CASE 6701: DOYLE HARTMAN FOR COMPULSORY POOLING, NON-STANDARD GAS PRORATION UNIT UNORTHODOX WELL LOCATION, AND APPROVAL OF INFILL DRILLING, LEA COUNTY, N. MEX.

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

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January 10, 1980

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Re: CASE NO. 6701
ORDER NO. R-6202

Applicant:

Doyle Hartman

Dear Sir:

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

Yours very truly,

JOE D. RAMEY
Director

JDR/fd

Copy of order also sent to:

Hobbs OCD x
Artesia OCD x
Aztec OCD

Other

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
DIVISION FOR THE PURPOSE OF
CONSIDERING:

CASE NO. 6701
Order No. R-6202

APPLICATION OF DOYLE HARTMAN FOR
COMPULSORY POOLING, NON-STANDARD
GAS PRORATION UNIT, UNORTHODOX WELL
LOCATION, AND APPROVAL OF INFILL
DRILLING, LEA COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on October 17, 1979, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 9th day of January, 1980, the Division Director, 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 Division has jurisdiction of this cause and the subject matter thereof.

(2) That the applicant, Doyle Hartman, seeks an order pooling all mineral interests in the Seven Rivers-Queen formation of the Eumont Gas Pool underlying the SE/4 of Section 30, Township 21 South, Range 36 East, NMPM, Lea County, New Mexico, to be dedicated to his J. K. Rector Well No. 1 at an unorthodox location 2310 feet from the South line and 330 feet from the East line of said Section 30.

(3) That applicant further seeks a finding that the drilling of said well is necessary to effectively and efficiently drain that portion of the existing proration unit which cannot be so drained by the existing well.

(4) That the applicant is the operator of the NE/4 SE/4 and the SW/4 SE/4 of said Section 30 under the provisions of a

farmout agreement with Texaco Inc., which retained ownership of the NW/4 SE/4 and SE/4 SE/4 of said Section 30.

(5) That Texaco Inc. currently has two wells in the SE/4 of Section 30 which are classified as oil wells in the Eumont Pool, said wells being Texaco's J. K. Rector Well No. 2 located in the SE/4 SE/4 and its J. K. Rector Well No. 3 located in the NW/4 SE/4.

(6) That the aforesaid Texaco wells are completed in and producing from the Yates formation, in which formation applicant's J. K. Rector Well No. 1 is also completed.

(7) That to pool the SE/4 of Section 30 to form a 160-acre unit to be dedicated to applicant's J. K. Rector Well No. 1 would result in the dedication of 160 acres to applicant's well and the simultaneous dedication of the two 40-acre tracts upon which the two Texaco wells are located, all three wells producing from the Yates formation of the Eumont Pool.

(8) That such simultaneous dedication would result in said lands receiving a double allowable, and would not protect correlative rights.

(9) That the application for compulsory pooling should be denied.

(10) That the applicant is entitled to and should receive the opportunity to produce his just and equitable share of the gas in the Eumont Gas Pool underlying the NE/4 SE/4 of the aforesaid Section 30, and such opportunity can best be afforded him by the approval of a non-standard 40-acre gas proration unit for said pool comprising said lands.

(11) That approval of said 40-acre non-standard gas proration unit will not cause waste nor impair correlative rights.

(12) That inasmuch as the 40-acre non-standard proration unit upon which applicant's J. K. Rector Well No. 1 is located is not an existing proration unit nor a portion of an existing proration unit, there being only one other well located thereon, an old well which was plugged and abandoned in 1947, there is no necessity for the requested findings that applicant's J. K. Rector Well No. 1 is an infill well necessary to effectively and efficiently drain the existing proration unit, and that portion of this case should be dismissed.

IT IS THEREFORE ORDERED:

(1) That the application of Doyle Hartman for an order pooling all mineral interests in the Seven Rivers-Queen formation of the Eumont Gas Pool underlying the SE/4 of Section 30, Township 21 South, Range 36 East, NMPM, Lea County, New Mexico, is hereby denied.

(2) That a 40-acre non-standard gas proration unit comprising the NE/4 SE/4 of said Section 30 is hereby approved for the Eumont Gas Pool, to be dedicated to applicant's J. K. Rector Well No. 1 at an unorthodox location 2310 feet from the South line and 330 feet from the East line of said Section 30.

(3) That the application for infill findings relative to the aforesaid J. K. Rector Well No. 1 is hereby dismissed.

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

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

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

JOE D. RAMEY
Director

S E A L

fd/

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
State Lsnd Office Building
Santa Fe, New Mexico
I7 October I979

EXAMINER HEARING

IN THE MATTER OF:

Application of Doyle Hartman for compulsory pooling, non-standard gas proration unit, unorthodcx well location, and approval of infill drilling, Lea County, New Mexico.

CASE 670I

BEFCRE: Daniel S. Nutter

TRANSCRIPT OF HEARING

A P P E A R A N C E S

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For Texaco, Inc. Ken Bateman, Esq.
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MR. NUTTER: The hearing will come to order, please.

We'll call now Case Number 6701.

MR. PADILLA: Application of Doyle Hartman for compulsory pooling, non-standard gas proration unit, unorthodox well location, and approval of infill drilling, Lea County, New Mexico.

MR. CARR: May it please the Examiner, I'm William F. Carr, Campbell and Black, P. A., Santa Fe, appearing on behalf of the applicant, and I have one witness, which will be the same witness we called in the previous case, and --

MR. NUTTER: Mr. Aycock is still under oath.

MR. CARR: And are his qualifications still acceptable?

MR. NUTTER: Yes.

MR. BATEMAN: Mr. Examiner, I'm Ken Bateman of White, Koch, Kelly and McCarthy, appearing on behalf of Texaco, and I have one witness who has not been sworn.

MR. NUTTER: Would your new witness please stand and be sworn.

(Witness sworn.)

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WILLIAM P. AYCOCK

being called as a witness and having been duly sworn upon his oath, testified as follows, to-wit:

DIRECT EXAMINATION

BY MR. CARR:

Q. Would you please state your name and place of residence, please?

A. William P. Aycock, Midland, Texas.

Q. Mr. Aycock, by whom are you employed and in what capacity?

A. By Doyle Hartman as a consultant.

Q. Are you familiar with the application in Case 6701?

A. Yes, sir, I am.

Q. Will you briefly state what Mr. Hartman is seeking with this application?

A. Mr. Hartman is seeking -- has applied for compulsory pooling, a non-standard gas proration unit, unorthodox well location, and approval of infill drilling, in the Eumont-Yates-Seven Rivers-Queen formation underlying the southeast quarter of Section 30, Township 21 South, Range 36 East, in Lea County, to be dedicated to his J. K. Rector Well No. 1 at an unorthodox location 2310 feet from the

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south line and 330 feet from the east line of Section 30.

He's also requesting cost of drilling and completing the well and the allocation of tho cost as well as actual operating charges and charges for supervision and the designation of applicant as operator for the well and a charge for risk involved in drilling said well.

He also requests a waiver of existing well spacing requirements and a finding that the drilling of the well is necessary to effectively drain that portion of the existing proration unit which cannot be so drained by the existing well.

Q. Will you please refer to what has been marked for identification as Exhibit Number One and explain to the Examiner what it is and what it shows?

A. Exhibit Number One is the well ownership, the well ownership plat of the immediate area of the Eumont Pool, which shows the Hartman Rector No. 1 and the remaining wells that are of interest in this application and their status as producers in the Eumont Pool. You might notice, Mr. Examiner, that on the south half of Section 31 and 36 down here, we're getting into the Jalmat area and these wells are so designated as being in the Jalmat Field rather than the Eumont.

Q. Will you now refer to what has been marked for identification as Exhibit Number Two and review this for

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Mr. Nutter?

A. Exhibit Number Two is a structure map on the top of the CUQ marker in the immediate vicinity of the Rector Well and I think it's important to notice that there is an indicated apparent geologic anomaly that encompasses virtually the entire southeast quarter of Section 30 that is the subject of this application.

Q. Now I would direct your attention to Exhibit Number Three and request that you review this for the Examiner.

A. Exhibit Number Three is the summary of correspondence that is pertinent to the application. It encompasses all of the correspondence that is of consequential interest here, I believe. In particular, on page four of the June 25th, 1979 letter from Texaco to Mr. Corrigan, who was the farmee in this case, under number nine it's stated, "It is understood that governmental proration units for gas production are anticipated to be 160 acres and Corrigan will only earn 80 acres for a successful gas producer. In the event of such 160-acre governmental proration units for gas production, pooling is anticipated."

Q. And that is signed by a representative of Texaco, is —

A. Yes, sir, that is.

Q. -- that correct? Will you now refer to

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what has been marked for identification as Exhibit Number Four and review that for the Examiner?

A. Exhibit Number Four is a well history of the Hartman J. K. Rector No. 1 that reviews the entire procedure that we used to isolate the water producing section and squeeze it off and determine that the entire productive section of the Eumont Pool was gas productive but was not productive of water, and it has not been squeezed off at this time.

Q. Now I'd refer you to Exhibit Number Five.

A. Exhibit Number Five is the -- several well forms that show the status of the wells on this quarter section, and I believe they can be followed through to show that there is at the present time no gas well located on that quarter section.

Q. All right, will you now refer to what has been marked for identification as Exhibit Number Six?

A. Exhibit Number Six is the letter addressed from me to Mr. Hartman that sets out the charge that he gave me involved in the technical study that was done in preparation for this hearing. These included to determine whether or not the Rector Well could reasonably be expected to drain the anticipated 160-acre proration unit, to provide the basis for an infill findings application under the Natural Gas Policy Act, since he now knows that he has a gas well rather

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than an oil well that he originally anticipated he would get when the well was drilled, and to determine whether or not waste would be prevented and correlative rights protected by the assignment of the requested 160-acre proration unit to the J. K. Rector No. 1.

This, the letter goes into a substantial amount of detail with which I won't trouble the Examiner unless he wishes to delve into any of it, and the backup is once again included on the summary of individual well information.

Q. And that's marked Exhibit Number Seven.

A. Correct. And it's a separate exhibit in any case, because the size was not handy to make a part of the letter. It includes ten wells, including the Hartman Rector No. 1 for which the pertinent technical data are tabulated and compared.

Q. I'd like to direct your attention to [illegible] has been marked Exhibit Number Eight, which is the A-A' cross section, and ask that you review this for Mr. Nutter.

A. A-A' is a north-south cross section that shows most of the wells in the vicinity of the subject well, including the markers where they have been completed, when they were completed, and the various pertinent details.

Q. Will you now refer to Exhibit Number Nine and review that for Mr. Nutter?

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A. Exhibit Number Nine is an east-west cross section that does include the subject well. The previous one did not include it, but this one does include it. And once again it shows the intervals in which the wells have been completed, when they were completed, and to what pool they were assigned at the time of each completion attempt.

Q. And Exhibit Number Ten consists of a plat and certain graphs. Would you review these for the Examiner?

A. Exhibit Number Ten is a plat that indicates the key wells for which production and pressure histories are included as a part of this application. They are basically all of those wells that are in the immediate vicinity that are in the Eumont Gas Pool.

There are pressure curves as well as rate-time gas curves for all of these wells.

Q. Mr. Aycock, will you now identify what has been marked as Exhibit Number Eleven?

A. Exhibit Number Eleven is a model form operating agreement under which Mr. Hartman would propose to operate the well if the Commission sees fit to grant his application for force pooling.

Q. Mr. Aycock, in your opinion is the proposed well necessary to effectively and efficiently drain the proposed proration unit?

A. Yes, sir. This, at least this well is

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necessary and it's possible that -- that there might require more drilling than even this well, because the pressures are -- for this old field, in most the observed -- the latest observed pressures are rather high. They're still in the range of, oh, 300 pounds, more or less, up to 400 pounds, and I consider this high pressure for this field at this advanced state. There has been -- Hartman has experienced a severe problem in attempting to complete his well with water production, and I would anticipate that most of the other wells that have been prematurely abandoned were experiencing water production problems, so it's possible that more drilling than this might ultimately be necessary to adequately drain the entire unit, depending upon what the experience is with the existing well and what happens subsequently in the area.

Q. And would you state again why the well is at an unorthodox location?

A. Well, it was originally drilled to be an oil well and was thought -- Hartman thought and we believe that Texaco thought, both thought, that it would be an oil well and that he would drill that one and then have the option to drill another one at a diagonal 40 acres away. He did of testing all the individual porosity zones and measuring individual pressures, he determined that there was no oil production; that the only fluid production that he experienced was in the middle interval that's shown on the -- on cross

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section B-B', which was later squeezed off because it was impossible to keep gas production going with the amount of water that was produced from that one interval.

Q. Are there other unorthodox well locations in the area?

A. Yes, sir, there are.

Q. Mr. Aycock, what percentage of the working interest ownership does Mr. Hartman represent?

A. 50 percent.

Q. 50 percent?

A. Yes, sir.

Q. And who owns the remaining acreage?

A. Texaco, I believe.

Q. Are there other Eumont gas wells on this acreage?

A. Not at the present time, no, sir.

Q. Has --

A. There have been in the past but there are not at present.

Q. Have you submitted an AFE to Texaco?

A. Yes, sir, I believe that there's an AFE contained in the exhibit that has the correspondence. The AFE is attached to the September 25th, 1979 letter to Texaco, addressed to Mr. E. H. Watkins from P. Edward Corrigan, who is the original farmee on this property.

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Q. Now, does this AFE reflect the cost of drilling and completing the well?

A. Yes, sir, it does.

Q. Are these costs in line with the costs of drilling and completing similar wells in this area?

A. Yes, sir, they're in line with Mr. Hartman's other experience in this area.

Q. Have you made calculations as to the risk that is being assumed in the drilling of this well and completing of this well?

A. Based on the fact that the water production was experienced, was squeezed off and required a drill-out job, the well has not been adequately stimulated, and to adequately stimulate the well and find out what its deliverability will be, you will then run an additional risk, mechanical risk, so I would call it an above average risk for the tight formation and the depth at which we're working.

Q. Do you have a recommendation to make to the Examiner as to the risk factor to be assessed?

A. Yes, I think the risk factor should be the maximum that's allowed.

Q. Do you have a recommendation to make to the Examiner for overhead and administration costs for drilling and producing the well?

A. Yes, sir. They're contained in the oper-

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ating agreement that was our last exhibit, and I'll find them for you. They're on page three of the -- I believe it's exhibit C but let me be certain -- yes, page three of exhibit C. Overhead, the drilling well rate $2500 per month; the producing well rate, $250 per month.

Q Are these recommendations in line with what is being charged by other operators in the area?

A Yes, sir, they are in my experience.

Q And is Mr. Hartman requesting to be designated operator of this well?

A Yes, sir, he is so requesting.

Q In your opinion will granting this application be in the interest of conservation, the prevention of waste, and the protection of correlative rights?

A Yes, sir, I believe it will.

Q If you're unable to get an order pooling this acreage, what effect is this going to have on Mr. Hartman's operations?

A Well, he'll have to drill another 40-acre gas location to -- to protect the option agreement that he has with Texaco.

Q Mr. Aycock, were Exhibits One through Eleven either prepared by you or have you reviewed them and can testify as to their accuracy?

A Yes, sir.

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MR. CARR: At this time, Mr. Examiner, we would offer into evidence Applicant's Exhibits One through Eleven.

MR. NUTTER: Applicant's Exhibits One through Eleven will be admitted in evidence.

MR. CARR: And I have nothing further on direct.

CROSS EXAMINATION

BY MR. NUTTER:

Q. Mr. Aycock, just one question before I presume Mr. Bateman has some questions.

But one question, who is Corrigan?

A. Edward Corrigan is the man to whom Texaco originally farmed out the acreage and who later assigned it to Mr. Hartman, and Texaco approved of the assignment.

Q. Well, who drilled the well?

A. Hartman drilled it and there's a letter in here, Mr. Nutter, in which he tells Texaco that his normal procedure is to -- on this type of thing, is to take in a partner who has the capability of operating --

Q. Corrigan does this?

A. Yes, sir, and Texaco was aware of these facts and I presume approved of it, because they had to approve the assignment from -- they assigned to Corrigan and

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then had to approve the assignment of the rights then to Doyle Hartman.

Q. Do you know when Corrigan assigned it to Hartman?

A. Yes, sir, I think we can find that. It's executed the 25th day of September, 1979, effective as of June 26th, 1979. And it is number seven in the summary of correspondence list that's included, Mr. Nutter.

Q. Okay. And then your last attachment to this exhibit shows that the well was spudded September the 4th of '79, so this was after the effective date of the assignment --

A. Yes, sir.

Q. Although before the actual assignment was made.

A. Yes, sir.

Q. The well was completed 10-4-79, which was after the date of the execution of the agreement.

A. Yes, sir.

MR. NUTTER: Are there any questions of this witness?

