

CASE 3750: Application of PAN
AMERICAN for an unorthodox gas
well location, Lea County.

Case No.

3750

Application, Transcript,
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. 3750
Order No. R-3418

APPLICATION OF PAN AMERICAN PETROLEUM
CORPORATION FOR AN UNORTHODOX GAS WELL
LOCATION, LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on April 24, 1968,
at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 29th day of May, 1968, the Commission, a
quorum being present, having considered the testimony, the record,
and the recommendations of the Examiner, and being fully advised
in the premises,

FINDS:

(1) That due public notice having been given as required by
law, the Commission has jurisdiction of this cause and the subject
matter thereof.

(2) That the applicant, Pan American Petroleum Corporation,
seeks authority to drill its State "AZ" Well No. 4 at an unortho-
dox gas well location in the West Ranger Lake-Devonian Gas Pool
990 feet from the North line and 990 feet from the East line of
Section 34, Township 12 South, Range 34 East, 6MPM, Lea County,
New Mexico, to be dedicated to a standard unit comprising the
E/2 of said Section 34.

(3) That a standard location for the subject well would
require the well to be located not closer than 660 feet to the
nearest side boundary of the dedicated tract nor closer than 1980
feet to the nearest end boundary nor closer than 330 feet to any
quarter-quarter section or subdivision inner boundary.

(4) That the evidence indicates that the subject pool is an
active water-drive reservoir.

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CASE No. 3750
Order No. R-3418

(5) That the evidence indicates that a well located up-structure at the proposed non-standard location in said Section 34 should recover more gas than a well located at a standard location.

(6) That the correlative rights of some offset operators will be impaired if the entire E/2 of said Section 34 is dedicated to the subject well.

(7) That to offset the advantage to be gained over offset operators by the drilling of a well at the proposed non-standard location, the acreage to be dedicated to the subject well should be reduced by 18.75 percent.

(8) That approval of the proposed unorthodox location will not violate correlative rights and will afford the applicant the opportunity to produce its just and equitable share of the gas in the West Ranger Lake-Devonian Gas 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 otherwise prevent waste, provided no more than 260 acres is dedicated to the subject well.

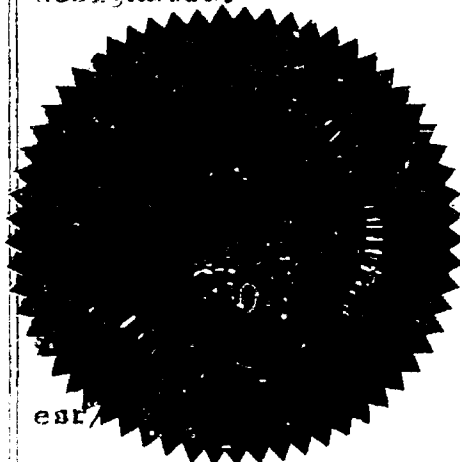
IT IS THEREFORE ORDERED:

(1) That the applicant, Pan American Petroleum Corporation, is hereby authorized to drill its State "AZ" Well No. 4 at an unorthodox gas well location in the West Ranger Lake-Devonian Gas Pool 990 feet from the North line and 990 feet from the East line of Section 34, Township 12 South, Range 34 East, NMPM, Lea County, New Mexico;

PROVIDED HOWEVER, that no more than 260 acres shall be dedicated to said well, being the NE/4, E/2 SE/4, and the E/2 N/2 S/2 SE/4 of said Section 34.

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

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



STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

DAVID F. CIERCO, Chairman

GLYTON B. HAYS, Member

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

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BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
April 24, 1968
EXAMINER HEARING

IN THE MATTER OF:

Application of Pan American
Petroleum Corporation for an
unorthodox gas well location, Lea
County, New Mexico.

Case 3750

BEFORE: Daniel S. Nutter, Examiner

TRANSCRIPT OF HEARING

MR. NUTTER: Next we'll take up Case 3750.

MR. HATCH: Case 3750. Application of Pan American Petroleum Corporation for an unorthodox gas well location, Lea County, New Mexico.

MR. BUELL: For the Applicant, Pan American Petroleum Corporation, Guy Buell.

MR. KELLAHIN: If the Examiner please, Jason Kellahin, Kellahin & Fox, appearing for Phillips Petroleum Company.

MR. HOCKER: R.L. Hocker for Amerada Petroleum Corporation. We have a small statement.

MR. MORITZ: Jerry Moritz, with Texas Pacific, we have a small statement to make.

MR. BUELL: We have one witness, Mr. Examiner, Mr. Ford.

(Witness sworn)

(Whereupon, Applicant's
Exhibits 1 through 3
marked for identification)

GEORGE FORD

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

DIRECT EXAMINATION

BY MR. BUELL:

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

A George H. Ford, Staff Engineer for Pan American Petroleum Corporation in Fort Worth, Texas.

Q Mr. Ford, you have testified at previous Commission hearings and your qualifications as a Petroleum Engineer are a matter of public record, are they not?

A Yes, sir, that's correct.

MR. BUELL: Mr. Examiner, are there any questions as to Mr. Ford's qualifications as a Petroleum Engineer with particular reference to the Ranger Lake area?

MR. NUTTER: No, sir, Mr. Buell. Mr. Ford is considered qualified.

Q Mr. Ford, in connection with your testimony today, I wish you would look first at what has been identified as Pan American's Exhibit 1. What is that exhibit?

A Exhibit 1 is a map of the Ranger Lake area in Township 12 South, a portion of Township 13 South and Range 34 East, in Lea County, New Mexico. To orient the Examiner, the three completions in this field are colored in orange. They are in the south half of Section 23, a

Texas Pacific Well, the north half and south half of Section 26, two Phillips wells, all in Township 12 South, Range 34 East. Also a dry hole drilled by Phillips and TP in the southeast quarter of Section 23 is shown in orange. Pan American's proposed location for State A2 No. 4, the subject of this application is emphasized with a red circle in the east half of Section 34, Township 12 South, Range 34 East and the 320 acres in the east half of Section 34 that we propose to dedicate to the well is emphasized with red around the outer boundaries of that 320-acre unit.

Q Mr. Ford, before we go into other details on Exhibit 1, such as structure and other related matters, turn your attention now, if you will, to what has been identified as Exhibit No. 2. What is that exhibit?

A Exhibit No. 2 is a tabulation of pertinent data on the West Ranger Lake Devonian Gas pool.

Q Would you mind, I realize this exhibit is self-explanatory, but do you have any one of these items that you would like to point out for the record?

A Well, actually, it's not very long, I'll enter quite a few of them. The field was discovered August 8, 1966 with completion of Texas Pacific Oil Company's

West Ranger Unit Well No. 2. Next I have the cumulative production of 635 million cubic feet of gas, a little over 81,000 barrels of condensate. This is up through February of 1968, the latest data that we have available. The gas-water contact is at minus 8,780 feet subsea, the porosity is around four per cent; the original pressure was 5,010 pounds on the discovery well. We have an additional pressure of 5,017 pounds on a subsequent well, Phillips West Ranger Unit Well No. 1; we have a water drive mechanism in the field and there has been no decline of pressure with production from the field. Last is a well cost of \$220,000 which is what we anticipate for our State AZ No. 4.

Q Let's go back now to Exhibit No. 1. What are the data included on this exhibit that you did not relate in your opening remarks?

A The map is a structure map with structural contours on top of the Devonian formation, with a contour interval of 50 feet. The structure is an elongated anticline; the limits have not been defined completely as of this date. We do have proof of a gas-water contact at about minus 8,780 feet. I've not shown that contact on this map. It would fall in between minus 8,750 foot

contour which is emphasized and the minus 3,300 foot contour. The contact then would run through the Phillips and TP well that I mentioned as a dry hole in the southeast quarter of the southeast quarter of Section 23, Township 12 South, Range 34 East. There is additional control on the west side of the map in Section 28, same township and range, where Midwest drilled a dry hole in 1959. They took a drillstem test from 13,000 feet to 13,100 feet and recovered 4,600 feet of salt water.

Down on the southeast portion of the map in Section 1, Township 13 South, Range 34 East is a dry hole drilled by Slick Oil Corporation in 1957. They also took a drillstem test over the Devonian interval from 13,275 to 13,360 and recovered 950 feet of salt water.

