
20 few anomalous situations which you get reverse dip -- that  
21 would be a dip to the north or a dip to the northwest or a  
22 dip to the west.

23 I show on this map predominantly a dip to the east.  
24 This particular map shows a slight nosing through the common  
25 corner of the four sections. The rate of dip increases slightly

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1 on the east side of Sections 20 and 29.

2 This also shows wells that are completed in the  
3 San Andres as well as those wells that are dry holes that have  
4 penetrated that horizon.

5 It also shows some of the injection wells that are  
6 utilized in Section 20 and in Section 29. You will note on  
7 the west side of the map in Section 19 and 30 four dry holes  
8 to at least the San Andres formation and some of these wells  
9 were specifically drilled as San Andres tests and have failed  
10 as such.

11 You will also note two abandoned San Andres producers  
12 notably in Section 30, the northwest of the northwest, and  
13 in Section 30 the southwest of the northeast. Both of those  
14 are abandoned non-commercial San Andres producers. It would  
15 appear from this map that the further you go west the more  
16 likely you are to get a dry hole and the greater the risks  
17 of drilling a commercially productive well.

18 Q What is the trapping mechanism of this field?

19 A This particular field is quite similar to all of  
20 the rest of the San Andres producing fields in the area in  
21 that the oil and gas is trapped by a permeability and porosity  
22 barrier as stated by the previous witness.

23 Q In this case would you say that the trapping mechanism  
24 is more so permeability than porosity or vice versa?

25 A In some instances they are directly related to

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1 each other and in others they are completely unrelated.

2 So, they independently determine the productive  
3 capacity as well as rate of production.

4 Q In Sections 19 and 20 is it your opinion that  
5 permeability or porosity is the greater trapping mechanism,  
6 in your opinion, in the pinch out?

7 A In some places the permeability and porosity goes  
8 away and that is why there is no oil there. I presume that  
9 the operators of these wells were prudent operators at the  
10 time that this operation took place.

11 I also note that the well that is the dry hole in  
12 the northeast quarter of 19 was drilled after some of the  
13 producers were drilled in Section 20.

14 Therefore, they knew that the San Andres was productive  
15 in the area and yet they decided it was non-commercial at the  
16 time they drilled it.

17 Q Is this porosity or permeability pinch out easily  
18 determinable or is it erratic?

19 A It is extremely erratic but only a well drilled at a  
20 location can determine whether you have a well or not.

21 Q As a prognostication as to the quality of a well  
22 nearer or closer or farther away from this pinch out means in  
23 your opinion a lot or very little?

24 A It is a factor to be quite seriously considered in  
25 staking a location.

1 Q Would you discuss the current operations of wells  
2 being drilled in the area right now?

3 A Yes, currently, the No. 3 well located in the  
4 southwest quarter of Section 20 is being drilled. Recent  
5 attempts at completion are presently being attempted right  
6 now in the northwest of the southeast of 19.

7 Q What do your knowledge is the best well in this four-  
8 section area?

9 A In Section 29, the well located in the southeast  
10 of the northwest is the best well in the area. It has  
11 produced in excess of three hundred thousand barrels of oil.

12 Q Mr. Allen, I'll ask you to --

13 A I have an exhibit later on that will show cumulative  
14 production.

15 Q I will ask you to refer to the Exhibit Number One  
16 of the applicant in Case 6035, structure map, and would you  
17 discuss aspects of this map that you think are pertinent to  
18 your map and our case at hand?

19 A May I ask the previous witness a question, first?

20 MR. STAMETS: Sure.

21 THE WITNESS: I note in the legend, Exhibit One,  
22 Structure Map top T/PI or P- One --

23 MR. SHIROCK: P-One zone -- top of the porosity.

24 A Okay. There was some confusion in my mind whether  
25 it was pi or P-One and there is a difference.

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1 MR. SHIROCK: I would have changed that but I  
2 didn't have enough room.

3 A When you were giving testimony before you said in  
4 Section 19 the brand new No. 2 well the top of pi was at a  
5 datum of plus sixty-one feet --

6 MR. SHIROCK: That is incorrect. That is the top of  
7 the Slaughter zone, porosity zone.

8 A I was confused by that --

9 MR. SHIROCK: Sorry about that.

10 A Thank you.

11 Q (Mr. Stevens continuing.) Referring to this map  
12 have you some comments as to the regional dip as shown in  
13 this map in Sections 24 and 19?

14 A Of course, this map covers just a little more area  
15 than mine does and it is a different scale. I think one of  
16 the primary differences between the two maps is the scale.

17 Q In what respect?

18 A Well, when you have a map that is blown up tremendously  
19 large you can do all sorts of gyrations with the contours  
20 with quite a few "streamulations" and so forth and when you  
21 close the scale of your map down you have to draw straighter  
22 and straighter lines.

23 I think that is the primary difference between these  
24 two maps. The datums as you can see are quite similar. There  
25 are just very few variations in the order of differences in

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1 elevations or whether they log from the derrick bar or the  
2 Kelly bushing or from the ground level.

3 Sometimes different operators will log from different  
4 places and it is not noted on the log so you come up with  
5 plus or minus ten feet and that's a reasonable difference.

6 There are a couple of primary differences between  
7 the two maps though in that the previous Exhibit Number One  
8 shows counter regional dip that I don't agree with. I don't  
9 don't think that it is there.

10 Q What is your basis for that?

11 A Well, my basis is general knowledge of Chaves and  
12 Lea Counties as there are just very few places in this country  
13 where you have a counter regional dip. The San Andres is a very  
14 uniformly eastward dipping formation.

15 Q In the southeast quarter of Section 24 you have  
16 regional dip to the north as shown by the applicant in the  
17 other case as a northwest dip. Do you see any evidence to justify  
18 his dipping that regionally to the northwest on his map?

19 A There are no datums posted next to those wells.  
20 It's an interpretation. Most of us geologists make interpre-  
21 tations of the data at hand and when you don't have the data  
22 there you either do not contour it or you just end your contours.

23 Q Do you see any justification for the regional  
24 dip to the northwest of the south half of Section 19?

25 A Well, when you put the datum, plus sixty-one datum,

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1 on the Susco No. 2 well rather than the way it is contoured  
2 it would tend to flatten that dip out. It would not be  
3 nearly as a directly north contour.

4 If you look at the map that I prepared without  
5 knowledge of that particular datum my map is contoured and  
6 the sixty-one datum comes right in on the contours that I  
7 drew on that location.

8 Q I note that you also have a datum of seventy-nine  
9 on the well in the southeast quarter of the southwest quarter  
10 of 19 whereas the previous applicant's Exhibit One has a datum  
11 of plus sixty-three.

12 Would that materially change the north dip in the  
13 contouring of the purported structure in the north half of  
14 the northeast of Section 30?

15 A My datum is seventy-nine and his datum is sixty-  
16 three and that is a difference of sixteen feet. Sometimes  
17 it is very difficult to pick the top of the porosity as a  
18 clean break especially if you are looking at a log that goes  
19 to the Bo Sea and not a detailed log through the zone that  
20 you have your datum.

21 It is quite simple on an electric log scale of  
22 one inch to a hundred feet and your pencil line is five feet  
23 thick.

24 So, I would say that he is probably a little bit  
25 too deep on that datum. My interpretation says it is sixteen

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1 feet deep.

2 Q Based on your study of this area and looking at  
3 the applicant's exhibits do you believe that the closed  
4 structure shown in the north half of the northeast of  
5 Section 30 is there?

6 A I do not think it is there.

7 Q Do you think the proposed location of Susco in the  
8 northwest of the northeast is a superior location to a location  
9 in the northeast of the northeast or the southeast of the  
10 northeast?

11 A I do not. The risk in drilling a hole there is  
12 considerably greater than drilling one in the northeast of  
13 the northeast of Section 30.

14 Q Is that because you are getting closer to the  
15 pinch out?

16 A That's correct.

17 Q And the further west?

18 A The further west you go the closer you get to the  
19 pinch out and the greater the possibility for a non-  
20 commercial producer.

21 Also, there is a significantly greater advantage in  
22 drilling in the northeast of the northeast because it directly  
23 offsets three producing wells.

24 Q This is based on geology or empirical oil finding?

25 A This is an empirical relationship.

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1 Q Is it --

2 A If you are directly offset to a producer there is  
3 a lot better chance of jumping out on an extra location.

4 Q Regardless of geology?

5 A Regardless of geology or anything else.

6 Q Thank you. Do you have any further comments regarding  
7 your Exhibit Three or the previous applicant's Exhibit One?

8 A Well, there are some gyrations here -- geologists  
9 have different ways of expressing their opinions. Some  
10 people are extremely optimistic and some people are extremely  
11 conservative and I consider myself optimistic.

12 But I think the structure anomaly that we see in the  
13 southeast quarter of Section 30 is extremely optimistic based on  
14 no data whatsoever. The ditch that thumbs through there may  
15 or may not be present.

16 Q Does the --

17 A It doesn't do anything for me.

18 Q Does the structure as shown in the southeast of 30  
19 give you a re-enty and therefore a low in the south half  
20 of the northeast of Section 30?

21 A Well, when you draw a structural anomaly in the  
22 southeast quarter such as is drawn here then your only  
23 alternative is to draw a deep re-entrance or syncline on your  
24 map immediately opposing it and therefore possibly manufacturing  
25 a low that is, indeed, not there and making that acreage look



1 less attractive.

2 Q Referring to what has been marked as Applicant's  
3 Exhibit Number Four would you explain it?

4 A My Exhibit Four?

5 Q Your Exhibit Four?

6 A My Exhibit Number Four is a map showing a completion  
7 date of each of the wells drilled in the four sections.

8 You will note that the dry hole in the northeast  
9 of 19 was drilled subsequent to the discovery of this pool  
10 and it was drilled or completed in November of '64, while  
11 producing wells were drilled in Section 20, in the extreme  
12 southeast of Section 20 in June of '64 and in July of '64,  
13 the No. 2 well in the southeast of 20 and in June of '64,  
14 the No. 3 well in the southeast of the northeast of 20,  
15 also, the No. 5 well in the southeast of the northwest of  
16 20, so, people were fully cognizant of the fact that this  
17 pool was in a state of development and they were looking  
18 for a producing well at that location and it was not over-  
19 looked, the pay zone was apparently not overlooked, and  
20 it would be a high risk venture, re-entering the hole and  
21 I make the presumption that the operators were prudent and  
22 this illustrates a valid dry hole to the west of permeability  
23 pinch out.

24 Q Do many of these same considerations apply to the  
25 well in the southwest quarter of the northeast quarter of

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1 30?

2 A Okay, that well was completed as a San Andres  
3 producer. However, it is a plugged San Andres producer  
4 because of being a non-commercial producer. Therefore,  
5 somewhere in this vicinity should be the porosity pinch out,  
6 the limit of commercial production.

7 This well that was drilled in the southeast of  
8 30 that is a producer is a very marginal well. Currently,  
9 it is only producing three barrels of oil a day.

10 The well drilled specifically as a San Andres  
11 producer in the southeast of the southeast of 30 was plugged.

12 Q On the basis of these would you consider that  
13 the pinch out, at least the effective pinch out of this  
14 field, is somewhere in the second location west of the  
15 east line of 19 and 30?

16 A Say that again?

17 Q Let me rephrase that -- well, let's just forget  
18 that question.

19 Is that pinch out line possibly being indicated by  
20 the dry hole you mentioned in the southeast-northeast of 19  
21 and the southwest-northeast of 30?

22 A It is highly possible that a well located in Unit  
23 B of Section 30 would be a dry hole. I would say that there  
24 is a fifty percent possibility just as the previous witness  
25 has said that that would be a dry hole.

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1 Q Referring to what has been marked as Exhibit Number  
2 Five would you explain it in conjunction with Exhibit Number  
3 Four?

4 A Exhibit Number Five is a map indicating the total  
5 cumulative production of all wells in these four sections  
6 to the date of 1/1/77, in other words approximately nine  
7 months ago. This is a cumulative production of all wells in  
8 this area and generally you can correlate data of completion  
9 with cumulative production, total cumulative production, with  
10 a few outstanding exceptions such as the No. 1, McGuffin which  
11 is located in the southeast of the northwest of Section 29.  
12 It is the exceptional well in the area and it has produced  
13 three hundred and eleven thousand barrels of oil -- the  
14 dream of every geologist to have one of those wells.

15 Q This Section 29 surrounding that well is it drilled  
16 on, in effect, forty acre spacing?

17 A Section 29 is effectively drilled on forty acre  
18 units.

19 Q And the amount of oil produced by that No. 1 has not  
20 prevented the completion of the extra wells in those alternate  
21 forties has it?

22 A It has not.

23 Q Referring, then, to what has been marked as Exhibit  
24 Number Six would you explain that please?

25 A Exhibit Number Six shows production in the pool as

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1 of the month of July 1977 -- not in the pool but of those  
2 selected wells in the immediate vicinity of the contested  
3 acreage.

4 It shows that the highest, the most highly,  
5 productive wells are at the common border of Sections 19,  
6 20, 29 and 30.

7 Q Referring to what has been marked as Exhibit Number  
8 Seven would you explain it?

9 A Exhibit Number Seven is an interpretation of Exhibit  
10 Number Six. It is the average daily production of wells in  
11 the immediate vicinity and you will note that the Southern  
12 Union Well No. 1 in the southeast of 19 produced two thousand  
13 sixteen barrels of oil during the month of July. The  
14 completion date was the 7th of July and therefore I would  
15 assume that that was twenty-two days of production which gave  
16 an average production through the month of July of ninety-  
17 two barrels of oil.

18 In the previous testimony it was stated that the  
19 average production was eighty-four and I will concede that.

20 You will note also that the No. 2 well drilled by  
21 Arco in Section 20 in the extreme southwest of the southwest  
22 of 20 produced an average of eighty-one barrels through the  
23 month of July.

24 The McGuffin No. 4 in the extreme northwest corner  
25 of Section 29 produced ninety barrels of oil.

1 So, oil is rapidly being produced from the common  
2 corner by those three wells and in all probability is  
3 presently draining the acreage in question.

4 Q Do you consider that your contouring which you did  
5 based on production, is there any evidence that a location  
6 in the northwest of the northeast quarter would produce  
7 more oil than the three wells around that common corner that  
8 you just talked of?

9 A I presume -- do you mean Unit B, Section 30?

10 Q Yes, sir.

11 A From the data at hand, the basic data that we get  
12 from the official records of the Oil Conservation Commission,  
13 the best location for the highest production would be in  
14 Unit A -- probably the center of Unit A of Section 30.

15 Q Do you have any other comments concerning these  
16 two exhibits?

17 A No.

18 Q Based upon your study, Mr. Allen, first let me  
19 ask you, based on your empirical observations do you think  
20 the operators in Sections 20 and 29 consider that one well will  
21 drain eighty acres?

22 A No, sir, I sure don't. I think that they have  
23 demonstrated that it will not adequately drain eighty acres.

24 Q Do you consider that one well will drain eighty  
25 acres in the north half of the northeast or the east half

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1 northeast?