MR. BATEMAN: Yes, Mr. Examiner.

CROSS EXAMINATION

BY MR. BATEMAN:

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Q Mr. Aycock, I'd like for you to identify for the record where the productive intervals are in the well that's the subject of the --

A Can we refer to my cross section B-B', which I don't remember the exhibit number.

MR. NUTTER: That's Exhibit Nine.

A And you'll notice the perforations at 3296 to 3781, swabbed sulfur water, and then we perforated 3309 to 3784, and perforations at 3592 to 3641 were -- were squeezed. I think I may have another, a larger picture of that. It might help. If we want to introduce this, I believe that would be on a larger scale, would make it more apparent what we're talking about, perhaps.

MR. CARR: With your permission, Mr. Examiner, we will mark this as Hartman's Exhibit Number Twelve.

Q (Mr. Bateman continuing.) All right, sir, could you tell me specifically where the gas production is coming from in the --

A Each of the other sets of perforations that are open were individually tested and had individual pressures measured. Water production was neither observed nor were there any gradients indicative of the presence of water in the pressure measurements.

Q Well, is there gas production from the

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Yates?

A. Yes, sir, there's gas production -- there is gas production from the Upper and Lower, which is in the Yates.

Q. All right. Now, you're aware that Texaco has wells in offsetting acreage.

A. Yes, sir.

Q. Which is referred to in your first exhibit. Would you identify those wells as you've marked them on here?

A. Well, you have the Rector No. 3, which immediately offsets -- well, not immediately offsets, but is in the northwest quarter of the southwest quarter of 30. You have the No. 1, which has been plugged and abandoned but is in the -- is the nearest well to the Hartman location, which is in the northeast quarter of the southeast quarter. You have the Rector No. 2, which is in the southeast quarter of the southeast quarter, and the Rector No. 4, which is in the southwest quarter of the southeast quarter.

Q. Which of these wells is currently productive? According to your records?

A. Okay, just a minute.

Okay, the Rector No. 3, which is in the northwest quarter of the southeast quarter, according to my information was reclassified to a Eumont oil well on the 28th of April of 1977, and is still actively producing.

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Q. From what geologic zone? Does it indicate?

A. From all of the zones -- well, from the Yates, Seven Rivers interval, and there's a bridge plug set in the well above the Queen marker, so it's -- there's no production from the Queen, but it was -- well, no, I beg your pardon, it's from the Yates interval.

MR. NUTTER: Which one are you talking about now?

A. The No. 3 has been plugged off in the Seven Rivers. It's from the Yates interval. It is currently producing oil.

Q. Is it also producing casinghead gas? Does your record indicate?

A. Yes, uh-huh. I don't have the volumes but I know that it is.

Q. And what about the No. 2? That's in the southeast quarter.

A. Okay, it's producing from the Yates interval, a portion of the Eumont Consolidated Reservoir, and was reclassified as an oil well on March the 1st, 1972.

Q. Is it also producing casinghead gas from the Yates?

A. Yes.

Q. Both of these wells are within the 150-acre proration unit that you suggest, is that correct?

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A. That's correct.

Q. And all three wells, the well in question plus the two Texaco wells, are producing casinghead gas or ga. from the Yates formation, is that correct?

A. No, I wouldn't agree that the Hartman well is producing casinghead gas since it produces no liquids.

Q. Well, not casinghead gas but it's producing gas.

A. It's producing gas but it's not producing casinghead gas.

Q. I understand, but from the Yates formation.

A. Yes.

Q. All right. Now, do you have information on what the productive capacity of the Rector No. 1 is, the Hartman well?

A. It's -- at the present time it's indicated initial deliverability of 71 Mcf per day; as I probably indicated, as I trust I indicated during my direct examination. I don't believe that's what the well will ultimately do because I don't believe it's been adequately stimulated at this time.

Q. Well, assuming just for the sake of argument that it's not improved, what size of a proration unit would you require to produce at that rate?

A. Well, a 40-acre proration unit would pro-

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bably be adequate if that's the best it can do.

Q. Have you estimated what would be the results of stimulation?

A. I don't -- I can't do that because I don't know. I don't have any information that allows me to determine which, if any, of the intervals that are currently open are damaged and to what degree they're damaged.

Without that information there's no way I could give you that -- that estimate.

Q. What sort of work do you anticipate will be done in the well?

A. I anticipate --

Q. If you testified to that I missed it, or something.

A. I anticipate that it will be hydraulic fractured with a very substantial size of treatment.

Q. And why will it be fractured and for what reason?

A. Because the pay quality that was determined from the logs and the amount of the pay does not appear to be commensurate with the ability that's been experienced.

Q. Do you think it's because of the -- it's a tight formation or --

A. I suspect that it's just because all Hartman did was to use some clean-up acid jobs to establish

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communication with reservoirs so he could test each of these intervals adequately and determine what he had. I suspect it's because there's damage that's resulted from either the infiltration of drilling fluid and/or cement or cement filtrate into the porosity, and that probably that has not been remedied by the clean-up acid jobs that he's used so far.

Q. Now, the letter that you wrote to Mr. Hartman, which I've forgotten now which exhibit it was, had to do with the necessity for 160-acre spacing. That letter is dated October the 15th, is that correct?

A. Oh, my letter, yes. Yeah. Correct.

Q. And you state for the record what your conclusion is and why you believe 160-acre proration is necessary for this well?

A. Well, experience in the area indicates that we would expect an effectively stimulated well to drain at least 160 acres, and I would not think that -- if this well will in fact drain 160 acres, I wouldn't think it would be in anybody's interest to drill another well on another 40-acre tract in there, and therefore develop, overdevelop reserves that may already be available from the existing wellbore.

Q. But you're speculating that stimulation will have that effect, right?

A. Well, certainly I can't, you know, I can't

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prove anything at the present time. There's no question about that. We don't have any well history. We have nothing but the initial deliverability tests and the pressures that were taken, so we don't have sufficient information to make an adequate projection. It would be -- it is based strictly upon the analogy with the surrounding experience at this time, correct.

Q. What do the field rules require for a standard proration unit for a gas well?

A. I'll have to find them, but as I recall, it's 160 acres.

MR. NUTTER: Well, the record will show that a standard unit in this pool is 640, but there's very few standards.

A. Okay, yeah, that's right. There are many, many on 80's, I believe.

Q. Are you aware of any wells on 40's?

A. Not right off because I haven't -- I haven't looked at any portion of the pool except this in a degree of complexity that I have this area.

Q. You're aware that some of the acreage within this proration unit has already been drained or is being drained, apparently, from the Yates, is that correct?

A. Well, there must be some form of discontinuity when Texaco has an oil well offsetting a gas well that's

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not giving up any fluid. I don't know what the nature of it is, whether it's a fluid discontinuity or a reservoir discontinuity, but there's bound to be some reason that Hartman hasn't been able to get any oil at all out of his well and yet Texaco is producing oil, and I can't tell you what that is. I would have to guess, based upon the performance of most of the wells in the area, that there's a very strong either bottom or edgewater drive that's affecting all the wells in this area, and that therefore, rather than the gas zone, assuming there is vertical communication, which I'm not prepared to swear that there is, because I don't have any way of proving it to you, but if you did have vertical communication, you would expect that with depletion the gas cap would expand downward into the oil zone rather than having wells that were originally gas producers begin to produce oil.

If, on the other hand, the primary reservoir depletion mechanism is bottom water, edgewater drive, it would be expected that you would have gas wells that would turn to oil, since the influx of water would be reducing the reservoir size from the edges and from below and would be moving the oil into what was at one time reservoir occupied by gas.

Q What you're saying is that there is a potential for reclassification of all these wells, either

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from oil to gas or gas to oil, as the time goes --

A. More than likely the experience has been that the classification change will be from gas to oil.

Q. Uh-huh, but you would concede that there is a potential for it to be --

A. There is a possibility of anything happening with the definition we have. That's correct.

Q. Well, that being the case, what do you anticipate would be the handling of the two Texaco wells that are currently classified as oil wells if your application is approved, what do you expect would be the result if these two wells had to be reclassified as gas wells?

A. Then I think the case would have to be re-opened and it would have to be adjusted according to what the quities are at that time.

Q. What do you expect would be the handling of the two oil wells at the current time? Would you expect they'd be permitted to continue to produce from the Yates?

A. I would assume so.

Q. Okay, I have no further questions.

RECROSS EXAMINATION

BY MR. NUTTER:

Q. Mr. Aycock, I've having a hard time following just where this well is perforated and what has

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been perforated and what has been squeezed. Looking at your Exhibit Nine, the log on there, and also this Exhibit Number Twelve, now apparently originally there were some perforations from 3296 to 3781.

A. Yes, sir, Mr. Nutter, excuse me, I didn't have one to look at while you were asking.

Q. Now, from 3296 to 3781, according to this notation opposite the words DST record.

A. Yes, sir.

Q. And that's where they swabbed the sulfur water. From 3592 to 3641. Now that wasn't a continuous set of perforations all the way down.

A. No, sir, just --

Q. That just means selected perforations.

A. Yes, sir, in the intervals that are indicated on here.

Q. Uh-huh.

A. That's just the top and bottom of the entire gross interval that was perforated selectively, that's correct.

Q. And then the ones from 3592 to 3641 were squeezed.

A. Yes, sir, they were.

Q. Is that the group of perforations --

A. Yes, sir.

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Q -- that has arrows through them there?

A. Yes, sir, those are four perforations that were squeezed with 150 sacks.

Q And then up at the top we say we've got perforations from 3296 to 3781, so we still have this upper group of perforations.

A Yes sir, those are in the Yates.

Q Those are in the Yates, and then down below the ones that were squeezed we've got three sets of perforations.

A Correct.

Q And these are in the Seven Rivers.

A Yes, sir, and one of them is below the top of the -- actually below the top of the Queen marker, as you'll notice.

Q Right, then that lowermost group of perforations is in the -- in the Upper Queen there.

A Yes, sir.

Q Now, if we got to the other wells on this 160-acre tract, I believe two of them are on Exhibit Nine and one of them is on Exhibit -- the other cross section, Exhibit Eight.

Now, on Exhibit Nine Texaco Rector No. 1, that's the oil well that's been abandoned that's on the same 40-acre tract as the subject well, is that correct?

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A Yes, sir.

Q So it's been plugged and abandoned. Apparently there were some drill stem tests in this interval but was it ever perforated and produced from this same producing interval that we're talking about?

A The indication that I have, it was produced from this open hole at the bottom of the interval here at 3902 to 3944, and was never -- was never perforated behind casing up in these upper intervals in which Hartman is completed in his Rector No. 1.

Q Okay. Then the No. 3, which is to the left of it on Exhibit Nine, is the well that's in the northwest quarter of the southeast quarter of Section 30, and is it a producing well or is it the well that's been abandoned?

A No, I believe that one's -- let me find my tabulation here just a second.

Q That's the one that has a bridge plug in it, I think.

A I believe it's still producing, but let me find my histories that I have here and I'll tell you.

Yes, sir, it's still producing. It was the one that was originally in the Eumont, classified in the Eumont Gas Field, and was reclassified to a Eumont oil well on the 28th of April, 1977.

Q Is that when it was plugged back and a

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bridge plug was set in it?

A. Yes, sir, on April the 28th, in '77 they squeezed off the interval from 3500 to 3700 with 100 sacks and you'll notice those are indicated to be squeezed, I think, on the -- on what you have here, and then it was perforated at 3272 to 3412, and that will be up in what we're calling the Yates interval, with 16 shots. It was acidized with 2500 gallons and recompleted as a Eumont oil well.

Q. So that's in the Yates, isn't it?

A. Yes, sir.

Q. And then the No. 4 Well is on Exhibit Number Eight, and apparently everything has been squeezed in it, although it formerly produced from the Seven Rivers; never did produce from the Yates.

A. Yes, sir.

Q. And the No. 2 Well is producing from the Yates and also has a set of lower perforations down here in the Seven Rivers, although the middle perforations have been squeezed, is that correct?

A. Yes, sir.

Q. Now which of the four Texaco wells is currently producing and what is it classified as?

A. Okay. The --

Q. The No. 1 is P&A'd.

A. Right.

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The No. 2 is producing from the Yates at the present time.

The No. 3 --

Q. And is it classified as an oil well?

A. Yes, sir.

The No. 3 is classified as an oil well.

The No. 4 is the one that we're indicating on the cross section here to be plugged and abandoned.

And the No. 5 is in Section 31. It's not in Section 30. It's in the section to the south, and it's producing oil from the -- from the Lower Seven Rivers.

Q. So in effect, on this 160 acres, you have three producing wells. You've got the Hartman's Rector No. 1 and the two Texaco wells, the No. 2 and No. 3.

A. Yes, sir.

Q. Now, Hartman's well makes 71 Mcf, I believe one of the exhibits shows here.

A. Yes, sir.

Q. And you're proposing a 160-acre compulsory pooling order to create a 160-acre unit. Have you made any study of what average allowables have been for the Eumont Gas Pool in the last year or two?

A. No, sir, I have not.

Q. But I think in response to a question perhaps by Mr. Bateman, you said that a 71 Mcf well --

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A. Right, if it will not do any better than this, there's adequate acreage assigned to it to produce that.

Q. And then there's a potential that Hartman may go in and stimulate the well or frac it.

A. Well, he intends to do that. I think the question is not if but when.

Q. I see. Now you also mentioned that there would be a tendency, more of a tendency for wells in this area to go from gas to oil than to go from oil to gas, although changes do occur in both directions occasionally.

A. Right.

Q. Now, if he stimulates this well and makes it more productive of gas and also adds more acreage to it to give it a bigger allowable, that's going to result in the production of more gas, is it not?

A. Correct, yes, sir.

Q. Which would enhance the possibility of the well going from gas to oil.

A. Yes, sir.

Q. And if that should occur, wouldn't there be a migration perhaps helped by the declining -- by the shrinking gas cap --

A. Yes, sir.

Q. As well as the encroachment of water from

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the bottom and from the edge --

A. If that occurs ---

Q. -- for that well to move up that structure?

A. Yes, I would agree.

Q. And if that occurs, you've got a well moving into formerly dry sands.

A. Correct.

Q. With the corresponding loss of that oil that would remain in the sands as residual saturation.

A. Yes, sir.

Q. So the whole proposition looks like it might be in the direction of causing waste.

A. Well, I would have to respectfully disagree in that connection, because the pressure data to me indicates that we have communication in those that have been classified as Eumont gas over -- over very large areas, and I think if -- I think two things will happen. I can't explain to you why he's not getting oil out of the Yates portion of what he's completed. I have no explanation for that. I do not know why, but I know that the data he showed me was -- is completely definitive at this stage, and it shows no gradients indicative of oil or water, no nothing but just a gas gradient, and no swab tests that indicate any oil production.

Q. Uh-huh.

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A. But I would have to adjudge at this stage that the data indicates that he -- there is some reason that he is not producing oil.

Q. No oil saturation in the --

A. No oil saturation but as close as the other wells are, it is hard for me to conceive that with the degree of pressure communication that the zone has indicated for those completed as gas wells, that he should not be in pressure communication and should not be seeing, even these preliminary tests, some kind of oil production if it were -- if there were oil anywhere within a reasonable distance from him. And for that reason I have to guess that perhaps he's isolated by some unknown geologic or fluid discontinuity from the other wells, is the reason he's not seeing any.

Q. But you are asking for this land to be pooled to form 160-acre unit, and there are two producing wells that are producing from the same interval that this well is producing from.

A. Yes, sir.

Q. And you would have simultaneous dedication. Two of those wells are classified as oil and you've got a gas well.

A. Yes, sir. Part of it would be in the Eumont Oil and part of it would be in the Eumont Gas.

Well, all of it would be in the Eumont Gas

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and part of it would be in the Eumont Oil as well.

Q. Now, I think you mentioned that $2500 a month while drilling and $250 a month while producing would be sufficient for combined fixed rates for overhead, and you also mentioned that you figured that this was a maximum risk proposition. What about well costs?

A. Well, these are in line with Hartman's experience all throughout the Jalmat-Eumont area.

Q. Did you give us any actual well costs on this?

A. Yes, sir, the letter that's included in the list of correspondence contains an AFE that reflects actual costs.

Q. Those were after the well was drilled?

A. Yes, sir.

Q. $259,100.

A. Yes, sir. Now, it does not, as yet, you'll notice the note down here, the rod pump equipment and the separation facilities have not -- to be installed. That part of it is an estimate. As I understand, they are not on the well. The rest of it is actual cost.

Q. I see.

MR. NUTTER: Are there any other questions of the witness? He may be excused.