Q So then in addition to the established gas-water contact in this pool we also have these two flank dry holes which indicate that the aquifer could be quite extensive?

A Yes, sir.

Q Let's turn now to what has been identified as Exhibit 3. We'll come back again to Exhibit 1, Mr. Ford, but I want you to comment on Exhibit 3. What is that Exhibit?

A Exhibit No. 3 is a cross section labeled A, A prime through the three completions and the one dry hole in the West Ranger Lake Pool. The purpose of this exhibit is to prove the gas-water contact of minus 8,780. Above each of the logs is the identification as to operator and well name. Below the log is a pertinent information on completion and our drillstem test information.

The top of the Devonian is shown, you will note that these three completions are topset completions, that is, with the casing set near the top of the Devonian, then open hole completion. The gas-water contact is shown. It is at minus 8,780 which is not noted on this cross section. You will note that the third well, the discovery well, which I just mentioned on an earlier exhibit, has a total depth of 12,940, that's posted at the bottom of the log in the very center of the log on the exhibit, and also the subsea of minus 8,780. This well started reporting water production on the reports that we have available, in August of 1967, which shows that the gas-water contact is very near minus 8,780 now and was at that time; in other words, it's come up a little with production from the field.

On the right is the dry hole I mentioned in Section 23

that was drilled by Phillips and TP. You will notice there that the top of the Devonian is a minus 8,768, it's also shown on Exhibit 1. The drillstem test did recover 6,750 feet of sulphur water. This was over an interval from 12,937 to 12,977 subsea, this minus 8,785 to minus 8,825. Actually the top of porosity from the log on the well is at about 12,952 or subsea of minus 8,800, so in this well we certainly had water at the time of the completion attempt or drillstem test that was taken on the well as high as minus 8,800. Our best estimate of gas-water contact originally was minus 8,780 and it has risen some through production.

Q Let's go back now to Exhibit 1 and particularly to the east half of Section 34 as reflected on that. Why is this well location an unorthodox location?

A It's too far to the north on the 320-acre unit that we have proposed to be dedicated to the well. It's 990 feet from the north and east lines of Section 34. A standard location would be 1,980 from the north line, so we are 990 feet farther north than a standard location as provided for in statewide rules.

Q According to the interpretation on Exhibit 1, 1,980 feet from the north line would be a productive

location. Why is it necessary for Pan American to request this unorthodox location?

A So that we can complete the well farther up structure and give us an opportunity to attempt to protect our correlative rights.

Q Do you feel that in this water drive pool that even at the location requested there will be gas currently under the east half of Section 34 that will migrate off of 34 and be produced by other wells in the pool?

A There is that possibility with the current control that we have, I don't think we can quantitatively evaluate just how much gas there is under any unit or any particular section, but locating the well at this location will give us an opportunity to try to recover our share of gas in place in the pool.

Q It would certainly give you a better opportunity to recover our share and our royalty owners' share than would a location down structure, 1,980 feet from the north line?

A Yes, sir. That's simply our request, to be able to locate further up structure to protect our correlative rights.

Q Do you have anything further that you would like to add at this time, Mr. Ford?

A No, sir.

Q Were these exhibits either prepared by you or under your supervision?

A Yes, sir.

MR. BUELL: May it please the Examiner, that's all we have by way of Direct. I would like to formally offer Pan American's Exhibits 1 through 3 inclusive.

MR. NUTTER: Pan American's Exhibits 1 through 3 will be admitted in evidence.

(Whereupon, Applicant's Exhibits 1 through 3 were offered and admitted in evidence.)

MR. NUTTER: Are there any questions of Mr. Ford? Mr. Kellahin.

CROSS EXAMINATION

BY MR. KELLAHIN:

Q You gave the figure on the gas-water contact. How did you arrive at that again? What specific well information did you have on which you base that?

A Yes, sir, Mr. Kellahin, back to Exhibit 3, the Texas Pacific Ranger Unit No. 2 was completed at a total depth of 12,940, which is a subsea of minus 8,780. Water

production was not recorded on the first several months of production that we got from the production reports for New Mexico, but beginning in August of 1967 water was reported so I feel like that the gas-water contact was very near this total depth of the well, and then on over to the last well on the cross section, Exhibit 3, it had a top of minus 8,768, top of the Devonian, and drillstem tested water, but the top of porosity is probably down lower than that to about minus 8,800, so that would prove that water was up as far as minus 8,800, and then while I was reviewing Exhibit 1, I reviewed two other wells, one on the northwest flank and one on the southeast flank that were much lower, that produced salt water on drillstem tests, proving that there is a Devonian aquifer out further away from the field producers.

Q Now, you say this is a water drive reservoir. How did you arrive at that conclusion?

A Well, one thing is the increased water production in the Texas Pacific Ranger Unit No. 2, that's one of the pieces of evidence.

Q That well showed water on the initial potential, did it not?

A Yes, sir, the report I had was 29 barrels of

water on initial completion right at where I estimate the gas-water contact is. The producing rate there was 2,270 MCF per day. Then the operator reported no water production, at least there was none on the New Mexico Committee Report, until August of 1967, so anytime that you have an increase in water production, I think you have a gas-water contact moving up in the well bore of the well. Then in addition to that, we had the subsequent pressure or pressure on a well drilled after the discovery well that had a pressure very near the initial pressure in the reservoir, which indicates that there we have had no pressure drawdown due to production from the Texas Pacific well, which is another proof of water drive and then the two wells on the flanks of the structure that tested water is proof that water is there and available for expansion into the reservoir.

Q Actually, this is a very tight reservoir, though, is it not?

A I believe this is a fractured reservoir.

Q The formation contains very little permeability but it's fractured?

A Yes, it is fractured and we have, really, no measurement of how easily gas moves through those fractures,

we don't know how big they are or how much permeability the fractures have, but I think there would be a good opportunity for flow through the reservoir.

Q But if the fracturing was not extensive, then your lack of pressure drawdown could show a lack of communication as well as a water drive, couldn't it?

A Oh, yes, sir, that's correct. The fracturing is extensive, from the core analysis I've looked at.

Q How many cores have you looked at?

A One.

Q There is only one core?

A I believe so.

Q And it's fractured?

A Yes, sir.

Q Now, on Exhibit 3 you have -- I'm sorry -- exhibit 1 is the structure map.

A Exhibit 3 is the cross section

Q Exhibit No. 1, pardon me.

A Yes, sir.

Q What control do you have on that 8750 contour extending down to the southeast quarter?

A The control is limited over the entire field. It's limited in this area; the control is the Slick dry

hole that I mentioned in Section 1, Township 13 South, Range 34 East, as well as the control on the three completions and the one dry hole to the north, that's the two Phillips wells and the two Texas Pacific wells, and then to some extent, the control on the Midwest well over in Section 28, and then in addition our people used the control on the Penn formation which is some 2,500 feet up the hole from the Devonian. The Devonian is about 12,800 and Penn about 10,300. You notice there are three Penn wells, State AZ 1,2, and 3 on Pan American's lease in the east half of Section 34.

Q But there is nothing to the south at all, is there?

A No, sir, I don't see any control to the south.

Q Now, referring to the three producing wells, let's start with the Texas Pacific No. 2 first and come right on down to the south, did those wells fit the Pennsylvanian contours?

A I'm sorry, Mr. Kellahin.

Q I mean, is the Devonian comparable to the Pennsylvanian in that area, on the contours, or have you contoured the Pennsylvanian?

A Well, we do have available in our files a contour

map on the Pennsylvanian formation. We have this interpretation of the Devonian structure and they are compatible. I hope that answers your question, Mr. Kellahin.

Q Of course, your contours that cover your unit are entirely interpretative in extension of available information according to your interpretation?

A Yes, sir, they are, Mr. Kellahin. All of these contours are very interpretative, really, and this has less control than some of the other areas in the field.

Q As I understand the basis of your application is that you want to get higher on the structure in order to prevent drainage of gas underlying your unit?

A Yes, sir.

Q In other words, a well located at the orthodox location, in your opinion, would water out considerably from the well at your proposed location?

A A well in an orthodox location, yes, sir, that's correct.

Q 1,980 feet from the north line?

