CASE 1909: Application of PAN AMER. for a 386-acre non-standard gas unit to be dedicated to J.F. Day

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Application, Transcript.
5 mill Exhibits. Etc.

BEFORE THE OIL CONSERVATION COMMISSION Santa Fe, New Mexico May 18, 1960

IN THE MATTER OF:

Application of Pan American Petroleum Corporation for a hearing de novo before the Commission in Case No. 1909, Order No. R-1628, relating to the request for a 386-acre non-standard gas unit in the Dakota Producing Interval, San Juan County, New Mexico, comprising all of partial Section 7 and the W/2 of partial Section 8, both in Township 28 North, Range 10 West.

Case 1909

BEFORE: Mr. A. L. Porter Mr. Murray Morgan

TRANSCRIPT OF HEARING

MR. PAYNE: Application of Pan American Petroleum Corporation for a hearing de novo before the Commission in Case No. 1909, Order No. R-1628.

(Whereupon, Pan American's Exhibits 1 through 7 were marked for identification.)

MR. PORTER: The meeting will come to order, please.
Mr. Buell.

MR. NEWMAN: Kirk Newman of Roswell, New Mexico representing Pan American Petroleum Corporation and Skelly Oil Company.

I have associated Mr. Guy Buell, a member of the Texas Bar, for

Pan American and Mr. Jeorge Selinger, member of the Oklahoma Bar



for Skelly.

MR. BUELL: May it please the Commission, we have one witness, Mr. Eaton, who has not been sworn.

(Witness sworn.)

GEORGE W. EATON, JR.

called as a witness, having been first duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. BUELL:

Q Mr. Eaton, would you state your full name, by whom you are employed and what capacity and at what location, please?

My name is George W. Eaton, Jr., Senior Petroleum Engineer, A Pan American Petroleum Corporation, Farmington, New Mexico.

- Q Does the Farmington Office have jurisdiction over Pan American's operations in the area of the Angel Peak Dakota Gas Pool?
 - Yes.
 - Have you ever testified at a Commission hearing?
 - A Yes, sir.
- And your previous qualifications as a petroleum engineer Q are a matter of public record?
 - A They are.

MR. BUELL: Any questions, Mr. Porter?

MR. PORTER: No. sir.

I direct your attention now, Mr. Eaton, to what has been



marked as Pan American's Exhibit No. 1. What is that?

Exhibit No. 1 is a portion of a map of the Angel Peak A Dakota Pool, showing the area in 28 North, Range 10 West, showing the Northern tier of partial section across the Northern boundary of that township. The scale of the map is one inch equals one thousand feet.

- What is the significance of the red line I see on that Q exhibit, Mr. Eaton?
- The red line denotes the defined limits by the New Mexico Oil Conservation Commission of the Angel Peak Dakota Pool. That nomenclature is through the April nomenclature order.
- How are the Dakota gas wells distinguished on this exhibit?
- The Dakota gas wells are the only wells which are shown A on this exhibit and they are colored in red.
- All right now, with respect to Pan American's proposed Q Day Gas Pool, how is it designated on Exhibit 1?
- The proposed Day Gas Unit is shown in a hashered outline A in the Northwestern portion of the map and shown to consist of partial Section 7 and West Half of partial Section 8, Township 28 North, Range 10 West.
- Do you show the proposed well location on the Day Gas Unit on Exhibit 1?
 - Yes. Day Gas Unit Well No. 1 is shown by the red dot



- Q In your opinion, Mr. Eaton, based on your study and general knowledge of the Dakota Gas Formation in this area, do you feel that a Dakota gas well completed at the location you've shown on Exhibit 1, do you feel that such a well would be in the same Dakota Gas Reservoir as the other Dakota wells on Exhibit 1?
 - A I do so feel.
- Q Do you feel that all the Dakota wells on Exhibit 1, regardless of whether they're within the present horizontal limits of the Angel Peak Dakota Pool or not, do you feel that all Dakota completions on Exhibit 1 are in the same Dakota Reservoir?
 - A They are all in the same Dakota Reservoir.
 - Q Why is this unit non-standard, Mr. Eaton?
- A The proposed Day Gas Unit is non-standard because it is not contained wholly within a Governmental section and does not consist entirely of contiguous quarter sections, being legal subdivision of a Governmental survey, and it is more than 320 acres in size.
 - Q What caused this, Mr. Eaton?
- A This resulted from the irregularities in the Public Land Survey along the North boundary, Township 28 North, Range 10 West, which resulted in a series of short sections across the Northern boundary.
 - Q Going back to the proposed well location for a minute,



Is that a regular location within the purview of the Dakota rule?

A Yes, sir. This is a standard location under the Dakota spacing rule.

Q From here, looking at Exhibit 1, it looks like that well is also located in the approximate center of the proposed Day Gas Unit.

A It is located as near center of the Day Gas Unit as possible and still be a standard location.

Q All right, let me ask you this, Mr. Eaton, do you feel that all of the acreage in the Day Gas Unit is productive of gas from the Dakota?

A Yes, sir, I do.

Q Upon what data do you base that conclusion?

A The proposed Day Gas Unit is virtually surrounded by completed Dakota wells.

Q It might help for the record if you would point out and locate and name some of the wells that are producing from Dakota that surround this acreage.

A To the Northwest of the proposed Dakota Gas Unit in the Southwest Quarter of Section 36, Township 29 North, Range 11 West, Pubco State No. 26 is a completed Dakota well. In Section 12 of Township 28 North, Range 11 West, the Angel Peak Oil Company No. 2 is a completed and producing well. This is immediately West of the proposed Day Gas Unit.



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To the Southeast of the proposed Day Gas Unit there are two producing Dakota wells. Those wells are both located in Section 17, Township 28 North, Range 10 West and are Pan American's J. F. Day E No. 1 and Sunset International Sipco Kutz Federal No. 1 E.

To the Northeast in Township 29 North, Range 10 West, there is a completed Dakota well in the Southwest Quarter of Section 34.

This well is a Southwest Productions Zachary No. 1. These wells virtually surround the Day Gas Unit.

- Q How many acres are within the Day Gas Unit, Mr. Eaton?
- A There are 385.89 acres in the Day Gas Unit.
- Q For ease in testimony, throughout the remainder of your testimony let's refer to that as 386 acres, it almost is. The Dakota Pool rules provide for a maximum unit size of 324?
 - A That is correct.
- Q So the Day Gas Unit is approximately 62 acres larger than the maximum under the rules?
 - A Yes, sir, that's right.
- Q In your opinion, Mr. Eaton, will a Dakota well in this area drain that large an area?
 - A Yes, sir, it will.
- Q I direct your attention now to what has been marked as Pan American's Exhibit No. 2. What is that exhibit, Mr. Eaton?
- A Exhibit No. 2 shows interference data collected on Pan American's J. C. Davidson F No. 1 during the fall months of 1959.



The right-hand portion of the exhibit is a plat of the area surrounding the Pan American J. C. Davidson F No. 1, which is located in the Southwest Quarter of Section 28, Township 28 North, Range 10 West.

Mr. Eaton, would you go over to Exhibit 1 and just point Q to that location so we can orientate it with respect to the Day Gas Unit? Thank you. Coming back to Exhibit 2, what is shown on the left portion of the exhibit?

On the left-hand portion of Exhibit No. 2 is shown a plot of the shutin pressure data which was observed on J. C. Davidson F No. 1 between the time when the well was completed and when it was first connected to a pipeline.

In other words, that well was completed and was not Q immediately connected and did not produce for that period of time while it was awaiting connection?

Yes, the well was completed August 18, 1959. It was connected to a gas pipeline on November 17, 1959.

These pressure plots that you show on the left-hand portion of Exhibit 2 were pressures taken while the well was shutin awaiting connection?

- That is correct.
- Would you go ahead and describe the pressure plot, please?
- Soon after completion and on September 2nd, 1959, a



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pressure of 1995 wounds was measured. Later on, on October 9, 1999, this pressure had increased to a maximum of 2,006 P.S.I. Immediately thereafter a decline was observed until on November 17 the pressure was 2,001 P.S.I.

- What is the significance of that decline, Mr. Eaton, Qthe pressure on this well declining when it was not producing?
- This shows that this well is experiencing interference from production from other wells in the vicinity.
- What was the nearest well to this shutin well that was producing from the Dakota during this interval of time?
- The nearest well which was producing during a portion of this time is Pan American Fred Feasel L No. 1 which is located in the Northeast Quarter of Section 32, Township 28 North, Range 10 West.
 - How far away was that well from the shutin well? Q
 - This well is 3100 feet distant from the shutin well.
- Q What does that indicate to you as an engineer from the standpoint of the area being drained by this producing well?
- A This shows that the production from the Fred Feasel L No. 1 is affecting the pressure distribution over an area of 691 acres.
- Q In other words, these data show that a Dakota well in this area will drain at a minimum 691 acres?
 - A It shows that at this time that this well was draining



691 acres.

Q I direct your attention now to Exhibit 3. What does that exhibit reflect?

A Exhibit 3 is a similar exhibit to that shown in Exhibit 2 in that it is also evidence of an interference data which was collected on a Pan American well in the Angel Peak Dakota Pool during the latter part of 1959. This well is Pan American JE Day D No. 1. It is located in the Northeast Quarter, Section 20, Township 28 North, Range 10 West.

Q Are these wells shown on the insert plat on Exhibit 3, are they near the Day Gas Unit?

A Yes, sir. The wells shown on Exhibit 3 are very close to the proposed Day Gas Unit. The Day Gas Unit on Exhibit 3 is shown in the red outline in the upper portion of the right-hand portion of the exhibit.

Q Was the well used on this exhibit, was it similarly completed, did produce, was shut in a while waiting on connection, and you observed pressures during that interval of time?

- A That is correct.
- Q What do these pressure data reflect?
- A These pressure data reflect that J. F. Day D No. 1 was experiencing interference as a result of production from Sunset International Kutz Federal No. 1 E during the time that J. F. Day No.

I was shut in.