Do you have anything further, Mr. Carr?

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MR. CARR: Mr. Examiner, I would offer Hartman Exhibit Number Twelve into evidence.

MR. NUTTER: Hartman Exhibit Twelve will be admitted in evidence.

Does anyone have anything further they wish to offer in Case Number 6701?

MR. BATEMAN: Yes, Mr. Examiner, I have one brief witness.

MR. NUTTER: Oh, yes.

PAUL H. DAVIS

being called as a witness and having been duly sworn upon his oath, testified as follows, to-wit:

DIRECT EXAMINATION

BY MR. BATEMAN:

Q Will state your name and present employment?

A. All right.

Q For the record, please?

A. All right. My name is Paul H. Davis. I work for Texaco, Incorporated, as Division Proration Engineer.

Q In your employment are you familiar with the application and the wells in question?

A. Yes, sir, I am.

Q Have you previously testified before the

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Commission and had your professional and educational background made a matter of record?

A. Yes, I have.

MR. BATEMAN: I offer Mr. Davis as an expert witness.

MR. NUTTER: Mr. Davis is qualified.

Q. (Mr. Bateman continuing.) Mr. Davis, would you refer first of all to what is marked as Exhibits One, Two, and Three, and while there has been some testimony already as to the history of the three wells within the proposed proration unit, would you elaborate briefly on them?

A. Yes, Exhibits One, Two, and Three are copies of the logs of the Texaco J. K. Rector No. 3, Texaco J. K. Rector No. 2, and of the Hartman Rector No. 1.

I'd like to just talk generally about the completion procedure on the two Texaco wells. Each of these wells was completed in the mid-thirties. They were completed from an open hole section in the base of the Queen formation.

These wells were recompleted in 1940, in the late 1940's in the Seven Rivers formation, at which time the Queen section was squeezed.

They remained Seven Rivers producers until in the 1970's when both were recompleted and plugged back

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in the Yates formation, and that's their present completion status.

The log intervals show the present perforation intervals in the Yates, and that's all that is productive at this time.

The Exhibit Number Three is the log of the Hartman No. 1 Rector, and it can be compared with the logs of the two Texaco wells to show that the Hartman well is completed in the Yates formation, the correlative interval.

I believe that's all I have to say about those three exhibits.

Q. All right, sir, were you involved in the negotiations relating to the farmout of this acreage?

A. Yes, sir, I was.

Q. And was any assumption made regarding the rules involving the simultaneous dedication of the same geologic zones?

A. Yes. We had several discussions on it and there's correspondence in the file to indicate that we assumed that we could not simultaneously dedicate acreage to the same oil and gas wells that were completed in the same geological interval.

Q. Was that communicated to Mr. Corrigan?

A. Yes, sir, it was.

Q. All right. Now, would you proceed then

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with Exhibit Number Four and review the production history of these two Texaco wells?

A. Exhibit Number Four is a production history for the years 1978 and '79 by month for each of Texaco's wells that are presently completed in the Eumont Field. The production shows that the oil, the gas production, the GOR, for each of the three wells. It's worthwhile to note that the GOR for the Well No. 2 are in the 40 to 45,000 GOR range and it wouldn't take a great deal of changing oil production to increase that to the statutory limit for gas wells of 100,000 to 1.

I might mention something that was discussed in earlier testimony, the No. 1 was abandoned on October 6th, 1947, but it was productive from all three intervals.

The No. 4 was abandoned in March 21st, 196., and it produced from the Queen and from the Seven Rivers but not from the Yates.

Well No. 5 shows no production during the last half of 1978 or for 1979 because of an unsuccessful workover to perforate the Lower Seven Rivers formation in June of 1978. The production test after that workover was 252 barrels of water and no oil.

Q. Based on your experience, is there a potential, in your opinion, that these wells could be re-

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classified as gas wells in the future?

A. Yes, sir, I think it's possible that the GOR could increase with very little decrease in fluid production to exceed a GOR of 100,000.

Q. Have you made a study of allowables in offsetting wells in this area?

A. Yes. We made a study of allowables versus production for early 1978.

Q. When did you make that study, if you recall?

A. It was made in, I think in September of 1978, and at that time we found that the -- we looked at the four north offset wells, and at that time the best producing rate was from the Continental No. 1 Lockhart, and we compared the allowable for the first half of 1978, which we would consider representative of year-round production, and it shows that the allowable was under produced by some 24 percent for that six month period.

Q. What size of proration unit would be required to produce that well? At that rate?

A. Well, that -- I'm talking about in that that that would be a 40-acre allowable rate; would have been under produced by some 24 percent.

Q. I see. Have you made a study since 1978? A similar study?

A. We have looked at the allowables for Sep-

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tember and October of this year and it shows that the rate would be assigned to a 40-acre proration unit of 230 Mcf a day.

Q. So with a 40-acre proration unit on the well in question the current allowable would be 230 Mcf per day, is that correct?

A. Yes, sir, based on the last two months.

Q. Now, what, in your opinion would be the anticipated result of the granting of this application with respect to the interest of Texaco in its offsetting wells?

A. Well, several things could happen. If the present assumption of simultaneous dedication is correct, then it could require Texaco to shut-in the two wells that we have out there because we wouldn't have any acreage to dedicate to those wells.

Also, if it should require that we shut-in, if these wells were reclassified to over 100,000-to-1 GOR, even if the assumption that we made was incorrect, in either case, we feel like it would force us into -- either into an uneconomical well or into a well that would never pay out because of the penalty clause, and therefore Texaco would not receive any benefit from a joint interest well.

Q. Were Exhibits One through Four prepared by you or under your direction?

A. Yes, sir, they were.

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Q. Do you have anything further to add?

A. No, sir, not at this time.

MR. BATEMAN: No further direct.

MR. NUTTER: Are there any questions of the witness?

MR. CARR: I have a few.

MR. NUTTER: Mr. Carr.

CROSS EXAMINATION

BY MR. CARR:

Q. I believe you stated that you participated in the negotiations at the time the acreage was originally farmed out to Mr. Corrigan, is that correct?

A. Yes, sir, insofar as the proration data that went into it.

Q. And you stated, I believe, that you assumed that the acreage could not be simultaneously dedicated at that time.

A. Yes, sir.

Q. Now was that a basis of your agreement or was that just your understanding of the rules of this Commission as they applied to that acreage?

A. Well, we had asked an opinion from the Commission at that time, and it was an opinion that we had gotten from them, and we did pass that on to Corrigan.

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Q. Did you participate in any of the negotiations at the time the subsequent assignment to Mr. Hartman was negotiated?

A. To some degree, yes.

Q. And you are aware that that specifically provided that if a 160 -- if gas was encountered, a 160-acre unit would be required and that pooling was anticipated?

A. Well, I think that was some of the language that was in that letter. I'd like to point out on that, that because of part in those negotiations, that the intent there was really to put the parties on notice that they couldn't -- they wouldn't have the other 80 acres of Texaco's to contribute to the 160-acres for a gas proration unit, and --

Q. Is that what this agreement says?

A. That was the intent of it, and I think it could be read either way.

But that was the intent of the parties involved at that time.

Q. Would you read paragraph nine, please, in this agreement?

A. Yes. It says, "It is understood the governmental proration units for gas production are anticipated to be 160 acres and Corrigan will only earn 80 acres for a successful gas producer. In the event of such 160-acre governmental proration unit for gas production, pooling is

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anticipated."

Q. And you believe that simply says that Texaco doesn't have any acreage available there.

A. Well, I think that's one interpretation that could be applied to it, yes, sir.

Q. You stated that there were certain letters that establish that you were anticipating development of this on 40-acre tracts. Do you have any of those letters with you?

A. Yes, sir.

Q. I'd like to see them.

A. The first letter I'd like to introduce is a letter dated July 7th to Mr. Gallini, who I think is acting as an attorney for Mr. Corrigan, and it's a letter from Texaco to him.

Paragraph two says, "Our review of the New Mexico Oil Conservation Commission's proration schedule for the Eumont Gas Pool indicates that the nominal spacing for this pool is 640 acres. There are wells, however, which have as little as 40 acres attributed. We can find no instance in the proration schedule where a well is restricted in its allowable because of acreage. Your statement that this same acreage can be dedicated to both the Eumont Oil Pool and the Eumont Gas Pool with the restriction that the same geological zone cannot be dedicated to both pools is

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correct. The sole criteria for placing a well in the Eumont Oil Pool or the Eumont Gas Pool is the gas/oil ratio. As Texaco's wells are producing at less than the maximum GOR for the oil pool, they are therefore placed in the oil pool for proration purposes.

We wish to point out that the same geological interval is open in both of Texaco's wells in the southeast quarter of Section 30 as in the offset wells which you allege are draining this lease."

MR. NUTTER: Mr. Davis, this is from D. T. McCreary, Division Manager for whom, Texaco?

A Yes, sir.

MR. NUTTER: And is he in Midland?

A Yes, sir, he is.

Q And then I believe it is -- the letter does state that the sole criteria for placing a well in the oil -- in an oil pool or a gas pool is the gas/oil ratio, is that correct?

A Yes, sir, that's right.

Q Do you see anything in this letter which says that there is any prohibition against -- against simultaneously dedicating the acreage to a gas well and an oil well as determined by their gas/oil ratios?

A Yes, sir, the statement just prior to it which states, "Your statement that this acreage can be dedi-

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cated to both the Eumont Oil Pool and the Eumont Gas Pool with the restriction that the same geological zone cannot be dedicated to both pools is correct."

Q. My question is, is there anything -- you are relying on your interpretation of the Commission's rules, is that correct, not the rules as interpreted by the Oil Conservation Division?

A. We had this rule from the District Director in Hobbs at the time.

Q. Do you have anything to substantiate that?

A. No, sir, it was just a verbal conversation.

Q. Let me ask you a question. What do you believe the reservoir drive mechanism is in the Eumont in this area? Is it gas or is it water?

A. From the information that I've looked at, I'd say it was gas expansion drive.

Q. You do not believe that you've got a water drive in this -- in this pool?

A. I have no -- I've seen no indication of it in the data.

Q. Now, when we talk about your -- when we talk about your Rector 2-T Well for a time, this well was previously classified from gas to oil, is that correct?

A. Yes, sir.

Q. Is this what you normally anticipate when

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you have a gas drive reservoir?

A. Well, in this particular instance we were going from the Seven Rivers formation to the Yates formation at the time we reclassified that well from gas to oil. It was a change in reservoir.

Q. Well, then let's take a look at your Rector 3-J. I believe in May of '77 you squeezed off perforations and installed pumping equipment. Why would you install pumping equipment?

A. Well, there again, that well had been a completion in the Seven Rivers formation. It was gas.

Q. Uh-huh.

A. The well was recompleted in the Yates. That workover was completed on April the 27th, 1977, and it potentialed for 2 oil and 2 load water, and had a GOR of 2480.

Q. And why did you install pumping equipment on the well at that time? Was it to remove water?

A. I would think it would be to remove oil, since the potential was 2 oil and 2 load water. There wasn't any indication of formation water at that time.

Q. So it is your opinion, then, that you've got a gas drive reservoir here, not a water drive?

A. Yes, sir.

Q. Have there been any trends which would

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indicate to you that you are going to be having to reclassify this from an oil well to a gas well?

A. No, sir, other than the current high GOR of the Well No. 2.

Q. There is no trend developed?

A. No, sir.

Q. Okay.

MR. CARR: I have nothing further.

MR. NUTTER: Are there any further questions of Mr. Davis? He may be excused.

Do you have anything further, Mr. Bateman?

MR. BATEMAN: Just a brief statement, Mr. Examiner.

I believe that there has been no demonstration of necessity for a proration unit larger than 40 acres. I know that there's speculation that the well might produce better than 71 Mcf per day, but we've also indicated that 230 Mcf per day would be permitted at the current allowables for a 40-acre spacing, so that would be a considerable increase in production.

I think it's also been amply demonstrated that 160-acre proration unit would adversely affect the future production of the two Texaco wells. It would adversely affect them in more than one way, obviously, either through additional production, gas production, as we pointed out, or

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from a reclassification of the wells from oil to gas.

So for those reasons I would respectfully submit that the application be denied.

MR. NUTTER: Mr. Carr?

MR. CARR: Mr. Nutter, what we have here is a situation where Mr. Hartman received a farmout and he drilled the well which was anticipated to be an oil well; it turned out to be a gas well.

Under the assignment to Mr. Hartman, Texaco clearly stated that if a gas well was encountered, 160-acre unit would be anticipated, as well as pooling.

We have a well that at the present time has not been fractured. When it is fractured, based on the experience of offsetting property, we believe we will have a gas well which will produce substantially more than the present 71 Mcf.

And we have a well, we have a gas well, and we are now attempting to put together a proration unit that once the well is fractured will be large enough to enable it to produce the gas which we anticipate will be forthcoming.

Texaco has appeared here in opposition to the case. They have alleged that perhaps wells completed in the same interval will be classified from oil to gas, but the fact of the matter is, at present they've previously been classified from gas to oil and there is nothing and no trend

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which could indicate that reclassification back to gas wells is ever -- there's anything to support the position that that's a likely prospect.

We submit that under the pooling statute we have a well, we drilled it, and we are now entitled to a standard gas proration unit, since what we have is a gas well.

MR. NUTTER: Thank you, Mr. Carr. Does anyone else have anything to offer in Case Number 6701?

We'll take the case under advisement.

(Hearing concluded.)

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REPORTER'S CERTIFICATE

I, SALLY W. BOYD, a Court Reporter, DO HEREBY CERTIFY that the foregoing and attached Transcript of the Hearing before the Oil Conservation Division was reported by me; that said transcript is a full, true, and correct record of the hearing, prepared by me to the best of my ability, from my notes taken at the time of the hearing.

Sally W. Boyd, C.S.R.

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 6201 heard by me on 10/17 19 79.

, Examiner
Oil Conservation Division

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STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
State Lsnd Office Building
Santa Fe, New Mexico
I7 October I979

EXAMINER HEARING

IN THE MATTER OF:

Application of Doyle Hartman for compulsory pooling, non-standard gas proration unit, unorthodox well location, and approval of infill drilling, Lea County, New Mexico.

CASE 670I

BEFORE: Daniel S. Nutter

TRANSCRIPT OF HEARING

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MR. NUTTER: The hearing will come to order, please.

We'll call now Case Number 6701.

MR. PADILLA: Application of Doyle Hartman for compulsory pooling, non-standard gas proration unit, unorthodox well location, and approval of infill drilling, Lea County, New Mexico.

MR. CARR: May it please the Examiner, I'm William F. Carr, Campbell and Black, P. A., Santa Fe, appearing on behalf of the applicant, and I have one witness, which will be the same witness we called in the previous case, and --

MR. NUTTER: Mr. Aycock is still under oath.

MR. CARR: And are his qualifications still acceptable?

MR. NUTTER: Yes.

MR. BATEMAN: Mr. Examiner, I'm Ken Bateman of White, Koch, Kelly and McCarthy, appearing on behalf of Texaco, and I have one witness who has not been sworn.

MR. NUTTER: Would your new witness please stand and be sworn.

(Witness sworn.)

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WILLIAM P. AYCOCK

being called as a witness and having been duly sworn upon his oath, testified as follows, to-wit:

DIRECT EXAMINATION

BY MR. CARR:

Q. Would you please state your name and place of residence, please?

A. William P. Aycock, Midland, Texas.

Q. Mr. Aycock, by whom are you employed and in what capacity?

A. By Doyle Hartman as a consultant.

Q. Are you familiar with the application in Case 6701?

A. Yes, sir, I am.

Q. Will you briefly state what Mr. Hartman is seeking with this application?

A. Mr. Hartman is seeking -- has applied for compulsory pooling, a non-standard gas proration unit, unorthodox well location, and approval of infill drilling, in the Eumont-Yates-Seven Rivers-Queen formation underlying the southeast quarter of Section 30, Township 21 South, Range 36 East, in Lea County, to be dedicated to his J. K. Rector Well No. 1 at an unorthodox location 2310 feet from the

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south line and 330 feet from the east line of Section 30.

He's also requesting cost of drilling and completing the well and the allocation of the cost as well as actual operating charges and charges for supervision and the designation of applicant as operator for the well and a charge for risk involved in drilling said well.

He also requests a waiver of existing well spacing requirements and a finding that the drilling of the well is necessary to effectively drain that portion of the existing proration unit which cannot be so drained by the existing well.

Q. Will you please refer to what has been marked for identification as Exhibit Number One and explain to the Examiner what it is and what it shows?

