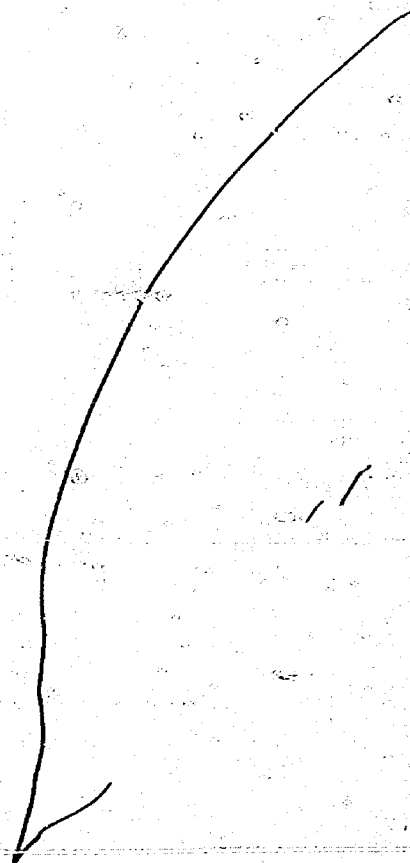


CASE 5512: NRM PETROLEUM CORPORATION  
FOR AN UNORTHODOX GAS WELL LOCATION,  
EDDY COUNTY, NEW MEXICO

FB  
June 10



CASE NO.

5512

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APPLICATION,  
TRANSCRIPTS,  
SMALL EXHIBITS,

ETC.



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. 5512  
Order No. R-5067

APPLICATION OF NRM PETROLEUM  
CORPORATION FOR AN UNORTHODOX GAS  
WELL LOCATION, EDDY COUNTY, NEW  
MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on July 2, 1975,  
at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this 22nd day of July, 1975, 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, NRM Petroleum Corporation, seeks  
approval of an unorthodox gas well location 910 feet from the  
North line and 660 feet from the West line of Section 33,  
Township 20 South, Range 30 East, NMPM, to test the Pennsylvanian  
formation, Golden Lane Gas Field, Eddy County, New Mexico.
- (3) That the W/2 of said Section 33 is to be dedicated to  
the well.
- (4) That a well at said unorthodox location will better  
enable applicant to produce the gas underlying the proration  
unit.
- (5) That an offset operator with production from the  
Golden Lane-Strawn Gas Pool in the S/2 of Section 29, Township  
20 South, Range 30 East, NMPM, Eddy County, New Mexico, has  
objected to the proposed well location for the Strawn formation.
- (6) That no other offset operator objected to the proposed  
unorthodox location.

-2-

Case No. 5512  
Order No. R-5067

(7) That a well at the proposed location will have an area of drainage in the Strawn formation which extends 19 net acres into the S/2 of Section 29, Township 20 South, Range 30 East, NMPM, more than permitted under a standard location for the Golden Lane-Strawn Gas Pool.

(8) That to offset the advantage gained over the protesting offset operator, production from the well at the proposed unorthodox location should be limited from the Strawn formation.

(9) That such limitation should be based upon the 19 net acre encroachment described in Finding No. (7) above, and may best be accomplished by assigning a well at the proposed location a ratable take factor of 0.94 (320 minus 19, divided by 320).

(10) That approval of the subject application subject to the above limitation will afford the applicant the opportunity to produce its just and equitable share of the gas in the subject pool, will prevent the economic loss caused by the drilling of unnecessary wells, avoid the augmentation of risk arising from the drilling of an excessive number of wells and will otherwise prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

(1) That an unorthodox gas well location for the Pennsylvanian formation is hereby approved for a well to be located at a point 910 feet from the North line and 660 feet from the West line of Section 33, Township 20 South, Range 30 East, NMPM, Golden Lane Gas Field, Eddy County, New Mexico.

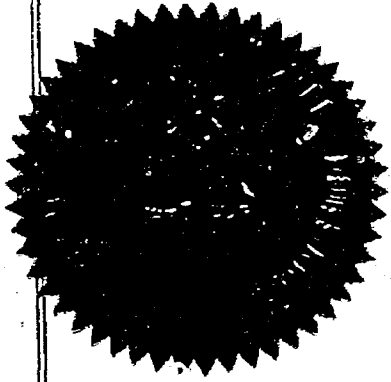
(2) That the W/2 of said Section 33 shall be dedicated to the above-described well.

(3) That said well is hereby assigned a ratable take factor of 0.94 in the Strawn formation, and the operator of the well, upon completion and connection thereof to a gas pipeline, shall notify the gas purchaser of the ratable take factor.

(4) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

-3-  
Case No. 5512  
Order No. R-5067

DONE at Santa Fe, New Mexico, on the day and year herein-  
above designated.



STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION

*Phil R. Lucero*  
PHIL R. LUCERO, Member

*Joe D. Ramey*  
JOE D. RAMEY, Member & Secretary

S E A L

dr/

BEFORE THE  
NEW MEXICO OIL CONSERVATION COMMISSION  
Santa Fe, New Mexico  
July 2, 1975

EXAMINER HEARING

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IN THE MATTER OF: )

Application of NRM Petroleum )  
Corporation for an unorthodox )  
gas well location, Eddy )  
County, New Mexico )

CASE NO. 5512

-----  
BEFORE: Richard L. Stamets, Examiner

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the New Mexico Oil  
Conservation Commission:

Thomas Derryberry, Esq.  
Legal Counsel for the  
Commission  
State Land Office Building  
Santa Fe, New Mexico

For the Applicant:

W. Thomas Kellahin, Esq.  
KELLAHIN & FOX  
500 Don Gaspar  
Santa Fe, New Mexico

For Texas International:

Booker Kelly, Esq.  
WHITE, KOCH, KELLY & McCARTHY  
Santa Fe, New Mexico

I N D E X

	<u>PAGE</u>
<u>DAVID G. GRIFFIN</u>	
Direct Examination by Mr. Kellahin	3
Cross Examination by Mr. Kelly	13
Cross Examination by Mr. Stamets	19

WALLACE BROWN

Direct Examination by Mr. Kelly	21
Cross Examination by Mr. Kellahin	33
Cross Examination by Mr. Stamets	38
Cross Examination by Mr. Kellahin	41

E X H I B I T S

Applicant's Exhibit No. 1	12
Texas International's Exhibit Nos. 1, 2 & 3	32



GRIFFIN-DIRECT

CASE 5512

Page..... 3

MR. STAMETS: Case 5512.

MR. DERRYBERRY: Case 5512. Application of NRM Petroleum Corporation for an unorthodox gas well location, Eddy County, New Mexico.

MR. STAMETS: We call for appearances in this case?

MR. KELLAHIN: Tom Kellahin of Kellahin and Fox, Santa Fe, New Mexico, appearing on behalf of the Applicant.

MR. KELLY: Booker Kelly of White, Koch, Kelly and McCarthy, appearing on behalf of Texas International Petroleum Corporation in opposition to this Application.

MR. KELLAHIN: We have one witness to be sworn.

MR. STAMETS: Mr. Kelly, do you have any witnesses?

MR. KELLY: Yes.

(Witnesses sworn.)

DAVID G. GRIFFIN

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

DIRECT EXAMINATION

BY MR. KELLAHIN:

Q Would you state your name, by whom you are employed and in what capacity?

A My name is David G. Griffin. I am employed as

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STATE-WIDE DEPOSITION NOTARIES  
225 JOHNSON STREET  
SANTA FE, NEW MEXICO 87501  
TEL. (505) 992-0386

GRIFFIN-DIRECT

Vice president of NRM Petroleum Corporation.

Q Mr. Griffin, have you previously testified before the Commission and had your qualifications accepted and made a matter of record?

A Yes, I have.

Q What is your educational background?

A Petroleum engineer.

Q As a petroleum engineer, have you made a study of the facts surrounding this particular Application?

A Yes, I have.

MR. KELLAHIN: If the Examiner please, we tender the witness as an expert petroleum engineer.

MR. STAMETS: Do you have previous qualifications before the Commission as a petroleum engineer?

THE WITNESS: Yes.

MR. STAMETS: The witness is qualified.

BY MR. KELLAHIN:

Q Mr. Griffin, would you refer to what has been marked as Applicant's Exhibit No. 1, identify it and state briefly what NRM Petroleum Corporation is seeking?

A Exhibit 1 is a structure contour map on the top of the Strawn porosity. It also shows our proposed proration unit outlined in yellow, 320 acres in the west half of

Section 33. Our proposed location, which is 910 feet from the north line and 660 feet from the west line of Section 33.

Q That would be an unorthodox location based upon the State-wide rules that are applicable to the Golden Lane Field?

A That is correct.

Q Where would the standard location be?

A It would be 1980 feet from the north line as opposed to our requested 910 feet.

Q What is the objective of the well?

A We intend to drill the well to a depth of about 12,500 feet to test the Morrow structure. We will also be penetrating the Strawn and Atoka sections on the way down.

