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CASE NO.
2271

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. 2271
Order No. R-1967

APPLICATION OF PAN AMERICAN
PETROLEUM CORPORATION FOR TWO
NON-STANDARD OIL PRORATION UNITS
AND FOR AN UNORTHODOX OIL WELL
LOCATION, SAN JUAN COUNTY,
NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on May 4, 1961, at Santa Fe, New Mexico, before Daniel S. Nutter, Examiner duly appointed by the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission," in accordance with Rule 1214 of the Commission Rules and Regulations.

NOW, on this 11th day of May, 1961, the Commission, a quorum being present, having considered the application, the evidence adduced, and the recommendations of the Examiner, Daniel S. Nutter, 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 the establishment of a 70.58-acre non-standard oil proration unit in the Cha Cha-Gallup Oil Pool, consisting of Lots 8 and 9 and the S/2 of that portion of the San Juan River channel lying in the S/2 NE/4, all in Section 18, Township 29 North, Range 14 West, NMPM, San Juan County, New Mexico.

(3) That the applicant seeks approval of an unorthodox location for its Navajo Tribal "G" Well No. 7, at a point 2545 feet from the North line and 1670 feet from the East line of said Section 18, to which well the above-described 70.58-acre non-standard proration unit would be dedicated.

(4) That the applicant further seeks approval of a 46.75-acre non-standard oil proration unit in said pool, consisting of Lot 6 and the S/2 of that portion of the San Juan River channel

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lying in the SE/4, all in Section 16, Township 29 North, Range 14 West, NMPM, San Juan County, New Mexico, said unit to be dedicated to the Navajo Tribal "E" Well No. 10, located 660 feet from the South line and 1980 feet from the East line of said Section 16.

(5) That inasmuch as the above-described non-standard oil proration units are sought for the purpose of continuing the orderly development along the Northern boundary of the Navajo Indian Reservation in this area, the subject application should be granted.

(6) That the above-described non-standard oil proration units are presumed to be productive of oil from the Cha Cha-Gallup Oil Pool.

(7) That the above-described unorthodox location for the applicant's Navajo Tribal "G" Well No. 7 should be approved, provided however, that the results of a deviational survey should be reported to the Santa Fe Office of the Commission, and in the event such survey indicates the possibility that the subject well is bottomed outside the proration unit which is dedicated to it, then a directional survey should be taken.

IT IS THEREFORE ORDERED:

(1) That a 70.58-acre non-standard oil proration unit in the Cha Cha-Gallup Oil Pool, consisting of Lots 8 and 9 and the S/2 of that portion of the San Juan River channel lying in the S/2 NE/4, all in Section 18, Township 29 North, Range 14 West, NMPM, San Juan County, New Mexico, is hereby established.

(2) That the applicant is hereby granted permission to locate its Navajo Tribal "G" Well No. 7 at an unorthodox location 2545 feet from the North line and 1670 feet from the East line of said Section 18, to which well the above-described 70.58-acre non-standard proration unit is to be dedicated.

PROVIDED HOWEVER, That the results of a deviational survey of said well shall be reported to the Santa Fe Office of the Commission, and in the event such survey indicates the possibility that the subject well is bottomed outside the proration unit which is dedicated to it, then a directional survey shall be taken.

(3) That the allowable which will be assigned to said Navajo Tribal "G" Well No. 7 shall bear the same ratio to a standard allowable in the Cha Cha-Gallup Oil Pool as 70.58 bears to 80.

(4) That a 46.75-acre non-standard oil proration unit in

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the Cha Cha-Gallup Oil Pool, consisting of Lot 6 and the S/2 of that portion of the San Juan River channel lying in the SE/4, all in Section 16, Township 29 North, Range 14 West, NMPM, San Juan County, New Mexico, is hereby established. Said unit is to be dedicated to the Navajo Tribal "E" Well No. 10, located 660 feet from the South line and 1900 feet from the East line of said Section 16.

(5) That the allowable which will be assigned to said Navajo Tribal "E" Well No. 10 shall bear the same ratio to a standard allowable in the Cha Cha-Gallup Oil Pool as 46.75 bears to 80.

(6) 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

EDWIN L. MECHEM, Chairman

E. S. WALKER, Member

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

S E A L

esr/

BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO
MAY 4, 1961

EXAMINER HEARING

IN THE MATTER OF:

CASE 2271

TRANSCRIPT OF HEARING

BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO
MAY 4, 1961

EXAMINER HEARING

DEARNLEY-MEIER REPORTING SERVICE, Inc.

PHONE CH 3-6651

ALBUQUERQUE, NEW MEXICO

IN THE MATTER OF:

CASE 2271 Application of Pan American Petroleum Corpora-
tion for two non-standard oil proration units :
and for an unorthodox oil well location. Ap- :
plicant, in the above-styled cause, seeks the :
establishment of a 70.58-acre non-standard oil :
proration unit in the Cha Cha-Gallup Oil Pool :
consisting of Lots 8 and 9 and the S/2 of that :
portion of the San Juan River channel lying in :
the S/2 NE/4, all in Section 18, Township 29 :
North, Range 14 West, San Juan County, New Mex- :
ico, said unit to be dedicated to the Navajo :
Tribal "G" Well No. 7, at an unorthodox loca- :
tion 2545 feet from the North line and 1670 :
feet from the East line of said Section 18, and :
of a 46.75-acre non-standard oil proration unit :
in said pool consisting of Lot 6 and the S/2 of :
that portion of the San Juan River channel ly- :
ing in the SE/4, all in Section 16, Township 29 :
North, Range 14 West, San Juan County, New Mex- :
ico, said unit to be dedicated to the Navajo :
Tribal "E" Well No. 10, located 660 feet from :
the South line and 1980 feet from the East line :
of said Section 16. :

BEFORE:

Daniel S. Nutter, Examiner.

T R A N S C R I P T O F P R O C E E D I N G S

MR. NUTTER: We will call next Case 2271.

MR. MORRIS: Case 2271. Application of Pan American



Petroleum Corporation for two non-standard oil proration units and for an unorthodox oil well location.

MR. BUELL: For Pan American Petroleum Corporation. By letter, Atwood & Malone of Roswell, New Mexico, and Guy Buell. We have one witness, Mr. Eaton.

(Witness sworn)

GEORGE EATON, JR.,

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

DIRECT EXAMINATION

BY MR. BUELL:

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

A George W. Eaton, Jr. Senior petroleum engineer for Pan American Petroleum Corporation in Farmington, New Mexico.

Q Mr. Eaton, you have testified at prior Commission hearings, have you not?

A Yes, I have.

Q Your qualifications as a petroleum engineer are a matter of public record?

A Yes, sir.

(Whereupon, Applicant's Exhibit No. 1 was marked for identification)

Q Let me direct your attention to what has been marked as our Exhibit No. 1. What does that Exhibit reflect?

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A Pan American's Exhibit No. 1 is a map of the Cha Cha-Gallup pool, showing an isopach of the Gallup sand thickness. The contour interval on Exhibit No. 1 is 2 feet.

Q Has Pan American encountered any problems with respect to the northwest area of the Cha Cha-Gallup pool?

A Yes, sir. Pan American has had considerable problems in the northwest end of the Cha Cha-Gallup pool due to the fact that its lease boundary is the River channel of the San Juan River.

Q At the mid-point of the River channel?

A At the mid-point of the River channel. Therefore, it forms a very irregular boundary.

Q Has Pan American requested and the Commission approved prior non-standard units and unorthodox well locations in this particular area?

A Yes, sir, they have. These non-standard units and unorthodox well locations that have been approved in this area are shown on Exhibit No. 1. The unorthodox well locations are shown by red dots. Now, these unorthodox locations are due to the extremely bad terrain condition which exists in the marshy swamp land area adjacent to the San Juan River itself. The arrows point to the unorthodox locations and the non-standard units that have been granted in this particular area.

Q How are those designated on that Exhibit? By that, I mean the prior non-standard units that have been approved?

A The two prior non-standard units are shown colored in



brown and in yellow with identically colored arrows pointing to those particular non-standard units.

Q I notice one unorthodox well location that is apparently in a standard unit because it is not, the unit of that well is not colored in any way. Locate that well, for the record.

A Pan American Navajo Tribal "G" No. 5 is located in the northeast quarter of the southeast quarter of Section 18, Township 29 North, Range 14 West. That well has assigned to it a pro-ration unit consisting of a standard 80-acre tract, being the east half of the southeast quarter of Section 18.

Q How have you designated on Exhibit 1 the two proposed units which are one of the phases of the subject matter here today?

A In Section 18, that portion of the northeast quarter of that Section lying within the Navajo Indian Reservation, which is one of the non-standard units, is shown colored in red; the other non-standard unit which is that portion of the southeast quarter of Section 16, Township 29 North, Range 14 West, lying within the Navajo Indian Reservation, is shown colored in green.

Q One of those two units has an unorthodox well location also, which is that Mr. Eaton?

A The unorthodox well location is in the southwest quarter, northeast quarter, Section 18. That well will be known as Pan American's Navajo Tribal "G" No. 7.

Q And you have shown it with a red dot; although the Commission, as yet, has not approved it, you are hopeful that they do?

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A Yes, sir. It is a red dot which is the non-standard location which is being requested in this Case 2271.

Q The three red dots have already been approved by the Commission?

A That is correct.

