

CASE 3975: Appli. of FRANKLIN,
ASTON & FAIR, INC. FOR CREATION
OF NEW OIL POOL & SPECIAL RULES.

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Case Number

3975

Application

Transcripts.

Small Exhibits

ETC.

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SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS

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BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION

Santa Fe, New Mexico

March 26, 1969

EXAMINER HEARING

IN THE MATTER OF:

Case 3975 reopened in the
matter of said case being
reopened pursuant to the
provisions of Order No.
R-3618, which order
established 80-acre spac-
ing units for the East
Bluitt-San Andres Pools,
Roosevelt County, New
Mexico.

Case No. 3975

BEFORE: Elvis A. Utz, Examiner

TRANSCRIPT OF HEARING

MR. UTZ: Case 3975.

MR. HATCH: Case 3975, reopened, in the matter of Case No. 3975 being reopened pursuant to the provisions of Order No. R-3618, which order established 80-acre spacing units for the East Bluit-San Andres Pool, Roosevelt County, New Mexico, for a period of approximately two months.

MR. KELLAHIN: If the Examiner please, Jason Kellahin, Kellahin and Fox, Santa Fe, appearing for Eugene Nearburg. We will have two witnesses we would like to present in this case.

MR. UTZ: Any other appearances?

MR. MORITZ: Jerry Moritz, with BTA. I would just like to make a statement.

MR. NATCHUS: Edward Natchus with Union Oil Company of California.

MR. UTZ: Just an appearance?

MR. NATCHUS: Just an appearance.

MR. UTZ: Any other appearances?

(Whereupon, Applicant's Exhibits Numbers 1 through 4, inclusive, were marked for identification.)

(Witnesses sworn.)

PATRICK J. GRATTON

called as a witness by the Applicant, having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATIONBY MR. KELLAHIN:

Q Would you state your name, please?

A My name is Patrick J. Gratton.

Q By whom are you employed?

A By Eugene E. Nearburg.

Q What is your position with Mr. Nearburg?

A I am a geologist.

Q Where are you located?

A In Dallas, Texas.

Q Mr. Gratton, have you ever testified before the Oil Conservation Commission?

A Not before the New Mexico Oil Conservation Commission.

Q For the benefit of the Examiner, would you outline your education and experience as a geologist?

A Yes. I graduated from the University of New Mexico with a Bachelor and a Master's Degree in Geology, 1955, and 1958, respectively.

I worked for Shell Oil Company for five years in southeast New Mexico and in West Texas and East Texas. After that, I worked for Delhard Taylor for two years in Dallas, and subsequently for various independent accounts for a period

of five years, including Eugene E. Nearburg, concentrating in East Texas, West Texas, and southeast New Mexico.

Q In connection with your work for Mr. Nearburg, have you had anything to do with the East Bluit-San Andres Pool in Roosevelt County?

A Yes, over a period of the last three years, a large part of my work has been centered on evaluation of San Andres development in southeast New Mexico; and among other areas in southeast New Mexico, the Bluit field area, including the East Bluit and San Andres field area, both areas of which we have production.

Q You have worked in both the Bluit and East Bluit?

A Correct.

MR. KELLAHIN: Are the witness's qualifications acceptable?

MR. UTZ: Yes, they are.

Q Mr. Gratton, referring to what has been marked as Nearburg Exhibit Number 1, would you identify that exhibit?

A Yes, that exhibit is now in front of the Examiner. It is an index map right immediately in front of you. It is an index map showing the location of the Bluit field area in Roosevelt County, New Mexico, six to eleven miles southeast of the Todd field area, also in Roosevelt County, New Mexico.

Q Now, referring to what has been marked as Nearburg Exhibit Number 2, would you identify and discuss that exhibit?

A Yes, Exhibit Number 2 is mounted on the wall. It is the San Andres structure map of the Greater Bluit field area, which embraces the East Bluit and San Andres field area, as well as the older Bluit and San Andres field, and shows the configuration of structure immediately above the pay zones found in these two fields.

It also shows the approximate north limit of effective B zone, and P-2 porosity and permeability in the Greater Bluit field area. This pinchout of porosity and permeability is an effective limitation on production in the field.

I might step to this exhibit and show that the Greater Bluit structure which affects the East Bluit and San Andres field, and the Bluit and San Andres field, is a long nose, possibly an anticline in part, with pinchout of permeability in one of the main pay zones running across the north side of the structure.

Also, I have shown on this map the structural position of the gas contact which is common to both of these fields. It occurs at minus 560, and is located in the B zone

of the Slaughter section of the San Andres in the Eugene E. Nearburg No. 1 Kirkpatrick Federal in Section 11, Township 8 South, Range 37 East.

Q Now, in connection with Exhibit Number 2, does that reflect that this is one or two common sources of supply, in your opinion?

A This Exhibit Number 2 shows that the East Bluitt-San Andres field is producing out of the same zone. that a major part of the production in the Bluitt-San Andres field is producing from. There are two producing zones in the Bluitt-San Andres field. There is one producing zone in the East Bluitt-San Andres field. This same producing zone in the East Bluitt-San Andres field is one of the producing zones in the Bluitt gas field. They are common in that sense.

Q Is there another pool in the vicinity which is similar to this?

A Yes. The Bluitt, Greater Bluitt-San Andres field area. By that, I mean the East Bluitt and the Bluitt field combined is extremely similar to the Todd Upper and Lower field located about six to ten miles northwest of this feature. The structure is similar in configuration, the depth is almost identical, the producing zones are identical, they are

correlatives.

Oil is found in the Todd in the lower zone called the Bluitt B zone. Also, gas is found in Todd in that same zone as a gas cap.

Similarly, at Bluitt and at Todd, gas is also found in the upper zones which are referred to as P-1 in subsequent exhibits.

MR. UTZ: Let's get these zones straightened out. You say the Todd Lower is equivalent to which zone?

THE WITNESS: The B zone. And the Todd Upper is equivalent to the P-1.

MR. UTZ: Thank you.

Q Now, directing your attention to what has been marked as Exhibit Number 3, would you identify that exhibit?

A Yes, Exhibit Number 3 is a San Andres-Slaughter cross-section in the Bluitt field area of Roosevelt County, New Mexico. It shows the section from the pay marker in the San Andres down through the Slaughter pay zones which are encountered in this area. The section generally runs from, on the right, east to west on the left. The actual line of cross-section is shown on Exhibit Number 2 running from the Franklin, Aston & Fair No. 1 Roden Federal, up out of the East Bluitt-San Andres oil field into the Bluit-San Andres

gas field, where I have shown the section as it appears in the Nearburg No. 1 Kirkpatrick and No. 2 Kirkpatrick.

This cross-section is a structural section, and the top marker is the same marker that I have used for Exhibit Number 2 to show the configuration of the field. You can observe that the general attitude of the rocks is dipping to the east, and that we do rise up on to the Bluit-San Andres nose in the vicinity of the Nearburg No. 2 Kirkpatrick.

The B zone, which is the producing zone in the East Bluit-San Andres oil field, is also producing in the Bluit-San Andres gas field, as shown on this cross-section. The B zone is part of the P-2 section of the Slaughter, and constitutes the upper half of it, and is found in the Eugene E. Nearburg No. 1 Bates Federal at 4,647 to 4,683.

The B zone is bounded by anhydrite zones, which effectively separate it from zones below and above, which might contribute some kind of fluid.

The P-1 zone is opened up above the B zone in the Bluit-San Andres gas field. Every well in the Bluit-San Andres gas field is opened up in this section, as well as being opened in the B zone.

The Nearburg No. 2 Kirkpatrick Federal is a dry gas well, producing from both the P-1 and the B zone. The

Nearburg No. 2 Kirkpatrick -- I mean No. 1 Kirkpatrick Federal is producing oil and gas, being perforated in both the P-1 and the B zone.

The No. 1 Kirkpatrick was originally completed as a dry gas well in November, 1963. However, by February, 1966, it had started making a fair amount of oil, and has subsequently established about 30 barrels a day average oil production, even though this well is in the Bluit-San Andres gas field. This oil is identical in character, it has essentially the same gravity, 26 to 27 degrees, as that which is found in the East Bluit-San Andres oil field; and it appears to me that there is excellent evidence that today there is a gas-oil contact in the Kirkpatrick No. 1 and Kirkpatrick No. 2, occurring at minus 560 feet.

This will explain the fact that the higher well, the Nearburg No. 2 Kirkpatrick Federal perforated in both zones, continues to make gas without any oil; for the Nearburg No. 1 Kirkpatrick Federal, perforated in the part below the gas-oil contact, is making about 30 barrels of oil per day, along with about 60,000 cubic feet of gas.

MR. UTZ: What is the location of the No. 1 there?
I can't read it from here.

THE WITNESS: The location of the No. 1 Kirkpatrick

Federal is --

MR. UTZ: That dotted line, excuse me, that dotted line.

THE WITNESS: The No. 1 is located in the south-east southeast, Section 11, Township 8, Range 37 East.

The No. 2 Kirkpatrick Federal is located in the northwest of the northeast of Section 14, Township 8, Range 37 East.

MR. UTZ: How much oil did the No. 1 make?

THE WITNESS: The No. 1 is averaging about 30 barrels of oil per day at this time, and has made about 10,000 barrels of oil to date.

MR. UTZ: All right, sir.

THE WITNESS: The current gas-oil ratio is approximately 2,000-to-1.

Q Do you have any plans to re-enter the No. 2 Kirkpatrick?

A Yes. We planned to re-enter the No. 2 Kirkpatrick within the next 60 to 90 days and open up the B zone section which lies beneath minus 560, set a packer, perforate, acidize, and see if we can produce oil from this interval.

Q Is this B zone effectively separated from the other horizons?

A Yes, it is. There is a 20-foot anhydrite body present all over the area of Exhibit Number 2, and this anhydrite body effectively isolates the B zone from the overlying zone, the P-1. It does this because it is dense, and fractures cannot transmit through there. They die out in the anhydrite bodies.

Q Is the producing formation here a rather highly fractured --

A Yes, the B zone, which is the producing zone, of course, of the East Bluit-San Andres, and also produces oil at the Bluit-San Andres gas field, is a fractured reservoir. It has an average of about eight per cent porosity, running over about 25 average feet of pay.

The fractures are contributing greatly to the well performance; and based upon observations of cores, and examination of well performance, it is clear to me that the fractures are the main ingredient in establishing good drainage in this area.

Q Referring to what has been marked as Nearburg Exhibit Number 4, would you identify that exhibit?

A Yes, Exhibit Number 4 is also mounted on the wall. It is a map showing the reservoir pressure of the gas contact minus 560 in the greater Bluit field area of Roosevelt County,

New Mexico.

Q Explain how that map was prepared, Mr. Gratton.

A Yes. Unlike most reservoirs which we have had opportunity to study, the San Andres reservoir is not static. It is in a hydrodynamic state, and the pressure actually changes for the same subsea position as you move from one area to another.

This map shows what the additional reservoir pressure was in the Slaughter section at minus 560, before development of the gas field which began in 1963. It's based upon drill stem tests, shutin pressures, and bottom-hole pressures run at the completion date on the Kirkpatrick No. 1 and Kirkpatrick No. 2.

In the Bluitt-Wolfcamp field, drill stem tests run in the Slaughter section indicated a high pressure for a depth of minus 560.

On the south side of Bluitt field, the Bluitt-San Andres gas field, drill stem tests run in the O'Neill No. 1 Federal also established pressures, but these were lower. This was before any substantial development in the area, or at least before there was any drainage in this area.

Pressures run on the No. 1 Kirkpatrick and No. 2 Kirkpatrick were almost identical. These were run very early

following discovery. The Kirkpatrick No. 1 was the discovery well for the Bluitt-San Andres gas field. These pressures are also lower than those recorded for the same position farther northwest.

Pressures were also recorded in the Shell No. 4 Bluitt Federal, in the Slaughter section, and these were also lower. There was a general tendency for pressures to be lower before development of this area. As you move from north to south, pressures decline.

Another point, the Cactus No. 1 Bates also found lower pressures for this depth.

These pressures are fairly reliable pressures. It appears that all of them were stabilized, and bottom-hole pressures were run in the discovery well, and also the No. 2 Kirkpatrick. I have contoured the initial reservoir pressure at minus 560, and it shows that pressure is around 1,650 pounds, originally, up here on the north end of the field, and that as you go to the southeast it dropped to 1,450 pounds. This is not a function of depletion of reservoir pressure declining due to withdrawal someplace; this is the original state of the reservoir.

After six years or five and a half years of production in the Bluitt-San Andres gas field, and at the

beginning of production in the East Bluit-San Andres oil field, we ran a number of bottom-hole pressures to see what the pressure was today.

Franklin, Aston & Fair also ran a bottom-hole pressure in their No. 1 Bluit-Federal, and these reservoir pressures were in each instance lower than what the original reservoir pressure was.

Of course, the Kirkpatrick No. 1 and No. 2 have experienced considerable pressure decline after producing for five and a half years. The Kirkpatrick No. 1 has lost 773 pounds, and the Kirkpatrick No. 2 has lost 862 pounds. The nearest well to these two wells, the Nearburg No. 2 Bates Federal in the East Bluit-San Andres field, it is 4,770 feet away from the No. 2 Kirkpatrick Federal. Though it is almost a mile away, it has 209 pounds less pressure than what was originally in the reservoir at that depth.

As we get progressively more removed from the San Andres gas field, the Bluit-San Andres gas field, we see that we still have reservoir decline of pressure, but which does not have as much. Accordingly, the No. 1 Bates Federal, Nearburg No. 1 Bates Federal, has a loss of 180 pounds, the No. 3 Bates Federal has a loss of 159 pounds, and the Franklin, Aston & Fair No. 1 Bluit Federal has a loss

of 74 pounds, demonstrating that the Bluitt-San Andres gas field has effectively drained at least a portion of this area, because we have pressure decline caused by the withdrawal of gas in the Bluitt-San Andres gas field over a mile away from the nearest gas well.

MR. UTZ: Do you have any pressure differentials for the wells over to the northwest?

THE WITNESS: This well here --

Q Would you identify it, please?

A The Nearburg No. 3 Kirkpatrick Federal was drilled in 1965, and by that time already had about 300 pounds differential, so I could not use it either to establish the original pressure or to show what it would be today. This well was subsequently plotted. I have reviewed the Felmont Federal pressures by the time this well was drilled, it was after the production had been already established from the No. 1 and No. 2 Kirkpatrick and it was already down to about 1200 or 1300 pounds. I had to go back to just the pressures which were available at the time of the discovery, or before, or far enough removed to be reasonably certain there was no drainage.

MR. UTZ: You don't have pressures on some of the BTA stuff up there?

THE WITNESS: Well, this was later. I don't have it, but these pressures were later, and I am sure they would be less than this. I am sure they are less today than they were.

MR. UTZ: Now, the three wells located in Sections 32 and 33, are they --

THE WITNESS: These are in the Wolfcamp, Bluit-Wolfcamp gas field. However, this test was run in the Slaughter section that I am using. It was a drill stem test. It was not a bottom-hole pressure survey, it was not a completion.

MR. UTZ: But those pressures are DST pressures?

THE WITNESS: Yes. I show over on this exhibit the source of this information, whether drill stem test, or bottom-hole pressure, or bomb.

MR. UTZ: It is your opinion that they are outside of the permeability?

THE WITNESS: Yes, they are with respect to the two zones producing here. But the zone they measured this in was a lower zone which has pressure -- which is part of the greater pressure system, the P-3. The P-3 is permeable, but is water-bearing throughout this whole area. It is not part of the trap.

Even eliminating these points up here, Mr. Examiner, we still have the highly reliable points of the No. 1 and No. 2 Kirkpatrick Federal, bottom-hole pressures run at discovery or immediately thereafter, and the pressures recorded in this area.

Furthermore, all of these pressures are considerably less than the pressures recorded here. I am not showing that the oil wells in the East Bluit-San Andres field are just lower pressure than the No. 1 or No. 2 Kirkpatrick; they are substantially less than that. What I have tried to show was that there was originally a difference in pressure. In other words, a decline in this direction. But even adjusting for that decline, there has been a considerably larger decline in reservoir pressure due to withdrawals.

Q (By Mr. Kellahin) On the basis of the information available, do you reach a conclusion as to whether the East Bluit-San Andres Pool and the Bluit-San Andres Pool are the same common source of supply?

A They are, with respect to the B zone.

Q And that is the zone we are considering in this hearing?

A Correct. This is the only zone opened up in the East Bluit-San Andres field.

Q Now, under the call of the case by the Commission, in the event it is found that the Bluitt and the East Bluitt are one in the same pool, the Commission further calls for testimony as to the spacing in this pool, what is the spacing in the East Bluitt at the present time?

A Eighty acres.

Q Does the evidence you have available indicate that one well would effectively and economically drain and develop in excess of 80 acres?

A Definitely, because of the effect which the East Bluitt -- which the Bluitt-San Andres gas field withdrawals have had on wells over a mile away in the East Bluitt oil field.

Q Do you have any recommendations to make to the Commission in regard to the adoption of rules for the classification of oil and gas wells, the allocation formula to be adopted?

A My own personal feeling is that the evidence here shows that we have at the Greater Bluitt field area, a trapping situation, structural situation, reservoir situation, identical with the Todd Upper and Lower field of Roosevelt County just a short distance to the northwest. The same zone produces the hydrocarbons in each zone, is identical, and I believe that

the formula which was adopted for Todd, the withdrawal allocation formula has applied to gas and oil wells, would be an equitable solution to the problem which we have in the Greater Bluit field area where gas cap does overlies oil on the east side of the structure.

Q Now, that is set out in Commission Order No. R-1670-G, is it not?

A Yes, that is my understanding.

Q Would you make any provisions in the order, however, for production from the P-1 zone?

A Yes, I believe that the P-1 zone is contributing gas. However, I think it would work an economic hardship to ask for the separation and completion of these two reservoirs in the gas field, and I believe that the performance of the wells, the gas wells in the Bluit-San Andres gas field today, is such that the withdrawal formula that was used at Todd, if applied in Bluit, would not result in any restriction on production at this time.

The Bluit-San Andres gas field wells are not large wells today. I believe my most recent check was that the best well might make eight or nine million cubic feet per month. The withdrawal formula I am suggesting we use would allow on 320-acre spacing, which has been ruled for Bluit gas,

the continued production of this amount of gas from these wells. But it would prevent the completion of a new gas well, with high withdrawal rates, which would, of course, affect the oil rim of this reservoir, and probably result in loss.

Q Do you feel that the formula as you propose to use would effectively protect the oil production in this pool?

A Yes, I think it would.

Q Just to summarize your testimony, would you briefly outline your opinion as to the information that shows this is one common source of supply, and for the adoption of the pool rules as you propose?

A Yes. The four exhibits which we have offered to the Commission show the location of the East Bluit-San Andres field on the east side of the Bluit-San Andres gas field, producing from the same zone which makes gas in the Bluit-San Andres field. We have good evidence that this zone produces gas, because the Nearburg No. 3 Kirkpatrick Federal actually completed in this zone only, and made gas before it was abandoned.

The evidence of reservoir pressure decline in the East Bluit field below what it should have been, based upon early pressure measurements in the general area, indicate that drainage in the Bluit-San Andres gas field has affected areas

over a mile away. The excellent reservoir properties of the B zone, evidenced by well performance and observations of core fracturing, fractures in cores, I should say, support the fact that 80-acre drainage would be quite sufficient to economically and physically remove the oil from each of the 80-acre units.

Q Now, what do you recommend the spacing for gas?

A I believe that the gas units should continue to be 320-acre units, as originally adopted for the Bluit-San Andres gas field.

Q Do you have any recommendation to make as to well locations?

A Yes. I believe that the order for the East Bluit-San Andres oil field should be incorporated for the Bluit field, as did apply to oil development units. This order calls for 80-acre spacing, allowing the operator to choose the north, south, east, or west half of quarter-sections for each 80-acre unit, with locations within 150 feet of the center of the quarter-quarter-section; and that a withdrawal formula similar to Todd be instituted to protect the oil rim from ~~bathing~~ the gas cap in the P-2.

Q Do you recommend the continuance of well locations as to gas production as provided in the Bluit-San Andres Pool?

A Yes.

Q And you would extend that, then, to the area now covered by the East Bluitt-San Andres Pool?

A Yes, it is possible to make gas completions in the East Bluitt-San Andres field. I question whether these would be commercial, but as shown on Exhibit Number 3, there is probable gas pay in the P-1 in the East Bluitt-San Andres field. This has never been opened up, but probably could produce some gas.

Q Mr. Gratton, in your opinion, based on the information available to you, if a volumetric formula is not adopted for this pool, will there be a resultant loss in the ultimate recovery of oil in the pool?

A There is a possibility that this could take place, because there are some locations that could be drilled in the Bluitt gas field which conceivably could make high initial potentials, calculated open flows, and could produce gas at a rate which would cause a pressure decline in the vicinity of the oil rim, which would cause the oil to migrate into the gas cap and be a loss, definitely. The withdrawal formula, I think, should prevent this.

Q Were Exhibits 1 through 4 prepared by you or by someone under your supervision?

A They were prepared by me.

MR. KELLAHIN: At this time, I offer in evidence Exhibits 1 through 4, inclusive.

MR. UTZ: Without objection, they will be entered into the record of this case.

(Whereupon, Applicant's Exhibits Numbers 1 through 4, inclusive, were admitted in evidence.)

Q Do you have anything to add?

A No, I do not.

MR. KELLAHIN: That completes the direct examination of the witness, Mr. Utz.

CROSS EXAMINATION

BY MR. UTZ:

Q Mr. Gratton, to be sure I understand this as to the zones, it is my understanding that the oil area or the area called East Bluitt at the present time is open only in the B zone?

A Correct.

Q And that the wells which are in the Bluitt area at this time are open in both zones?

A Correct. The Bluitt gas field, yes.

Q And further, it is your recommendation that these zones in the gas area be separated?

A No, I think that would work an economic hardship to separate these zones. I don't believe that the state of depletion of the reservoir, and the reservoir properties of the overlying zone, the P-1, that it would be a good idea to separate these as far as gas production goes. I think that that -- to do this, compared with the rewards that might be coming, what little rewards we might get out of it would be a hardship economically, because these wells are down to fairly low capacity right now.