Q Do you anticipate testing those zones also?

A Yes.

Q If you commence in a counter-clockwise fashion and begin with the Pan Am Well located in Section 28, will you describe that well for me?

A Well, some of the pertinent wells on the map, starting with the Pan Am Well on Section 28, that is a Morrow producer that I think cumbed over 7 billion. I don't have the exact numbers, but it has been a very good well

from the Morrow zone. The well in the south --

Q (Interrupting) Let me ask you some more questions about that Pan Am Well. Was it tested in the Strawn?

Was there any pay in the Strawn from the Pan Am Well?

A As I recall, it was tested, and I believe it was tested through perforations and there were some gas shows in the well in the Strawn, but apparently not commercial.

Q It is currently not being produced from the Strawn?

A No.

Q Now, will you continue to Section 29 and the Texas International Well?

A That well in the southeast quarter is producing from the Strawn section, and as I recall, it has been on production since August of '74 or close. It has made about 300 million and about 16,000 barrels of condensate and currently produces about 2½ to 3 million a day.

Q Will you continue with the Gulf Oil Well?

A The other pertinent well, I think, is the Gulf Well that is in the southeast corner of Section 32, which has been on for some time. I am not sure when it was put on production, but it has made about a little over a billion cubic feet of gas and about 60,000 barrels of condensate and currently makes about half million a day.

I think those are the pertinent wells.

Q With regard to the Gulf Oil Well, is that well at a standard location?

A No, it is not. I think there was a hearing. As a matter of fact, we have Case No. 3584 and the Order that granted an unorthodox location for that well.

Q What was the location granted?

A 660 feet from the south and 990 from the east of 32.

Q That was Order No. --

A (Interrupting) Order No. R-3260.

Q Was Gulf Oil penalized in any way for the unorthodox location?

A To my knowledge, no.

Q Will you continue now in counter-clockwise fashion and pick up that Pennzoil Well in the west half of 33 and describe that well for us?

A The Pennzoil Well was a dry hole in the Strawn and it did drill-stem-test Strawn porosity that is productive in the area, and on our Exhibit 1, we have a gamma ray neutron log with tests indicated. It indicates to us that there were gas shows in the Strawn. The pressure data is a little confusing, but the final shut-in pressure is

strong enough for us to think that there -- to conclude that there are hydrocarbons underlying that particular well but not in commercial quantities. It did produce flow gas to the surface on drill-stem test from the Strawn.

Q In your opinion, Mr. Griffin, can the west half of Section 33 be considered reasonably productive from Morrow and Strawn production in the Pennzoil dry hole?

A The Pennzoil dry hole didn't penetrate the Morrow, so I think that the conclusion is valid that there could be gas underlying the entire west half.

Q Has your study reflected that the properties of the Strawn and Morrow production here are similar to Strawn and Morrow production elsewhere in southeast New Mexico, nothing particularly unusual, having the same characteristics of Morrow and Strawn production?

A I think probably that is accurate, but there probably is some -- the rock is probably sensitive as it is in other areas and erratic in deposition.

Q Will you describe for the Examiner your reasons for seeking the proposed unorthodox location?

A Well, the reason is obvious from our exhibit that shows a fairly sharply dipping structure on the east side of the feature, and we are attempting to minimize our risk

by getting structural advantage to the well that has a show of gas in the Strawn.

Q In your opinion, is this the best location for drilling a well in the west half of Section 33 from which to drain NRM's acreage?

A I think that is correct, yes, sir.

Q You see no other location, either standard or non-standard within that west half of Section 33 which you prefer to your applied-for location?

A Well, there are other locations, but I think this one would give us the best shot of making a well.

Q What risks, if any, are there with drilling a well at even this location?

A I think the risk might be illustrated by the number of dry holes lying around that have tested the Strawn or have been poor producers in the Strawn. It just indicates that it is fairly erratic, and you can drill an offset dry hole. It is by no means a cinch, but I think this will give us the best shot at making a Strawn producer.

Q In your opinion, Mr. Griffin, has NRM's acreage suffered any drainage from the Texas International Well located in Section 29?

A That's hard to say. The well hasn't been on very

GRIFFIN-DIRECT

long and hasn't made much gas, but I assume there is some or will be some drainage, yes.

Q Would a well drilled at the proposed location minimize your risk with regard to having to drill additional wells in order to develop the west half of Section 33?

A I am not sure I follow you, Tom. The spacing is 320. We would only drill one well.

Q You are only entitled to one well at this time?

A Yes.

Q What I am saying is: Is this, again, the most optimum location for developing this acreage and reducing the risk of having to drill additional wells in order to get a producer?

A Yes, that is a correct statement, I think.

Q Are you able to estimate for us the type of drainage pattern you would anticipate from a well drilled at your particular location?

A Well, I don't think I am smart enough to do that. It would be a tough job. I certainly don't think it would be a radial-type pattern, but with the data we have, it would be hard to determine about that.

Q What is your structural position with regard to the Texas International Well?



GRIFFIN-DIRECT

Page..... 11.....

A Well, we don't know, of course, but what we are expecting is that we will be slightly lower than that well on the porosity, which is what we have mapped here, that we would be some maybe 50 or 60 feet structurally down-dip from the Texas International Hudson Federal Well.

Q Have you been in communication with any of the offset operators regarding the unorthodox well location?

A Yes. We contacted all of the offset operators, Amoco, Texas International and Gulf and asked them for a waiver of objection to the Application.

Q What, if any response did you get from Gulf Oil Company?

A We got a waiver from Gulf, waiving any objection to the granting of the location that we asked for.

Q What, if any response did you get from Pan American?

A We didn't hear from them.

Q And we have opposition from Texas International?

A Right.

(Whereupon, a discussion was held off the record.)

BY MR. KELLAHIN:

Q What was the source of your information for

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GRIFFIN-DIRECT

preparing Exhibit NO. 1?

A That is an embarrassing question. It came from Texas International, and the data was prepared, as I understand it, by Mr. Robert Burkett who was formerly with Texas International.

Q You made a study of the facts contained in this exhibit and you based your opinions today upon the facts contained within this exhibit and confirmed them to be correct to the best of your knowledge?

A Yes. I prepared Exhibit A and the map was done under my supervision and I checked the facts on that.

Q In your opinion, Mr. Griffin, will approval of this Application be in the best interest of conservation and prevention of waste and protection of correlative rights?

A Yes.

MR. KELLAHIN: We move the introduction of Exhibit No. 1.

MR. STAMETS: Are there any objections to the admission of the exhibit? It will be admitted.

(Whereupon, Applicant's Exhibit No. 1 was marked for identification and was offered and admitted into evidence.)

GRIFFIN-CROSS

MR. KELLAHIN: That concludes our direct examination.

MR. STAMETS: Any questions of the witness?

CROSS EXAMINATION

BY MR. KELLY:

Q The proration unit you are seeking here is a north-south one covering the west half of 33, is that correct?

A Yes.

Q Did NRM purchase this property after the dry hole in the west half of 33 was done?

A We obtained this acreage via farm-out after the dry hole.

Q And the source of your information, as I understand it, was an ex-employee of Texas International, is that correct, or one of the sources of your information?

A One of the sources, yes.

Q Does he have an interest in this well or this acreage?

A I don't know that that is pertinent, but I think he has a small override after payout.

Q Now, the location that was drilled, the dry hole there, it was an orthodox location, was it not?

A I believe it was, yes.

GRIFFIN-CROSS

Q And that would be also for a north-south proration unit?

A Yes.

Q Now, I recall your testimony that you felt that the total acreage was productive in the Morrow. Do you have an opinion as to whether the total proration unit would be productive in the Strawn?

A Well, let me restate it. If I stated it wrong, I apologize. I don't think there is adequate information to judge that area as to the Morrow. What I said about the Strawn is that based on the drill-stem test of the Strawn in that Pennzoil Well that we are talking about in the west half of 33 that you see on the right side of our exhibit, that interval that was tested correlates with the producing interval in the wells covered in red, the Strawn, and that showed gas to surface on drill-stem test plus the good Strawn final shut-in pressure. So, my conclusion was that there was gas there, but not in commercial quantities.

Q Well, wouldn't you say that for our purposes, that well is a dry hole in the Strawn?

A It is a commercial dry hole, that's right.

Q And to that extent, it showed that that proration unit is not productive in the Strawn, isn't that correct?

A I don't think so. On the contrary, I can point to a well in the southwest quarter of 32, and I would probably drill that well as a pretty good indication that the Strawn is very erratic and move it a short distance away from a dry hole and have good productive reservoir rocks.

Q Well, certainly, the drainage area of that particular well proved to be non-productive, didn't it?

A Well, as I said before, the pressure data is a little bit misleading. The final shut-in pressure was 5704 pounds and that is good. That is about normal. As a matter of fact, it is a little above normal. The initial pressure was only 2570 and they flowed only a small amount of gas out of the well. I don't know if you can attribute that to damage or what. It is a little confusing. The well may have been damaged on drilling. I guess if you were reaching for trying to be optimistic as we are, you could say that that well might, in fact, have produced gas with stimulation.