2 A No.

3 Q In your opinion what is the best location to drill  
4 in the northeast quarter of Section 30?

5 A Unit A.

6 Q To get a good well?

7 A Unit A, in fact, I know of no other field in this  
8 development in the San Andres that has ever been developed  
9 on an eighty acre spacing. All other fields that I can think  
10 of in southeastern New Mexico, San Andres fields, are  
11 developed on forty acre spacing and on occasion they are not  
12 adequately drained.

13 As a matter of fact, in the Lavaland-Slaughter  
14 field and the Watson field they are drilling infill wells  
15 right now and are finding that bottom hole pressures are  
16 quite near virgin and they are on twenty and ten acre spacing.

17 So, in my estimation eighty acre spacing is not  
18 adequate to drain the San Andres reservoir anywhere.

19 Q In your opinion is it possible that this field  
20 might be better drained on twenty acre spacing?

21 A It might.

22 Q Based on your study of this and considering only the  
23 proximity to the pinch out which would be the superior of  
24 the three locations, Unit A, B, or H in Section 30?

25 A I think the superior location is Unit A of Section

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1 30.

2 Q What, in your opinion, would be the secondary  
3 location?

4 A The second best would be Unit H.

5 Q Based upon your consideration of proximity to the  
6 wells from an empirical approach which would be the superior  
7 location to be drilled in the northeast quarter of Section  
8 30?

9 A Unit A.

10 Q And your second best location?

11 A Unit H.

12 Q In your opinion would a well in the northwest quarter  
13 of the northeast quarter drain the northeast quarter of the  
14 northeast quarter?

15 A Part of it. Well, just as the well in Unit P  
16 of 19 and the well in Unit M of Section 20 and C of Section  
17 29, in that same sense. Each of them are draining acreage  
18 in Unit A of Section 30.

19 Q Will a well in the southeast quarter of the  
20 southeast quarter drain the northeast quarter -- pardon me --  
21 the southeast quarter of the northeast quarter drain the  
22 northeast quarter of the northeast quarter?

23 A Of what section?

24 Q 30, sorry.

25 A Section 30, the southeast of the northeast, would

1 it drain it?

2 Q Yes, sir?

3 A Partially.

4 Q In the same manner --

5 A In the same manner that one in the northwest of  
6 the northeast or Unit P of 19 and so forth.

7 Q Mr. Allen, in your opinion should this pool be  
8 spaced on forty acre spacing as opposed to eighty acre  
9 spacing?

10 A My personal opinion is yes.

11 Q Is this because in your opinion everything -- one  
12 well might always drain forty acres or is the production so  
13 variable that there might be a better way to develop it?

14 A I think the recent activity in the area demonstrates  
15 that quite a bit of oil has been overlooked in the past.

16 You will note on Exhibit Four there is generally  
17 periods of development of this pool. The initial period from  
18 '64 through '67 in which the original eighty acre spacing was  
19 initiated and, then, from '74 through to the present in which  
20 this unique area of extremely high productivity or at least  
21 initial productivity is being developed.

22 This is not an area that would not have been  
23 discovered in reality if the eighty acre spacing had been  
24 maintained.

25 Q If the entire pool would be developed on forty acre

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1 spacing would more oil be produced in your opinion?

2 A I think so but I am fighting a whole lot of  
3 engineers who have said otherwise and probably a great deal  
4 of the industry.

5 This particular reservoir, though, in my opinion  
6 does require forty acre spacing, at least.

7 Q Do you consider this field to be subject to  
8 secondary recovery successfully?

9 A Yes, sir.

10 Q What would be more beneficial eighty acre spacing  
11 or forty acre spacing?

12 A Forty.

13 Q If it were subject to secondary recovery would it  
14 be necessary to infill drilling in your opinion?

15 A At least to forty acres density in some areas. It  
16 may be necessary depending on engineering studies to drill  
17 even more densely than that.

18 Q Could you give us your estimate as to a risk factor  
19 on Unit A of Section 30?

20 A I would say there is an eighty-five percent probability  
21 of completing a well at that location successfully at  
22 commercial production.

23 Q How about in the south in Unit H, the southeast of  
24 the northeast of Section 30?

25 A I would estimate a probability of production there

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1 of commercial production of about seventy percent.

2 Q And Unit B in the same section?

3 A About fifty percent.

4 Q Based on your study and your previous observations  
5 do you believe the granting of the application in Case 6036  
6 providing for an unorthodox location or in the alternative  
7 forty acre spacing so that a well could be drilled in the  
8 northeast-northeast and forced pooling only in the northeast-  
9 northeast would promote conservation and protect correlative  
10 rights and prevent waste?

11 A Yes, I do.

12 Q Were Exhibits One through Seven prepared by you or  
13 under your direction?

14 A Yes, they were.

15 MR. STEVENS: Mr. Examiner, we would like to  
16 introduce Applicant's Exhibits One through Seven at this  
17 time.

18 MR. STAMETS: These exhibits will be admitted.

19 MR. STEVENS: We have no further questions on  
20 direct.

21 MR. STAMETS: I would like to clarify a couple of  
22 things at this point.

23

24

CROSS EXAMINATION

25 BY MR. STAMETS:

1 Q If I understand this correctly, Mr. Stevens, you  
2 have tentatively abandoned your position in Case 6017?

3 MR. STEVENS: We haven't abandoned it. If the  
4 Commission denies Case 6036 or the alternative therein we have  
5 have not abandoned it.

6 If the Commission grants any portion of 6036, yes,  
7 we have abandoned it.

8 Q Let's put all of these things into order. What  
9 you would like to have, first, what would you like to have,  
10 the eighty acres in Unit letter A?

11 MR. STEVENS: May I state this, we have one more  
12 witness and he will expand upon this, if you don't mind or  
13 I'll tell you right now.

14 Q It would, perhaps, help the interrogation if we  
15 knew for sure what it is.

16 MR. STEVENS: Definitely, the applicants, Latham  
17 and Barton, would prefer the best possible for all parties,  
18 not just themselves, and it would be either an unorthodox  
19 location in the northeast-northeast of Section 30 and as a  
20 basis therefore the unorthodox location or a forty acre spacing  
21 in the field whichever mechanically the Commission feels is  
22 the better way to get there.

23 Further, they would desire to force pool only the  
24 northeast quarter of the northeast quarter for purposes of  
25 drilling that well.

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1 Now, they might selfishly desire to have the  
2 east half of the northeast forced pooled but we will point  
3 out later that that just isn't equitable. So, you have  
4 defined what we particularly want, first.

5 Q I thought I had but now I am not sure.

6 MR. STEVENS: Well, we have another witness who  
7 will go into that, if you don't mind. Mr. Latham will go  
8 into that.

9 MR. CATON: I would like to reserve my questions  
10 until after Mr. Latham has testified and it might shorten  
11 the proceedings.

12 MR. STAMETS: The Southern Union witness testified  
13 as to the north half of the northeast of Section 30. Will  
14 somebody tell me if that is the interest in the entire  
15 northeast of Section 30.

16 MR. STEVENS: Mr. Latham can.

17 Q (Mr. Stamets continuing.) As to your application  
18 for the changing of the pool rules from eighty acre spacing  
19 to forty acre spacing might that not have some harmful  
20 effects on the rights of interest owners in the proration  
21 units already completed?

22 MR. STEVENS: In our opinion we certainly do and we  
23 asked for some disinclination there however we felt the  
24 Commission should have every opportunity and every mechanical  
25 method by which they are authorized to allow a well to be

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1 drilled in the northeast quarter of the northeast quarter.  
 2 And it could be argued that the unorthodox location for  
 3 forced pooling only in the northeast-northeast might not  
 4 be permissible. I don't think it could be argued successfully  
 5 but it might be.

6 Q Okay.

7 MR. CATON: I am not certain that you are sworn,  
 8 Mr. Stevens.

9 MR. STEVENS: I'll be happy to be sworn.

10 MR. CATON: We will take your statement for what it  
 11 is worth.

12 MR. STAMETS: Do you have some questions, Mr.  
 13 Caton?

14 MR. CATON: I have some questions but it will  
 15 probably be more profitable to hear Mr. Latham, first.

16 MR. STAMETS: That sounds just fine and I'll be  
 17 happy for Mr. Stevens to proceed.

18  
 19 E. L. LATHAM, JUNIOR

20 was called as a witness by the applicants, and having been  
 21 first duly sworn, testified upon his oath as follows:

22  
 23 DIRECT EXAMINATION

24 BY MR. STEVENS:

25 Q Would you state your name, residence and occupation

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1 and your relationship to the applicants herein?

2 A My name is E. L. Latham, Junior, and I live in  
3 Hobbs, New Mexico, and Mr. Barton and I are independent  
4 operators.

5 Q Are you and Mr. Barton and other independent  
6 parties partners in the ownership of certain of the lands in  
7 question here?

8 A Yes, we are.

9 Q Subject to the alternatives which may be available  
10 here do you desire to operate the well or wells to be drilled  
11 that the Commission might allow?

12 A Yes, we do.

13 Q I don't propose to have Mr. Latham as an expert  
14 witness however I would like to have him give his background  
15 in the oil business.

16 Would you briefly state your educational background  
17 and your oil experience?

18 A I have been associated with the oil business all of  
19 my life. I graduated from T.C.U. in 1949, with a B.S. Degree  
20 in Business Management.

21 I went to South America with Gulf Oil Corporation  
22 for four years and I worked in oil handling there.

23 Then, from there I went to San Francisco and worked  
24 for Shell Oil Company in the purchasing department and I  
25 was an assistant to one of the buyers.

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1 In the last twenty-five years I have been in  
2 southeastern New Mexico, first, working as a logging  
3 incorporating engineer, a salesman, and then as an oilfield  
4 equipment salesman.

5 In the last nineteen years I have been self-employed  
6 and I have my own oil equipment business and in the last  
7 ten or eleven years I have been an independent oil operator  
8 dealing primarily with state, federal and fee oil and gas  
9 leases, minerals, overrides and working interests.

10 MR. STEVENS: Are his qualifications satisfactory,  
11 Mr. Examiner, as an operator?

12 MR. STAMETS: Mr. Latham, how many wells are you  
13 the operator of or part operator of?

14 A At the present time Mr. Barton and I operate one  
15 well.

16 MR. STAMETS: Mr. Latham is certainly recognized  
17 as an operator and the Commission has always considered the  
18 testimony of operators and of people familiar with oil  
19 well operating, from the practical standpoint, as well as  
20 those educated in universities.

21 Q (Mr. Stevens continuing.) Thank you, Mr. Examiner.  
22 Referring to what has been marked as Exhibit Number Eight,  
23 Mr. Latham, and would you explain the first portion thereof  
24 and I am going to ask some questions under each of the  
25 subdivisions that we have here.

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1 A I beg your pardon?

2 Q Would you explain the first portion of Exhibit  
3 Number Eight, the ownership?

4 A Okay. The east half of the northeast quarter,  
5 Latham and Barton, we have a seventy-three percent working  
6 interest. Our net revenue interest is sixty-seven percent.

7 Q The difference between those two figures is the  
8 amount of royalty, is that correct?

9 A That's correct.

10 Q On that basis, then, the twenty-seven percent, plus  
11 or minus, would be owned by Southern Union, is that correct?

12 A That's correct.

13 Q That would also give them only twenty-seven percent  
14 of the northeast quarter of the northeast quarter, is that  
15 correct?

16 A That's correct.

17 MR. STAMETS: Let me get that clear. What you are  
18 saying is that that set of figures applies both to the east  
19 half of the northeast and the northeast?

20 A The eighty acres.

21 Q (Mr. Stevens continuing.) If it were forced pooled  
22 on --

23 A On eighty acres.

24 MR. STAMETS: Okay, I understand. You also are  
25 saying that the same thing is true as to the forty acres being



1 the northeast quarter of the northeast quarter?

2 MR. STEVENS: I should have explained that. That  
3 would be the case only if it were forced pooled as a pooled  
4 unit.

5 In other words they have twenty-seven percent of  
6 the southeast-northeast and twenty-seven percent of the  
7 northeast-northeast if that were forced pooled.

8 MR. STAMETS: Okay.

9 Q (Mr. Stevens continuing.) The next, Mr. Latham?

10 A On the north half of the northeast Southern Union  
11 has seventy-six percent, plus, that's working interest.

12 They have a net revenue interest of sixty-one, plus,  
13 percent.

14 Q And the difference between seventy-six and sixty-one  
15 is the amount of royalty, is that correct?

16 A That's correct.

17 Q Therefore, while Southern Union has a higher working  
18 interest percentage than you do in the north half of the  
19 northeast, in working interest, you have a higher net of  
20 revenue interest in the east half of the northeast than they  
21 do in revenue interest, is that correct?

22 A That's correct.

23 Q Then, in this north half of the northeast you have,  
24 Latham and Barton, have some twenty-four percent?

25 A Twenty-three and a half.

1 Q If this were forced pooled would you have twenty-  
2 three and a half percent in the northwest-northeast and in  
3 the northeast of the northeast?

4 A Run that by again, Don?

5 Q Sure. If the north half of the northeast were forced  
6 pooled would you have twenty-three and half percent in the  
7 northwest-northeast and in the northeast-northeast?

8 A Yes.

9 Q All right. The next is the northeast-northeast and  
10 would you explain it, please?

11 A Southern Union has fifty-three percent working  
12 interest and thirty-nine, plus, net revenue interest.

13 Latham and Barton have forty-six, plus, percent  
14 working interest and forty-one percent net revenue interest.

15 Q Thus they have a higher working interest in the north  
16 east-northeast however you have a higher net revenue interest,  
17 is that correct?

18 A That's correct.

19 Q What is the reason for that?

20 A It is the amount of royalty that was given to  
21 some of their leases.

22 Q All right. In the west half of the northeast?

23 A Well, according to the testimony here they have  
24 fifty percent of the southwest quarter, only. I really don't  
25 know the figures.

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1 Q But you own none?

2 A We own none, right.

3 Q Mr. Latham, if you were granted, and asserted to  
4 be granted, your original application in 6017 would you drill  
5 a well in the southeast quarter of the northeast quarter  
6 and then would you drill a well in the northeast quarter  
7 of the northeast quarter?

8 A That's what we intended. We staked two wells.

9 Q Is that what most others in the area have done?

10 A Yes.

11 Q And in your opinion would that greater protect the  
12 correlative rights of the owners of the northeast quarter  
13 of the northeast quarter?

14 A Yes, sir.

15 Q Well, if Southern Union managed to force pool you  
16 in the north half of the northeast would you be in effect  
17 giving up half of your ownership in the northeast-northeast  
18 to Southern Union?

19 A That's correct.

20 Q In other words if the northeast-northeast was drilled  
21 as a forty acre unit by yourself you would have a forty-one  
22 percent net revenue interest.