Q While we are looking at Exhibit 1, Mr. Eaton, let me ask you this question: with respect to both of the proposed units, in your engineering opinion, is each and every acre within such unit productive of oil from the Cha Cha-Gallup oil reservoir?

A Yes, sir. You can see from Exhibit No. 1 that all of the acreage in the southeast quarter of Section 16, that will be in this non-standard unit, and all of the acreage in Section 18, that will be in this non-standard unit is well within the zero isopach contours as depicted on Exhibit 1. So I believe that each and every acre there is productive of oil from the Cha Cha-Gallup pool.

Q I believe you stated that the unorthodox well location we were requesting was for Pan American's Navajo Tribal "G" No. 7.

A Yes, sir.

Q Locate that in distance, for the record, please, from Section line.

A Navajo Tribal "G" No. 7 is located 2545 feet from the North line and 1670 feet from the East line of Section 18, Township 29 North, Range 14 West.

Q Why is that location unorthodox, Mr. Eaton?

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A It is unorthodox primarily because it is only some 95 feet from the quarter-quarter section line separating the northeast quarter from the southeast quarter.

(Whereupon, Applicant's Exhibit No. 2 was marked for identification)

Q Let me direct your attention to what has been marked as Pan American's Exhibit No. 2. What is that Exhibit, Mr. Eaton?

A Exhibit No. 2 is a copy of New Mexico Oil Conservation Commission Form C-128, showing the location of Navajo Tribal "G" No. 7, and the 70.58-acre non-standard unit to which we wish to dedicate this well. Both of these things are subjects of this hearing.

Q The acreage to be included in the proposed unit is shaded in red on the Exhibit 2?

A Yes, sir, it is shown shaded in red, the acreage.

Q Still talking about the unorthodox location, Mr. Eaton, why is that request necessary?

A The unorthodox location is necessary because of the very severe terrain condition which exists in this area.

Q Are some of these terrain conditions reflected on Exhibit 2?

A Yes, sir.

Q This Exhibit 2 was prepared by a surveyor, was it not?

A Yes, sir. Exhibit 2 was prepared by Mr. Echohawk, who was the surveyor for this location.

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Q And these terrain features are his work?

A Yes, sir.

Q Go ahead.

A You will notice a line drawn immediately north and around the non-standard location.

Q Is that the line that's labeled "High Bank of River?"

A That line is labeled "High Bank of River." Actually, what that represents is a point at which the San Juan River flood plain commences. From that point on out to the river bed itself it's all marshy with sand and gravel piles, and it is a flow channel slough, and certainly has a lot of water in it in times of high run-off.

Q It would appear, Mr. Eaton, that you have made an on the ground inspection in this area yourself, is that observation correct?

A That is correct. I have been to this location, and have seen the conditions, and I believe that the surveyor has accurately depicted the conditions on this Exhibit No. 2.

Q About how high is this high bank of the river?

A I would estimate that high bank to be 15 to 20 feet.

Q I wonder, Mr. Eaton -- you may have to go back to the Exhibit No. 1 -- will this unorthodox location that you have requested, will it continue a pattern of uniform development of our properties in this area?

A Yes, sir, it will. Let's refer to Exhibit No. 1 again.



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So far as is possible in this immediate area, Pan American has attempted to so locate its wells so that no well directly offsets an existing well. Now, the proposed location for Navajo "G" 7 conforms and blends in with this desired development program. It is a diagonal 40-acre on a diagonal 40, from an existing well.

Q Mr. Eaton, could you not gain structurewise or paywise if that location was moved to the eastern portion of the proposed unit?

A Yes, sir, that would definitely be a better location from the reservoir standpoint.

Q Why would you not, then, as a reservoir engineer, so recommend it?

A It's simply not practical to so locate the well at the eastern part of that non-standard unit for the reason that that is in that area of tremendously bad terrain.

Q You would be off the bank?

A We would be down off the high bank, cut back of the river.

Q Also, would it not almost make that well a direct offset to the well to the south?

A Yes, sir, which, we feel, would not be desirable. It's more desirable to keep on uniform development pattern, which we have established in that area.

Q At least in my own mind, Mr. Eaton, I have always felt that a spacing rule was to serve two purposes: one, to accomplish



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orderly development, and another, to prohibit one operator from crowding a common lease line with another operator, and, therefore, violating correlative rights. Assuming that my assumption for a standard spacing rule is correct, how does this unorthodox location we're requesting fit into that? Are we going to crowd anyone's line?

A No, sir. The acreage line immediately south of the well is Navajo Indian lease, which is identical with the ownership of the lease on which the well is located.

Q So if that unorthodox location is crowding anyone, it's crowding the same royalty owner and the same operator?

A That is correct.

Q So it probably wouldn't fit the definition of crowding that, however, related to a standard spacing rule?

A That is correct.

Q With respect to the non-standard unit that Pan American proposes to dedicate to that well, will you locate that acreage, by tracts, for the record, please?

A Yes, sir. The non-standard unit will consist of Lots 8 and 9 of Section 18, Township 29 North, Range 14 West, plus the south half of the San Juan River channel lying immediately north of Lots 8 and 9. The total acreage involved is 70.58 acres, with Lot 8 containing 29.51 acres; Lot 9, 28.00 acres; and the south half of the River channel, 13.07 acres.

Q Now, under the rules currently in effect in this pool, a



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standard size unit it 80 acres, is that correct?

A That is correct.

Q Why is it necessary for Pan American to form this non-standard unit, Mr. Eaton?

A As you can see, these lots don't come close to adding up to 80 acres. The boundary of the lease is such that a standard 80-acre unit is just not possible in this part of the field.

Q Is there any combination of adjacent acreage that you could utilize with the subject acreage here to form a standard 80-acre unit?

A No, sir. If Lot 7 were included, for example, considerably more than 80 acres would be involved. It is just simply that the shape of the acreage is such that a standard unit can't be formed.

Q It's a unique situation, and in this particular area of the field we are not dealing with square 40-acre tracts?

A That's true.

Q It's a situation that we simply have to face?

A That is correct.

Q Do you feel that your recommended solution with respect to this unit and this unorthodox well location is a practical, reasonable solution to the problem in this particular area?

A It is my opinion that the recommended 70.58-acre unit is the practical solution to this rather unique situation.

Q Mr. Eaton, I direct your attention now to what will



shortly be marked as Pan American's Exhibit No. 3. What is that Exhibit?

(Whereupon, Applicant's Exhibit No. 3 was marked for identification)

A Pan American's Exhibit No. 3 is a copy of New Mexico Oil Conservation Commission Form C-128, showing the location of Pan American's Navajo Tribal "E" No. 10, together with the acreage which will be included in the non-standard unit to be dedicated to that well.

Q That acreage is shaded in green on this Exhibit?

A Yes, sir, that acreage is shaded in green on Exhibit No.

3.

Q Would you locate and describe, for the record, the Lots and the tracts that you are proposing in this unit?

A This non-standard unit would consist of Lot 6 and the south half of the San Juan River channel lying in the southeast quarter of Section 16, Township 29 North, Range 14 West. The entire non-standard unit would contain 46.75 acres. Lot 6 contains 35.40 acres, and the south half of the River channel contains 11.35 acres.

Q The acreage within this proposed unit, Pan American intends to dedicate to its Navajo Tribal "E" Well No. 10, is that correct?

A Yes, sir.

Q This unit is non-standard for the same reason as the

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other, is that correct?

A Yes, it is.

Q Again, we are dealing with the meanders of the San Juan River?

A Yes, sir. This tract is located in an area where there are no regular tracts involved.

Q Would it be possible in this situation, Mr. Eaton, dealing with acreage adjacent to this proposed unit, to utilize such acreage in any manner so that you would end up with anything resembling a standard unit?

A No, sir, it would not.

Q Again, let me ask you this. Do you feel that the proposed non-standard unit that you are requesting here is a practical, reasonable situation to this unique problem that we have in this end of the field?

A Yes, sir, I believe that this is the practical solution to this unique situation which exists in that portion of the Cha Cha-Gallup pool where the Navajo Indian Reservation is bounded by the San Juan River.

Q Do you feel, Mr. Eaton, that if the Commission approves our three requests, our unorthodox location for our Navajo Tribal "G" No. 7 Well, the non-standard unit that we propose to assign to it, as well as the non-standard unit we propose for our Navajo Tribal "E" No. 10, do you feel that if the Commission approves these requests, that conservation will be served and the correla-



tive rights of all the owners of interest in the field will be protected?

A Yes, sir, I do.

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

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

MR. CHRISTY: Sim Christy of Hervey, Dow & Hinkle for Humble Oil & Refining Company. One or two short questions, if I may, please.

CROSS-EXAMINATION

BY MR. CHRISTY:

Q On your red plat, Exhibit 2, you mention that you could not add Lot 7. Could you add the 13.06 acres north of the River there in the channel to give you about 83 acres?

A That acreage is not within the Navajo Reservation, and it is our desire to retain the Navajo acreage intact, and, so, inasmuch as under those conditions, it could not be added, no, sir.

Q It could be added, you just don't want to?

A It could be added, yes, sir.

Q Let's take the Exhibit 3 lands. I believe you show 46.75 acres. Could you not add the other 11.35 acres in the channel plus Lot 7 of 28 acres to give you 86 acres?