Q But at least you were aware of that well when you acquired the acreage?

A Certainly. You bet. It was one of the key factors, the fact that it did make gas.

Q And you are not willing to admit that that dry hole leads to the conclusion that at least a substantial part of the west half of 33 is non-productive?

A No, I don't subscribe to that at all since the well flowed gas and it is easy to demonstrate that the depositional pattern is that the rock is erratic.

Q Well, then, under your theory, if you moved just a short way away, you might well get a good producer?

A Possibly.

Q What is the reason why you can't use a standard location?

A Because, as I said, I think it minimizes our risk, and that is what the game is all about. This is possibly a \$750,000 investment for us and we would like to, as anyone would, keep the risk as low as possible, and that gets us, I think, a little bit better structural advantage to the productive limits.

Q Would you say that it is just a coincidence that you are moving far away from a dry hole and closer to the best well in the pool?

A I think the best well -- are you talking about the Texas International well?

Q Yes. You say that at least on current production,

that certainly, clearly is the best well in the pool?

A I don't think that is important, so I don't want to argue with you about that, but it is a good well. We didn't intentionally go toward a good well. We took the geology and honored the interpretation and got what we think can get us a gas well. It is coincidental that it moved in that direction. It moved toward some other people, but we were infringing on some other people's lease-land at the same time.

Q It is just coincidental that you moved away from a dry hole toward the best well in the pool?

A No. If you want to look at it that way, yes. I assume that if we had mapped this thing differently -- I don't assume that if we had mapped this thing differently that we would honor the geology and try to drill a well at the best place.

Q Now, the waiver you got from Gulf, you are moving away from Gulf's wells, aren't you?

A We are moving away from their well, that's right.

Q Might that not explain the waiver?

A Well, plus the fact that their non-standard or unorthodox --

Q (Interrupting) That is the only well in the area that is non-standard, isn't it?

GRIFFIN-CROSS

A In the immediate area, I think that is accurate, yes.

Q As shown on your plat?

A Yes.

Q Now, to the extent that you are moving closer to the Texas International Well than you are allowed, you are going to be crowding it and draining it, aren't you?

A I think the chances are good that we could drain some gas from that acreage, yes.

Q Are you making any recommendation to the Commission as to the penalty you should accept on it?

A None.

Q You say that you have no penalty?

A I would prefer none.

Q But you do recognize drainage?

A Yes.

Q I will try one more time. I am not sure that I have understood your answer. Is it your testimony that all of the west half of Section 33 is productive in the Strawn?

A In my opinion, you can't condemn the west half of 33 because of the Pennzoil dry hole. Is that fair enough? I think that well flowed gas, if you will read the drill-stem test, flowed gas to surface and had good pressures.



GRIFFIN-CROSS

so it is obvious that there is gas that will produce at that location. So there is movable gas in place at that location. That is pretty close to the extremity of that proration unit. Some of it may not be productive, but I don't think the dry hole condemns it.

Q But you are not in a position to give any percentage figures to the Commission as far as the productive limits of the west half?

A No.

Q Do you feel that you could get an economic well at a standard location?

A Well, I think it is best to answer it by -- I will just ask your question for you -- would we drill a well at a standard location?

Q Yes, I will ask you that.

A I don't know the answer. I would have to think about it. It would be tough.

MR. KELLY: I have nothing further.

CROSS EXAMINATION

BY MR. STAMETS:

Q Mr. Griffin, do you know if the offsetting wells in the southeast quarter of Section 29 and the southeast quarter of Section 32 penetrated the Morrow and found the

GRIFFIN-CROSS

Morrow dry?

A If you will give me just a second, I think I can refer to something that will tell us. Mr. Examiner, the well in the southeast of 32 did not penetrate the Morrow. The well in the southeast quarter of 29 did penetrate the Morrow and they apparently perforated and tested the well, and I am assuming, although I am not familiar with the details, I am assuming that it was not a commercial well in the Morrow. I believe it is now producing from the Morrow. I could stand corrected.

Q Perhaps Texas International will have some testimony on that point later.

I would like to clarify for the record exactly what acreage is being crowded here. Your well, your proposed well in Section 33 is 660 feet from the west line of the Section, is that correct?

A Yes.

Q And that would be standard as far as the Commission's locations?

A Correct.

Q So, you are not crowding the westernmost line?

A No.

Q However, the well is located closer to the north

GRIFFIN-CROSS

line of the section, and as such, you would be crowding toward the Texas International acreage, the well being completed in the southeast of 29 in the Strawn, is that correct?

A That's correct.

Q Also, you would be crowding north toward the Amoco Emperor Oil Well which is completed in the Morrow?

A Yes.

Q Amoco was notified, but they have not appeared and objected at this hearing?

A That is correct.

MR. STAMETS: Are there any other questions of this witness? He may be excused.

(Witness dismissed.)

MR. STAMETS: Anything further, Mr. Kellahin?

MR. KELLAHIN: No, sir.

MR. STAMETS: Mr. Kelly?

MR. KELLY: I would like to call my witness.

WALLACE BROWN

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

DIRECT EXAMINATION

BY MR. KELLY:

THE NYE REPORTING SERVICE  
STATE-WIDE DEPOSITION NOTARIES  
225 JOHNSON STREET  
SANTA FE, NEW MEXICO 87501  
TEL. (505) 982-0386

Q Would you state your name, position and your employer, please?

A My name is Wallace Brown. I am employed by Texas International Petroleum Corporation in Oklahoma City.

Q Are you a petroleum engineer?

A Yes, I am.

Q Would you give the Examiner a brief summary of your professional and educational background?

A I am a graduate of the University of Oklahoma, 1959. I have been employed by Tenneco, Continental, and Tesoro Petroleum Corporation before being employed by Texas International.

Q Have you qualified as an expert in front of other regulatory commissions?

A Yes, I have. I am a professional registered engineer in the State of Texas.

Q Are you personally familiar with the Application of NRM here?

A Yes, I am.

MR. KELLY: Are the witness' qualifications acceptable?

MR. STAMETS: What was your degree in '59?

THE WITNESS: Petroleum engineering.

MR. STAMETS: Yes, the witness is qualified.

BY MR. KELLY:

Q Would you briefly state what objection Texas International has to this Application?

A Well, we feel like that, as the witness has just testified, that Texas International would suffer drainage here by a well drilled at an unorthodox location here in Section 33. We strenuously oppose that irregular location, and if, in fact, the Commission sees fit to grant an exception to this location, then we would request that this well be penalized either on a rateable take or by calling a proration hearing.

Q Referring to what we have marked as Exhibit 1, would you explain what that is?

A Exhibit 1 is a map drawn on top of the Strawn reef. It shows, also, where we estimate the gas-water contact to be which is colored in blue there, and the four reef faces and the back reef faces of this particular structure. It also shows Texas International's acreage position in the south half of Section 29 and also in the east half of Section 31. We have two wells located here. The yellow denotes Strawn producing wells in the field. The red is the Atoka and the green is the Morrow producers.

BROWN-DIRECT

Q Is there any Morrow production close to the planned location of the well?

A Yes, there is Morrow production in Pan Am's well in Section 28.

Q Where does most of the gas come from in this area; is it Morrow or Strawn?

A In this immediate area here, most of this, as you can see here, is Strawn production.

Q Based upon your analysis of this pool, do you have an opinion as to the productive acreage on the west half of Section 33?

A As far as Strawn?

Q As far as Strawn is concerned?

A No. I do not feel that the west half of Section 33 would be productive in the Strawn. I also feel that it is very questionable as to what percent of the east half of Section 33 would be productive, if any.

Q What is the basis for your opinion?

A Based on the structure as it has been mapped here, plus the fact that the Pennzoil Well in Section 33 was a dry hole. I have some information here on that particular well.

Q Perhaps we should go ahead and mark this as an

exhibit.

A Well, I just want to give this information that I have here. I don't have but one copy.

Q Well, if the Commission wants it, we can go ahead and make it available.

MR. STAMETS: Are you going to draw conclusions from that, or just simply --

THE WITNESS: (Interrupting) I am just going to point out what the well tested on drill-stem test.

MR. STAMETS: This would be information which is available to the Commission's files?

THE WITNESS: Yes. Well, I don't know whether it would be reported to the Commission or not. It was drill-stem tested as a dry hole, and I don't know whether they are required to report it or not.

MR. KELLY: We have no objection to making it available. It is just that we only have one copy of this.

MR. STAMETS: If you will make it available to the Commission and we will mark it as an exhibit.