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- Here again we observed a decline in pressure on the particular well although it was not producing?
 - That is correct.
- How far away was the nearest Dakota well producing at this interval of time?
- The nearest producing well for J. F. Day D No. 1 is 4200 feet distant.
- From the standpoint of area of drainage, what does that Q show? What amount of acreage?
 - This indicates a drainage area of 1275 acres.
- I direct your attention now to Pan American's Exhibit No. 4. What is that exhibit?
- Exhibit No. 4 shows interference data which were collected on the Pan American J. F. Day E No. 1 located in the Southeast Quarter, Section 17, Township 28 North, Range 10 West.
- These wells are in the same area as the wells shown on Exhibit 3?
- Yes, sir, they are. They are the same three wells, and immediately Southeast of the proposed Day Gas Unit.
- Q Is this another well that was completed, shut in while waiting on connection and pressures observed during that time?
 - A Yes, sir.
 - What do these data reflect?
 - These data indicate that during the time J. F. Day E



No. 1 was shut in it was experiencing interference from the Sunset Kutz Federal No. 1 E. The Sunset Kutz Federal No. 1 E is located 3,000 feet distant from the J. F. Day E No. 1.

Interference over a linear area of 3,000 feet, when you convert that to acreage, Mr. Eaton, how many acres did that show that well to be draining?

- That indicates that well is draining 650 acres.
- In that connection, Mr. Eaton, with reference to Exhibit 4, that well was submitted as an interference well at the Examiner Hearing, was it not?
 - Yes, sir, it was.
- On the exhibit presented then, the distance between the shutin well and the nearest producing well was shown as 2550?
- In preparing this exhibit you found that was incorrect and instead of 2550 it should have been 3,000 feet?
- I found that the distance should have been shown as 3,000 feet.
- With reference to 3,000, how were the pressures, how were they measured?
- They were measured with a dead weight tester which is accurate within five tenths of a pound.
- I direct your attention to Pan American's Exhibit No. 5. Will you please explain that exhibit?

A Exhibit No. 5 is simply a tabulation of the pressure data which are plotted graphically on Exhibits No. 2, 3 and 4.

- Q Do you feel that Exhibit 5 is self-explanatory?
- A Yes, sir.
- Q Mr. Eaton, I direct your attention now to what has been marked as Pan American's Exhibit No. 6. What is that exhibit?
- A Exhibit No. 6 is an expanded portion of the Northern part of Township 28 North, Range 10 West showing that portion of the Angel Peak Dakota Pool and the area and tier of short sections which exist along the Northern boundary of Township 28 North.
- Q What is the significance of the different colors I see on that?
- A The various operators acreage is colored, I denoted by color on this exhibit. For example, acreage operated by Southern Union Gas Company is shown in green and acreage operated by Pan American Petroleum Corporation is shown in yellow. Acreage operated by Sunset International Petroleum Corporation is shown in brown and acreage operated by the Skelly Oil Company is shown in blue.
- Q What are the units that you have outlined on that exhibit for these partial sections, Mr. Eaton?
- A On the West side of this tier of short sections we have shown the 321.43 acre unit which the Commission Order No. R-1628 indicates that it would approve.



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Moving again to the East, the next non-standard unit which consists of the East Half of partial Section 9, operated by Skelly, and the West Half of partial Section 10 which is operated by Southern Union and the West Half of the East Half of partial Section 10 which is also operated by Southern Union.

Moving again to the East we find the next 327.29 acre nonstandard unit to consist wholly of Southern Union operated acreage. And Section 12, the 270.11 acre unit is also a hundred percent Southern Union.

- By the units you show on this exhibit you don't mean to Q reflect to the Commission that the various operators involved are forming units such as you show, do you?
 - No, sir.
- You just formed those units to follow the pattern indi-Q cated under Order R-1628?
 - Just to continue the pattern indicated by R-1628. A
- If that pattern is followed through these partial sec-Q tions as reflected on Exhibit 6, how many wells would it take to develop the acreage in these partial sections?
 - It would take five wells. A
 - And the fifth unit, I believe, is 270.11 acre unit?
 - That is correct.
- All right. I direct your attention to what has been marked as Pan American's Exhibit No. 7. What does that exhibit



reflect?

Exhibit No. 7 is a map of the same area as shown in Α Exhibit No. 6 and it shows the Northern portion of the presently defined Angel Peak Dakota Pool showing the tier of partial sections which exists along the Northern boundary of 28 North.

What is the significance of the units I see you have Q outlined on Exhibit 7?

On the West side of Township 28 North in the area of A partial sections we have shown the proposed Day Gas Unit which will consist of 386 acres. We have followed this pattern across this tier of partial sections forming units of approximately that same size.

Q On Exhibit 6 you showed the units following the pattern of order. On Exhibit 7 you followed the pattern proposed by the Day Gas Unit, which we are asking Commission approval here today?

Yes, that is right.

Would you name for the record the gas units as formed on Q Exhibit 7?

The proposed Day Gas Unit would consist of the West Half of partial Section 7 operated by Southern Union, the East Half of partial Section 7 operated by Pan American and the West Half of partial Section 8 which is also operated by Pan American. Proceeding to the East, the next unit would consist of the East Half of partial Section 8 which is operated by Sunset



Moving again to the East we find two units which are wholly operated by Southern Union Gas Company. The most Westerly one would consist of Section 10 and the West Half of Section 11, and the Easternmost one would consist of the East Half of Section 11 and Section 12.

- Q Now again on Exhibit 7, you don't know that the operators involved are planning units of that type, do you?
- A No, sir, the only one I have personal knowledge of is this proposed Day Gas Pool.
- Q You have simply formed those to follow the pattern by our proposed Day gas?
 - A That is correct.
- Q By that pattern what would be the largest of the four non-standard?
- A By that pattern the largest of the four non-standard would consist of 401.74 acres.
- Q I believe looking at Exhibit 7 it would take only four wells to develop the acreage in these partial sections following the pattern of the Day Gas Unit?
 - A That is correct.
- Q Your previous testimony has shown, has it not, Mr. Eaton, that certainly one well in this area completed in the Dakota will effectively and efficiently drain in excess of your largest unit



which is approximately 402 acres?

Yes, sir, our data show that during the fall of 1959 there were wells in this field which were actually draining larger areas than 402 acres.

- In your engineering opinion would four wells developing these partial sections efficiently and adequately drain the Dakota gas reserves under this acreage?
 - Yes, sir, they would.
- Then you would have to be of the opinion that a fifth well which would fall on the 270.11 acre tract would be an unnecessary well?

Yes, sir, it would not be needed to effectively drain this reservoir.

If it is an unnecessary well, it would then, if drilled, result in economic waste, would it not?

Yes, sir.

When you compare the units on Exhibit 7 with the units reflected on Exhibit 6, which seemed to you, in your engineering opinion, to be the more orderly the more uniform development of the two?

The units shown on Exhibit 7 appear to me to be more A orderly and more uniform.

Actually, attempting to form units as shown on Exhibit 6 simply compounds an already complex situation from the standpoint



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of ownership in these partial sections, does it not, Mr. Eaton?

Yes, sir, it's always a problem when you're involved in these partial sections, but to split up the acreage would compound you.

I didn't mean to interrupt you. Let me direct you back to Exhibit 6 and would you locate the Pan American acreage immediately to the right of the Day Gas Unit shown on Exhibit 6?

Yes, this would be the East Half of the West Half of Section 8.

Q Now, with that acreage in mind, our neighbors to the East are Sunset International and Skelly, are they not?

Yes.

They re good neighbors?

Yes, good neighbors.

Do you have any assurance that they would include that Pan American acreage we have mentioned in a unit they might form?

I have no indication to that effect.

Q Although they are good neighbors they might want to tak: care of their own acreage and not Pan American's?

A Yes, sir, that's possible.

In your opinion, Mr. Eaton, will the approval of this request for the non-standard Day Gas Unit being made here today by Pan American, will the approval of that request serve conservation and protect the correlative rights of all parties of



interest?

- A Yes, sir.
- Q Do you have anything else you would like to add, Mr.

Eaton?

A I don't believe so.

MR. BUELL: That's all we have at this time, Mr. Porter.

MR. PORTER: Anyone have any questions of Mr. Eaton?

MR. PAYNE: Yes, sir.

MR. PORTER: Mr. Payne.

CROSS EXAMINATION

BY MR. PAYNE:

Q Mr. Eaton, is it your opinion that if an operator in a 320 acre pool establishes that a well will efficiently drain 800 acres that he should have an 800-acre unit for that one well?

- A No, sir, not necessarily,
- Q Well, when should he and when shouldn't he?
- A When such an application would provide for orderly development, then he might be justified.
 - Q As your proposal here today does in your opinion?
 - A Yes, sir.
- Q Now, Mr. Eaton, referring to Exhibit 7, you propose that there be four non-standard units with the acreage dedication being considerably in excess of 320 acres, is that right?
 - This exhibit is not proposing four non-standard units,



it's just showing the pattern which might follow the granting of the non-standard unit for the Day Gas Unit.

Let's assume they are developed that way, do you feel Q it's more orderly to have four units considerably in excess of the standard acreage dedication in the pool than it is to have four standard units insofar as acreage is concerned and one non-standard unit?

- In this particular case I feel that it is. A
- Now, why is that? Q
- Because by formation of the four non-standard units you are confronted with a communitization including only two operators in the Day Gas Pool, only two operators in the unit immediately to the East, and only a single operator in the remaining two non-standard units.
- Q I take it then that you are proposing that spacing at least in some instances should be dependent on ownership?
- No, sir, not necessarily. Actually, there's no way that A a tier of short sections can be spaced identical with sections that are normal in size. You have got to have some exceptions.
- But if it's spaced as shown on your Exhibit No. 6, you Q would have four units with essentially 320 acres in them and one with 270, wouldn't you?
 - That is correct.
 - Now, do you know of your own knowledge of any Dakota



- A Yes, sir.
- Q So that the fact that he had a 270-acre non-standard unit might not result in not having that well drilled?
- A No, sir, it might not. We think that well would be unnecessary and therefore would constitute economic waste.
- Q Isn't it true, Mr. Saton, that an operator knows when he acquires acreage in these short sections that it may be necessary for him to execute communitization agreements in order to form a drilling and proration unit?
 - A Yes, sir, I'm sure they are aware of that.

MR. PAYNE: Thank you, that's all.

MR. PORTER: Anyone Else have a question? Mr. Utz.

BY MR. UTZ:

- Q Mr. Eaton, pertaining to this communitization, do you know of any other 320-acre standard units in either the Mesaverde or Dakota which have three or more parties communitized?
 - A Yes, sir.
- Q So it is not any special problem in itself as far as communitization is concerned?
- A It's not impossible, certainly. It is more operators are involved in communitization the more difficult it is. It is certainly not impossible.
 - O Yes, but it happens every day even on standard units



doesn't it?