A Yes, sir, this is to give us an opportunity to recover our share of the reserves.

Q Wouldn't you normally expect the structure to

dip lower as you go down toward the south and your water-gas contact would be closer and closer to the upper limits of the producing formation?

A No, sir, I expect this structure, based on the control I have, this is the best we can do right now. Now, drilling of additional wells may prove that this interpretation is wrong, and your company may have a different interpretation but this is the best we can do with the data we have, so we've used this interpretation to locate the well where we think it will best help us protect our correlative rights.

MR. KELLAHIN: That's all I have, Mr. Ford. Thank you.

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

CROSS EXAMINATION

BY MR. NUTTER:

Q Mr. Ford, the Commission Rules provide that in the event an unorthodox location is approved by the Commission, the Commission can adjust the allowable to offset any advantage the operator obtaining the unorthodox location has. Do you have any suggestions as to how the Commission might adjust the allowable or

the takes from this well in the event the unorthodox location should be approved?

A Sir, I don't recommend any adjustment. I believe this well is necessary at the location we propose in order to give us opportunity to protect our correlative rights, so I would recommend full production or full allowable or whatever the words are.

Q Then you don't have any suggestion to make to the Commission as to the means that the Commission should utilize in the event that it found the reduction necessary?

A No, sir, I don't. I don't really know how you could do it without prorating the field. Now it is a nonprorated field, I don't see how you could accomplish it without prorating it, if you decided to make some type of adjustment.

Q Now, would you give me the subsea interval for that drillstem test on that Ranger Unit No. 1 of Phillips?

A That's the dry hole in Section 23?

Q Yes, that's the dry hole.

A You want subsea?

Q Yes, sir.

A Minus 8,785 to minus 8,825.

Q And that drillstem test gave up a lot of water?

A Yes, sir, it did and the complete information on the drillstem test is on the bottom of the log on Exhibit 3.

Q That's one of the means that you use to tie in with the water production on the Ranger Lake Unit No. 2 of Texas Pacific to establish this water-oil contact?

A Yes, sir, this proved to me as at least as high as 8,800, you could say it's higher, but I don't think that portion of the Devonian is productive or giving up anything there from minus 8,800 to minus 8,768, the top of the Devonian in the well. If it is minus 8,800 we still have the increase in water production from the Texas Pacific well.

Q Now, Mr. Ford, I note here on the figures that are given opposite of all the wells, that we have a figure referring to the depths of these wells.

A Yes, sir.

Q We have the well number opposite the well symbol, and then there is a number which I presume indicates

total depth.

A Yes, sir, it's supposed to.

Q Now, we'll take your AZ No.2 there, what's the 11,088?

A That is a code number that we use for filing scout information on wells.

Q This is the code number for the well, then the next number below that is the total depth?

A Yes, sir, then the plug back depth.

Q And what's this next one?

A TP for top pay and I believe in most cases that's top of the perforated interval.

Q I presume these figures were all prepared by the same man. Would this be top of the Pennsylvanian?

A Yes, sir, these are Pennsylvanian wells and that's probably the top of the perforations in the Pennsylvanian. These wells are in the West Ranger Unit operated by Phillips. We have an interest in that unit and that outline is shown on the map if you wonder what the dashed black and white line is, and all the Penn wells are shown on the map, Penn completions, and the information you found below those wells with the small black dot is the Penn information. I don't believe there are any other

formations productive here; farther north there is another Penn field and there's at least one San Andres producer, but in this area it's Devonian and Pennsylvanian.

Q The reason I was asking, Mr. Ford, I thought maybe someday when I didn't have anything to do I would try contouring Pennsylvanian here and see how well these Devonian interpretations would coorelate with the Pennsylvanian?

A Yes, sir, I regret that I didn't bring a Pennsylvanian map to put in, but we just had work maps of it and I should have prepared one, but it does compare very well and I think it would be interesting for you to do.

Q Because otherwise, we might just take this 8,750 foot line and tie it together right around the 8,700 line.

A As I remember our Penn interpretation, the 1 and 2 are high and 3 is low again and the best interpretation we can make was that we actually had a high in the Penn on the south portion of our lease, but we are not confident enough of that to locate a Devonian well there, see, if that were true, we would have a high Devonian down there also and should locate our well there,

but we are afraid of that interpretation, but that is the best we can do. Some other people might interpret that it closed, as you were commenting then, we just don't really know yet.

MR. NUTTER: Are there any other questions of Mr. Ford? He may be excused.

(Witness excused)

MR. NUTTER: Do you have anything further, Mr. Buell?

MR. BUELL: No, Mr. Examiner, that's all we have by way of Direct Evidence.

MR. NUTTER: Does anyone have any testimony they wish to offer in Case 3750?

MR. KELLAHIN: I would like to call one witness on behalf of Phillips Petroleum Company.

(Witness sworn)

WILLIAM J. MUELLER

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, please?

A William J. Mueller.

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

A I am Associate Reservoir Engineer with Phillips Petroleum Company in Odessa, Texas.

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

A Yes, sir.

Q Are you familiar with the area involved in the application of Pan American Petroleum Corporation in Case 3750?

A Yes, sir, I am.

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

MR. NUTTER: Yes, they are.

Q Mr. Mueller, does Phillips Petroleum Company have any objection to the proposed unorthodox well location proposed by Pan American?

A Yes, sir, we do object to it.

Q What is the basis of your objection?

A Our objection is as shown in our exhibit here, there are currently three --

(Whereupon, Phillips Exhibit 1 marked for identification)

Q You are referring to Exhibit No. 1?

A Yes, sir, Exhibit No. 1 shows the current three completions in the West Ranger Lake Devonian Gas Pool, these being the TF Well and its dedicated south half of Section 23, the Phillips No. 1 well in the north half of Section 26, and the Phillips No. 2 well in the south half of Section 26. These are the hashed marked proration dedicated acreage units shown. All the current completions, currently in this field, these three, are located on standard units consisting of 320 acres and were drilled at orthodox locations of 660 from the side boundary and 1,980 from the end boundary. We do anticipate that there will be considerable additional development drilling in this field because we feel that neither the reservoir limit nor the full Devonian structure is determinable at this time, and Phillips opposes the approval of the unorthodox well locations without a corresponding production restriction when this location request is solely for structural advantage and the crowding of known production.

Phillips believes that the unrestricted approval of an unorthodox well location by permitting assignment of a standard acreage dedication this early in the

development of the pool will result in offset drainage and impairment of correlative rights.

Shown on this exhibit are six potential unorthodox well locations. These are similar to and include the one of Pan American in the northeast quarter of Section 34. These locations are shown at the Pan American unorthodox location of 990, but we fully realize that possibly the second and subsequent ones could be requested at 660 and 330, we don't know where this would stop.

I show these as potential unorthodox, but really, it's stronger than that. The additional development drilling would have to take into account if one unorthodox location is approved, subsequently, other operators would be forced to do likewise. You will note that these fanshaped 320-acre proration units around our south and west boundary of the current dedicated acreage units would comprise six locations, each having 320 acres standard dedication for a total of 1,920 acres of dedicated acreage, yet, it's possible to drill these six unorthodox locations on the 400 contiguous and the 40 adjacent acreage to the current three wells completion acreage.

Phillips believes that any unorthodox location request for structural advantage and the crowding of proven

production be either not approved or penalized. We feel that this penalty is necessary to retard offset drainage and to protect correlative rights; in other words, no crowded unorthodox location should be permitted standard unit production allocation. The recommended penalty for -- Phillips' recommended penalty for Pan Am's proposed unorthodox location is fifty per cent of the full 320-acre dedication. This penalty is based on the fact that the proposed Pan Am location is the same as the statewide location for 160-acre gas acreage dedication. We recommend that this penalty be imposed by limiting the dedicated acreage assigned this unorthodox location.

Dedicated acreage restriction is proposed by Phillips because this is the normal standard used in either rateable take or allocated pools. Phillips Petroleum Company prior to drilling of our Ranger Lake No. 2 in the south half of 26, sent and requested waivers from all offset operators to drill an unorthodox location at a 1730 from the south and 660 from the west. This would have moved our well No. 2 in the south half of 26 some 1,320 feet due west. Now, this waiver was requested, however the hearing was not called because Phillips management subsequent to the sending out of these waivers

recognized the discrepancy that existed and requested for an unorthodox location yet having standard unit dedication. they disapproved the location because we anticipated that the New Mexico Oil Conservation Commission would require some type of enforcement to retard production from this well. The well was subsequently drilled on a standard unit at an orthodox location.