THE WITNESS: What I want to point out in this Pennzoil Well is that there is a lot less section in the Pennzoil No. 1 Hudson Federal than there is in the Tipco No. 1 Hudson Federal in Section 33. We have probably over

200 feet of section in the Strawn as opposed to probably less than 100 feet in the Pennzoil No. 1 Hudson Federal. Also, on the drill-stem test the well recovered in an interval, the upper interval of the Strawn, the well had a flowing pressure of 61 to 86 pounds. This was after 120 minutes, indicating that there was nothing there, and then went on ahead and drill-stem tested below that, and on the drill-stem test it recovered 11,900 cubic feet of gas per day, which is very minute. This would indicate to us, at least, that the well is certainly a non-commercial well and that is the reason it was plugged and abandoned.

Q Let's go ahead and mark that as Exhibit No. 3, and that is the exhibit upon which you based your testimony, is that correct?

A Right. I would like to retain this because it has some information here on our well in the Morrow that you brought up, or that the Examiner brought up, and you might want to get into it.

Q Now, at any rate, continue your discussion of the productive limits of Section 33?

A We have drawn in where we feel the four reef faces could possibly occur here, and we recognize that this is just our geological interpretation and it is very arbitrary.



We do have a dry hole there that we feel condemns at least part of the east half of Section 33, or part of the east half of the west half. I would say that it could be a very limited acreage that would be productive in the Strawn.

Q Are you in a position to make an estimate on a percentage basis as far as the west half of Section 33?

A Well, with the map here, it would indicate probably as much as 50-percent on maybe 160 acres, but like I say, this is very arbitrary.

Q Roughly 50-percent?

A That is over the entire west half of the section, the extreme west half.

Q Is there anything else you want to go through on that plat?

A No, I don't believe so right at the moment.

Q Let's turn to what has been marked as Exhibit No. 2. Would you explain what that is?

A Exhibit No. 2 is a list of wells that are completed in the Strawn in the Golden Lane Field: The Tipco Hudson Federal, the Tipco Lowe Federal, the Coquina Ako State, the Gulf State, and so forth.

It shows here what the March, 1975, production

was in terms of million cubic feet. During the month of March, it was 176 million produced, and of that 176 million, Tipco's Hudson Federal produced 87 million of the total. The next column there is production of condensate in thousands of barrels and I will just skip over that. I don't think that is pertinent. The cumulative production through April 1, 1975, we had produced 521 million from our Hudson Federal, and our Lowe Federal had not been placed on production, and neither had Coquina's well. Then you have the Gulf State Well which had produced 1.1 billion; Pennzoil Hudson, 3.3 billion; Westbrook Cowden, 2 billion; Medco Harris, 62 million, and the Medco Harris No. 2 produced 116 million for a total of 7.1 billion cumulative production through April 1 of '75.

The next column, then, is the barrels of condensate which I will skip over that too. Then we have the estimated ultimate production. Now, these are estimated figures that we arrived at from what pressure-cum' data we could assemble. Other of it was from volumetrics and by analogy. You can see from our estimate, at least, that probably the Tipco Hudson Federal would be the best well in the field, slightly better than Pennzoil's Hudson, even though the Hudson well has produced considerably more,

BROWN-DIRECT

but it has been on production for a considerably longer time.

The next column is, here again, the estimated ultimate condensate production, and I will skip through that. The next column is the estimated June, 1975 production. We are estimating that the Tipco Hudson Federal will produce 84 million during the month, which is slightly less than 3 million a day. Our Lowe Federal will produce a million-and-a-half or 45 million and Coquina's Well will produce a million-and-a-half or 45 million. Gulf's Well will produce 12 million. Pennzoil's 13½. Westbrook Cowden, 54 and then Medco Harris wells won't distribute a lot.

So, what it amounts to is it illustrates very well here that our Tipco Hudson Federal Well is by far the best well in the field right at the moment in terms of deliverability and probably will ultimately recover as much as or more than any other well in the field.

Now, coming back here to some of the wells that we brought up earlier, the Gulf Well, for instance, the average daily gas production in 1974 from that particular well was 529-MCF per day and the well has cut 62 barrels of water per million. It is understandable why Gulf would grant a letter of waiver here. Medco Harris Bell 1-H produced an average of 92 MCF per day. The Harris Bell 2-F,

223. The Pennzoil Hudson Federal in '74 produced 526. Tipco's Hudson Federal produced 1.8 million a day. Westbrook Cowden produced 2.4 million.

The cum' from Gulf's well is 1.1 million. From Pennzoil Hudson Federal was 3.2 and from Westbrook Federal Cowden is 1.8 million.

Q So, the Gulf Well, as far as the Strawn Pool is one of the poorer wells?

A I would not say that it is necessarily one of the poorest wells, but I would say that it is nearing depletion and it has not produced anywhere in the magnitude of what the Pennzoil Hudson Federal has already produced or what the Westbrook Federal Cowden well has produced, and based on our Exhibit 2 here, it would indicate that the Gulf Well, 1.3 billion, is going to be one of the poorer wells in the field, that is correct.

Q What effect do you feel that the granting of this application will have on your Tipco Hudson Federal Well?

A Well, I think it will definitely have an effect of draining gas from underneath our acreage by getting in as close to the lease line. If you want to minimize your risk, you move right up in the corner, and certainly, you would be draining from underneath our lease.

Q Do you recommend to the Commission that the Application be denied?

A Yes, I am strongly recommending that it be denied.

Q In the alternative, are you making a recommendation as far as the penalty factor?

A Yes. As I stated earlier, if the Commission does, in fact, grant an exception to this location that a penalty be imposed on this particular well, either on a rateable take basis, if that can be effectively enforced, or on calling a proration hearing and establishing the productive acreage here.

Q Do you have a recommendation as far as the penalty percentage?

A Well, it is an arbitrary number, but I would say no more than 50-percent. That is 50-percent of what the allowable would be in the field and I think this is certainly in addition to the productive acreage that we are looking at here and possibly limited productive acreage that we should also consider the deliverability of that well if, in fact, that well is drilled and is completed as a successful producing well. That the deliverability would be one of the factors considered.

Q Do you have anything further that you would like

to add?

A No. I might just point out this information on the Morrow on Tipco's Well. It was drilled through the Morrow and we perforated and tested what we call both the A and B zone, one at about 12,100 feet which we call the top of the A-Zone and then one at 12,400 feet which is the B-Zone. In the A-Zone we had, after treating it with acid, we had a small amount of gas and spray was all that was produced from the zone. In the B-Zone, it was production tested and no gas of any commercial value here, so we plugged back and completed the well in the Strawn.

Q Were Exhibits 1 through 3 prepared by you or under your supervision?

A Yes, under my supervision. I did not do the actual work myself.

MR. KELLY: We would move the introduction of Tipco's Exhibits Nos. 1 through 3.

MR. STAMETS: Any objection to the admission of these exhibits?

MR. KELLAHIN: No.

MR. STAMETS: They will be admitted.

(Whereupon, Texas International's Exhibits Nos. 1, 2 and 3 were marked for identification, and were offered and admitted into evidence.)

BROWN-CROSS

MR. STAMETS: Any further questions of this witness?

MR. KELLAHIN: Yes.

CROSS EXAMINATION

BY MR. KELLAHIN:

Q Were you involved in this area at the time that Texas International controlled the west half of Section 33?

A I will have to ask you this: I don't know when that time was, but I haven't been with the Company that long, just slightly over a year's time, so I don't know.

Q When did you first begin your study of this area for Texas International?

A My own personal study?

Q Yes, sir.

A About the time right after we received the notice requesting a letter of waiver from us for NRM to drill this unorthodox location.

Q In the study of and your preparation of this case, had you seen a previous structure map as we introduced in testimony here?

A Had I seen that map?

Q Yes.

A No, I had not.

BROWN-CROSS

Q Had you seen one similar to this?

A I had seen a map. Incidentally, the engineer that did this map, Kent Nelson, who works under my supervision, had worked on this area, I believe, at the time both of our wells were drilled and I don't know how much other time he spent working on the area, but he had done quite a bit of work on the area and was very familiar with it.

Q Do you know where Texas International proposed to drill a well on the west half of Section 33 at the time they controlled this acreage and prior to the farm-out to NRM?

A The west half of Section 33?

Q Yes, sir.

A Would you restate that? I didn't quite understand what you were talking about.

Q At the time that Texas International controlled the acreage on the west half of Section 33, to your knowledge, had they made a decision as to the location of a proposed well on the west half of 33, and if so, where was that location?

A Not to my knowledge. Like I say, I have not been involved in this until just recently, so I really



BROWN-CROSS

can't answer your question. I do not know.

Q Turning your attention to the well in Section 29, what would you anticipate to be the drainage pattern from your well? How would you figure your drainage pattern for your existing well?

A I would be afraid to state exactly how. I think with the type of reservoir characteristics you have here and the way the porosity development is in this reef, it would be impossible to predict exactly how that well might drain.

Q How would you anticipate the drainage pattern for a well located where NRM proposes to drill a well?

A Well, here again, I would not want to go out on a limb and state how I feel it would drain. I feel like it would drain across the lease line there, and I think it would definitely do that. I don't know whether it would be a radial pattern or not. It could very possibly be some other type of configuration.