- Surely.
- Pertaining to the small unit on your Exhibit No. 6, I believe it is, yes, the 270-acre unit, as a matter of fact, do we know whether that's even productive or not?
 - No, sir. It is productive in my opinion.
- Supposing it is productive, is it any reason to believe that we couldn't go over into Section 7 of 28 North and 9 West and pick up another 20 or 30 acres and make the unit more nearly 320 acres normal size for the Dakota Pool?
- That would be possible. I don't think it would be desirable for several reasons.
 - Why not?
- First of all, the data available to me indicate that the acreage in the productive limits, that it's very far into Range 9 West, the productive limits wouldn't extend very far into Range 9 West. In the second place I don't know what the operators plans might be, the owner of the acreage in that short section in Range 9 and I could find no precedent in New Mexico of a proration unit which extended into two different townships.
- I think I can assure you we can find them. I can't say Q off-hand where they are.

MR. PAYNE: There's no reason to believe that an oil pool stops at township lines?



Oh, nc.

Q One of your objections to including the West Half of the West Half of Section 7 is that it might not be productive, is that right?

You are talking about the West Half of the West Half of Section 7 in 28, 9?

Q Right.

It might not be. By the time development progresses out to that portion we'll know somewhere along the line you will wind up with the productive limits which may limit the amount of acreage that might be assigned to a non-standard unit.

Is that peculiar to just these correction areas, don't we have that in standard units all the time?

To a lesser extent for the reason that these correction sections are narrower and therefore longer to get the same.

BY MR. MORGAN:

Q Mr. Eaton, you show on your Exhibit 3 that you have radial drainage of 4200 feet. You are familiar with that exhibit?

Yes, sir.

In this you would have lateral drainage just a little less than that in this proposed unit as shown on Exhibit 7, and you would have about 3860 feet of lateral drainage in this proposed unit. Do you agree with those figures? Is that the way

you figure it out?



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- The supplier with a filter than the supplier with the second to the supplier of the supplier of the second terms of the second prolat**ive of**ficiency of highways half that distance four the sulli and the relative of the energy of desirance that discourse it as the well?
- One data "indicate that there are no significant differente in recovery owing to well being 3800 feet apart. I haven't made a study of those specific numbers. I don't want to wisless you.
- According to that, then, It this were a continuous gas pool across this strip berewild a well right in the middle of it draw gas from each end of it?
 - Do you mean to ask now would one well in the exact middle? Å
- If one well were right in the middle of this would it Q from one end or the other of it? draw gas
 - And only the tier? A
 - One well. Q
 - And would it drain only the tier of short acctions?
- No, I didn't say that would it drain gas from both ends Q of the tract with one well in the center of it?
 - Tes, given enough time, yes, sir. Just stimply a matter



of time.

- Q And efficiently? A Yes, sir.
- There would be no gas here. Suppose this well was depleted, there would be no gas remaining out here in the ends if there were no other wells around it at all?
- Yes, there will be gas left around there. There would be under any spacing pattern.

MR. MORGAN: That's all.

BY MR. UTZ:

- Looking at Exhibit No. 2 where you show a drainage of Q 691 acres, were those pressures top hole pressures or bottom hole?
- They were top hole pressures acquired with a dead weight A gauge.
- You show a pressure drop in the neighborhood of four Q pounds from early in October to about the middle of November, is that correct?
 - Five pounds, yes, sir.
 - Five pounds. All right. Do these wells make any liquids?
 - Yes, sir.
 - Considerable amount, don't they?
 - Some of them considerable amount, yes, sir.
- When you took this pressure in the middle of November, do you know how many liquids was in the hottom of the hole?

Yes, sir, not any.



- Q You don't think there was any even though the well does make liquids?
 - A That's right.
 - Q Why do you believe that?
- A We determined it with our sonet log device. We found no fluid level.
- Q I see, you actually measured the liquids then, or attempted to measure them?
- A Yes, sir, we attempted to measure the liquid but we found none.
- Q Is that normal for these Dakota wells when they re shut in for several months that no liquids come into the hole?
- A That's been our experience. Our experience has been that there is liquid accumulation in the hole immediately after the production and the longer the well is shut in the fewer liquids there are, the gas pressure indications in the tubing driving the liquid back into the formation.
- Q There are liquids present as liquids in the reservoir, however?
- A I don't really know the answer to that question. I personally don't think so, but although with some of the reservoirs that are reported it would seem to be on the border line. I think it's condensate.
 - Present as a liquid in the reservoir or retrograde?



- Retrograde.
- On Exhibits 3 and 4, did you also attempt to measure liquids in the bottom of the hole on your last pressure reading on those wells also?
- Not on these two particular wells I don't believe. We ran a number of sonolog shots out in this field and we never found any liquids. I don't believe that the sonolog was run on those two particular wells. We were satisfied that there weren't any.
- Q Had there been liquids however, a top hole pressure reading wouldn't have been accurate, is that correct?
 - That's right. A

MR. UTZ: That's all I have.

MR. PORTER: Mr. Nutter.

BY MR. NUTTER:

Do you mean to tell me when you finish producing a well there's liquids in the well bore and then when you shut the well in the pressure in the tubing chases the liquids back into the reservoir?

Yes, sir, that's been our experience. These Dakota wells. Now I don't mean to infer that goes for every well.

Now, in other words, you might say that this would be a similar situation to expanding gas cap here in the tubing driving the liquids down into the reservoir?

That's an oversimplification, but yes, sir, I guess so.



As that gas cap expands and drives the liquids in the well bore you would have a decrease in pressure, wouldn't you?

No. What actually happens is that gas bubbles through that liquid and builds up a pound of pressure say, that decreases the head of liquid which permits another bubble of gas to filter through that head of liquid which in turn decreases the liquid head again.

Q You are not telling me the liquids come in one way and the gas is going the other way?

Yes.

The liquid going into the reservoir and the gas is coming out?

That's right. That may not be into the same pore space, if I make myself clear.

Maybe that's what an interference test is. Mr. Eaton, are you aware of quite a number of instances in the Blanco-Mesaverde Gas Pool where the Commission has permitted the dedication of acreage in short sections similar to what we have here in such a manner as to achieve as near to possible a standard size proration unit?

I'm aware that there are a number of non-standard units in the Blanco-Mesaverde Field in these area of short sections.

Hasn't it usually been the objective of the Commission to try to achieve a standard size unit if at all possible?



- Q Are you aware of instances where the Commission has permitted the dedication of acreage in short sections in which the total amount of acreage dedicated to the well approximated 385 acres?
 - A Yes, sir.
- Q Now, you are acquainted with the situation where they have attempted to achieve the 320 and also with some where they have attempted to achieve the 385?
 - A Yes.
 - Q Which has been the more standard policy of the Commission?
- A The number of proration units in the Blanco-Mesaverde Field which exceed 385 acres in size are very few.
- Q There are quite a number that comprise short sections and fractions of short sections which approximate 320 acres, however, are there not?
 - A Yes, sir.

MR. NUTTER: I believe that's all. Thank you.

BY MR. PAYNE:

- Q Mr. Eaton, this pool is not prorated, is it?
- A No, sir.
- Q In view of that, what is Pan American's chief objection to the order entered after the Examiner Hearing? Does it relate to offset obligations?



A No. B'r.

no problem with reptriction on production, I don't quite acquestant why you care how much acreage is dedicated to this well.

A We feel that the dedication of acreage along the cautern that will be established by this proposed Day Gas Unit would now vide for more orderly and uniform development in this area of shore sections.

- Q Now, the unit as proposed by you, Pan American, would have an interest in only one well?
 - A That is correct.
- Q And if the units were established as shown on your Exhibit 6, Pan American would have an interest in two wells?
- A That is correct, assuming that our neighbors to the East are willing to take part of Pan American's acreage in the pooling agreement.
- Q Well, now, those neighbors to the East, Mr. Eaton, would have to get approval for a non-standard unit no matter what they proposed to dedicate, would they not?
 - A Yes, sir.
- Q So that the Commission could at that time see if the proposal was to include Pan American's acreage or to leave it out?
 - A Yes, sir.



MR. PAYME: Thank you.

MR. PORTER: I believe it's been established that they're good neighbors. Anyone else have a question?

PY MR. UTZ:

- Q Pan American would have under this larger unit more interest in the well to be drilled in Section 7?
 - A Yes, sir.
 - Q That is your main concern, is it not?
- A We would also be operator of that well and have a larger interest in the unit. We would participate in drilling only one well. We think that is desirable.

MR. UTZ: That's all.

BY MR. PORTER:

- Q Mr. Eaton, you realize that one of our two primary functions as a Commission is to protect correlative rights, do you not?
 - A Yes, sir.
- Q When we establish a standard unit for proration don't you think it should be the Commission's policy to try to see that the units are as near that standard as possible without creating too many hardships on the operator?
- A We think that correlative rights will be protected under our proposal.
- Q You don't think that a larger than a standard unit would tend to drain gas from standard units?



- No, sir.
- No, sir. Let me amplify that a bit. Certainly I don't In this shape? want to testify that a well in the center of this proposed nonstandard unit would drain exactly the particular 386 acres which would be assigned to it, neither would any other standard unit.
 - It wouldn't drain 320 in that shape either?
 - A

MR. PORTER: Anyone else have a question of the witness? No, sir. No, sir. MR. SELINGER: Yes, I would like to ask the witness some

questions.

MR. PORTER: Mr. Selinger.

- Q Mr. Eaton, you have been asked about correlative rights. BY MR. SELINGER: Will you step to one of the exhibits and indicate whether or not if I'm correct in my arithmetic whether or not that strip will contain 14 wells completely around it on 320 acres?

 - So that you are talking about drilling four wells in That is correct. this strip rather than 14 offsets completely surrounding the strip, is that correct?
 - That is correct.

MR. SELINGER: That's all.



Five wells would more adequately protect the strip than would four, would it not?

Not if production is on a ratable basis.

BY MR. SELINGER:

Don't you think that the operators owning interest in the strip itself should be the best judges as to whether or not correlative rights are being violated?

Yes, sir. A

BY MR. PAYNE:

Do you think all the operators should be interested in the particular unit we're dealing here with today since only two of them own acreage in it?

Yes, I do, because what happens to the non-standard unit proposed for the Day Gas Unit will dictate the probable action in the remaining tier of partial sections.

BY MR. SELINGER:

Who owns acreage, not only in the strip but also in the field, having Dakota wells, of the one, two, three, four operators? Does Southern Union have production other than in the strip in this field?

I'm not sure. A

Does Sunset? Q

Yes, sir.

Does Pan American? Q

Yes, sir.

That's all. MR. SELINGER:



MR. PORTER: Mr. Buell.