A Again, for a number of reasons, it's highly desirable to retain the Navajo acreage intact, and for that reason it would not be a practical solution to this problem. Communitization agreements could be formed, yes.

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Q To foster the 80-acre spacing that we now have in the Cha Cha-Gallup Pool?

A Yes, sir.

MR. CHRISTY: It could be done. Thank you very much.

REDIRECT EXAMINATION

BY MR. BUELL:

Q You might briefly state, for the record, the primary reason that Pan American does not wish to pool even though such may be possible, any outside acreage with the Navajo acreage.

A Yes, sir. An investigation of secondary recovery in the Cha Cha-Gallup Pool is currently under active investigation. As a matter of fact, an engineering committee for the Cha Cha-Gallup Pool is in session at this time.

Q Where?

A In Fort Worth, Texas. Efforts towards unitization, looking toward initiation of secondary recovery, are progressing fairly rapidly. For purposes of conducting a unit operation and getting that unit in operation as soon as possible, it has been the conclusion of the three companies involved on the Navajo Indian lands that it could best be done in an expeditious manner if secondary recovery operation involving injection of some extraneous fluid would be conducted only on the Navajo land without having a miscellaneous State, Federal acreage, ~~fee~~ lands, mixed in with that Navajo Indian acreage. Now, the reason that that can be done is that it is common royalty ownership, so a unitization, as such,

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wouldn't be necessary. It would only be necessary that the working interest agree, since the royalty owner won't care how production is allocated to individual tracts. So, for that reason, if for no other reason, it will be highly desirable to not mix the Navajo Tribal lands with other land having a different royalty ownership, such as would be the case if we stepped across the San Juan River and picked up in the case of the acreage in Section 16, I believe that is State, I believe that is State land. In the case of the acreage in Section 18, I believe that is fee land.

Q Mr. Eaton, approximately how much of the presently developed Cha Cha-Gallup Pool is under Navajo lease --

A Approximately --

Q -- or leases, rather?

A Approximately 65 percent of the lease, of the Cha Cha-Gallup Pool, lies on the Navajo Reservation.

Q So, even if a unitized waterflood or if a full scale waterflood is undertaken only on the Navajo Tribal leases, that is going to get a major portion of the Cha Cha-Gallup Pool, is it not?

A Yes, sir, it is.

Q And certainly the engineering committee, as well as the operator committee are all working towards a cooperative flood with the Navajo leases on fee, Federal and State leases?

A Yes, sir. I do not mean to infer that consideration of secondary recovery was not being considered in the entire Cha Cha-



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Gallup Pool. It just stands to reason. It stood to reason to the three operators involved it could be done faster on the Navajo lease than it could be in the remainder of the field simply because there's only one royalty owner involved, and so efforts have really been concentrated toward that portion of the Pool. One other thing I might mention too, that on the northwest end of the Pool and the southeast end of the Pool, the boundaries haven't been nearly so well defined as they have within the Navajo Reservation. In other words, the Pool might be considerably bigger on either end. I believe we know approximately the size of the Pool on the Reservation itself.

Q It's still open, both to the northwest and to the southeast, is it not?

A Yes, sir, it sure is.

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

MR. NUTTER: Any questions of Mr. Eaton?

MR. CHRISTY: May I ask one more question?

A Yes.

RECROSS-EXAMINATION

BY MR. CHRISTY:

Q Do I notice on Exhibit 1 that it appears that the northwest end here of the Pool has been developed on 160 except for the wells that you have been seeking unorthodox locations and proration units?

A Yes. Generally, the Navajo tract, the Navajo lease is



developed on 160-acre density.

Q Not on 40-60's?

A No, sir.

REDIRECT EXAMINATION

BY MR. BUELL:

Q Mr. Eaton, also when we speak of development, we've got to think of two things. One is spacing, as we normally refer to it, and the other is development on a productive acreage basis, is that correct?

A Yes, sir.

Q We don't want to leave the record inferring that Pan American has developed on a productive acreage in this north end of the field 45.6 acres, do we --

A No, sir.

Q -- because that is not true.

A That is not the case.

BY MR. NUTTER:

Q Actually, that half of the pool is only half developed under the existing rules of the Commission?

A Yes, sir.

Q On those last two sections, being the third and fourth sections north of the River which are stippled, is that Pan American?

A Yes.

Q The 10, the 5 and 6 sections are Navajo acreage?

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A Yes.

Q But under other operators' leases?

A Yes. I believe I can identify those for you if you would like for me to. Sections 27, 28, 33 and 34 are El Paso Natural Gas Products Company leases. Sections 25, 26, 35 and 36 are Humble's.

Q Now, the engineering committee which is meeting in Fort Worth to determine the feasibility of water injection here, does it cover only that Township, or does it cover the southeast end of the pool also?

A No, sir. That engineering committee will publish its report to the operators covering the entire Gallup Pool as it determines the productive extent of that pool. But the three operators in this part here are the ones who have really gone further toward initiating action which will result in early initiation of secondary recovery than these operators in this area, simply because of the diversity of ownership.

MR. BUELL: The operators in this area that you were speaking of, by this area, you mean the extreme southeastern portion?

A Yes.

MR. BUELL: They have a lot more problems than the three operators that own the Navajo Tribal leases?

A That is correct. Pan American is one of the big operators in the southeast portion too, but there are simply more pro-

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blems involved, and efforts haven't been able to progress nearly so far as they have on this Navajo end.

Q (By Mr. Wutter) Have any productive wells been drilled north of the San Juan River in the Cha Cha-Gallup Pool?

A No, sir, they have not, to my knowledge.

Q Are any wells drilling north of the River, to your knowledge?

A No, not to my knowledge, although I know that Southwest Production has a case for an unorthodox well location in the west, southwest -- I had better say the west half of the southwest quarter. I had better put it this way, northwest quarter of the southwest quarter, Section 16, 29, 14.

Q And they also had a request for a non-standard proration unit, which would be a companion unit, marked on your Exhibit in the southwest quarter of that Section?

A Yes, that is correct. It would be a companion unit to the non-standard unit which serves Pan American's Navajo Tribal "E" No. 7.

Q But as far as you know, there has been no well completed north of the River?

A No, sir.

Q Well, now, Mr. Eaton, how deep are these wells in this area? Referring to your well in Section 18, what do you expect its depth to be?

A It will be approximately 4850, I believe, possibly not

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that deep. Possibly around 4600 feet deep.

Q Assuming a reasonable amount of drift in the well, Mr. Eaton, is it possible for a well which is located 95 feet from the boundary of that unit with a reasonable amount of drift to that depth, to bottom off of the proration unit on which the surface location is staked?

A It would be possible, yes, sir, although these wells in this particular area are unusually straight for the San Juan Basin. We just very, very rarely find deviations of any magnitude whatsoever.

Q The well hasn't been drilled, as yet, has it?

A No, sir.

Totco

Q Would you be willing, Mr. Eaton, to take Totco deviation tests during the drilling of the well, and calculating all of the assumed drift to be in the southerly direction, to determine whether the bottom of the well would be on the proration unit to which the well is dedicated?

A Yes.

Q In the event that assumed deviation were all in one direction and showed the bottom of the well to be off of the proration unit, then take a directional deviation survey to find out what unit the well is bottomed on?

A Yes, sir. We'll be happy to do that.

Q And the location of the well in Section 16 is a standard location?

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A Yes, sir.

MR. NUTTER: Any further questions of Mr. Eaton?

MR. MORRIS: Mr. Examiner, I have some correspondence that I would like to read into the record after which I would like to address a question to Mr. Eaton.

MR. NUTTER: Yes.

MR. MORRIS: I have a telegram from El Paso Natural Gas Products Company, signed by W. T. Hollis, Manager Exploration and Production. It reads as follows:

"Please be advised and may the record show in Case 2271 that El Paso Natural Gas Products Company, as an operator in the Cha-Cha Gallup Oil Pool, is opposed at this time to the granting of an order which would permit establishment of the two non-standard oil proration units sought by Pan American. The information of a unit for pressure maintenance and secondary recovery operations is presently nearing completion and with respect thereto, the unit engineering committee has heretofore conducted extensive studies. In such studies, it has not been ascertained that the drilling of a well on either of the two proposed non-standard proration units is desirable or essential to the efficient operation of the unit, and, in fact, it is highly probable that such drilling will introduce additional factors which will complicate the negotiations to the extent of unduly delaying consummation of the unitization agreement and commencement of operations thereunder. Such delay in the commencement of the injection program would result in a reduction in the ultimate recovery of oil from the area to be unitized, and as such would constitute underground waste as defined in Statewide Rule 67 (A), Rules and Regulations of the Oil Conservation Commission of the State of New Mexico. Therefore, in view of the foregoing, it is urged that Pan American's request be denied."

MR. BUELL: I would like to make this comment prior to Mr. Morris' question, for the record. Pan American does not let



any engineering committee, or rather, a Mr. Hollis' interpretation of what the engineering committee might decide, as to how to develop their properties. We have a basic obligation under our lease, and as a prudent operator, we'll so develop our properties, whether Mr. Hollis likes it or whether the engineering committee likes it. Our obligation is to our royalty owner and to the Oil Conservation Commission.

MR. NUTTER: I think I have a letter here for Mr. John Mason, if he's here.