Q Would you take our Exhibit 1 there and disregarding for a moment the spacing rules and requirements, simply from an interpretation standpoint, where would you propose to drill a well if you had that choice to make?

A In Section 33?

BROWN-CROSS

Page..... 36

Q Yes, sir, in the west half of 33. Where would you place the well?

A To be honest with you, I don't think I would drill one in there.

Q All right. If you had to drill a well there, where would you place it?

A I would put it right up in that corner, the extreme northwest corner as close as I could get off that lease line.

Q Let me refer you to what has been marked as your Exhibit No. 2 and refer you to the top column of that, the Tipco Hudson Federal. There is an entry made there on your estimated ultimate production. Would you explain for me how you derived that 4535 figure?

A That was derived from a pressure cum' curve.

Q How was that pressure cum' curve prepared? What pressure points did you use?

A We used the ones that we had recently obtained in the well. Is that what you are asking? We had very limited information because the well hadn't been on production that long. You see that it has produced over 10-percent of what the estimated ultimate is which, many times, is enough to make some kind of reasonable estimate as to what

BROWN-CROSS

the estimated ultimate production of that well could be based on pressure cum'-data. It is 520 million versus  $4\frac{1}{2}$  billion.

Q You said that you had a recommended penalty of the Strawn production of this well. Does that recommendation also include a penalty for potential Morrow production?

A Yes, I would think that it should apply to any zone that is found productive in the well, whether it be Morrow or Strawn or Atoka or whatever it might be.

Q Would you review for me again what Morrow production you anticipate in your well?

A In which?

Q The Hudson Federal Tipco in Section 29?

A I think it would be very limited based on the results of our tests. It would be probably nothing more than a salvage operation. I wouldn't think it would amount to much more than that.

Q You reviewed on that cross section some additional information with regard to the Pennzoil dry hole. Would you again refer to the information contained on that cross section and indicate for me the pressures involved in that test? Are they indicated on that cross section?

A I think they may be. I know there are some on there. I am not sure.

BROWN-CROSS

Now, we are talking about the Strawn?

Q Right.

A Drill-stem tested at 11,201 to 221, open to 135 minutes recovered 60 feet of drilling mud to 120 minutes and initial shut-in pressure was 4246 with a flowing pressure of 61 to 86 pounds after 120 minutes. The final shut-in pressure was 1423. The hydrostatic pressure was 6227. That was in the upper section right after it was first drilled into the Strawn. It was drill-stem tested and then they drilled some more holes and ran the second drill-stem test on it.

Q How about the second drill-stem test?

A It was from 11,225 to 398 and was open 3 hours and 10 minutes, gas to surface in 18 minutes with 3200 cubic feet of gas per day, increasing to 11,000 cubic feet of gas per day. It was shut in for 3 hours and again flowed 11,900 cubic feet of gas per day and recovered 280 feet of very slightly gas-cut-drilling mud at 60 minutes and then was shut in and the pressure was 2570. The final pressure was -- the flowing pressure -- was 159 to 210. After two hours, the flowing shut-in pressure was 5704.

Q And that pressure information corresponds, does it not, with our Exhibit 1; the pressure information and test was the same? There is no difference or discrepancy

BROWN-CROSS

in the information you have available on your cross section as opposed to the information we have introduced on our exhibit?

A No. I would say, just glancing at it here, it is the same information.

Q What opinion do you have with regard to the final shut-in pressure of 5704 for the Strawn? How does that compare to your other information for Strawn production from this area?

A I would say it would probably compare very favorably.

MR. KELLAHIN: That's all.

MR. KELLY: I have no further questions.

CROSS EXAMINATION

BY MR. STAMETS:

Q Mr. Brown, are all of the Strawn wells in here interconnected? Do the pressures show that there is interference between the wells?

A I would say that there is no direct correlation on some of the wells to the south from our Hudson Federal. That is the only one that we have really had an opportunity to observe because it is almost on production, but I would say, compared with the wells down in the south, I would say

that you could probably draw no direct correlation between them. I think that over here on -- I forget which well it was -- but it seems like it might have been our Lowe Federal and the Coquina Wells, I think that the pressures here compared very favorably. To answer your question more directly, if I might, I don't think that we can draw any direct correlation with our Hudson Federal and say that Gulf Well to the south, for instance, which is what, roughly over a mile, a little over a mile?

Q This partly accounts for your high expected ultimate recovery, the fact that nobody else has been producing this while all of these wells have been on lines for years?

A Yes, I would say so.

Q Is it possible that the Applicant in this case might be in an isolated Strawn reservoir not connected to your well?

A I would say that under these types of reservoir characteristics and conditions that anything can happen pretty much.

Q You recommended that their production be limited to no more than 50 percent what a well in a standard location might make. How did you arrive at that figure? Was there

some scientific principle?

A No scientific principle. More than anything, it was just an arbitrary number based on the fact that the dry hole in the west half of Section 33 would seem to condemn probably at least the east half of the west half of Section 33 or maybe some part of the south part of that particular half of the section.

Q Referring to your Exhibit No. 1, could that exhibit be recontoured reasonably to reflect an exhibit something more like the Applicant's Exhibit No. 1?

A Well, I don't know. I would hesitate to say because it is mapped on two different tops.

Q Just looking through there, the tops are not too far apart in most cases. What I am asking you is: Is an exhibit like this subject to interpretation?

A Yes, I would say so.

MR. STAMETS: Are there any other questions of this witness?

THE WITNESS: I think, really, to answer your question, up in the area we are talking about, there is probably not all that much difference anyway.

MR. STAMETS: Are there any other questions of this witness?

BROWN-CROSS

MR. KELLAHIN: I have one further question.

CROSS EXAMINATION

BY MR. KELLAHIN:

Q In reference to this 50 percent penalty factor, if a 50 percent penalty factor is assessed against this particular well at this location, would that not preclude it from being an economic venture at that penalty?

A No, I wouldn't say that at all because let's just say that based on the numbers that we were projecting for estimated ultimate of  $4\frac{1}{2}$  billion, you would make it \$1 a thousand or something like that off this gas. That is going to return quite a lot of income to you. If you just got half of that, you are still looking at a profitable venture.

Q Is there any point short of the standard location at which you would not oppose? I understand you are opposing the 669.10. As we progress southerly toward a standard location, is there any point short of the standard location at which you would withdraw your objection?

A I really don't feel that we should because for the simple fact that the way we had it mapped that you could move to the south and drill a regular location, and if, in fact, the reservoir is there and is commercial, that

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it would be just as good a location, and looking at your map, your Exhibit 1, it is right on strike with Gulf's Well the way you have it mapped, and you could move down there to 1980 on that north line and still be in a very favorable position based on your geological interpretation that you have presented here in Exhibit 1.

Q As you progress southerly, you are moving down structure, are you not?

A Oh, yes. You are losing some structure, but you are still almost on strike with the Gulf Well. You could move down to that 7600-foot contour and you are not a whole lot off Gulf's Well. Gulf's Well is 7610. That is where the regular location would be.

Q You told me earlier that you would prefer drilling a well, however, as close as you could to the Texas International Hudson Federal?

A You bet. I would always get as close as I could to any well, you bet.

MR. KELLAHIN: Thank you. That is all I have.

MR. STAMETS: If there are no further questions, the witness may be excused. Anything further in this case?

MR. KELLY: May I make a statement?

MR. STAMETS: Yes.

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MR. KELLY: Mr. Examiner, in this situation we have the unusual factor of an identical proration unit, the west half of Section 33 has already been tested and found non-productive. We have a dry hole there and regardless of how you interpret the data, you can't get around the fact that an experienced and prudent operator didn't get any gas out of it, and that evidence cannot be ignored under our spacing rules, and we have to assume the validity of those rules, the west half of 33 has been found suspect, I would say, totally on the basis of just our spacing rules, but certainly, at least 50 percent of it has. In addition, you have an operator here moving 1000 feet north in an effort to get away from a dry hole and a well that is poorer and has been pretty close to its economic limits.

I think we have to assume the validity of the spacing rules with the information we have here, and with that, I would recommend to the Commission that the Application be denied because they really haven't shown that they, except that they are getting closer to a good well as far as geology, they haven't shown that they are really improving their position structurally that much by moving 1000 feet north. Certainly, if the Commission feels that it should be granted, since they are moving 50 percent closer or more

than 50 percent closer than the rules allow, and since they have a dry hole on this identical proration unit, that 50 percent certainly would not be an unreasonable penalty factor.

We would also request, even though there seems to be quite a bit of skepticism in the industry, that initially, this be handled on a rateable take basis, and if it appears either through observation by Texas International or the Commission that that is not an effective way of regulating this well, that we be given the opportunity to ask for a proration unit.

MR. STAMETS: Mr. Kellahin, do you have a statement?