Q Well, the formula won't work real well if you have two gas pools and one oil pool, will it? In other words, your volumetric equivalent on your oil would be based on the oil, and would give the gas allowable of two pools instead of one? Isn't that essentially correct?

A Yes, the gas -- we do not know how much gas is coming from the P-1. There has never been an independent test of that. While both zones are opened up, how much is contributing is questionable right now, and that is correct that the withdrawals, that would be true. I would believe it would be just fine if we had a part of the rule allowing that any operator who wanted to complete the P-1 independently, separately, should not be subject to withdrawal formula. This is similar to the rules which have been adopted for Todd.

Q Now, how thick is the P-1 zone?

A The P-1 has a gross interval of about 100 feet. However, the net pay in the P-1 is probably on the order of 15 to 20 feet, and it is lower porosity, probably lower permeability than any of the P-2 zone.

Q In other words, it probably isn't contributing much gas to production?

A It is my opinion that it is not contributing more than a quarter of the gas production in the field, which now is down to a fairly low level, anyway.

Q Do you have any bottom-hole samples from the oil zones that you could furnish the Commission with the data for setting up tables?

A We have not collected any bottom-hole samples of the reservoir fluids at bottom-hole pressures and temperatures, which I believe is what you are asking for.

Q That's right.

A The surface reservoir characteristics, of course, the surface fluid characteristics seem to be identical with Todd. They come from the same zone. We could gather such samples.

Q Don't you think it would be advisable in this volumetric formula, it is dependent on those bottom-hole

samples as far as setting up tables?

A We could prepare tables based upon that kind of information, and gather such samples.

Q How long would it take you?

A Well, I would say we had thirty days, we could gather such information.

MR. UTZ: Do you have another witness?

MR. KELLAHIN: Yes.

MR. UTZ: Call your other witness. I won't excuse Mr. Gratton. We might have some more questions of him later on. Does anyone else have any questions? You may call your other witness.

GRANT SMITH

called as a witness by the Applicant, having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. KELLAHIN:

Q State your name, please.

A I am Grant M. Smith.

Q By whom are you employed, and in what position?

A I am a geologist for Franklin, Aston & Fair.

Q Where are you located?

A Roswell.

Q Have you ever testified before the Oil Conservation Commission and made your qualifications a matter of record?

A Yes, sir.

MR. KELLAHIN: Are the witness's qualifications acceptable?

MR. UTZ: Yes.

Q Mr. Smith, have you made an independent study of the reservoir conditions in the East Bluit and the Bluit-San Andres Pools in Roosevelt County?

A Yes.

Q Do you have operations in this pool?

A Yes, we drilled a discovery well in the East Bluit-San Andres Pool.

Q At the hearing in Case 3975, which was held in December of 1966 -- I am sorry, 1968, to create a new pool in Roosevelt County, did you present testimony requesting an 80-acre spacing for what has been designated as the East Bluit-San Andres Pool?

A Yes.

Q And since the discovery well, how many wells have been drilled in this pool?

A I believe there have been nine wells drilled.

Q In the development of this pool, have you noticed anything that would lead you to believe that this area should

not be developed on 80-acre spacing pattern as originally recommended by you?

A No, sir.

Q In your opinion, is it still your opinion that one well will effectively and economically drain and develop 80 acres as to oil in the East Bluit?

A Yes, sir.

Q Now, you heard the testimony of Mr. Gratton in regard to the two pools being a common source of supply. Are you in agreement with that?

A Yes, sir.

Q Would you say the same factors would apply as to the spacing in the Bluit-San Andres Pool as in the East Bluit, insofar as oil is concerned?

A Yes.

Q Would you say the same factors would apply to the East Bluit as in the Bluit, as to gas?

A Yes.

Q Now, in the development of this pool, would you explain, just review the testimony briefly that you gave in the previous case? Would you explain the basis for your conclusion that one well will drain 80 acres?

A In general, it is the remarkable similarity between

this East Bluit-San Andres Pool, and the Todd Pool some ten or eleven miles northwest of us. The pools are just almost identical.

The information we have gained from the wells that we have in the Todd Lower San Andres Pool, the behavior patterns of these wells, and the behavior patterns of the wells so far in the East Bluit-San Andres, are very similar.

In addition to that, the information we have gained from logging and some cores taken further substantiate this.

Q Would you review that information briefly?

A We cored the Shaw Federal No. 2 Well, which was 660 from the south and the west of Section 18 of 8-38. I have a copy of Core Labs core analysis, which I can pass out.

MR. KELLAHIN: Let's have it marked as an exhibit.

(Whereupon, Applicant's Exhibit Number 5 was marked for identification.)

Q Now, referring to what has been marked as Exhibit Number 5, would you identify that exhibit?

A Yes, that is a core taken in our Shaw Federal No. 2 well, located 660 from the south and west of Section 18, 8 South, 38 East. It is over the B zone, or the oil producing zone in this area. We have mentioned previously here today the fractures in these cores, and in the description in the

right hand column on this analysis you will see that it is almost entirely fractured dolomite.

The upper section of the core from 4,680 down to 4,688, roughly, is dolomite, slightly fractured. From 4,688 down to roughly 4,697, it is dolomite, and they just marked this or described this as fractured.

The section below that from 4,697 down to 4,704 is dolomite fractured, slightly vuggy. And then from 4,706 to 4,709, dolomite again.

And then at the lower part of the core is described as dolomite fractured.

What I would like to point out, that in this core, the sections where it just says dolomite fractured, was very highly fractured and crumbled up, and we had to carry this off the reef floor tied in rag bundles. I don't think the core analysis shows fully the fractures, and porosity, and permeability in this zone.

I might mention that all the fractures for the most part are vertical fractures, and I think this is what gives us our good drainage for 80-acre spacing for wells in this area.

MR. KELLAHIN: At this time I would like to offer in evidence Exhibit Number 5.

MR. UTZ: Without objection, Exhibit Number 5 will

be entered into the record of this case.

(Whereupon, Applicant's Exhibit Number 5 was admitted into evidence.)

Q Do you have anything to add, Mr. Smith?

A Well, in all of our logs in this well, we have run the gamma ray sonic log, and logs of this well and our other oil wells in this area are remarkably similar. I think core analysis for all of these would show just the same thing, and I believe that it indicates that these will drain 80 acres.

Q Do you find that the porosity and permeability of the formation is uniform throughout?

A Yes. Well, until you come to the edge of the field.

Q Until you come to the edge of the field and it pinches out?

A Yes.

MR. KELLAHIN: That is all I have on direct examination.

CROSS EXAMINATION

BY MR. UTZ:

Q Mr. Smith, does Franklin, Aston & Fair have any gas wells?

A Not in the East Bluitt.

Q Not in this pool. And this was the only well you

cored?

A Yes, sir.

Q Do the oil wells in this oil area produce much gas?

A No, they are low GOR. I believe our last well was something like 460 to 1.

Q Perhaps you can answer this question also. How about the gas wells in the upper area, do they produce much fluid?

A I didn't hear the question.

Q Do they produce much fluid?

A No, with the exception of the Kirkpatrick No. 1, I believe it is, that is making the oil. The others are not making a lot of fluid.

Q I will direct this question to Mr. Gratton.

MR. UTZ: As I interpret your testimony, the Delta P that you have there now, the difference in pressure between the oil area and the gas area was, I guess you would say, accomplished through initial production, rather than the manner in which it's been producing at the present time?

MR. GRATTON: Yes, these pressures were taken very early. They were allowed to stabilize, and we determined that over a seven-month period -- a seven-week period, I beg your pardon, that the No. 1 Bates Federal, which we surveyed

three times during this time, declined sixteen pounds in seven weeks, which, of course, is only one-tenth of the differential that we are talking about being present.

MR. UTZ: It is your opinion then that at the present time the rate of production between the two areas is pretty stable, as far as pressures are concerned?

MR. GRATTON: Well, we have to live with the fact that there is a big pressure sink up here in the gas field, and in that sense pressure is already -- there is a pressure differential running up there. But the sixteen pounds withdrawal here in seven weeks, if you believe that that is an accurate measurement, would work out to be something on the order of 160, maybe 180 pounds in a year. And in five years, that would be essentially the same rate that this has been withdrawing in the gas field, approximately the same rate of pressure decline per year, we are starting to experience down here now. We started out behind, but that would be about right.

MR. UTZ: Then it is your opinion that this type of formula will arrest the conditions pretty much as they are now?

MR. GRATTON: I think it will. The main reason being that the rate of pressure decline has gradually slowed

in the gas field, due to withdrawal rates apparently are balancing the rate of water encroachment from the edge, because there is not a serious decline any longer. The decline was accomplished in the first three or four years, primarily due to the heavy withdrawals at that time. The slow withdrawal rate is really not working a continued decline of the same rate that we will be declining over here, of course.

MR. UTZ: Who was the purchaser of this field?

MR. GRATTON: Of the gas?

MR. UTZ: Yes.

MR. GRATTON: Cities Service is buying some of the gas. Sinclair is buying some of the others, I believe.

MR. UTZ: So you do have two purchasers?

MR. GRATTON: Yes. Gene, is that correct?

MR. NEARBURG: Most of it in that particular field is Cities Service.

MR. UTZ: Thank you, I think that is all I have. Are there any other questions of either witness? You may be excused.

Are there any statements in the case?

MR. MORITZ: Jerry Moritz for BTA. We have two wells in the gas cap area, and we are not objecting to the adoption of rules similar to the Todd Pool as applied to this.

Our main worry is what the oil production is going to do, if it does reach a quick peak and drops off rather drastically. Our interpretation of the Todd rules is that if the oil production eventually reached zero, the gas cap conceivably would not have any allowable, and we would like to propose that there be some minimum put on a 320-acre unit, gas allowable.

We would like to propose that the minimum be set at 6,000 Mcf per month for a 320-acre well. That is all I have.

MR. UTZ: Any other statements?

MR. NATCHUS: I am Edward Natchus with Union Oil Company of California. I would like to say that we support the separation of our reservoir as being a gas cap and an oil rim, and we support the 80-acre spacing.

MR. UTZ: Any other statements? The case will be taken under advisement.

MR. HATCH: We have some telegrams to read. These are generally in support, but I better read them into the record.

The first telegram is from Roden Oil Company, by Jennings and Copple, addressed to the Oil Commission. Re: Case No. 3975, Order No. R-3618, Roden Oil Company, an operator

in the East Bluitt Pool, Roosevelt County, New Mexico, supports the position of Eugene E. Nearburg and Franklin, Aston & Fair, that the Bluitt-San Andres, and East Bluitt-San Andres are one pool as to production from the P-2 or B zone of the Slaughter, and recommend that the temporary rules in Order R-3618 be made permanent, and that due to similarity between the Bluitt and Todd pools, that a gas withdrawal formula similar to Order Number R-1670-G, be incorporated in the field rules.

This telegram is from Skelly Oil Company, by George Selinger. Re: Case 3975, reopened, Skelly Oil Company as interested offset owners support the recommendations of Franklin, Aston & Fair for the adoption of special rules for the Bluitt-San Andres Pool, including a provision for 80-acre oil spacing and 160-acre gas spacing.

This is addressed to the Oil Conservation Commission from Petroleum Corporation of Texas, by T. A. Ford. Case 3975, March 6. We respectfully request gas well be given an allowable floor so that they won't be uneconomic if oil production should drop substantially.

Telegram from Tom L. Ingram, addressed to the Oil Commission. Re: Case 3975, Order No. R-3618. As operator in the East Bluitt area, I believe that the Bluitt-San Andres and East Bluitt-San Andres are one pool, insofar as the

production coming from the P-2 or B zone of the Slaughter. It is requested that the rules in Order R-3618 be made permanent. Due to the similarity between the East Bluit and the Todd Pools, it is further requested that a gas rule similar to that in Order R-1670-G be incorporated into the field rules.

MR. UTZ: Thank you. Any other statements? The case will be taken under advisement.

I N D E X

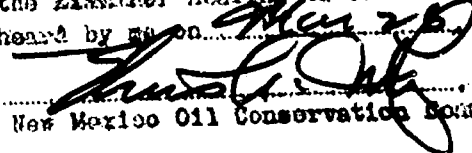
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STATE OF NEW MEXICO)
)
 COUNTY OF BERNALILLO) ss.

I, SAMUEL MORTELETTE, Court Reporter in and for the County of Bernalillo, State of New Mexico, do hereby certify that the foregoing and attached Transcript of Hearing before the New Mexico Oil Conservation Commission was reported by me, and that the same is a true and correct record of the said proceedings, to the best of my knowledge, skill and ability.


 COURT REPORTER

I do hereby certify that the foregoing is
 a complete record of the proceedings in
 the Examiner hearing of Case No. 3925
 heard by me on May 25, 1969.

 Examiner
 New Mexico Oil Conservation Commission



dearnley-meier

SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS

1120 SIMMS BLDG. • P. O. BOX 1092 • PHONE 243-6691 • ALBUQUERQUE, NEW MEXICO

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION

Santa Fe, New Mexico

February 5, 1969

EXAMINER HEARING

IN THE MATTER OF:

Case No. 3975, being reopened)
pursuant to the provisions of)
Order No. R-3618, which order)
established 80-acre spacing)
units for the East Bluitt-)
San Andres Pool, Roosevelt)
County, New Mexico.)

Case No. 3975

BEFORE: Daniel S. Nutter,
Examiner

TRANSCRIPT OF HEARING

MR. NUTTER: We will call Case 3975.

MR. HATCH: Case 3975, being reopened pursuant to the provisions of Order No. R-3618.

If the Examiner please, in this case one of the operators in the pool has requested that this case be continued to late in March, to give them time to obtain additional information.

MR. NUTTER: Case 3975 will be continued to the Examiner Hearing at nine o'clock A.M., March 26, 1969, at this same place.

STATE OF NEW MEXICO)
) ss.
 COUNTY OF BERNALILLO)

I, SAMUEL MORTELETTE, Court Reporter in and for the County of Bernalillo, State of New Mexico, do hereby certify that the foregoing and attached Transcript of Hearing before the New Mexico Oil Conservation Commission was reported by me, and that the same is a true and correct record of the said proceedings, to the best of my knowledge, skill and ability.

Samuel Mortelette
 COURT REPORTER

I do hereby certify that the foregoing is
 a complete record of the hearing held on
 the 2/5/67 at 3:15 PM.
 before me on 2/5/67 at 3:15 PM.
Samuel Mortelette, Reporter
 New Mexico Oil Conservation Commission

dearnley-meier

SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS

1120 SIMMS BLDG. • P. O. BOX 1092 • PHONE 243-6691 • ALBUQUERQUE, NEW MEXICO



BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION

Santa Fe, New Mexico

December 2, 1968

EXAMINER HEARING

IN THE MATTER OF:

Application of Franklin,
Aston & Fair, Inc., for
the creation of a new oil
pool and for special pool
rules, Roosevelt County,
New Mexico.

Case No. 3975

BEFORE: Daniel S. Nutter, Examiner

TRANSCRIPT OF HEARING

MR. NUTTER: Case 3975.

MR. HATCH: Case 3975, application of Franklin, Aston & Fair, Incorporated, for the creation of a new oil pool and for special pool rules, Roosevelt County, New Mexico.

MR. EATON: Paul Eaton, appearing on behalf of Franklin, Aston & Fair, and I have one witness, Mr. Grant Smith.

(Witness sworn.)

(Whereupon, Applicant's Exhibits Numbers 1 through 6, inclusive, were marked for identification.)

MR. NUTTER: Are there any other appearances in this case? Go ahead.

GRANT SMITH

called as a witness on behalf of the Applicant, and having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. EATON:

Q Please state your name.

A I am Grant Smith.

Q Your address, occupation, and employer are the same as you testified to in Case No. 3974?

A Yes, sir.

Q You are familiar with the application of Franklin,

Aston & Fair, in this case?

A Yes.

Q Are you familiar with the Franklin, Aston & Fair Bluitt Federal No. 1 Well in Section 13, Township 8 South, Range 37 East, Roosevelt County, New Mexico?

A Yes.

Q And are you familiar with the productive history of that well, and the geology of the surrounding area?

A Yes.

Q Your qualifications have been previously accepted by the Commission?

A Yes.

Q Mr. Smith, what is Franklin, Aston & Fair seeking by its application in this case?

A As originally filed, we sought creation of a new oil pool and spacing of 80 acres per well, 80-acre allowable.

Q Do you have anything further to say in connection with the application at this time?

A To the extent that the well is within one mile of the Bluitt San Andres gas zone -- gas pool, which appears to be producing from the A and the B zones of the Slaughter section of the San Andres. And our well is producing from the B zone of the Slaughter section, which would be part of the original

Bluitt San Andres Gas Field, although, to the best of my knowledge, there has been nothing in these original gas wells to say for sure that the oil was coming from the B zone or possibly from the A zone.

Q Are you primarily seeking temporary 80-acre space and proration for your Bluitt Federal No. 1 oil well, and any other oil wells that may be in the same pool?

A Yes, sir.

Q And we will get into that in more detail. First, let me hand you what has been marked as Exhibit Number 1, and ask you to state what that exhibit reflects.

A This is a map showing the location of the discovery well, all wells within a two-mile radius of the discovery well, and the production depths of these wells. It also shows the lease owners and operators within a two-mile radius. It also has marked on it a cross-section in red, labeled as AA Prime.

Q How is the Bluitt Federal No. 1 reflected on the exhibit?

A It is circled in red.

Q Generally, where is the Bluitt San Andres gas pool in relation to the Bluitt Federal No. 1?

A It is generally east of the Bluitt Federal No. 1. I did not outline it, because I had some information that indicated

the south half of the 11 had not been included in this pool, although there is a well there, and I assume there has been an order issued putting it in there.

MR. NUTTER: You said that the San Andres gas well was east. You mean west, don't you?

THE WITNESS: West, that is correct.

Q Mr. Smith, I hand you what has been marked Applicant's Exhibit Number 2, and ask you to state what that exhibit reflects.

A This is a correlation cross-section, having on it a well connected by the red line on Exhibit Number 1, showing the correlation and production intervals, and also some of the holes drilled in this area.

Q Would you like to explain that exhibit in more detail?

A Beginning with the well on the lefthand side, the Nearburg and Ingram, Kirkpatrick No. 1, shows this well to be perforated in the Slaughter A and the Slaughter B zone. I want to add one correction there. The information I had led me to believe that it was perforated solidly as shown here. I since found out from Mr. Ingram that that was selectively perforated, but the overall interval was the same.

The No. 2 well is the Shell Bluit No. 4, which

penetrated the Slaughter A, B, and the top of the C zone, which is a dry hole.

The third well on the cross-section is the Franklin, Aston & Fair Bluit Federal No. 1, perforated interval between the B zone of the San Andres.

The fourth well on the cross-section is an Austral discovery well, which penetrated the Slaughter A, B, and the top of the C zone, and produced for a while from the open-hole interval as shown on the cross-section, according to the information which I have.

And the fifth well on the cross-section is the Cactus Drilling Company, Bates No. 1, which penetrated the Slaughter A and B zones, and is a dry hole.

Q What is the purpose of that Exhibit Number 2?

A To show the completion interval of our well in relation to the wells on this cross-section.

Q Did you draw any conclusions from the exhibit?

A The main conclusion that we draw from it is that our well is an oil well completed entirely in the B section of the Slaughter of the San Andres. The other wells are either dry holes and gas wells, designated as San Andres Bluit gas wells, which are completed in the A zone and just barely in the top of the B zone, or they are dry holes, or as I said before,

the Austral well which is completed or has all three zones of the San Andres open.

Q Mr. Smith, getting back to the Bluitt Federal No. 1 Well, would you give the history of that well as to when it was drilled, and the completion data, potential tests.

A We completed the well approximately a month ago, I don't have the data right here, flowing 150 barrels of oil per day, after a 3,000-gallon acid treatment from the B section of the San Andres. This was on a 20/64-inch choke. It is still flowing and maintaining the allowable for 80 acres.

Q What was the tubing flowing pressure on that well?

A As I recall, it was 150 pounds.

Q Since the completion of the Bluitt Federal No. 1, have any other wells been drilled in its vicinity?

A No wells have been drilled. There were two locations. We have a location which is an east offset to this well, and was started yesterday. I believe Mr. Nearburg has the location staked in it, which would be a diagonal northwest offset to this well, 1,980 from the north and 1,980 from the east of Section 13.

Q Have those two wells been staked so they would conform to an 80-acre?

A Yes, sir.

MR. NUTTER: What was the location of the well you started yesterday?

THE WITNESS: It is 1,980 from the south, and 660 from the west of Section 18.

MR. NUTTER: The direct east offset?

THE WITNESS: Yes, sir.

Q (By Mr. Eaton) Is there any other pool in the general area which is being produced from the same zone as your Bluit Federal No. 1?

A Yes, the Todd San Andres Pool, approximately two miles northeast of Millen Sand in 7 and 8 South, Range 37 East, is producing from this interval.

Q Is that correctly known as the Todd Lower San Andres Pool?

A That's correct.

Q Is it an oil pool or a gas pool?

A It is an associated oil-gas pool.

Q Do you know what the spacing and proration pattern for that pool is?

A It is 80 acres for oil, and 320 for gas.

Q Are you familiar with the geology and the productive history of that pool?

A Yes.

Q In your opinion, Mr. Smith, are the characteristics of that pool comparable to what you have discovered in the Bluit Federal No. 1 Well?

A They are very similar.

Q Would you explain your answer, please?

A Yes. The Todd San Andres -- or the Bluit San Andres well was originally designated a gas field. The first wells in the Todd San Andres Pool now designated D were gas wells, producing from the A and the B zone. Further development and isolation of our pay zones indicates the oil is coming from the B zone in the Todd Lower San Andres, which appears to be the case in the discovery well of our Bluit Federal No. 1.

The behavior of the Bluit Federal No. 1 in completion and production so far is very similar to the oil wells in the Todd Lower San Andres Oil Pool. The logs show very similar porosity.

Q Let me hand you what has been marked as Exhibits Numbers 3, 4, 5, and 6, and ask you to state what these exhibits represent.