23 What would you have in the northeast-northeast if  
24 Southern Union forced pooled you in the north half of the  
25 northeast?

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1 A We would have twenty-three point five percent  
2 working interest.

3 Q And do you agree with your geologist that the  
4 northeast-northeast is by far the superior location to drill?

5 A I do.

6 Q Would, then, their forced pooling be considerably  
7 to your detriment and affect your correlative rights?

8 A It would, yes.

9 Q Referring, then, to what has been marked as Exhibit  
10 Number Nine, would you explain that, please?

11 A This is our A.F.E. for the drilling of a well to  
12 be located seventeen hundred and eighty feet out of the north  
13 and six sixty out of the east which would be the position H  
14 in Section 30, 9 South, 33 East.

15 Q Now, this would refer to the first case, Number 6017?

16 A Right.

17 Q Would these figures apply also to the Case 6036?

18 A No, it would be a little cheaper.

19 Q All right. Go ahead --

20 A The only difference would be the dirt work. We  
21 wouldn't have as much road to build.

22 Q What is the total amount that you would anticipate  
23 that this well would cost?

24 A In which location?

25 Q In your Exhibit Number Nine?

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1 A I would anticipate one hundred sixty-eight thousand  
2 one hundred fifty-three dollars and eighty cents.

3 Q How did you arrive at these figures, Mr. Latham?

4 A I contacted each of the suppliers that operate in  
5 this area and also the service companies that operate in the  
6 immediate area and got prices from them.

7 Q Did you allow additional possible overruns and  
8 miscellaneous expenses in addition thereto?

9 A I did like miscellaneous two thousand dollars and  
10 in various places here and possibly we could trim it just a  
11 little bit.

12 Q In other words you can not only have overruns you  
13 can have underruns, is that correct?

14 A Absolutely.

15 Q Have you received an A.F.E. from Southern Union but  
16 I guess you heard the witness for the previous applicant  
17 state, and do you consider that price is a reasonable price  
18 that they estimated?

19 A No, I don't.

20 Q Do you believe that you can complete the well for  
21 considerably less than that?

22 A I do.

23 Q Do you feel that by completing the well at this  
24 lesser figure that you can do a workmanlike job or at least  
25 as good a job as Southern Union might do?

1 A Yes, I do.

2 Q Mr. Latham, how do you plan to have this well  
3 drilled and completed?

4 A Well, we engaged our geologist, Mr. Allen, to be  
5 the geologist on any well we might drill and also we have  
6 engaged Mr. Jack Noss and he is retired from Gulf with  
7 thirty years of experience and for the last ten years he has  
8 been a consulting drilling and completion foreman and he is  
9 presently engaged with Continental Oil Company.

10 Q Do you consider that your consultants plus your  
11 experience in the field will give you the necessary qualificati  
12 to complete a well and operate the proposed well should the  
13 Commission grant it as well or better than Southern Union  
14 Supply Company?

15 A As well, yes.

16 Q You have heard Mr. Allen's testimony as to the risk  
17 factor here. Do you agree that the charge for risk should  
18 be along the same lines as the risk factor that he came up  
19 with?

20 A Yes, sir, I do.

21 Q Do you know -- would that figure be fifteen percent  
22 or would you add something in there for interest or something  
23 like that for the application for the well in the northeast  
24 of the northeast?

25 A Well, it depends on -- if you have to spend money

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1 to force pool somebody and spend money in their behalf, I would  
2 like to know whether interest on the money that you possibly  
3 borrow in their behalf, is that included in the cost? If  
4 it is not, I think it would not be just at fifteen percent.

5 Q It would be higher?

6 A It would be higher. It would depend -- it would be  
7 higher if the cost of interest is not in for the money you  
8 borrow to drill on their behalf. If it is, if the cost of  
9 interest is in that then the fifteen percent would be  
10 equitable.

11 MR. STAMETS: Let's go off the record for a minute.

12 (THEREUPON, there was a short discussion off  
13 the record.)

14 Q (Mr. Stevens continuing.) Would you agree, then,  
15 that fifteen percent wouldn't be sufficient as a charge for  
16 risk since you have to borrow the money to carry the monthly  
17 expenses?

18 A No.

19 Q What would you consider would be sufficient to charge  
20 for risk in this case?

21 A Well, in the northeast of the northeast, in this  
22 case, it would be twenty-five percent.

23 Q And in the southeast of the northeast?

24 A It would be forty-five percent.

25 Q Mr. Latham, you originally asserted the east half of

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1 the northeast and in your opinion if you got the east half  
2 of the northeast wouldn't that dilute the interest of Southern  
3 Union in the northeast of the northeast where you propose  
4 to drill a second well?

5 A It would.

6 Q To their detriment?

7 A Uh-huh.

8 Q It would not protect their correlative rights?

9 A That's correct.

10 Q Conversely, they receiving approval of the north  
11 half of the northeast would have the same effect upon you?

12 A It would.

13 Q Do you consider, then, an unorthodox location approve  
14 by the Commission or, conversely, forty acre spacing in the  
15 field whereby a well could be drilled in the northeast-  
16 northeast and you could drill yours southeast-northeast and  
17 they could drill their northwest-northeast would that, in your  
18 mind, be the most equitable manner of taking care of this  
19 situation?

20 A It would.

21 Q Were Exhibits Eight and Nine prepared by you or made  
22 under your direction?

23 A They were.

24 MR. STEVENS: I have no further questions on direct,  
25 Mr. Examiner. I would move that these two exhibits be



1 introduced into evidence.

2 MR. STAMETS: Exhibits Eight and Nine will be  
3 admitted.

4  
5 CROSS EXAMINATION

6 BY MR. STAMETS:

7 Q Let me clarify a couple of things before you get  
8 started.

9 Mr. Latham, you have no interest whatsoever in the  
10 southeast of the northeast?

11 A We do, the southeast of the northeast?

12 Q The southeast of the northeast?

13 A We have one hundred percent working interest.

14 MR. CATON: Conversely, Southern Union has no interest  
15 whatsoever.

16 Q (Mr. Stamets continuing.) Okay. I am going to  
17 add that to my copy of Exhibit Number Eight here -- the  
18 southeast of the northeast will be one hundred percent working  
19 interest for Latham and Barton.

20 A That's correct.

21 Q Okay.

22 MR. STEVENS: I might mention, Mr. Examiner, that  
23 the northwest of the northeast is one hundred percent Southern  
24 Union.

25 Q (Mr. Stamets continuing.) Again, I am going to try

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1 to put what I now perceive as Latham and Barton's desires.

2 First off, they would like to have a forty acre  
3 non-standard unit with a well to be drilled in the northeast  
4 quarter of the northeast quarter?

5 MR. STEVENS: Yes, sir.

6 Q Or forty acre pool spacing -- either one of those  
7 two would be satisfactory?

8 MR. STEVENS: With a forced pool provision.

9 Q And you will have to have forced pooling in the  
10 northeast-northeast.

11 A Yes, sir.

12 Q Then, second, if you don't get that, second, of what  
13 you would like to have would be an eighty acre forced pooling  
14 in the east half of the northeast with a non-standard north-  
15 east-northeast location?

16 MR. STEVENS: Very good, yes.

17 Q Third, then, or fourth, depending on how you count  
18 one, whether it is one or two, you would like to have the  
19 east half of the northeast pooled and a well drilled in the  
20 southeast-northeast?

21 MR. STEVENS: Yes, sir.

22 MR. STAMETS: Okay, I think I am clear on that,  
23 finally.

24 MR. STEVENS: It took a long time to get here.  
25 Mr. Examiner.

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1 MR. STAMETS: You may go ahead and cross examine,  
2 Mr. Caton.

4 CROSS EXAMINATION

5 BY MR. CATON:

6 Q It is true, Mr. Latham, that Southern Union does  
7 not own any interest in the southeast of the northeast?

8 A That's correct.

9 Q You own one hundred percent of that and you agree  
10 that drilling in the northeast of the northeast on an upright  
11 eighty acre spacing would damage Southern Union's correlative  
12 rights?

13 A That's correct.

14 Q Now, what is your opinion on what the rights of  
15 those parties that are directly adjacent to the northeast  
16 of the northeast, the three wells that border this corner?  
17 What is your opinion of the affect on their correlative  
18 rights by drilling in the northeast of the northeast? Do  
19 you think those rights will be damaged?

20 A I think that would be a question for a geologist.  
21 I don't know.

22 Q I respect that opinion. Now, if I understand you  
23 correctly you basically abandoned the position that you would  
24 like to have the drilling unit, whether it is eighty or forty,  
25 in the east half if it included the southeast of the --

1 A That would be our third choice, I believe.

2 Q Now, Mr. Latham, in looking at your expenditures  
3 on this matter, looking at your equipment expenditures  
4 and comparing with Southern Union's actual expenses of a  
5 well just completed we found total equipment expenditures  
6 of approximately ninety thousand dollars and you found  
7 sixty-four thousand six hundred and forty as your estimate.

8 Are you proposing to use anything other than new  
9 equipment?

10 A Well, where you circulate your eighteen hundred  
11 feet of eight and five and it is going to be circulated, I would  
12 say use good used pipe would be sufficient there.

13 Q So, you are proposing -- can you tell the hearing  
14 officer what equipment you propose would be used in the  
15 well besides the casing?

16 A Really just the casing on the eight and five eighths  
17 and a pumping -- probably a pumping unit.

18 Q Can you tell me where you got the estimate of cost  
19 of the pumping unit?

20 A Well, just past experience. That's just a ball  
21 park figure.

22 Q So, you didn't call anyone and find out?

23 A No, it takes time to shop and find a used pump  
24 jack. So, I haven't called.

25 Q How long has it been since you were the supervisor

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1 or handling the drilling of a well, Mr. Latham?

2 A Five months.

3 Q All right. And was this a well in this similar  
4 San Andres formation?

5 A No, it was the Grayburg.

6 Q Now, can you tell me in item six your electrical  
7 logging and can you tell me what your footage rate is on  
8 that?

9 A I got that figure from our geologist who suggested  
10 what logs to run and what the extension would be.

11 Q All right, I'll ask him about that. Now, the same  
12 thing on your number seven your drilling you gave me?

13 A That is the figure from the same contractor that you  
14 used.

15 Q All right. Now, do you agree that there is a risk  
16 in the drilling of any of these wells either of the two you  
17 propose and the one proposed by Southern Union Supply?

18 A Any of them.

19 Q All right. Do you disagree with the amount of  
20 risk involved in these matters -- do you feel, Mr. Latham,  
21 that you have a fifty-fifty chance of getting a well in the  
22 northeast of the northeast or do you feel that you have a  
23 better chance?

24 A A lot better chance than that.

25 Q What about your well in the southeast, what do you

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1 think about that?

2 A I think it is like our geologist says about a seventy  
3 percent chance of a commercial producer.

4 Q Do you have any objection to drilling of a well  
5 in the center of the northern pooling, eighty acre pooling,  
6 unit, Mr. Latham?

7 A You would have to explain where that would be.

8 Q Well, in the center of the eighty acre tract, the  
9 north half of the northeast?

10 A In the center location, B?

11 Q Yes, sir.

12 A I don't know --

13 Q Well, I don't know what your location B would be  
14 but the location for the pooling acre as requested by  
15 Southern Union Supply, the pooling unit, do you have an  
16 objection to a well at the center of that location?

17 A It would depend on what the interest would be.  
18 It wouldn't be my choice by any means.

19 Q Why wouldn't it be your choice, Mr. Latham?

20 A Well, for the same reason as my geologist, I don't  
21 want to go west. We picked up all of that acreage and did  
22 not.

23 Q It is your preference, geologically, it's not a  
24 preference from the amount of interest that you have in it?

25 A Geologically and the interest, also.

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1 MR. CATON: That's all I have. If I may undertake  
2 cross of Mr. Allen?

3 MR. STAMETS: Okay.

4 MR. STEVENS: If I may ask him one question?

5 Q (Mr. Stevens continuing.) Mr. Latham, is it common  
6 practice by good legitimate operators and major large  
7 independents in this business to use an eight and five  
8 eighths production intermediate string?

9 A Yes, it is.

10 Q Is it also a fairly common practice to use a used  
11 pumping unit?

12 A Absolutely.

13 Q Is your pumping unit cost similar to or close to  
14 that proposed by Southern Union?

15 A It is.

16 MR. STEVENS: No further questions.

17 MR. STAMETS: Mr. Stevens, for clarification, again,  
18 if I understand this correctly of what you have asked for is  
19 a twenty-five percent risk factor if you get the forty acres  
20 in Unit A?

21 MR. STEVENS: Yes, sir.

22 MR. STAMETS: And you have asked for forty-five  
23 percent risk factor if you get the eighty acres -- no, still  
24 twenty-five percent of you get the eighty acres but the non-  
25 standard location in A?

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1 MR. STEVENS: Yes, sir.

2 MR. STAMETS: Forty-five percent in the eighty

3 acres with a non-standard location in H?

4 MR. STEVENS: Well, it would be a standard location

5 in H.

6 MR. STAMETS: I am sorry, standard location.

7 MR. STEVENS: Just forced pooled.

8 MR. STAMETS: All right. I don't believe that we

9 have had any testimony from either of the witnesses as to

10 supervisory costs while drilling or producing.

11 MR. STEVENS: That is an error on my part. I had

12 it in my notes and I forgot and I will now and thank you for

13 reminding me.

14 Q (Mr. Stevens continuing.) Could you give us what

15 costs you might seek if the Commission approved your request

16 for administrative overhead on a monthly basis while the

17 well is drilling?

18 A One thousand dollars.

19 Q What monthly costs would you seek after the well

20 is completed?

21 A One hundred and twenty-five dollars plus any pumping

22 expenses. I mean by that the contract pumper.

23 Q Is that less or greater than most people get for

24 wells of that depth in this area?

25 A That's less.



1 MR. STEVENS: Thank you, Mr. Examiner.

2 MR. CATON: I have no further questions.

3 MR. STAMETS: Anything further from this witness?

4 He may be excused and Mr. Allen will you return, please, to  
5 the stand?

6

7

CROSS EXAMINATION

8 BY MR. CATON:

9 Q Mr. Allen, there is no question in your mind from  
10 the geological data that you have prepared that drilling the  
11 standard location in the east half of the northeast would  
12 damage Southern Union --

13 A East half of the northeast?

14 Q East half of the northeast, the standard location,  
15 which would be your location H, there is no question that that  
16 would damage Southern Union Supply's correlative rights?

17 A Yes, sir, just as Southern Union's drilling in  
18 Unit E would damage our correlative rights.

19 Q Where would your correlative rights -- in what  
20 respect would they be damaged?

21 A To the extent that the questionable acreage resides  
22 in the northeast quarter of the northeast quarter and each party  
23 owns somewhat near fifty percent of the property, the right  
24 to drill, have a lease.

25 Okay. If Southern Union drills at their location

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1 they get seventy-five percent of the revenue.

2 If my client drills at their location they get  
3 approximately seventy-five percent of the revenue. Whoever,  
4 drills get seventy-five percent of the revenue.