MR. BUELL: May I at this time offer Pan American's Exhibits 1 through 7 inclusive and let me assure the Commission that this application is not intended on Pan American's part to be an attack either directly or indirectly in the 320 acre Dakota spacing. We feel we have an unusual acreage rituation here that frankly we feel it calls for an unusual remedy. See complex. It's complicated, and that's why we ask for the relief that we requested.

MR. PORTER: Anyone have any objection to the admission of these exhibits? The exhibits will be admitted to the record.

MR. SELINGER: Mr. Porter, the representatives of the good neighbor to the East would like to present some testimony.

MR. PORTER: The present witness may be excused.

(Witness excused.)

MR. PORTER: Does that conclude your testimony, Mr. Buell?

MR. BUELL: Yes.

MR. PORTER: Mr. Selinger, you may call your witness, please.

MR. SELINGER: Mr. Payne, there are two witnesses we would like to have sworn at this time.

(Witnesses sworm.)



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BILL COLE

called as a witness, having been first duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. SELINGER:

- Q State your name.
- Bill Cole.
- Q You are associated with what company and in what capacity?
 - A Skelly Oil Company in the Contracts Department.
- Particularly, are you involved in negotiations for communitization of tracts for proposed units?
 - Yes, we are at this present time negotiating with Sunset
- Q You are familiar with the Skelly Oil Company's interest and the Sunset interest in this particular strip, are you not?
 - A Yes, sir.
- Q Have you been negotiating with them for some time with respect to a proposed unit?
 - We have been negotiating for about three or four months. A
- I'll refer you to Exhibit 7 and ask you whether or not the negotiations that you and Sunset have been carrying on for the past three or four months conforms with the unit that Pan American has indicated as lying just East of the unit proposed at this hearing?

That is the unit we are negotiating on.



Q How much acreage does Skelly, which is indicated in blue on that exhibit, have in that strip?

A We have 256.77 acres.

Q Does it all lie in the unit lying immediately East of the unit involved at this hearing?

A Yes.

Now, I'll refer you to Exhibit 6. If the present order remains as is issued, the unit which lies immediately East of the present proposed Day Unit under that order would contain how many varied interests of operation?

A Well, it would contain Pan American, Sunset and Skelly.

Q That is indicated on Exhibit 6 in yellow, brown and blue is that correct?

A Yes, sir.

Q And would that unit contain all of the Skelly acreage?

A No, it would not.

Q What would result from the Skelly acreage under that Exhibit 6?

A It would result in two units being formed, splitting up Skelly's acreage in fractional Section 9.

Q So that it would result in the two units containing portions of the Skelly acreage, is that correct?

A That's correct.

MR. SELINGER: I believe that's all. Oh, I have one



- Referring to both Exhibits 6 and 7, the North part of the question further. entire tier is composed of lots, are they not?

 - And the South part contain approximately 80 acres? That is correct. Q
 - That's correct.

MR. SELINGER: I believe that's all.

MR. PORTER: Anyone have a question of the witness?

The witness may be excused.

(Witness excused.)

called as a witness, having been first duly sworn, testified as

follows:

DIRECT EXAMINATION

BY MR. SELINGER:

Tom Popp.

State your name. MR. PORTER: What was that name again? Q

Mr. Popp, what company are you associated with? Tom Popp. A

I am with the Sunset International Petroleum Corporation Q

What is your position with that corporation? A

District Superintendent over Northwest New Mexico. Q

Are you an engineer by profession? Q

A

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- Are you familiar with the negotiations that your company has had with the Skelly Oil Company in the proposed unit which is depicted on Exhibit 7 as the unit lying immediately East of the present Day proposed unit?
- Yes, sir, I understand we are negotiating with Skelly in setting up such a unit.
 - Does Sunset have other acreage in this immediate area?
 - Yes, sir.
- Do you have other wells, producing wells, from the Dakota Q Gas Reservoir in this immediate area?
- Yes, sir, we have one immediately adjoining that to the A South that has been pointed out and used to show interference by Pan American.
- One of your wells was used in the interference depicted Q on Exhibits 2, 3 and 4?
 - Yes, sir.
 - Are you an engineer of an accredited school?
 - Yes, sir.
 - What year did you graduate with what degree?
- I graduated in 1958 from the University of Wyoming with the degree of Petroleum Engineer.
- Now, I refer you to Exhibits 2, 3 and 4 and from those exhibits have you come to any conclusion to whether or not a well will drain Dakota gas in excess of 320 acres?



A From the information available and presented by Pan American I believe and we believe that a well will drain in excess of 320 acres.

Q Will it drain at least 384, approximately that amount of acreage?

A Yes, sir.

Q If the units are required to be drilled and formed in line with Exhibit 6, it would result in a unit containing your acreage composed of two partners, is that correct?

A Yes, sir.

Q And if a unit is proposed in line with Exhibit 7 it would result in only one partner, is that correct?

A Yes, sir.

Q And the two companies have been, that is Skelly and Sunset have been negotiating for the formation of a unit as depicted in Exhibit 7?

A Yes, sir.

MR. SELINGER: I believe that's all.

MR. PORTER: Anyone have a question of Mr. Popp? Mr.

Utz.

CROSS EXAMINATION

BY MR. UTZ:

Q Mr. Popp, what is dedicated to your Kutz E Federal No. 1

in Section 17?



- It's the East Half of the section.
- 320 acres. That's 320 acres? Q
- And you have the little strip in this proposed unit Q directly North of it, do you not?
 - Yes, sir. We have the East Half of the partial Section 8.
- Why didn't you ask for communitization with that 320 acres with what acreage you have in Section 8?
 - Would you repeat the question, sir?
- The question was, you have 320 acres dedicated in the Q East Half of Section 17 and adjoining acreage directly to the North. My question was why didn't you ask for communitization with the portion you have in the partial Section 8 to the 320 acres in Section 17?

MR. SELINGER: We would like to object to that question because we are not, neither Sunset, Skelly or Pan American is attacking the 320 acre order of the Commission.

MR. UTZ: It looks like you are.

MR. SELINGER: We are not. We are not asking for any exception in the regular Governmental subdivision. We are asking for an exception due to the adjustment on the township line.

MR. UTZ: You are asking for some 308.

MR. SELINGER: Whether we ask for 320 or 386 we are required to have a unit. Regardless of the size of the unit we are required, even if we ask for 320, we still have to come in and ask



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for a hearing because of the very nature of the situation here.

MR. PORTER: Will you give us an opportunity, the Commission will sustain your objection. Does anyone else have a question?

MR. SELINGER: That's all we have.

MR. PORTER: The witness may be excused.

(Witness excused.)

MR. PORTER: Does anyone have testimony to present in this case? Any comments or statements that you want to make ... the record?

MR. WHITWORTH: Guy Whitworth on behalf of El Paso
Natural Gas Company. El Paso Natural Gas concurs with the application of Pan American in Case 1909.

MR. PORTER: Anyone else?

MR. PAYNE: Mr. Commissioner, we have a communication from Southern Union Gas which reads as follows: "Southern Union Gas Company strongly recommends the Commission's approval of this application. We believe the application is both practical and just and in the best interest of conservation. The utilization of these partial sections will result in the better distribution of the dedicated area resulting in no loss of productive acreage.

Most important we feel the area will be adequately drained by the proposed drill site." Signed by Paul J. Clotc, Manager of Drilling and Production.



MR. PORTER: Any other communications regarding the case? The Commission will take the case under advisement and take up next Case 1904.

STATE OF NEW MEXICO) SS COUNTY OF BERNALILLO)

I, ADA DEARNLEY, Court Reporter, do hereby certify that the foregoing and attached transcript of proceedings before the New Mexico Oil Conservation Commission at Santa Fe, New Mexico, is a true and correct record to the best of my knowledge, skill and ability.

IN WITNESS WHEREOF I have affixed my hand and notarial seal day of May, 1960. this

My commission expires: June 19, 1963.



BEFORE THE OIL CONSERVATION COMMISSION SANTA FE, NEW MEXICO

IN THE MATTER OF:

CASE 1909:

Application of Pan American Petroleum Corporation for a 386-acre non-standard gas unit in the Dakota Producing Interval. Applicant, in the above-styled cause, seeks the establishment of a 386-acre non-standard gas unit in the Dakota Producing Interval consisting of all of partial Section 7 and the W/2 of partial Section 8, Township 28 North, Range 10 West, San Juan County, New Mexico, said unit to be dedicated to the J. F. Day "F" Well No. 1, to be located in the E/2 of said partial Section 7.

State Conservation Commission Hearing Room State Capitol Building Santa Fe, New Mexico February 25, 1960

BEFORE:

Elvis A. Utz, Examiner

TRANSCRIPT OF HEARING

MR. UTZ: Case 1909.

MR. FLIMT: Case 1909. Application of Pan American
Petroleum Corporation for a 386-acre non-standard gas unit in the
Dakota Producing Interval.

MR. NEWMAN: Kirk Newman of Atwood and Malone, Roswell,

New Mexico, and Guy Buell of Fort Worth, Texas, a member of the



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num. Tapografia en en lagraga en Combre de l'Alemania (l'Orini de l'Argent Maria).

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Channo I. GARRELIT

called as a witness, having been first duty ewern, testified as follows:

* Diming : Dia . Clasic.

BY MR. BULLE:

o Mr. Marshail, would you state your complete name, by whom you are employed, and in what capacity, and what location, please?

A Charles R. Marsiall. I'm employed by Pan American Petroleum Corporation in their Farmington area offices.

Now, that area office has supervision of Pan American's operations in the area of the Angel Peak-Dakota Pool, does it not?

A It does.

mission hearings?

A Yes, sir.

Q Are your qualifications as a petroleum engineer a matter of public record?

A Yes, sir.

MR: BUELL: Any questions, Mr. Examinor?

MR. UTZ: No. sir.



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MR. BUELL: At the outset, Mr. Examiner, I might point out for the record that the well which we intend to drill on this proposed unit in our application was called the Day F No. 1. Since we'll call this unit the Davis Gas Unit, we will name the well the Davis Gas Unit No. 1.

> Day. A

MR. BUELL: Day all the way through, instead of Davis.