A. Exhibit Number One is the well ownership, the well ownership plat of the immediate area of the Eumont Pool, which shows the Hartman Rector No. 1 and the remaining wells that are of interest in this application and their status as producers in the Eumont Pool. You might notice, Mr. Examiner, that on the south half of Section 31 and 36 down here, we're getting into the Jalmat area and these wells are so designated as being in the Jalmat Field rather than the Eumont.

Q. Will you now refer to what has been marked for identification as Exhibit Number Two and review this for

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Mr. Nutter?

A. Exhibit Number Two is a structure map on the top of the CUQ marker in the immediate vicinity of the Rector Well and I think it's important to notice that there is an indicated apparent geologic anomaly that encompasses virtually the entire southeast quarter of Section 30 that is the subject of this application.

Q. Now I would direct your attention to Exhibit Number Three and request that you review this for the Examiner.

A. Exhibit Number Three is the summary of correspondence that is pertinent to the application. It encompasses all of the correspondence that is of consequential interest here, I believe. In particular, on page four of the June 25th, 1979 letter from Texaco to Mr. Corrigan, who was the farmee in this case, under number nine it's stated, "It is understood that governmental proration units for gas production are anticipated to be 160 acres and Corrigan will only earn 80 acres for a successful gas producer. In the event of such 160-acre governmental proration units for gas production, pooling is anticipated."

Q. And that is signed by a representative of Texaco, is --

A. Yes, sir, that is.

Q. -- that correct? Will you now refer to

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what has been marked for identification as Exhibit Number Four and review that for the Examiner?

A. Exhibit Number Four is a well history of the Hartman J. K. Rector No. 1 that reviews the entire procedure that we used to isolate the water producing section and squeeze it off and determine that the entire productive section of the Eumont Pool was gas productive but was not productive of water, and it has not been squeezed off at this time.

Q. Now I'd refer you to Exhibit Number Five.

A. Exhibit Number Five is the -- several well forms that show the status of the wells on this quarter section, and I believe they can be followed through to show that there is at the present time no gas well located on that quarter section.

Q. All right, will you now refer to what has been marked for identification as Exhibit Number Six?

A. Exhibit Number Six is the letter addressed from me to Mr. Hartman that sets out the charge that he gave me involved in the technical study that was done in preparation for this hearing. These included to determine whether or not the Rector Well could reasonably be expected to drain the anticipated 160-acre proration unit, to provide the basis for an infill findings application under the Natural Gas Policy Act, since he now knows that he has a gas well rather

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than an oil well that he originally anticipated he would get when the well was drilled, and to determine whether or not waste would be prevented and correlative rights protected by the assignment of the requested 160-acre proration unit to the J. K. Rector No. 1.

This, the letter goes into a substantial amount of detail with which I won't trouble the Examiner unless he wishes to delve into any of it, and the backup is once again included on the summary of individual well information.

Q. And that's marked Exhibit Number Seven.

A. Correct. And it's a separate exhibit in any case, because the size was not handy to make a part of the letter. It includes ten wells, including the Hartman Rector No. 1 for which the pertinent technical data are tabulated and compared.

Q. I'd like to direct your attention to what has been marked Exhibit Number Eight, which is the A-A' cross section, and ask that you review this for Mr. Nutter.

A. A-A' is a north-south cross section that shows most of the wells in the vicinity of the subject well, including the markers where they have been completed, when they were completed, and the various pertinent details.

Q. Will you now refer to Exhibit Number Nine and review that for Mr. Nutter?

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A. Exhibit Number Nine is an east-west cross section that does include the subject well. The previous one did not include it, but this one does include it. And once again it shows the intervals in which the wells have been completed, when they were completed, and to what pool they were assigned at the time of each completion attempt.

Q. And Exhibit Number Ten consists of a plat and certain graphs. Would you review these for the Examiner?

A. Exhibit Number Ten is a plat that indicates the key wells for which production and pressure histories are included as a part of this application. They are basically all of those wells that are in the immediate vicinity that are in the Eumont Gas Pool.

There are pressure curves as well as rate-time gas curves for all of these wells.

Q. Mr. Aycock, will you now identify what has been marked as Exhibit Number Eleven?

A. Exhibit Number Eleven is a model form operating agreement under which Mr. Hartman would propose to operate the well if the Commission sees fit to grant his application for force pooling.

Q. Mr. Aycock, in your opinion is the proposed well necessary to effectively and efficiently drain the proposed proration unit?

A. Yes, sir. This, at least this well is

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necessary and it's possible that -- that there might require more drilling than even this well, because the pressures are -- for this old field, in most the observed -- the latest observed pressures are rather high. They're still in the range of, oh, 300 pounds, more or less, up to 400 pounds, and I consider this high pressure for this field at this advanced state. There has been -- Hartman has experienced a severe problem in attempting to complete his well with water production, and I would anticipate that most of the other wells that have been prematurely abandoned were experiencing water production problems, so it's possible that more drilling than this might ultimately be necessary to adequately drain the entire unit, depending upon what the experience is with the existing well and what happens subsequently in the area.

Q. And would you state again why the well is at an unorthodox location?

A. Well, it was originally drilled to be an oil well and was thought -- Hartman thought and we believe that Texaco thought, both thought, that it would be an oil well and that he would drill that one and then have the option to drill another one at a diagonal 40 acres away. He did of testing all the individual porosity zones and measuring individual pressures, he determined that there was no oil production; that the only fluid production that he experienced was in the middle interval that's shown on the -- on cross

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section B-B', which was later squeezed off because it was impossible to keep gas production going with the amount of water that was produced from that one interval.

Q. Are there other unorthodox well locations in the area?

A. Yes, sir, there are.

Q. Mr. Aycock, what percentage of the working interest ownership does Mr. Hartman represent?

A. 50 percent.

Q. 50 percent?

A. Yes, sir.

Q. And who owns the remaining acreage?

A. Texaco, I believe.

Q. Are there other Eumont gas wells on this acreage?

A. Not at the present time, no, sir.

Q. Has --

A. There have been in the past but there are not at present.

Q. Have you submitted an AFE to Texaco?

A. Yes, sir, I believe that there's an AFE contained in the exhibit that has the correspondence. The AFE is attached to the September 25th, 1979 letter to Texaco, addressed to Mr. E. H. Watkins from P. Edward Corrigan, who is the original farmee on this property.

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Q. Now, does this AFE reflect the cost of drilling and completing the well?

A. Yes, sir, it does.

Q. Are these costs in line with the costs of drilling and completing similar wells in this area?

A. Yes, sir, they're in line with Mr. Hartman's other experience in this area.

Q. Have you made calculations as to the risk that is being assumed in the drilling of this well and completing of this well?

A. Based on the fact that the water production was experienced, was squeezed off and required a drill-out job, the well has not been adequately stimulated, and to adequately stimulate the well and find out what its deliverability will be, you will then run an additional risk, mechanical risk, so I would call it an above average risk for the tight formation and the depth at which we're working.

Q. Do you have a recommendation to make to the Examiner as to the risk factor to be assessed?

A. Yes, I think the risk factor should be the maximum that's allowed.

Q. Do you have a recommendation to make to the Examiner for overhead and administration costs for drilling and producing the well?

A. Yes, sir. They're contained in the oper-

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ating agreement that was our last exhibit, and I'll find them for you. They're on page three of the -- I believe it's exhibit C but let me be certain -- yes, page three of exhibit C. Overhead, the drilling well rate $2500 per month; the producing well rate, $250 per month.

Q. Are these recommendations in line with what is being charged by other operators in the area?

A. Yes, sir, they are in my experience.

Q. And is Mr. Hartman requesting to be designated operator of this well?

A. Yes, sir, he is so requesting.

Q. In your opinion will granting this application be in the interest of conservation, the prevention of waste, and the protection of correlative rights?

A. Yes, sir, I believe it will.

Q. If you're unable to get an order pooling this acreage, what effect is this going to have on Mr. Hartman's operations?

A. Well, he'll have to drill another 40-acre gas location to -- to protect the option agreement that he has with Texaco.

Q. Mr. Aycock, were Exhibits One through Eleven either prepared by you or have you reviewed them and can testify as to their accuracy?

A. Yes, sir.

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MR. CARR: At this time, Mr. Examiner, we would offer into evidence Applicant's Exhibits One through Eleven.

MR. NUTTER: Applicant's Exhibits One through Eleven will be admitted in evidence.

MR. CARR: And I have nothing further on direct.

CROSS EXAMINATION

BY MR. NUTTER:

Q. Mr. Aycock, just one question before I presume Mr. Bateman has some questions.

But one question, who is Corrigan?

A. Edward Corrigan is the man to whom Texaco originally farmed out the acreage and who later assigned it to Mr. Hartman, and Texaco approved of the assignment.

Q. Well, who drilled the well?

A. Hartman drilled it and there's a letter in here, Mr. Nutter, in which he tells Texaco that his normal procedure is to -- on this type of thing, is to take in a partner who has the capability of operating --

Q. Corrigan does this?

A. Yes, sir, and Texaco was aware of these facts and I presume approved of it, because they had to approve the assignment from -- they assigned to Corrigan and

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then had to approve the assignment of the rights then to Doyle Hartman.

Q. Do you know when Corrigan assigned it to Hartman?

A. Yes, sir, I think we can find that. It's executed the 25th day of September, 1979, effective as of June 26th, 1979. And it is number seven in the summary of correspondence list that's included, Mr. Nutter.

Q. Okay. And then your last attachment to this exhibit shows that the well was spudded September the 4th of '79, so this was after the effective date of the assignment --

A. Yes, sir.

Q. Although before the actual assignment was made.

A. Yes, sir.

Q. The well was completed 10-4-79, which was after the date of the execution of the agreement.

A. Yes, sir.

MR. NUTTER: Are there any questions of this witness?

MR. BATEMAN: Yes, Mr. Examiner.

CROSS EXAMINATION

BY MR. BATEMAN:

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Q. Mr. Aycock, I'd like for you to identify for the record where the productive intervals are in the well that's the subject of the --

A. Can we refer to my cross section B-B', which I don't remember the exhibit number.

MR. NUTTER: That's Exhibit Nine.

A. And you'll notice the perforations at 3296 to 3781, swabbed sulfur water, and then we perforated 3309 to 3784, and perforations at 3592 to 3641 were -- were squeezed. I think I may have another, a larger picture of that. It might help. If we want to introduce this, I believe that would be on a larger scale, would make it more apparent what we're talking about, perhaps.

MR. CARR: With your permission, Mr. Examiner, we will mark this as Hartman's Exhibit Number Twelve.

Q. (Mr. Bateman continuing.) All right, sir, could you tell me specifically where the gas production is coming from in the --

A. Each of the other sets of perforations that are open were individually tested and had individual pressures measured. Water production was neither observed nor were there any gradients indicative of the presence of water in the pressure measurements.

Q. Well, is there gas production from the

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Yates?

A. Yes, sir, there's gas production -- there is gas production from the Upper and Lower, which is in the Yates.

Q. All right. Now, you're aware that Texaco has wells in offsetting acreage.

A. Yes, sir.

Q. Which is referred to in your first exhibit. Would you identify those wells as you've marked them on here?

A. Well, you have the Rector No. 3, which immediately offsets -- well, not immediately offsets, but is in the northwest quarter of the southwest quarter of 30. You have the No. 1, which has been plugged and abandoned but is in the -- is the nearest well to the Hartman location, which is in the northeast quarter of the southeast quarter. You have the Rector No. 2, which is in the southeast quarter of the southeast quarter, and the Rector No. 4, which is in the southwest quarter of the southeast quarter.

Q. Which of these wells is currently productive? According to your records?

A. Okay, just a minute.

Okay, the Rector No. 3, which is in the northwest quarter of the southeast quarter, according to my information was reclassified to a Eumont oil well on the 28th of April of 1977, and is still actively producing.

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Q. From what geologic zone? Does it indicate?

A. From all of the zones -- well, from the Yates, Seven Rivers interval, and there's a bridge plug set in the well above the Queen marker, so it's -- there's no production from the Queen, but it was -- well, no, I beg your pardon, it's from the Yates interval.

MR. NUTTER: Which one are you talking about now?

A. The No. 3 has been plugged off in the Seven Rivers. It's from the Yates interval. It is currently producing oil.

Q. Is it also producing casinghead gas? Does your record indicate?

A. Yes, uh-huh. I don't have the volumes but I know that it is.

Q. And what about the No. 2? That's in the southeast quarter.

A. Okay, it's producing from the Yates interval, a portion of the Eumont Consolidated Reservoir, and was reclassified as an oil well on March the 1st, 1972.

Q. Is it also producing casinghead gas from the Yates?

A. Yes.

Q. Both of these wells are within the 150-acre proration unit that you suggest, is that correct?

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A. That's correct.

Q. And all three wells, the well in question plus the two Texaco wells, are producing casinghead gas or gas from the Yates formation, is that correct?

A. No, I wouldn't agree that the Hartman well is producing casinghead gas since it produces no liquids.

Q. Well, not casinghead gas but it's producing gas.

A. It's producing gas but it's not producing casinghead gas.

Q. I understand, but from the Yates formation.

A. Yes.

Q. All right. Now, do you have information on what the productive capacity of the Rector No. 1 is, the Hartman well?

A. It's -- at the present time it's indicated initial deliverability of 71 Mcf per day; as I probably indicated, as I trust I indicated during my direct examination. I don't believe that's what the well will ultimately do because I don't believe it's been adequately stimulated at this time.

Q. Well, assuming just for the sake of argument that it's not improved, what size of a proration unit would you require to produce at that rate?

A. Well, a 40-acre proration unit would pro-

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bably be adequate if that's the best it can do.

Q. Have you estimated what would be the results of stimulation?

A. I don't -- I can't do that because I don't know. I don't have any information that allows me to determine which, if any, of the intervals that are currently open are damaged and to what degree they're damaged.

Without that information there's no way I could give you that -- that estimate.

Q. What sort of work do you anticipate will be done in the well?

A. I anticipate --

Q. If you testified to that I missed it, or something.

A. I anticipate that it will be hydraulic fractured with a very substantial size of treatment.

Q. And why will it be fractured and for what reason?

A. Because the pay quality that was determined from the logs and the amount of the pay does not appear to be commensurate with the ability that's been experienced.

Q. Do you think it's because of the -- it's a tight formation or --

A. I suspect that it's just because all Hartman did was to use some clean-up acid jobs to establish

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communication with reservoirs so he could test each of these intervals adequately and determine what he had. I suspect it's because there's damage that's resulted from either the infiltration of drilling fluid and/or cement or cement filtrate into the porosity, and that probably that has not been remedied by the clean-up acid jobs that he's used so far.

Q. Now, the letter that you wrote to Mr. Hartman, which I've forgotten now which exhibit it was, had to do with the necessity for 160-acre spacing. That letter is dated October the 15th, is that correct?

A. Oh, my letter, yes. Yeah. Correct.

Q. And you state for the record what your conclusion is and why you believe 160-acre proration is necessary for this well?

A. Well, experience in the area indicates that we would expect an effectively stimulated well to drain at least 160 acres, and I would not think that -- if this well will in fact drain 160 acres, I wouldn't think it would be in anybody's interest to drill another well on another 40-acre tract in there, and therefore develop, overdevelop reserves that may already be available from the existing wellbore.

Q. But you're speculating that stimulation will have that effect, right?

A. Well, certainly I can't, you know, I can't

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prove anything at the present time. There's no question about that. We don't have any well history. We have nothing but the initial deliverability tests and the pressures that were taken, so we don't have sufficient information to make an adequate projection. It would be -- it is based strictly upon the analogy with the surrounding experience at this time, correct.

Q. What do the field rules require for a standard proration unit for a gas well?

A. I'll have to find them, but as I recall, it's 160 acres.

MR. NUTTER: Well, the record will show that a standard unit in this pool is 640, but there's very few standards.

A. Okay, yeah, that's right. There are many, many on 80's, I believe.

Q. Are you aware of any wells on 40's?

A. Not right off because I haven't -- I haven't looked at any portion of the pool except this in a degree of complexity that I have this area.

Q. You're aware that some of the acreage within this proration unit has already been drained or is being drained, apparently, from the Yates, is that correct?

A. Well, there must be some form of discontinuity when Texaco has an oil well offsetting a gas well that's

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not giving up any fluid. I don't know what the nature of it is, whether it's a fluid discontinuity or a reservoir discontinuity, but there's bound to be some reason that Hartman hasn't been able to get any oil at all out of his well and yet Texaco is producing oil, and I can't tell you what that is. I would have to guess, based upon the performance of most of the wells in the area, that there's a very strong either bottom or edgewater drive that's affecting all the wells in this area, and that therefore, rather than the gas zone, assuming there is vertical communication, which I'm not prepared to swear that there is, because I don't have any way of proving it to you, but if you did have vertical communication, you would expect that with depletion the gas cap would expand downward into the oil zone rather than having wells that were originally gas producers begin to produce oil.