A These exhibits are portions of the large scale log of the Bluit San Andres, or the Bluit Federal No. 1, our discovery well there.

Q That is Exhibit Number 3?

A That is Number 3. And the other wells are taken from -- the other logs are from wells in the Todd Lower San Andres Gas Pool. They were selected because they are the same type log as we have run in the Bluit Federal No. 1. They show very comparable porosity characteristics. From my interpretation, I would say that our Bluit Federal No. 1 probably shows a better or a more uniform overall porosity than do the wells in the Todd San Andres Pool, with the exception of, say, one or two places where there may be a peak porosity which would exceed what we have in the Bluit Federal No. 1.

Q Do you have anything else to say in connection with the relative characteristics of the Todd Lower San Andres Pool with your Bluit Federal No. 1?

A In the way that the well treated, in the behavior of the well since completion, it is very similar to the Todd Lower San Andres.

Q Mr. Smith, has anything developed in the Todd Lower San Andres Pool which would suggest that the wells in that pool are not effectively draining 80 acres?

A No, I believe not. Our better wells in this pool which we have drilled on 80 acres have held up very well. We have some going on nearly two years production, we have some approaching one-year production which were drilled in September

of last year, some drilled in December of last year, some drilled in January of this year, which are still producing the allowable for 80 acres. We have some edge wells which, of course, have not produced this, but then they haven't produced the allowable for 40 acres, either.

So we feel that due to the highly fractured nature of this reservoir in the areas where you have the porosity and the fractures, that 80 acres is a good spacing.

Q Have you made any estimate of the reserves under your Bluitt Federal No. 1?

A Just on what we have of this one log, and we have had our own reserves or have made our own reserve calculations in the Bluitt Federal. We have had outside calculations made on the reserves, and some of them will range from 30,000 barrels per 40 acres up to 75,000. My personal feeling is that where we have good porosity development and permeability, that 125 to 150 barrels per 80 acres will be a pretty close estimate.

Q What is the average cost of a San Andres oil well in this area?

A They will run \$45,000 to \$50,000.

Q If wells were drilled on a 40-acre spacing pattern, then would the cost of the two wells be twice that of one well, we will say, drilled on an 80-acre spacing?

A Run that by again, will you?

Q If two wells were drilled on the basis of the 40-acre spacing pattern, would the cost of those two wells be twice that of one well drilled on an 80-acre?

A They would be very nearly the same thing. Taking into consideration, say, central tank battery, or something like that, they would be slightly less, but for all practical purposes, they would cost the same as on 80 acres.

Q Based on a top 80-acre allowable, in your opinion, what is the estimated payout life of your Bluitt Federal No. 1 well?

A If it holds, and everything indicates it will, I would say eight to ten months.

Q If two wells were drilled on the same 80-acre tract, would the payout life be twice that?

A Very nearly. Be practically the same thing.

Q In your opinion, will the Bluitt Federal No. 1, and any other similar well in the vicinity, effectively and efficiently drain 80 acres?

A Yes, I believe it will.

Q What is the basis for that opinion of yours?

A Mainly the comparison of the log to the logs of similar wells in the Todd Lower San Andres Well, and the behavior

of these wells in the Todd Lower San Andres.

Q After the two wells which you testified have been staked, after they have been drilled, and if productive, after they have produced for a while, will you have a better idea of the characteristics of this oil pool?

A Yes, sir.

Q Assume that 80-acre spacing proration is allowed on a temporary basis, and further assume that developments in the next year in the vicinity of your Bluit Federal No. 1 establishes that 80-acre spacing will not be effective to drain 80 acres, will such development in that interim period be detrimental to later development of the area on a 40-acre spacing pattern?

A No, not materially. Of course, there is the time factor involved, but the way our wells have produced, our better wells in the Todd San Andres Pool, I don't believe it would materially affect the necessity of drilling on 40 acres, if this was being advisable at some later date.

Q In your opinion, will the establishment of 80-acre well spacing and 80-acre allowables on a temporary basis, avoid the drilling of unnecessary wells?

A Yes, sir.

Q Will it decrease the risk that might arise from the drilling of an excessive number of wells?

A Yes, sir.

Q Would it otherwise prevent waste and protect correlative rights?

A Yes, sir.

Q Have these exhibits been prepared by you or under your supervision?

A Yes.

MR. EATON: Mr. Examiner, we offer Applicant's Exhibits 1 through 6 into evidence.

MR. NUTTER: Applicant's Exhibits 1 through 6 will be admitted into evidence.

(Whereupon, Applicant's Exhibits Numbers 1 through 6, inclusive, were admitted in evidence.)

MR. EATON: Mr. Examiner, we might suggest, in view of Mr. Smith's testimony, that the Bluitt Federal No. 1 Well is or may be producing from the same pool as the Bluitt San Andres gas wells, that the Commission might consider either creating a new oil pool on some temporary basis, or consider amending the Bluitt San Andres Gas Pool rules on some temporary basis to provide for 80-acre spacing, and then possibly setting a date for a hearing in the next two, or three, or four months at the Commission's pleasure, to determine if the Bluitt San Andres Gas Pool should be perhaps expanded and redefined to

include this area as an associated oil and gas pool.

MR. NUTTER: When you were questioning your witness, Mr. Eaton, about waiting maybe one year to determine whether the drainage was effective or not on 80 acres, you were speaking strictly of drainage? You wouldn't suggest we wait that long to determine whether this is indeed a part of the Bluit San Andres Gas Pool?

MR. EATON: No, we would leave that up to the Commission how it should be best handled.

I have no further questions.

MR. NUTTER: Does anyone have any questions of Mr. Smith?

CROSS EXAMINATION

BY MR. NUTTER:

Q Mr. Smith, just how far away is the Todd San Andres Pool?

A I'd say thirteen to fifteen miles west of the Bluit Federal No. 1.

Q But the San Andres is more or less a blanket pay across this portion of Roosevelt and Lea County, and the apparent characteristics of the two pools are quite similar?

A Yes, sir.

Q I notice one characteristic of all the logs on your

cross-section, and all the logs you attached to Exhibits 3 through 6, that this anhydrite section is present?

A That is correct.

Q And the anhydrite section is present in the Todd section?

A Yes.

Q Is the anhydrite section productive?

A No, sir.

Q When you mentioned the perforations in the Ingram Well on the left of your exhibit here were not continuous, but were selective overall perforations, we can eliminate those perforations in the anhydrite?

A Yes, sir.

Q Now, we have two pools then in the Todd San Andres area?

A Yes, sir.

Q This thing has gone through quite a metamorphosis, as I recall. We started off with one pool, then we had an associated reservoir, and then the thing was split. What do we have now, a gas reservoir and an associated reservoir?

A That's right. I believe the gas, the Todd San Andres Gas Pool, is producing from the A zone of the Slaughter section,

and the Todd Lower San Andres produces oil and gas from the B zone.

Q That is your associated reservoir?

A Right. I know of no wells in the Todd San Andres Pool area where there is strictly an oil well in the A zone.

Q Although we do have some strictly oil wells in the B zone, as well as some gas wells?

A Yes, sir.

Q But everything that is in the Todd gas pool is from the A zone, and is a gas well?

A Yes, sir.

Q You haven't made any study of the Bluit, or prepared any cross-sections for anything other than this first well here, which is the extreme southeast well of the Bluit San Andres Gas Pool?

A The producing well, yes, sir. It is my understanding that other gas wells in that pool, in talking to Mr. Ingram, are also open in the A and the B section, but I do not have one on this cross-section.

Q And this would be the subject of another study to determine whether we do indeed have an associated reservoir here or not?

A Yes, sir.

Q Now, what kind of a gas-oil ratio do you have on your well here, Mr. Smith?

A I believe it is about 950 to 1. It is a low gas-oil ratio.

Q Do you know whether this Nearburg and Ingram well, which is the first well on your cross-section here, it is completed in the A zone and B zone, do you know whether that makes distillate or black oil, or what kind of liquid it does make?

A Not in detail. It was originally a gas well, but it is my understanding that gas production has declined, the oil production has declined. I do not believe that it is distillate. I believe it is black oil.

Q This would be further evidence, then, that we may have an oil ram on a gas pool here.

A It is a possibility.

Q The fact that the oil production has increased?

A I would think so. As far as I know, he has not gone into that well with packers to determine whether his oil is coming from that lower proration, which is in the top of the B zone, or whether it is coming from the A zone.

Q And you definitely have black oil here and not distillate, is that correct?

A Yes, sir. It is 25, I believe.

Q So that can't be distillate?

A No.

Q How long do you anticipate, Mr. Smith, that it would be before the well that you have started will be complete, and a test made on the well?

A It will take ten to twelve days to drill the well, and probably a week on the completion. I'd say fifteen days or three weeks, we will see the test on the well that we have just started.

Q Do you know whether Mr. Ingram has started his well or not, or if the location has merely been staked?

A It is my understanding the location is staked, and the location made, I believe.

Q In your conversation with him, has he stated when he expects to get the well started?

A Yes, sir, very soon. I imagine there is some rig problems.

Q But as far as you know, it will be drilled as soon as possible?

A Yes, sir.

MR. NUTTER: Any further questions of Mr. Smith in this case? You may be excused. Do you have anything further,

Mr. Eaton?

MR. EATON: Mr. Examiner, I do understand that Mr. Ingram has sent a telegram to the Commission.

MR. NUTTER: Yes, I believe we have that.

MR. EATON: Supporting the application?

MR. HATCH: The Commission has received one from Mr. Ingram in support, and the Commission also received a telegram dated November 26th from Kerr-McGee, addressed to the Commission, which I will read into the record. Regarding Case 3975, scheduled for hearing on December 2, 1968, this telegram will evidence Kerr-McGee Corporation's position with respect to Franklin, Aston & Fair request that 80-acre spacing prevail in the Bluit San Andres Area, Roosevelt County, New Mexico. Kerr-McGee does not concur in said request, and believes that one well will not drain 80 acres. Signed, Kerr-McGee Corporation, by James P. Ryan. I should point out that the Ingram telegram is in support of Franklin, Aston & Fair's application for 80-acre proration.

MR. EATON: I have talked to Mr. Ingram, and I do know that he supports the application en toto.

MR. NUTTER: Does anyone else have anything to offer in Case 3975? We will take the case under advisement.

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STATE OF NEW MEXICO)
) ss
 COUNTY OF BERNALILLO)

I, SAMUEL MORTELETTE, Court Reporter in and for the County of Bernalillo, State of New Mexico, do hereby certify that the foregoing and attached Transcript of Hearing before the New Mexico Oil Conservation Commission was reported by me, and that the same is a true and correct record of the said proceedings, to the best of my knowledge, skill and ability.

Samuel Mortelette
 COURT REPORTER

I do hereby certify that the foregoing is
 a complete record of the proceedings in
 the particular hearing of Case No. 3975
 heard by me on 12/2, 1968
William
 New Mexico Oil Conservation Commission

CLASS OF SERVICE
This is a fast message unless its deferred character is indicated by the proper symbol.

WESTERN UNION

TELEGRAM

W. P. MARSHALL
CHAIRMAN OF THE BOARD

R. W. MCFALL
PRESIDENT

SYMBOLS
DL=Day Letter
NL=Night Letter
LT=International Letter Telegram

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LA001 NSA632

1969 MAR 26 AM 7 28

NS A3A159 LM NL PDF=BRECKENRIDGE TEX 25=
OIL CONSERVATION COMMISSION=
SANTA FE NMEX

1969 MAR 26 AM 8 48

SWA

ATTENTION MR GEORGE HATCH=

CASE 3975 MARCH 6 WE RESPECTIVELY REQUEST GAS WELL TO GIVEN AN ALLOWABLE FLOOR SO THAT THEY WON'T BE UNECONOMIC IF OIL PRODUCTION SHOULD DROP SUBSTANTIALLY= PETROLEUM CORP OF TEX T A FORD.

WU1201(R2-65)

THE COMPANY WILL APPRECIATE SUGGESTIONS FROM ITS PATRONS CONCERNING ITS SERVICE

CLASS OF SERVICE
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WESTERN UNION

TELEGRAM

W. P. MARSHALL
CHAIRMAN OF THE BOARD

R. W. MCFALL
PRESIDENT

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LA021 KC040

(1923).

K TUB 029 CS NL PDB=FAX TULSA OKLA 24=
A L PORTER JR=

1969 MAR 24 AM 8 27

OIL CONSERVATION COMMISSION STATE LAND OFFICE
BLDG SANTA FE NMEX=

MAIN OFFICE

RE: CASE 3975 (REOPENED)

1969 MAR 24 AM 8 42

SKELLY OIL COMPANY AS INTERESTED OFFSET OWNER SUPPORTS THE RECOMMENDATIONS OF FRNKLIN, ASTON & FAIR FOR THE ADOPTION OF SPECIAL RULES FOR THE BLUITT-SAN ANDRES POOL, INCLUDING A PROVISION FOR 80-ACRE OIL SPACING AND 160-ACRE GAS SPACING=

SKELLY OIL CO GEORGE W SELINGER=

WU1201(R2-65)

THE COMPANY WILL APPRECIATE SUGGESTIONS FROM ITS PATRONS CONCERNING ITS SERVICE

CLASS OF SERVICE
This is a fast message
unless its deferred char-
acter is indicated by the
proper symbol.

WESTERN UNION

TELEGRAM

W. P. MARSHALL
CHAIRMAN OF THE BOARD

R. W. MCFALL
PRESIDENT

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LA187 SSB 559

69 MAR 1969 MAR 25 PM 6 04

L RWA035 NL PDP=ROSWELL NMEX 25=

OIL CONSERVATION COMMISSION=

STATE OF NEW MEXICO STATE LAND OFFICE BLDG SANTA FE
NMEX=

ATTENTION: A. L. PORTER, SECRETARY-DIRECTOR=

R: CASE NO. 3975, ORDER NO. R-3618 RODEN OIL COMPANY,
AN OPERATOR IN THE EAST BLUITT POOL, ROOSEVELT COUNTY,
NEW MEXICO, SUPPORTS THE POSITION OF EUGNE E. NEARBURG
AND FRANKLIN, ASTON & FAIR THAT THE BLUITT-SAN ANDRES AND
EAST BLUITT-SAN ANDRS ARE ONE POOL AS TO PRODUCTION FROM
THE P2 OR "B" ZONE OF THE SLAUGHTER AND RECOMMENDS THAT THE

WU1201 (12-65)

THE COMPANY WILL APPRECIATE SUGGESTIONS FROM ITS PATRONS CONCERNING ITS SERVICE

CLASS OF SERVICE
This is a fast message
unless its deferred char-
acter is indicated by the
proper symbol.

WESTERN UNION

TELEGRAM

W. P. MARSHALL
CHAIRMAN OF THE BOARD

R. W. MCFALL
PRESIDENT

SYMBOLS
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Letter Telegram

The filing time shown in the date line on domestic telegrams is LOCAL TIME at point of origin. Time of receipt is LOCAL TIME at point of destination.

TEMPORARY RULES IN ORDER R-3618 BE MADE PERMANENT AND
THAT DUE TO SIMILARITY BETWEEN THE BLUITT AND TODD POOLS
THAT A GAS WITHDRAWAL FORMULA SIMILAR TO ORDER R-1670-G
BE INCORPORATED IN THE FIELD RULES=

RODEN OIL CO BY JENNINGS AND COPPLE ITS ATTORNEYS=

=3975 R-3618 P2 "B" R-3618 R-1670-G=

WU1201 (12-65)

THE COMPANY WILL APPRECIATE SUGGESTIONS FROM ITS PATRONS CONCERNING ITS SERVICE

DOMESTIC SERVICE	
Check the class of service desired; otherwise this message will be sent as a fast telegram	
TELEGRAM	
DAY LETTER	
NIGHT LETTER	X

WESTERN UNION TELEGRAM

W. P. MARSHALL, PRESIDENT

INTERNATIONAL SERVICE	
Check the class of service desired; otherwise the message will be sent at the full rate	
FULL RATE	
LETTER TELEGRAM	
SHORE-SHIP	

NO. WDS.-CL. OF SVC.	PD. OR COLL.	CASH NO.	CHARGE TO THE ACCOUNT OF	TIME FILED
			Jennings & Copple P. O. Box 1180, Roswell	

Send the following message, subject to the terms on back hereof, which are hereby agreed to

OIL CONSERVATION COMMISSION
STATE OF NEW MEXICO
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO

ATTENTION: A. L. PORTER, SECRETARY-DIRECTOR

RE: CASE NO. 3975, ORDER NO. R-3618

RODEN OIL COMPANY, AN OPERATOR IN THE EAST BLUITT POOL, ROOSEVELT COUNTY, NEW MEXICO, SUPPORTS THE POSITION OF EUGENE E. NEARBURG AND FRANKLIN, ASTON & FAIR THAT THE BLUITT-SAN ANDRES AND EAST BLUITT-SAN ANDRES ARE ONE POOL AS TO PRODUCTION FROM THE P₂ OR "B" ZONE OF THE SLAUGHTER AND RECOMMENDS THAT THE TEMPORARY RULES IN ORDER R-3618 BE MADE PERMANENT AND THAT DUE TO

DOMESTIC SERVICE	
Check the class of service desired; otherwise this message will be sent as a fast telegram	
TELEGRAM	
DAY LETTER	
NIGHT LETTER	

WESTERN UNION TELEGRAM

W. P. MARSHALL, PRESIDENT

INTERNATIONAL SERVICE	
Check the class of service desired; otherwise the message will be sent at the full rate	
FULL RATE	
LETTER TELEGRAM	
SHORE-SHIP	

NO. WDS.-CL. OF SVC.	PD. OR COLL.	CASH NO.	CHARGE TO THE ACCOUNT OF	TIME FILED

Send the following message, subject to the terms on back hereof, which are hereby agreed to

SIMILARITY BETWEEN THE BLUITT AND TODD POOLS THAT A GAS WITHDRAWAL FORMULA SIMILAR TO ORDER R-1670-G BE INCORPORATED IN THE FIELD RULES.

RODEN OIL COMPANY

BY: JENNINGS & COPPLE, ITS ATTORNEYS

cc: Jason W. Kellahin, Esq.
Roden Oil Company
A. L. Porter - Confirmation

Confirmation Copy

DOMESTIC SERVICE	
Check the class of service desired, otherwise this message will be sent as a fast telegram.	
TELEGRAM	
DAY LETTER	
NIGHT LETTER	X

WESTERN UNION

TELEGRAM

W. P. MARSHALL, PRESIDENT

INTERNATIONAL SERVICE	
Check the class of service desired, otherwise the message will be sent at the full rate.	
FULL RATE	
LETTER TELEGRAM	
SHORE-SHIP	

NO. WDS.-CL. OF SVC.	PD. OR COLL.	CASH NO.	CHARGE TO THE ACCOUNT OF	TIME FILED
			622-3630	

Send the following message, subject to the terms on back hereof, which are hereby agreed to

Mr. A. L. Porter
New Mexico Oil Conservation Commission
Santa Fe, New Mexico

March 21, 1969

Re: Case No. 3975
Order No. R-3618

As an operator in the East Bluit Area, I believe that the Bluit-San Andres and East Bluit-San Andres are one pool insofar as the production coming from the P₂ or "B" Zone of the Slaughter. It is requested that the rules in Order R-3618 be made permanent. Due to the similarity between the East Bluit and the Todd Pools, it is further requested that a gas rule similar to that in Order R-1670-G be incorporated into the field rules.

Tom L. Ingram

CLASS OF SERVICE
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WESTERN UNION

TELEGRAM

W. P. MARSHALL
CHAIRMAN OF THE BOARDR. W. MCFALL
PRESIDENT

SYMBOLS
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LA064 SSJ235

(1005)

L RWA011 EJ NL HDF=ROSWELL NMEX 21=

1969 MAR 21 AM 10 23

A L PORTER=

NEW MEXICO OIL CONSERVATION COMMISSION MAIN OFFICE O.
SANTA FE NMEX=

69 MAR 21 AM 8 42

RE CASE NO. 3975 ORDER NO R-3618

AS AN OPERATOR IN THE EAST BLUITT AREA, I BELIEVE
THAT THE BLUITT-SAN ANDRES AND EAST BLUITT-SAN ANDRES
ARE ONE POOL INSOFAR AS THE PRODUCTION COMING FROM
THE P₂ OR "B" ZONE OF THE SLAUGHTER. IT IS REQUESTED
THAT THE RULES IN ORDER R-3618 BE MADE PERMANENT. DUE

CLASS OF SERVICE

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WESTERN UNION

TELEGRAM

W. P. MARSHALL
CHAIRMAN OF THE BOARD

R. W. MCFALL
PRESIDENT

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TO THE SIMILARITY BETWEEN THE EAST BLUITT AND THE
TODD POOLS, IT IS FURTHER REQUESTED THAT A GAS RULE
SIMILAR TO THAT IN ORDER R-1670-G BE INCORPORATED INTO
THE FIELD RULES.

TOM L INGRAM

WU1201 (R2-65)

THE COMPANY WILL APPRECIATE SUGGESTIONS FROM ITS PATRONS CONCERNING ITS SERVICE

12-1-1000 8-10-1000

County, _____

Township _____ Range _____ Township _____ Range _____

Township _____ Range _____ Township _____ Range _____

Form 104—(Four on Township)

6	5	4	3	2	1	0	5	4	3	2	1
7	8	9	10	11	12	7	8	9	10	11	12
18	17	16	15	14	13	18	17	16	15	14	13
19	20	21	22	23	24	19	20	21	22	23	24
30	29	28	27	26	25	30	29	28	27	26	25
31	32	33	34	35	36	31	32	33	34	35	36
6	5	4	3	2	1	6	5	4	3	2	1
7	8	9	10	11	12	7	8	9	10	11	12
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19	20	21	22	23	24	19	20	21	22	23	24
30	29	28	27	26	25	30	29	28	27	26	25
31	32	33	34	35	36	31	32	33	34	35	36

SC
EUGENE E. NEARBURG
3303 LEE PARKWAY
DALLAS, TEXAS 75219
SC

27 January 1969

file
Case 3975

TELEPHONE
214-521-0220

New Mexico Oil Conservation Commission
P. O. Box 2088
Santa Fe, New Mexico
Attn: Mr. Daniel S. Nutter

Subject: Continuance of hearing
File: Roosevelt County, New Mexico
E. Bluitt Field Area

Gentlemen:

You have set case 3975 on docket #4-69 for February 5, 1969 concerning a review of the provisions of order #R-3618 which deals with temporary rules for the E. Bluitt-San Andres Pool, Roosevelt County, New Mexico. The notice for this hearing states "all interested parties may appear and present evidence as to whether area is indeed a separate common source of supply or an extension of the Bluitt-San Andres gas pool."