MR. KELLAHIN: I have nothing specific, Mr. Examiner. We will tender it to your judgement. You are very familiar with the difficulties of Strawn and Morrow production in this part of New Mexico, and we will leave it to your discretion.

MR. KELLY: I would also just like to add that based on today's performance, I think we should give the Kellahin boys a parrot on their shoulders to go with their eye patches.

MR. STAMETS: We will take the case under advisement.

Dockets Nos. 16-75 and 17-75 are tentatively set for hearing on July 16 and July 30, 1975. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: EXAMINER HEARING - WEDNESDAY - JULY 2, 1975

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

The following cases will be heard before Richard L. Stamets, Examiner, or Joe D. Ramey, Alternate Examiner:

CASE 5501: (Continued from the June 10, 1975, Examiner Hearing)

Application of Hanagan Petroleum Corporation for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Pennsylvanian formation underlying the N/2 of Section 24, Township 21 South, Range 26 East, Eddy County, New Mexico, to be dedicated to a well to be drilled at a standard location for said unit. Also to be considered will be the cost of drilling and completing said well and the allocation of such costs as well as actual operating costs and charges for supervision. Also to be considered will be designation of application as operator of the well and a charge for the risk involved in drilling said well.

CASE 5514: Application of Texaco Inc. for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Blinebry, Tubb-Drinkard, Devonian, and Fusselman production in the wellbore of its G. L. Erwin "B" Federal Well No. 4, located in Unit O of Section 35, Township 24 South, Range 37 East, Justis Field, Lea County, New Mexico.

CASE 5515: Application of Exxon Co., USA for a quadruple completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the quadruple completion of its NM State "S" Well No. 24, located in Unit J of Section 2, Township 22 South, Range 37 East, Lea County, in such a manner as to produce Grayburg and Granite Wash production through parallel strings of 2 7/8-inch casing cemented in a common wellbore and to dually complete the third string of 2 7/8-inch casing in the well in such a manner as to permit Wantz-Abo production through the 1 1/2-inch tubing and Drinkard production through the casing-tubing annulus.

CASE 5516: Application of J. R. Cone for downhole commingling and a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Blinebry and Drinkard production in the wellbore of his Eubanks Well No. 4, located in Unit N of Section 14, Township 21 South, Range 37 East, Lea County, New Mexico, and for the dual completion of said well in such a manner as to produce the aforesaid commingled production and Abo production through parallel strings of tubing.

CASE 5517: Application of Petro Lewis Corporation for an unorthodox oil well location, Sandoval County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of an oil well to be drilled 1305 feet from the North line and 2310 feet from the East line of Section 22, Township 19 North, Range 3 West, Southwest Media-Entrada Oil Pool, Sandoval County, New Mexico.

CASE 5512: Application of NRM Petroleum Corporation for an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox gas well location, as amended, for a well to be drilled at a point 910 feet from the North line and 660 feet from the West line of Section 33, Township 20 South, Range 30 East, Golden Lane Gas Field, Eddy County, New Mexico.

CASE 5508: Application of Dugan Production Corporation for a non-standard gas proration unit, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval for a 160-acre non-standard gas proration unit comprising the SW/4 of Section 14, Township 24 North, Range 5 West, Basin-Dakota Pool, Rio Arriba County, New Mexico, to be dedicated to a well at a standard location in Unit L of said Section 14.

CASE 5518: Application of Anadarko Production Co. for two waterflood projects and an administrative procedure, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute two waterflood projects in the Square Lake Pool by injection of water into the Grayburg-San Andres formations through its Kennedy Well No. 1, located in Unit M of Section 21, and its Baxter "A" Federal Well No. 1, located in Unit O of Section 20, both in Township 16 South, Range 31 East, Eddy County, New Mexico. Applicant further seeks the adoption of an administrative procedure whereby the aforesaid projects as well as those projects operated under authority of Orders Nos. R-2920, R-2977, and R-3677 could be combined for purposes of operation, control, and reporting, and whereby additional wells could be placed on injection or production without notice and hearing.

CASE 5519: Application of Western Oil Producers, Inc. for an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox gas well location of a proposed Devonian oil test well, in the event said well should also be completed as a gas well in the Morrow formation, said well to be located 660 feet from the South line and 2310 feet from the West line of Section 25, Township 17 South, Range 25 East, West Atoka-Morrow Gas Pool, Eddy County, New Mexico.

CASE 5520: Application of Yates Petroleum Corporation for two unorthodox gas well locations, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of two proposed gas wells, the first being 1980 feet from the North line and 660 feet from the West line of Section 31, Township 17 South, Range 26 East, West Atoka-Morrow Gas Pool, Eddy County, New Mexico, to have dedicated the N/2 of said Section 31; and the second being 880 feet from the South line and 660 feet from the West line of said Section 31, to have dedicated the S/2 of said Section 31.

Corporation Tidwell ED Com Well No. 1 located in Unit P of Section 22, Township 17 South, Range 26 East, NMPM. Said pool would comprise:

TOWNSHIP 17 SOUTH, RANGE 26 EAST, NMPM  
Section 22: E/2

(f) CREATE a new pool in Eddy County, New Mexico, classified as a gas pool for Upper Pennsylvanian production and designated as the McKittrick Canyon Upper Pennsylvanian Gas Pool. The discovery well is the Coquina Oil Corporation FAF Federal Well No. 1 located in Unit I of Section 23, Township 22 South, Range 25 East, NMPM. Said pool would comprise:

TOWNSHIP 22 SOUTH, RANGE 25 EAST, NMPM  
Section 23: E/2

(g) CREATE a new pool in Eddy County, New Mexico, classified as a gas pool for Morrow production and designated as the Nash-Morrow Gas Pool. The discovery well is the Phillips Petroleum Corporation Sandy Unit Well No. 1 located in Unit E of Section 24, Township 23 South, Range 30 East, NMPM. Said pool would comprise:

TOWNSHIP 23 SOUTH, RANGE 30 EAST, NMPM  
Section 24: W/2

(h) CREATE a new pool in Chaves County, New Mexico, classified as a gas pool for Morrow production and designated as the Oasis-Morrow Gas Pool. The discovery well is the Coquina Oil Corporation Exxon Federal Well No. 1 located in Unit D of Section 12, Township 10 South, Range 29 East, NMPM. Said pool would comprise:

TOWNSHIP 10 SOUTH, RANGE 29 EAST, NMPM  
Section 12: N/2

(i) CREATE a new pool in Eddy County, New Mexico, classified as a gas pool for Morrow production and designated as the West Parkway-Morrow Gas Pool. The discovery well is the Petroleum Corporation Parkway West Unit Well No. 2 located in Unit G of Section 29, Township 19 South, Range 29 East, NMPM. Said pool would comprise:

TOWNSHIP 19 SOUTH, RANGE 29 EAST, NMPM  
Section 29: E/2

(j) CREATE a new pool in Eddy County, New Mexico, classified as a gas pool for Morrow production and designated as the Turkey Track-Morrow Gas Pool. The discovery well is the Hondo Drilling Company Union TX State Com Well No. 1 located in Unit N of Section 17, Township 19 South, Range 29 East, NMPM. Said pool would comprise:

TOWNSHIP 19 SOUTH, RANGE 29 EAST, NMPM  
Section 17: S/2

CASE 5521: Application of Yates Petroleum Corporation for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Pennsylvanian formation underlying the N/2 of Section 11, Township 17 South, Range 26 East, Eddy County, New Mexico, to form a standard 320-acre gas spacing and proration unit to be dedicated to a well to be drilled thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of such costs as well as the actual operating costs and charges for supervision. Also to be considered will be designation of applicant as operator of the well and a charge for the risk involved in drilling said well.

CASE 5522: Southeastern New Mexico nomenclature case calling for the creation and extension of certain pools in Lea, Eddy, and Chaves Counties, New Mexico.