- Q (By Mr. Buell) Mr. Marshall, I direct your attention to what has been marked as Pan American's Exhibit Number 1. What is that Exhibit?
- Exhibit 1 is a map of a portion of the San Juan Basin, more particularly, the area around the Angels Peak-Dakota Field.
- Do you have the proposed Day gas unit outlined in this Exhibit?
 - Yes, the proposed unit is outlined in green.
- What is the significance of the area outlined in orange?
- These are the field limits as defined by the Commission, horizontal field limits as defined by the Commission for the Angels Peak Dakota Field.
- Do you have the proposed location of the Day Well No. 1 marked on this Exhibit?
- Yes, this well is -- proposed well is indicated as a green dot on the Exhibit within the unit. It will be located



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eleven hundred and ninety feet from the west line, east line, excuse me, of Section 7, and nine hundred and ninety feet from the south line of Section 7, Township 28 North, Range 10 West.

Is that an orthodox location under the Angels Peak-Dakota Pool?

Yes, it is.

What is the significance of the wells that you have Α Q colored in red?

These are wells that are completed in the Dakota formation, wells in the vicinity of the proposed well which are completed in Dakota formation.

Will the Day gas unit No. 1 be located within a mile of the well that is currently classified as being in the Angels Peak-Dakota Pool?

Approximately within one mile, and less than one mile from the presently defined limits of the Angels Peak-Dakota

In your opinion, will the Dakota reservoir that the Field. well will be completed in, is it the same Dakota reservoir that the Angels Peak-Dakota wells are producing from?

Yes, sir.

Why is a hearing for approval of this unit necessary, A Q

The sections which are located along the north Mr. Marshall?

Township 28 North, Range 10 West are irregular. It is an irregu-

larity of the public land survey, and as the Rules which are in effect in this area provide for three hundred twenty acre spacing, three hundred twenty acre unit to consist either of east half, west half, or north half, or south half of the Section, this was not possible in this particular case, and, consequently, a non-standard unit is necessary.

- Q Approximately how many acres are in this proposed unit?
- A There are three hundred and eighty-five point eight nine exact acres, or approximately three hundred eighty-six acres.
- Q All right, sir. Directing your attention to the proposed unit as outlined on Exhibit 1, does it appear to you that the well is located as near the center of the unit as is possible under the Angel Peak-Dakota Pool Rules?
- A Yes. To make it an orthodox location under those Rules, it is located as near the center as possible.
- Q In your opinion, Mr. Marshall, is all the acreage dedicated to this unit productive of gas from the Dakota formation?
- A Tes, by virtue of the production which has been established by the four surrounding wells, they are essentially surrounded. These wells are shown in red. The well in Section 12, 28, 11, was completed in the Dakota and potentialled for fortynine hundred and six m.c.f. of gas daily. The well in Section 25, of Township 29, Range 11, was completed in the Dakota for a



potential of forty-seven hundred and ninety-one m.c.f. of gas daily. The well in the Northwest, Northeast of the Section 17, 28, 10, was completed in the Dakota for eighty-one hundred seventy-nine m.c.f. gas daily, and the well in the Southwest quarter of 17 was completed in Dakota for forty-four ten m.c.f. of gas daily.

It appears pretty conclusive, then, does it not, Mr. Marshall, that all this acreage is productive?

Yes, sir.

Now, you know, do you not, Mr. Marshall, that the Commission, after hearing, found that a well in the Angels Peak-Dakota Pool would effectively drain in excess of three hundred twenty acres?

Yes, sir.

All right, sir. Since this unit will consist of three hundred and eighty-six acres, let me ask you whether or not, in your opinion, a well in this area located on this unit will effectively drain in excess of three hundred eighty-six acres?

Yes, sir, I believe that it will.

I direct your attention now to what has been marked as Pan American's Exhibit No. 2. What is that Exhibit, Mr. Marshall?

Exhibit 2 is a plot of observed shutin pressures as measured by dead weight test gauge versus time for Pan American's



Day No. 1 located in the Southeast quarter of Section 17,

Township 28 North, Range 10 West. These pressures were measured during the period of time that the well was awaiting connection to a gas sales line and the well had only been completed and shutin and had not been produced.

- Q You mean to say -- Your southeast quarter or north-east quarter?
 - A The southwest quarter of 17.
- Q Your time scale there, Mr. Marshall, is in days, I notice. At what time does this scale start, the month and day of the year?
- A The zero day on this curve is August the 18th, 1959. The last pressure point available was taken October 22, 1959.
- Q All right, sir, and this Day E No. 1 well which, let's call it the control well, it was completed, was not connected to a pipe line and did not produce during this interval of time shown on Exhibit 2?
- A That is correct. Between the interval of time from zero, and the last pressure point.
- Q All right, sir. What do you notice, Mr. Marshall, when you observe the pressure performance as plotted on Exhibit 2?
- A It is evident from this plot that this shutin well was experiencing interference as a result of other production in this reservoir.
 - Q What is the nearest well producing from the Dakota



during this interval of time, Mr. Marshall?

The nearest producing well was the Sunset International Petroleum Company, which is Federal E Number 1 located in the Northeast quarter of Section 17. This well is twenty-five hundred and fifty feet from the control well.

Are both of these wells, the control well and the producing well, both of them colored in red on Exhibit 1?

Yes, sir.

And, do you feel the surface distance between the two--

Yes, this distance is indicated on the arrow between the two wells.

So we know, then, do we not, Mr. Marshall, that we observed interference on the control well and the nearest producing well in the same pool was twenty-five hundred and fifty feet away; is that right?

That is correct.

What is the area of the circled radius of which is twenty-five hundred fifty feet?

Approximately four hundred sixty-nine acres.

Do these data, then, indicate that a well completed Q in this area of the Angel Peak and Angel Peak-Dakota Pool will effectively drain, then, in excess of three hundred eighty-six acres?

Yes, this proves that interference is being experienced



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at a radius of twenty-five hundred fifty feet, and, consequently, a minute area of four hundred eighty-six acres.

Q Directing your attention to Exhibit No. 1, and, particularly, the row of irregular or partial Sections at the north end of that survey, let me ask you this: Is there any way that a regular proration unit, and I mean standard regular under the pool Rules, could be formed for these series of irregular Sections?

A No, sir, you cannot form a regular unit as defined in either Section through 12.

Q You are faced with one of two things, Mr. Marshall, are you not? You either have a non-standard unit that is undersized, or you can form a non-standard unit that is over-sized?

A That is correct.

Q And I mean over and under with respect to three hundred twenty acres?

A That is correct. There is three hundred sixty-seven acres in Township 27, Range 25, 6.

Q How much is that less than three twenty?

A Sixty-four acres.

Q And we are approximately sixty-six acres over three hundred twenty in the unit?

A Three hundred-- Sixty-six it would be, sixty-six over the three twenty, yes, sir.

Q If Pan American would form a non-standard unit of



approximately one hundred sixty acres, being that acreage that we own in this present unit, what would happen to the Southern Union acreage in the western half of Marshall Section 7?

You mean, if Pan American farmed that which exists of two hundred fifty acres?

- Two hundred fifty acres.
- It would leave this tract, the west half of Section 7, more or less is idlying in that it would be difficult to assign it to any other, and since the units to the south would be standard units anyway.
- It would be an island acreage, would it not, Mr. Marshall?
 - Yes.
- The only way to develop would be to drill a well and complete it on that western portion of the partial Section 7?
- And that half-section, I believe, is in the neighborhood, yes, half-section, one hundred twenty-five to thirty acres.
- If it would be necessary in order to develop the acreage which we propose to assign to this non-standard unit with two wells instead of one, in your opinion, would that be economic waste?
- Definitely, yes, sir. As I said, the indicated drainage is certainly in excess of three hundred eighty acres. consequently, drilling to a density of less than that would be economic waste



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Q All right, sir. In your opinion, Mr. Marshall, the proposed unit which we have formed, will it fit in with current development in the field and will also lend itself to future development of these irregular or partial sections?

A Yes, sir. To me it is the most logical way to develop these series of Sections in that if this area to the east along this line of narrow Sections is proven production in the future, it will be possible to build a series of units comparable to the one that Pan American is proposing clear across those Sections, and you will come out to where there will be essentially three of these less than quarter Sections in each unit across the Township.

- Q Well, more or less in summary, Mr. Marshall, do you feel that approval of this unit as you propose here today will serve conservation as well as protect the correlative rights of all parties or interest?
 - A Yes, sir, it will.
 - Q Do you have anything further to add, Mr. Marshall?
 - A No, sir, I believe not.

MR. BUELL: That's all we have at this time, Mr. Examiner, and I would like to formally offer Pan American's Exhibit 1 and 2.

MR. UTZ: Without objection, they will be accepted.

CROSS-EXAMINATION



BY MR. U.M:

- Dakota formation in the San Juan Basin is three hundred twenty acres?
 - A I believe that is correct, yes, sir.
- Q If you were to dedicate the partial Section 7 and the west half of the west half of Section 8, how many acres would you have?
- A You would have approximately, would be two five eight plus six four, which is--
 - Q Three two one nine seven?
 - A Three two one nine five.
- Q What would be the objection to dedicating three hundred twenty-one point ninety-five acres to this well?
- A Well, sir, in my opinion, it is more desirable if, and where possible, in the case of these irregular surveys which we have in this case, to keep the units on a more or less—properties in contact. In other words, if you did what you say, what you suggest, we would have part of Section 8, or part of the west half of Section 8 in one unit, and then, if the other further east proves productive, that part would be in another unit. That, to me, is an undesirable feature of it, further split than it is.
- Q Wouldn't it be just as feasible to form units across this top tier of Sections in 28 North on the basis they are near three twenty acres than it is feasible to spacing them to three



hundred eighty acres?

Well--

In other words, that could be divided up into units closer to three hundred twenty acres than three hundred eighty acres, could it not?

I have not divided it out to see just exactly what it would be left, or how much would be left if we put it on three hundred and twenty acres. Of course, the acreage in each one of these Sections varies, Section 9 does not contain exactly the same acreage as Section 8, but in dividing the three hundred twenty acres, of course, the reason that in my opinion that it is advisable to do that, is to go in line with divisions in the surveys. The reason we didn't assign three hundred twenty-five or three hundred thirty, by having three hundred eighty-six, we could continue in more or less orderly development in accordance with the way the survey exists.

Is there any difference in a quarter Section and half Section survey? Those are survey lines, aren't they?

Yes, sir, that is correct.

Who owns the acreage in the east half of Section 8, 9, and 10, do you know?

The east half of 8, I believe, I do know the east half of 8 is owned by Sunset International, and in regard to Section 9, I'm not sure who owns that Section. Skelly, according to my information right here, and Southern Union the remainder of



those Sections. Any way you go about dedicating this tier of partial Sections is going to have some communitization of some nature?

Yes, sir.

MR. UTZ: Any questions of the witness?

MR. FLINT: Yes, sir.