Q Now, Mr. Mueller, are you familiar with the well that's been referred to as the Phillips dry hole in Section 23?

A Yes, sir.

Q What is the situation in regard to testing of that well and the location of water in the well bore?

A The testing and location, I'll use Pan Am's exhibit, is as shown on the Pan Am exhibit, however, as Pan Am stated, the upper portion, some thirty to forty feet, of the Devonian in that well was tight and was not tested, that the porosity occurred at a minus 3,800 and this is what Phillips normally is accepting as the gas-water contact in this pool.

Q Then it would indicate that there was gas above the water-gas contact?

A Yes, it is possible that there was gas above the

gas-water contact in our No. 1 dry hole.

Q Now, this is not a prorated pool?

A No, sir.

Q And there are no field rules? It's under statewide rules as to well location and acreage dedication.

A This is true.

Q And the standard well location for 320 acres would be 1,980 feet from the north line?

A For the Pan Am location, yes.

Q Have you examined Pan Am's exhibit No. 1?

A Yes.

Q Are you in agreement with the interpretation of the contours on the southern portion of their lease?

A Well, we feel that the interpretation of the Devonian structure is considerably speculative when you get below Section 26. In Section 35 or 34 with Pan Am's nonstandard unit's location, how these contours actually are going to wiggle around down there will only be determined by additional drilling, because Pan Am used the Penn formation in interpreting the southwest portion of the structure, however, our own Pennsylvanian interpretation in where the current Devonian wells are located does show

that these wells are not following the Pennsylvania contact and I do not have a -- well. I think we can see at right here, we had -- no.

Q Just another question Mr. Mueller, in your opinion, is there any evidence available that would indicate that all of the east half of section 34 is productive of gas from the Devonian?

A Any evidence that would --

Q Any available evidence today that would indicate it is productive from the Devonian throughout the entire east half?

A No.

Q In other words, it is a matter of interpretation?

A Right, this is definitely so.

Q Do you agree with Pan American's gas-water contact?

A No, not the 8,750, is that what they used?

MR. PERK: 8,750.

A 8,750, we, like I say, have essentially used minus 8,500.

Q And that's based on your experience in the three wells that have been drilled or the four wells that have been drilled?

A It's mainly based on the dry hole, top of the porosity in the dry hole.

Q In your opinion, is this a water drive reservoir?

A I believe that water encroachment, we can definitely say occurs; whether or not it will be a full water drive or a completely effective water drive or how effective the water drive will be, can only be told by subsequent production, withdrawals.

Q Attached to Exhibit No. 1 are Exhibits No. -- 3 plats marked as Exhibits 2,3, and 4. Would you identify those, please?

(Whereupon, Phillips' Exhibits 2,3, and 4 marked for identification)

A These are copies of the Commission Form C-102, our acreage dedication plats, zexoxed copies of the official ones submitted to the Commission for the three current producing wells.

Q Was Exhibit No. 1 prepared by you or under your supervision?

A Yes, sir, it was.

Q And Exhibits 2,3, and 4 are copies from your files of plats filed with the Commission, is that correct?

A That's true.

MR. KELLAHIN: I would like to offer Exhibits 1 through 4 inclusive.

MR. MCCORM: Phillips Exhibits 1 through 4 will be admitted in evidence.

(Whereupon, Phillips Exhibits 1 through 4 were offered and admitted in evidence)

Q (By Mr. Kellahin) Do you have anything further to add to your testimony?

A Let me look here. No, I think we brought out that there is considerable question regarding the existence of a strong water drive even though TP, like I say, showed water on initial productions, still shows water; this thing is definitely low porosity. We had two core analyses, both of our wells were cored; they showed, oh, two to five per cent porosity and matrix permeability normally under one millidarcy, but they were fractured and this is, I think, the primary recovery mechanism for the deal, is the large fracture in existence.

Q One further question, Mr. Mueller. In referring to Pan American's Exhibit No. 1, if we accept the information shown on that exhibit as being correct, could

Cabot Carbon, Getty Oil, Humble Oil, Amerada, and B.F. McKnight make out an equally good case for an unorthodox well location based on Pan American's interpretation of the reservoir information?

A Definitely, because this shows that to obtain a productive well, they are all going to have to drill unorthodox locations too.

Q Would that result in drainage of the acreage that is operated by Texas Pacific and Phillips?

A Definitely, yes, sir.

Q And would, in your opinion, a well drilled at a location proposed by Pan American Petroleum Corporation result in uncompensated drainage of Phillips acreage in Section 26?

A If allowed to produce at equal rates, yes.

MR. KELLAHIN: That's all I have.

MR. NUTTER: Are there any questions of Mr. Mueller?

MR. BUELL: Yes, I have one or two, Mr. Examiner.

CROSS EXAMINATION

BY MR. BUELL:

Q Mr. Mueller, I believe you said in answer to a question on Direct that you don't know whether

the south half of our unit in the east half of 34 would be productive or not?

A No, I said there is no known definite information available as to the productivity of this acreage.

Q And you recommended a fifty per cent penalty in the event the Commission approves our application here today?

A Yes, sir.

Q Do you think productive acreage is a good basis upon which to apply a penalty?

A Do I think productive acreage?

Q Yes, or lack of productive acreage or nonproductive acreage.

A I think this is the normal reason for drilling unorthodox locations.

Q What about an orthodox location if it has nonproductive acreage, you think it should be penalized in any way?

A That is hard to state, because most times we are not fortunate to have sufficient wells on the production units to know whether or not the complete acreage must be proven to be productive to be given a statewide acreage assignment.

Q You are a reservoir engineer. In a pool of this type we have three orthodox locations.

A Yes, sir.

Q Let's assume that one of those orthodox locations instead of having 320 acres productive, has only 160, is that well going to have an advantage over the other two even though it's drilled at an orthodox location?

A Are you saying that if a portion of an orthodox location acreage is nonproductive?

Q I gave you an assumption. I'll go through it again for you. We have three wells completed in this pool at this time. Let's assume that the northernmost well although it's an orthodox location, in truth and in fact, has only 160 productive acres, your two wells in 26 to the south have all your units productive; as a reservoir engineer, would not the well to the north of your two wells have an advantage even though it's an orthodox location?

A Only if its structural position is such it would, yes, it would be higher on structure and if part of its acreage was unproductive, it would not have an equal share of the reserves, right.

Q So even a well at an orthodox location with

nonproductive acreage could have an advantage? That's what you just said.

2 Yes.

Q Do you think all the acreage assigned to the TF well in Section 13 is productive?

2 I think it's possible, yes.

Q Even though you drilled a dry hole in the southeast quarter of that unit?

2 Embarrassed as we are, right, because there is considerable controversy in our own company now about whether or not that was actually a dry hole. We did fail to get the upper 30 pit feet of the Devonian.

Q So as far as the world knows, it's a dry hole. Some of you all might have some secret --

2 Yes, TF opened our eyes again, we went back to that, right.

Q Let's assume that -- or let me ask you, do you agree with Mr. Ford's interpretation as it is, north of 35 and 36, as it is in the area of the three completed wells?

2 We had our Phillips well No. 1, I have 5,000. I show our No. 1 being lower by some 10 feet.

Q The effect of that would be to squeeze the

contours in and pull them in to the well that you have lower, would it not?

A Let's see, I have this the same, we show this well a little lower, how these contours --

Q You pulled it in.

A Yes.

Q Let's just look at this interpretation and for the purposes of this question I will even accept your minus 8,800 gas-water contact although we think it's at 8,780. Some of your units are nonproductive, aren't they?

A Some by your contour maps, they are, yes.

Q You said the only way you disagree is that you would pull the contours in closer to your well.

A No, this one here we could either pull in this way, not necessarily from this side, but like I say, my geologists and our exploration people do not feel we knew sufficient enough even after drilling two wells and being a partner, although a nonconsenting partner, in the third completion, that we could present an accurate structure map of the Devonian formation.