5 The only area where we have a fight is in the  
6 northeast of the northeast in not getting our fair share of  
7 the northeast of the northeast.

8 The proper solution would be for all parties to  
9 agree to a well in the center of the northeast of the northeast  
10 and at their own discretion drill their own well at the other  
11 two proposed locations. That, to me, would be the most  
12 equitable solution to the problem if the O.C.C. will allow  
13 this.

14 Q That gets us to the crux of the problem.

15 A I do not think that there is an impairment of the  
16 offset operators to the north, northeast, or east --

17 Q Well, I didn't ask that question, yet. If Mr.  
18 Stamets will let me get to that and it may be that Joe will  
19 want me to back up and let you say that, I don't want to.

20 But I want to ask you how many wells are you going  
21 to have to drill if you drill the center of the north half  
22 of the northeast, Mr. Allen?

23 How many wells, ultimately, to produce the proper  
24 amount of oil from this quarter section?

25 A From this quarter section and there is already one

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1 well drilled?

2 Q Yes.

3 A Three wells will be drilled to properly drain this.

4 Q All right. Now, it is not true is it under the  
5 regulations that we operate by that simple drainage of the  
6 reservoirs accomplishes our work without waste is it? There  
7 is such a thing as economic waste? You will agree with that,  
8 Mr. Allen?

9 A Yes.

10 Q And you agree that economic waste arises when producers  
11 are required to drill more wells than are absolutely necessary  
12 to drain and specific structure, isn't that correct?

13 A Well, you used the word "absolutely" and that is a  
14 modification.

15 Q Well, do you agree or do you not agree?

16 A In areas where the reservoirs are homogeneous  
17 and by homogeneous I mean porosity and permeability are uniform  
18 both vertically and horizontally that perhaps it would be  
19 proper to have an eighty acre spacing in the San Andres. But  
20 the San Andres is far from a homogeneous reservoir.

21 There are idiosyncrasies both vertically and  
22 horizontally in the San Adres reservoirs that require to drill  
23 it at the proper density.

24 I think that the experience in southeastern New  
25 Mexico indicates that forty acres is the proper spacing for the

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1 San Andres producing fields.

2 Q Well, I don't think you answered my question. My  
3 question was that waste, economic waste, will occur if more  
4 wells are drilled than necessary to properly drain the  
5 area that we are talking about?

6 A I don't think that one well will properly drain --

7 Q That is not my question. My question is that is  
8 economic waste, is it not, Mr. Allen?

9 A That could be defined as economic waste if you drill  
10 more wells than you need to.

11 Q And your whole theory of this particular matter  
12 depends on your opinion that forty acre spacing is the proper  
13 way in which to drain this particular pool?

14 A Yes.

15 Q And you are in disagreement with Mr. Shirock  
16 on that are you not?

17 A Yes, that's correct.

18 Q In that general situation would you not feel that  
19 the proper manner of developing the field would be as has  
20 been done in 20 and 29 and in 19 which you have very little  
21 data on, to drill first in the standard location and then to  
22 infill, isn't that the way we designed this thing, Mr. Allen?

23 A That's the way you have designed it. I have no  
24 rights to design your drilling program.

25 Q Okay. Now, as a matter of fact referring to your

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1 Exhibit One, Mr. Allen, you have not indicated in Section 19  
2 the pattern of spacing that has been used in this rather new  
3 area which I think by the hearing officer's own motion or  
4 the Commission's motion, will be included in the Flying M, you  
5 haven't indicated that have you?

6 A No, sir. My marking here is what apparently is the  
7 case from the location of wells that have already been --

8 Q If you are familiar with it, then, you would agree  
9 that the development of that new area of the field has been  
10 on eighty acre spacing has it not?

11 A Yes.

12 Q Okay. To change from an eighty acre spacing at this  
13 point in the midst of the progress of the development of  
14 the field would possibly create economic waste would it  
15 not, Mr. Allen?

16 A I disagree, principally because the offset operators  
17 in Section 20 have drilled on a non-standard location in  
18 the southwest of the southwest of 20 and this is the most  
19 recent development for Arco, a reputable firm drilling oil  
20 and gas wells in the State of New Mexico.

21 Q Arco drilled first in a standard location did they  
22 not?

23 A Yes, but they drilled a non-standard location before  
24 they drilled their next standard location.

25 Q Now, Mr. Allen, as a practical matter you believe

1 that twenty acre spacing would be proper in this field?

2 A It has not yet been demonstrated that that would  
3 be improper.

4 Q Mr. Allen, have you reviewed the testimony that  
5 was presented to the Commission relating to the establishment  
6 of the eighty acre spacing in the field?

7 A No, sir.

8 Q All right. You are not familiar with that testimony  
9 at all?

10 A No.

11 Q Then, you could not testify here today as to any  
12 substantial change that has occurred due to production  
13 information from the testimony that was given at that time?

14 A Since I am not familiar with that testimony obviously  
15 that is correct.

16 Q Mr. Allen, in any of the exhibits which you have  
17 prepared here have you drawn for the benefit of the hearing  
18 officer the pinching that you indicated exists in the four  
19 sections that you have talked about?

20 A I have not drawn the pinch out, no, sir.

21 Q Can you do that?

22 A Just as anybody else could utilizing the dry holes  
23 as the guide.

24 Q Which exhibit would you prefer to do that on?

25 A How about my structure map?

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1 Q Okay.

2 MR. STAMETS: Exhibit Three?

3 Q (Mr. Caton continuing.) Exhibit Three, and would  
4 you do that for me from the information available at the  
5 present time and assuming that everyone is a prudent operator  
6 until proven otherwise --

7 MR. STAMETS: Would you please do it on two of  
8 them, Jack, so that I will have a copy?

9 A I can only assume that you are going to make a  
10 producer out of your No. 2 well --

11 Q (Mr. Caton continuing.) I just want you to draw  
12 the line, the pinch line, if you can, and it will show what it  
13 will show.

14 A That is true. Now, you are privy to information  
15 that I do not have available on both of your wells and your  
16 No. 1 well or No. 2 well logs have not yet been released  
17 and are not available for the public, so, on that basis I will  
18 drawn the line.

19 I will draw my pinch out line through your No. 2  
20 well. I fully expect that it will not be as good a well as  
21 your No. 1 well.

22 Q If you would do that on two of them, please, Mr.  
23 Allen?

24 A All right. Let me do it on my own --

25 Q Did you get it done on yours?

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1 A Yes, sir.

2 Q All right. Now, you have drawn that pinching line  
3 to the west of our proposed well site?

4 A Yes, sir.

5 Q All right.

6 A I would say that you have a fifty percent probability  
7 of succeeding and completing a commercial producer at that  
8 location.

9 Q Now, looking at the two wells in the extreme south-  
10 west of Section 19 did I understand you to say that those  
11 wells had been field tested at the San Andres?

12 A No, you didn't.

13 Q Okay. You are aware that they are not field  
14 tested?

15 A That is correct.

16 Q So, those well don't enter into your data at all  
17 as far as the San Andres is concerned?

18 A You will note that the well in the extreme northeast  
19 of Section 30 was a San Andres producer and has been plugged.  
20 That well produced -- the northwest of the northwest, that's  
21 the Shell No. 1, Richardson and it has been plugged after  
22 producing six hundred and twenty-four barrels out of the  
23 San Andres. I consider that a non-commercial San Andres well.

24 Q So, really all of the figures that you have in Section  
25 19, since you don't have available the information that we



1 had from our two wells would be drawn from that well and the  
2 interpretation that you made, the gyrations that you have  
3 made?

4 A The fact that there is a non-commercial well in  
5 the northeast quarter of 19?

6 Q Yes.

7 A As well as a non-commercial well in the northwest  
8 quarter of 19.

9 Q Now, my question a minute ago was the two wells in  
10 the extreme corner of Section 19, the southwest corner,  
11 neither of those wells figure into the contours as you have  
12 drawn them do they?

13 A Other than the fact of your drill stem test of that  
14 well in the extreme southwest corner which did have a water  
15 test.

16 Q In addition, then, --

17 A That could be subject to error as we both know since  
18 the interval covered by that drill stem test was extremely  
19 long.

20 Q All right. In addition the exhibit which you have  
21 drawn does not include information of the Susco No. 2 and the  
22 Susco No. 1?

23 A That is correct because that information was not  
24 available to me anywhere.

25 I did guess pretty well at the structure marker,

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1 though.

2 Q Now, referring to your Exhibit Number Two, Mr.  
3 Allen, you have indicated the perforations or it shows  
4 indications of perforations in the bottom half of that exhibit  
5 does it not?

6 A Yes, sir.

7 Q And those perforations are made -- do they just  
8 happen to be opposite the maximum porosity or were they  
9 drawn there intentionally to take advantage of the porosity?

10 A The holes?

11 Q Yes.

12 A A prudent operator perforates what he thinks is the  
13 most porous part of the well above the oil-water contact.

14 Q Well, my point is that the porosity -- the exhibit  
15 that was produced here by Southern Union that shows porosity  
16 and the pay area at porosity is significant isn't it?

17 A Porosity in the San Andres is a significant factor  
18 whether you get a well or not.

19 My remarks concerning log quality had to do with  
20 the qualitative analysis of electric logs and especially  
21 through casing. This well was logged through casing. The  
22 quality of your interpretation is significantly reduced  
23 when there are materials interfering between the logging  
24 instrument and the rock, itself.

25 The more material between the two things the worse

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1 your interpretation and my remarks were meant to indicate  
2 that determining the difference between seven percent  
3 porosity and six percent is less accurate under these  
4 adverse conditions.

5 But I concur that you also perforate the porosity.

6 Q And this is what this log shows has been done?

7 A Yes, sir. Are we in disagreement about something?

8 MR. CATON: I think that's all I have of this witness  
9 Mr. Stamets, I did not introduce any testimony into direct  
10 as to the amendment of the field rules and I have what I  
11 hope would be some short testimony on this that I would ask  
12 to put on.

13 MR. STEVENS: I have a question or two of this  
14 witness.

15  
16 REDIRECT EXAMINATION

17 BY MR. STEVENS:

18 Q You were asked would it not be more equitable to  
19 drill the standard location first and then infill drill.  
20 Would that be more equitable?

21 A Not under these very peculiar conditions where there  
22 is that dual ownership in the northeast-northeast.

23 Q In what respect?

24 A Because whoever drills the well and gets the  
25 proration unit beats the other person out of half of their

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1 interest.

2 Q There was testimony about a change since the  
3 original testimony set this field up in eighty acre spacing  
4 and has the price of oil changed since then to your  
5 knowledge?

6 A Significantly.

7 Q Is it more economic and do you tend not to have  
8 economic waste when the price is higher and you drill more  
9 wells?

10 A That's correct.

11 Q Is that why at that time or is it true at that time  
12 that eighty acre spacing might have resulted -- I mean  
13 forty acre spacing might have resulted in economic waste  
14 whereas now it will not?

15 A That's a true statement, yes.

16 Q Is another factor that since that original hearing  
17 has the practice of operators in this field changed in how they  
18 drill their wells whether they are on forty or eighty?

19 A The practice has, in fact, changed specifically  
20 in Section 29 because they are, indeed, on forty and filled  
21 in.

22 Q So, price and spacing since this original eighty  
23 acre spacing hearing some years ago are two changes since  
24 then, is that correct?

25 A Yes, sir.

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1 Q You drew this pinch out line on your Exhibit Number  
2 Three and you testified previously that the pinch out line  
3 is variable and erratic and do you consider that this line  
4 is absolute that you drew or that it might be elsewhere?

5 A There are no absolutes in geology. You never say  
6 never or always -- you never say always.

7 Q Then your line might change based on different  
8 information but at this time this is where you think it should  
9 be drawn?

10 A That's correct. If Southern Union would re-enter that  
11 well in the northeast of Section 19 and make a commercial  
12 producer I might have to change this line.

13 MR. STEVENS: No more questions.

14  
15 CROSS EXAMINATION

16 BY MR. STAMETS:

17 Q Mr. Allen, do you have any specific evidence of  
18 or in the opposite of communication between the wells in  
19 this reservoir?

20 A I don't have any direct evidence but I have an  
21 intimation -- if you will note on my Exhibit Number Five --  
22 and the type of communication I am talking about is extra  
23 production that a particular well has because it is near  
24 an especially permeable zone, part of the field, and I am  
25 referring to the McGuffin No. 1 in the southeast of the

1 northwest of Section 29.

2 I think that exceptional production is directly  
3 related, at least, indirectly related to the good wells that  
4 we are seeing now in that part of the field that was not  
5 adequately drained by the rest of the wells in the field.

6 Is that the type of communication that you had in  
7 mind, vertical communication with water?

8 Q I was -- any evidence of pressures or interference  
9 between drainage and non-drainage and this type of thing?

10 A No, sir.

11 Q If it finally gets down to a choice in this  
12 situation between Southern Union's application for a eighty  
13 acre unit or Latham's application for an eighty acre unit  
14 what do you feel the controlling factors are in any decision  
15 should be?

16 A Equitability to all parties concerned.

17 Q Okay.

18 A Such as prevention or interference with correlative  
19 rights to the greatest extent.

20 Q Now, I think that could be a very important point  
21 in this case and I want to make sure that you understood my  
22 question and that I understood your answer.

23 That in the final analysis it gets down to simply a  
24 decision between which eighty acre unit to approve, not  
25 considering where the wells are going to be, whether a stand up

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1 eighty or a lay down eighty, and I understood your answer to  
 2 be that you feel that whichever eighty treats the rights,  
 3 correlative rights of the owners involved in this case  
 4 most equitably, that should be the eighty that is approved?

5 A I don't think you can achieve equity with eighty  
 6 acre units.

7 Q I realize that that is a part of your testimony.

8 A I refuse to answer that question on that basis.

9 Q Well, of course, perhaps this denies you an  
 10 opportunity, then, to properly present your -- to represent  
 11 your client should the decision get to that point and of  
 12 course you have that right.

13 A That is true -- but here is where I am too impartial  
 14 to give you an unbiased opinion, as Mr. Shirock would be.

15 MR. STAMETS: You have not answered that question  
 16 and it remains unanswered.

17 MR. STEVENS: May I?

18 MR. STAMETS: Yes, Mr. Stevens, you certainly may.

19

20 REDIRECT EXAMINATION

21 BY MR. STEVENS:

22 Q Mr. Allen, geologically you have testified that  
 23 the southeast-northeast has a superior location to the north-  
 24 west-northeast, is that correct?

25 A That is correct.

1 Q This between just those two locations, geologically,  
2 you would prefer the east half of the northeast?

3 A Say that again?

4 Q As between a well to be drilled in the east half  
5 of the northeast or the northwest of the north half of the  
6 northeast you would prefer the east half, northeast, geologically  
7 based on the two location that I have just given you?

8 A Yes, I think you would have a better probability  
9 of success with the two eastern locations than with the  
10 two northern locations.