BY MR. FLINT:

Mr. Marshall, what size unit is dedicated to the Q well in the east half of Section 12, 28, 11?

I believe that in accordance with the dedicated it is about two hundred A acreage in the form that is filed fifty-four, two hundred fifty-five. That's Section 12.

That's the partial section dedicated to that well?

A

There has been at least one well drilled along this line of partial sections smaller than three twenty spacing? Q

There has been three hundred twenty acres dedicated to this well. Now, I don't know, of course, what the operator plans to do or where he plans to, if, in the case of proration, we are integrated or something. It is quite possible that he may desire to assign the additional acreage, but for the present time, there are three hundred fifty-five acres. That is correct.

Your proposal is based not someh the size of the unit Q as uniform development of that line of irregular sections?

Yes, we felt---



Q Like going one full partial section and then half the next partial section all the way across so that you will come out even?

I said before to Mr. Utz' question, I have not figured out as to what other combinations we could use. I'm sure we could split it down finer and come out with other combinations. I don't know what they are. I doubt if we would come out exactly. I would like to add one more point in regard to a question previously asked on this three hundred twenty versus three hundred eighty acre spacing. As we've shown by this information, this interference data, the well will definitely drain three hundred seventy-six acres, and in view of the other complication of this irregular survey, I would like to reiterate my point: That I feel it would be justified to develop these Townships, these narrow sections, on the basis that we propose.

Q You are actually asking here for not only a non-standard unit, but then, exception to the Dakota space Rules?

A Well, sir, in that the non-standard unit is slightly over the tolerance for the spacing that is set in the Dakota. It is a non-standard sized unit so it is an exception to the spacing for this particular case.

MR. UTZ: Any other questions of the witness?

The witness may be excused.

(Witness excused.)



MR. UTZ: Any statement to be made in this case? MR. BUELL: I would like to say in closing, Mr. Examiner,

that these irregular or partial sections do make a complicated problem from the standpoint of unit, and we feel by dedicating an entire partial section and half of another, that it will result in more orderly and uniform development of that northern tier or irregular sections.

MR. UTZ: Case will be taken under advisement.



I, J. A. TRUJILLO, Notary Public in and for the County of Bernalillo, State of New Mexico, do hereby certify that the foregoing and attached Transcript of Proceedings before the New Mexico Oil Conservation Commission was reported by me in stenotype and reduced to typewritten transcript by me and/or under my personal supervision, and that the same is a true and correct record to the best of my knowledge, skill and ability.

WITNESS my Hand and Seal, this, the 15 day of mand, 1960, in the City of Albuquerque, County of Bernalillo, State of New Mexico.

NOTARY PUBLIC

My commission expires: October 5, 1960.

I do hereby certify that the foregoing is a complete remainer of the recordings in the Examiner hearing Commission in the Mexico Oil Conservation Commission

LBUQUERQUE, NEW MEXICO

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

WESTERN UNION

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D LLA157 LONG NL PD=WUX DALLAS TEX 17=1 NEW MEXICO OIL & CONSERVATION COMMISSION= SANTA FE NMEX=

REFERENCE CASE NO 1909 - SCHEDULED MAY 18, 1960 THIS WILL HAVE REFERENCE TO THE APPLICATION OF PAN AMERICAN PETROLEUM CORP. BEFORE THE NEW MEXICO OIL CONSERVATION COMMISSION IN CASE NO. 1909. SOUTHERN UNION GAS COMPANY STRONGLY RECOMMENDS THE COMMISSION'S APPROVAL OF THIS APPLICATION. WE BELIEVE THE APPLICATION IS BOTH PRACTICAL AND JUST AND IN THE BEST INTEREST OF CONSERVATION. THE UTILIZATION OF THESE PARTIAL SECTIONS WILL RESULT IN BETTER DISTRIBUTION OF THE DEDICATED AREA RESULTING IN NO LOSS OF PRODUCTIVE ACREAGE. MOST IMPORTANT WE FEEL THE AREA WILL BE ADEQUATELY DRAINED BY THE PROPOSED DRILL SITE=

> PAUL J CLOTE MGR OF DRILLING & PRODUCTION SOUTHERN UNION GAS CO ==

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NEW CASES

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Application of Caulkins Oil Company for a gas-gas dual completion and for establishment of a 320-acre non-standard Dakota gas unit. Applicant, in the above-styled cause, seeks an order authorizing the dual completion of its PC-233 Well, located in Unit D, Section 16, Township 26 North, Range 6 West, Rio Arriba County, New Mexico, in such a manner as to permit the production of gas from the South Blanco-Pictured Cliffs Pool and the production of gas from the Dakota Producing Interval. Applicant further seeks the establishment of a 320-acre non-standard gas unit in the Dakota Producing Interval consisting of the N/2 N/2 and S/2 NW/4 and N/2 SW/4 of said Section 16 to be dedicated to said PC-233 Well.

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Application of Texaco Inc. for permission to commingle the production from two separate pools. Applicant, in the above-styled cause, seeks permission to commingle the liquid hydrocarbon production from the Moore-Pennsylvanian Pool and the Moore-Wolfcamp Gas Pool from all wells on its State "BN" (NCT-1) lease consisting of the SW/4 of Section 25, Township 11 South, Range 32 East, Lea County, New Mexico.

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CASE 1905:

Application of Humble Oil & Refining Company for an oil-oil dual completion utilizing parallel strings of small diameter casing cemented in a common well bore. Applicant, in the above-styled cause, seeks an order authorizing the dual completion of its State M-20 Well, located 1930 feet from the North line and 1980 feet from

DOCKET: EXAMINER HEARING FEBRUARY 25, 1960

Oil Conservation Commission - 9 a.m., State Corporation Commission Hearing Room, Basement, Capitol Building, Santa Fe, New Mexico

The following cases will be heard before Elvis A. Utz, Examiner, or A. L. Porter, Jr., Secretary-Director:

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Application of Hamilton Dome Oil Company, Ltd. for permission to commingle the production from three separate pools. Applicant, in the above-styled cause, seeks an order authorizing it to commingle the production from the Justis-Drinkard Pool, the Justis-Fusselman Pool and an undesignated Tubb pool from wells on a lease consisting of the S/2 SE/4 of Section 25, Township 25 South, Range 37 East, Lea County, New Mexico.

CASE 1879:

Application of Amerada Petroleum Corporation for a gas-oil dual completion and for a non-standard gas proration unit. Applicant, in the above-styled cause, seeks an order authorizing the dual completion of its State EM "A" Well No. 2, located 600 feet from the South and West lines of Section 22, Township 19 South, Range 37 East, Lea County, New Mexico, in such a manner as to permit the production of gas from the Eumont Gas Pool and the production of oil from the Eumont Gas Pool through the casing-tubing annulus and the tubing respectively. Applicant further seeks the establishment of a 160-acre non-standard gas proration unit in the Eumont Gas Pool consisting of the SW/4 of said Section 22 to be dedicated to the said State EM "A" Well No. 2.

CASE 1888:

Application of C. W. Trainer for off-lease storage of oil production. Applicant, in the above-styled cause, seeks permission to store the Pearl-Queen Oil Pool production from his Rushing lease, consisting of the W/2 NE/4 of Section 22, Township 19 South, Range 35 East, Lea County, New Mexico, in a tank battery located on his Signal State lease, consisting of the E/2 NW/4 of said Section 22.

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the West line of Section 29, Township 22 South, Range 37 East, Lea County, in such a manner as to permit the production of oil from the Langlie-Mattix Pool and the production of oil from the Drinkard Pool through 2 7/8-inch casing and 4½-inch casing respectively with said casing being cemented in a common well bore.

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Application of Val R. Reese & Associates, Inc. for an oilgas dual completion. Applicant, in the above-styled cause, seeks an order authorizing the dual completion of its Sperling Well No. 1-30, located in Unit I, Section 30, Township 24 North, Range 6 West, Rio Arriba County, New Mexico, in such a manner as to permit the production of oil from the Gallup formation adjacent to the Escrito-Gallup Oil Pool and the production of gas from the Dakota Producing Interval through parallel strings of 2 3/8-inch tubing.

CASE 1909:

Application of Pan American Petroleum Corporation for a 386-acre non-standard gas unit in the Dakota Producing Interval. Applicant, in the above-styled cause, seeks the establishment of a 386-acre non-standard gas unit in the Dakota Producing Interval consisting of all of partial Section 7 and the W/2 of partial Section 8, Township 28 North, Range 10 West, San Juan County, New Mexico, said unit to be dedicated to the J. F. Day "F" Well No. 1, to be located in the E/2 of said partial Section 7.

CASE 1910:

Application of Roy II. Smith Drilling Company for permission to commingle the production from two separate pools. Applicant, in the above-styled cause, seeks permission to commingle the production from the Maljamar-Yates Pool and the Pearsall Pool from all wells on its Walker "A" lease in Section 5, Township 18 South, Range 32 East, and to commingle the production from the Baish Pool and the Maljamar Pool from wells on its Gulf State lease in Section 16, Township 17 South, Range 32 East, all in Lea County, New Mexico.

CASE 1911:

Application of Johnston and Shear for a multiple zone slim hole completion. Applicant, in the above-styled cause, seeks an order authorizing the multiple completion of its Jicarilla Well No. 1-4, located 985 feet from the North line and 805 feet from the West line of Section 4, Township 24 North, Range 5 West, Rio Arriba County, New Mexico, in such a manner as to produce gas from the South Blanco-Pictured Cliffs Pool (or Otero Chacra), gas from the Dakota Producing Interval, and oil from the Gallup formation adjacent to the Otero-Gallup Pool, each to be produced through 2 7/8-inch tubing which tubing is to be cemented in a common well bore.

CASE 1912:

Application of Southern Union Gas Company for a gas-oil dual completion. Applicant, in the above-styled cause, seeks an order authorizing the dual completion of its Jicarilla 1-F, Unit L, Section 27, Township 26 North, Range 4 West, Rio Arriba County, New Mexico, in such a manner as to permit the production of gas from the Blanco Mesaverde Pool, and the production of oil from the Dakota producing interval through parallel strings of 2 3/8-inch tubing.

CASE 1913:

Application of Continental Oil Company for a non-standard oil well location. Applicant, in the above-styled cause, seeks a non-standard oil well location for its Wm. Mitchell "A" Well No. 20, to be located 1320 feet from the North line and 1520 feet from the West line of Section 20, Township 17 South, Range 32 East, Maljamar Paddock 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. 1909 Order No. R-1628

APPLICATION OF PAN AMERICAN PETROLEUM CORPORATION FOR A 386-ACRE NON-STANDARD GAS UNIT IN THE DAKOTA PRODUCING INTERVAL, SAN JUAN COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'dlock a.m. on February 25, 1960, at Santa Fe, New Maxico, before Elvis A. Utz, Examiner duly appointed by the Oil Conservation Commission of New Maxico, hereinafter referred to as the "Commission," in adcordance with Rule 1214 of the Commission Rules and Regulations.