Q In other words, you are saying, you don't know what acreage you do have productive.

A That's true.

Q What if you had only 160, would we be getting an advantage over you?

A If we only had 160?

Q Yes, sir, since you don't know.

MR. KELLAHIN: If the Examiner please, this line of questioning is speculative. There is nothing in the record to support any such interpretation that the question is based on and it's gone on long enough.

MR. BUELL: I certainly don't want to belabor the record, Mr. Examiner, and I'm interested in Mr. Kellahin interjecting speculation into the record because we are going into that in just a minute.

MR. NUTTER: I think the record will stand for itself that there is a well in the southeast, southeast of 23, which isn't producing from the Devonian, but there isn't any well in the southeast of 26 that is or isn't producing from the Devonian so it is speculative there.

Q (By Mr. Buell) I believe you said in your Direct that you couldn't at this time say whether or not there was going to be a water drive in this pool?

A Right, effective water drive.

Q What you do recommend is that we do have an

established gas-water contact.

A Yes.

Q We have evidence of a substantial aquifer out on the flanks of the pool?

A Yes.

Q And as an engineer in this area, you are aware of the fact that we have other water drive Devonian pools in this area?

A If you are referring to Humble's South Four Lakes, I know that the nearest Devonian production to this exists as both. It is faulted and there is water drive in some segments and not water drive in other segments.

Q I wasn't thinking of that one, but it's all right.

A Within the same pool both methods of drive exist so -- in fact, even if TP has water up here doesn't mean you are going to have water drive down here.

Q Your interpretation doesn't show any faulting in this field, does it?

A Not to my knowledge, no, I don't believe so.

Q Certainly, your interpretation of the Penn shows no faulting.

A This is right.

Q I was thinking of Gladiola Devonian and several others that I could name, but there are water drive Devonians in this area?

A Yes, sir.

Q Then you shouldn't have any trouble assuming with me for the purpose of this question that we will have an effective water drive here?

A For the purpose of a hypothetical question, yes.

Q In the event that we do have an effective water drive, even at our unorthodox location, will not Pan American and its royalty owners have gas migrate off of the east half of 34 up structure?

A Will gas migrate off of your structure if you drill?

Q Yes, sir, at an unorthodox location.

A Not necessarily, because in the early life of your field you could be drawing in production disproportionate to the reserves you have under your section.

Q So you think even in a water drive reservoir that this unorthodox location would give Pan American an advantage?

A Definitely.

Q That's your engineering opinion?

A Yes.

Q Let's go to your Exhibit No. 1 and talk a little about speculation. Other than the green dot in the northeast quarter of Section 34, all the other green dots on here are pure speculation, are they not?

A Not in normal course of development drilling, each operator has to look at what the offset's done, yes, they are speculative insofar as they are not actual staked locations.

Q Yes, sir.

A Right.

Q Pure speculation on your part?

A No, not pure, because to the best of our knowledge this is what these operators will do.

Q Let's look at the east -- the west half of Section 35, that's the section directly east of our unit, is it not?

A Yes, west half of 35.

Q Yes, sir. What kind of location has been staked in that west half of 35?

A A standard location was staked by Amerada but drilling has not commenced. I believe they are awaiting

the outcome to see if you boys are going to get a crowd-in.

Q Don't you think we ought to leave that up to Amerada, Mr. Mueller?

A But I think I have to show --

Q You are doing lots of thinking for other people here today, Mr. Mueller. To your knowledge, Amerada has not requested an unorthodox location at the location that you show?

A No, sir, none of these others have been requested.

MR. BUELL: That's all we have, Mr. Examiner.

CROSS EXAMINATION

BY MR. NUTTER:

Q Mr. Mueller, Pan American's Exhibit No. 2 gave the original pressure on the TP well and the initial pressure on Phillips Unit No. 1 Well. Do you happen to know the Phillips pressure on its No. 2 well initially?

A As best we could calculate it from surface pressures, it was the same, right at approximately 5,000 pounds. We did not run a bomb in our No. 2 well like we did in our No. 1.

Q Are there any subsequent pressures available

on any of the wells?

A To my knowledge, no. Neither one of our wells, I'm going to say, weren't producing last Friday, but the line now has been laid and they may go on production this week.

Q Now the TP well has been producing a year and a half. Has any subsequent pressure ever been taken on it, do you know?

A Bottom hole pressure, no, sir. I do know that, like I say, water rate has come up and tubing pressure has dropped, but I have no knowledge of any subsequent bottom hole pressure up there.

MR. NUTTER: Are there any other questions of Mr. Mueller? He may be excused.

(Witness excused)

MR. NUTTER: Do you have anything further, Mr. Kellahin?

MR. KELLAHIN: That's all I have, Mr. Nutter.

MR. NUTTER: Does anyone have anything further they wish to offer in this case? You may go last, Mr. Buell.

MR. BUELL: Thank you, Mr. Examiner.

MR. HOCKER: R.L. Hocker for Amerada Petroleum

Corporation. Amerada has no objection to the application as requested by Pan American for this nonstandard location. I would have to say though that our geology, of course, does look different from Pan American, otherwise, we wouldn't have staked a regular location. I think that sums up our position.

MR. MORITZ: Jerry Moritz for Texas Pacific.

Texas Pacific, an operator in the West Ranger Lake Devonian Pool objects to Pan American's application for an exception to Rule 104C-2 to permit the drilling of its State A2 No. 4 on an unorthodox location with the dedication of 320 acres to it. Texas Pacific contends that the granting of such exception with the dedication of 320 acres to the unorthodox location will infringe on correlative rights. It further contends that such exception will establish a precedent which will continue to infringe upon correlative rights of operators in the pool and will contribute to economic waste. Texas Pacific contends that if the Commission does grant an exception to permit the drilling of the unorthodox location that the acreage allocation for the well should be reduced to 160 acres. If this application is denied, Texas Pacific will, in cooperation with Phillips Petroleum,

file an application for a lease to develop coal
under this pool.

MR. KENNEDY: In the interim, please, Mr.
American, I think, puts themselves in the classic
position of anybody applying for an unorthodox location.
They have to first show that all of the acreage they
propose to develop so their well is productive from the
horizon involved and at the same time show that in order
to protect their relative rights, they have to
avoid somebody else's lease line. This is a very difficult
situation for any one company to take and the examiner
is quite familiar with this type of case. In this
particular case we have a situation where we have an
unproven pool, so the allowable can't be cut in the
usual fashion. We have a pool that has no field rules,
and it's under statewide rules which call for 1,000
foot location from the north line of Pan American's
unit. It's Phillips' position that in the first place,
we do not know whether the south part of the Pan American
acreage is or is not productive of gas. According to
Pan American's interpretation it is, and it may be, and
it may not be, certainly Pan American does not feel that
an orthodox location will recover as much gas as their

unorthodox location or they would not be seeking to move farther up structure. Under those circumstances it is Phillips' position that the statewide rules should be followed as to the well location and 160-acre unit be assigned to Pan American's well which would be in conformity to the location that Pan American proposes.

We object to the location in the first instance and ask that if it is granted that the allowable be curtailed by restricting the amount of acreage that is permitted to be dedicated to the well, that being the only manner in which production can be restricted in this particular case.

MR. BUELL: May it please the Examiner, for Pan American Petroleum Corporation, I don't know whether I'm honored or chagrined to find us allegedly in a classic position with regard to an unorthodox well location. I do know this, we are determined to protect our correlative rights and the correlative rights of our royalty owners. I also know this, that we have frankly and honestly submitted all the facts and data available to us to the Commission here today. Mr. Ford readily admitted that his interpretation in the southern area of Section 34, the subject section of this application,

was highly interpretative, but he did do his best, which is more than anyone else here has done today. You have no data of any stature whatsoever in the record that says that Mr. Ford is wrong. I don't blame CP and Phillips one bit for opposing this application. If I operated three wells up structure of our unit in what is obviously going to be an effective water drive reservoir, I would object to Pan American trying to save its reserves from our up structure wells and that's precisely what they are doing here today, and I submit to this Commission that if you approve this unorthodox location without any penalty whatsoever, we are still going to lose reserves from under our unit to Phillips and CP up structure. With regard to a penalty, I find myself somewhat in the strange position of Mr. Mueller; I've always thought it should be based on the acreage, the penalty should be on acreage, nonproductive acreage, or productive acreage, whichever way you want to look at it, and I would say if we are going to apply a penalty in this pool, based on nonproductive acreage that we have got more candidates than Pan American's well in the east half of Section 34. As the Examiner remarked for the record, there is a dry hole right on a 120-acre unit of one of the producing

wells so if we are going to talk about adjustments and penalties I think we better take the shell off the pea and look at everything and I submit to the Commission that our correlative rights will be violated even if you approve this unorthodox location; if we can't drill here and are forced to drill further down structure our correlative rights are going to be further violated, but you will violate no one's correlative rights, particularly Phillips and TP, if you approve this unorthodox location without any penalty.