11 Q All right. As to the parties and the amount of  
12 their estimate as to the cost of each well, would in your  
13 opinion Latham and Barton be more entitled to drill a well  
14 in the southeast of the northeast or Southern Union Supply  
15 drill a well in the northwest of the northeast as based on  
16 the estimate of cost of the well?

17 A You would probably get more oil for less money by  
18 drilling a well in the southeast of the northeast.

19 Q You have heard testimony of Mr. Shirock that he  
20 considers that there is a fifty percent probability in the  
21 northwest of the northeast and that equates with your same  
22 probability?

23 A Yes, sir.

24 Q You have previously testified that the southeast of  
25 the northeast you gave a thirty percent probability or

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1 seventy percent probability of success. On that basis  
2 probability of success which location would you say is  
3 the superior location, the southeast-northeast; northwest-  
4 northeast?

5 A Southeast to the northeast.

6 MR. STEVENS: No further questions.

7 MR. CATON: I have a couple of questions.

8 MR. STAMETS: Mr. Caton.

9  
10 RECROSS EXAMINATION

11 BY MR. CATON:

12 Q Mr. Allen -- well, I am going to pass --

13 MR. STAMETS: Any other questions of this witness?

14 He may be excused.

15 ( THEREUPON, the witness was excused.)

16 MR. STAMETS: Mr. Caton to you have something on  
17 direct?

18 MR. CATON: Yes, I would recall Mr. Shirock.

19  
20 ROY SHIROCK

21 was called as a witness by the applicant, and having been  
22 previously duly sworn, testified upon his oath as follows:

23 DIRECT EXAMINATION

24 BY MR. CATON:

25

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1 Q Mr. Shirock, have you examined the testimony that  
2 was introduced at the hearing in which the eighty acre  
3 spacing was established and the temporary spacing and the  
4 testimony that was presented at the final determination of  
5 that matter?

6 A Yes, I have.

7 Q Is there any information that comes to your attention  
8 from the actual development of this field that you are  
9 aware of that would require a change in the spacing rules  
10 as established by the Commission?

11 A No.

12 Q Is there any substantial difference in the estimations  
13 of -- was it Arco's testimony at that time --

14 A Coastal States.

15 Q Coastal States' testimony is there any actual  
16 substantial difference between their estimate of future  
17 production and what has actually occurred?

18 A I don't believe so.

19 Q And Southern Union Supply's plans the development  
20 of 19 based on the information which you have in Susco's  
21 No. 1 and No. 2, does request and plan on standard spacing  
22 is that correct?

23 A That is correct.

24 Q And you have established Susco No. 1 and 2 in  
25 standard lay down positions, is that correct?

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1 A No, the Susco No. 1 and No. 2 are on a north-south.

2 Q Okay. And you have proposed to enter into an  
3 old well which is in a standard location, is that correct?

4 A That's correct.

5 Q All right. Now, based on the information that you  
6 have from Susco's 1 and 2, can you comment on the pinch line  
7 that Mr. Allen drew?

8 A Well, it is my thinking that the pinch line is  
9 further west than what Mr. Allen drew there simply because  
10 the BTA Well No. 1 and 2, FMS wells are located in the south-  
11 west quarter of Section 19 and they were never tested in the  
12 San Andres. There was no drill stem tests run from the  
13 information that I have available to me and they weren't  
14 perforated.

15 Q What would be the standard location for drilling  
16 of a well on an upright eighty acre spacing in the northeast --  
17 in the east half of the northeast?

18 A I didn't understand that.

19 Q What is the standard location -- what would it be  
20 for an upright eighty acre spacing?

21 A That would be the standard location, the re-entry.

22 Q Now, referring to Barton proposed location, H,  
23 is that a standard location for an upright spacing on an  
24 eighty acre pattern?

25 A Which location?

1 Q The H location?

2 A Yes.

3 Q All right. Do you, in your opinion, believe that  
4 can be a productive well?

5 A I think that that well is less attractive than our  
6 location.

7 Q In the protection of correlative rights is it important  
8 for the hearing officer to keep in mind that you have identified  
9 similar structures in the north half and the south half of  
10 both of these areas?

11 A That's correct.

12 Q Would you specifically tell him what you feel is  
13 the significance of drilling wells in similar structures?

14 A I would like to go back to my Exhibit One, structure  
15 map, and I don't have it -- here I got it here -- as I  
16 mentioned to the Examiner this map is a structure map on  
17 top of the porosity zone and what I wanted to bring out to  
18 the Examiner is this map does not reflect the San Andres  
19 structure. This map reflects porosity structure. And  
20 porosity structure is erratic in the San Andres carbonate  
21 and in one well you might have an area that has a couple  
22 hundred feet of productive interval and in another well you  
23 might have some that only has ten feet of productive  
24 interval.

25 This is why this particular map shows structure,

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1 more structure, more anomalies than a San Andres particular  
2 map and this is what we use for a field type development.

3 Also, this particular map is detailed in showing  
4 the San Andres structure and San Andres porosity and when  
5 you do have structure in the San Andres porosity the  
6 porosity map shows similar structures as the structure map  
7 simply because you have structure in the Slaughter zone  
8 porosity and you usually get this porosity in the upper part  
9 and it shows structure.

10 Now, what happens here in this particular field  
11 and why we want the north half of the northwest quarter is  
12 simply because that shows a structure that is similar in  
13 characteristics and also similar with porosity.

14 Now, the south half has similar structure and also  
15 it has similar porosity.

16 Q Now, do you feel that a well which is meant, intended  
17 to serve similar structure and porosity better preserves  
18 correlative rights?

19 A I sure do, I firmly believes that is true.

20 Q And there would not be any averaging between the  
21 south and the north half if that were the manner in which  
22 we proceeded, is that correct?

23 A That's correct.

24 Q Do you agree with Mr. Allen's statement that the  
25 final resting place should be the protection of the correlative

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1 rights?

2 A That's correct.

3 Q Do you believe that the north half development and  
4 the south half development on a lay down basis better protects  
5 the correlative rights of all of the parties involved based  
6 on the geological structures that you have found?

7 A I believe these two units, the one to the north  
8 and the one to the south would protect all of the correlative  
9 rights of all of the mineral owners and royalty owners in  
10 the whole northeast quarter of Section 30.

11 MR. CATON: That's all I have.

12 MR. STAMETS: Mr. Stevens?

13  
14 CROSS EXAMINATION

15 BY MR. STEVENS:

16 Q Mr. Shirock, your attorney asked Mr. Allen wouldn't  
17 it be more equitable to first drill a standard location and  
18 later infill drill as opposed to an unorthodox location.  
19 Do you agree with that?

20 MR. CATON: I don't agree that I asked that question.

21 Q (Mr. Stevens continuing.) Presuming that he did  
22 would you answer it, please?

23 A Would you run through it, again, please?

24 Q Yes, sir. Do you consider that 't would be better  
25 to drill a standard location first and then infill drill as

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1 opposed to a unorthodox location, first?

2 A Well, the history of the field has been that they  
3 have drilled, except one location which is the No. 2  
4 McGuffin, they drilled a standard location and we commenced  
5 developing Section 19 on standard locations and with our  
6 conservative approach we would like to stay with standard  
7 eighty acre location.

8 Q You have not had any ambition or desire to ever  
9 drill in the northeast-northeast?

10 A I wouldn't say that.

11 Q Right now you don't -- you may change in the future?

12 A For example, we come over here and drill the present  
13 location and at a later date we have additional information  
14 that might require a well to drill in the northeast of the  
15 northeast and I am sure that I would recommend to management  
16 that we drill that location.

17 Q You own the full interest in the southeast-south-  
18 east of 19 don't you?

19 A Yes, sir.

20 Q Under any formula that we get here you are going to  
21 own less than that in the northeast-northeast of Section 30,  
22 aren't you?

23 A Well, if we are going to the northeast of the  
24 northeast we are going to own approximately fifty percent,  
25 something of that sort.

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1 Q Well, that may not be true, but regardless you  
2 will own less than a hundred percent, is that correct?

3 A Of the pooling unit that we are requesting?

4 Q Yes, sir.

5 A Yes, sir.

6 Q Your well in the southeast-southeast is a direct  
7 offset to the northeast offset -- of the south offset and  
8 will that southeast-southeast probably drain some oil out  
9 from under the northeast-northeast?

10 A Possibly could.

11 Q Therefore, you don't have any real economic interest  
12 in having a well drilled in the northeast-northeast do you?

13 A Well, our economic interest would be to drill our  
14 suggested location where both could be drained at the same  
15 rate.

16 Q But your economic interest would not be the same  
17 as the owners under the northeast-northeast are they?

18 A Well, we have one hundred percent on Section 19,  
19 working interest. Here, we would have on the north half we would  
20 have approximately seventy-five percent -- seventy-six point  
21 four, I believe is correct.

22 Q You testified that one well would drain eighty  
23 acres, right?

24 A Yes, sir.

25 Q And that eighty acres would include part of the

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1 northeast-northeast?

2 A Yes, sir, I think this well here would drain the  
3 whole eighty acres.

4 Q Would the correlative rights of those owners under  
5 the northeast-northeast be protected if no well were drilled  
6 in the northeast-northeast?

7 If that well in the southeast-southeast is going  
8 to drain part of it?

9 A Southeast, are you talking about --

10 Q Your southeast-southeast --

11 A Would drain part of this?

12 Q Yes, sir.

13 A Well, I think if we keep the field on eighty acre  
14 spacing I think we will have the same drainage.

15 Q Is the field going to be effectively drained on  
16 eighty acre spacing?

17 A That's is the way it was commenced.

18 Q Is it presently drilled on eighty acre spacing?

19 A They have infill drilling.

20 Q On forty acre spacing?

21 A Yes, sir. But I must say that the allowable on both  
22 wells is for only one eighty acres.

23 Q What is the allowable?

24 A One hundred and sixty barrels.

25 Q How many wells make that allowable?

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1 A Well, ours started out but it didn't make it  
2 very long.

3 Q You say that changes since the Costal States  
4 hearing -- you don't consider that the substantial increase  
5 in the oil prices is worth drilling on forties instead of  
6 eighties?

7 A Well, you have a similar increase in the cost of  
8 drilling.

9 Q Is it similar? Can you give a percentage?

10 A I don't know if it is similar. I can't remember the  
11 testimony correctly but I think that they were getting two  
12 dollars and thirty-eight cents a barrel when this particular  
13 thing -- I can't remember the testimony correct -- but it  
14 was two thirty-eight or something like that. But you were  
15 drilling one of these wells for forty thousand dollars --  
16 drilling and completing it for forty-thousand dollars.

17 Now, we are getting about, say, in the neighborhood  
18 of eleven dollars a barrel out there for that oil and the  
19 cost is two hundred thousand dollars.

20 Q Real quick you have got an equivalent ratio od one in  
21 four but how about dollars recovered? You are going to have  
22 eighty thousand barrels at, let's say, eleven dollars a  
23 barrel and let's say that is eight hundred and eighty thousand  
24 dollars as opposed to your cost of two hundred and seventeen  
25 thousand dollars and this is over six hundred thousand dollars

1 per well. Wouldn't it be better to go ahead and drill that  
2 on forty and get that money, now?

3 A Okay, you say you recover on forty acres in the  
4 neighborhood of forty to forty-five thousand barrels per  
5 forty acre spacing. It cost you two hundred and fifteen  
6 thousand dollars to drill it and if you got, say, ten dollars  
7 a barrel for the oil that would give you four hundred to  
8 four hundred and fifty thousand dollars for that particular  
9 well. You are making just as much money on the other way  
10 and you are making more for your money if you take in the  
11 economic consideration of time interval on your money that  
12 you have.

13 I don't know, I didn't work out the economic analysis  
14 of it.

15 Q Would that protect your royalty owners therein?

16 A Well, it is depending on what you want to say  
17 is the worth of money today and the worth of it in the  
18 future.

19 Q Well, I am thinking of the royalty owners and the  
20 other owners. Are they protected by the fact that you want  
21 your money on the longer term basis and lesser of it and  
22 they don't have to pay any costs?

23 A Well, I would think that over a period of time that  
24 they had an investment that they would rather have "X" number  
25 of dollars over a period of time providing that inflation wasn't

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1 such as it is now.

2 Now, if you go into the economic justification of  
3 whether you wanted something now or over a period of time  
4 I would have to get on the computer to find out what that  
5 rate of return would be.

6 Q Something that is going to be produced ten years  
7 from now is going to be worth considerably less in five  
8 years?

9 A True, I agree with you there.

10 MR. STEVENS: No further questions.

11 MR. STAMETS: Any other questions of the witness?

12 MR. CATON: No.

13 MR. STAMETS: He may be excused. Is there anything  
14 further in this case?

15 (THEREUFON, the witness was excused.)

16 MR. STEVENS: A very brief statement.

17 MR. STAMETS: I believe that since the original  
18 application in this case was filed by Latham that I will  
19 let Mr. Caton go first.

20 MR. CATON: Mr. Stamets, it is not unusual, I imagine  
21 to have geological data which is directly contradictory but  
22 that basically is our case except for the problems and the  
23 lack of data that I think I have pointed out to you in the  
24 production of the Barton exhibits.

25 I think that probably this case can be simplified

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1 from what it started out to be. From the testimony that I  
2 have heard today it becomes very clear that from either  
3 geologist's testimony that the north half of the area is  
4 probably the best half in which to begin development of the  
5 normal field development.

6 I think it is significant and the Commission should  
7 take into consideration the fact that Section 19 is just  
8 now being recognized as a part of the Flying M Pool and I  
9 assume that it will be, although that was only taken under  
10 advisement.

11 I think in terms of waste, both economic and  
12 underground, that the Commission must consider that the  
13 development of the other areas including Susco No. 1 has  
14 been on eighty acre spacing, whether laid down or stand up.

15 The general progress of the field has been on  
16 eighty acre spacing. I would have to agree with both  
17 geologists that the protection of correlative rights will  
18 occur -- should control, and the matter, I don't envy the  
19 position that you are in trying to resolve the geological  
20 data to accomplish that.

21 However, I would suggest to the Commission that  
22 the geological data that has been produced here by Susco  
23 with the information of the later two wells is probably the  
24 most recent information that is available.

25 There is really not that much difference in what

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1 Mr. Allen produced -- as a matter of fact he said he guessed  
2 but that is creative thinking and his guess was on what that  
3 well would do and it was a good one, even though he did  
4 not have the information.

5 We believe that waste to the immediate -- to the  
6 adjacent wells will occur if the standard location and spacing  
7 are not used in this case.

8 We believe that economic waste will occur from the  
9 duplication of wells -- that additional wells will necessarily  
10 have to be drilled to properly drain the reservoir and to  
11 protect correlative rights.

12 We believe that that in, itself, will also drain  
13 reservoir energy and create other problems.

14 The cost involved in this type of development is  
15 certainly expensive. The testimony has been somewhat in  
16 conflict on that. The cost of the development of the well,  
17 I believe, can best be attributed to Southern Union's policy  
18 of using new equipment.