NOW, on this 16th day of March, 1960, the Commission, a quorum being present, having considered the application, the evidence adduced, and the recommendations of the Examiner, Blvis A. Utz, and being fully advised in the premises,

FIRDS:

- (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, Pan American Petroleum Corporation, is the operator of the W/2 of partial Section 8 and of the E/2 of partial Section 7, both in Township 28 North, Range 10 West, MMPM, San Juan County, New Mexico and that Southern Union Gas Company is the operator of the W/2 of said Section 7.
- (3) That the applicant proposes to communitize the above-described agreege to form a 385.89-acre non-standard gas unit in the Dakota Producing Interval, to be dedicated to the J. F. Day "F" Well No. 1 to be drilled in the R/2 of said Section 7 at a location in compliance with the provisions of Order No. R-1287.
- (4) That the standard drilling unit in the Dakota Producing Interval is 320 acres.
- (5) That denial of the subject application will not deprive the applicant of the right to produce its fair share

-2-Case No. 1909 Order No. R-1628

of the gas underlying the above-described acreage since, by communitization with Southern Union Gas Company, the applicant could form another gas unit in the Dakota Producing Interval containing approximately 320 acres.

- (6) That the application should be denied.
- (7) That an administrative procedure should be established whereby, upon proof of communitization, a 321.43-acre non-standard gas unit in the Dakota Producing Interval may be established by the Secretary-Director, comprising all of said partial Section 7 and the W/2 W/2 of said partial Section 8.

IT IS THEREFORE ORDERED:

- (1) That the application of Pan American Petroleum Corporation for a 385.89-acre non-standard gas unit in the Dakota Producing Interval, comprising all of partial Section 7 and the W/2 of partial Section 8, Township 28 North, Range 10 West, NMPM, San Juan County, New Mexico, be and the same is hereby denied.
- (2) That an administrative procedure be and the same is hereby established whereby, upon proof of communitization, a 321.43-acre non-standard gas unit in the Dakota Producing Interval may be established by the Secretary-Director, comprising all of said partial Section 7 and the W/2 W/2 of said partial Section 8.

DONE at Santa Fe, New Mexico on the day and year here-inabove designated.

STATE OF NEW MEXICO OIL CONSERVATION COMMISSION

JOHN BURROUGHS, Chairman

MURRAY E. MORGAN, Member

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

esr/

OIL CONSERVATION COMMISSION SANTA FE, NEW MEXICO

Date 2-17-60
1909 Hearing Date 2-25-60
My recommendations for an order in the above numbered cases are as follows:
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Staff Member

ALEX CLARKE, JR.

PAN AMERICAN PETROLEUM CORPORATION

OIL AND GAS BUILDING

FORT WORTH, TEXAS

April 7, 1960

GWK-185-986.510.1

File:

Application for De Novo

Subject: Applicat Hearing

Alle Consision Res

Mr. A. L. Porter, Jr. New Mexico Oil Conservation Commission

P. O. Box 871. Santa Fe, New Mexico

Dear Mr. Porter:

Case No. 1909 was the application of Pan American Petroleum Corporation for a 386 acre non-standard unit for the Day Gas Unit No. 1, in the Dakota producing interval to be completed in E/2 Section 7, T-28-N, R-10-W, San Juan County, New Mexico. This hearing was held before Examiner Elvis A. Utz on February 25, 1960. As a result of such Examiners hearing, Order No. R-1628 was issued on March 16, 1960, denying the application.

Pan American, as the applicant in Case No. 1909, was adversely affected by Order No. R-1628. Therefore, under the provisions of Rule 1220 of the rules and regulations of the New Mexico Oil Conservation Commission, Pan American respectfully submits this application for Case No. 1909 to be heard de novo before the Commission at a regular hearing.

Very truly yours,

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John S. H. J.

PAN AMERICAN PETROLEUM CORPORATION

P. O. Box 487, Farmington, New Mexico January 22, 1960

E-29-986.510.1

Subject: Non-Standard Proration Unit J. F. Day "F" No. 1

Angels Peak Dakota Field

New Mexico Oil Conservation Commission (3) P. 0. Box 871 Santa Fe, New Mexico

Attention: Mr. A. L. Porter, Jr.

Gentlemen:

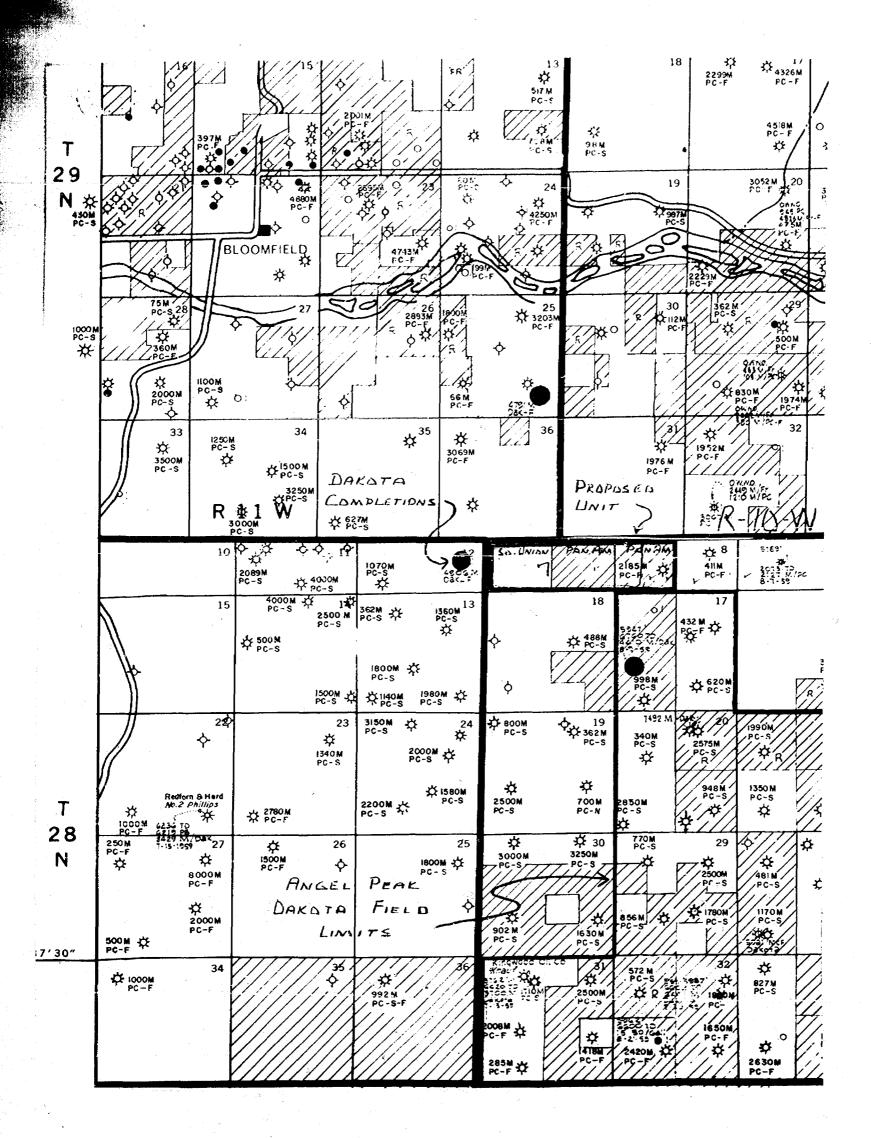
Pan American Petroleum Corporation respectfully requests that an examiner hearing be called at the earliest convenient time for the purpose of considering an order, in exception to Order R-1287, permitting the formation of a non-standard gas proration unit for Dakota gas production from Pan American's J. F. Day "F" No. 1, which is to be drilled in the E/2 of Section 7, T-28-N, R-10-M, San Juan County, New Mexico. The location of this well will be in compliance with provisions of Order R-1287. It is requested that a non-standard unit consisting of 385.89 acres, being all of Section 7 and the W/2 of Section 8, T-28-N, R-10-W, be assigned to this well for the purpose of producing gas from the Dakota formation.

The attached plat of the area surrounding the proposed Dakota unit shows the proposed unit, together with other Dakota completions in the vicinity of this unit. It is believed that the entire unit is proved productive from the Dakota formation by virtue of production from the three wells noted. The proposed well will be located less than one-half mile from the existing limits of the Angels Peak Dakota Field.

The ownership in the E/2 of Section 7 and the V/2 of Section 8 is divided as follows: Pan American Petroleum Corporation - 50 percent; Three States Natural Gas Company - 25 percent; El Paso Natural Gas Company - 25% as to gas; and Western Natural Gas Company - 25 percent as to oil. The W/2 of Section 7 is owned by Southern Union Gas Company. All partners have been contacted regarding the drilling of the proposed well, and as a result, no difficulty is anticipated in obtaining a satisfactory unitization and operating agreement for the proposed

AN PETROLEUM CORPORATION

Very truly yours



NEW CASES

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DOCKET: REGULAR HEARING MAY 18, 1960

Oil Conservation Commission, 9 a.m., Mabry Hall, State Capitol, Santa Fe

ALLOWABLE:

- (1) Consideration of the oil allowable for June, 1960.
- (2) Consideration of the allowable production of gas for June, 1960, for six prorated pools in Lea County, New Mexico, and also presentation of purchasers' nominations for the six-month period beginning July, 1960; consideration of the allowable production of gas for seven prorated pools in San Juan, Rio Arriba and Sandoval Counties, New Mexico, for June, 1960.

CASE 1935:

In the matter concerning purchaser prorationing by Sinclair Crude Oil Company in all oil pools from which it purchases in New Mexico.

CASE 1909: (De Novo)

Application of Pan American Petroleum Corporation for a hearing de novo before the Commission in Case No. 1909, Order No. R-1628, relating to the request for a 386-acre non-standard gas unit in the Dakota Producing Interval, San Juan County, New Mexico, comprising all of partial Section 7 and the W/2 of partial Section 8, both in Township 28 North, Range 10 West.