BY MR. MORRIS:

Q If Mr. Buell hasn't answered the question, I was going to ask Mr. Eaton for his comment upon the telegram and the effect, whether or not, in his opinion, waste will be caused in this instance by granting the units, and thereby delaying the unitization under way.

A Let me answer that question this way, Mr. Morris.

MR. BUELL: Excuse me, Mr. Eaton. Let's add to that. Do you mean assuming this would delay unitization? There's nothing in evidence to show that it will delay --

MR. MORRIS: That's assumed.

MR. BUELL: That's suspicioned on the part of Mr. Hollis, whoever he may be, we don't have him here.

MR. MORRIS: My question was, Mr. Buell, whether Mr. Eaton is of the opinion that the unitization that is being considered by this committee would cause waste. I mean, whether the unitization being considered by this committee would be delayed by



the formation of the units that you propose today, and that the delay would cause waste.

A Let me answer that question this way. As Mr. Nutter brought out, there are no wells now drilled north of this Navajo Indian Reservation, but I have reason to believe that there will be since I have reason to believe that the field in the pool doesn't suddenly end at that Reservation boundary. I think it eventually will be developed. Now, that portion of the pool, too, will be studied for secondary recovery operations. It will be -- such operation will have to be conducted in cooperation with the operations that are going on inside the Navajo unit. Now, then, to so cooperatively conduct operations, a certain number of wells are going to have to be drilled along this boundary. Now, the number or the specific locations where those wells can be drilled are very limited. As we pointed out previously, we have a terrain condition as well as a lease condition. Now, then, whether those wells which are necessary along that boundary to properly conduct unit operations are used as injection wells or as producing wells, that might be a subject to be determined by the engineering committee. As a reservoir engineer, it's my opinion that both of these wells can be used in the unit operation itself. As I pointed out, there's not very many locations that can be drilled along there, and certainly a number of them are going to be required, so from that, I would conclude that granting these two applications for the non-standard units wouldn't hamper or impede the progress of the

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unit.

MR. NUTTER: Well, Mr. Eaton, aside from the fact that some of the units are larger or smaller than 80 acres due to the meandering of the River, you are still proposing here to develop on the same spacing pattern or the same proration unit size with those exceptions due to the meandering of the River as the Commission currently has outlined as the field development pattern, are you not?

A Yes, that is true. We expect that the allowable for these wells will be reduced to the proportionate size of the unit; that the proportionate size of the unit bears to a standard 80-acre unit.

MR. NUTTER: Any further questions?

MR. CHRISTY: May I ask one or two questions, please?

RECROSS-EXAMINATION

BY MR. CHRISTY:

Q Your well, your "E" No. 10 Well, shown in Exhibit 3 --

A Yes.

Q -- will that well effectively and efficiently drain 80 acres?

A Yes.

Q So, I assume, in order to protect the correlative rights, the person to the north will have to drill an offset well?

A Yes, sir.

MR. CHRISTY: Thank you.

MR. NUTTER: Are there any other questions? Mr. Eaton



may be excused.

(Witness excused)

MR. NUTTER: Do you have anything further?

MR. BUELL: I would like to make a brief closing statement after Humble.

MR. CHRISTY: It's your party, go ahead.

MR. BUELL: I think we have the right of closing, as the applicant, and having the burden of proving the case.

MR. NUTTER: Do you have a statement, Mr. Christy?

MR. CHRISTY: Yes. We feel that it is not only the power and duty of the Commission to prevent waste as stated by the Conservation Act, and to protect the correlative rights of all the owners of oil and gas under and within the vicinity of the lands involved in this application. If granted, two spacing requests in this case, coupled with the three already granted, with all five locations immediately south of the San Juan River, could, and doubtlessly will, as mentioned by the witness, result in further spacing exceptions to the north, totaling, could total up to again five wells. These additional exceptions would probably be located in Sections 16, 17, 18 of 29 North, 14 West. Now, according to our records, that is, Humble's records, the areas allocated to these three exceptions that have already been granted and the two more vary between 46.75 acres and 88.7 acres. Now, if the exceptions in this case are granted, the owners to the north of the San Juan River will be forced to drill a similar well density in order to protect

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their correlative rights and to prevent the drainage of oil from under their lands. It is Humble's current opinion that such drilling would result in the well density being greater than is necessary to effectively drain the reservoir, and thus would result in the drilling of unnecessary wells, and, of course, the drilling of unnecessary wells is waste within the definition of the Act.

There is presently pending before this Commission a spacing application for the Cha Cha-Gallup Pool, and a hearing on this application has tentatively been set for the month of October of this year. It is anticipated that complete reservoir information, including the results of interference tests, will be furnished to the Commission at that time. On the basis of such information, it is believed that optimum spacing pattern for the pool can be selected. With this thought in mind, Humble, who is the owner of producing leases in the Cha Cha-Gallup and other leases north of the San Juan River in this area, believes that the present application is premature, and that the requested spacing locations in this case should be presently deferred and denied.

MR. BUELL: On behalf of Pan American, I think we can dispose of Humble's objections rather quickly. It is my firm and sincere opinion that had not Pan American drilled a single well adjacent to the San Juan River, the Commission would still have a myriad of spacing problems north of the River. They're going to have them whether or not these wells are drilled or not. They are

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going to have them if these wells are drilled. It's necessitated by the meandering of the River. Humble, powerful as they may be, can't straighten that River out, at least, they haven't to date.

MR. NUTTER: I would like to ask one question. Either Mr. Buell or Mr. Christy can answer it. Would the granting of the applications for the non-standard units south of the River and the subsequent granting of the non-standard units north of the River result in a pattern of wells any greater than two wells to 160 acres?

MR. CHRISTY: Yes, sir.

MR. BUELL: In Pan American's opinion, it will not.

MR. CHRISTY: In the unit over here in Section 16, you are going to have to drill an offset well over here, too, in the southeast quarter to protect your correlative rights. That is going to be two wells on the 80 some odd acres.

MR. BUELL: What Mr. Christy doesn't realize is that the old theory of equidistant went out with high button shoes. We didn't mean to infer that whoever owns the acreage to the north of our proposed unit would have to have a direct and equidistant offset to protect the correlative rights. Mr. Eaton simply stated that a well on this tract, this non-standard unit, would drain in excess of 80 acres. This acreage is being drained now, and it will be drained until they get a well on there and develop their productive acres, but they don't need a direct and equidistant offset. It's true that we have only in this non-standard unit 46.75 acres,



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but we have other productive acreage in the field that is going to contribute to the production of this well, unassigned productive acreage. Drainage, you can talk about it two ways, uncompensated and compensated. It is our opinion that there's not going to be any uncompensated drainage in this area of the field when each and every operator has his productive acreage involved. Did that answer your question?

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

MR. BUELL: Yes, sir. I would like to make this further comment. I personally resent the inference in Mr. Hollis' wire that Pan American in this pool or any other pool would do anything purposely to delay unitization, that is the furthest thing from the case. I think the record should show that Pan American was the first operator in this pool to realize the necessity of secondary recovery. The first meeting with respect to unitization was called on the motion of Pan American. Pan American has served both on the operators' committee, the engineering subcommittee, as well as do a tremendous amount of engineering on its own. For instance, Pan American's engineers and geologists have spent a tremendous amount of time developing a water source for the waterflood. Pan American is interested in unitization. We are also interested in operating as a prudent operator.

MR. NUTTER: Does anyone have anything further for Case 2261? We'll take the case under advisement, and take a fifteen-



minute recess.

STATE OF NEW MEXICO)
COUNTY OF BERNALILLO) ss

I, ADA DEARNLEY, Court Reporter, in and for the County of Bernalillo, State of New Mexico, do hereby certify that the foregoing and attached Transcript of Proceedings before the New Mexico Oil Conservation Commission was reported by me in machine shorthand and reduced to typewritten transcript under my personal supervision, and that the same is a true and correct record to the best of my knowledge, skill and ability.

WITNESS my Hand and Seal this, the 9th day of May, 1961, in the City of Albuquerque, County of Bernalillo, State of New Mexico.

Ada Dearnley
NOTARY PUBLIC

My Commission expires:

June 19, 1963

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 2271, heard by me on 5-4, 1961.

[Signature], Examiner
New Mexico Oil Conservation Commission

DEARNLEY-MEIER REPORTING SERVICE, Inc.
PHONE CH 3-6691
ALBUQUERQUE, NEW MEXICO



ATWOOD & MALONE
LAWYERS

JEFF D. ATWOOD (1883-1960)
ROSS L. MALONE
CHARLES F. MALONE
E. KIRK NEWMAN
RUSSELL D. MANN
PAUL A. COOTER
BOB F. TURNER

TELEPHONE MAIN 2-6221
ROSWELL PETROLEUM BUILDING
ROSWELL, NEW MEXICO

Oil Conservation Commission
Post Office Box 871
Santa Fe, New Mexico

RE: Case No. 2271 before the Oil Conservation
Commission of the State of New Mexico

Gentlemen:

We are local counsel for Pan American Petroleum Corporation and as such wish to enter our appearance in the captioned case. Pan American will also be represented by Guy Buell, a member of the Texas Bar, and a company employee. The actual presentation for Pan American will be made by Mr. Buell.