Since the issuance of order #R-3618 on 9 December 1968, Franklin, Aston & Fair has completed two San Andres wells and Eugene E. Nearburg has completed one well in the San Andres. None of these wells has a high gas oil ratio. Franklin, Aston & Fair is in the process of attempting completion of the #1 Roden Federal, and Roden Oil Company is in the process of completing the #1 Roden Bluitt Federal, both structurally low wells on the extreme east side of the E. Bluitt Field. Nearburg has staked location and let contract for his #2 and #3 Baetz Federal wells which should provide useful additional information.

One of Nearburg's tests, the #2 Baetz Federal, is the most westerly location and should be the structurally highest in the E. Bluitt Field. This test and the #3 Baetz Federal will be drilled and completed in February 1969.

Because the information gathered to date has not proved the presence of a gas-oil contact in the E. Bluitt Field, and since the two wells planned by Nearburg could materially assist in understanding the connection between E. Bluitt-San Andres oil and Bluitt-San Andres gas fields, it is respectfully requested that the scheduled hearing be postponed until late March or early April 1969. This will allow time to digest the new information to be provided by the drilling and completion of Nearburg's tests. This time will also allow an opportunity to make several bottom hole pressure measurements and gas-oil ratio tests.

I have previously communicated with Franklin, Aston & Fair concerning this request for a continuance, and they are agreeable, and I am notifying by copy of this letter, the only other operator in the field, Roden Oil Company.

Sincerely,


Patrick J. Gratton

PJFG/ja

cc: Franklin, Aston & Fair
Attn: Mr. Tom Stephens

Southern Petroleum Expl.
Attn: Mr. Bill Hicks

Tom L. Ingram

Roden Oil Company
Attn: Mr. George Staley

Hinkle, Bondurant & Christy
Attn: Mr. Paul Eaton

OIL CONSERVATION COMMISSION

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

January 29, 1969

Eugene E. Nearburg
3303 Lee Parkway
Dallas, Texas 75219

DOCKET MAILED

Date 3/14/69

Attention: Mr. Patrick J. F. Gratton

Re: Case 3975

Gentlemen:

We are in receipt of your letter of January 27, 1969, regarding Case No. 3975 which is set for hearing on February 5 to consider whether the East Bluit San Andres Pool in Roosevelt County is a separate pool or is an extension of the Bluit San Andres Gas Pool, and to consider proper rules to govern the area whether it is found to be a separate pool or such an extension.

We agree with you that since there is considerable activity in the area, additional information should be soon forthcoming which will help the Commission to arrive at a more intelligent final determination of the matter. We will, therefore, continue Case No. 3975 to the examiner hearing scheduled for March 26, 1969.

At that time we will consider (1) whether the oil producing area east of the Bluit-San Andres Gas Pool constitutes a separate common source of supply, and if so, what the proper spacing and well location requirements for said pool should be and,

(2) whether the oil producing area east of the Bluit-San Andres Gas Pool constitutes an oil run on the gas pool and if so, what the proper spacing and well location requirements for both gas wells and oil wells should be; what the GOR and/or gravity breaking point for classification of wells as gas wells or oil wells should be; what the allocation formula to determine proper withdrawals from the gas cap and the oil run should be (a volumetric

OIL CONSERVATION COMMISSION

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

-2-

Eugene E. Nearburg
3303 Lee Parkway
Dallas, Texas 75219

January 29, 1969

Attention: Mr. Patrick J. F. Gratton

C
formula similar to that for the Todd Pool and as contained in Order No.
R-1670-G should probably be considered).

Very truly yours,

DANIEL S. NUTTER
Chief Engineer

O

P
D
S
N
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ir

Y

cc: Franklin, Aston & Fair
Post Office Box 1090
Roswell, New Mexico 88201

DOMESTIC SERVICE	
Check the class of service desired; otherwise this message will be sent as a fast telegram	
TELEGRAM	
DAY LETTER	
NIGHT LETTER	

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WESTERN UNION TELEGRAM

W. P. MARSHALL, PRESIDENT

1206 (1-55)

INTERNATIONAL SERVICE	
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LETTER TELEGRAM	
SHORE-SHIP	

NO. WDS.-CL. OF SVC.	PD. OR COLL.	CASH NO.	CHARGE TO THE ACCOUNT OF	TIME FILED

Send the following message, subject to the terms on back hereof, which are hereby agreed to

November 25, 1968

To: Mr. A. L. Porter
New Mexico Oil Conservation Commission
Santa Fe, New Mexico

Re: Case No. 3975

As offset operator, I concur with Franklin, Aston & Fair's application for 80-acre proration units.

Tom L. Ingram

*Case 3975
copy file*

90 8 AM 92 NOV 26

CLASS OF SERVICE
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WESTERN UNION TELEGRAM

W. P. MARSHALL
CHAIRMAN OF THE BOARD

R. W. McFALL
PRESIDENT

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LA052 SSK183

1968 NOV 25 AM 11 41

L RWA030 NL PD=ROSWELL NMEX 25

A L PORTER

NEW MEXICO OIL CONSERVATION COMMISSION SANTA FE NMEX

RE: CASE NO. 3975

AS OFFSET OPERATOR, I CONCUR WITH FRANKLIN, ASTON
AND FAIR'S APPLICATION FOR 80-ACRE PRORATION UNITS
TOM L INGRAM

MAN OFFICE

NOV 26 AM 8 50

CLASS OF SERVICE

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WESTERN UNION

TELEGRAM

W. P. MARSHALL
CHAIRMAN OF THE BOARD

R. W. P. (355) ALL

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BE C HHLA 21 30N BOSA 5 45

NS AMA344 PDB 3 EXTRA=AMARILLO TEX 26 355P CST=
OIL AND GAS CONSERVATION COMMISSION

ATTN A L PORTER JR= STATE LAND OFFICE SANTA FE NM
REGARDING CASE NUMBER 3975 SCHEDULED FOR HEARING ON DEC
2, 1968 THIS TELEGRAM WILL EVIDENCE KERR MCGEE CORP
POSITION WITH RESPECT TO FRANKLIN ASTON AND FAIR'S
REQUEST THAT 80 ACRE SPACING PREVAIL IN THE BLUITT AREA
ROOSEVELT COUNTY NMEX KERR MCGEE DOES NOT CONCUR WITH
SAID REQUEST AND BELIEVES THAT ONE WELL WILL NOT DRAIN
80 ACRES=

KERR MCGEE CORP JAMES P RYAN REGIONAL LAND SUPV=

WU1201(R2-65)

THE COMPANY WILL APPRECIATE SUGGESTIONS FROM ITS PATRONS CONCERNING ITS SERVICE

CLASS OF SERVICE

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WESTERN UNION

TELEGRAM

W. P. MARSHALL
CHAIRMAN OF THE BOARD

(845) ALL
PRESIDENT

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LA002 SPE461 DA315

1968 DEC 1 AM 8 22

D LLB309 PDF=DALLAS TEX 30 830P CST=

THE NEW MEXICO OIL CONSERVATION COMMISSION=

ATTN DAN NUTTER SANTA NMEX=

WE SUPPORT THE APPLICATION OF FRANKLIN, ASTON, AND FAIR
INC IN CASE 3975, DOCKET 37-68. AS A DIRECT OFF SET
OPERATOR WE STRONGLY URGE THE ADOPTION OF AD-ACRE SPACING
WITH OPERATOR'S CHOICE OF LOCATION=

EUGENE E NEARBURG=

DEC 2 AM 9 22

DOCKET MAILED

Date 1-23-69

(R2-65)

THE COMPANY WILL APPRECIATE SUGGESTIONS FROM ITS PATRONS CONCERNING ITS SERVICE

DOCKET: EXAMINER HEARING - WEDNESDAY - MARCH 26, 1969

9 A.M. - OIL CONSERVATION COMMISSION CONFERENCE ROOM,
STATE LAND OFFICE BUILDING - SANTA FE, NEW MEXICO

The following cases will be heard before Elvis A. Utz, Examiner, or Daniel S. Nutter, Alternate Examiner:

CASE 4078: Application of J. Gregory Merrion for downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks authority to commingle production from the Devils Fork-Gallup Pool and an undesignated Mesaverde oil pool in the well-bore of his NCRA State Well No. 3 located in Unit L of Section 16, Township 24 North, Range 6 West, Rio Arriba County, New Mexico.

CASE 4079: Application of Robert B. Holt for the creation of a new pool, assignment of a discovery allowable, and the promulgation of special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new Middle Pennsylvanian oil pool for his Aztec State Well No. 2 located in Unit A of Section 26, Township 13 South, Range 32 East, Lea County, New Mexico, and for the assignment of an oil discovery allowable in the amount of approximately 48,715 barrels to said well. Applicant further seeks the promulgation of special pool rules for said pool, including a provision for 160-acre proration units and the assignment of 80-acre allowables.

CASE 3975: (Reopened)

In the matter of Case No. 3975 being reopened pursuant to the provisions of Order No. R-3618, which order established 80-acre spacing units for the East Bluitt-San Andres Pool, Roosevelt County, New Mexico, for a period of approximately two months. All interested parties may appear and present evidence as to whether the subject area is indeed a separate common source of supply or an extension of the Bluitt-San Andres Gas Pool. Further, in the event said East Bluitt-San Andres Pool is found to be an extension of said Bluitt-San Andres Gas Pool, the Commission will consider the amendment of the Special Rules and Regulations governing the Bluitt-San Andres Gas Pool to provide for the classification of oil and gas wells, spacing and well location requirements for oil and gas wells, and an allocation formula for withdrawals from the gas cap and oil rim.

CASE 4080: Application of Monsanto Company for a unit agreement, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval of the Black River Unit Area comprising 14,961.23 acres, more or less, of State, Federal and Fee lands

DOCKET: EXAMINER HEARING - WEDNESDAY - FEBRUARY 5 1969

9 A.M. - OIL CONSERVATION COMMISSION CONFERENCE ROOM,
STATE LAND OFFICE BUILDING - SANTA FE, NEW MEXICO

The following cases will be heard before Daniel S. Nuttall, Examiner,
or Elvis A. Utz, Alternate Examiner:

CASE 4036: Application of Mobil Oil Corporation for a dual completion, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion (conventional) of its C. L. O'Brien Well No. 1 located in Unit A of Section 7 Township 8 South, Range 30 East, Chaves County, New Mexico, to produce oil from an undesignated Pennsylvanian oil pool and the Lightcap (Devonian) Pool through parallel strings of tubing.

CASE 3975 (Reopened):

In the matter of Case No. 3975 being reopened pursuant to the provisions of Order No. R-3618, which order established 80-acre spacing units for the East Bluitt-San Andres Pool, Roosevelt County, New Mexico, for a period of approximately two months. All interested parties may appear and present evidence as to whether the subject area is indeed a separate common source of supply or an extension of the Bluitt-San Andres Gas Pool.

CASE 4010: (Continued from December 27, 1968 and January 8, 1969 Examiner Hearings)

Application of John H. Trigg for a waterflood project, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project by the injection of water into the Grayburg-San Andres formations through his Empire "J" Federal Well No. 1 located in Unit P of Section 1, Township 18 South, Range 26 East, Red Lake Grayburg-San Andres Pool, Eddy County, New Mexico.

CASE 4037: Application of Anadarko Production Company for several waterflood projects and waterflood buffer zones, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute several waterflood projects by the injection of water into the Grayburg and San Andres formations of the Square Lake Pool by the conversion to water injection of its Etz Federal Well No. 3 and its Grier Well No. 14 located, respectively, in Sections 19 and 20 of Township 16 South, Range 31 East, Eddy County, New Mexico. Applicant further seeks the designation of the S/2 SW/4 of said Section 19, the N/2 SE/4 of said Section 19, and the N/2 SE/4 of said Section 20 as waterflood buffer zones with capacity allowables.

CASE 3973: Application of Taylor Pruitt for salt water disposal, Roosevelt County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the San Andres formation in the perforated interval from approximately 4088 to 4466 feet in the Humble-State Game Commission Well No. 3 located in Unit J of Section 26, Township 7 South, Range 32 East, Chaverco-San Andres Pool, Roosevelt County, New Mexico.

CASE 3974: Application of Franklin, Aston & Fair, Inc., for salt water disposal, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Abo formation in the intervals from 6762 feet to 6778 feet and from 6810 feet to 6832 feet in its Brigham H Well No. 2 located in the NW/4 SW/4 of Section 21, Township 17 South, Range 30 East, Loco Hills-Abo Pool, Eddy County, New Mexico.

CASE 3975: Application of Franklin, Aston & Fair, Inc. for the creation of a new oil pool and for special pool rules, Roosevelt County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new San Andres oil pool for its Bluitt Federal Well No. 1 located 1980 feet from the South line and 660 feet from the East line of Section 13, Township 8 South, Range 37 East, Roosevelt County, New Mexico, and for the promulgation of temporary special rules therefor including a provision for 80-acre spacing and proration units.

CASE 3976: Application of Franklin, Aston & Fair, Inc. for salt water disposal, Roosevelt County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the San Andres formation in the interval from 4315 feet to 4340 feet in its Mark Federal Well No. 5 located in Unit O of Section 25, Township 7 South, Range 35 East, Todd-Lower San Andres Pool, Roosevelt County, New Mexico.

CASE 3977: Application of Texas Pacific 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 Seven Rivers formation in the perforated interval from 3168 feet to 3196 feet in its Farnsworth "4" Well No. 7 located in Unit F of Section 4, Township 26 South, Range 37 East, Langlie-Mattix Pool, Lea County, New Mexico.

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:

CASE No. 3975
Order No. R-3618

NOMENCLATURE

APPLICATION OF FRANKLIN, ASTON &
FAIR, INC., FOR THE CREATION OF A
NEW OIL POOL AND FOR SPECIAL POOL
RULES, ROOSEVELT COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on December 2, 1968,
at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 9th day of December, 1968, 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 applicant, Franklin, Aston & Fair, Inc.,
seeks the creation of a new oil pool for San Andres production
in Roosevelt County, New Mexico, and the promulgation of special
rules and regulations governing said pool, including a provision
for 80-acre spacing units.

(3) That the Franklin, Aston & Fair, Inc., Bluitt Federal
Well No. 1, located 1980 feet from the South line and 660 feet
from the East line of Section 13, Township 8 South, Range 37 East,
NMPM, Roosevelt County, New Mexico, having its top perforations
at 4661 feet, has discovered what may be a separate common source
of supply which should be temporarily designated the East Bluitt-
San Andres Pool; that the vertical limits of said pool should be

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the San Andres formation; and that the horizontal limits of said pool should be the SE/4 of the aforesaid Section 13.

(4) That in order to prevent the economic loss caused by the drilling of unnecessary wells, to avoid the augmentation of risk arising from the drilling of an excessive number of wells, to prevent reduced recovery which might result from the drilling of too few wells, and to otherwise prevent waste and protect correlative rights, temporary special rules and regulations providing for 80-acre spacing units should be promulgated for the East Bluit-San Andres Pool.

(5) That the temporary special rules and regulations should provide for limited well locations in order to assure orderly development of the pool and protect correlative rights.

(6) That there is reason to believe that the subject area may not constitute a separate common source of supply, but that it may be an extension into an oil rim of the Bluit-San Andres Gas Pool.

(7) That this case should be reopened at an examiner hearing in February, 1969, at which time the operators in the subject area should be prepared to appear and present evidence whether the subject area is indeed a separate common source of supply or an extension of the Bluit-San Andres Gas Pool.

IT IS THEREFORE ORDERED:

(1) That a new pool in Roosevelt County, New Mexico, classified as an oil pool for San Andres production, is hereby created and designated the East Bluit-San Andres Pool, with vertical limits comprising the San Andres formation, and horizontal limits comprising the SE/4 of Section 13, Township 8 South, Range 37 East, NMPM, Roosevelt County, New Mexico.

(2) That temporary Special Rules and Regulations for the East Bluit-San Andres Pool, Roosevelt County, New Mexico, are hereby promulgated as follows:

SPECIAL RULES AND REGULATIONS
FOR THE
EAST BLUIT-SAN ANDRES POOL

RULE 1. Each well completed or recompleted in the East Bluit-San Andres Pool or in the San Andres formation within one mile

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thereof, and not nearer to or within the limits of another designated San Andres oil pool, shall be spaced, drilled, operated, and produced in accordance with the Special Rules and Regulations hereinafter set forth.

RULE 2. Each well shall be located on a standard unit containing 80 acres, more or less, consisting of the N/2, S/2, E/2, or W/2 of a governmental quarter section; provided, however, that nothing contained herein shall be construed as prohibiting the drilling of a well on each of the quarter-quarter sections in the unit.

RULE 3. The Secretary-Director of the Commission may grant an exception to the requirements of Rule 2 without notice and hearing when an application has been filed for a non-standard unit comprising a governmental quarter-quarter section or lot, or the unorthodox size or shape of the tract is due to a variation in the legal subdivision of the United States Public Land Surveys. All operators offsetting the proposed non-standard unit shall be notified of the application by registered or certified mail, and the application shall state that such notice has been furnished. The Secretary-Director may approve the application upon receipt of written waivers from all offset operators or if no offset operator has entered an objection to the formation of the non-standard unit within 30 days after the Secretary-Director has received the application.

RULE 4. Each well shall be located within 150 feet of the center of a governmental quarter-quarter section or lot.

RULE 5. The Secretary-Director may grant an exception to the requirements of Rule 4 without notice and hearing when an application has been filed for an unorthodox location necessitated by topographical conditions or the recompletion of a well previously drilled to another horizon. All operators offsetting the proposed location shall be notified of the application by registered or certified mail, and the application shall state that such notice has been furnished. The Secretary-Director may approve the application upon receipt of written waivers from all operators offsetting the proposed location or if no objection to the unorthodox location has been entered within 20 days after the Secretary-Director has received the application.

RULE 6. A standard proration unit (79 through 81 acres) shall be assigned an 80-acre proportional factor of 2.00 for

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allowable purposes, and in the event there is more than one well on an 80-acre proration unit, the operator may produce the allowable assigned to the unit from the wells on the unit in any proportion.

The allowable assigned to a non-standard proration unit shall bear the same ratio to a standard allowable as the acreage in such non-standard unit bears to 80 acres.

IT IS FURTHER ORDERED:

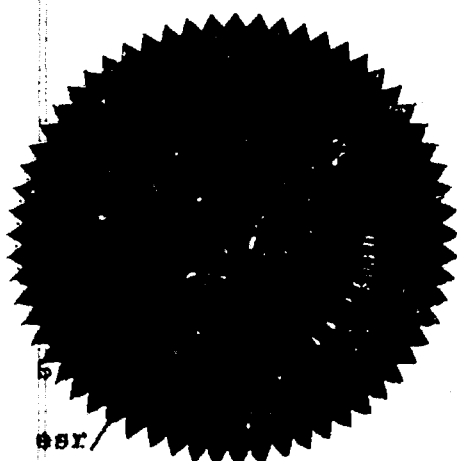
(1) That the locations of all wells presently drilling to or completed in the East Bluit-San Andres Pool or in the San Andres formation within one mile thereof are hereby approved; that the operator of any well having an unorthodox location shall notify the Hobbs District Office of the Commission in writing of the name and location of the well on or before December 20, 1968.

(2) That each well presently drilling to or completed in the East Bluit-San Andres Pool or in the San Andres formation within one mile thereof shall receive a 40-acre allowable until a Form C-102 dedicating 80 acres to the well has been filed with the Commission.

(3) That this case shall be reopened at an examiner hearing in February, 1969, at which time the operators in the subject area shall appear and present evidence whether the subject area is indeed a separate common source of supply or an extension of the Bluit-San Andres Gas Pool.

(4) 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.



STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

David F. Cargo
DAVID F. CARGO, Chairman

Gulton B. Hays
GULTON B. HAYS, Member

A. L. Porter, Jr.
A. L. PORTER, Jr., Member & Secretary

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:

CASE No. 3975
Order No. R-1670-I
NOMENCLATURE

APPLICATION OF FRANKLIN, ASTON &
FAIR, INC., FOR THE CREATION OF A
NEW OIL POOL AND FOR SPECIAL POOL
RULES, ROOSEVELT COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on March 26, 1969,
at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this 23rd day of July, 1969, 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 Order No. R-2665, dated March 13, 1964, created
the Bluitt-San Andres Gas Pool, Roosevelt County, New Mexico, and
promulgated Special Rules and Regulations therefor.

(3) That Order No. R-3618, dated December 9, 1968, created
the East Bluitt-San Andres Oil Pool, Roosevelt County, New Mexico,
and promulgated temporary Special Rules and Regulations therefor.

(4) That pursuant to the provisions of said Order No. R-3618,
Case 3975 was reopened to allow all interested parties to appear
and present evidence as to whether the East Bluitt-San Andres Oil
Pool is indeed a separate common source of supply or merely an

*Reopened for hearing
1. Order No. R-1670-I
2. Special Rules and Regulations*

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extension of the Bluit-San Andres Gas Pool, and in the event said East Bluit-San Andres Oil Pool is found to be an extension of said Bluit-San Andres Gas Pool, the amendment of the Special Rules and Regulations governing the Bluit-San Andres Gas Pool to provide for the classification of oil and gas wells, spacing and well location requirements of oil and gas wells, and an allocation formula for withdrawals from the gas cap and oil rim.

(5) That the evidence establishes that the East Bluit-San Andres Oil Pool is not a separate common source of supply but is an extension of the Bluit-San Andres Gas Pool.

(6) That while the said Bluit-San Andres Gas Pool is presently classified as a gas pool, the evidence adduced indicates it is, in fact, an associated oil and gas reservoir.

(7) That the Bluit-San Andres Gas Pool, the East Bluit-San Andres Oil Pool, and the Special Rules and Regulations governing said pools should be abolished.