CASE 1904: (De Novo)

Application of Sunray Mid-Continent Gil Company for a hearing de novo before the Commission in Case No. 1904, Order No. R-1636, relating to special rules governing the Central Bisti LPG-Gas-Water Injection Project in the Bisti-Lower Gallup Oil Pool, San Juan County, New Mexico, particularly those provisions concerning the assignment of well allowables.

CASE 1893: (De Novo)

Application of Petro-Atlas, Inc. for a hearing de novo before the Oil Conservation Commission in Case No. 1893, Order No. R-1619, relating to a request for cancellation of the over-production charged against one gas well in the South Blanco-Pictured Cliffs Pool, San Juan County, New Mexico.

CASE 1669:

In the matter of the application of Pan American Petroleum Corporation for the promulgation of special rules and regulations for the Atoka-Pennsylvanian Gas Pool in Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order promulgating special rules and regulations for the Atoka-Pennsylvanian Gas Pool in Eddy County, New Mexico, to provide for 320-acre spacing units and for well location requirements, as authorized on a temporary basis by Order No. R-1417, dated June 5, 1959.

Docket No. 14-60

CASE 1967: Application of Redfern and Herd, Val R. Reese and Associates, Inc., and El Paso Natural Gas Company for the promulgation of special pool rules governing the Devils Fork-Gallup Pool, Rio Arriba County, New Mexico, including provisions relating to drilling and proration units, an allocation formula, and market demand proration for said pool. CASE 1968:

Southeastern New Mexico nomenclature case calling for an order creating new pools and extending existing pools in Chaves Eddy, and Lea Counties, New Mexico.

(a) Create a new oil pool for Devonian production, designated as the West Gladiola-Devonian Pool, and described as:

TOWNSHIP 12 SOUTH, RANGE 37 EAST, NMPM Section 26: SW/4

(b) Abolish the Buffalo Valley-San Andres Pool, described as:

TOWNSHIP 14 SOUTH, RANGE 31 EAST, NMPM Section 35: SW/4

(c) Extend the Brushy Draw-Delaware Pool to include:

TOWNSHIP 26 SOUTH, RANGE 29 EAST, NMPM Section 24: NW/4

Extend the Coyote-Queen Pool, to include:

TOWNSHIP 11 SOUTH, RANGE 27 EAST, NM.PM Section 27: W/2

(e) Extend the El Mar-Delaware Pool, to include:

TOWNSHIP 26 SOUTH, RANGE 33 EAST, NMPM Section 31: NW/4 Partial Section

(f) Extend the Empire-Abo Pool, to include:

TOWNSHIP 17 SOUTH, RANGE 27 EAST, NMPM Section 35: SE/4

(g) Extend the West Henshaw-Grayburg Pool, to include:

TOWNSHIP 16 SOUTH, RANGE 30 EAST, Section 10: NE/4

(h) Extend the Logan Draw Pool, to include:

TOWNSHIP 17 SOUTH, RANGE 27 EAST, NMPM Section 19: SW/4 NE/4

(i) Extend the West Pearl-Queen Pool, to include:

TOWNSHIP 19 SOUTH, RANGE 34 EAST, NMPM Section 36: NW/4

(j) Extend the Shugart Pool, to include:

TOWNSHIP 19 SOUTH, RANGE 31 EAST, NMPM Section 3: SE/4

(k) Extend the West Teas-Yates Pool, to include:

TOWNSHIP 20 SOUTH, RANGE 33 EAST, NMPM Section 16: W/2 NW/4

CASE 1969:

Northwestern New Mexico nomenclature case calling for an order creating new pools and extending existing pools in San Juan and Rio Arriba Counties, New Mexico.

(a) Extend the Aztec-Pictured Cliffs Pool, to include:

TOWNSHIP 30 NORTH, RANGE 11 WEST, NMPM Section 1: W/2 & SE/4
Section 12: NE/4

(b) Extend the Blanco-Mesaverde Pool, to include:

TOWNSHIP 26 NORTH, RANGE 6 WEST, NMPM Section 6: All

TOWNSHIP 27 NORTH, RANGE 6 WEST, NMPM Section 31: All Section 32: All

(c) Extend the Escrito-Gallup Oil Pool, to include:

TOWNSHIP 24 NORTH, RANGE 7 WEST, NMPM Section 16: S/2 SW/4
Section 17: S/2 SE/4

-4-Docket No. 14-60

(d) Extend the Horseshoe-Gallup Oil Pool, to include:

TOWNSHIP 31 NORTH, RANGE 16 WEST, NMPM

Section 21: SE/4 SE/4 Section 27: NW/4 NW/4

Section 28: NW/4 NE/4

TOWNSHIP 31 NORTH, RANGE 17 WEST, NMPM Section 13: NE/4 SW/4

(e) Extend the Puerto Chiquito-Gallup Oil Pool, to include:

TOWNSHIP 26 NORTH, RANGE 1 EAST, NMPM

Section 4: SW/4 Section 5: SE/4

Section 9: W/2 & SE/4

Section 16: NE/4

(f) Extend the Totah Gallup Oil Pool, to include:

TOWNSHIP 29 NORTH, RANGE 13 WEST, NMPM

Section 33: SE/4 Section 35: N/2

(g) Extend the Verde-Gallup Oil Pool, to include:

TOWNSHIP 30 NORTH, RANGE 15 WEST, NMPM

Section 6: W/2

TOWNSHIP 30 NORTH, RANGE 16 WEST, NMPM,

Section 1: N/2 & E/2 SE/4

Section 2: NE/4 NE/4

TOWNSHIP 31 NORTH, RANGE 14 WEST, NMPM

Section 22: N/2 SW/4

Section 29: SW/4

Section 30: NW/4 SW/4

TOWNSHIP 31 NORTH, RANGE 16 WEST, NMPM

Section 36: SW/4 SW/4

(h) Extend the Angels Peak-Dakota Pool, to include:

TOWNSHIP 27 NORTH, RANGE 10 WEST, NMPM

Section 6: W/2

TOWNSHIP 28 NORTH, RANGE 10 WEST, NMPM Section 7: All (partial)

TOWNSHIP 28 NORTH, RANGE 11 WEST, NMPM

Section 13: W/2 Section 14: S/2

TOWNSHIP 29 NORTH, RANGE 11 WEST, NMPM

Section 25: E/2 Section 36: All

(i) Extend the South Blanco-Dakota Pool, to include:

TOWNSHIP 27 NOP.TH, RANGE 6 WEST, NMPM Section 26: W/2

(j) Extend the West Blanco-Dakota Pool, to include:

TOWNSHIP 32 NORTH, RANGE 13 WEST, NMPM

Section 25: All Section 26: All Section 36: E/2

(k) Extend the West Kutz-Dakota Pool, to include:

TOWNSHIP 29 NORTH, RANGE 13 WEST, NMPM

Section 34: E/2 Section 35: All

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. 1909 Order No. R-1628-A

> > The state of the s

APPLICATION OF PAN AMERICAN PETROLEUM CORPORATION FOR A 386-ACRE NON-STANDARD GAS UNIT IN THE DAKOTA PRODUCING INTERVAL, SAN JUAN COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on February 25, 1960, at Santa Fe, New Mexico, before Elvis A. Utz, Examiner duly appointed by the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission," in accordance with Rule 1214 of the Commission Rules and Regulations, and was heard de novo by the Commission at 9 o'clock a.m. on May 18, 1960 at Santa Fe, New Mexico.

NOW, on this 10th day of June, 1960, the Commission, a quorum being present, having considered the testimony presented and the exhibits received at said hearing, 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, Pan American Petroleum Corporation, is the operator of the W/2 of partial Section 8 and of the E/2 of partial Section 7, both in Township 28 North, Range 10 West, EMPM, San Juan County, New Mexico and Southern Union Gas Company is the operator of the W/2 of said Section 7.
- (3) That the applicant proposes to communitize the above-described acreage to form a 385.89-acre non-standard gas unit in the Dakota Producing Interval, to be dedicated to the J. F. Day "F" Well No. 1, to be drilled in the E/2 of said Section 7 at a location in compliance with the provisions of Order No. R-1287.
- (4) That a standard drilling and spacing unit in the Dakota Producing Interval is 320 acres, and in the interest of protecting correlative rights, Commission policy is to hold such units to approximately 320 acres wherever that is possible without causing undue hardship on the operator.

-2-CASE No. 1909 Order No. R-1628-A

- (5) That in this case, denial of the subject application will not deprive applicant of the right to produce its fair share of the gas underlying the above-described acreage, since by communitization with Southern Union Gas Company the applicant could form another gas unit in the Dakota Producing Interval containing approximately 320 acres.
- (6) That the applicant's Exhibit No. 7 reflects that possible subsequent Dakota gas units in the tier of partial sections would each consist of acreage considerably in excess of 320 acres, while formation of the non-standard gas unit as authorized by Order No. R-1628 would in all probability result in four gas units of approximately 320 acres each and perhaps one unit which would be substantially less than 320 acres.
 - (7) That accordingly the application should be denied.
- (8) That an administrative procedure should be established whereby, upon proof of communitization, a 321.43-acre non-standard gas unit in the Dakota Producing Interval may be established by the Secretary-Director, comprising all of said partial Section 7 and the W/2 W/2 of said partial Section 8.

IT IS THEREFORE ORDERED:

- (1) That the application of Pan American Petroleum Corporation for a 385.89-acre non-standard gas unit in the Dakota Producing Interval, consisting of all of partial Section 7 and the W/2 of partial Section 8, Township 28 North, Range 10 West, EMPM, San Juan County, New Mexico, be and the same is hereby denied.
- (2) That an administrative procedure be and the same is hereby established whereby, upon proof of communitization, a 321.43-acre non-standard gas unit in the Dakota Producing Interval may be established by the Secretary-Director, comprising all of said partial Section 7 and the W/2 W/2 of said partial Section 8.
- (3) That Order No. R-1628 be and the same is hereby super-seded.

DOME at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO OIL CONSERVATION COMMISSION

JOHN BURROUGHS, Chairman

MULLINOSSA MORGAN, Member

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

OIL CONSERVATION COMMISSION P. O. BOX 871 SANTA FE, NEW MEXICO

June 10 1960

Mr. Kirk Newman p. O. Box 867 Roswell, New Mexico

Dear Sir:

On behalf of your client we enclose one copy of Order R-1628-A in Case 1909. This order was issued by the Oil Conservation Commission this date.

Very truly yours,

A. L. PORTER, Jr. Secretary-Director

ir/

Carbon copy of Order R-1628-A sent to:

Guy Buell George Selinger Garrett Whitworth

Oil Conservation Commission: Hobbs Aztec