If, on the other hand, the primary reservoir depletion mechanism is bottom water, edgewater drive, it would be expected that you would have gas wells that would turn to oil, since the influx of water would be reducing the reservoir size from the edges and from below and would be moving the oil into what was at one time reservoir occupied by gas.

Q What you're saying is that there is a potential for reclassification of all these wells, either

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from oil to gas or gas to oil, as the time goes --

A. More than likely the experience has been that the classification change will be from gas to oil.

Q. Uh-huh, but you would concede that there is a potential for it to be --

A. There is a possibility of anything happening with the definition we have. That's correct.

Q. Well, that being the case, what do you anticipate would be the handling of the two Texaco wells that are currently classified as oil wells if your application is approved, what do you expect would be the result if these two wells had to be reclassified as gas wells?

A. Then I think the case would have to be re-opened and it would have to be adjusted according to what the quities are at that time.

Q. What do you expect would be the handling of the two oil wells at the current time? Would you expect they'd be permitted to continue to produce from the Yates?

A. I would assume so.

Q. Okay, I have no further questions.

RECROSS EXAMINATION

BY MR. NUTTER:

Q. Mr. Aycock, I've having a hard time following just where this well is perforated and what has

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been perforated and what has been squeezed. Looking at your Exhibit Nine, the log on there, and also this Exhibit Number Twelve, now apparently originally there were some perforations from 3296 to 3781.

A. Yes, sir, Mr. Nutter, excuse me, I didn't have one to look at while you were asking.

Q. Now, from 3296 to 3781, according to this notation opposite the words DST record.

A. Yes, sir.

Q. And that's where they swabbed the sulfur water. From 3592 to 3641. Now that wasn't a continuous set of perforations all the way down.

A. No, sir, just --

Q. That just means selected perforations.

A. Yes, sir, in the intervals that are indicated on here.

Q. Uh-huh.

A. That's just the top and bottom of the entire gross interval that was perforated selectively, that's correct.

Q. And then the ones from 3592 to 3641 were squeezed.

A. Yes, sir, they were.

Q. Is that the group of perforations --

A. Yes, sir.

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Q. -- that has arrows through them there?

A. Yes, sir, those are four perforations that were squeezed with 150 sacks.

Q. And then up at the top we say we've got perforations from 3296 to 3781, so we still have this upper group of perforations.

A. Yes, sir, those are in the Yates.

Q. Those are in the Yates, and then down below the ones that were squeezed we've got three sets of perforations.

A. Correct.

Q. And these are in the Seven Rivers.

A. Yes, sir, and one of them is below the top of the -- actually below the top of the Queen marker, as you'll notice.

Q. Right, then that lowermost group of perforations is in the -- in the Upper Queen there.

A. Yes, sir.

Q. Now, if we got to the other wells on this 160-acre tract, I believe two of them are on Exhibit Nine and one of them is on Exhibit -- the other cross section, Exhibit Eight.

Now, on Exhibit Nine Texaco Rector No. 1, that's the oil well that's been abandoned that's on the same 40-acre tract as the subject well, is that correct?

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A. Yes, sir.

Q. So it's been plugged and abandoned. Apparently there were some drill stem tests in this interval but was it ever perforated and produced from this same producing interval that we're talking about?

A. The indication that I have, it was produced from this open hole at the bottom of the interval here at 3902 to 3944, and was never -- was never perforated behind casing up in these upper intervals in which Hartman is completed in his Rector No. 1.

Q. Okay. Then the No. 3, which is to the left of it on Exhibit Nine, is the well that's in the northwest quarter of the southeast quarter of Section 30, and is it a producing well or is it the well that's been abandoned?

A. No, I believe that one's -- let me find my tabulation here just a second.

Q. That's the one that has a bridge plug in it, I think.

A. I believe it's still producing, but let me find my histories that I have here and I'll tell you.

Yes, sir, it's still producing. It was the one that was originally in the Eumont, classified in the Eumont Gas Field, and was reclassified to a Eumont oil well on the 28th of April, 1977.

Q. Is that when it was plugged back and a

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bridge plug was set in it?

A. Yes, sir, on April the 28th, in '77 they squeezed off the interval from 3500 to 3700 with 100 sacks and you'll notice those are indicated to be squeezed, I think on the -- on what you have here, and then it was perforated at 3272 to 3412, and that will be up in what we're calling the Yates interval, with 16 shots. It was acidized with 2500 gallons and recompleted as a Eumont oil well.

Q. So that's in the Yates, isn't it?

A. Yes, sir.

Q. And then the No. 4 Well is on Exhibit Number Eight, and apparently everything has been squeezed in it, although it formerly produced from the Seven Rivers; never did produce from the Yates.

A. Yes, sir.

Q. And the No. 2 Well is producing from the Yates and also has a set of lower perforations down here in the Seven Rivers, although the middle perforations have been squeezed, is that correct?

A. Yes, sir.

Q. Now which of the four Texaco wells is currently producing and what is it classified as?

A. Okay. The --

Q. The No. 1 is P&A'd.

A. Right.

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The No. 2 is producing from the Yates at the present time.

The No. 3 --

Q. And is it classified as an oil well?

A. Yes, sir.

The No. 3 is classified as an oil well.

The No. 4 is the one that we're indicating on the cross section here to be plugged and abandoned.

And the No. 5 is in Section 31. It's not in Section 30. It's in the section to the south, and it's producing oil from the -- from the Lower Seven Rivers.

Q. So in effect, on this 160 acres, you have three producing wells. You've got the Hartman's Rector No. 1 and the two Texaco wells, the No. 2 and No. 3.

A. Yes, sir.

Q. Now, Hartman's well makes 71 Mcf, I believe one of the exhibits shows here.

A. Yes, sir.

Q. And you're proposing a 160-acre compulsory pooling order to create a 160-acre unit. Have you made any study of what average allowables have been for the Eumont Gas Pool in the last year or two?

A. No, sir, I have not.

Q. But I think in response to a question perhaps by Mr. Bateman, you said that a 71 Mcf well --

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A. Right, if it will not do any better than this, there's adequate acreage assigned to it to produce that.

Q. And then there's a potential that Hartman may go in and stimulate the well or frac it.

A. Well, he intends to do that. I think the question is not if but when.

Q. I see. Now you also mentioned that there would be a tendency, more of a tendency for wells in this area to go from gas to oil than to go from oil to gas, although changes do occur in both directions occasionally.

A. Right.

Q. Now, if he stimulates this well and makes it more productive of gas and also adds more acreage to it to give it a bigger allowable, that's going to result in the production of more gas, is it not?

A. Correct, yes, sir.

Q. Which would enhance the possibility of the well going from gas to oil.

A. Yes, sir.

Q. And if that should occur, wouldn't there be a migration perhaps helped by the declining -- by the shrinking gas cap --

A. Yes, sir.

Q. As well as the encroachment of water from

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the bottom and from the edge --

A. If that occurs --

Q. -- for that well to move up that structure?

A. Yes, I would agree.

Q. And if that occurs, you've got a well moving into formerly dry sands.

A. Correct.

Q. With the corresponding loss of that oil that would remain in the sands as residual saturation.

A. Yes, sir.

Q. So the whole proposition looks like it might be in the direction of causing waste.

A. Well, I would have to respectfully disagree in that connection, because the pressure data to me indicates that we have communication in those that have been classified as Eumont gas over -- over very large areas, and I think if -- I think two things will happen. I can't explain to you why he's not getting oil out of the Yates portion of what he's completed. I have no explanation for that. I do not know why, but I know that the data he showed me was -- is completely definitive at this stage, and it shows no gradients indicative of oil or water, no nothing but just a gas gradient, and no swab tests that indicate any oil production.

Q. Uh-huh.

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A. But I would have to adjudge at this stage that the data indicates that he -- there is some reason that he is not producing oil.

Q. No oil saturation in the --

A. No oil saturation but as close as the other wells are, it is hard for me to conceive that with the degree of pressure communication that the zone has indicated for those completed as gas wells, that he should not be in pressure communication and should not be seeing, even these preliminary tests, some kind of oil production if it were -- if there were oil anywhere within a reasonable distance from him. And for that reason I have to guess that perhaps he's isolated by some unknown geologic or fluid discontinuity from the other wells, is the reason he's not seeing any.

Q. But you are asking for this land to be pooled to form 160-acre unit, and there are two producing wells that are producing from the same interval that this well is producing from.

A. Yes, sir.

Q. And you would have simultaneous dedication. Two of those wells are classified as oil and you've got a gas well.

A. Yes, sir. Part of it would be in the Eumont Oil and part of it would be in the Eumont Gas.

Well, all of it would be in the Eumont Gas

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and part of it would be in the Eumont Oil as well.

Q. Now, I think you mentioned that $2500 a month while drilling and $250 a month while producing would be sufficient for combined fixed rates for overhead, and you also mentioned that you figured that this was a maximum risk proposition. What about well costs?

A. Well, these are in line with Hartman's experience all throughout the Jalmat-Eumont area.

Q. Did you give us any actual well costs on this?

A. Yes, sir, the letter that's included in the list of correspondence contains an AFE that reflects actual costs.

Q. Those were after the well was drilled?

A. Yes, sir.

Q. $259,100.

A. Yes, sir. Now, it does not, as yet, you'll notice the note down here, the rod pump equipment and the separation facilities have not -- to be installed. That part of it is an estimate. As I understand, they are not on the well. The rest of it is actual cost.

Q. I see.

MR. NUTTER: Are there any other questions of the witness? He may be excused.

Do you have anything further, Mr. Carr?

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MR. CARR: Mr. Examiner, I would offer Hartman Exhibit Number Twelve into evidence.

MR. NUTTER: Hartman Exhibit Twelve will be admitted in evidence.

Does anyone have anything further they wish to offer in Case Number 6701?

MR. BATEMAN: Yes, Mr. Examiner, I have one brief witness.

MR. NUTTER: Oh, yes.

PAUL H. DAVIS

being called as a witness and having been duly sworn upon his oath, testified as follows, to-wit:

DIRECT EXAMINATION

BY MR. BATEMAN:

Q. Will state your name and present employment?

A. All right.

Q. For the record, please?

A. All right. My name is Paul H. Davis. I work for Texaco, Incorporated, as Division Proration Engineer.

Q. In your employment are you familiar with the application and the wells in question?

A. Yes, sir, I am.

Q. Have you previously testified before the

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Commission and had your professional and educational background made a matter of record?

A. Yes, I have.

MR. BATEMAN: I offer Mr. Davis as an expert witness.

MR. NUTTER: Mr. Davis is qualified.

Q. (Mr. Bateman continuing.) Mr. Davis, would you refer first of all to what is marked as Exhibits One, Two, and Three, and while there has been some testimony already as to the history of the three wells within the proposed proration unit, would you elaborate briefly on them?

A. Yes, Exhibits One, Two, and Three are copies of the logs of the Texaco J. K. Rector No. 3, Texaco J. K. Rector No. 2, and of the Hartman Rector No. 1.

I'd like to just talk generally about the completion procedure on the two Texaco wells. Each of these wells was completed in the mid-thirties. They were completed from an open hole section in the base of the Queen formation.

These wells were recompleted in 1940, in the late 1940's in the Seven Rivers formation, at which time the Queen section was squeezed.

They remained Seven Rivers producers until in the 1970's when both were recompleted and plugged back

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in the Yates formation, and that's their present completion status.

The log intervals show the present perforation intervals in the Yates, and that's all that is productive at this time.

The Exhibit Number Three is the log of the Hartman No. 1 Rector, and it can be compared with the logs of the two Texaco wells to show that the Hartman well is completed in the Yates formation, the correlative interval.

I believe that's all I have to say about those three exhibits.

Q. All right, sir, were you involved in the negotiations relating to the farmout of this acreage?

A. Yes, sir, I was.

Q. And was any assumption made regarding the rules involving the simultaneous dedication of the same geologic zones?

A. Yes. We had several discussions on it and there's correspondence in the file to indicate that we assumed that we could not simultaneously dedicate acreage to the same oil and gas wells that were completed in the same geological interval.

Q. Was that communicated to Mr. Corrigan?

A. Yes, sir, it was.

Q. All right. Now, would you proceed then

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with Exhibit Number Four and review the production history of these two Texaco wells?

A. Exhibit Number Four is a production history for the years 1978 and '79 by month for each of Texaco's wells that are presently completed in the Eumont Field. The production shows that the oil, the gas production, the GOR, for each of the three wells. It's worthwhile to note that the GOR for the Well No. 2 are in the 40 to 45,000 GOR range and it wouldn't take a great deal of changing oil production to increase that to the statutory limit for gas wells of 100,000 to 1.

I might mention something that was discussed in earlier testimony, the No. 1 was abandoned on October 6th, 1947, but it was productive from all three intervals.

The No. 4 was abandoned in March 21st, 1963, and it produced from the Queen and from the Seven Rivers but not from the Yates.

Well No. 5 shows no production during the last half of 1978 or for 1979 because of an unsuccessful workover to perforate the Lower Seven Rivers formation in June of 1978. The production test after that workover was 252 barrels of water and no oil.

Q. Based on your experience, is there a potential, in your opinion, that these wells could be re-

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classified as gas wells in the future?

A. Yes, sir, I think it's possible that the GOR could increase with very little decrease in fluid production to exceed a GOR of 100,000.

Q. Have you made a study of allowables in offsetting wells in this area?

A. Yes. We made a study of allowables versus production for early 1978.

Q. When did you make that study, if you recall?

A. It was made in, I think in September of 1978, and at that time we found that the -- we looked at the four north offset wells, and at that time the best producing rate was from the Continental No. 1 Lockhart, and we compared the allowable for the first half of 1978, which we would consider representative of year-round production, and it shows that the allowable was under produced by some 24 percent for that six month period.

Q. What size of proration unit would be required to produce that well? At that rate?

A. Well, that -- I'm talking about in that that would be a 40-acre allowable rate; would have been under produced by some 24 percent.

Q. I see. Have you made a study since 1978? A similar study?

A. We have looked at the allowables for Sep-

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tember and October of this year and it shows that the rate would be assigned to a 40-acre proration unit of 230 Mcf a day.

Q. So with a 40-acre proration unit on the well in question the current allowable would be 230 Mcf per day, is that correct?

A. Yes, sir, based on the last two months.

Q. Now, what, in your opinion would be the anticipated result of the granting of this application with respect to the interest of Texaco in its offsetting wells?

A. Well, several things could happen. If the present assumption of simultaneous dedication is correct, then it could require Texaco to shut-in the two wells that we have out there because we wouldn't have any acreage to dedicate to those wells.

Also, if it should require that we shut-in, if these wells were reclassified to over 100,000-to-1 GOR, even if the assumption that we made was incorrect, in either case, we feel like it would force us into -- either into an uneconomical well or into a well that would never pay out because of the penalty clause, and therefore Texaco would not receive any benefit from a joint interest well.

Q. Were Exhibits One through Four prepared by you or under your direction?

A. Yes, sir, they were.

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Q. Do you have anything further to add?

A. No, sir, not at this time.

MR. BATEMAN: No further direct.

MR. NUTTER: Are there any questions of the witness?

MR. CARR: I have a few.

MR. NUTTER: Mr. Carr.

CROSS EXAMINATION

BY MR. CARR:

Q. I believe you stated that you participated in the negotiations at the time the acreage was originally farmed out to Mr. Corrigan, is that correct?

A. Yes, sir, insofar as the proration data that went into it.

Q. And you stated, I believe, that you assumed that the acreage could not be simultaneously dedicated at that time.

A. Yes, sir.

Q. Now was that a basis of your agreement or was that just your understanding of the rules of this Commission as they applied to that acreage?

A. Well, we had asked an opinion from the Commission at that time, and it was an opinion that we had gotten from them, and we did pass that on to Corrigan.

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Q. Did you participate in any of the negotiations at the time the subsequent assignment to Mr. Hartman was negotiated?

A. To some degree, yes.

Q. And you are aware that that specifically provided that if a 160 -- if gas was encountered, a 160-acre unit would be required and that pooling was anticipated?

A. Well, I think that was some of the lanquage that was in that letter. I'd like to point out on that, that because of part in those negotiations, that the intent there was really to put the parties on notice that they couldn't -- they wouldn't have the other 80 acres of Texaco's to contribute to the 160-acres for a gas proration unit, and --

Q. Is that what this agreement says?

A. That was the intent of it, and I think it could be read either way.

But that was the intent of the parties involved at that time.

Q. Would you read paragraph nine, please, in this agreement?

A. Yes. It says, "It is understood the governmental proration units for gas production are anticipated to be 160 acres and Corrigan will only earn 80 acres for a successful gas producer. In the event of such 160-acre governmental proration unit for gas production, pooling is

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anticipated."