(8) That a new pool in Roosevelt County, New Mexico, classified as an associated pool for the production of oil and gas from the San Andres formation and designated the Bluit-San Andres Associated Pool should be created and Special Rules and Regulations should be promulgated therefor.

(9) That in order to prevent the economic loss caused by the drilling of unnecessary wells, to avoid the augmentation of risk arising from the drilling of an excessive number of wells, to prevent reduced recovery which might result from the drilling of too few wells, and to otherwise prevent waste and protect correlative rights, the Special Rules and Regulations for the Bluit-San Andres Associated Pool should provide for 80-acre oil well spacing and proration units and 320-acre gas well spacing and proration units.

(10) That the Special Rules and Regulations should provide for limited well locations in order to assure orderly development of the pool and protect correlative rights.

(11) That the Special Rules and Regulations should provide for limited withdrawals from gas cap wells in order to prevent the migration of oil into the gas cap and resulting waste.

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IT IS THEREFORE ORDERED:

(1) That the Bluitt-San Andres Gas Pool and the East Bluitt-San Andres Oil Pool, both in Roosevelt County, New Mexico, and the Special Rules and Regulations governing said pools are hereby abolished.

(2) That a new pool in Roosevelt County, New Mexico, classified as an associated pool for the production of oil and gas from the San Andres formation, is hereby created and designated the Bluitt-San Andres Associated Pool, with vertical limits comprising the San Andres formation and horizontal limits comprising the following-described area:

TOWNSHIP 8 SOUTH, RANGE 37 EAST, NMPM

Section 5: All

Section 8: N/2

Sections 9, 10, and 11: All

Section 12: W/2

Sections 13 and 14: All

Section 24: NE/4

TOWNSHIP 8 SOUTH, RANGE 38 EAST, NMPM

Section 18: W/2 and SE/4

Section 19: NW/4

(3) That the Bluitt-San Andres Associated Pool shall be governed by the General Rules and Regulations Governing Prorated Gas Pools in Southeastern New Mexico promulgated by Order No. R-1670, as amended, insofar as said General Rules and Regulations are not inconsistent with the Special Rules and Regulations herein-after set forth.

(4) That Special Rules and Regulations for the Bluitt-San Andres Associated Pool are hereby promulgated as follows:

SPECIAL RULES AND REGULATIONS
FOR THE
BLUITT-SAN ANDRES ASSOCIATED POOL

A. WELL LOCATION AND ACREAGE REQUIREMENTS

RULE 1. Each well completed or recompleted in the Bluitt-San Andres Associated Pool or in the San Andres formation within one mile of the Bluitt-San Andres Associated Pool, and not nearer to

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or within the limits of another designated San Andres pool shall be spaced, drilled, operated, and produced in accordance with the Special Rules and Regulations hereinafter set forth.

RULE 2(A). Each gas well shall be located no nearer than 990 feet to the outer boundary of the quarter section and no nearer than 330 feet to any governmental quarter-quarter section line.

RULE 2(B). Each oil well shall be located within 150 feet of the center of a governmental quarter-quarter section.

RULE 2(C). In the event oil production is obtained in a well projected as a gas well and located in accordance with Rule 2(A) above but not in accordance with Rule 2(B) above, or in the event gas production is obtained in a well projected as an oil well and located in accordance with Rule 2(B) above but not in accordance with Rule 2(A) above, it shall be necessary for the operator to bring the matter to a hearing before approval for the production of hydrocarbons can be given. Such unorthodox location, if approved, may necessitate an allowable adjustment.

RULE 3. The Secretary-Director of the Commission may grant an exception to the requirements of Rule 2(A) or 2(B) without notice and hearing when an application has been filed for an unorthodox location necessitated by topographical conditions or the recompletion of a well previously drilled to another horizon. All operators offsetting the proposed unorthodox location shall be notified of the application by registered or certified mail, and the application shall state that such notice has been furnished. The Secretary-Director may approve the application upon receipt of written waivers from all offset operators or if no offset operator has entered an objection to the unorthodox location within 20 days after the Secretary-Director has received the application. Such unorthodox location, if approved, may necessitate an allowable adjustment.

RULE 4(A). Each gas well shall be located on a standard unit consisting of approximately 320 acres which shall comprise any two contiguous quarter sections of a single governmental section, being a legal subdivision (half section) of the United States Public Land Surveys. For purposes of these rules, a unit consisting of between 316 and 324 contiguous surface acres shall be considered a standard unit.

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RULE 4(B). For good cause shown, the Secretary-Director may grant an exception to the requirements of Rule 4(A) without notice and hearing where an application has been filed in due form and where the unorthodox size or shape of the tract is due to a variation in the legal subdivision of the United States Public Land Surveys, or where the following facts exist and the following provisions are complied with:

- (1) The non-standard unit consists of contiguous quarter-quarter sections or lots.
- (2) The non-standard unit consists of not more than 324 acres and lies wholly within a single governmental section.
- (3) The entire non-standard unit may reasonably be presumed to be productive of gas from said pool.
- (4) The applicant presents written consent in the form of waivers from all offset operators, and from all operators owning interests in the section in which any part of the non-standard unit is situated and which acreage is not included in the non-standard unit.
- (5) In lieu of Paragraph 4 of this Rule, the applicant may furnish proof of the fact that all of the aforesaid operators were notified by registered or certified mail of his intent to form such non-standard unit. The Secretary-Director may approve the application if, after a period of 30 days, no such operator has entered an objection to the formation of the non-standard unit.

RULE 5(A). Each oil well shall be located on a standard unit containing 80 acres, more or less, consisting of the N/2, S/2, E/2, or W/2 of a single governmental quarter section; provided, however, that nothing contained herein shall be construed as prohibiting the drilling of a well on each of the quarter-quarter sections in the unit. For purposes of these rules, a unit consisting of between 79 and 81 contiguous surface acres shall be considered a standard unit.

RULE 5(B). For good cause shown, the Secretary-Director may grant an exception to the requirements of Rule 5(A) above without notice

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and hearing where an application has been filed in due form, and where the unorthodox size or shape of the tract is due to a variation in the legal subdivision of the United States Public Land Surveys, or where the following facts exist and the following provisions are complied with:

- (1) The non-standard unit is to consist of a single quarter-quarter section or lot.
- (2) The non-standard unit contains less than 81 acres.
- (3) The entire non-standard unit may reasonably be presumed to be productive of oil from said pool.
- (4) The applicant presents written consent in the form of waivers from all offset operators.
- (5) In lieu of Paragraph 4 of this Rule, the applicant may furnish proof of the fact that all of the offset operators were notified by registered or certified mail of his intent to form such non-standard unit. The Secretary-Director may approve the application if, after a period of 30 days, no operator has entered an objection to the formation of such non-standard unit.

B. NOMINATION AND PRORATION SCHEDULE

RULE 6(A). (SEE ORDER NO. R-1670, AS AMENDED.)

RULE 6(B). (SEE ORDER NO. R-1670, AS AMENDED.)

RULE 7(A). (SEE ORDER NO. R-1670, AS AMENDED.)

RULE 7(B). (SEE ORDER NO. R-1670, AS AMENDED.)

C. ALLOCATION AND GRANTING OF ALLOWABLES

RULE 8(A). The total tentative gas allowable to be allocated to the pool shall be equal to the sum of the preliminary or supplemental nominations together with necessary adjustments. The pool gas allowable remaining each month after deducting the total allowable assigned to marginal wells shall be allocated among the non-marginal wells entitled to an allowable in the proportion that

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each well's acreage factor bears to the total of the acreage factors for all non-marginal wells in the pool.

Preliminary nominations for the first gas proration period (ten months, from September 1, 1969, to July 1, 1970) shall be filed with the Commission at least five days prior to the August, 1969, hearing. These nominations shall indicate the market demand for gas for the ensuing period and shall be subject to any necessary adjustments.

RULE 8(B)(1). No well shall be assigned an allowable until Form C-104 and Form C-116 have been filed together with a plat (Form C-102) showing the acreage dedicated to the well and the location of all wells on the unit. Form C-116 shall show, in addition to the information required thereon, the gravity of the liquid hydrocarbons produced on the test.

The District Supervisor of the Commission's Hobbs District Office is hereby authorized to assign a temporary gas allowable to wells connected to a gas transportation facility during the recovery of load oil, which allowable shall not exceed the number of cubic feet of gas obtained by multiplying the daily top unit allowable for the pool by 2000.

RULE 8(B)(2). A standard oil proration unit shall be assigned an 80-acre proportional factor of 2.00 for allowable purposes, and in the event there is more than one well on an 80-acre proration unit, the operator may produce the allowable assigned to the unit from the wells on the unit in any proportion. The allowable assigned to a non-standard proration unit shall bear the same ratio to a standard allowable as the acreage in such non-standard unit bears to 80 acres.

RULE 9(A). A gas well's "Acreage Factor" shall be determined to the nearest hundredth of a unit by dividing the acreage assigned to the well by 320 acres. An oil well's "Acreage Factor" shall be determined to the nearest hundredth of a unit by dividing the acreage assigned to the well by 80 acres.

RULE 9(B). Each oil well on an 80-acre oil proration unit shall be permitted to produce an amount of gas determined by multiplying the top unit oil allowable for the pool by the limiting gas-oil ratio for the pool (2000). In the event there is more than one oil well on an 80-acre oil proration unit, the operator may produce the allowable assigned to the unit from said wells in any proportion.

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RULE 9(C). Allowables to wells whose classification has changed from oil to gas or from gas to oil as the result of a gas-liquid ratio test shall commence on the first day of the month following the month in which such test was reported, provided a plat (Form C-102) showing the acreage dedicated to the well and the location of all wells on the dedicated acreage has been filed.

RULE 10(A). (SEE ORDER NO. R-1670, AS AMENDED.)

RULE 10(B). (SEE ORDER NO. R-1670, AS AMENDED.)

RULE 11: (SEE ORDER NO. R-1670, AS AMENDED.)

RULE 12. The full production of gas from each well, including drilling gas, shall be charged against the well's allowable regardless of the disposition of the gas; provided, however, that gas used in maintaining the producing ability of the well shall not be charged against the allowable.

D. BALANCING OF PRODUCTION

RULE 13(A). The initial gas proration period shall be from 7:00 o'clock a.m. on September 1, 1969, to 7:00 o'clock a.m. on July 1, 1970. Subsequently, the dates of 7:00 o'clock a.m. January 1st and 7:00 o'clock a.m. July 1st shall be known as balancing dates, and the periods of time bounded by these dates shall be known as the gas proration periods for the pool.

RULE 13(B)(1). The top 80-acre unit allowable for oil wells shall be determined each month by multiplying the Southeast New Mexico Normal Unit Allowable by the 80-acre proportional (depth) factor for said pool (2.00). The final allowable for the gas area of said pool shall be determined each six months for the preceding six-month period in accordance with the following formula:

$$V = \left[Q \times \left(\frac{A + \Delta A}{a + \Delta a} \right) \right] \left[(r_1 - r_2) + \left(\frac{T_{sc}}{T_{res}} \times \frac{P_{res}}{P_{sc}} \times \frac{1}{Z} \times B_o \times 5.61 \frac{ft^3}{bbl} \right) \right]$$

where:

V = The gas allowable for the gas area for the preceding six-month period and is equal to the volumetric gas equivalent of all production from the oil area during the preceding six-month period expressed in cubic feet rounded off to the nearest MCF.

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Q = Total oil production from the oil area during the preceding six-month period, barrels.

(A + ΔA) = Total acres dedicated to gas wells during preceding six-month period.

(a + Δa) = Total acres dedicated to oil wells during preceding six-month period.

(Note: "A" and "a" represent acreage dedicated to gas wells and to oil wells respectively for the entire six-month period. ΔA and Δa represent acreage so dedicated for only a portion of the six-month period. In the event a well is completed or reclassified during a six-month period ΔA and/or Δa shall be computed as follows:

$$\Delta A = A \left(\frac{d}{D} \right) \qquad \Delta a = a \left(\frac{d}{D} \right)$$

where:

ΔA or Δa = acreage to be added to gas or oil area, respectively.

A or a = acreage dedicated to the well.

d = number of days during proration period during which well was completed as gas well or as oil well and was so classified.

D = total number of days in proration period.)

r_1 = Average producing GOR for oil area during preceding six-month period. (Determined by dividing total cubic feet of casinghead gas produced by total barrels of oil produced.)

r_2 = Solution GOR for the oil area at P_{res} . (r_2 determined from Solution GOR Tabulation in Special Rule 13(C).)

T_{sc} = Temperature at standard conditions = 60° F or 520° R.

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T_{res} = Initial bottom-hole temperature 111° F
or 571° R.

P_{res} = Average reservoir pressure based on most
recent bottom-hole pressure survey as
provided in Special Rule 28.

P_{sc} = Pressure at standard conditions. (15.025 psia.)

Z = Deviation factor for gas at P_{res} and at 111° F.
(Z factor determined from gas Deviation Factor
Tabulation in Special Rule 13(C).)

B_o = Oil reservoir factor at P_{res} . (B_o determined
from Oil Reservoir Volume Factor Tabulation in
Special Rule 13(C).)

RULE 13(B)(2). (a) The volumetric equivalent of gas for the gas area determined in (1) above shall be compared with the actual production from the gas area.

RULE 13(B)(2). (b) If the actual production from the gas area exceeds such volumetric equivalent plus any permitted production remaining as determined in (c) below, then the nominations and purchases by gas purchasers during the succeeding six-month period shall be adjusted by the Commission so that the volumetric withdrawals from the gas area shall be restricted for the purpose of balancing the cumulative equivalent volumetric withdrawals from each area.

RULE 13(B)(2). (c) If the actual production from the gas area is less than the volumetric equivalent for the gas area then no adjustments will be made but the difference between the volumes will be carried forward as permitted production of gas from the gas area in subsequent balancing periods.

RULE 13(C). The following values of r_2 , Solution Gas-Oil Ratio, Z , Gas Deviation Factor, and B_o , Oil Reservoir Volume Factor, for the various values of P_{res} , Average Reservoir Pressure, shall be used in computing the volumetric equivalent of gas per Special Rule 13(B):

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P_{res} Average Reservoir Pressure, Psia	r_2 Solution GOR $Ft^3 / Bbl.$	Z Gas Deviation Factor	B_o Oil Reservoir Volume Factor
1200	392	.855	1.199
1100	372	.859	1.191
1000	350	.865	1.183
900	329	.876	1.175
800	306	.884	1.166
700	283	.898	1.157
600	260	.907	1.148
500	234	.919	1.138
400	208	.927	1.127
300	180	.946	1.116
200	147	.960	1.020
100	116	.974	1.089

RULE 14(A). (SEE ORDER NO. R-1670, AS AMENDED.)

RULE 14(B). (SEE ORDER NO. R-1670, AS AMENDED.)

RULE 15(A). Overproduction: Any well which has an overproduced status as of the end of a gas proration period shall carry such overproduction forward into the next gas proration period, provided that such overproduction shall be made up during such succeeding period. Any well which has not made up the overproduction carried into a gas proration period by the end of such proration period shall be shut in until such overproduction is made up. If, at any time, a well is overproduced an amount equalling three times its current monthly allowable, it shall be shut in during that month, and each succeeding month until the well is overproduced less than three times its current monthly allowable.

RULE 15(B). (SEE ORDER NO. R-1670, AS AMENDED.)

RULE 15(C). (SEE ORDER NO. R-1670, AS AMENDED.)

RULE 15(D). (SEE ORDER NO. R-1670, AS AMENDED.)

E. CLASSIFICATION OF WELLS

RULE 16(A). (SEE ORDER NO. R-1670, AS AMENDED.)

RULE 16(B). (SEE ORDER NO. R-1670, AS AMENDED.)

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RULE 17. (SEE ORDER NO. R-1670, AS AMENDED.)

RULE 18. (SEE ORDER NO. R-1670, AS AMENDED.)

RULE 19. (SEE ORDER NO. R-1670, AS AMENDED.)

RULE 20. (SEE ORDER NO. R-1670, AS AMENDED.)

F. REPORTING OF PRODUCTION

RULE 21(A). (SEE ORDER NO. R-1670, AS AMENDED.)

RULE 21(B). (SEE ORDER NO. R-1670, AS AMENDED.)

RULE 21(C). (SEE ORDER NO. R-1670, AS AMENDED.)

RULE 21(D). (SEE ORDER NO. R-1670, AS AMENDED.)

G. GENERAL

RULE 22. No gas, either dry gas or casinghead gas, produced from the pool shall be flared or vented except as otherwise provided in these Special Rules and Regulations. All gas produced, whether dry gas or casinghead gas and regardless of final disposition thereof, shall be constantly and accurately measured.

RULE 23. (SEE ORDER NO. R-1670, AS AMENDED.)

RULE 24. (SEE ORDER NO. R-1670, AS AMENDED.)

H. MISCELLANEOUS SPECIAL POOL RULES

RULE 25. A gas well in the pool shall be a well producing with a gas-liquid ratio of 30,000 cubic feet of gas per barrel of liquid hydrocarbons, or more, or any well which produces liquid hydrocarbons with a gravity of 60° API or greater.

An oil well in the pool shall be a well producing with a gas-liquid ratio of less than 30,000 cubic feet of gas per barrel of liquid hydrocarbons and which produces liquid hydrocarbons with a gravity of less than 60° API.

RULE 26. The operator of each newly completed well in the pool shall cause a gas-liquid ratio test to be taken on said well upon

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recovery of all load oil from the well; provided, however, that in no event shall the test be commenced later than 30 days from the date of first production unless the well is connected to a gas-gathering facility and is producing under a temporary gas allowable assigned in accordance with Rule 8(A) above. Provided, however, that any well which is shut in shall be exempted from the aforesaid gas-liquid ratio test requirements so long as it remains shut in. The initial gas-liquid ratio test shall be taken in the manner prescribed by Special Rule 27 below. If the gas-liquid ratio is 30,000 cubic feet of gas per barrel of liquid hydrocarbons, or more, or the gravity of the liquid hydrocarbons is 60° API, or greater, the operator shall not produce the well until beneficial use can be made of the gas.

No gas shall be flared or vented from any well classified as an oil well more than 60 days after the well begins to produce. Exceptions may be granted administratively by the Secretary-Director if the request sets forth facts and circumstances justifying such exception.

RULE 27. Gas-liquid ratio tests shall be taken on all wells in the pool and on all wells producing from the San Andres formation within one mile of the boundaries of the pool which are not within another designated San Andres pool during the months of January, April, July, and October of each year. The initial gas-liquid ratio test shall suffice as the first quarterly test. Tests shall be 24-hour tests, being the final 24 hours of a 72-hour period during which the well shall be produced at a constant normal rate of production. Results of such tests shall be filed on Commission Form C-116 on or before the 10th day of the following month. At least 72 hours prior to commencement of any such gas-liquid ratio test, each operator shall file with the Hobbs District Office of the Commission a test schedule for its wells specifying the time each of its wells is to be tested. Copies of the test schedule shall also be furnished to all offset operators.

Special tests shall also be taken at the request of the Secretary-Director and may also be taken at the option of the operator. Such special tests shall be taken in accordance with the procedures outlined hereinabove, including notification to the Commission and offset operators.

RULE 28. The average reservoir pressure shall be determined during the months of March and September each year after the well has been shut in for a minimum of three days. Pressures shall be calculated

to a common datum, which shall be the approximate depth of the gas-oil contact (-560 feet subsea). The pressure on individual wells shall be determined in the following manner:

- (1) Subsurface pressure tests shall be taken on all wells, gas and oil, in accordance with the procedure outlined in Statewide Rule 302, except with respect to shut-in time and datum as provided above. Pressures of pumping oil wells may be calculated from sonic fluid level determinations.
- (2) Information obtained on these tests shall be reported on Form C-124 in accordance with the provisions of Statewide Rules 302 and 1124, and the Commission shall use the arithmetic average of the pressures so reported for the pressure, P_{res} , in the calculations as provided in Special Rule 13(B).

RULE 29. The gas-oil ratio limitation for the pool shall be 2000 cubic feet of gas per barrel of liquid hydrocarbons produced.

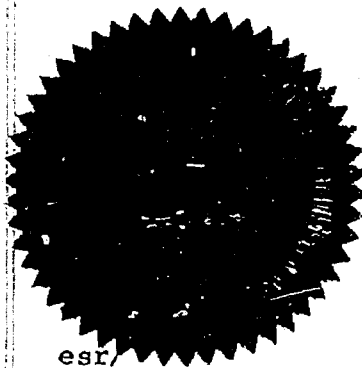
RULE 30. No acreage shall be simultaneously dedicated to an oil well and to a gas well in the pool.

IT IS FURTHER ORDERED:

(1) That any well presently drilling to or completed in the San Andres formation within the Bluit-San Andres Associated Pool or within one mile of said pool that would not comply with the well location requirements of Rules 2(A) and 2(B) is hereby granted an exception to said rules. The operator shall notify the Hobbs District Office of the Commission in writing of the name and location of the well on or before September 1, 1969.

(2) 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.



STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

DAVID F. CARGO, Chairman

ALEX J. ARMIJO, Member

A. L. PORTER, Jr., Member & Secretary

esr

1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 2677, 2678, 26

1. *Journal of the American Medical Association*, 1990; 263: 1033-1036.

... ..

1. *Journal of the American Medical Association*, 1997; 277: 1033-1037.