Very truly yours,

ATWOOD & MALONE

BY: *E. Kirk Newman*

EKN:sam

cc: Mr. Guy Buell

GRANTHAM, SPANN AND SANCHEZ
ATTORNEYS AT LAW

914 BANK OF NEW MEXICO BUILDING
POST OFFICE BOX 1031
ALBUQUERQUE, NEW MEXICO

EVERETT M. GRANTHAM
CHARLES C. SPANN
MAURICE SANCHEZ

TELEPHONE
243-3525

May 3, 1961

Mr. A. L. Porter, Jr., Secretary
New Mexico Oil and Gas Commission
Santa Fe, New Mexico

Re: Application Pan-American Petroleum Company
for two non-standard pro ration units
Cha Cha Gallup Oil Pool, San Juan County,
New Mexico, Cause No. 2271

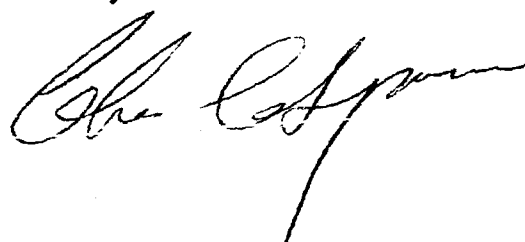
Dear Mr. Porter:

Please enter my appearance as local attorney of record
for El Paso Natural Gas Products Company as their interest
may appear in the above cause, which I understand is set for
hearing before an examiner at 9:30 a.m. on Thursday, May 4,
1961. Mr. John Mason, attorney, will be personally present
and may make a statement for the Company.

Very truly yours,

GRANTHAM, SPANN AND SANCHEZ

By:



CCS:rr

Case 2271

PAN AMERICAN PETROLEUM CORPORATION

P. O. Box 480, Farmington, New Mexico
April 13, 1961

RECEIVED APR 1 1961

File: N-5-986.510.1

Subject: Application for Hearing to
Consider Two Nonstandard
Proration Units and One
Unorthodox Location
Cha Cha Gallup Pool
San Juan County, New Mexico

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

Dear Sir:

Confirming our Western Union message of this date, Pan American Petroleum Corporation hereby makes application for a hearing to consider the establishment of two nonstandard proration units and approval of an unorthodox well location in the Cha Cha Gallup Pool, San Juan County, New Mexico.

Lots 8 and 9 and the S/2 of the San Juan River channel in the S/2 NE/4 Section 18, T-29-N, R-14-W, containing 70.58 acres, to be dedicated to Pan American's Navajo Tribal "G" No. 7 at an unorthodox location 2545 feet from the north line and 1670 feet from the east line, Section 18, T-29-N, R-14-W.

*2640
2545
95
from line*

Lot 6 and the S/2 of the San Juan River channel in the SE/4 of Section 16, T-29-N, R-14-W, containing 46.75 acres, to be dedicated to Pan American's Navajo Tribal "E" No. 10 at a location 660 feet from the south line and 1980 feet from the east line, Section 16, T-29-N, R-14-W.

*1670
1320
350*

It is respectfully requested that these matters be set for hearing at the next Examiner Hearing of the Commission.

Yours very truly,

PAN AMERICAN PETROLEUM CORPORATION

J. M. Curtis
T. M. Curtis
District Superintendent

*Replied
4/21-61
JH*

GWE:en

DOCKET: EXAMINER HEARING THURSDAY, MAY 4, 1961

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, as alternate examiner:

CONTINUED CASE

CASE 2234: Application of Kay Kimbell for an order force-pooling a 320-acre gas proration unit in the Basin-Dakota Pool. Applicant, in the above-styled cause, seeks an order force-pooling all mineral interests in the Basin-Dakota Pool in the E/2 of Section 22, Township 29 North, Range 11 West, San Juan County, New Mexico, including those of Roy L. Cook as lessee and various other parties as lessors in the E/2 NW/4 NE/4 of said Section 22.

NEW CASES

CASE 2261: Application of Continental Oil Company for two non-standard gas proration units. Applicant, in the above-styled cause, seeks the establishment of a 480-acre non-standard gas proration unit in the Eumont Gas Pool consisting of the S/2 and the NE/4 of Section 24, Township 20 South, Range 37 East, Lea County, New Mexico. Said unit is to be dedicated to the SEMU Eumont Well No. 67, located 1980 feet from the South and West lines of said Section 24.

Applicant further seeks the establishment of a 480-acre non-standard gas proration unit in the Eumont Gas Pool consisting of the NW/4 of Section 24, and the SE/4, the SW/4 NE/4, the S/2 SW/4 and the NW/4 SW/4 of Section 13, all in Township 20 South, Range 37 East, Lea County, New Mexico. Said unit is to be dedicated to the SEMU Eumont Well No. 69, located 1980 feet from the North and West lines of said Section 24.

CASE 2262: Application of V. S. Welch for an unorthodox oil well location. Applicant, in the above-styled cause, seeks approval of an unorthodox oil well location in the Culwin-Yates Pool for a well to be drilled at a point 330 feet from the South line and 2590 feet from the West line of Section 29, Township 18 South, Range 31 East, Eddy County, New Mexico.

- CASE 2263: Application of Collier Drilling Company for an exception to Rule 309 (a). Applicant, in the above-styled cause, seeks an exception to Rule 309 (a) to permit the transportation of oil from the Western Yates Lease, comprising the SE/4 NW/4 of Section 20, Township 18 South, Range 28 East, Eddy County, New Mexico, to a separate tank battery located on its Amerada Lease, comprising the NE/4 NW/4 of said Section 20.
- CASE 2264: Application of United States Smelting Refining and Mining Company for an oil-gas dual completion and for permission to commingle the production from two separate pools. Applicant, in the above-styled cause, seeks authorization to dually complete its Federal 11-20-34 Well No. 1, located 1980 feet from the North line and 2130 feet from the West line of Section 11, Township 20 South, Range 34 East, Lea County, New Mexico, in such a manner as to permit the production of oil from the Bone Springs formation adjacent to the Lea-Bone Springs Pool and the production of gas from an undesignated Pennsylvanian pool through parallel strings of 2-inch tubing.
- Applicant further proposes to commingle the production from both of said pools in said well after metering only the Pennsylvanian pool production.
- CASE 2265: Application of Nash, Windfohr and Brown for an unorthodox well location. Applicant, in the above-styled cause, seeks approval of an unorthodox location in an undesignated Abo pool for its Jackson Federal Well No. 23-B, located 1420 feet from the South line and 1980 feet from the East line of Section 24, Township 17 South, Range 30 East, Eddy County, New Mexico.
- CASE 2266: Application of Nearburg & Ingram for permission to commingle the production from two separate leases, and from two separate pools. Applicant, in the above-styled cause, seeks permission to commingle, after separate measurement, the Southwest Gladiola-Pennsylvanian Pool production from all wells on its Keating lease, comprising the NE/4 of Section 34 with Southwest Gladiola-Pennsylvanian and Southwest Gladiola-Devonian production from all wells on its Midhurst Lease, comprising the NW/4 of Section 35, all in Township 12 South, Range 37 East, Lea County, New Mexico.

CASE 2267: Application of Byard Bennett for permission to institute a waterflood project in the Caprock-Queen Pool, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks permission to institute a waterflood project in the Caprock-Queen Pool in an area comprising the E/2 SE/4 of Section 20 and the SW/4 of Section 21, all in Township 14 South, Range 31 East, Chaves County, New Mexico, by the injection of water into the Stella Zimmerman Well No. 2, located in the SE/4 SE/4 of said Section 20.

CASE 2268: Application of Humble Oil & Refining Company for an exception to Rule 303 (a). Applicant, in the above-styled cause, seeks an exception to Rule 303 (a) to permit commingling, without separate measurement, of the production from the Paddock, Penrose-Skelly and Drinkard Pools on the J. L. Greenwood Lease, comprising the S/2 of Section 9, Township 22 South, Range 37 East, Lea County, New Mexico.

CASE 2269: Application of Great Western Drilling Company for an oil-salt water dual completion. Applicant, in the above-styled cause, seeks authorization to dually complete its Federal MM Well No. 2, located in the SE/4 NW/4 of Section 8, Township 9 South, Range 37 East, Lea County, New Mexico, in such a manner as to permit the production of oil from the Bough C formation adjacent to the East Allison-Pennsylvanian Pool and the injection of salt water into the San Andres formation.

CASE 2270: Application of Pan American Petroleum Corporation for an oil-oil dual completion. Applicant, in the above-styled cause, seeks authorization to dually complete its Greenwood Unit Well No. 3, located in Unit H, Section 27, Township 18 South, Range 31 East, Eddy County, New Mexico, in such a manner as to permit the production of oil from an undesignated Bone Springs pool and the production of oil from an undesignated Wolfcamp pool through parallel strings of 2-inch tubing.

CASE 2271: Application of Pan American Petroleum Corporation for two non-standard oil proration units and for an unorthodox oil well location. Applicant, in the above-styled cause, seeks the establishment of a 70.58-acre non-standard oil proration unit in the Cha Cha-Gallup Oil Pool consisting of Lots 8 and 9 and the S/2 of that portion of the San Juan River channel lying in the S/2 NE/4, all in Section 18,

CASE 2271 (Cont.)