19 Who is to say whether in the long run in the operation  
20 of a well over a long period of time whether new equipment  
21 is not preferable. It is Southern Union's belief that it is.

22 In every case that we see presented here today that  
23 there is no justification for an upright eighty acre spacing.  
24 The damage to correlative rights is apparent and obvious and  
25 that should be dismissed from the Commission's mind as one

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1 of the alternatives to this matter.

2 As to the amendment of the field rules, the law  
3 would require that there be substantial evidence to support  
4 a change in eighty acre spacing. This law is based on  
5 the quite proper approach that the development, once begun,  
6 must be continued in a manner to protect those people who  
7 have gone before.

8 The fact that infill drilling has occurred does not  
9 change that -- infill drilling takes its position after  
10 the development and is usually involved in secondary recovery.

11 It isn't a proper consideration for the Commission  
12 that there is infill drilling. If the Commission gets into  
13 that kind of thing then it certainly must counter the infill  
14 drilling in Section 29 by the fact that in Section 19 there  
15 is none.

16 In this case, Southern Union's specific testimony  
17 is that the standard location in the north half will drain  
18 the entire eighty acres.

19 Basically, the testimony that I heard today seems  
20 to boil down to choosing one or the other in that regard.  
21 Mr. Shirock's opinion is that it will and our location is  
22 based primarily on that particular matter.

23 I would submit to the hearing officer an Oklahoma  
24 case, Continental Oil vs. Corporation Commission, which  
25 directly relates to the burden of proof and requirements of

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1 proof in changing of federal rules in the spacing.

2 I have a copy for you someplace and those are  
3 my comments. Thank you very much -- I am sorry that we  
4 drug on.

5 MR. STAMETS: Mr. Stevens?

6 MR. STEVENS: Mr. Examiner, Mr. Caton believes  
7 his client's geologist and I believe in my client's geologist.

8 In this case it doesn't really matter whose  
9 geology is correct. I could make a big case that Mr. Allen  
10 knows what he is doing as opposed to the other parties but  
11 the question is should the Commission grant the north half  
12 of the northeast to be forced pooled to Latham and Barton,  
13 Latham and Barton have lost half of their interest under  
14 the northeast of the northeast.

15 Conversely, if Latham and Barton forced pooled  
16 Southern Union in the east half of the northeast, Southern  
17 Union will have lost their half interest in the northeast-  
18 northeast.

19 I don't care whose geology you use, the northeast-  
20 northeast is the place to drill. It is surrounded by three  
21 good wells on forty acre spacing. They are draining that  
22 tract right now and the correlative rights of the owners  
23 under that forty acres cannot be protected by the field rules  
24 set up herein.

25 There must be either an unorthodox location in that

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General Court Reporting Service  
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501  
Phone (505) 982-9212



1 location or the pool rules changed to forty acre spacing  
2 and a well drilled there and soon because there is vast,  
3 vast, liability of the owners of that northeast-northeast  
4 to their royalty owners from drainage.

5 The Southern Union Supply has a well in the  
6 southeast-southeast and they have testified that every well  
7 in the field will drain eighty acres and that means that  
8 they are draining oil out from underneath the northeast-  
9 northeast. The well to the northeast diagonal is the east  
10 offset and the southeast diagonal is draining oil out from  
11 underneath that.

12 I submit that Southern Union doesn't want to drill  
13 a well there because they want the oil out from under that.  
14 I think that the Commission should grant the first choice  
15 as we previously set out of Latham and Barton.

16 MR. STAMETS: Thank you. Is there anything further  
17 in this case?

18 MR. STEVENS: Nothing.

19 MR. CATON: Nothing.

20 MR. STAMETS: Oh, yes, we have a telegram --

21 MS. TESCHENDORF: From Atlantic-Richfield -- stating  
22 that they are the operators of the southwest quarter of  
23 Section 20, Township 9 South, Range 33 East, Lea County, New  
24 Mexico, and being the diagonal offset to the acreage in  
25 question of Case 6036 they are opposed to the application of

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General Court Reporting Service  
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501  
Phone (505) 982-9212

1 E. L. Latham and Roy G. Barton to amend the San Andres  
2 Pool rules from eighty acre proration units to forty  
3 acre proration units.

4 MR. STEVENS: May I speak to that, Mr. Examiner?

5 MR. STAMETS: Yes.

6 MR. STEVENS: The location they speak of is a  
7 non-standard unit.

8 MR. STAMETS: If there is nothing further in this  
9 case the case will be taken under advisement and the hearing  
10 is adjourned.

11 (THEREUPON, the hearing was concluded.)  
12  
13  
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22  
23  
24  
25

**sid morrish reporting service**

General Court Reporting Service  
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501  
Phone (505) 982-9212

REPORTER'S CERTIFICATE

I, SIDNEY F. MORRISH, a Certified Shorthand Reporter,  
do hereby certify that the foregoing and attached Transcript  
of Hearing before the New Mexico Oil Conservation Commission  
was reported by me, and the same is a true and correct record  
of the said proceedings to the best of my knowledge, skill  
and ability.

*Sidney F. Morrish*  
Sidney F. Morrish, C.S.R.

**sid morrish reporting service**

General Court Reporting Service  
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501  
Phone (505) 982-9212

I do hereby certify that the foregoing is  
a complete record of the proceedings in  
the Examiner hearing of Case No. 625,626,607  
heard by me on 9-7-77 19 77.  
*Richard R. Blum* Examiner  
New Mexico Oil Conservation Commission



# OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO  
P. O. BOX 2088 - SANTA FE  
87501



DIRECTOR  
JOE D. RAMEY

LAND COMMISSIONER  
PHIL R. LUCERO  
January 4, 1978

STATE GEOLOGIST  
EMERY C. ARNOLD

Mr. Byron Caton  
Tansey, Rosebrough, Roberts  
& Gerding  
Attorneys at Law  
P. O. Box 1020  
Farmington, New Mexico 87401

Re: CASE NO. 6017, 6035, 6036  
ORDER NO. R-5579-A

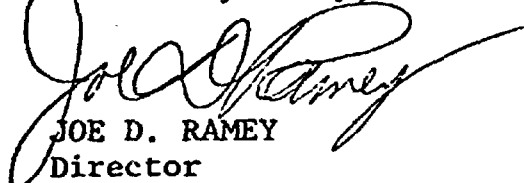
Applicant:

Southern Union Supply Company,  
E. L. Latham, Jr. and Roy G. Barton, Jr.

Dear Sir:

Enclosed herewith are two copies of the above-referenced  
Commission order recently entered in the subject case.

Yours very truly,

  
JOE D. RAMEY  
Director

JDR/fd

Copy of order also sent to:

Hobbs OCC           X            
Artesia OCC           X            
Aztec OCC                           

Other Donald G. Stevens

OIL CONSERVATION COMMISSION

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

January 13, 1978

Mr. Roy G. Barton, Jr.  
P. O. Box 978  
Hobbs, New Mexico 88240

Re: Cases Nos. 6017, 6035,  
6036, DE NOVO, Order No.  
R-5579-A

Dear Mr. Barton:

We have received your AFE and, since Latham and Barton are the only working interest owners in the pooled acreage, you have adequately complied with Paragraph (7) of the Order.

However, Paragraph (9) must also be complied with, since not only other working interest owners but also the Commission have the right to object to your schedule of actual well costs.

Thank you for your attention to this matter.

Very truly yours,

LYNN TESCHENDORF  
General Counsel

LT/fd

C  
O  
P  
Y

OFFICE PHONE 505 393-5515  
RESIDENCE 505 392-5309

300 W. TAYLOR STREET  
P. O. BOX 978  
MOORE, NEW MEXICO 88240

ROY G. BARTON, JR.  
OIL PRODUCER

January 10, 1978

New Mexico Oil Conservation Commission  
State Land Office Building  
Santa Fe, New Mexico 87501

Re: Commission Order No. R-5579-A

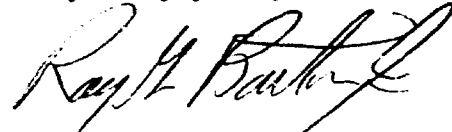
Gentlemen:

Pursuant to the provisions of paragraph 7, page 7 of the order, please find enclosed a copy of our AFE dated December 13, 1977, said AFE revised to that date and not in need of further revision.

Shell Oil Company, a mineral owner, unleased at the time of the hearing, has agreed to grant Latham & Barton an oil and gas lease on their interest. Latham & Barton are the only working interest owners in the pooled lands.

In light of this, please advise if it is still necessary to comply with the provisions of paragraph 9, page 8 of the order.

Very truly yours,

  
Roy G. Barton Jr.

AUTHORITY FOR EXPENDITURE

Date December 13, 1977

Operator E. L. Latham, Jr. and Roy G. Barton Jr.

Location 660 FNL & 460 FEL Sec. 30, T-9-S, R-33-E

Field Flying "M" SA

Lease Cash

Well No. ?

Depth 4500'

County Lea

State N.M.

Spudded           

Date Potential Test           

INTANGIBLE DEVELOPMENT EXPENDITURES:

Estimate            Actual             
 CONSERVATION COMM.  
 JAN 11 1978

Drilling Expenditures:

1. Survey of location and elevation	\$ 228.80	\$
2. Roads and Dirt Work	4,849.00	
3. Mud, Chemicals, Additives & Oil	3,500.00	
4. Hauling	4,500.00	
5. Cement and Cementing	1800' of 8 5/8" Circ. 4500' of 4 1/2"	7,150.00
6. Electrical Logging	7,500.00	
7. Drilling, including daywork	55,575.00	
8. Geological Services	1,000.00	
9. Tool Rental	4,100.00	
10 Surface & Intermediate Casing	10,980.00	
11 Miscellaneous	3,000.00	
Total Drilling Expenditures	\$ 102,382.80	

Completion Expenditures:

1. Acidizing or Fracturing	6,150.00
2. Perforating Expense	1,818.00
3. Testing Expense	500.00
4. Servicing Unit	4,200.00
5. Miscellaneous	3,000.00
Total Completion Expenditures	\$ 15,668.00

TOTAL INTANGIBLE DEVELOPMENT EXPENDITURES

\$ 118,050.80

Equipment Expenditures:

1. Oil String Casing	13,050.00
2. Tubing	9,035.50
3. Sucker Rods	4,300.00
4. Pumping Equipment	14,750.00
5. Lines	
6. Tanks & Treater	14,900.00
7. Separators, Casinghead, Tubinghead	1,125.00
8. Miscellaneous Fitting & Valves	10,000.00
Total Equipment Expenditures	\$ 67,160.50

TOTAL EXPENDITURES FOR WELL

\$ 185,211.30



# OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO  
P. O. BOX 2042 - SANTA FE  
87501

DIRECTOR  
JOE D. RAMEY

LAND COMMISSIONER  
PHIL R. LUCERO  
November 29, 1977



STATE GEOLOGIST  
EMERY C. ARNOLD

Mr. Byron Caton  
Tansey, Rosebrough, Roberts  
& Gerding  
Attorneys at Law  
P. O. Box 1020  
Farmington, New Mexico 87401

Re: CASE NO. 6017, 6035, 6036  
ORDER NO. R-5579

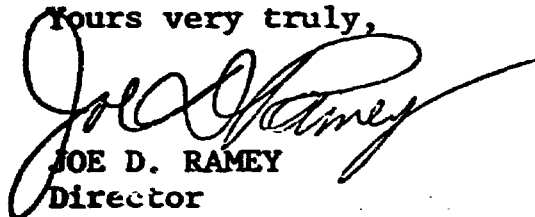
Applicant:

Southern Union Supply Company,  
E. L. Latham, Jr. and Roy G. Barton, Jr.

Dear Sir:

Enclosed herewith are two copies of the above-referenced  
Commission order recently entered in the subject case.

Yours very truly,

  
JOE D. RAMEY  
Director

JDR/fd

Copy of order also sent to:

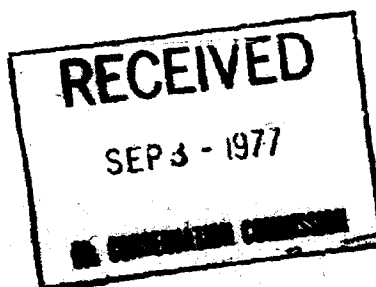
Hobbs OCC   x    
Artesia OCC   x    
Aztec OCC           

Other Donald G. Stevens

*Copy of order Case 6017*



- CASE 6030: Application of Burleson & Huff for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests underlying the SE/4 SE/4 of Section 4, Township 25 South, Range 37 East, Langlie-Mattix Pool, Lea County, New Mexico, to be dedicated to its re-entered Smith Well No. 1 located in Unit P of said Section 4, or in the alternative, to a well to be drilled at a standard location thereon. Also to be considered will be the cost of re-entering and recompleting or of drilling and completing the unit well and the allocation of the cost thereof, as well as actual operating costs and charges for supervision. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in recompleting or drilling said well.
- CASE 6032: Application of Burleson & Huff for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests underlying the SW/4 SW/4 of Section 21, Township 25 South, Range 37 East, Langlie-Mattix Pool, Lea County, New Mexico, to be dedicated to its re-entered Lanehart Well No. 1-Y located in Unit M of said Section 21, or, in the alternative, to a well to be drilled at a standard location thereon. Also to be considered will be the cost of re-entering and recompleting or of drilling and completing the unit well and the allocation of the cost thereof, as well as actual operating costs and charges for supervision. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in recompleting or drilling said well.
- CASE 6031: Application of Rex Alcorn for compulsory pooling and an unorthodox location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests underlying the E/2 SW/4 of Section 35, Township 16 South, Range 37 East, West Knowles-Drinkard Pool, Lea County, New Mexico, to be dedicated to a well to be drilled at an unorthodox location 2310 feet from the South line and 1980 feet from the West line of said Section 35. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof, as well as actual operating costs and charges for supervision. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.
- CASE 6033: Application of Basin Fuels, Inc., for salt water disposal, McKinley County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Mesaverde formation through the perforated interval from 1948 feet to 2755 feet in its Slick Well No. 1 located in Unit O of Section 7, Township 20 North, Range 5 West, Franciscan Lake-Mesaverde Pool, McKinley County, New Mexico.
- CASE 6034: Application of Flag-Redfern Oil Company for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the San Andres formation through the perforated interval from 4941 feet to 5022 feet in its Bilbrey "51" Well No. 1 located in Unit A of Section 23, Township 9 South, Range 37 East, Sawyer-San Andres Pool, Lea County, New Mexico.
- CASE 6035: Application of Southern Union Supply Co., for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the San Andres formation underlying the N/2 NE/4 of Section 30, Township 9 South, Range 33 East, Flying M-San Andres Pool, Lea County, New Mexico, to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof, as well as actual operating costs and charges for supervision. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.
- CASE 6017: (Continued from August 31, 1977 Examiner Hearing)
- Application of E. L. Latham, Jr. and Roy G. Barton, Jr., for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests underlying the E/2 NE/4 of Section 30, Township 9 South, Range 33 East, Flying M-San Andres Pool, Lea County, New Mexico, to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof, as well as actual operating costs and charges for supervision. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.
- CASE 6036: Application of E. L. Latham, Jr., and Roy G. Barton, Jr., for compulsory pooling of a standard or a non-standard oil proration unit and an unorthodox location, or in the alternative, 40-acre spacing, Lea County, New Mexico. Applicants, in the above-styled cause, seek an order pooling all mineral interests in the Flying M-San Andres Pool underlying the E/2 NE/4 of Section 30, Township 9 South, Range 33 East, Lea County, New Mexico, to be dedicated to a well to be drilled at an unorthodox location for said pool within 200 feet of the center of the NE/4 NE/4 of said Section 30, or an order pooling only the NE/4 NE/4 of Section 30 to form a non-standard 40-acre unit to be dedicated to the aforesaid well. In the alternative, applicants seek the amendment of the Flying M-San Andres Pool Rules to provide for 40-acre spacing, and seek an order pooling the aforesaid NE/4 NE/4 of Section 30 as a standard unit for said pool to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling



1977 SEP -8 AM 8: 19

IPMFEKA SANA

3-011676E251 09/08/77

ICS IPMRNCZ CSP

TDRN MIDLAND TX 66 09-08 0912A EST

PMS RICHARD L STAMETS, EXAMINER NEW MEXICO OIL CONSERVATION COMMISSIO

N, RDM REPORT DELIVERY BY MAILGRAM, DLR

STATE CAPITOL

SANTA FE NM

ATLANTIC RICHFIELD COMPANY THE OPERATOR OF THE SOUTHWEST QUARTER OF

SECTION 20 TOWNSHIP 9 SOUTH RANGE 33 EAST LEA COUNTY NEW MEXICO

BEING A DIAGNOAL OFFSET TO THE ACREAGE IN QUESTION IN CASE 6036 IS

OPPOSED TO THE APPLICATION OF E.L. LATHAM JR AND ROY G BARTON JR TO

AMEND THE FLYING M SAN ANDRES POOL RULES FROM 80 ACRE PRORATION

UNITS TO 40 ACRE UNITS

J L TWEED, ATLANTIC RICHFIELD CO (PO BOX 1610 MIDLAND TX 79702)

0918 EST

IPMFEKA SANA

Dockets Nos. 2-78 and 3-78 are tentatively set for hearing on January 18 and February 8, 1978. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: COMMISSION HEARING - TUESDAY - DECEMBER 27, 1977

OIL CONSERVATION COMMISSION - 9 A.M. - CONFERENCE ROOM  
STATE LAND OFFICE BUILDING, SANTA FE, NEW MEXICO

CASE 6017: (DE NOVO)

Application of E. L. Latham, Jr. and Roy G. Barton, Jr., for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests underlying the E/2 NE/4 of Section 30, Township 9 South, Range 33 East, Flying M-San Andres Pool, Lea County, New Mexico, to be dedicated to a well to be drilled at a standard location thereon.

CASE 6035: (DE NOVO)

Application of Southern Union Supply Co., for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the San Andres formation underlying the N/2 NE/4 of Section 30, Township 9 South, Range 33 East, Flying M-San Andres Pool, Lea County, New Mexico, to be dedicated to a well to be drilled at a standard location thereon.

CASE 6036: (DE NOVO)

Application of E. L. Latham, Jr., and Roy G. Barton, Jr., for compulsory pooling of a standard or a non-standard oil proration unit and an unorthodox location, or in the alternative, 40-acre spacing, Lea County, New Mexico. Applicants, in the above-styled cause, seek an order pooling all mineral interests in the Flying M-San Andres Pool underlying the E/2 NE/4 of Section 30, Township 9 South, Range 33 East, Lea County, New Mexico, to be dedicated to a well to be drilled at an unorthodox location for said pool within 200 feet of the center of the NE/4 NE/4 of said Section 30, or an order pooling only the NE/4 NE/4 of Section 30 to form a non-standard 40-acre unit to be dedicated to the aforesaid well. In the alternative, applicants seek the amendment of the Flying M-San Andres Pool Rules to provide for 40-acre spacing, and seek an order pooling the aforesaid NE/4 NE/4 of Section 30 as a standard unit for said pool to be dedicated to a well to be drilled at a standard location thereon.

Also to be considered in each of the above cases, will be the cost of drilling and completing the proposed well and the allocation of the cost thereof, as well as actual operating costs and charges for supervision. Also to be considered will be the designation of the applicant in each case as operator of the well and a charge for risk involved in drilling said well.

Upon application of Southern Union Supply Company, the above cases will be heard De Novo pursuant to the provisions of Rule 1220.

CASE 6112: Application of E. L. Latham, Jr., and Roy G. Barton, Jr., for an order requiring Latham and Barton or Southern Union Supply Company to commence the drilling of a Flying M-San Andres well in Unit A of Section 30, Township 9 South, Range 33 East, Lea County, New Mexico, on or before January 31, 1978; further, to require that all working interest income after payout of the aforesaid well be placed in escrow pending any subsequent appeal, or in the alternative to require the curtailment or shutting in of all wells within one half mile radius of the aforesaid Unit A pending completion of said well.

OFFICE PHONE 505 393-5515  
RESIDENCE 505 392-5309

300 W. TAYLOR STREET  
P. O. BOX 978  
HOBBS, NEW MEXICO 88240

ROY G. BARTON, JR.  
OIL PRODUCER

December 13, 1977

DEC 13 1977

*Stamets*

New Mexico Oil Conservation Commission  
State Land Office  
Santa Fe, New Mexico 87501

Re: Commission Order No. R-5579

Gentlemen:

Pursuant to the order in paragraph 7 of the above captioned Commission Order, please find enclosed an itemized schedule of the estimated well costs pertaining to the Cash Well No. 1 located 660'FNL & 460'FEL of Section 30, T-9-S, R-33-E, Lea County, N.M.

We have this date furnished Shell Oil Company, the only other known working interest owner, an identical copy.

Very truly yours,

*Roy G. Barton Jr.*

Roy G. Barton Jr.

*[Handwritten signature]*

Date December 13, 1977Operator E. L. Latham, Jr. and Roy G. Barton Jr.Location 660 FNL & 460 FEL Sec. 30, T-9-S, R-33-E Field Flying "M" SALease Cash Well No. 1 Depth 4500' County LeaState N.M. Spudded \_\_\_\_\_ Date Potential Test 13 1977INTANGIBLE DEVELOPMENT EXPENDITURES:

	<u>Estimate</u>	<u>Actual</u>
<u>Drilling Expenditures:</u>		
1. <u>Survey of location and elevation</u>	\$ 228.80	\$
2. <u>Roads and Dirt Work</u>	4,849.00	
3. <u>Mud, Chemicals, Additives &amp; Oil</u>	3,500.00	
4. <u>Hauling</u>	4,500.00	
5. <u>Cement and Cementing</u> 1800' of 8 5/8" Circ. 4500' of 4 1/2"	7,150.00	
6. <u>Electrical Logging</u>	7,500.00	
7. <u>Drilling, including daywork</u>	55,575.00	
8. <u>Geological Services</u>	1,000.00	
9. <u>Tool Rental</u>	4,100.00	
10 <u>Surface &amp; Intermediate Casing</u>	10,980.00	
11 <u>Miscellaneous</u>	3,000.00	
Total Drilling Expenditures	\$ 102,382.80	
<u>Completion Expenditures:</u>		
1. <u>Acidizing or Fracturing</u>	6,150.00	
2. <u>Perforating Expense</u>	1,818.00	
3. <u>Testing Expense</u>	500.00	
4. <u>Servicing Unit</u>	4,200.00	
5. <u>Miscellaneous</u>	3,000.00	
Total Completion Expenditures	\$ 15,668.00	
TOTAL INTANGIBLE DEVELOPMENT EXPENDITURES	\$ 118,050.80	
<u>Equipment Expenditures:</u>		
1. <u>Oil String Casing</u>	13,050.00	
2. <u>Tubing</u>	9,035.50	
3. <u>Sucker Rods</u>	4,300.00	
4. <u>Pumping Equipment</u>	14,750.00	
5. <u>Lines</u>		
6. <u>Tanks &amp; Treater</u>	14,900.00	
7. <u>Separators, Casinghead, Tubinghead</u>	1,125.00	
8. <u>Miscellaneous Fitting &amp; Valves</u>	10,000.00	
Total Equipment Expenditures	\$ 67,160.50	
TOTAL EXPENDITURES FOR WELL	\$ 185,211.30	

Approved \_\_\_\_\_

Company \_\_\_\_\_

Date \_\_\_\_\_

application of E. L. Ratham, Jr., and Ray S. Barton, Jr., for compulsory pooling and an unorthodox location, a standard or a nonstandard oil production unit, or in the alternative, 40-acre spacing, Lea County, New Mexico.

to form a non standard 40-acre unit

Applicants, in the above styled cause, seek an order pooling all mineral interests in the Flying M-San Andres Pool underlying the E/2 NE/4 of Section 30, Township 9 South, Range 33 East, Lea County, New Mexico to be dedicated to a well to be drilled at an unorthodox location for said pool within 200 feet of the center of the NE/4 NE/4 of said Section 30. In the alternative, applicants ~~request~~ seek pooling of only the ~~NE/4~~ NE/4 NE/4 of Section 30 to be dedicated to the aforesaid well. In the alternative, applicants seek the amendment of the Flying M-San Andres Pool Rules to provide for 40-acre spacing, and seek an order pooling the aforesaid NE/4 NE/4 of Section 30 as a standard unit for said pool to be dedicated to a well to be drilled at a <sup>standard</sup> ~~standard~~ location thereon. Also to be considered will be the cost of drilling and completing the proposed well and the allocation of the cost thereof, as well as actual operating costs and charges for supervision. Also to be considered will be the designation of applicants as operators of the well and a charge for risk involved in drilling said well.

Case 6036  
Rec'd  
8/25  
Jen

BEFORE THE  
OIL CONSERVATION COMMISSION OF NEW MEXICO

IN THE MATTER OF THE APPLICATION OF  
E. L. LATHAM, JR., AND ROY G. BARTON, JR..  
FOR COMPULSORY POOLING AND UNORTHODOX  
LOCATION OF THEIR WELL TO BE DRILLED IN  
FLYING M SAN ANDRES POOL, NE/4 NE/4,  
SECTION 30, TOWNSHIP 9 SOUTH, RANGE 33 EAST,  
LEA COUNTY, NEW MEXICO, AND AS AN ALTERNATIVE  
FOR AMENDMENT OF FIELD RULES TO PROVIDE FOR  
40 ACRE SPACING IN A PORTION OF SAID POOL.

A P P L I C A T I O N

COME NOW E. L. Latham, Jr., and Roy G. Barton, Jr., as  
provided by Section 65-3-14, New Mexico Statutes, 1953, as  
amended, and apply to the Oil Conservation Commission of New  
Mexico for:

(1) an order pooling all the mineral interests in and  
under the E/2 NE/4 or the NE/4 NE/4 of Section 30, Township  
9 South, Range 33 East, N.M.P.M., Flying M San Andres Pool, Lea  
County, New Mexico, from the surface to the base of the San Andres  
formation, and for

(2) an order authorizing an unorthodox oil well location  
designated the Latham and Barton Number 2 Cash to be located  
within 200 feet of the center of NE/4 NE/4 of said above section,  
township, and range as an exception to the field rules of said  
pool, and

(3) as an alternative to (2) above for an order amending  
the field rules of the Flying "M" San Andres Pool to provide for  
40 acre spacing in the pool;  
and in support thereof Applicants would show:

1. Applicants are the owners of the right to drill and  
develop part of the following described acreage: E/2 NE/4 of  
Section 30, Township 9 South, Range 33 East, N.M.P.M., Flying M  
San Andres Pool, Lea County, New Mexico, and plan a well or wells  
into the San Andres formation at a standard location thereon and  
in the NE/4 NE/4 thereof as an unorthodox location.

2. Southern Union Supply Company, an interest owner in the proposed proration unit, has not agreed to pool its interest with that of Applicants either in the E/2 NE/4 or NE/4 NE/4. Southern Union Supply Company owns operating rights to 26.5625% of the proposed E/2 NE/4 proration unit and 53.125% in the NE/4 NE/4 proposed unit while Applicants own 73.4375% of the proposed E/2 NE/4 proration unit and 46.875% in the NE/4 NE/4 proposed unit. The address of Southern Union Supply Company is: 1800 First International Building, Dallas, Texas, 75250.

3. Applicants request that they be designated operator of the pooled unit requested above.

4. In order to avoid the drilling of unnecessary wells, to protect correlative rights, and to prevent waste, Applicants request the Commission to pool all interests in the E/2 NE/4 or in the NE/4 NE/4 as a unit.

5. The risk and expense of drilling and completing the well is great and if Southern Union Supply Company does not choose to pay its share of the cost of drilling and completion, Applicants should be allowed a reasonable charge for the supervision and a charge for the risk involved in addition to recovery of the actual cost of drilling and completing the well.

6. Unless Applicants are granted Approval of an unorthodox oil well location as proposed herein, they will be denied their right to obtain their just and equitable share of the oil and gas underlying their lands.

7. That a well at said unorthodox location or the amendment of the field rules to provide for 40 acre spacing will afford the Applicants the opportunity to produce their just and equitable share of oil and gas in the subject pool, will tend to prevent the drilling of unnecessary wells, and will otherwise prevent waste and protect correlative rights.

WHEREFORE, Applicants respectfully request that the Commission set this matter for hearing before the Commission's duly appointed examiner on September 14, 1977, and that after notice and hearing as required by law, the Commission enter its order pooling all interests from the surface to the base of the San



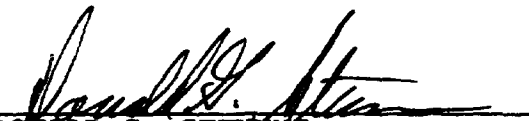
Andres formation underlying the E/2 NE/4 or NE/4 NE/4 of Section 30, Township 9 South, Range 33 East, N.M.P.M. Flying M San Andres Pool, Lea County, New Mexico, and designating Applicants operator of the pooled unit, together with provision for Applicants to recover their costs out of production including a risk factor to be determined by the Commission and with provisions for the payment of operating costs and costs of supervision out of production to be allocated among the owners as their interests may be determined and for further orders as may be proper in the premises and further that the Commission enter its order approving an unorthodox location in said NE/4 NE/4 or in the alternative amending the field rules of said pool to provide for 40 acre spacing.