[illegible]

Lithological Abbreviations

[illegible]

WHOLE-CORE ANALYSIS

CORE NO. 2 4680-4730

1	4680.0-51.8	<0.1	<0.1	1.1	0.0	90.4	DOL, SL/FRAC
2	51.8-53.4	0.1	0.1	2.3	8.4	51.7	DOL, SL/FRAC
3	53.4-55.0	0.1	0.1	3.8	14.6	32.1	DOL, SL/FRAC
4	55.0-56.7	1.1	1.1	4.4	10.8	38.3	DOL, SL/FRAC
5	56.7-58.3	0.6	0.4	5.6	7.9	34.1	DOL, SL/FRAC
6	58.3-59.9	0.1	0.1	7.2	10.6	22.5	DOL, SL/FRAC
7	59.9-61.6	72	0.1	11.5	14.7	19.2	DOL, FRAC
8	61.6-62.8	3.0	0.5	8.8	4.7	28.6	DOL, FRAC
9	62.8-64.2	0.5	0.3	7.3	3	31.0	DOL, FRAC
10	64.2-65.6	3.9	0.9	9.0	13.2	23.7	DOL, FRAC
11	65.6-67.0	0.6	0.4	6.6	9.6	30.1	DOL, FRAC
12	67.0-68.4	37	0.2	3.4	9.0	49.8	DOL, SL/FRAC
13	68.4-69.9	*1.0	*0.9	10.8	6.2	33.9	DOL, FRAC, SL/VGY
14	69.9-71.0	*0.1	*0.1	4.1	14.2	52.8	DOL, FRAC, SL/VGY
15	4701.0-72.6	*<0.1	*<0.1	3.2	14.3	36.5	DOL, FRAC, SL/VGY
16	72.6-74.4	3.6	0.6	4.5	3.1	29.3	DOL, VGY, SL/FRAC
17	74.4-76.0	3.4	<0.1	4.3	12.7	45.7	DOL, SL/FRAC
18	76.0-77.5	26	0.1	6.5	5.5	31.1	DOL, FRAC
19	77.5-79.0	0.1	0.1	5.8	11.8	27.6	DOL
20	79.0-80.6	0.3	0.2	5.8	3.5	46.7	DOL, SL/FRAC, SL/VGY
21	80.6-81.8	0.5	0.1	5.5	16.1	29.9	DOL, VGY
22	81.8-83.5	0.1	0.1	1.5	5.3	78.8	DOL, FRAC, SL/VGY
23	83.5-84.8	0.3	0.1	1.3	11.2	71.2	DOL, FRAC
24	84.8-86.4	0.2	0.1	3.5	9.4	28.3	DOL, FRAC
25	86.4-88.0	0.1	0.1	2.6	10.9	46.5	DOL, FRAC
26	88.0-89.0	<0.1	<0.1	1.5	0.0	93.5	DOL

19.0-28.0 ACRY & DOL

28.0-30.0 LOST CORE

These analyses, opinions or interpretations are based on observations and materials supplied by the client to whom, and for whose exclusive and confidential use, this report is made. The interpretations or opinions expressed represent the best judgment of Core Laboratories, Inc., and errors and omissions excepted; but Core Laboratories, Inc., and its officers and employees, assume no responsibility and make no warranty or representation, as to the productivity, proper operation or, profit, adequacy of any oil, gas or other mineral well or sand in connection with which such report is used or relied upon.

BEFORE EXAMINER UTZ
OIL CONSERVATION COMMISSION
EXHIBIT NO. 5
CASE NO. 3775

DRAFT

GMH/esr

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:

RECORDS CENTER & LAW LIBRARY

CASE No. 3975

Order No. R- 3618

NOMENCLATURE

APPLICATION OF FRANKLIN, ASTON &
FAIR, INC., FOR THE CREATION OF A
NEW OIL POOL AND FOR SPECIAL POOL
RULES, ROOSEVELT COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on December 2, 1968,
at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this day of December, 1968, 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 applicant, Franklin, Aston & Fair, Inc.,
seeks the creation of a new oil pool for San Andres production
in Roosevelt County, New Mexico, and the promulgation of special
rules and regulations governing said pool, including a provision
for 80-acre spacing units.

(3) That the Franklin, Aston & Fair, Inc., Bluit Federal
Well No. 1, located 1980 feet from the South line and 660 feet
from the East line of Section 13, Township 8 South, Range 37
East, NMPM, Roosevelt County, New Mexico, having its top perfora-
tions at 4661 feet, ^{what may be} has discovered a separate common source
of supply which should be ^{temporarily} designated the East Bluit -

San Andres Pool; that the vertical limits of said pool should be the San Andres formation; and that the horizontal limits of said pool should be the SE 1/4 of the aforesaid Section 13.

(4) That in order to prevent the economic loss caused by the drilling of unnecessary wells, to avoid the augmentation of risk arising from the drilling of an excessive number of wells, to prevent reduced recovery which might result from the drilling of too few wells, and to otherwise prevent waste and protect correlative rights, temporary special rules and regulations providing for 80-acre spacing units should be promulgated for the East Blinitt -San Andres Pool.

(5) That the temporary special rules and regulations should provide for limited well locations in order to assure orderly development of the pool and protect correlative rights.

(6) That the temporary special rules and regulations should be established for a one-year period in order to allow the operators in the subject pool to gather reservoir information to establish the area that can be efficiently and economically drained and developed by one well.

(7) That this case should be reopened at an examiner hearing in February, 1969, at which time the operators in the subject area ~~pool~~ should be prepared to appear and ~~show cause why the~~ ^{present evidence whether it is indeed} ~~a separate common source of supply or an extension of the Blinitt~~ San Andres Pool ~~should not be developed~~ on 40-acre spacing units.

IT IS THEREFORE ORDERED:

(1) That a new pool in Roosevelt County, New Mexico, classified as an oil pool for San Andres production, is hereby created and designated the East Blinitt -San Andres Pool, with vertical limits comprising the San Andres formation, and horizontal

(6) That there is reason to believe that the subject area may not constitute a separate common source of supply, but that it may be an extension into an oil pool of the Blinitt San Andres Pool.

limits comprising the BSE/4 of Section 13, Township 3 South, Range 37 East, NMPM, Roosevelt County, New Mexico.

(2) That temporary Special Rules and Regulations for the East Blount -San Andres Pool, Roosevelt County, New Mexico, are hereby promulgated as follows:

SPECIAL RULES AND REGULATIONS

East Blount FOR THE -SAN ANDRES POOL

RULE 1. Each well completed or recompleted in the East Blount -San Andres Pool or in the San Andres formation within one mile thereof, and not nearer to or within the limits of another designated San Andres oil pool, shall be spaced, drilled, operated, and produced in accordance with the Special Rules and Regulations hereinafter set forth.

RULE 2. Each well shall be located on a standard unit containing 80 acres, more or less, consisting of the N/2, S/2, E/2, or W/2 of a governmental quarter section; provided, however, that nothing contained herein shall be construed as prohibiting the drilling of a well on each of the quarter-quarter sections in the unit.

RULE 3. The Secretary-Director of the Commission may grant an exception to the requirements of Rule 2 without notice and hearing when an application has been filed for a non-standard unit comprising a governmental quarter-quarter section or lot, or the unorthodox size or shape of the tract is due to a variation in the legal subdivision of the United States Public Land Surveys. All operators offsetting the proposed non-standard unit shall be notified of the application by registered or certified mail, and the application shall state that such notice has been furnished. The Secretary-Director may approve the application upon receipt of written waivers from all offset operators or if no offset operator has entered an objection to the formation of the non-standard unit within 30 days after the Secretary-Director has received the application.

RULE 4. Each well shall be located within 150 feet of the center of a governmental quarter-quarter section or lot.

RULE 5. The Secretary-Director may grant an exception to the requirements of Rule 4 without notice and hearing when an application has been filed for an unorthodox location necessitated by topographical conditions or the recompletion of a well previously drilled to another horizon. All operators offsetting the proposed location shall be notified of the application by

registered or certified mail, and the application shall state that such notice has been furnished. The Secretary-Director may approve the application upon receipt of written waivers from all operators offsetting the proposed location or if no objection to the unorthodox location has been entered within 20 days after the Secretary-Director has received the application.

RULE 6. A standard proration unit (79 through 81 acres) shall be assigned an 80-acre proportional factor of 2.00 for allowable purposes, and in the event there is more than one well on an 80-acre proration unit, the operator may produce the allowable assigned to the unit from the wells on the unit in any proportion.

The allowable assigned to a non-standard proration unit shall bear the same ratio to a standard allowable as the acreage in such non-standard unit bears to 80 acres.

IT IS FURTHER ORDERED:

(1) That the locations of all wells presently drilling to or completed in the East Blount -San Andres Pool or in the San Andres formation within one mile thereof are hereby approved; that the operator of any well having an unorthodox location shall notify the Hobbs District Office of the Commission in writing of the name and location of the well on or before December 20, 1968.

(2) That each well presently drilling to or completed in the East Blount -San Andres Pool or in the San Andres formation within one mile thereof shall receive a 40-acre allowable until a Form C-102 dedicating 80 acres to the well has been filed with the Commission.

(3) That this case shall be reopened at an examiner hearing in February, 1969, at which time the operators in the subject pool ^{shall} ~~may~~ appear and ~~show cause why the~~ ^{present evidence indicates the subject area is indeed} ~~a separate common reservoir~~ ^{is a separate common reservoir} ~~of the~~ ^{of the} ~~San Andres Pool should not be developed on 40-acre spacing units.~~

(4) 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.

CORE LABORATORIES, INC.

Petroleum Reservoir Engineering

DALLAS, TEXAS 75207

May 14, 1969

RESERVOIR FLUID ANALYSIS

Franklin, Aston & Fair, Inc.
P. O. Box 1090
Roswell, New Mexico

Attention: Mr. Grant Smith

Subject: Reservoir Fluid Study
Shaw No. 2 Well
East Bluit Field
Roosevelt County, New Mexico
Our File Number: RFL 5733

Gentlemen:

Subsurface fluid samples were collected from the subject well by a representative of Core Laboratories, Inc. on April 10, 1969. These samples were delivered to our laboratory in Dallas where they were used in a reservoir fluid study. The results of the study are presented in this report.

The fluid was charged to a visual cell and heated to the reservoir temperature of 111° F. At this temperature, the fluid was found to have a bubble point pressure of 1234 psig. This is very near the sampling pressure of 1266 psig, and it is considered likely that the fluid is saturated in the formation.

The fluid was subjected to differential pressure depletion and evolved 398 standard cubic feet of gas per barrel of residual oil. The associated formation volume factor was determined to be 1.201 barrels of saturated fluid per barrel of residual oil. The liquid viscosity varied from a minimum of 1.74 centipoises at the saturation pressure to a maximum of 4.71 centipoises at atmospheric pressure during a similar liberation.

Separator tests were performed at room temperature to evaluate the effect of pressure on surface separation. These tests indicate that the optimum

Franklin, Aston & Fair, Inc.
Shaw No. 2 Well

Page Two

separator pressure is approximately 80 psig. The reservoir fluid composition was measured by low temperature, fractional distillation.

It was a pleasure to perform this reservoir fluid study for you. Please let us know if you have any questions or if we may be of any further service.

Very truly yours,

Core Laboratories, Inc.
Reservoir Fluid Analysis



P. L. Moses
Manager

PLM:JB:dr

2 cc. - Addressee

1 cc. - Mr. Pat Gratton
Eugene E. Nearburg
Dallas, Texas

2 cc. - Mr. Elvis Utz
New Mexico Oil Conservation Commission
Santa Fe, New Mexico

CORE LABORATORIES, INC.
Petroleum Reservoir Engineering
DALLAS, TEXAS

Page 1 of 11

File RFL 5733

Company Franklin, Aston & Fair, Inc. Date Sampled April 10, 1969
Well Shaw No. 2 County Roosevelt
Field East Bluit State New Mexico

FORMATION CHARACTERISTICS

Formation Name San Andres
Date First Well Completed _____, 19____
Original Reservoir Pressure _____ PSIG @ _____ Ft.
Original Produced Gas-Oil Ratio _____ SCF/Bbl
Production Rate _____ Bbl/Day
Separator Pressure and Temperature _____ PSIG. _____ °F.
Oil Gravity at 60° F. 27 °API
Datum 680 Ft. Subsea
Original Gas Cap _____

WELL CHARACTERISTICS

Elevation 4000 Ft.
Total Depth 4730 Ft.
Producing Interval 4680-4720 Ft.
Tubing Size and Depth 2-3/8 In. to 4596 Ft.
Productivity Index _____ Bbl/D/PSI @ _____ Bbl/Day
Last Reservoir Pressure 1266 PSIG @ 4560 Ft.
Date April 10, 1969
Reservoir Temperature 110* °F. @ 4560 Ft.
Status of Well Shut in
Pressure Gauge Amerada
Normal Production Rate 125-150 Bbl/Day
Gas-Oil Ratio 460 SCF/Bbl
Separator Pressure and Temperature 11 PSIG, 125 °F.
Base Pressure _____ PSIA
Well Making Water None % Cut

SAMPLING CONDITIONS

Sampled at 4560 Ft.
Status of Well Shut in 22 hours
Gas-Oil Ratio _____ SCF/Bbl
Separator Pressure and Temperature _____ PSIG, _____ °F.
Tubing Pressure 8 PSIG
Casing Pressure _____ PSIG
Core Laboratories Engineer HM
Type Sampler Wofford

REMARKS:

* Temperature extrapolated to mid-point of producing interval = 111° F.

CORE LABORATORIES, INC.
Petroleum Reservoir Engineering
DALLAS, TEXAS

Page 2 of 11
File RFL 5733
Well Shaw No. 2

VOLUMETRIC DATA OF Reservoir Fluid SAMPLE

1. Saturation pressure (bubble-point pressure) 1234 PSIG @ 111 °F.
2. Thermal expansion of saturated oil @ 5000 PSI = $\frac{V @ 111 \text{ } ^\circ\text{F}}{V @ 71 \text{ } ^\circ\text{F}}$ = 1.01869
3. Compressibility of saturated oil @ reservoir temperature: Vol/Vol/PSI:

From 5000 PSI to 3500 PSI = 6.26×10^{-6}
From 3500 PSI to 2000 PSI = 6.92×10^{-6}
From 2000 PSI to 1234 PSI = 7.96×10^{-6}
4. Specific volume at saturation pressure: ft ³/lb 0.01966 @ 111 °F.

These analyses, opinions or interpretations are based on observations and material supplied by the client to whom, and for whose exclusive and confidential use, this report is made. The interpretations or opinions expressed represent the best judgment of Core Laboratories, Inc. (all errors and omissions excepted); but Core Laboratories, Inc. and its officers and employees, assume no responsibility and make no warranty or representations as to the productivity, proper operation, or profitability of any oil, gas or other mineral well or sand in connection with which such report is used or relied upon.

CORE LABORATORIES, INC.

Petroleum Reservoir Engineering

DALLAS, TEXAS 75207

Page 3 of 11

File RFL 5733

Well Shaw No. 2

Reservoir Fluid SAMPLE TABULAR DATA

PRESSURE PSI GAUGE	PRESSURE-VOLUME RELATION @ 111 °F. RELATIVE VOLUME OF OIL AND GAS, V/V_{SAT}	VISCOSITY OF OIL @ 111 °F. CENTIPOISES	DIFFERENTIAL LIBERATION @ 111 °F.		
			GAS/OIL RATIO LIBERATED PER BARREL OF RESIDUAL OIL	GAS/OIL RATIO IN SOLUTION PER BARREL OF RESIDUAL OIL	RELATIVE OIL VOLUME, V/V_R
5000	0.9743	2.29			1.170
4500	0.9772				1.174
4000	0.9803	2.14			1.177
3500	0.9836				1.181
3000	0.9868	2.00			1.185
2500	0.9903	1.92			1.189
2000	0.9939	1.85			1.194
1700	0.9962				1.196
1600	0.9970				1.197
1500	0.9978	1.78			1.198
1400	0.9986				1.199
1300	0.9995				1.200
1234	1.0000	1.74	0	398	1.201
1229	1.0019				
1224	1.0034				
1215	1.0071				
1182	1.0160				
1133	1.0311				
1100		1.79	26	372	1.191
1065	1.0559				
1000	1.0842				
995		1.84	48	350	1.183
920	1.1297				
900		1.89	69	329	1.175
822	1.1961				
800		1.95	92	306	1.166
740	1.2742				
700		2.01	115	283	1.157
648	1.3808				
600		2.11			
598			138	260	1.148
568	1.5178				
508	1.6701				

 V = Volume at given pressure V_{SAT} = Volume at saturation pressure and the specified temperature. V_R = Residual oil volume at 14.7 PSI absolute and 60° F.

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CORE LABORATORIES, INC.

Petroleum Reservoir Engineering

DALLAS, TEXAS 75207

Page 4 of 11

File RFL 5733

Well Shaw No. 2

Reservoir Fluid SAMPLE TABULAR DATA

PRESSURE PSI GAUGE	PRESSURE-VOLUME RELATION @ 111 °F.. RELATIVE VOLUME OF OIL AND GAS, V/V_{SAT}	VISCOSITY OF OIL @ 111 °F.. CENTIPOISES	DIFFERENTIAL LIBERATION @ 111 °F.		
			GAS/OIL RATIO LIBERATED PER BARREL OF RESIDUAL OIL	GAS/OIL RATIO IN SOLUTION PER BARREL OF RESIDUAL OIL	RELATIVE OIL VOLUME, V/V_R
500		2.21	164	234	1.138
415	1.9605				
400		2.34	190	208	1.127
320	2.4149				
296		2.49	218	180	1.116
232	3.2537				
195		2.80	251	147	1.102
117		3.13	282	116	1.089
0		4.71	398	0	1.022

@ 60° F. = 1.000

Gravity of residual oil = 28.0° API @ 60° F.

v = Volume at given pressure

 V_{SAT} = Volume at saturation pressure and the specified temperature. V_R = Residual oil volume at 14.7 PSI absolute and 60° F.

These analyses, opinions or interpretations are based on observations and material supplied by the client to whom, and for whose exclusive and confidential use, this report is made. The interpretations or opinions expressed represent the best judgment of Core Laboratories, Inc. (all errors and omissions excepted); but Core Laboratories, Inc. and its officers and employees, assume no responsibility and make no warranty or representations as to the productivity, proper operation, or profitability of any oil, gas or other mineral well or sand in connection with which such report is used or relied upon.

CORE LABORATORIES, INC.
Petroleum Reservoir Engineering
DALLAS, TEXAS

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File RFL 5733

Well Shaw No. 2

Differential Pressure Depletion at 111° F.

<u>Pressure</u> <u>PSIG</u>	<u>Oil Density</u> <u>Gms Cc</u>	<u>Gas</u> <u>Gravity</u>	<u>Deviation Factor</u> <u>Z</u>
1234	0.8149		
1100	0.8176	0.805	0.859
995	0.8202	0.806	0.865
900	0.8229	0.809	0.876
800	0.8256	0.819	0.884
700	0.8285	0.827	0.898
598	0.8312	0.841	0.907
500	0.8344	0.860	0.919
400	0.8377	0.888	0.927
296	0.8411	0.932	0.946
195	0.8451	1.010	0.960
117	0.8482	1.122	
0	0.8675	1.473	

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CORE LABORATORIES, INC.
Petroleum Reservoir Engineering
DALLAS, TEXAS

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File RFL 5733

Well Shaw No. 2

SEPARATOR TESTS OF Reservoir Fluid SAMPLE

SEPARATOR PRESSURE. PSI GAUGE	SEPARATOR TEMPERATURE. ° F.	SEPARATOR GAS/OIL RATIO See Foot Note (1)	STOCK TANK GAS/OIL RATIO See Foot Note (1)	STOCK TANK GRAVITY. ° API @ 60° F.	SHRINKAGE FACTOR. V _R /V _{SAT} . See Foot Note (2)	FORMATION VOLUME FACTOR. V _{SAT} /V _R See Foot Note (3)	SPECIFIC GRAVITY OF FLASHED GAS
0	74	432		27.4	0.8118	1.232	1.123
30	74	362	23	28.4	0.8301	1.205	
60	74	330	44	28.6	0.8360	1.196	
120	73	292	86	28.5	0.8357	1.197	

- (1) Separator and Stock Tank Gas/Oil Ratio in cubic feet of gas @ 60° F. and 14.7 PSI absolute per barrel of stock tank oil @ 60° F.
- (2) Shrinkage Factor: V_R/V_{SAT} is barrels of stock tank oil @ 60° F. per barrel of saturated oil @ 1234 PSI gauge and 111° F.
- (3) Formation Volume Factor: V_{SAT}/V_R is barrels of saturated oil @ 1234 PSI gauge and 111° F. per barrel of stock tank oil @ 60° F.