Township 29 North, Range 14 West, San Juan County, New Mexico, said unit to be dedicated to the Navajo Tribal "G" Well No. 7, at an unorthodox location 2545 feet from the North line and 1670 feet from the East line of said Section 16, and of a 46.75-acre non-standard oil proration unit in said pool consisting of Lot 6 and the S/2 of that portion of the San Juan River channel lying in the SE/4, all in Section 16, Township 29 North, Range 14 West, San Juan County, New Mexico, said unit to be dedicated to the Navajo Tribal "E" Well No. 10, located 660 feet from the South line and 1980 feet from the East line of said Section 16.

CASE 2272:

Application of Pan American Petroleum Corporation for two non-standard oil proration units and for two unorthodox oil well locations. Applicant, in the above-styled cause, seeks the establishment of an 89.62-acre non-standard oil proration unit in the Cha Cha-Gallup Oil Pool consisting of Lots 2, 3 and 4 of Section 8, Township 28 North, Range 13 West, San Juan County, New Mexico, said unit to be dedicated to the C. J. Holder Well No. 11, at an unorthodox location 493 feet from the North line and 660 feet from the West line of said Section 8, and of an 89.22-acre non-standard oil proration unit in said pool consisting of Lot 1 of Section 8 and Lots 3 and 4 of Section 9, all in Township 28 North, Range 13 West, San Juan County, New Mexico, said unit to be dedicated to the C. J. Holder Well No. 12, at an unorthodox location 493 feet from the North line and 660 feet from the West line of said Section 9.

CASE 2273:

Application of El Paso Natural Gas Company for an exception to Rule 309 (a). Applicant, in the above-styled cause, seeks an exception to Rule 309 (a) to permit the transportation of oil produced on Federal Lease LC-064198-A, comprising the SE/4 of Section 18, prior to measurement, to tank batteries located on Federal Lease No. 025566, comprising the E/2 of Section 19, all in Township 19 South, Range 32 East, Lea County, New Mexico.

Docket No. 13-61

-5-

CASE 2274:

Application of El Paso Natural Gas Company for an oil-gas dual completion. Applicant, in the above-styled cause, seeks an order authorizing the dual completion of its Lusk Deep Unit Well No. 2, located in Unit O, Section 18, Township 19 South, Range 32 East, Lea County, New Mexico, in such a manner as to permit the production of oil from the Strawn formation adjacent to the Lusk-Strawn Pool and the production of gas from the Morrow formation in an undesignated pool through parallel strings of 2 3/8-inch tubing.

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WESTERN UNION TELEGRAM

W. P. MARSHALL, President

1220
R-4-80

SYMBOLS
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NL = Night Letter
LT = International
Letter Telegram

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

LA171 DA622

D EPA751 NL PD=FAX EL PASO TEX 3-

1961 MAY 3 PM 10 37

OIL CONSERVATION COMMISSION=

STATE OF NEW MEXICO= PO BOX 871 SANTA FE NMEX=

PLEASE BE ADVISED AND MAY THE RECORD SHOW IN
CASE 2271 THAT EL PASO NATURAL GAS PRODUCTS COMPANY, AS
AN OPERATOR IN THE CHA=CHA GALLUP OIL POOL, IS OPPOSED
AT THIS TIME TO THE GRANTING OF AN ORDER WHICH WOULD PERMIT
ESTABLISHMENT OF THE TWO NON=STANDARD OIL PRORATION UNITS
SOUGHT BY PAN AMERICAN. THE INFORMATION OF A UNIT FOR
PRESSURE MAINTENANCE AND SECONDARY RECOVERY OPERATIONS IS
PRESENTLY NEARING COMPLETION AND WITH RESPECT THERETO, THE
UNIT ENGINEERING COMMITTEE HAS HERETOFORE CONDUCTED EXTENSIVE
STUDIES. IN SUCH STUDIES, IT HAS NOT BEEN ASCERTAINED THAT
THE DRILLING OF A WELL ON EITHER OF THE TWO PROPOSED
NON=STANDARD PRORATION UNITS IS DESIRABLE OR ESSENTIAL TO THE
EFFICIENT OPERATION OF THE UNIT, AND, IN FACT, IT IS HIGHLY
PROBABLE THAT SUCH DRILLING WILL INTRODUCE ADDITIONAL FACTORS
WHICH WILL COMPLICATE THE NEGOTIATIONS TO THE EXTENT OF UNDULY
DELAYING CONSUMMATION OF THE UNITIZATION AGREEMENT AND
COMMENCEMENT OF OPERATIONS THEREUNDER. SUCH DELAY IN THE
COMMENCEMENT OF THE INJECTION PROGRAM WOULD RESULT IN A
REDUCTION IN THE ULTIMATE RECOVERY OF OIL FROM THE AREA TO
BE UNITIZED, AND AS SUCH WOULD CONSTITUTE UNDERGROUND WASTE
AS DEFINED IN STATEWIDE RULE 67 (A), RULES AND REGULATIONS
OF THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO,

THE COMPANY WILL APPRECIATE SUGGESTIONS FROM ITS PATRONS CONCERNING ITS SERVICE

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

WESTERN UNION TELEGRAM

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

1220
R-4-00

W. P. MARSHALL, President

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

HEREFORE, IN VIEW OF THE FOREGOING, IT IS URGED THAT
PAN AMERICAN'S REQUEST BE DENIED. VERY TRULY YOURS=
EL PASO NATURAL GAS PRODUCTS CO BY
W J HOLLIS MANAGER EXPLORATION AND PRODUCTION=

2271 67 (A) •EE

1931 MAY 4 AM 8:28
MAIN OFFICE OCC

THE COMPANY WILL APPRECIATE SUGGESTIONS FROM ITS PATRONS CONCERNING ITS SERVICE

GOVERNOR
EDWIN L. MECHEN
CHAIRMAN

State of New Mexico
Oil Conservation Commission



P. O. BOX 871
SANTA FE

May 11, 1961

LAND COMMISSIONER
JOHNNY WALKER
MEMBER

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

Case 2271

Mr. Guy Buell
Pan American Petroleum Corporation
P. O. Box 1410
Fort Worth, Texas

Dear Sir:

Enclosed herewith is Order No. R-1967, entered May 11, 1961, on behalf of Pan American Petroleum Corporation, applicant in Case No. 2271.

You will note that the order requires that a directional survey will be made of the Navajo Tribal "G" Well No. 7 if deviational surveys (Totco) indicate there is a possibility of this well being bottomed on a tract other than the one on which the unorthodox surface location is approved. This arrangement is made to enable Pan American to save the additional expense of the directional survey if all drift, as determined by the deviational surveys, though assumed to be in the direction of the nearest lot line, indicates the well is bottomed on the proper tract.

Please furnish this office with a tabulation of the deviation tests made during the course of drilling the well, together with a calculated location of the bottom of the hole, assuming all deviation to be directly south. No allowable will be assigned the well until it has been established where the hole is actually bottomed.

Very truly yours,

A. L. PORTER, Jr.
Secretary-Director

ALP/ir

cc: Mr. S. B. Christy - Roswell, N.M.
Mr. Kirk Newman - Roswell, N.M.
Charles Spann - Albuquerque, N.M.
Oil Conservation Commission: Hobbs and Aztec

**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. 2271
Order No. R-1967**

**APPLICATION OF PAN AMERICAN
PETROLEUM CORPORATION FOR TWO
NON-STANDARD OIL PRODUCTION UNITS
AND FOR AN UNORTHODOX OIL WELL
LOCATION, SAN JUAN COUNTY,
NEW MEXICO.**

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on May 4, 1961, at Santa Fe, New Mexico, before Daniel S. Mutter, Examiner duly appointed by the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission," in accordance with Rule 1214 of the Commission Rules and Regulations.

Now, on this 11th day of May, 1961, the Commission, a quorum being present, having considered the application, the evidence adduced, and the recommendations of the Examiner, Daniel S. Mutter, 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 the establishment of a 70.50-acre non-standard oil production unit in the Cha Cha-Gallup Oil Pool, consisting of Lots 8 and 9 and the S/2 of that portion of the San Juan River channel lying in the S/2 NE/4, all in Section 18, Township 29 North, Range 14 West, NMPN, San Juan County, New Mexico.

(3) That the applicant seeks approval of an unorthodox location for its Navajo Tribal "G" Well No. 7, at a point 2545 feet from the North line and 1670 feet from the East line of said Section 18, to which well the above-described 70.50-acre non-standard production unit would be dedicated.

(4) That the applicant further seeks approval of a 46.75-acre non-standard oil production unit in said pool, consisting of Lot 6 and the S/2 of that portion of the San Juan River channel

lying in the SE/4, all in Section 16, Township 29 North, Range 14 West, NMPN, San Juan County, New Mexico, said unit to be dedicated to the Navajo Tribal "E" Well No. 10, located 640 feet from the South line and 1990 feet from the East line of said Section 16.

(3) That inasmuch as the above-described non-standard oil proration units are sought for the purpose of continuing the orderly development along the Northern boundary of the Navajo Indian Reservation in this area, the subject application should be granted.

(6) That the above-described non-standard oil proration units are presumed to be productive of oil from the Cha Cha-Gallup Oil Pool.

(7) That the above-described unorthodox location for the applicant's Navajo Tribal "G" Well No. 7 should be approved, provided however, that the results of a deviational survey should be reported to the Santa Fe Office of the Commission, and in the event such survey indicates the possibility that the subject well is bottomed outside the proration unit which is dedicated to it, then a directional survey should be taken.