(a) CREATE a new pool in Lea County, New Mexico, classified as an oil pool for Wolfcamp production and designated as the Airstrip-Wolfcamp Pool. The discovery well is the Amoco Production Company State FU Well No. 1 located in Unit K of Section 25, Township 18 South, Range 34 East, NMPM. Said pool would comprise:

TOWNSHIP 18 SOUTH, RANGE 34 EAST, NMPM  
Section 25: SW/4

(b) CREATE a new pool in Lea County, New Mexico, classified as an oil pool for Devonian production and designated as the Custer-Devonian Pool. The discovery well is the Shell Oil Company State B Com Well No. 1 located in Unit C of Section 36, Township 24 South, Range 36 East, NMPM. Said pool would comprise:

TOWNSHIP 24 SOUTH, RANGE 36 EAST, NMPM  
Section 36: N/2

(c) CREATE a new pool in Lea County, New Mexico, classified as a gas pool for Atoka production and designated as the North Four Lakes-Atoka Gas Pool. The discovery well is the APCO Corporation Sun-State Well No. 1 located in Unit F of Section 23, Township 11 South, Range 34 East, NMPM. Said pool would comprise:

TOWNSHIP 11 SOUTH, RANGE 34 EAST, NMPM  
Section 23: N/2

(d) CREATE a new pool in Eddy County, New Mexico, classified as a gas pool for Morrow production and designated as the Hackberry-Morrow Gas Pool. The discovery well is the Julian Ard Hackberry Well No. 1 located in Unit G of Section 25, Township 19 South, Range 30 East, NMPM. Said pool would comprise:

TOWNSHIP 19 SOUTH, RANGE 30 EAST, NMPM  
Section 25: E/2

(e) CREATE a new pool in Eddy County, New Mexico, classified as a gas pool for Atoka production and designated as the Kennedy Farms-Atoka Gas Pool. The discovery well is the Yates Petroleum

(k) EXTEND the West Atoka-Morrow Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 17 SOUTH, RANGE 25 EAST, NMPM  
Section 36: All

(l) EXTEND the Cruz-Delaware Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 23 SOUTH, RANGE 31 EAST, NMPM  
Section 19: NW/4

(m) EXTEND the Drinkard Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 21 SOUTH, RANGE 36 EAST, NMPM  
Section 36: N/2

(n) EXTEND the Henshaw Queen-Grayburg-San Andres Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 16 SOUTH, RANGE 31 EAST, NMPM  
Section 18: E/2 SW/4

(o) EXTEND the Indian Draw-Delaware Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 22 SOUTH, RANGE 28 EAST, NMPM  
Section 19: N/2 NE/4

(p) EXTEND the North Mason-Delaware Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 26 SOUTH, RANGE 32 EAST, NMPM  
Section 30: NE/4

(q) EXTEND the Sawyer-San Andres Gas Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 9 SOUTH, RANGE 38 EAST, NMPM  
Section 17: All

(r) EXTEND the Tom-Tom San Andres Pool in Chaves County, New Mexico, to include therein:

TOWNSHIP 7 SOUTH, RANGE 31 EAST, NMPM  
Section 27: SW/4  
Section 34: N/2 NW/4

(s) EXTEND the Twin Lakes-San Andres Pool in Chaves County, New Mexico, to include therein:

TOWNSHIP 8 SOUTH, RANGE 28 EAST, NMPM  
Section 36: NW/4 SE/4



BEFORE THE  
NEW MEXICO OIL CONSERVATION COMMISSION  
Santa Fe, New Mexico  
June 10, 1975

EXAMINER HEARING

IN THE MATTER OF:

Application of NRM Petroleum  
Corporation for an unorthodox  
gas well location, Eddy County,  
New Mexico

CASE NO. 5512

BEFORE: Daniel S. Nutter, Examiner

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the New Mexico Oil  
Conservation Commission:

William F. Carr, Esq.  
Legal Counsel for the  
Commission  
State Land Office Building  
Santa Fe, New Mexico 87501

THE NYE REPORTING SERVICE  
STATE-WIDE DEPOSITION NOTARIES  
225 JOHNSON STREET  
SANTA FE, NEW MEXICO 87501  
TEL. (505) 982-0386

MR. NUTTER: Case 5512.

MR. CARR: Application of NRM Petroleum Corporation for an unorthodox gas well location, Eddy County, New Mexico.

MR. NUTTER: It has been necessary for Applicant to move the location from the advertised point, therefore Case No. 5512 will be continued and readvertised with a new location.

THE NYE REPORTING SERVICE  
STATE-WIDE DEPOSITION NOTARIES  
225 JOHNSON STREET  
SANTA FE, NEW MEXICO 87501  
TEL. (505) 982-0386



BEFORE EXAMINER STAMETS  
 OIL CONSERVATION COMMISSION  
 TPCO EXHIBIT NO. 2  
 CASE NO. 5512  
 Submitted by Texas International  
 Hearing Date July 2, 1975

GOLDEN LANE AREA (STRAWN)  
 EDDY CO., NEW MEXICO

	March, 1975 MMcf	Production Mbbbl	Cumulative Prod. MMcf	4-1-75 bbl	Est. Ult. Production MMcf	Est. June, 1975 Production Mbbbl	Est. June, 1975 Production MMcf	Est. June, 1975 Production Mbbbl
TIPCO Hudson Fed.	86.9	5.1	520.8	29.5	4535	269.0	84	4.9
TIPCO Lowe Fed.	--	--	--	--	1950	105.0	45	2.7
Coquina Heyco St.	--	--	--	--	1500	79.5	45	2.3
Gulf BD St.	12.7	0.7	1146.1	62.5	1270	68.0	12.3	0.7
Pennzoil Hudson	13.9	0.8	3253.5	200.6	4100	240.0	13.5	0.8
Westbrook Cowden	55.7	2.6	2013.1	85.6	3475	155.0	53.7	2.5
Meadco Harris #1	3.4	0.1	62.3	4.2	125	7.8	3.3	0.1
Meadco Harris #2	<u>3.7</u>	<u>0.2</u>	<u>116.2</u>	<u>6.2</u>	<u>200</u>	<u>10.4</u>	<u>3.6</u>	<u>0.2</u>
	176.3	0.5	7112.0	388.6	17155	934.7	260.4	14.2

*Sent to Callahan*

# Gulf Oil Company - U.S.

PRODUCTION DEPARTMENT  
MIDLAND DISTRICT

B. L. Choate  
DISTRICT PRODUCTION MANAGER  
J. L. Pike  
DISTRICT OPERATIONS MANAGER  
M. B. Mosley  
DISTRICT SERVICES MANAGER  
A. J. Evans, Jr.  
DISTRICT ENVIRONMENTAL & SAFETY MANAGER  
J. C. Howard  
DISTRICT EMPLOYEE RELATIONS MANAGER

5 June 1975

P. O. Drawer 1150  
Midland, Texas 79701

Oil Conservation Commission  
State of New Mexico  
P. O. Box 2088  
Santa Fe, New Mexico 87501

Re: Request for Unorthodox Location for  
NRM Petroleum Corporation's Golden  
Federal Well No. 1, Golden Lane-  
(Morrow) and Golden Lane-(Strawn)  
Fields, Eddy County, New Mexico

Gentlemen:

This is to advise that Gulf Oil Corporation has been given due notice that NRM Petroleum Corporation has made application for an unorthodox location for their Golden Federal Well No. 1, Golden Lane (Morrow) and Golden Lane (Strawn) Fields, Eddy County, New Mexico.

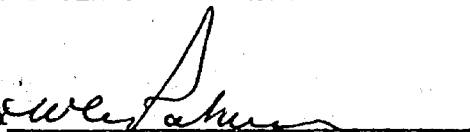
We hereby waive any objection to the granting of this application for the above well which is to be located:

910' FNL and 660' FWL of Section 33, T-20S,  
R-30E, Eddy County, New Mexico

Executed this 5th day of June, 1975.

Yours very truly,

GULF OIL CORPORATION

BY   
W. C. PALMER  
District Engineer

GVB: jm



A DIVISION OF GULF OIL CORPORATION

JUN - 5 1975

**Memo**

*From*  
D. S. NUTTER  
CHIEF ENGINEER

To

Ready Case 5512

for July 2 and

move loc to

910' FNL

660' ~~FNL~~ FWL

Case 5512

KELLAHIN AND FOX  
ATTORNEYS AT LAW  
500 DON GASPAR AVENUE  
POST OFFICE BOX 1769  
SANTA FE, NEW MEXICO 87501

JASON W. KELLAHIN  
ROBERT E. FOX  
W. THOMAS KELLAHIN

TELEPHONE 982-4315  
AREA CODE 805

May 1, 1975

MAY 2 - 1975  
OIL CONSERVATION COMM.  
Santa Fe

The Oil Conservation Commission  
of New Mexico  
Post Office Box 2088  
Santa Fe, New Mexico 87501

ATTENTION: Ida Rodriguez

Re: Applications for NRM Petroleum  
Corporation and Petro-Lewis Corporation

Dear Ida:

I have enclosed two applications to be filed  
with the Oil Conservation Commission on behalf of  
the above referenced oil companies.

Please set each application for hearing before  
the Commission's examiner for June 11, 1975.

Very truly yours,

KELLAHIN & FOX

By Raye Hancock  
Secretary

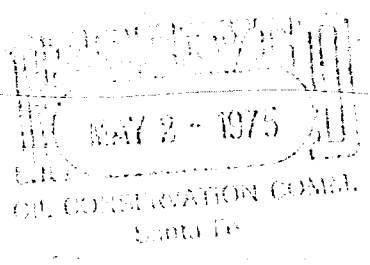
:ksh

Enclosures

DOCKET MAILED

Date \_\_\_\_\_

~~Date \_\_\_\_\_~~  
DOCKET MAILED



BEFORE THE  
OIL CONSERVATION COMMISSION OF NEW MEXICO

IN THE MATTER OF THE APPLICATION  
OF NRM PETROLEUM CORPORATION  
FOR AN UNORTHODOX WELL LOCATION,  
EDDY COUNTY, NEW MEXICO

A P P L I C A T I O N

COMES NOW NRM PETROLEUM CORPORATION and applies to  
the Oil Conservation Commission of New Mexico for approval  
of an unorthodox well location in the Golden Lane-Morrow  
and Golden Lane-Strawn Gas Pools, and in support thereof  
would show the Commission:

1. Applicant proposes to drill a well of sufficient  
depth to test the Strawn and Morrow formations, at approxi-  
mately a total depth of 12,500 feet.