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CORE LABORATORIES, INC.
Petroleum Reservoir Engineering
DALLAS, TEXAS

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File RFL 5733

Company Franklin, Aston & Fair, Inc. Formation San Andres
Well Shaw No. 2 County Roosevelt
Field East Bluff State New Mexico

HYDROCARBON ANALYSIS OF Reservoir Fluid SAMPLE

COMPONENT	MOL PER CENT	WEIGHT PER CENT	DENSITY @ 60° F. GRAMS PER CUBIC CENTIMETER	° API @ 60° F.	MOLECULAR WEIGHT
Hydrogen Sulfide	1.92	0.49			
Carbon Dioxide	5.67	1.89			
Nitrogen	0.63	0.14			
Methane	19.42	2.35			
Ethane	5.67	1.28			
Propane	6.23	2.08			
iso-Butane	1.39	0.61			
n-Butane	3.93	1.72			
iso-Pentane	1.86	1.01			
n-Pentane	1.93	1.05			
Hexanes	3.91	2.53			
Heptanes plus	47.44	84.85	0.9092	23.8	237
	100.00	100.00			

Core Laboratories, Inc.
Reservoir Fluid Analysis

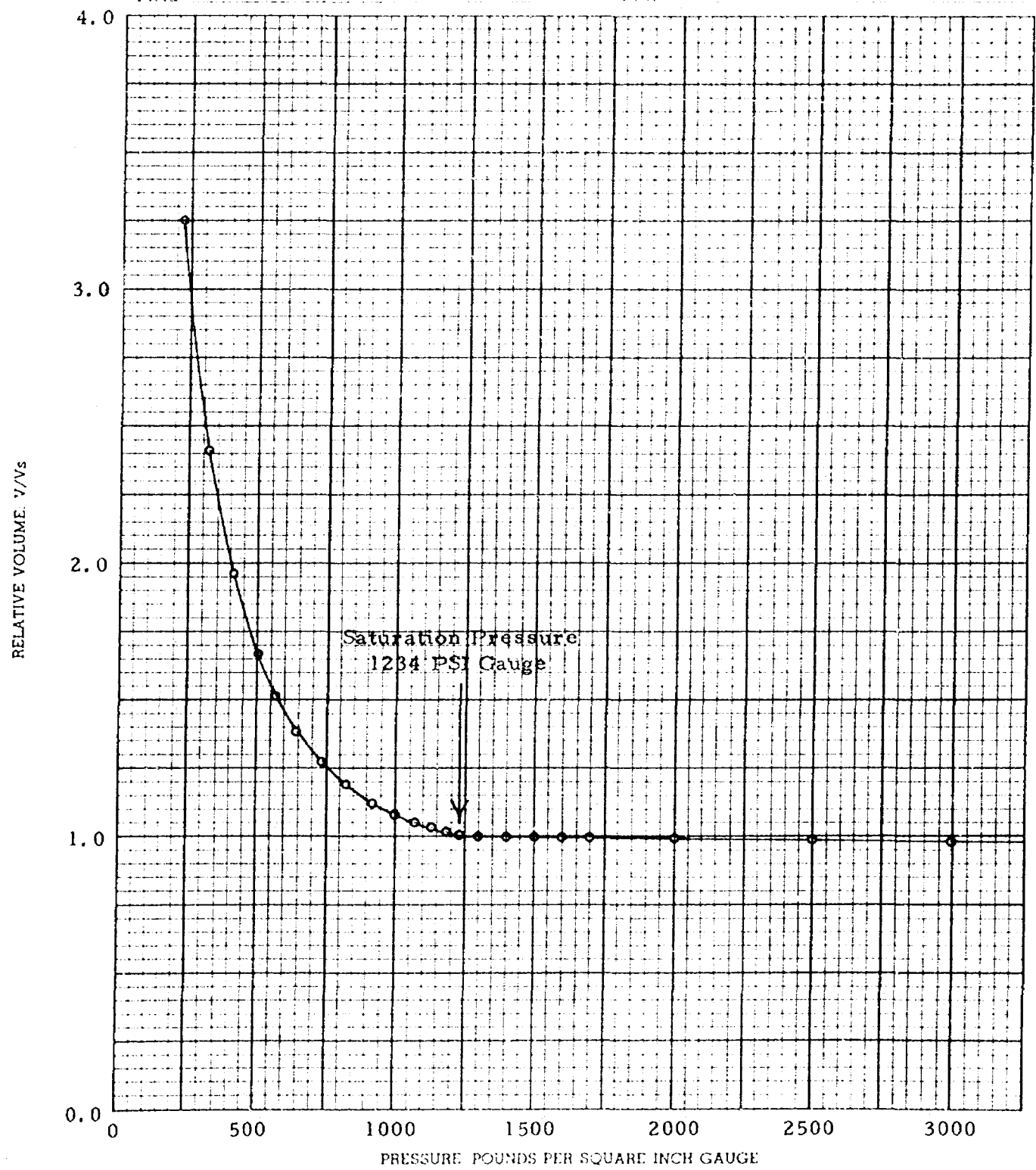
P. L. Moses

P. L. Moses
Manager

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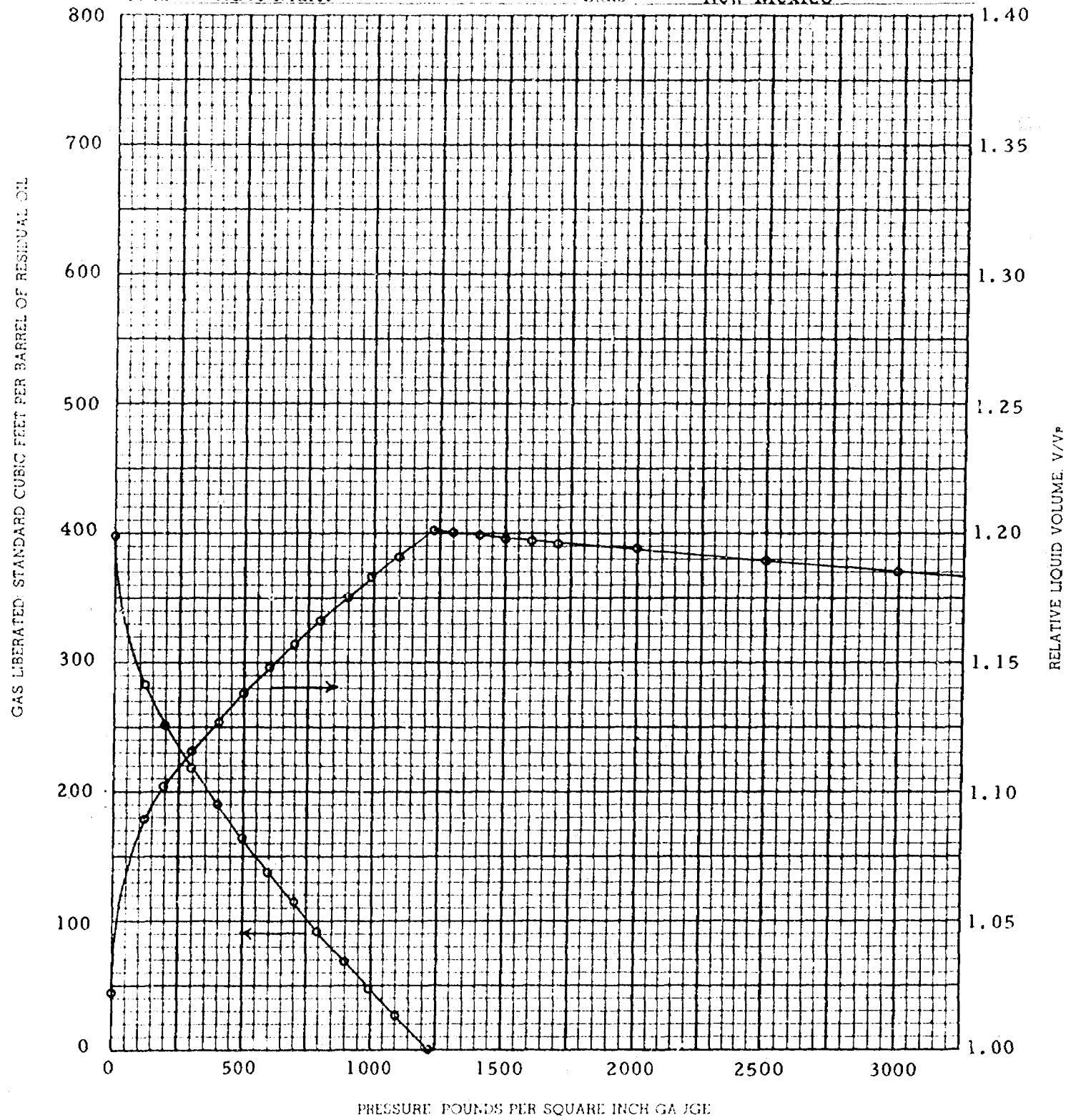
PRESSURE-VOLUME RELATIONS OF RESERVOIR FLUID

Company	Franklin, Aston & Fair, Inc.	Formation	San Andres
Well	Shaw No. 2	County	Roosevelt
Field	East Bluit	State	New Mexico



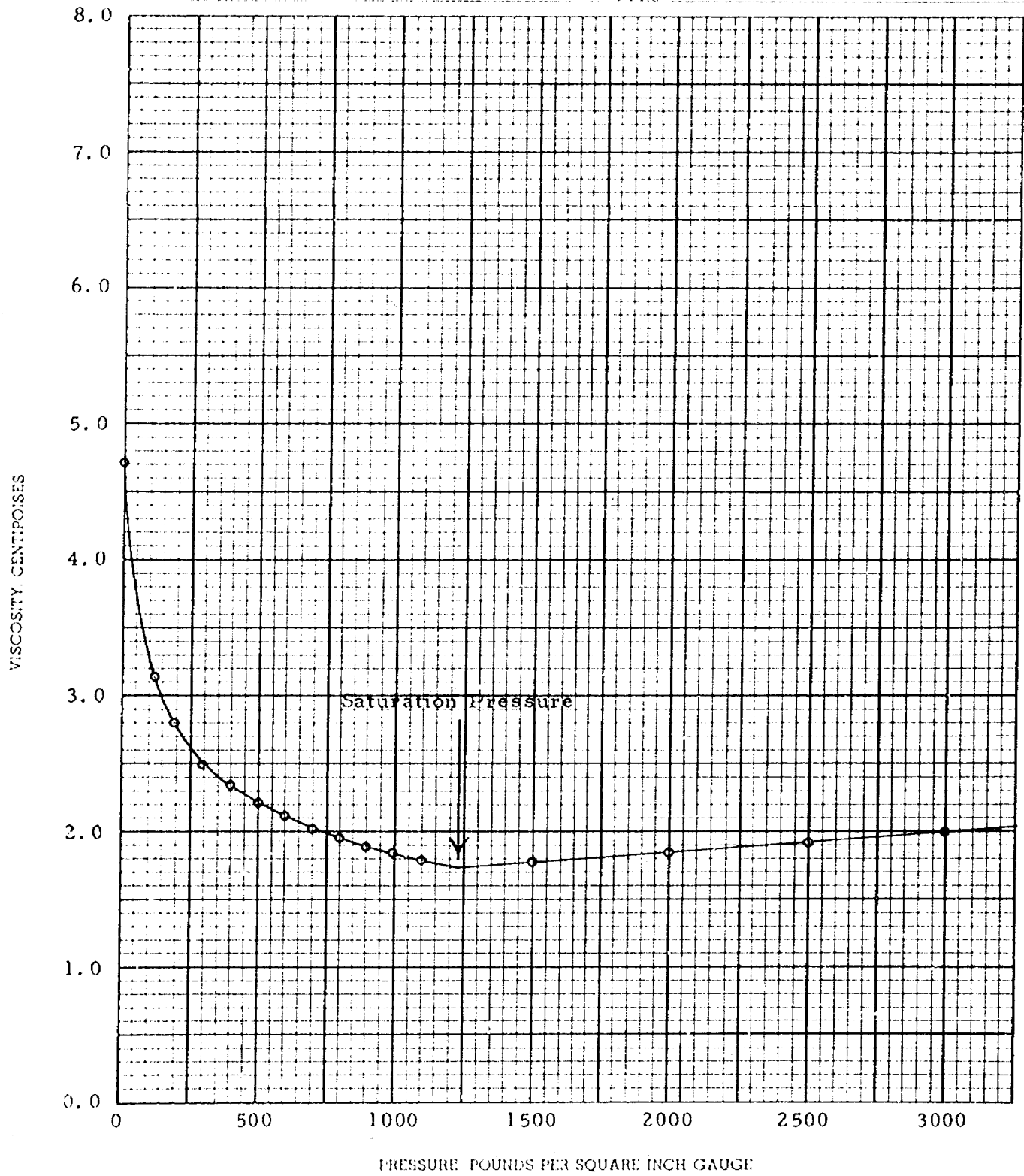
DIFFERENTIAL VAPORIZATION OF RESERVOIR FLUID

Company	Franklin, Aston & Fair, Inc.	Formation	San Andres
Well	Shaw No. 2	County	Roosevelt
Field	East Bluit	State	New Mexico

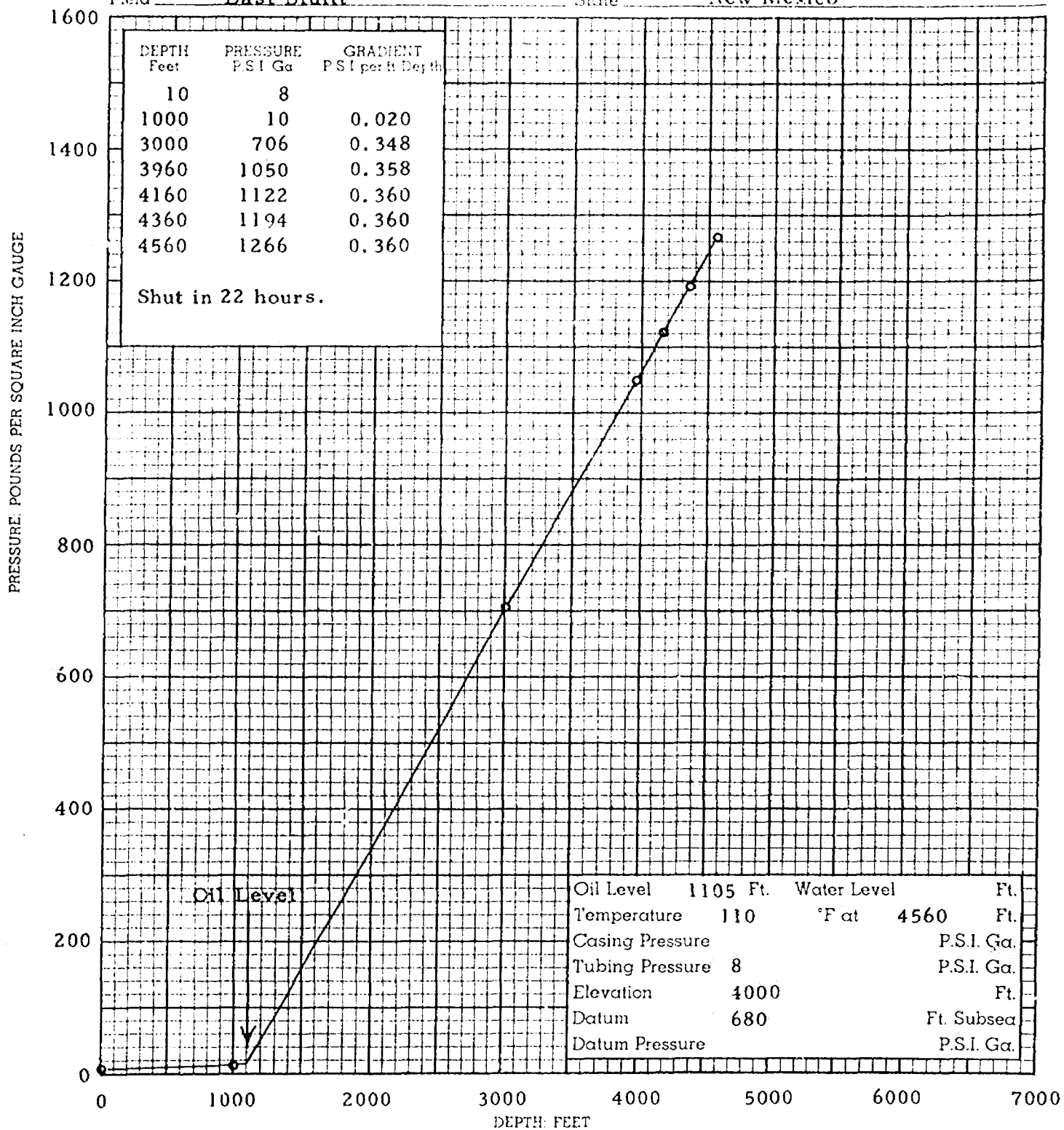


VISCOSITY OF RESERVOIR FLUID

Company	Franklin, Aston & Fair, Inc.	Formation	San Andres
Well	Shaw No. 2	County	Roosevelt
Field	East Bluff	State	New Mexico



Company Franklin, Aston & Fair, Inc. Formation San Andres
Well Shaw No. 2 County Roosevelt
Field East Bluit State New Mexico



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October 30, 1968

TELEPHONE (505) 622-6510
POST OFFICE BOX 10

Call 3975

New Mexico Oil Conservation
Commission
P. O. Box 2088
Santa Fe, New Mexico

Oct 31 AM 8 29

Gentlemen:

We enclose triplicate copies of an Application of Franklin, Aston & Fair, Inc. for creation of a new oil pool and promulgation of temporary special pool rules in Roosevelt County. We would like an examiner's hearing as promptly as possible.

Yours very truly,

HINKLE, BONDURANT & CHRISTY

Paul W. Eaton, Jr.
Paul W. Eaton, Jr.

PWE/jw
Enclosure

60 Oct 31 AM 8 16

cc: Franklin, Aston & Fair, Inc.

DOCKET MAILED

Date 3/14/69

DOCKET MAILED

Date 1-23-69

DOCKET MAILED

Date 11-21-68

68 Oct 31 AM 8 29

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

APPLICATION OF FRANKLIN, ASTON & FAIR,)
INC. FOR CREATION OF NEW OIL POOL AND)
FOR TEMPORARY SPECIAL POOL RULES,)
ROOSEVELT COUNTY, NEW MEXICO.)

Case No 3925

Franklin, Aston & Fair, Inc. herewith makes application for creation of a new oil pool and promulgation of temporary special pool rules, including 80 acre spacing units and 80 acre allowable, and states:

1. On October 17, 1968 applicant completed a well capable of producing oil in paying quantities from the B section of the Slaughter zone of the San Andres formation in the perforated interval of 4,661 feet to 4,680 feet. Said well is designated the Franklin, Aston & Fair Bluitt Federal No. 1 and is located 1,980 feet from the south line and 660 feet from the east line of Section 13, Township 8 South, Range 37 East, N.M.P.M., Roosevelt County, New Mexico.

2. Applicant proposes to commence a second well in the immediate vicinity of the discovery well, but at a location which would constitute an 80 acre spacing unit pattern.

3. The characteristics of the discovery well are such that, until the characteristics of the San Andres pool can be further determined from additional wells, the establishment of 80 acre well spacing and 80 acre allowable on a temporary basis will avoid the drilling of unnecessary wells, will avoid the augmentation of

risk arising from the drilling of an excessive number of wells,
and will otherwise prevent waste and protect correlative rights.

4. Applicant desires a hearing before an examiner as
promptly as possible.

HINKLE, BONDURANT & CHRISTY

By Paul D. Lator, Jr.
P.O. Box 10
Roswell, New Mexico
Attorneys for Franklin,
Aston & Fair, Inc.

DRAFT

GMH/esr

July 11, 1969

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:

RECORDS CENTER

CASE No. 3975

Order No. R-1670-I
NOMENCLATURE

APPLICATION OF FRANKLIN, ASTON &
FAIR, INC., FOR THE CREATION OF A
NEW OIL POOL AND FOR SPECIAL POOL
RULES, ROOSEVELT COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on March 26, 1969,
at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this day of July, 1969, 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 Order No. R-2665, dated March 13, 1964, created
the Bluitt-San Andres Gas Pool, Roosevelt County, New Mexico, and
promulgated Special Rules and Regulations therefor.

(3) That Order No. R-3618, dated December 9, 1968, created
the East Bluitt-San Andres ^{Oil} Pool, Roosevelt County, New Mexico, and
promulgated temporary Special Rules and Regulations therefor.

(4) That pursuant to the provisions of said Order No. R-3618,
Case 3975 was reopened to allow all interested parties to appear
and present evidence as to whether the East Bluitt-San Andres ^{Oil}
Pool is indeed a separate common source of supply or merely an
extension of the Bluitt-San Andres Gas Pool, and in the event
said East Bluitt-San Andres ^{Oil} Pool is found to be an extension of

said Bluit-San Andres Gas Pool, the amendment of the Special Rules and Regulations governing the Bluit-San Andres Gas Pool to provide for the classification of oil and gas wells, ^{spacing and well location requirements} and an allocation formula for withdrawals from the gas cap and oil rim.

(5) That the evidence establishes that the East Bluit-San Andres ^{oil} Pool is not a separate common source of supply but is ~~merely~~ an extension of the Bluit-San Andres Gas Pool.

(6) That while the said Bluit-San Andres Gas Pool is presently classified as a gas pool, the evidence adduced indicates it is, in fact, an associated oil and gas reservoir.

(7) That the Bluit-San Andres Gas Pool, the East Bluit-San Andres ^{oil} Pool, and the Special Rules and Regulations governing said pools should be abolished.

(8) That a new pool in Roosevelt County, New Mexico, classified as an associated pool for the production of oil and gas from the San Andres formation and designated the Bluit-San Andres Associated Pool should be created and Special Rules and Regulations should be promulgated therefor.

(9) That in order to prevent the economic loss caused by the drilling of unnecessary wells, to avoid the augmentation of risk arising from the drilling of an excessive number of wells, to prevent reduced recovery which might result from the drilling of too few wells, and to otherwise prevent waste and protect correlative rights, ^{the} Special Rules and Regulations ^{for the Bluit-San Andres} provided for 80-acre oil well spacing and proration units and 320-acre gas well spacing and proration units, ~~should be promulgated for the Bluit-San Andres Associated Pool.~~

(10) That the Special Rules and Regulations should provide for limited well locations in order to assure orderly development of the pool and protect correlative rights.

oil and gas wells, pool and gas wells, pool should

(11) That the Special Rules and Regulations should provide for limited withdrawals from gas cap wells in order to prevent the migration of oil into the gas cap and resulting waste.

IT IS THEREFORE ORDERED:

(1) That the Bluitt-San Andres Gas Pool and the East Bluitt-San Andres Pool, both in Roosevelt County, New Mexico, and the Special Rules and Regulations governing said pools are hereby abolished.

(2) That a new pool in Roosevelt County, New Mexico, classified as an associated pool for the production of oil and gas from the San Andres formation, is hereby created and designated the Bluitt-San Andres Associated Pool, with vertical limits comprising the San Andres formation and horizontal limits comprising the following-described area:

TOWNSHIP 8 SOUTH, RANGE 37 EAST, NMPM

Section 5: All
Section 8: N/2
Sections 9, 10, and 11: All
Section 12: W/2
Sections 13 and 14: All
Section 24: NE/4

TOWNSHIP 8 SOUTH, RANGE 38 EAST, NMPM

Section 18: W/2 & SE/4
Section 19: NW/4

(3) That the Bluitt-San Andres Associated Pool shall be governed by the General Rules and Regulations Governing Prorated Gas Pools in Southeastern New Mexico promulgated by Order No. R-1670, as amended, insofar as said General Rules and Regulations are not inconsistent with the Special Rules and Regulations hereinafter set forth.

(4) That Special Rules and Regulations for the Bluitt-San Andres Associated Pool are hereby promulgated as follows:

SPECIAL RULES AND REGULATIONS
FOR THE
BLUITT-SAN ANDRES ASSOCIATED POOL

A. WELL LOCATION AND ACREAGE REQUIREMENTS

RULE 1. Each well completed or recompleted in the Bluit-San Andres Associated Pool or in the San Andres formation within one mile of the Bluit-San Andres Associated Pool, and not nearer to or within the limits of another designated San Andres Pool shall be spaced, drilled, operated, and produced in accordance with the Special Rules and Regulations hereinafter set forth.