IT IS THEREFORE ORDERED:

(1) That a 76.58-acre non-standard oil proration unit in the Cha Cha-Gallup Oil Pool, consisting of Lots 8 and 9 and the S/2 of that portion of the San Juan River channel lying in the S/2 NE/4, all in Section 18, Township 29 North, Range 14 West, NMPN, San Juan County, New Mexico, is hereby established.

(2) That the applicant is hereby granted permission to locate its Navajo Tribal "G" Well No. 7 at an unorthodox location 2545 feet from the North line and 1670 feet from the East line of said Section 18, to which well the above-described 76.58-acre non-standard proration unit is to be dedicated.

PROVIDED HOWEVER, That the results of a deviational survey of said well shall be reported to the Santa Fe Office of the Commission, and in the event such survey indicates the possibility that the subject well is bottomed outside the proration unit which is dedicated to it, then a directional survey shall be taken.

(3) That the allowable which will be assigned to said Navajo Tribal "G" Well No. 7 shall bear the same ratio to a standard allowable in the Cha Cha-Gallup Oil Pool as 76.58 bears to 88.

(4) That a 46.75-acre non-standard oil proration unit in

-3-

CASE No. 2271
Order No. R-1987

the Cha Cha-Gallup Oil Pool, consisting of Lot 6 and the S/2 of ~~that portion of the San Juan River channel lying in the SE/4,~~ all in Section 16, Township 29 North, Range 14 West, NMPN, San Juan County, New Mexico, is hereby established. Said unit is to be dedicated to the Navajo Tribal "E" Well No. 10, located 660 feet from the South line and 1980 feet from the East line of said Section 16.

(5) That the allowable which will be assigned to said Navajo Tribal "E" Well No. 10 shall bear the same ratio to a standard allowable in the Cha Cha-Gallup Oil Pool as 46.75 bears to 80.

(6) 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



E. L. Mechem

EDWIN L. MECHAM, Chairman

E. S. Walker

E. S. WALKER, Member

A. L. Porter, Jr.

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

NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

c-128

SECTION A

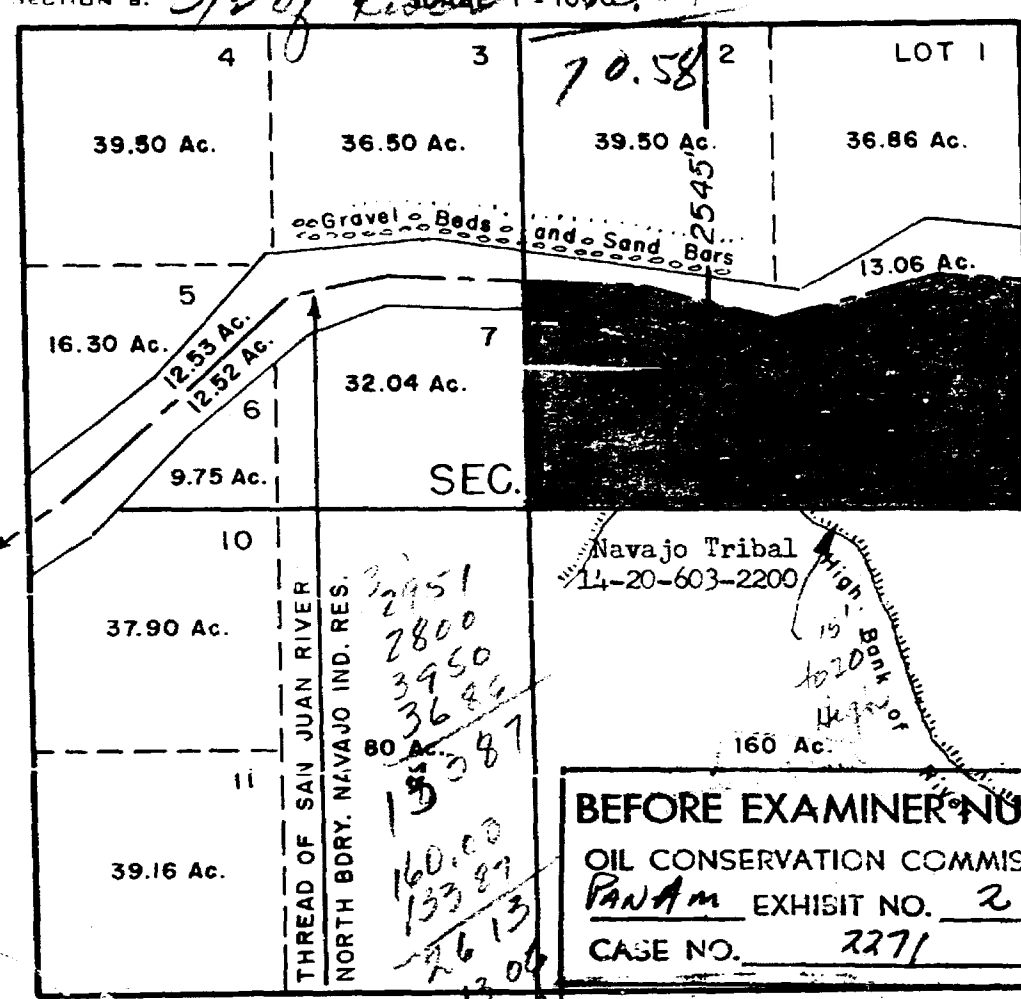
DATE May 3, 1961

OPERATOR Pan American Petroleum Corporation LEASE Navajo Tribal "G"
WELL NO. 7 UNIT LETTER G SECTION 18 TOWNSHIP 29 North RANGE 14 West NMPM
LOCATED 2545 FEET FROM North LINE 1670 FEET FROM East LINE
COUNTY San Juan S. L. ELEVATION To report later DEDICATED ACREAGE 70.58 ACRES
NAME OF PRODUCING FORMATION Gallup POOL Cha Cha Gallup

1. IS THE OPERATOR THE ONLY OWNER IN THE DEDICATED ACREAGE OUTLINED ON THE PLAT BELOW? YES ☒ NO ☐
2. IF THE ANSWER TO QUESTION ONE IS "NO," HAVE THE INTERESTS OF ALL THE OWNERS BEEN CONSOLIDATED BY COMMUNITIZATION AGREEMENT OR OTHERWISE? YES ☐ NO ☒ IF ANSWER "YES" TYPE OF CONSOLIDATION
3. IF THE ANSWER TO QUESTION TWO IS "NO," LIST ALL THE OWNERS AND THEIR RESPECTIVE INTERESTS BELOW:

OWNER	LAND DESCRIPTION
-------	------------------

Handwritten notes:
All of Lot 8: 2951
All of Lot 9: 2800
5/2 of River
SCALE 1" = 1000' 13.07
4600
4850
2640
2545
2545
Blue hole



THIS IS TO CERTIFY THAT THE INFORMATION IN SECTION A ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF.

Pan American Petroleum Corp.
R. M. Bauer, Jr.
REPRESENTATIVE

Box 480, Farmington, New Mexico
ADDRESS:

THIS IS TO CERTIFY THAT THE WELL LOCATION SHOWN ON THE PLAT IN SECTION B 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 30, 1961
FOUR STATES ENGINEERING CO.
FARMINGTON, NEW MEXICO
REGISTERED ENGINEER OR LAND SURVEYOR

NAVAJO INDIAN RESERVATION CERTIFICATE NO. 1545

NEW MEXICO OIL CONSERVATION COMMISSION

WELL LOCATION AND ACREAGE DEDICATION PLAT

DATE May 3, 1961

SECTION A.

OPERATOR Pan American Petroleum Corporation

WELL NO. 10

UNIT LETTER 0

SECTION 16

LOCATED 660

FEET FROM

South

LEAVE

Navajo Tribal "E"