MR. NUTTER: I think the record will show that the Examiner didn't say that there was a dry hole in the southeast corner of Section 23, ⁱⁿ of deference to Mr. Mueller's statement that Phillips isn't sure that it was a dry hole, I said there is a well there that's not producing from the Devonian.

MR. BUELL: May it please the Examiner, Phillips finds themselves in the classic position of someone that's saying a dry hole is not a dry hole, although they plugged and abandoned.

MR. NUTTER: Does anyone else have anything to offer in Case 3750? We'll take the case under advisement.

STATE OF NEW MEXICO

COUNTY OF BERNALILLO

I, RAY SANCHEZ, Notary Public in and for the County of Bernalillo, State of New Mexico, do hereby certify that the foregoing and attached transcript of hearing before the New Mexico Oil Conservation Commission was reported to me and that the same is a true record of the said proceedings, to the best of my knowledge, skill and ability.

NOTARY PUBLIC

By Commission Expires:

November 19, 1971

I do hereby certify that the foregoing is a true and correct copy of the transcript of the hearing of the New Mexico Oil Conservation Commission held on 11/24/71 at 10:00 AM. *[Signature]*
Secretary of the Oil Conservation Commission

GOVERNOR
DAVID F. CARGO
CHAIRMAN

State of New Mexico
Oil Conservation Commission



LAND COMMISSIONER
GUYTON B. HAYS
MEMBER

STATE GEOLOGIST
A. L. PORTER, JR.
SECRETARY - DIRECTOR

P. O. BOX 2088
SANTA FE

May 29, 1968

Re: Case No. 3750
Order No. R-3418
Applicant:

Mr. Guy Buell
Pan American Petroleum Corporation
Post Office Box 1410
Fort Worth, Texas

Pan American Petroleum Corp.

Dear Sir:

Enclosed herewith are two copies of the above-referenced Commission order recently entered in the subject case.

Very truly yours,

A. L. PORTER, Jr.
Secretary-Director

ALP/ir

Carbon copy of order also sent to:

Hobbs OCC x

Artesia OCC

Aztec OCC

Other Mr. Jason Kellahin, Mr. R. L. Hocker, Mr. Jerry Moritz

DOCKET: EXAMINER HEARING- WEDNESDAY - APRIL 24, 1968

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

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

CASE 3750: Application of Pan American Petroleum Corporation for an
unorthodox gas well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an exception to Rule 104 C II to permit the drilling of its State "AZ" Well No. 4 at an unorthodox gas well location 990 feet from the North and East lines of Section 34, Township 12 South, Range 34 East, West Ranger Lake-Devonian Pool, Lea County, New Mexico. The E/2 of said Section 34 would be dedicated to said well.

CASE 3751: Application of Pennzoil Company for a dual completion and tubing exception, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion (conventional) of its Hudson Federal 29 Well No. 1 located in Unit B of Section 29, Township 18 South, Range 33 East, South Corbin Field, Lea County, New Mexico, in such a manner as to produce oil from the Wolfcamp formation through 1.38-inch ID tubing and gas from the Morrow formation through 2-inch tubing. Further, applicant seeks an exception to the tubing requirements of Commission Rule 107 in that said 1.38-inch tubing would set more than 250 feet above the uppermost Wolfcamp perforation.

CASE 3752: Application of Sunray DX Oil Company for a pilot waterflood project, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a pilot waterflood project in the Chaveroo-San Andres Pool by the injection of water into the San Andres formation through its New Mexico "X" Federal Well No. 5 located in Unit G of Section 10, Township 8 South, Range 33 East, Chaves County, New Mexico.

CASE 3753: Application of Amerada Petroleum Corporation for a waterflood expansion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to expand its Langlie Mattix Woolworth Waterflood Project by the injection of water into the Seven Rivers-Queen formation through an injection well to be drilled at an unorthodox location 75 feet from the North line and 2635 feet from the West line of Section 27, Township 24 South, Range 37 East, Langlie Mattix Pool, Lea County, New Mexico.

CASE 3754: Application of Continental Oil Company for a non-standard gas proration unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the consolidation of two existing

(Case 3754 continued)

non-standard gas proration units into one 280-acre unit comprising the SW/4, W/2 SE/4, and SE/4 SE/4 of Section 35, Township 23 South, Range 36 East, Jalmat Gas Pool, Lea County, New Mexico, to be dedicated to its Stevens A-35 Wells Nos. 1 and 2 located in Units J and L, respectively, of said Section 35. Said Well No. 1 is presently dedicated to a 120-acre unit comprising the W/2 SE/4 and SE/4 SE/4 of said Section 35, and said Well No. 2 is presently dedicated to a 160-acre unit comprising the SW/4 of said Section 35.

CASE 3755: Application of Dugan Production Corporation for the creation for an oil pool and for special pool rules, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks the creation of the North Shiprock-Dakota Oil Pool comprising the NE/4 of Section 14, Township 30 North, Range 18 West, San Juan County, New Mexico, and the establishment of special pool rules therefor providing for development on 2 1/2-acre spacing with a provision that each 40-acre tract be subject to a single Northwest New Mexico normal unit allowable.

PAN AMERICAN PETROLEUM CORPORATION

OIL AND GAS BUILDING

P. O. BOX 1410

FORT WORTH, TEXAS—76101

D. L. RAY
DIVISION ENGINEER

April 1, 1968

File: GHF-186-986.510.1

Subject: Application of Pan American
Petroleum Corporation for an
Exception to Statewide Rule 104
For its State "AZ" Well No. 4
West Ranger Lake (Devonian) Pool
Lea County, New Mexico

Mr. A. L. Porter, Jr. (3)
Secretary-Director
New Mexico Oil Conservation Commission
P. O. Box 871
Santa Fe, New Mexico

60 APR 8 AM 8 10

Dear Sir:

Pan American Petroleum Corporation respectfully requests that a hearing be scheduled to consider its application for approval of an unorthodox location in the West Ranger Lake (Devonian) Pool for its State "AZ" Well No. 4. The proposed location for this well is the NE/4 of the NE/4 Section 34-T12S-R34E, Lea County, New Mexico, this location being 990' from the north line and 990' from the east line of Section 34. Pan American will request approval of assignment to the proposed well of a 320-acre proration unit comprising the E/2 of Section 34-T12S-R34E, Lea County, New Mexico.

The names and addresses of offset operators are attached.

Yours very truly,

*D. L. Ray ghf*DGW:mp
Attachment

DOCKET MAILED

Date 4/10/68
W

OFFSET OPERATORS TO TAN AMERICAN PETROLEUM CORPORATION'S
STATE "AZ" WELL NO. 4, WEST RANGER LAKE (DEVONIAN) POOL.
LEA COUNTY, NEW MEXICO

Amerada Petroleum Corporation
Box 668
Hobbs, New Mexico

Humble Oil & Refining Company
Box 2100
Hobbs, New Mexico

B. L. House
Box 346
Midland, Texas

Phillips Petroleum Company
Box 1232
Odessa, Texas

Sunray DX Oil Company
Box 1416
Roswell, New Mexico

Tenneco Oil Company
900 Wilco Bldg.
Midland, Texas

Texaco, Inc.
Box 728
Hobbs, New Mexico

Texas Pacific Oil Company
Box 4067
Midland, Texas

ATWOOD & MALONE
LAWYERS

P. O. DRAWER 700
TELEPHONE 505 622-6221
SECURITY NATIONAL BANK BUILDING
ROSWELL, NEW MEXICO
88201

JEFF D. ATWOOD (883-1980)
CHARLES F. MALONE
RUSSELL D. MANN
PAUL A. COOTER
BOB F. TURNER
JOHN W. BASSETT, JR.
ROBERT E. SABIN

April 22, 1968

3 APR 24 AM 9 50

Mr. A. L. Porter, Jr.
Oil Conservation Commission
State Land Office Building
Santa Fe, New Mexico

RE: Case No. 3750
Examiner Hearing, April 24, 1968


Dear Mr. Porter:

In behalf of Pan American Petroleum Corporation, we enclose for filing
in Case No. 3750 our Entry of Appearance.