RULE 2(A). Each gas well shall be located ~~in the northeast quarter or the southwest quarter of the section and shall be located~~ nearer than ~~660~~²²⁰ feet to the outer boundary of the quarter section and no nearer than 330 feet to any governmental quarter-quarter section line.

RULE 2(B). Each oil well shall be located within ¹⁵⁰~~200~~ feet of the center of a governmental quarter-quarter section.

RULE 2(C). In the event oil production is obtained in a well projected as a gas well and located in accordance with Rule 2(A) above but not in accordance with Rule 2(B) above, or in the event gas production is obtained in a well projected as an oil well and located in accordance with Rule 2(B) above but not in accordance with Rule 2(A) above, it shall be necessary for the operator to bring the matter to a hearing before approval for the production of hydrocarbons can be given. Such unorthodox location, if approved, may necessitate an allowable adjustment.

RULE 3. The Secretary-Director of the Commission may grant an exception to the ~~spacing~~ requirements of Rule 2(A) or 2(B) without notice and hearing when an application has been filed for an unorthodox location necessitated by topographical conditions or the recompletion of a well previously drilled to another horizon. All operators offsetting the proposed unorthodox location shall be notified of the application by registered or certified mail, and the application shall state that such notice has been furnished. The Secretary-Director may approve the application upon receipt of written waivers from all offset operators or if no offset operator has entered an objection to the unorthodox location within 20 days after the Secretary-Director has received the application. Such unorthodox location, if approved, may necessitate an allowable adjustment.

RULE 4(A). Each gas well shall be located on a standard unit consisting of approximately 320 acres which shall comprise any two contiguous quarter sections of a single governmental section, being a legal subdivision (half section) of the United States Public Land Surveys. For purposes of these rules, a unit consisting of between 316 and 324 contiguous surface acres shall be considered a standard unit.

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CASE No. ~~3298~~ 3975

Order No. R-~~1670~~ 1670-I

RULE 4(B). For good cause shown, the Secretary-Director may grant an exception to the requirements of Rule 4(A) without notice and hearing where an application has been filed in due form and where the unorthodox size or shape of the tract is due to a variation in the legal subdivision of the United States Public Land. Surveys, or where the following facts exist and the following provisions are complied with:

- (1) The non-standard unit consists of contiguous quarter-quarter sections or lots.
- (2) The non-standard unit consists of not more than 324 acres and lies wholly within a single governmental section.
- (3) The entire non-standard unit may reasonably be presumed to be productive of gas from said pool.
- (4) The applicant presents written consent in the form of waivers from all offset operators, and from all operators owning interests in the section in which any part of the non-standard unit is situated and which acreage is not included in the non-standard unit.
- (5) In lieu of Paragraph 4 of this Rule, the applicant may furnish proof of the fact that all of the aforesaid operators were notified by registered or certified mail of his intent to form such non-standard unit. The Secretary-Director may approve the application if, after a period of 30 days, no such operator has entered an objection to the formation of the non-standard unit.

RULE 5(A). Each oil well shall be located on a standard unit containing 80 acres, more or less, consisting of the N/2, S/2, E/2, or W/2 of a single governmental quarter section; provided, however, that nothing contained herein shall be construed as prohibiting the drilling of a well on each of the quarter-quarter sections in the unit. For purposes of these rules, a unit consisting of between 79 and 81 contiguous surface acres shall be considered a standard unit.

RULE 5(B). For good cause shown, the Secretary-Director may grant an exception to the requirements of Rule 5(A) above without notice

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CASE No. ~~3206~~ 3975

Order No. R-~~1670~~ 1670-I

and hearing where an application has been filed in due form, and where the unorthodox size or shape of the tract is due to a variation in the legal subdivision of the United States Public Land Surveys, or where the following facts exist and the following provisions are complied with:

- (1) The non-standard unit is to consist of a single quarter-quarter section or lot.
- (2) The non-standard unit contains less than 81 acres.
- (3) The entire non-standard unit may reasonably be presumed to be productive of oil from said pool.
- (4) The applicant presents written consent in the form of waivers from all offset operators.
- (5) In lieu of Paragraph 4 of this Rule, the applicant may furnish proof of the fact that all of the offset operators were notified by registered or certified mail of his intent to form such non-standard unit. The Secretary-Director may approve the application if, after a period of 30 days, no operator has entered an objection to the formation of such non-standard unit.

B. NOMINATION AND PRORATION SCHEDULE

RULE 6(A). (SEE ORDER NO. R-1670, AS AMENDED.)

RULE 6(B). (SEE ORDER NO. R-1670, AS AMENDED.)

RULE 7(A). (SEE ORDER NO. R-1670, AS AMENDED.)

RULE 7(B). (SEE ORDER NO. R-1670, AS AMENDED.)

C. ALLOCATION AND GRANTING OF ALLOWABLES

RULE 8(A). The total tentative gas allowable to be allocated to the pool shall be equal to the sum of the preliminary or supplemental nominations together with necessary adjustments. The pool gas allowable remaining each month after deducting the total allowable assigned to marginal wells shall be allocated among the non-marginal wells entitled to an allowable in the proportion that

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CASE No. ~~8288~~ 3975

Order No. R-~~1672x2~~ 1670-I

each well's acreage factor bears to the total of the acreage factors for all non-marginal wells in the pool.

Preliminary nominations for the first gas proration period (ten months, from Sept. 1, 1969, to July 1, 1970) shall be filed with the Commission at least five days prior to the August, 1969, hearing. These nominations shall indicate the market demand for gas for the ensuing period and shall be subject to any necessary adjustments.

RULE 8(B)(1). No well shall be assigned an allowable until Form C-104 and Form C-116 have been filed together with a plat (Form C-102) showing the acreage dedicated to the well and the location of all wells on the unit. Form C-116 shall show, in addition to the information required thereon, the gravity of the liquid hydrocarbons produced on the test.

The District Supervisor of the Commission's Hobbs District Office is hereby authorized to assign a temporary gas allowable to wells connected to a gas transportation facility during the recovery of load oil, which allowable shall not exceed the number of cubic feet of gas obtained by multiplying the daily top unit allowable for the pool by 2000.

RULE 8(B)(2). A standard oil proration unit shall be assigned an 80-acre proportional factor of 2.00 for allowable purposes, and in the event there is more than one well on an 80-acre proration unit, the operator may produce the allowable assigned to the unit from the wells on the unit in any proportion. The allowable assigned to a non-standard proration unit shall bear the same ratio to a standard allowable as the acreage in such non-standard unit bears to 80 acres.

RULE 9(A). A gas well's "Acreage Factor" shall be determined to the nearest hundredth of a unit by dividing the acreage assigned to the well by 320 acres. An oil well's "Acreage Factor" shall be determined to the nearest hundredth of a unit by dividing the acreage assigned to the well by 80 acres.

RULE 9(B). Each oil well on an 80-acre oil proration unit shall be permitted to produce an amount of gas determined by multiplying the top unit oil allowable for the pool by the limiting gas-oil ratio for the pool (2000). In the event there is more than one oil well on an 80-acre oil proration unit, the operator may produce the allowable assigned to the unit from said wells in any proportion.

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Order No. R-~~1670~~ 1670-I

RULE 9(C). Allowables to wells whose classification has changed from oil to gas or from gas to oil as the result of a gas-liquid ratio test shall commence on the first day of the month following the month in which such test was reported, provided a plat (Form C-102) showing the acreage dedicated to the well and the location of all wells on the dedicated acreage has been filed.

RULE 10(A). (SEE ORDER NO. R-1670, AS AMENDED.)

RULE 10(B). (SEE ORDER NO. R-1670, AS AMENDED.)

RULE 11: (SEE ORDER NO. R-1670, AS AMENDED.)

RULE 12. The full production of gas from each well, including drilling gas, shall be charged against the well's allowable regardless of the disposition of the gas; provided, however, that gas used in maintaining the producing ability of the well shall not be charged against the allowable.

D. BALANCING OF PRODUCTION

RULE 13(A). The initial gas proration period shall be from 7:00 o'clock a.m. on ~~August~~ ^{July} 1, 1969, to 7:00 o'clock a.m. on July 1, 1970. Subsequently, the dates of 7:00 o'clock a.m. January 1st and 7:00 o'clock a.m. July 1st shall be known as balancing dates, and the periods of time bounded by these dates shall be known as the gas proration periods for the pool.

RULE 13(B)(1). The top 80-acre unit allowable for oil wells shall be determined each month by multiplying the Southeast New Mexico Normal Unit Allowable by the 80-acre proportional (depth) factor for said pool (2.00). The final allowable for the gas area of said pool shall be determined each six months for the preceding six-month period in accordance with the following formula:

$$V = \left[Q \times \left(\frac{A + \Delta A}{a + \Delta a} \right) \right] \left[(r_1 - r_2) + \left(\frac{T_{sc}}{T_{res}} \times \frac{P_{res}}{P_{sc}} \times \frac{1}{Z} \times B_o \times 5.61 \frac{ft^3}{bbl} \right) \right]$$

where:

V = the gas allowable for the gas area for the preceding six-month period and is equal to the volumetric gas equivalent of all production from the oil area during the preceding six-month period expressed in cubic feet rounded off to the nearest MCF.

CASE No. ~~3228~~ 3975

Order No. R-~~1670-1~~ 1670-1

Q = total oil production from the oil area during the preceding six-month period, barrels.

(A + ΔA) = total acres dedicated to gas wells during preceding six-month period.

(a + Δa) = total acres dedicated to oil wells during preceding six-month period.

(Note: "A" and "a" represent acreage dedicated to gas wells and to oil wells respectively for the entire six-month period. ΔA and Δa represent acreage so dedicated for only a portion of the six-month period. In the event a well is completed or reclassified during a six-month period ΔA and/or Δa shall be computed as follows:

$$\Delta A = A \left(\frac{d}{D} \right) \quad \Delta a = a \left(\frac{d}{D} \right)$$

where:

ΔA or Δa = acreage to be added to gas or oil area, respectively.

A or a = acreage dedicated to the well.

d = number of days during proration period during which well was completed as gas well or as oil well and was so classified.

D = total number of days in proration period.)

r₁ = Average producing GOR for oil area during preceding six-month period. (Determined by dividing total cubic feet of casinghead gas produced by total barrels of oil produced.)

r₂ = Solution GOR for the oil area at P_{res}. (r₂ determined from Solution GOR Tabulation in Special Rule 13(C).)

T_{sc} = Temperature at standard conditions = 60° F or 520° R.

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CASE No. ~~2292~~ 3975

Order No. R-~~1670-8~~ 1670-I

- T_{res} = Initial bottom-hole temperature 111°
or 583° R. ~~125~~¹¹¹
- P_{res} = Average reservoir pressure based on most recent bottom-hole pressure survey as provided in Special Rule 28.
- P_{sc} = Pressure at standard conditions. (15.025 psia.)
- Z = Deviation factor for gas at P_{res} and at 111° F. ~~125~~¹¹¹
(Z factor determined from gas Deviation Factor Tabulation in Special Rule 13(C).)
- B_o = Oil reservoir factor at P_{res} . (B_o determined from Oil Reservoir Volume Factor Tabulation in Special Rule 13(C).)

RULE 13(B)(2). (a) The volumetric equivalent of gas for the gas area determined in (1) above shall be compared with the actual production from the gas area.

RULE 13(B)(2). (b) If the actual production from the gas area exceeds such volumetric equivalent plus any permitted production remaining as determined in (c) below, then the nominations and purchases by gas purchasers during the succeeding six-month period shall be adjusted by the Commission so that the volumetric withdrawals from the gas area shall be restricted for the purpose of balancing the cumulative equivalent volumetric withdrawals from each area.

RULE 13(B)(2). (c) If the actual production from the gas area is less than the volumetric equivalent for the gas area then no adjustments will be made but the difference between the volumes will be carried forward as permitted production of gas from the gas area in subsequent balancing periods.

RULE 13(C). The following values of r_2 , Solution Gas-Oil Ratio, Z , Gas Deviation Factor, and B_o , Oil Reservoir Volume Factor, for the various values of P_{res} , Average Reservoir Pressure, shall be used in computing the volumetric equivalent of gas per Special Rule 13(B):

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CASE No. ~~3298~~ 3975

Order No. R-~~1670-X~~ 1670-I

P_{res} Average Reservoir Pressure, Psia	r_2 Solution GOR Ft ³ /Bbl.	Z Gas Deviation Factor	B_o Oil Reservoir Volume Factor
1200	392	.855	1.199
1100	372	.859	1.191
1000	350	.865	1.183
900	329	.876	1.175
800	306	.884	1.166
700	283	.898	1.157
600	260	.907	1.148
500	234	.919	1.138
400	208	.927	1.127
300	180	.946	1.116
200	147	.960	1.020
100	116	.974	1.089

RULE 14(A). (SEE ORDER NO. R-1670, AS AMENDED.)

RULE 14(B). (SEE ORDER NO. R-1670, AS AMENDED.)

RULE 15(A). Overproduction: Any well which has an overproduced status as of the end of a gas proration period shall carry such overproduction forward into the next gas proration period, provided that such overproduction shall be made up during such succeeding period. Any well which has not made up the overproduction carried into a gas proration period by the end of such proration period shall be shut in until such overproduction is made up. If, at any time, a well is overproduced an amount equalling three times its current monthly allowable, it shall be shut in during that month, and each succeeding month until the well is overproduced less than three times its current monthly allowable.

RULE 15(B). (SEE ORDER NO. R-1670, AS AMENDED.)

RULE 15(C). (SEE ORDER NO. R-1670, AS AMENDED.)

RULE 15(D). (SEE ORDER NO. R-1670, AS AMENDED.)

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E. CLASSIFICATION OF WELLS

RULE 16(A). (SEE ORDER NO. R-1670, AS AMENDED.)

RULE 16(B). (SEE ORDER NO. R-1670, AS AMENDED.)

RULE 17. (SEE ORDER NO. R-1670, AS AMENDED.)

RULE 18. (SEE ORDER NO. R-1670, AS AMENDED.)

RULE 19. (SEE ORDER NO. R-1670, AS AMENDED.)

RULE 20. (SEE ORDER NO. R-1670, AS AMENDED.)

F. REPORTING OF PRODUCTION

RULE 21(A). (SEE ORDER NO. R-1670, AS AMENDED.)

RULE 21(B). (SEE ORDER NO. R-1670, AS AMENDED.)

RULE 21(C). (SEE ORDER NO. R-1670, AS AMENDED.)

RULE 21(D). (SEE ORDER NO. R-1670, AS AMENDED.)

G. GENERAL

RULE 22. No gas, either dry gas or casinghead gas, produced from the pool shall be flared or vented except as otherwise provided in these Special Rules and Regulations. All gas produced, whether dry gas or casinghead gas and regardless of final disposition thereof, shall be constantly and accurately measured.

RULE 23. (SEE ORDER NO. R-1670, AS AMENDED.)

RULE 24. (SEE ORDER NO. R-1670, AS AMENDED.)

H. MISCELLANEOUS SPECIAL POOL RULES

RULE 25. A gas well in the pool shall be a well producing with a gas-liquid ratio of 30,000 cubic feet of gas per barrel of liquid hydrocarbons, or more, or any well which produces liquid hydrocarbons with a gravity of 60° API or greater.

An oil well in the pool shall be a well producing with a gas-liquid ratio of less than 30,000 cubic feet of gas per barrel

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of liquid hydrocarbons and which produces liquid hydrocarbons with a gravity of less than 60° API.

RULE 26. The operator of each newly completed well in the pool shall cause a gas-liquid ratio test to be taken on said well upon recovery of all load oil from the well; provided, however, that in no event shall the test be commenced later than 30 days from the date of first production unless the well is connected to a gas-gathering facility and is producing under a temporary gas allowable assigned in accordance with Rule 8(A) above. Provided, however, that any well which is shut in shall be exempted from the aforesaid gas-liquid ratio test requirement so long as it remains shut in. The initial gas-liquid ratio test shall be taken in the manner prescribed by Special Rule 27 below. If the gas-liquid ratio is 30,000 cubic feet of gas per barrel of liquid hydrocarbons, or more, or the gravity of the liquid hydrocarbons is 60° API, or greater, the operator shall not produce the well until beneficial use can be made of the gas.

No gas shall be flared or vented from any well classified as an oil well more than 60 days after the well begins to produce. Exceptions may be granted administratively by the Secretary-Director if the request sets forth facts and circumstances justifying such exception.

RULE 27. Gas-liquid ratio tests shall be taken on all wells in the pool and on all wells producing from the San Andres formation within one mile of the boundaries of the pool which are not within another designated San Andres pool during the months of January, April, July, and October of each year. The initial gas-liquid ratio test shall suffice as the first quarterly test. Tests shall be 24-hour tests, being the final 24 hours of a 72-hour period during which the well shall be produced at a constant normal rate of production. Results of such tests shall be filed on Commission Form C-116 on or before the 10th day of the following month. At least 72 hours prior to commencement of any such gas-liquid ratio test, each operator shall file with the Hobbs District Office of the Commission a test schedule for its wells specifying the time each of its wells is to be tested. Copies of the test schedule shall also be furnished to all offset operators.

Special tests shall also be taken at the request of the Secretary-Director and may also be taken at the option of the operator. Such special tests shall be taken in accordance with

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the procedures outlined hereinabove, including notification to the Commission and offset operators.

RULE 28. The average reservoir pressure shall be determined during the months of March and September each year after the well has been shut in for a minimum of three days. Pressures shall be calculated to a common datum, which shall be the approximate depth of the gas-oil contact (~~20~~ feet subsea). The pressure on individual wells shall be determined in the following manner:

- (1) Subsurface pressure tests shall be taken on all wells, gas and oil, in accordance with the procedure outlined in Statewide Rule 302, except with respect to shut-in time and datum as provided above. Pressures of pumping oil wells may be calculated from sonic fluid level determinations.
- (2) Information obtained on these tests shall be reported on Form C-124 in accordance with the provisions of Statewide Rules 302 and 1124, and the Commission shall use the arithmetic average of the pressures so reported for the pressure, Pres, in the calculations as provided in Special Rule 13(B).

RULE 29. The gas-oil ratio limitation for the pool shall be 2000 cubic feet of gas per barrel of liquid hydrocarbons produced.

RULE 30. No acreage shall be simultaneously dedicated to an oil well and to a gas well in the pool.

IT IS FURTHER ORDERED:

~~(1) That the Special Rules and Regulations for the Todd-San Andres Gas Pool, promulgated by Order No. R-2666, are hereby superseded.~~

(1) That any well presently drilling to or completed in the San Andres formation within the ^{Bluff-San Andres} Associated Pool or within one mile of said pool that would not comply with the well location requirements of Rules 2(A) and 2(B) is hereby granted an exception to said rules. The operator shall notify the Hobbs District Office of the Commission in writing of the name and location of the well on or before September 1, 1969.

(2) 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.

		F ₂		
1	1200	392	1.855	1.199
2	1100	370	1.857	1.191
3				
4				
5	1000	350	1.865	1.183
6				
7				
8	900	329	1.876	1.175
9				
10				
11	800	306	1.884	1.166
12				
13				
14	700	283	1.895	1.157
15				
16				
17	600	260	1.907	1.148
18				
19				
20	500	234	1.919	1.138
21				
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23	400	208	1.927	1.127
24				
25				
26	300	180	1.946	1.116
27				
28				
29	200	147	1.960	1.102
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31				
32	100	116	1.977	1.089
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Case 3975

Facts:

(1)

(2) That Order No. R-2665, dated March 13, 1964, ^{Regenell County, New Mexico} Created the Bluntt-San Andres Gas Pool, and ~~promulgated~~ ^{promulgated} Special Rules and Regulations therefor.

(3) That Order No. R-3618, dated December 9, 1968, Created the East-Bluntt-San Andres Pool, ^{Regenell County, New Mexico} and promulgated temporary Special Rules and Regulations therefor.

(4) That pursuant to the provisions of ^{said} Order No. R-3618, ~~this~~ ^{the} Case 3975 was reopened to allow all interested parties to appear and present evidence as to whether the East Bluntt-San Andres Pool is indeed a separate common source of supply or merely an extension of the Bluntt-San Andres Gas Pool, ~~and in the~~ ^{and in the} event said East Bluntt-San Andres Pool is found to be an extension of said Bluntt-San Andres Gas Pool, the amendment of the Special Rules and Regulations governing the Bluntt-San Andres ^{the} Pool to provide for the classification of oil and gas wells, and an allocation formula for withdrawals from the gas cap and oil ~~main~~.

(5) That the evidence establishes that the East Bluntt-San Andres Pool is not a separate common source of supply but is merely an extension of the Bluntt-San Andres Gas Pool.

R-3153

Todd

R-1670-13

Denise Fark

R-3707

Dallage

Ordered:

(1) That the Bluit - San Andres Gas Pool and the East Bluit - San Andres Pool, ~~the~~ both in Roosevelt County, New Mexico, and the special rules and regulations governing said pools are hereby abolished.

(2) That a new pool in Roosevelt County, New Mexico, classified as an associated pool for the production of oil and gas from the San Andres formation, is hereby created and designated the Bluit - San Andres associated Pool, with vertical limits comprising the San Andres formation and horizontal limits comprising the following described area:

Township 8 South, Range 37 East, N.M.P.M.

Section 5: all

Section 8: N/2

Sections 9, 10, and 11: all

Section 12: W/2

Sections 13 and 14: all

Section 24: NE/4

Township 8 South, Range 38 East, N.M.P.M.

Section 18: W/2

Section 19: NW/4

(6) That while the said Bluit - San Andres Gas Pool is presently classified as a gas pool, the evidence adduced indicated it is, in fact, an associated oil and gas reservoir.

(7) That the Bluit - San Andres Gas Pool and the East Bluit - San Andres Pool, ~~and~~ and the special rules and regulations governing said pools should be abolished.

(12) That a new ~~pool~~ associated pool for the production of oil and gas

(8) (12) That a new pool in Roosevelt County, New Mexico, classified as an associated pool for the production of oil and gas from the San Andres formation ^{as designated the Bluit - San Andres Gas Pool} should be created and special rules and regulations should be promulgated therefor.

(9))
(10)) from old order
(11))