Respectfully submitted,

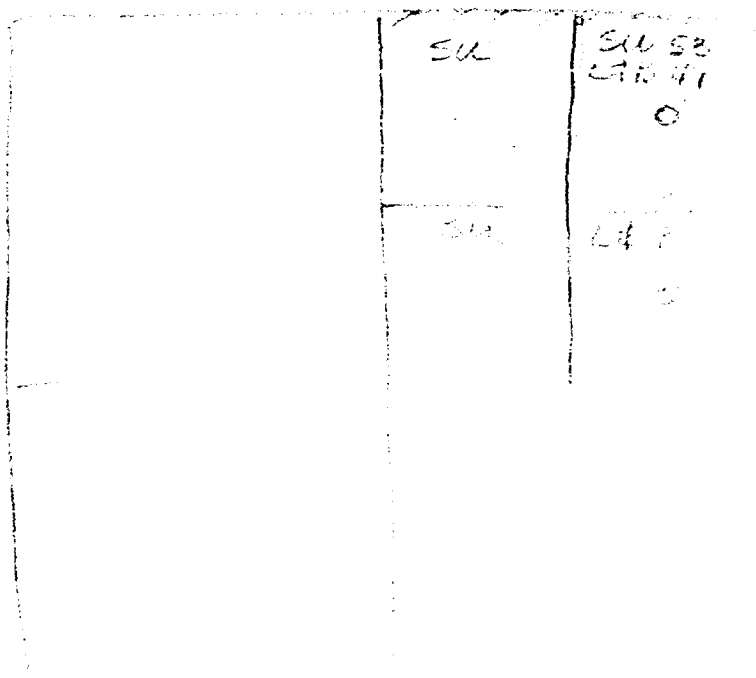
E. L. LATHAM, JR., AND

ROY G. BARTON, JR.

By

  
DONALD G. STEVENS  
P.O. Box 1797  
Santa Fe, New Mexico 87501

ATTORNEY FOR APPLICANTS



DRAFT

BEFORE THE OIL CONSERVATION COMMISSION  
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING  
CALLED BY THE OIL CONSERVATION  
COMMISSION OF NEW MEXICO FOR  
THE PURPOSE OF CONSIDERING:

6017  
6035  
6036

CASE NO. 6027

Order No. R-5579

APPLICATION OF E. L. LATHAM, JR. AND  
ROY G. BARTON, JR., FOR COMPULSORY  
POOLING, ~~LEA COUNTY, NEW MEXICO.~~ or 400 acre Spacing, Lea

County New Mexico; And,

APPLICATION OF SOUTHERN UNION SUPPLY CO.,  
FOR COMPULSORY POOLING, LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on Sept 14, 1977  
at Santa Fe, New Mexico, before Examiner Daniel S. Nutter RLS.

NOW, on this 14 day of September, 1977, the Commission,  
a quorum being present, having considered the testimony, the record,  
and the recommendations of the Examiner, and being fully advised  
in the premises,

FINDS:

(1) That due public notice having been given as required by  
law, the Commission has jurisdiction of this cause and the subject  
matter thereof.

(2) That ~~the application of~~ <sup>The Commission received the application of</sup> E. L. Latham, Jr. and Roy G. Barton, Jr.

<sup>for</sup> seeks an order pooling all mineral interests underlying the E/2 NE/4  
of Section 30, Township 9 South, Range 33 East,  
NMPM, Flying M-San Andres Pool, Lea County, New  
Mexico. and set the same for hearing  
as Case No. 6017, Docket No. 77-77  
on August 31, 1977.

(3) That <sup>at the</sup> ~~on~~ <sup>examiner hearing</sup> August 31, 1977, said Case No 6017  
was continued to the September 14, 1977,  
Examiner Hearing.

Cases Nos. 6017, 6035 and 6036  
Order No. R-

(4) That the Commission subsequently received the application of Southern Union Supply Co. for an order pooling all mineral interests in the San Andres formation underlying the N/2 NE/4 of Section 30, Township 9 South, Range 33 East, NMPM, Flying M-San Andres Pool, Lea County, New Mexico, and set the same for hearing as Case No. 6035, ~~Docket No. 28-77~~<sup>77</sup>, September 14, 1977.

(5) That the Commission thereafter received the application of E. L. Latham, Jr., and Roy G. Barton, Jr., for an order pooling all mineral interests in the Flying M-San Andres Pool underlying the E/2 NE/4 of Section 30, Township 9 South, Range 33 East, Lea County, New Mexico, to be dedicated to a well to be drilled at an unorthodox location for said pool within 200 feet of the center of the NE/4 NE/4 of said Section 30, or an order pooling only the NE/4 NE/4 of Section 30 to form a non-standard 40-acre unit to be dedicated to the aforesaid well, or in the alternative, the amendment of the Flying M-San Andres Pool Rules to provide for 40-acre spacing, and an order pooling the aforesaid NE/4 NE/4 of Section 30 as a standard unit for said pool to be dedicated to a well to be drilled at a standard location thereon, and set the same for hearing as Case No. 6036, ~~Docket No. 28-77~~<sup>77</sup>, September 14, 1977.

(6) That on September 14, 1977, Cases 6017, 6035, and 6036 were consolidated and testimony was heard by the Commission ~~examiner in each case on~~<sup>concerning</sup> each application.

(7) That the evidence presented was ~~not~~<sup>not</sup> sufficient to prove ~~either~~<sup>either</sup> the necessity for ~~or the propriety~~<sup>or the propriety</sup> of amendment of the Special Rules and Regulations for said Flying M-San Andres Pool and that that part of the application in Case No. 6036 should be denied.

(8) That the evidence presented demonstrated that, due to the existing pattern of development, ~~that~~ the correlative rights of the interest owners under the NE/4 NE/4 of said Section 30 cannot be protected unless a well is drilled thereon, ~~in~~<sup>in</sup> ~~said Flying M-San Andres Pool~~ and that portion of Case No. 6017 relating to a standard location for the Flying M-San Andres Pool, in the SE/4 NE/4 of Section 30 should be dismissed.

(9) That the applicants, E. L. Latham, Jr., and Roy G. Barton, Jr., were the only applicants seeking to drill a well within the NE/4 NE/4 of said Section 30.

(10) That the evidence presented was ~~not~~<sup>in</sup> sufficient to prove ~~either~~ the necessity for ~~or~~<sup>or</sup> the propriety of the granting of a non-standard oil proration unit in said Flying M-San Andres Pool consisting of the NE/4 NE/4 of said Section 30 and that part of the application in Case No. 6036 should be denied.

(11) That ~~to afford the various owners of interests under the NE/4 of said Section 30, the opportunity to produce their just and equitable share of the oil in the subject pool, and to prevent waste,~~ the application of E. L. Latham, Jr., and Roy G. Barton, Jr., for an order pooling all mineral interests underlying the E/2 NE/4 of said Section 30 in said Flying M-San Andres Pool and for an unorthodox oil well location within 200 feet of the center of the NE/4 NE/4 of said Section 30 ~~should be approved, will protect and afford the~~ will afford the various owners of interest under the NE/4 of said Section ~~30~~ 30 the best opportunity to produce their just and ~~equitable~~ equitable share of the oil in the subject pool without unnecessary expense and will not result in waste.

(12) That said application should be approved.

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(3) That the applicants <sup>have</sup> ~~has~~ the right to drill and proposes to drill a well at a standard location.

~~(13)~~ ~~That~~ That there are interest owners in the proposed proration unit who have not agreed to pool their interests.

(5) That to avoid the drilling of unnecessary wells, to protect correlative rights, and to afford to the owner of each interest in said unit the opportunity to recover or receive without unnecessary expense his just and fair share of the gas in said pool, the subject application should be approved by pooling all mineral interests, whatever they may be, within said unit.

~~(14)~~ ~~That~~ That the applicant, <sup>E.L. Latham, Jr., and Roy E. Barton, Jr.,</sup> should be designated the operator of the subject well and unit.

~~(15)~~ ~~That~~ That any non-consenting working interest owner should be afforded the opportunity to pay his share of estimated well costs to the operator in lieu of paying his share of reasonable well costs out of production.

(16) ~~(15)~~ ~~That~~ That any non-consenting working interest owner that does not pay his share of estimated well costs should have withheld from production his share of the reasonable well costs plus an additional 25 percent thereof as a reasonable charge for the risk involved in the drilling of the well.

(17) ~~(16)~~ ~~That~~ That any non-consenting interest owner should be afforded the opportunity to object to the actual well costs but that actual well costs should be adopted as the reasonable well costs in the absence of such objection.

(18) ~~(17)~~ ~~That~~ That following determination of reasonable well costs, any non-consenting working interest owner that has paid his share of estimated costs should pay to the operator any amount that reasonable well costs exceed estimated well costs and should receive from the operator any amount that paid estimated well costs exceed reasonable well costs.

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*\$1,000.00 per month while drilling and \$125.00  
per month while producing*

- (19) ~~(18)~~ ~~(21)~~ That \_\_\_\_\_ per month should be fixed as a reasonable charge for supervision (combined fixed rates); that the operator should be authorized to withhold from production the proportionate share of such supervision charge, attributable to each non-consenting working interest, and in addition thereto, the operator should be authorized to withhold from production the proportionate share of actual expenditures required for operating the subject well, not in excess of what are reasonable, attributable to each non-consenting working interest.
- (20) ~~(19)~~ ~~(22)~~ That all proceeds from production from the subject well which are not disbursed for any reason should be placed in escrow to be paid to the true owner thereof upon demand and proof of ownership.
- (21) ~~(20)~~ ~~(23)~~ That upon the failure of the operator of said pooled unit to commence drilling of the well to which said unit is dedicated on or before January 31, 1978, the order pooling said unit should become null and void and of no effect whatsoever.

*Not pertinent  
(3) That the application of E. L. Latham, Jr., and Roy G. Barton, Jr.,  
for in Case No. 6017 relating to a standard flying M-San Andres  
Pool location in the SE/4 NE/4 of said Section 30 is hereby  
denied.*

(2) That the application of Southern Union Supply Company in Case No. 6035 for an order pooling all mineral interests in the San Andres formation underlying the N/2 NE/4 of said Section 30 in said Flying M-San Andres Pool should be denied.

IT IS THEREFORE ORDERED:

(1) That the application of E. L. Latham, Jr. and Roy G. Barton, Jr., in Case No. 6036 for an amendment of the Special Rules and Regulations for the Flying M-San Andres Pool, Lea County, New Mexico, to provide for a change from 80-acre spacing units to 40-acre spacing units is hereby denied.

(2) That the application of E. L. Latham, Jr. and Roy G. Barton, Jr., in Case No. 6036 for approval of a 40-acre non-standard oil proration unit consisting of the NE/4 NE/4 of Section 30, Township 9 South, Range 33 East, Flying M-San Andres Pool, Lea County, New Mexico, is hereby denied.

(3) *to be dedicated to a well to be drilled in the NW/4 E/4 of said section*  
(4) That the application of Southern Union Supply Co. in Case No. 6035 for an order pooling all mineral interests in the San Andres formation underlying the N/2 NE/4 of said Section 30 in said Flying M-San Andres Pool is hereby denied.

~~ORDERED~~  
(5) (1) That all mineral interests, whatever they may be, in the San Andres formation underlying the E/2 NE/4 of Section 30, Township 9 South, Range 33 East, NMPL, Flying M-San Andres Pool, Lea County, New Mexico, are hereby pooled to form a standard 80 - acre oil spacing and proration unit to be dedicated to a well to be drilled at an unorthodox location within 200 feet of the center of the NE/4 NE/4 of said Section 30.

PROVIDED HOWEVER, that the operator of said unit shall commence the drilling of said well on or before the 31st day of January, 1978, and shall thereafter continue the drilling of said well with due diligence to a depth sufficient to test the San Andres formation;

PROVIDED FURTHER, that in the event said operator does not commence the drilling of said well on or before the 31st day of January, 1978, order (5) of this order shall be null and void and of no effect whatsoever; unless said operator obtains a time extension from the Commission for good cause shown.

PROVIDED FURTHER, that should said well not be drilled to completion, or abandonment, within 120 days after commencement thereof, said operator shall appear before the Commission and show cause why Order (5) of this order should not be rescinded.

(6) (2) That E. L. Latham, Jr., and Roy G. Barton, Jr., are hereby designated the operators of the subject well and unit.

(7) (3) That after the effective date of this order and within 30 days prior to commencing said well, the operator shall furnish the Commission and each known working interest owner in the subject unit an itemized schedule of estimated well costs.

(8) (4) That within 30 days from the date the schedule of estimated well costs is furnished to him, any non-consenting working interest owner shall have the right to pay his share of estimated well costs to the operator in lieu of paying his share of reasonable well costs out of production, and that any such owner who pays his share of estimated well costs as provided above shall remain liable for operating costs but shall not be liable for risk charges.

(9) (5) That the operator shall furnish the Commission and each known working interest owner an itemized schedule of actual well costs within 90 days following completion of the well; that if no objection to the actual well costs is received by the Commission and the Commission has not objected within 45 days following receipt of said schedule, the actual well costs shall be the reasonable well costs; provided however, that if there is an objection to actual well costs within said 45-day period the Commission will determine reasonable well costs after public notice and hearing.

(10) (6) That within 60 days following determination of reasonable well costs, any non-consenting working interest owner that has paid his share of estimated costs in advance as provided



above shall pay to the operator his pro rata share of the amount that reasonable well costs exceed estimated well costs and shall receive from the operator his pro rata share of the amount that estimated well costs exceed reasonable well costs.

(11) (X) That the operator is hereby authorized to withhold the following costs and charges from production:

(A) The pro rata share of reasonable well costs attributable to each non-consenting working interest owner who has not paid his share of estimated well costs within 30 days from the date the schedule of estimated well costs is furnished to him.

(B) As a charge for the risk involved in the drilling of the well, 25 percent of the pro rata share of reasonable well costs attributable to each non-consenting working interest owner who has not paid his share of estimated well costs within 30 days from the date the schedule of estimated well costs is furnished to him.

(12) (X) That the operator shall distribute said costs and charges withheld from production to the parties who advanced the well costs. *\$1,000.00 per month while drilling and \$125.00 per month while producing are*

(13) (X) That per month is hereby fixed as a reasonable charge for supervision (combined fixed rates); that the operator is hereby authorized to withhold from production the proportionate share of such supervision charges attributable to each non-consenting working interest, and in addition thereto, the operator is hereby authorized to withhold from production the proportionate share of actual expenditures required for operating such well, not in excess of what are reasonable, attributable to each non-consenting working interest.

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(14)(10) That any unsevered mineral interest shall be considered a seven-eighths (7/8) working interest and a one-eighth (1/8) royalty interest for the purpose of allocating costs and charges under the terms of this order.

(15)(11) That any well costs or charges which are to be paid out of production shall be withheld only from the working interests share of production, and no costs or charges shall be withheld from production attributable to royalty interests.

(16)(12) That all proceeds from production from the subject well which are not disbursed for any reason shall be placed in escrow in Lea County, New Mexico, to be paid to the true owner thereof upon demand and proof of ownership; that the operator shall notify the Commission of the name and address of said escrow agent within 90 days from the date of this order.

(17)(13) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.