Thank you and with regards,

Very truly yours,

ATWOOD & MALONE


Charles F. Malone

CFM:sah

Encl.

cc: J. K. Smith, Esquire
Guy Buell, Esquire

BEFORE THE OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO

68 APR 24 AM 9 55

IN THE MATTER OF THE APPLICATION
OF PAN AMERICAN PETROLEUM
CORPORATION FOR AN UNORTHODOX
GAS WELL LOCATION, SECTION 34,
TOWNSHIP 12 SOUTH, RANGE 34 EAST,
WEST RANGER LAKE - DEVONIAN POOL,
LEA COUNTY, NEW MEXICO

Case No. 3750


ENTRY OF APPEARANCE

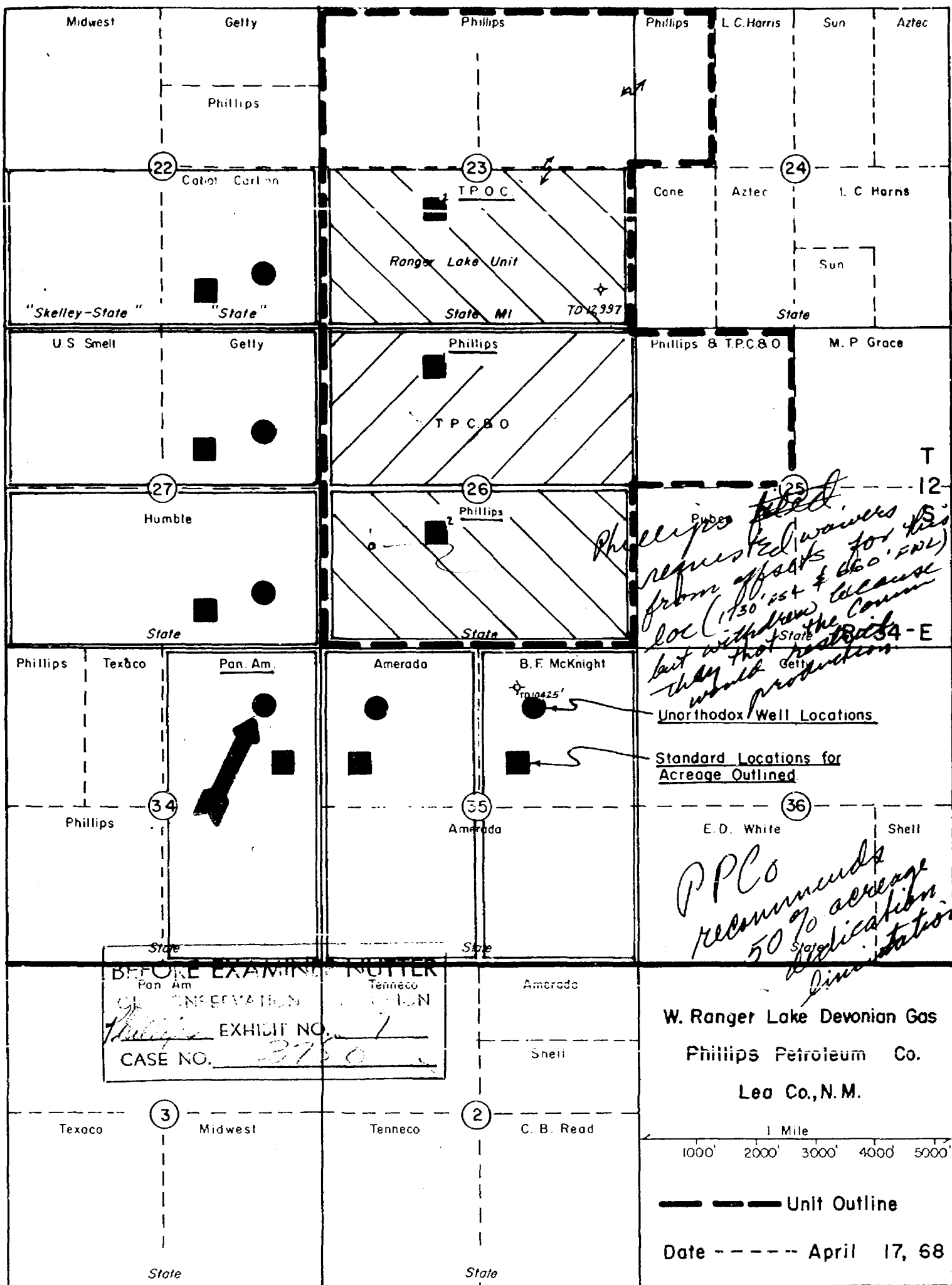
The undersigned attorneys, duly licensed to practice law in New Mexico, hereby enter appearance herein as co-counsel with Guy Buell, Esquire, of Fort Worth, Texas, in behalf of Pan American Petroleum Corporation.

DATED at Roswell, New Mexico, this 22nd day of April, 1968.

ATWOOD & MALONE

By


Post Office Drawer 700
Roswell, New Mexico
Attorneys for Pan American
Petroleum Corporation



MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102
Supersedes C-128
Effective 1-1-65

All distances must be from the outer boundaries of the Section.

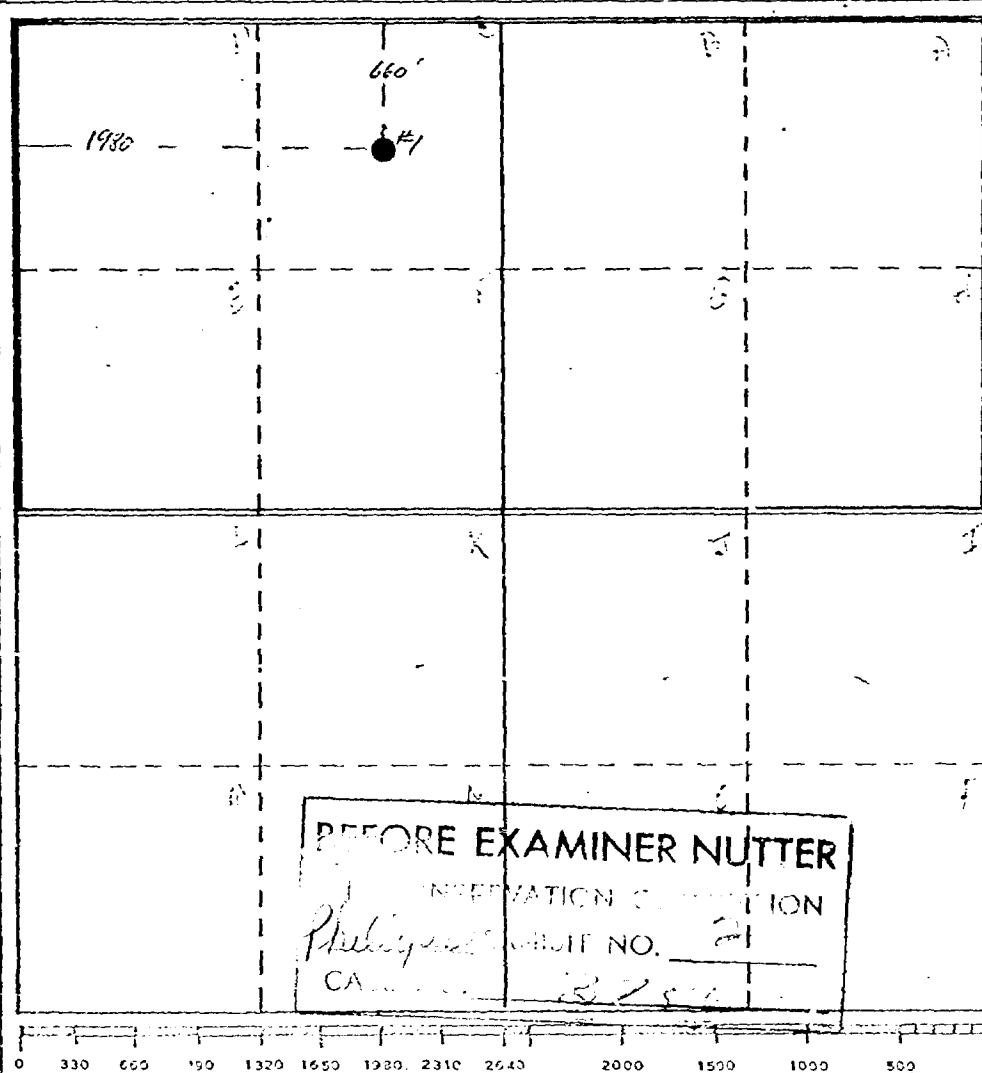
Operator Phillips Petroleum Company		Lease West Ranger Field Unit		Well No. 1
Section Letter C	Section 25	Township 12-N	Range 34-E	County Ind
Actual Footage Location of Well: 1980 feet from the West line and 660 feet from the North line				
Ground Level Elev. Inter	Producing Formation Devil Den	Pool Undesignated	Dedicated Acreage 3.0 Acres	