2. The applicant proposes to locate the well <sup>910</sup>~~660~~ *60K*  
feet from the North line and 660 feet from the West line  
of Section 33, Township 20 South, Range 30 East, Eddy County,  
New Mexico, as an exception to the state-wide rules for  
Strawn and Morrow wells.

3. The location is outside of the boundaries of any  
designated pool, but within one mile of the exterior bound-  
aries of the Golden Lane-Morrow Gas Pool and the Golden  
Lane-Strawn Gas Pool, Eddy County, New Mexico.

4. Approval of the proposed location will result in

DOCKET MAILED  
Date 6/18/75



the recovery of hydrocarbons that would not otherwise be recovered, is in the interests of conservation and will prevent waste. The correlative rights of offset operators will not be impaired by approval of the proposed location.

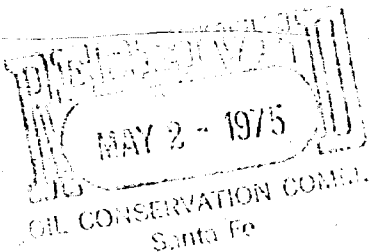
WHEREFORE applicant prays that this application be set for hearing before the Commission's duly appointed examiner at the regularly scheduled examiner hearing on June 11, 1975, and that after notice and hearing as required by law, the Commission enter its order approving the unorthodox well location as applied for.

Respectfully submitted,

NRM PETROLEUM CORPORATION

By *Jason W. Killahin*  
KELLAHIN & FOX  
Post Office Box 1769  
Santa Fe, New Mexico 87501

ATTORNEYS FOR APPLICANT



BEFORE THE  
OIL CONSERVATION COMMISSION OF NEW MEXICO

IN THE MATTER OF THE APPLICATION  
OF NRM PETROLEUM CORPORATION  
FOR AN UNORTHODOX WELL LOCATION,  
EDDY COUNTY, NEW MEXICO

A P P L I C A T I O N

COMES NOW NRM PETROLEUM CORPORATION and applies to  
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would show the Commission:

1. Applicant proposes to drill a well of sufficient  
depth to test the Strawn and Morrow formations, at approxi-  
mately a total depth of 12,500 feet.
2. The applicant proposes to locate the well <sup>910' JOK</sup> 660'  
feet from the North line and 660 feet from the West line  
of Section 33, Township 20 South, Range 30 East, Eddy County,  
New Mexico, as an exception to the state-wide rules for  
Strawn and Morrow wells.
3. The location is outside of the boundaries of any  
designated pool, but within one mile of the exterior bound-  
aries of the Golden Lane-Morrow Gas Pool and the Golden  
Lane-Strawn Gas Pool, Eddy County, New Mexico.
4. Approval of the proposed location will result in

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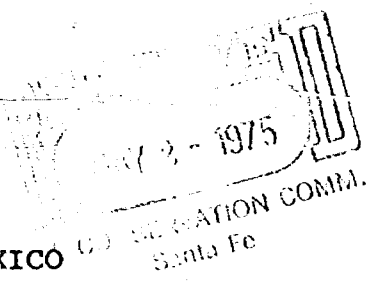
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Respectfully submitted,

NRM PETROLEUM CORPORATION

By Jason W. Kellahin  
KELLAHIN & FOX  
Post Office Box 1769  
Santa Fe, New Mexico 87501

ATTORNEYS FOR APPLICANT



BEFORE THE  
OIL CONSERVATION COMMISSION OF NEW MEXICO

IN THE MATTER OF THE APPLICATION  
OF NRM PETROLEUM CORPORATION  
FOR AN UNORTHODOX WELL LOCATION,  
EDDY COUNTY, NEW MEXICO

A P P L I C A T I O N

COMES NOW NRM PETROLEUM CORPORATION and applies to  
the Oil Conservation Commission of New Mexico for approval  
of an unorthodox well location in the Golden Lane-Morrow  
and Golden Lane-Strawn Gas Pools, and in support thereof  
would show the Commission:

1. Applicant proposes to drill a well of sufficient  
depth to test the Strawn and Morrow formations, at approxi-  
mately a total depth of 12,500 feet.

2. The applicant proposes to locate the well 660  
feet from the North line and 660 feet from the West line  
of Section 33, Township 20 South, Range 30 East, Eddy County,  
New Mexico, as an exception to the state-wide rules for  
Strawn, and Morrow wells.

910 JWK

3. The location is outside of the boundaries of any  
designated pool, but within one mile of the exterior bound-  
aries of the Golden Lane-Morrow Gas Pool and the Golden  
Lane-Strawn Gas Pool, Eddy County, New Mexico.

4. Approval of the proposed location will result in

the recovery of hydrocarbons that would not otherwise be recovered, is in the interests of conservation and will prevent waste. The correlative rights of offset operators will not be impaired by approval of the proposed location.

WHEREFORE applicant prays that this application be set for hearing before the Commission's duly appointed examiner at the regularly scheduled examiner hearing on June 11, 1975, and that after notice and hearing as required by law, the Commission enter its order approving the unorthodox well location as applied for.

Respectfully submitted,

NRM PETROLEUM CORPORATION

By Jason W. Kellahin  
KELLAHIN & FOX  
Post Office Box 1769  
Santa Fe, New Mexico 87501

ATTORNEYS FOR APPLICANT

Case 5512  
Non Standard  
Location

Amoco USA Emperor 1  
Morrow 640-Acres

TIPCO  
Mullion Rd 1  
Stn 320  
acres  
NSL 679

TIPCO was only  
operator objecting

47.5 squares in area  
of overlap  
800 squares in 320 Overlap = 5.9%

32 GALE Eddy ST 1  
Stn 320-1200

□ Dry hole  
Non commercial  
in Stn 320

NSL  
STD location

\*

\*

\*

33

30

25

DRAFT  
RLS/jr

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. 5512

Order No. R- 5067

APPLICATION OF NRM PETROLEUM CORPORATION  
FOR AN UNORTHODOX GAS WELL LOCATION,  
EDDY COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on July 2, 1975,  
at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this        day of July, 1975, 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, NRM Petroleum Corporation, seeks approval  
of an unorthodox gas well location, ~~as amended~~, 910 feet from the  
North line and 660 feet from the West line of Section 33, Township  
20 South, Range 30 East, NMPM, to test the Pennsylvanian formation,  
Golden Lane Gas Field, Eddy County, New Mexico.

-2-

Case No. 5512  
Order No. R-

(3) That the W/2 of said Section 33 is to be dedicated to the well.

(4) That a well at said unorthodox location will better enable applicant to produce the gas underlying the proration unit.

(5) That an offset operator with production from the Golden Lane-Strawn Gas Pool in the S/2 of Section 29, Township 20 South, Range 30 East, NMPM, Eddy County, New Mexico, has objected to the *proposed* well location for the Strawn formation.

(6) That no other offset operator objected to the proposed unorthodox location.

(7) That a well at the proposed location will have an area of drainage in the Strawn formation which extends 19 net acres into the S/2 of Section 29, Township 20 South, Range 30 East, NMPM, more than permitted under a standard location for the Golden Lane-Strawn Gas Pool.

(8) That to offset the advantage gained over the protesting offset operator, production from the well at the proposed unorthodox location should be limited from the Strawn formation.

(9) That such limitation should be based upon the 19 net acre encroachment described in Finding No. (7) above, and may best be accomplished by assigning a well at the proposed location a ratable take factor of 0.94 (320 minus 19, divided by 320).

(10) That approval of the subject application subject to the above limitation will afford the applicant the opportunity to produce its just and equitable share of the gas in the subject pool, will prevent the economic loss caused by the drilling of unnecessary well, avoid the augmentation of risk arising from the drilling of an excessive number of wells and will otherwise prevent waste and protect correlative rights.



-3-

Case No. 5512  
Order No. R-

IT IS THEREFORE ORDERED:

(1) That an unorthodox gas well location for the Pennsylvanian formation is hereby approved for a well to be located at a point 910 feet from the North line and 660 feet from the West line of Section 33, Township 20 South, Range 30 East, NMPM, Golden Lane Gas Field, Eddy County, New Mexico.

(2) That the W/2 of said Section 33 shall be dedicated to the above-described well.

(3) That said well is hereby assigned a ratable take factor of 0.94 in the Strawn formation, and the operator of the well, upon completion and connection thereof to a gas pipeline, shall notify the gas purchaser of the ratable take factor.

(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.