Q. And you believe that simply says that Texaco doesn't have any acreage available there.

A. Well, I think that's one interpretation that could be applied to it, yes, sir.

Q. You stated that there were certain letters that establish that you were anticipating development of this on 40-acre tracts. Do you have any of those letters with you?

A. Yes, sir.

Q. I'd like to see them.

A. The first letter I'd like to introduce is a letter dated July 7th to Mr. Gallini, who I think is acting as an attorney for Mr. Corrigan, and it's a letter from Texaco to him.

Paragraph two says, "Our review of the New Mexico Oil Conservation Commission's proration schedule for the Eumont Gas Pool indicates that the nominal spacing for this pool is 640 acres. There are wells, however, which have as little as 40 acres attributed. We can find no instance in the proration schedule where a well is restricted in its allowable because of acreage. Your statement that this same acreage can be dedicated to both the Eumont Oil Pool and the Eumont Gas Pool with the restriction that the same geological zone cannot be dedicated to both pools is

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correct. The sole criteria for placing a well in the Eumont Oil Pool or the Eumont Gas Pool is the gas/oil ratio. As Texaco's wells are producing at less than the maximum GOR for the oil pool, they are therefore placed in the oil pool for proration purposes.

We wish to point out that the same geological interval is open in both of Texaco's wells in the southeast quarter of Section 30 as in the offset wells which you allege are draining this lease."

MR. NUTTER: Mr. Davis, this is from D. T. McCreary, Division Manager for whom, Texaco?

A. Yes, sir.

MR. NUTTER: And is he in Midland?

A. Yes, sir, he is.

Q. And then I believe it is -- the letter does state that the sole criteria for placing a well in the oil -- in an oil pool or a gas pool is the gas/oil ratio, is that correct?

A. Yes, sir, that's right.

Q. Do you see anything in this letter which says that there is any prohibition against -- against simultaneously dedicating the acreage to a gas well and an oil well as determined by their gas/oil ratios?

A. Yes, sir, the statement just prior to it which states, "Your statement that this acreage can be dedi-

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cated to both the Eumont Oil Pool and the Eumont Gas Pool with the restriction that the same geological zone cannot be dedicated to both pools is correct."

Q. My question is, is there anything -- you are relying on your interpretation of the Commission's rules, is that correct, not the rules as interpreted by the Oil Conservation Division?

A. We had this rule from the District Director in Hobbs at the time.

Q. Do you have anything to substantiate that?

A. No, sir, it was just a verbal conversation.

Q. Let me ask you a question. What do you believe the reservoir drive mechanism is in the Eumont in this area? Is it gas or is it water?

A. From the information that I've looked at, I'd say it was gas expansion drive.

Q. You do not believe that you've got a water drive in this -- in this pool?

A. I have no -- I've been no indication of it in the data.

Q. Now, when we talk about your -- when we talk about your Rector 2-T Well for a time, this well was previously classified from gas to oil, is that correct?

A. Yes, sir.

Q. Is this what you normally anticipate when

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you have a gas drive reservoir?

A. Well, in this particular instance we were going from the Seven Rivers formation to the Yates formation at the time we reclassified that well from gas to oil. It was a change in reservoir.

Q. Well, then let's take a look at your Rector 3-J. I believe in May of '77 you squeezed off perforations and installed pumping equipment. Why would you install pumping equipment?

A. Well, there again, that well had been a completion in the Seven Rivers formation. It was gas.

Q. Uh-huh.

A. The well was recompleted in the Yates. That workover was completed on April the 27th, 1977, and it potentialed for 2 oil and 2 load water, and had a GOR of 2480.

Q. And why did you install pumping equipment on the well at that time? Was it to remove water?

A. I would think it would be to remove oil, since the potential was 2 oil and 2 load water. There wasn't any indication of formation water at that time.

Q. So it is your opinion, then, that you've got a gas drive reservoir here, not a water drive?

A. Yes, sir.

Q. Have there been any trends which would

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indicate to you that you are going to be having to reclassify this from an oil well to a gas well?

A. No, sir, other than the current high GOR of the Well No. 2.

Q. There is no trend developed?

A. No, sir.

Q. Okay.

MR. CARR: I have nothing further.

MR. NUTTER: Are there any further questions of Mr. Davis? He may be excused.

Do you have anything further, Mr. Bateman?

MR. BATEMAN: Just a brief statement, Mr. Examiner.

I believe that there has been no demonstration of necessity for a proration unit larger than 40 acres. I know that there's speculation that the well might produce better than 71 Mcf per day, but we've also indicated that 230 Mcf per day would be permitted at the current allowables for a 40-acre spacing, so that would be a considerable increase in production.

I think it's also been amply demonstrated that 160-acre proration unit would adversely affect the future production of the two Texaco wells. It would adversely affect them in more than one way, obviously, either through additional production, gas production, as we pointed out, or

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from a reclassification of the wells from oil to gas.

So for those reasons I would respectfully submit that the application be denied.

MR. NUTTER: Mr. Carr?

MR. CARR: Mr. Nutter, what we have here is a situation where Mr. Hartman received a farmout and he drilled the well which was anticipated to be an oil well; it turned out to be a gas well.

Under the assignment to Mr. Hartman, Texaco clearly stated that if a gas well was encountered, 160-acre unit would be anticipated, as well as pooling.

We have a well that at the present time has not been fractured. When it is fractured, based on the experience of offsetting property, we believe we will have a gas well which will produce substantially more than the present 71 Mcf.

And we have a well, we have a gas well, and we are now attempting to put together a proration unit that once the well is fractured will be large enough to enable it to produce the gas which we anticipate will be forthcoming.

Texaco has appeared here in opposition to the case. They have alleged that perhaps wells completed in the same interval will be classified from oil to gas, but the fact of the matter is, at present they've previously been classified from gas to oil and there is nothing and no trend

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which could indicate that reclassification back to gas wells is ever -- there's anything to support the position that that's a likely prospect.

We submit that under the pooling statute we have a well, we drilled it, and we are now entitled to a standard gas proration unit, since what we have is a gas well.

MR. NUTTER: Thank you, Mr. Carr. Does anyone else have anything to offer in Case Number 6701?

We'll take the case under advisement.

(Hearing concluded.)

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3020 Plaza Blanca (505) 471-5463
Santa Fe, New Mexico 87501

REPORTER'S CERTIFICATE

I, SALLY W. BOYD, a Court Reporter, DO HEREBY CERTIFY that the foregoing and attached Transcript of the Hearing before the Oil Conservation Division was reported by me; that said transcript is a full, true, and correct record of the hearing, prepared by me to the best of my ability, from my notes taken at the time of the hearing.

Sally W. Boyd C.S.R.
Sally W. Boyd, C.S.R.

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3010 Plaza Blanca (505) 471-2462
Santa Fe, New Mexico 87501

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 6701, heard by me on 10/17 1979.

, Examiner
Oil Conservation Division

COMPANY Doyle Hartman

WELL J. K. Rector No. 1

FIELD Eumont

LOCATION 2310 FSL & 330 FEL (I)
Section 30, T-21-S, R-36-E

COUNTY Lea

STATE New Mexico

ELEVATIONS: KB 3640
DF
GL 3630

I-30-21-36

COMPLETION RECORD

SPUD DATE 9-4-79 COMP. DATE 10-4-79

TD 4100 PBTD 4081

CASING RECORD 8 5/8 @ 421 w/300.
5 1/2 @ 4100 w/700.

PERFORATING RECORD Perf 3296-3781 w/17
Sqz 3592-3641 w/150 (4 sh)
Perf 3309-3784 w/11

STIMULATION 3296-3781: A/5250 15% MCA
* 3689-3784: A/2000 15% NE
* 3296-3332: A/2000 15% NE
* After sqz.

IP IPF= 71 MCFPD + mist water

GOR Dry Gas GR

TP 35 CP 170

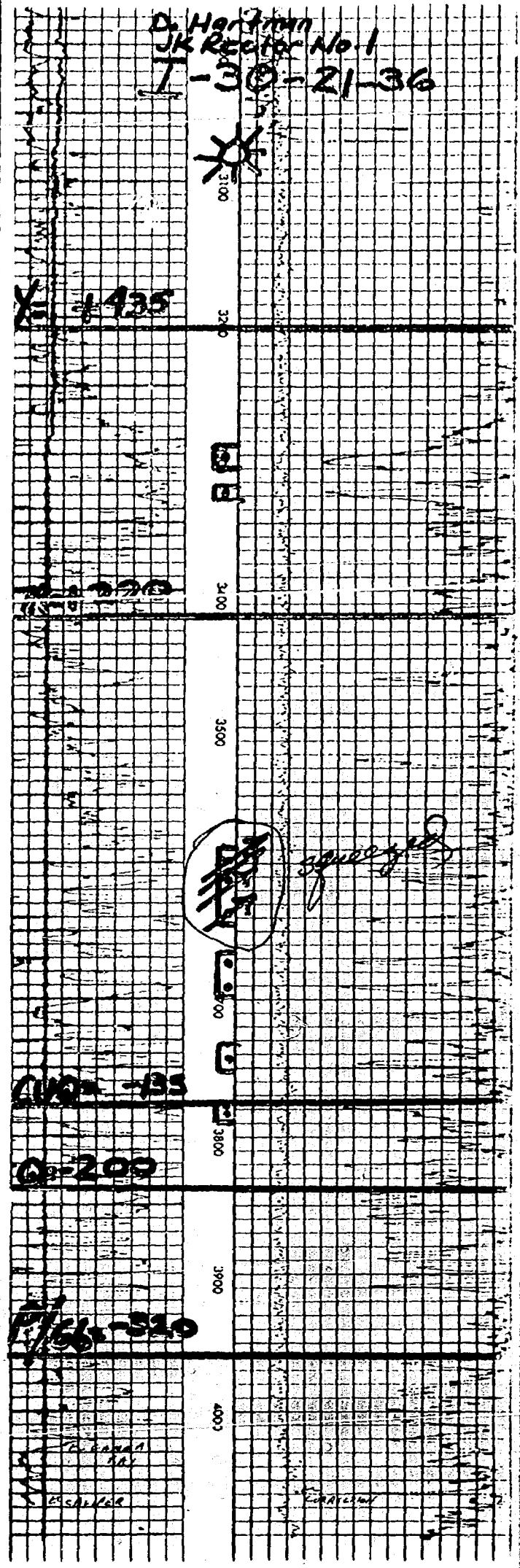
CHOKE 16/64 TUBING 2 3/8 @ 3737

DST RECORD 9-18-79 to 9-26-79 Perf 3296-3781 w/17. A/5250. Swb sul.wtr. 3592-3641. Sqz 3592-3641 w/150 sx. Tested 2000 after drill out.

10-05-79 Lowered tubing to 4005 w/ SN @ 3985. Installed C-114D-173-64 unit. Pump arrangement 7 x 44 x 1 1/4 with choke on both casing and tubing.

BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION
Hartman EXHIBIT NO. 12
CASE NO. 6701

REMARKS



I-30-21-36

A.A.P.L. FORM 610

MODEL FORM OPERATING AGREEMENT—1956

Non-Federal Lands

BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION
Hartman EXHIBIT NO. 11
CASE NO. 6701

OPERATING AGREEMENT

DATED

October 15, 1979,

FOR UNIT AREA IN SE/4 Section 30, Township 21 South, Range 36 East,

Lea COUNTY, STATE OF New Mexico

J. K. Rector No. 1

2310 FSL & 330 FEL (I)

Sec. 30, T-21-S, R-36-E

Lea County, New Mexico

AMERICAN ASSOCIATION OF PETROLEUM LANDMEN
APPROVED FORM. A.A.P.L. NO. 610
MAY BE ORDERED DIRECTLY FROM THE PUBLISHER
KRAFTBILT PRODUCTS, BOX 800, TULSA 74101

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A.A.P.L. FORM 610

OPERATING AGREEMENT

THIS AGREEMENT, entered into this 15th day of October, 19 79, between DOYLE HARTMAN

hereafter designated as "Operator", and the signatory parties other than Operator.

WITNESSETH, THAT:

WHEREAS, the parties to this agreement are owners of oil and gas leases covering and, if so indicated, unleased mineral interests in the tracts of land described in Exhibit "A", and all parties have reached an agreement to explore and develop these leases and interests for oil and gas to the extent and as hereinafter provided;

NOW, THEREFORE, it is agreed as follows:

1. DEFINITIONS

As used in this agreement, the following words and terms shall have the meanings here ascribed to them.

(1) The words "party" and "parties" shall always mean a party, or parties, to this agreement.

(2) The parties to this agreement shall always be referred to as "it" or "they", whether the parties be corporate bodies, partnerships, associations, or persons real.

(3) The term "oil and gas" shall include oil, gas, casinghead gas, gas condensate, and all other liquid or gaseous hydrocarbons, unless an intent to limit the inclusiveness of this term is specifically stated.

(4) The term "oil and gas interests" shall mean unleased fee and mineral interests in tracts of land lying within the Unit Area which are owned by parties to this agreement.

(5) The term "Unit Area" shall refer to and include all of the lands, oil and gas leasehold interests and oil and gas interests intended to be developed and operated for oil and gas purposes under this agreement. Such lands, oil and gas leasehold interests and oil and gas interests are described in Exhibit "A".

(6) The term "drilling unit" shall mean the area fixed for the drilling of one well by order or rule of any state or federal body having authority. If a drilling unit is not fixed by any such rule or order, a drilling unit shall be the drilling unit as established by the pattern of drilling in the Unit Area or as fixed by express agreement of the parties.

(7) All exhibits attached to this agreement are made a part of the contract as fully as though copied in full in the contract.

(8) The words "equipment" and "materials" as used here are synonymous and shall mean and include all oil field supplies and personal property acquired for use in the Unit Area.

2. TITLE EXAMINATION, LOSS OF LEASES AND OIL AND GAS INTERESTS

A. Title Examination: Title is presently being examined and a copy of the opinion will be furnished on request. Cost of title examination will be charged to the Joint Account.

~~There shall be no examination of title to leases, or to oil and gas interests, except that title to the lease~~ covering the land upon which the exploratory well is to be drilled in accordance with Section 7, shall be examined on a complete abstract record by Operator's attorney, and the title to both the oil and gas lease and to the fee title of the lessors must be approved by the examining attorney, and accepted by all parties. A copy of the examining attorney's opinion shall be sent to each party immediately after the opinion is written, and also, each party shall be given, as they are written, a copy of all subsequent supplemental attorney's reports. A good faith effort to satisfy the examining attorney's requirements shall be made by the party owning the lease covering the drillsite.

If title to the proposed drillsite is not approved by the examining attorney or the lease is not acceptable for a material reason, and all the parties do not accept the title, the parties shall select a new drillsite for the first exploratory well; provided, if the parties are unable to agree upon another drillsite, this agreement shall in that case, come to an end and all parties shall then forfeit their rights and be relieved of obligations hereunder. If a new drillsite is selected, title to the oil and gas lease covering it and to the fee title of the lessor shall be examined, and title shall be approved or accepted or rejected in like manner as provided above concerning the drillsite first selected. If title to the oil and gas lease covering the second choice drillsite is not approved or accepted, other drillsites shall be successively selected and title examined, until a drillsite is chosen

"Individual Loss"
Revised 1967

to which title is approved or accepted, or until the parties fail to select another drillsite. As in the case of the drillsite first selected, so also with successive choices if the time comes that the parties have not approved title and are unable to agree upon an alternate drillsite, the contract shall in that case and at that time, come to an end and all parties shall forfeit their rights and be relieved of obligations under this contract.

No well other than the first test shall be drilled in the Unit Area until after (1) the title to the lease covering the lands upon which such well is to be located has been examined by Operator's attorney, and (2) the title has been approved by the examining attorney and the title has been accepted by all of the parties who are to participate in the drilling of the well.

B. Failure of Title:

Should any oil and gas lease, or interest therein, be lost through failure of title, this agreement shall, nevertheless, continue in force as to all remaining leases and interests, and

(1) The party whose lease or interest is affected by the title failure shall bear alone the entire loss and it shall not be entitled to recover from Operator or the other parties any development or operating costs which it may have theretofore paid, but there shall be no monetary liability on its part to the other parties hereto by reason of such title failure; and

(2) There shall be no retroactive adjustment of expenses incurred or revenues received from the operation of the interest which has been lost, but the interests of the parties shall be revised on an acreage basis, as of the time it is determined finally that title failure has occurred, so that the interest of the party whose lease or interest is affected by the title failure will thereafter be reduced in the Unit Area by the amount of the interest lost; and

(3) If the proportionate interests of the other parties hereto in any producing well theretofore drilled on the Unit Area is increased by reason of the title failure, the party whose title has failed shall receive the proceeds attributable to the increase in such interests (less operating costs attributable thereto) until it has been reimbursed for unrecovered costs paid by it in connection with such well; and

(4) Should any person not a party to this agreement, who is determined to be the owner of any interest in the title which has failed, pay in any manner any part of the cost of operation, development, or equipment, or equipment previously paid under this agreement, such amount shall be proportionately paid to the party or parties hereto who in the first instance paid the costs which are so refunded; and

(5) Any liability to account to a third party for prior production of oil and gas which arises by reason of title failure shall be borne by the party or parties whose title failed in the same proportions in which they shared in such prior production.