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

☐ Yes ☐ No If answer is "yes," type of consolidation _____

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Name
Joseph L. Farnsworth
Position
Phillips Petroleum Company
Company
March 20, 1967
Date

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed
March 22, 1967
Registered Professional Engineer and/or Land Surveyor
Robert L. Leffler
Certificate No.
1357

MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102
Supersedes C-128
Effective 1-1-65

All distances must be from the outer boundaries of the Section.

Operator Phillips Petroleum Company		Lease West Ranger Lake Unit		Well No. 2
Unit Letter K	Section 26	Township 12-S	Range 36-E	County Lea
Actual Footage Location of Well: 1000 feet from the South line and 1000 feet from the West line				
Ground Level Elev. 1000	Producing Formation Permian-Gas	Pool West Ranger Lake-Permian Gas	Dedicated Acreage 320 Acres	

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

☐ Yes ☒ No If answer is "yes," type of consolidation _____

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.

D	C	B	A
PHILLIPS PETROLEUM COMPANY			
E	F	G	H
West Ranger Lake Unit			
L	K	J	I
320 Acres			
M	N	O	P

BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
EXHIBIT NO. 3
CASE NO. 1450

CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Name

W. J. Loffler

Position

Associate Reservoir Engineer

Company

Phillips Petroleum Company

Date

November 27, 1961

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed

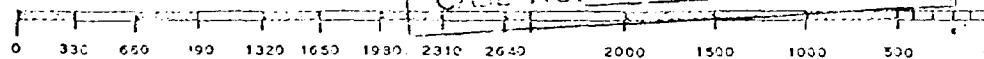
October 20, 1961

Registered Professional Engineer
and/or Land Surveyor

Roger L. Loffler

Certificate No.

1357



NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102
Supersedes C-128
Effective 1-1-65

All distances must be from the outer boundaries of the Section.

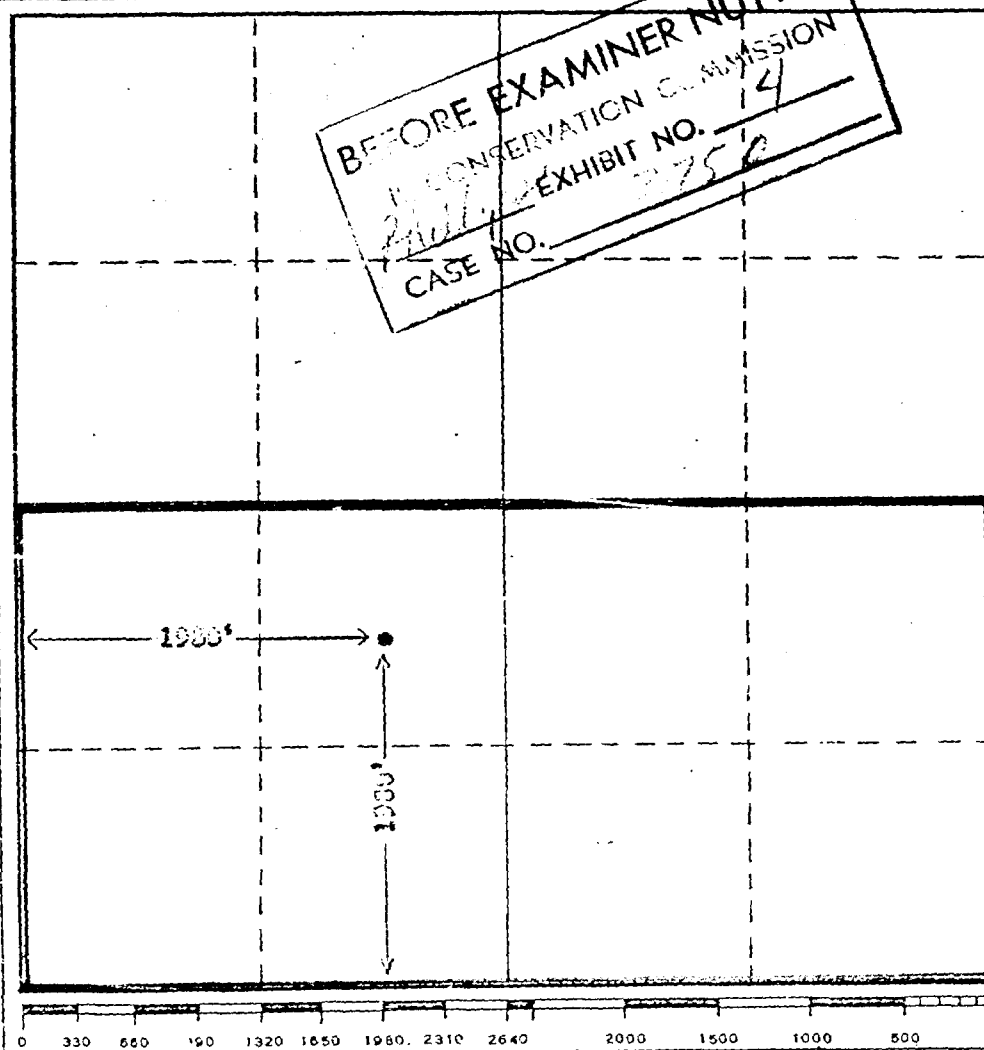
Operator Phillips Petroleum Co.		Lease West Ranger Unit		Well No. 2
Sub: Texas Pacific Oil Company				
Unit Letter K	Section 23	Township 12 South	Range 34 East	County Lea
Actual Footage Location of Well:				
1980 feet from the South line and		1980 feet from the West line		
Ground Level Elev. 4150'	Producing Formation	Pool Wildcat	Dedicated Acreage: 320 Acres	

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

☐ Yes ☐ No If answer is "yes," type of consolidation _____

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Name Richard D. Ward
Position Area Superintendent
Company Texas Pacific Oil Company
Date 10-31-66

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed 11/21/66
Registered Professional Engineer and/or Land Surveyor
John H. Ward
Certificate No. 675

WEST RANGER LAKE (DEVONIAN) GAS POOL
LEA COUNTY, NEW MEXICO

Discovered: August 8, 1966

Discovery Well: Texas Pacific Oil Company's West Ranger Unit Well No. 2

Cumulative Production: 635,046 MCF and 81,295 BC as of 3-1-68

Depth: Approx. 12,830' (-8674')

No. of Completions: 3 wells

Gas-Water Contact Depth: -8780' subsea

Porosity: 4% (Core)

BHP: Original 5010 PSIG (Initial Pressure)
Texas Pacific's West Ranger Unit Well No. 2
Additional 5017 PSIG (Initial Pressure)
Phillips' West Ranger Unit Well No. 1

Well Costs: \$220,000

BEFORE EXAMINER NUTTER
INFORMATION COLLECTION
PACIFIC EXHIBIT NO. 2
C. NO. 3750 (4-24-68)