TOWNSHIP 29 North RANGE 14 West

NMPM

1980

FEET FROM

East

LINE

46.75

ACRES

COUNTY San Juan

G. L. ELEVATION To report later

DEDICATED ACREAGE

POOL Cha Cha Gallup

X

NAME OF PRODUCING FORMATION

1. IS THE OPERATOR THE ONLY OWNER IN THE DEDICATED ACREAGE OUTLINED ON THE PLAT BELOW? YES X NO

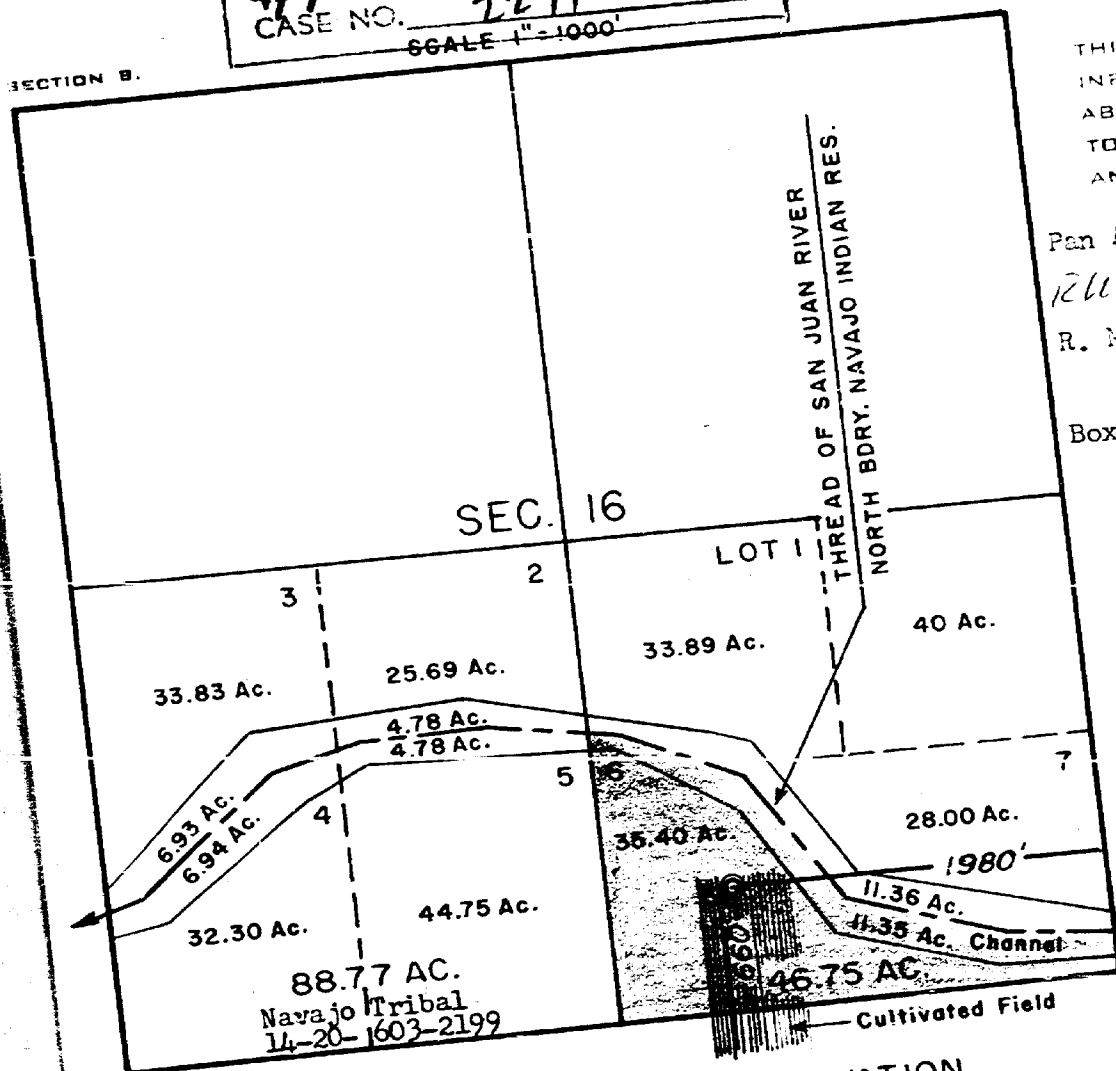
2. IF THE ANSWER TO QUESTION ONE IS "NO," HAVE THE INTERESTS OF ALL THE OWNERS BEEN CONSOLIDATED BY COMMUNITIZATION AGREEMENT OR OTHERWISE? YES NO IF ANSWER IS "YES," TYPE OF CONSOLIDATION

3. IF THE ANSWER TO QUESTION TWO IS "NO," LIST ALL THE OWNERS AND THEIR RESPECTIVE INTERESTS BELOW.

LAND DESCRIPTION

BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
EXHIBIT NO. #3
CASE NO. 2271
SCALE 1"=1000'

SECTION B.



THIS IS TO CERTIFY THAT THE INFORMATION IN SECTION A ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF.

Pan American Petroleum Corp.

R. M. Bauer, Jr.

REPRESENTATIVE

Box 480, Farmington, New Mexico

THIS IS TO CERTIFY THAT THE WELL LOCATION SHOWN ON THE PLAT IN SECTION B 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 30, 1961

FOUR STATES ENGINEERING CO.

FARMINGTON, NEW MEXICO

REGISTERED ENGINEER OR LAND SURVEYOR

CERTIFICATE NO. 1545

SECTION A.

WELL NO.

LOCATED

COUNTY

NAME OF PRODUCING FORMATION

COUNTY _____ POOL _____ NO. _____

NAME OF PRODUCING FORMATION _____

1. IS THE OPERATOR THE ONLY OWNER* IN THE DEDICATED ACREAGE OUTLINED ON THE PLAT BELOW? YES _____ NO _____

2. IF THE ANSWER TO QUESTION ONE IS "NO," HAVE THE INTERESTS OF ALL THE OWNERS BEEN CONSOLIDATED BY COMMUNITIZATION AGREEMENT OR OTHERWISE? YES _____ NO _____ IF ANSWER IS "YES," TYPE OF CONSOLIDATION _____

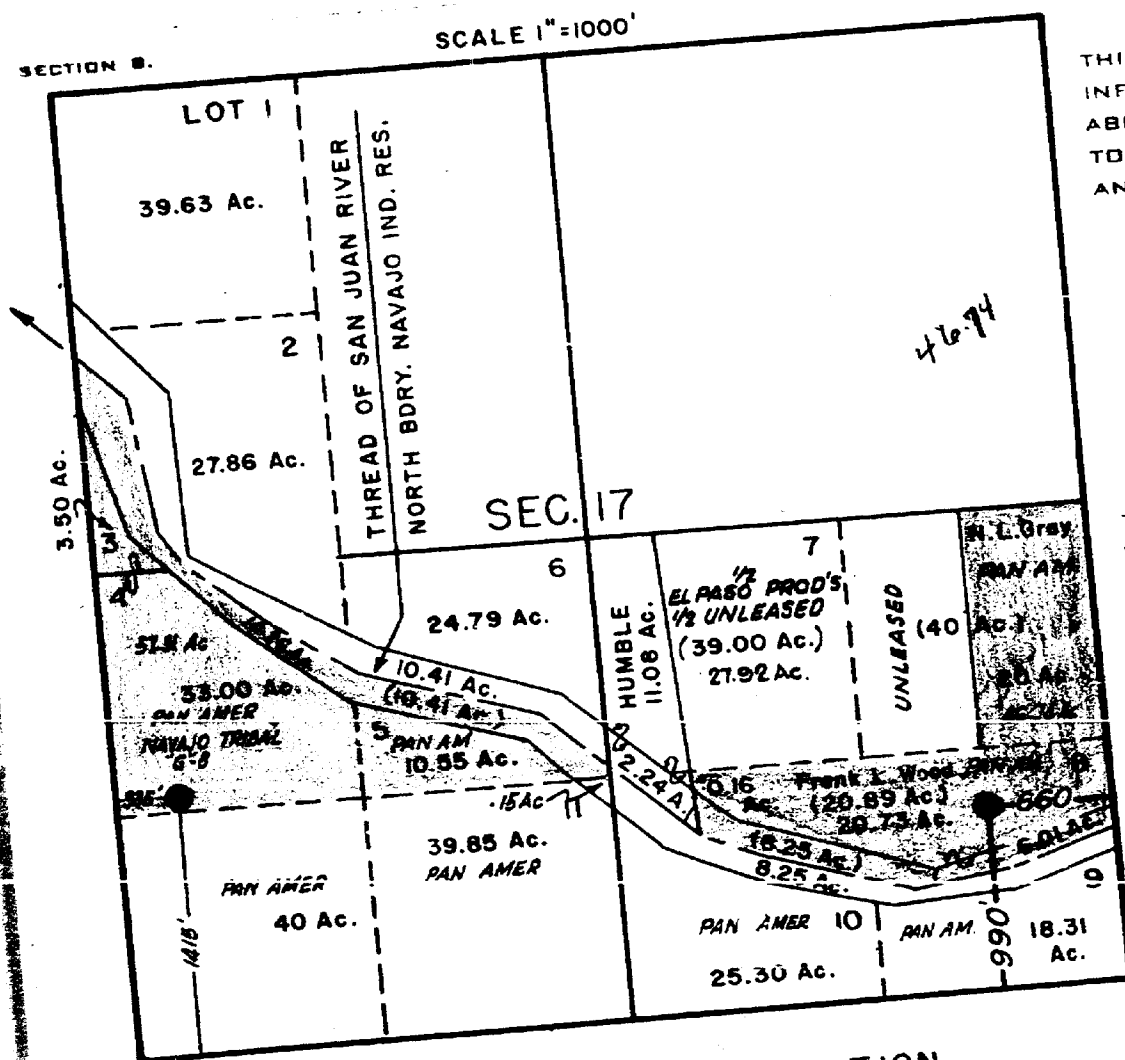
* UNLESS INDICATED BELOW:

3. IF THE ANSWER TO QUESTION TWO IS "NO," LIST ALL THE OWNERS AND THEIR RESPECTIVE INTERESTS BELOW:

OWNER	LAND DESCRIPTION
-------	------------------

SECTION 8.

SCALE 1"=1000'



NAVAJO

INDIAN

RESERVATION

THIS IS TO CERTIFY THAT THE
INFORMATION IN SECTION A
ABOVE IS TRUE AND COMPLETE
TO THE BEST OF MY KNOWLEDGE
AND BELIEF.

(OPERATOR)

REPRESENTATIVE:

ADDRESS:

THIS IS TO CERTIFY THAT THE WELL LOCATION SHOWN ON THE PLAT IN SECTION 8 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

**FOUR STATES
ENGINEERING CO.
FARMINGTON, NEW MEXICO**

REGISTERED ENGINEER OR
LAND SURVEYOR

CERTIFICATE NO.