C. Loss of Leases for Causes Other Than Title Failure:

If any lease or interest subject to this agreement be lost through failure to develop or because express or implied covenants have not been performed, or if any lease be permitted to expire at the end of its primary term and not be renewed or extended, or if any lease or interest therein is lost due to the fact that the production therefrom is shut in by reason of lack of market, the loss shall not be considered a failure of title and all such losses shall be joint losses and shall be borne by all parties in proportion to their interests and there shall be no readjustment of interests in the Unit Area.

~~**9. UNLEASED OIL AND GAS INTERESTS**~~

~~If any party owns an unleased oil and gas interest in the Unit Area, that interest shall be treated for the purpose of this agreement as if it were a leased interest under the form of oil and gas lease attached as "Exhibit "B" and for the primary term therein stated. As to such interests, the owner shall receive royalty on production as prescribed in the form of oil and gas lease attached hereto as Exhibit "B". Such party shall, however, be subject to all of the provisions of this agreement relating to lessees, to the extent that it owns the lessee interest.~~

4. INTERESTS OF PARTIES

Exhibit "A" lists all of the parties, and their respective percentage or fractional interests under this agreement. Unless changed by other provisions, all costs and liabilities incurred in operations under this contract shall be borne and paid, and all equipment and material acquired in operations on the Unit Area shall be owned, by the parties as their interests are given in Exhibit "A". All production of oil and gas from the Unit Area, subject to the payment of lessor's royalties, shall also be owned by the parties in the same manner.

If the interest of any party in any oil and gas lea covered by this agreement is subject to an overriding royalty, production payment, or other charge over and above the usual one-eighth (⅛) royalty, such party shall assume and alone bear all such excess obligations and shall account for them to the owners thereof out of its share of the working interest production of the Unit Area.

5. OPERATOR OF UNIT

DOYLE HARTMAN shall be the Operator of the Unit Area, and shall conduct and direct and have full control of all operations on the Unit Area as permitted and required by, and within the limits of, this agreement. It shall conduct all such operations in a good and workmanlike manner, but it shall have no liability as Operator to the other parties for losses sustained, or liabilities incurred, except such as may result from gross negligence or from breach of the provisions of this agreement.

6. EMPLOYEES

The number of employees and their selection, and the hours of labor and the compensation for services performed, shall be determined by Operator. All employees shall be the employees of Operator.

7. TEST WELL

On or before the * 22nd day of September, 19 79, Operator shall commence the drilling of a well for oil and gas in the following location: 2310 FSL & 330 FEL (I) Sec. 30, T-31-S, R-36-E Lea County, New Mexico and shall thereafter continue the drilling of the well with due diligence to a sufficient depth to thoroughly test the Yates-Seven Rivers-Queen-Penrose productive zones of the Eumont Gas Pool, or to a total depth of 4100 feet, whichever is the shallower depth unless granite or other practically impenetrable substance is encountered at a lesser depth or unless all parties agree to complete the well at a lesser depth.

Operator shall thoroughly log, but not core or DST all formations encountered during drilling which give indication of containing oil and gas in quantities sufficient to evaluate. ~~test, unless this agreement shall be limited in its application to a specific formation or formations, in which event Operator shall be required to test only the formation or formations to which this agreement may apply.~~

If in Operator's judgment the well will not produce oil or gas in paying quantities, and it wishes to plug and abandon the test as a dry hole, it shall first make a reasonable effort to secure the consent of all parties to the plugging, and the well shall then be plugged and abandoned as promptly as possible.

8. COSTS AND EXPENSES

Except as herein otherwise specifically provided, Operator shall promptly pay and discharge all costs and expenses incurred in the development and operation of the Unit Area pursuant to this agreement and shall charge each of the parties hereto with their respective proportionate shares upon the cost and expense basis provided in the Accounting Procedure attached hereto and marked Exhibit "C". If any provision of Exhibit "C" should be inconsistent with any provision contained in the body of this agreement, the provisions in the body of this agreement shall prevail.

Operator, at its election, shall have the right from time to time to demand and receive from the other parties payment in advance of their respective shares of the estimated amount of the costs to be incurred in operations hereunder during the next succeeding month, which right may be exercised only by submission to each such party of an itemized statement of such estimated costs, together with an invoice for its share thereof. Each such statement and invoice for the payment in advance of estimated costs shall be submitted on or before the 20th day of the next preceding month. Each party shall pay to Operator its proportionate share of such estimate within fifteen (15) days after such estimate and invoice is received. If any party fails to pay its share of said estimate within said time, the amount due shall bear interest at the rate of prime rate plus 1.25% ~~six percent (6%)~~ per annum until paid. Proper adjustment shall be made monthly between advances and actual cost, to the end that each party shall bear and pay its proportionate share of actual costs incurred, and no more.

* Actual spud date was September 9, 1979.

9. OPERATOR'S LIEN

Operator is given a first and preferred lien on the interest of each party covered by this contract, and in each party's interest in oil and gas produced and the proceeds thereof, and upon each party's interest in material and equipment, to secure the payment of all sums due from each such party to Operator.

In the event any party fails to pay any amount owing by it to Operator as its share of such costs and expense or such advance estimate within the time limited for payment thereof, Operator, without prejudice to other existing remedies, is authorized, at its election, to collect from the purchaser or purchasers of oil or gas, the proceeds accruing to the working interest or interests in the Unit Area of the delinquent party up to the amount owing by such party, and each purchaser of oil or gas is authorized to rely upon Operator's statement as to the amount owing by such party.

In the event of the neglect or failure of any non-operating party to promptly pay its proportionate part of the cost and expense of development and operation when due, the other non-operating parties and Operator, within thirty (30) days after the rendition of statements therefor by Operator, shall proportionately contribute to the payment of such delinquent indebtedness and the non-operating parties so contributing shall be entitled to the same lien rights as are granted to Operator in this section. Upon the payment by such delinquent or defaulting party to Operator of any amount or amounts on such delinquent indebtedness, or upon any recovery on behalf of the non-operating parties under the lien conferred above, the amount or amounts so paid or recovered shall be distributed and paid by Operator to the other non-operating parties and Operator proportionately in accordance with the contributions theretofore made by them.

10. TERM OF AGREEMENT

This agreement shall remain in full force and effect until the well hereinabove provided for in Section 7 is completed and only as long thereafter as there is (a) production from the area and depths covered by this agreement, or (b) there is a well capable of production from such area and depths, or (c) drilling or workover operations are being conducted on such area and depth after the well provided for in Section 7 has been drilled with no cessation of operations; provided, however, that in the event the first well drilled hereunder results in a dry hole and no other well is producing oil or gas in paying quantities from such area and depths, then at the end of ninety (90) days after the abandonment of the first test well, this agreement shall terminate unless one or more of the parties are then engaged in drilling a well or wells pursuant to Section 12 hereof, or all parties have agreed to drill an additional well or wells under this agreement, in which event this agreement shall continue until such well or wells shall have been drilled and completed. If production results therefrom, this agreement shall continue in force as if said first test well had been productive in paying quantities, but if production in paying quantities does not result therefrom this agreement shall terminate at the end of ninety (90) days after abandonment of such well or wells. It is agreed, however, that the termination of this agreement shall not relieve any party hereto from any liability which has accrued or attached prior to the date of such termination.

11. LIMITATION ON EXPENDITURES

Without the consent of all parties: (a) No well shall be drilled on the Unit Area except any well expressly provided for in this agreement and except any well drilled pursuant to the provisions of Section 12 of this agreement, it being understood that the consent to the drilling of a well shall include consent to all necessary expenditures in the drilling, testing, completing, and equipping of the well, including necessary tankage; (b) No well shall be reworked, plugged back or deepened except a well reworked, plugged back or deepened pursuant to the provisions of Section 12 of this agreement, it being understood that the consent to the reworking, plugging back or deepening of a well shall include consent to all necessary expenditures in conducting such operations and completing and equipping of said well to produce, including necessary tankage; (c) Operator shall not undertake any single project reasonably estimated to require an expenditure in excess of Twenty-Thousand Dollars ($ 20,000) except in connection with a well the drilling, reworking, deepening, or plugging back of which has been previously authorized by or pursuant to this agreement; provided, however, that in case of explosion, fire, flood, or other sudden emergency, whether of the same or different nature, Operator may take such steps and incur such expenses as in its opinion are required to deal with the emergency and to safeguard life and property, but Operator shall, as promptly as possible, report the emergency to the other parties. Operator shall, upon request, furnish copies of its "Authority for Expenditures" for any single project costing in excess of $ 20,000 .

12. OPERATIONS BY LESS THAN ALL PARTIES

If all the parties cannot mutually agree upon the drilling of any well on the Unit Area other than the test well provided for in Section 7, or upon the reworking, deepening or plugging back of a dry hole drilled at the joint expense of all parties or a well jointly owned by all the parties and not then producing in paying quantities on the Unit Area, any party or parties wishing to drill, rework, deepen or plug back such a well may give the other parties written notice of the proposed operation, specifying the work to be performed, the location, proposed depth, objective formation and the estimated cost of the operation. The parties receiving such a notice shall have thirty (30) days (except as to reworking, plugging back or drilling deeper, where a drilling rig is on location, the period shall be limited to forty-eight (48) hours exclusive of Saturday or Sunday) after receipt of the notice within which to notify the parties wishing to do the work whether they elect to participate in the cost of the proposed operation. Failure of a party receiving such a notice to so reply to it within the period above fixed shall constitute an election by that party not to participate in the cost of the proposed operation.

If any party receiving such a notice elects not to participate in the proposed operation (such party or parties being hereafter referred to as "Non-Consenting Party"), then in order to be entitled to the benefits of this section, the party or parties giving the notice and such other parties as shall elect to participate in the operation (all such parties being hereafter referred to as the "Consenting Parties") shall, within thirty (30) days after the expiration of the notice period of thirty (30) days (or as promptly as possible after the expiration of the 48-hour period where the drilling rig is on location, as the case may be) actually commence work on the proposed operation and complete it with due diligence.

The entire cost and risk of conducting such operations shall be borne by the Consenting Parties in the proportions that their respective interests as shown in Exhibit "A" bear to the total interests of all Consenting Parties. Consenting Parties shall keep the leasehold estates involved in such operations free and clear of all liens and encumbrances of every kind created by or arising from the operations of the Consenting Parties. If such an operation results in a dry hole, the Consenting Parties shall plug and abandon the well at their sole cost, risk and expense. If any well drilled, reworked, deepened or plugged back under the provisions of this section results in a producer of oil and/or gas in paying quantities, the Consenting Parties shall complete and equip the well to produce at their sole cost and risk, and the well shall then be turned over to Operator and shall be operated by it at the expense and for the account of the Consenting Parties. Upon commencement of operations for the drilling, reworking, deepening or plugging back of any such well by Consenting Parties in accordance with the provisions of this section, each Non-Consenting Party shall be deemed to have relinquished to Consenting Parties, and the Consenting Parties shall own and be entitled to receive, in proportion to their respective interests, all of such Non-Consenting Party's interest in the well, its leasehold operating rights, and share of production therefrom until the proceeds or market value thereof (after deducting production taxes, royalty, overriding royalty and other interests payable out of or measured by the production from such well accruing with respect to such interest until it reverts) shall equal the total of the following:

(A) 300% ~~100%~~ of each such Non-Consenting Party's share of the cost of any newly acquired surface equipment beyond the wellhead connections (including, but not limited to, stock tanks, separators, treaters, pumping equipment and piping), plus 100% of each such Non-Consenting Party's share of the cost of operation of the well commencing with first production and continuing until each such Non-Consenting Party's relinquished interest shall revert to it under other provisions of this section, it being agreed that each Non-Consenting Party's share of such costs and equipment will be that interest which would have been chargeable to each Non-Consenting Party had it participated in the well from the beginning of the operation; and

(B) 300% ~~200%~~ of that portion of the costs and expenses of drilling, reworking, deepening or plugging back, testing and completing, after deducting any cash contributions received under Section 25, and 300% ~~200%~~ of that portion of the cost of newly acquired equipment in the well (to and including the wellhead connections), which would have been chargeable to such Non-Consenting Party if it had participated therein.

In the case of any reworking, plugging back or deeper drilling operation, the Consenting Parties shall be permitted to use, free of cost, all casing, tubing and other equipment in the well, but the ownership of all such equipment shall remain unchanged; and upon abandonment of a well after such reworking, plugging back or deeper drilling, the Consenting Parties shall account for all such equipment to the owners thereof, with each party receiving its proportionate part in kind or in value.

Within sixty (60) days after the completion of any operation under this section, the party conducting the operations for the Consenting Parties shall furnish each Non-Consenting Party with an inventory of the equipment in and connected to the well, and an itemized statement of the cost of drilling, deepening, plugging back, testing, completing, and equipping the well for production; or, at its option, the operating party, in lieu of an itemized statement of such costs of operation, may submit a detailed statement of monthly billings. Each month thereafter, during the time the Consenting Parties are being reimbursed as provided above, the Consenting Parties shall furnish the Non-Consenting Parties with an itemized statement of all costs and liabilities incurred in the operation of the well, together with a statement of the quantity of oil and gas produced from it and the amount of proceeds realized from the sale of the well's working interest production during the preceding month. Any amount realized from the sale or other disposition of equipment newly acquired in connection with any such operation which would have been owned by a Non-Consenting Party had it participated therein shall be credited against the total unreturned costs of the work done and of the equipment purchased, in determining when the interest of such Non-Consenting Party shall revert to it as above provided; if there is a credit balance it shall be paid to such Non-Consenting Party.

If and when the Consenting Parties recover from a Non-Consenting Party's relinquished interest the amounts provided for above, the relinquished interests of such Non-Consenting Party shall automatically revert to it and from and after such reversion such Non-Consenting Party shall own the same interest in such well, the operating rights and working interest therein, the material and equipment in or pertaining thereto, and the production therefrom as such Non-Consenting Party would have owned had it participated in the drilling, reworking, deepening or plugging back of said well. Thereafter, such Non-Consenting Party shall be charged with and shall pay its proportionate part of the further costs of the operation of said well in accordance with the terms of this agreement and the accounting procedure schedule, Exhibit "C", attached hereto.

Notwithstanding the provisions of this Section 12, it is agreed that without the mutual consent of all parties, no wells shall be completed in or produced from a source of supply from which a well located elsewhere on the Unit Area is producing, unless such well conforms to the then-existing well spacing pattern for such source of supply.

The provisions of this section shall have no application whatsoever to the drilling of the initial test well on the Unit Area, but shall apply to the reworking, deepening, or plugging back of the initial test well after it has been drilled to the depth specified in Section 7, if it is, or thereafter shall prove to be, a dry hole or non-commercial well, and to all other wells drilled, reworked, deepened, or plugged back, or proposed to be drilled, reworked, deepened, or plugged back, upon the Unit Area subsequent to the drilling of the initial test well.

13. RIGHT TO TAKE PRODUCTION IN KIND

Each party shall have the right to take in kind or separately dispose of its proportionate share of all oil and gas produced from the Unit Area, exclusive of production which may be used in development and producing operations and in preparing and treating oil for marketing purposes and production unavoidably lost. Each party shall pay or deliver, or cause to be paid or delivered, all royalties, overriding royalties, or other payments due on its share of such production which it takes or sells and shall hold the other parties free from liability therefor. Any extra expenditures incurred in kind or separate disposition by any party of its proportionate share of the production shall be borne by such party.

Each party shall execute such division orders and contracts as may be required for the sale of its interest in production from the Unit Area, and shall be entitled to receive payment direct from the purchaser or purchasers thereof for its share of all production.

In the event any party shall fail to make the arrangements necessary to take in kind or separately dispose of its proportionate share of the oil and gas produced from the Unit Area, Operator shall have the right, subject to revocation at will by the party owning it, but not the obligation, to purchase such oil and gas or sell it to others for the time being, at not less than the market price prevailing in the area, which shall in no event be less than the price which Operator receives for its portion of the oil and gas produced from the Unit Area. Any such purchase or sale by Operator shall be subject always to the right of the owner of the production to exercise at any time its right to take in kind, or separately dispose of, its share of all oil and gas not previously delivered to a purchaser. Notwithstanding the foregoing, Operator shall not make a sale into interstate commerce of any other party's share of gas production without first giving such other party sixty (60) days notice of such intended sale.

14. ACCESS TO UNIT AREA

Each party shall have access to the Unit Area at all reasonable times, at its sole risk, to inspect or observe operations, and shall have access at reasonable times to information pertaining to the development or operation thereof, including Operator's books and records relating thereto. Operator shall, upon request, furnish each of the other parties with copies of all drilling reports, well logs, tank tables, daily gauge and run tickets and reports of stock on hand at the first of each month, and shall make available samples of any cores or cuttings taken from any well drilled on the Unit Area.

15. DRILLING CONTRACTS

All wells drilled on the Unit Area shall be drilled on a competitive contract basis at the usual rates prevailing in the area. Operator, if it so desires, may employ its own tools and equipment in the drilling of wells, but its charges therefor shall not exceed the prevailing rates in the field, and the rate of such charges shall be agreed upon by the parties in writing before drilling operations are commenced, and such work shall be performed by Operator under the same terms and conditions as shall be customary and usual in the field in contracts of independent contractors who are doing work of a similar nature.

16. ABANDONMENT OF WELLS

No well, other than any well which has been drilled or reworked pursuant to Section 12 hereof for which the Consenting Parties have not been fully reimbursed as therein provided, which has been completed as a producer shall be plugged and abandoned without the consent of all parties; provided, however, if all parties do not agree to the abandonment of any well, those wishing to continue its operation shall tender to each of the other parties its proportionate share of the value of the well's salvable material and equipment, determined in accordance with the provisions of Exhibit "C", less the estimated cost of salvaging and the estimated cost of plugging and abandoning. Each abandoning party shall then assign to the non-abandoning parties, without warranty, express or implied, as to title or as to quantity, quality, or fitness for use of the equipment and material, all of its interest in the well and its equipment, together with its interest in the leasehold estate as to, but only as to, the interval or intervals of the formation or formations then open to production. The assignments so limited shall encompass the "drilling unit" upon which the well is located. The payments by, and the assignments to, the assignees shall be in a ratio based upon the relationship of their respective percentages of participation in the Unit Area to the aggregate of the percentages of participation in the Unit Area of all assignees. There shall be no readjustment of interest in the remaining portion of the Unit Area.

After the assignment, the assignors shall have no further responsibility, liability, or interest in the operation of or production from the well in the interval or intervals then open. Upon request of the assignees, Operator shall continue to operate the assigned well for the account of the non-abandoning parties at the rates and charges contemplated by this agreement, plus any additional cost and charges which may arise as the result of the separate ownership of the assigned well.

17. DELAY RENTALS AND SHUT-IN WELL PAYMENTS

Delay rentals and shut-in well payments which may be required under the terms of any lease shall be paid by the party who has subjected such lease to this agreement, at its own expense. Proof of each payment shall be given to Operator at least ten (10) days prior to the rental or shut-in well payment date. Operator shall furnish similar proof to all other parties concerning payments it makes in connection with its leases. Any party may request and shall be entitled to receive, proper evidence of all such payments. If, through mistake or oversight, any delay rental or shut-in well payment is not paid or is erroneously paid, and as a result a lease or interest therein terminates, there shall be no monetary liability against the party who failed to make such payment. Unless the party who failed to pay a rental or shut-in well payment secures a new lease covering the same interest within ninety (90) days from the discovery of the failure to make proper payment, the interests of the parties shall be revised on an acreage basis effective as of the date of termination of the lease involved, and the party who failed to make proper payment will no longer be credited with an interest in the Unit Area on account of the ownership of the lease which has terminated. In the event the party who failed to pay the rental or the shut-in well payment shall not have been fully reimbursed, at the time of the loss, from the proceeds of the sale of oil and gas attributable to the lost interest, calculated on an acreage basis, for the development and operating costs theretofore paid on account of such interest, it shall be reimbursed for unrecovered actual costs theretofore paid by it (but not for its share of the cost of any dry hole previously drilled or wells previously abandoned) from so much of the following as is necessary to effect reimbursement:

(1) Proceeds of oil and gas, less operating expenses, theretofore accrued to the credit of the lost interest, on an acreage basis, up to the amount of unrecovered costs;

(2) proceeds, less operating expenses thereafter incurred attributable to the lost interest on an acreage basis, of that portion of oil and gas thereafter produced and marketed (excluding production from any wells thereafter drilled) which would, in the absence of such lease termination, be attributable to the lost interest on an acreage basis, up to the amount of unrecovered costs, the proceeds of said portion of the oil and gas to be contributed by the other parties in proportion to their respective interests; and

(3) any moneys, up to the amount of unrecovered costs, that may be paid by any party who is, or becomes, the owner of the interest lost, for the privilege of participating in the Unit Area or becoming a party to this contract.

Operator shall attempt to notify all parties when a gas well is shut-in or returned to production, but assumes no liability whatsoever for failure to do so.

~~18. PREFERENTIAL RIGHT TO PURCHASE~~

~~Should any party desire to sell all or any part of its interests under this contract, or its rights and interests in the Unit Area, it shall promptly give written notice to the other parties, with full information concerning its proposed sale, which shall include the name and address of the prospective purchaser (who must be ready, willing and able to purchase), the purchase price, and all other terms of the offer. The other parties shall then have an optional prior right, for a period of ten (10) days after receipt of the notice, to purchase on the same terms and conditions the interest which the other party proposes to sell; and, if this optional right is exercised, the purchasing parties shall share the purchased interest in the proportions that the interest of each bears to the total interest of all purchasing parties. However, there shall be no preferential right to purchase in those cases where any party wishes to mortgage its interests, or to dispose of its interests by merger, reorganization, consolidation, or sale of all of its assets, or a sale or transfer of its interests to a subsidiary or parent company, or subsidiary of a parent company, or to any company in which any one party owns a majority of the stock.~~

19. SELECTION OF NEW OPERATOR

Should a sale be made by Operator of its rights and interests, the other parties shall have the right within sixty (60) days after the date of such sale, by majority vote in interest, to select a new Operator. If a new Operator is not so selected, the transferee of the present Operator shall assume the duties of and act as Operator. In either case, the retiring Operator shall continue to serve as Operator, and discharge its duties in that capacity under this agreement, until its successor Operator is selected and begins to function, but the present Operator shall not be obligated to continue the performance of its duties for more than 120 days after the sale of its rights and interests has been completed.

20. MAINTENANCE OF UNIT OWNERSHIP

For the purpose of maintaining uniformity of ownership in the oil and gas leasehold interests covered by this contract, and notwithstanding any other provisions to the contrary, no party shall sell, encumber, transfer or make other disposition of its interest in the leases embraced within the Unit Area and in wells, equipment and production unless such disposition covers either:

(1) the entire interest of the party in all leases and equipment and production; or

(2) an equal undivided interest in all leases and equipment and production in the Unit Area.

Every such sale, encumbrance, transfer or other disposition made by any party shall be made expressly subject to this agreement, and shall be made without prejudice to the rights of the other parties.

If at any time the interest of any party is divided among and owned by four or more co-owners, Operator may, at its discretion, require such co-owners to appoint a single trustee or agent with full authority to receive notices, approve expenditures, receive billings for and approve and pay such party's share of the joint expenses, and to deal generally with, and with power to bind, the co-owners of such party's interests within the scope of the operations embraced in this contract; however, all such co-owners shall enter into and execute all contracts or agreements for the disposition of their respective shares of the oil and gas produced from the Unit Area and they shall have the right to receive, separately, payment of the sale proceeds thereof.

21. RESIGNATION OF OPERATOR

Operator may resign from its duties and obligations as Operator at any time upon written notice of not less than ninety (90) days given to all other parties. In this case, all parties to this contract shall select by majority vote in interest, not in numbers, a new Operator who shall assume the responsibilities and duties, and have the rights, prescribed for Operator by this agreement. The retiring Operator shall deliver to its successor all records and information necessary to the discharge by the new Operator of its duties and obligations.

22. LIABILITY OF PARTIES

The liability of the parties shall be several, not joint or collective. Each party shall be responsible only for its obligations, and shall be liable only for its proportionate share of the costs of developing and operating the Unit Area. Accordingly, the lien granted by each party to Operator in Section 9 is given to secure only the debts of each severally. It is not the intention of the parties to create, nor shall this agreement be construed as creating, a mining or other partnership or association, or to render them liable as partners.

23. RENEWAL OR EXTENSION OF LEASES

If any party secures a renewal of any oil and gas lease subject to this contract, each and all of the other parties shall be notified promptly, and shall have the right to participate in the ownership of the renewal lease by paying to the party who acquired it their several proper proportionate shares of the acquisition cost, which shall be in proportion to the interests held at that time by the parties in the Unit Area.

If some, but less than all, of the parties elect to participate in the purchase of a renewal lease, it shall be owned by the parties who elect to participate therein, in a ratio based upon the relationship of their respective percentage of participation in the unit area to the aggregate of the percentages of participation in the unit area of all parties participating in the purchase of such renewal lease. Any renewal lease in which less than all the parties elect to participate shall not be subject to this agreement.

Each party who participates in the purchase of a renewal lease shall be given an assignment of its proportionate interest therein by the acquiring party.

The provisions of this section shall apply to renewal leases whether they are for the entire interest covered by the expiring lease or cover only a portion of its area or an interest therein. Any renewal lease taken before the expiration of its predecessor lease, or taken or contracted for within six (6) months after the expiration of the existing lease shall be subject to this provision; but any lease taken or contracted for more than six (6) months after the expiration of an existing lease shall not be deemed a renewal lease and shall not be subject to the provisions of this section.

The provisions in this section shall apply also and in like manner to extensions of oil and gas leases.

24. SURRENDER OF LEASES

The leases covered by this agreement, in so far as they embrace acreage in the Unit Area, shall not be surrendered in whole or in part unless all parties consent.

However, should any party desire to surrender its interest in any lease or in any portion thereof, and other parties not agree or consent, the party desiring to surrender shall assign, without express or implied warranty of title, all of its interest in such lease, or portion thereof, and any well, material and equipment which may be located thereon and any rights in production thereafter secured, to the parties not desiring to surrender it. Upon such assignment, the assigning party shall be relieved from all obligations thereafter accruing, but not theretofore accrued, with respect to the acreage assigned and the operation of any well thereon, and the assigning party shall have no further interest in the lease assigned and its equipment and production. The parties assignee shall pay to the party assignor the reasonable salvage value of the latter's interest in any wells and equipment on the assigned acreage, determined in accordance with the provisions of Exhibit "C", less the estimated cost of salvaging and the estimated cost of plugging and abandoning. If the assignment is in favor of more than one party, the assigned interest shall be shared by the parties assignee in the proportions that the interest of each bears to the interest of all parties assignee.

Any assignment or surrender made under this provision shall not reduce or change the assignors' or surrendering parties' interest, as it was immediately before the assignment, in the balance of the Unit Area; and the acreage assigned or surrendered, and subsequent operations thereon, shall not thereafter be subject to the terms and provisions of this agreement.

25. ACREAGE OR CASH CONTRIBUTIONS

If any party receives while this agreement is in force a contribution of cash toward the drilling of a well or any other operation on the Unit Area, such contribution shall be paid to the party who conducted the drilling or other operation and shall be applied by it against the cost of such drilling or other operation. If the contribution be in the form of acreage, the party to whom the contribution is made shall promptly execute an assignment of the acreage, without warranty of title, to all parties to this agreement in proportion to their interests in the Unit Area at that time, and such acreage shall become a part of the Unit Area and be governed by all the provisions of this contract. Each party shall promptly notify all other parties of all acreage or money contributions it may obtain in support of any well or any other operation on the Unit Area.

26. PROVISION CONCERNING TAXATION

Each of the parties hereto elects, under the authority of Section 761(a) of the Internal Revenue Code of 1954, to be excluded from the application of all of the provisions of Subchapter K of Chapter 1 of Subtitle A of the Internal Revenue Code of 1954. If the income tax laws of the state or states in which the property covered hereby is located contain, or may hereafter contain, provisions similar to those contained in the Subchapter of the Internal Revenue Code of 1954 above referred to under which a similar election is permitted, each of the parties agrees that such election shall be exercised. Each party authorizes and directs the Operator to execute such an election or elections on its behalf and to file the election with the proper governmental office or agency. If requested by the Operator so to do, each party agrees to execute and join in such an election.

Operator shall render for ad valorem taxation all property subject to this agreement which by law should be rendered for such taxes, and it shall pay all such taxes assessed thereon before they become delinquent. Operator shall bill all other parties for their proportionate share of all tax payments in the manner provided in Exhibit "C".

If any tax assessment is considered unreasonable by Operator, it may at its discretion protest such valuation within the time and manner prescribed by law, and prosecute the protest to a final determination, unless all parties agree to abandon the protest prior to final determination. When any such protested valuation shall have been finally determined, Operator shall pay the assessment for the joint account, together with interest and penalty accrued, and the total cost shall then be assessed against the parties, and be paid by them, as provided in Exhibit "C".

27. INSURANCE

At all times while operations are conducted hereunder, Operator shall comply with the Workmen's Compensation Law of the State where the operations are being conducted. Operator shall also carry or provide insurance for the benefit of the joint account of the parties as may be outlined in Exhibit "D" attached to and made a part hereof. Operator shall require all contractors engaged in work on or for the Unit Area to comply with the Workmen's Compensation Law of the State where the operations are being conducted and to maintain such other insurance as Operator may require.

In the event Automobile Public Liability Insurance is specified in said Exhibit "D", or subsequently receives the approval of the parties, no direct charge shall be made by Operator for premiums paid for such insurance for operator's fully owned automotive equipment.

28. CLAIMS AND LAWSUITS

If any party to this contract is sued on an alleged cause of action arising out of operations on the Unit Area, or on an alleged cause of action involving title to any lease or oil and gas interest subjected to this contract, it shall give prompt written notice of the suit to the Operator and all other parties.

The defense of lawsuits shall be under the general direction of a committee of lawyers representing the parties, with Operator's attorney as Chairman. Suits may be settled during litigation only with the joint consent of all parties. No charge shall be made for services performed by the staff attorneys for any of the parties, but otherwise all expenses incurred in the defense of suits, together with the amount paid to discharge any final judgment, shall be considered costs of operation and shall be charged to and paid by all parties in proportion to their then interests in the Unit Area. Attorneys, other than staff attorneys for the parties, shall be employed in lawsuits involving Unit Area operations only with the consent of all parties; if outside counsel is employed, their fees and expenses shall be considered Unit Area expense and shall be paid by Operator and charged to all of the parties in proportion to their then interests in the Unit Area. The provisions of this paragraph shall not be applied in any instance where the loss which may result from the suit is treated as an individual loss rather than a joint loss under prior provisions of this agreement, and all such suits shall be handled by and be the sole responsibility of the party or parties concerned.

Damage claims caused by and arising out of operations on the Unit Area, conducted for the joint account of all parties, shall be handled by Operator and its attorneys, the settlement of claims of this kind shall be within the discretion of Operator so long as the amount paid in settlement of any one claim does not exceed one thousand ($1000.00) dollars and, if settled, the sums paid in settlement shall be charged as expense to and be paid by all parties in proportion to their then interests in the Unit Area.

29. FORCE MAJEURE

If any party is rendered unable, wholly or in part, by force majeure to carry out its obligations under this agreement, other than the obligation to make money payments, that party shall give to all other parties prompt written notice of the force majeure with reasonably full particulars concerning it; thereupon, the obligations of the party giving the notice, so far as they are affected by the force majeure, shall be suspended during, but no longer than, the continuance of the force majeure. The affected party shall use all possible diligence to remove the force majeure as quickly as possible.

The requirement that any force majeure shall be remedied with all reasonable dispatch shall not require the settlement of strikes, lockouts, or other labor difficulty by the party involved, contrary to its wishes; how all such difficulties shall be handled shall be entirely within the discretion of the party concerned.

The term "force majeure" as here employed shall mean an act of God, strike, lockout, or other industrial disturbance; act of the public enemy, war, blockade, public riot, lightning, fire, storm, flood, explosion, governmental restraint, unavailability of equipment, and any other cause, whether of the kind specifically enumerated above or otherwise, which is not reasonably within the control of the party claiming suspension.

30. NOTICES

All notices authorized or required between the parties, and required by any of the provisions of this agreement, shall, unless otherwise specifically provided, be given in writing by United States mail or Western Union Telegram, postage or charges prepaid, and addressed to the party to whom the notice is given at the

addresses listed on Exhibit "A". The originating notice to be given under any provision hereof shall be deemed given only when received by the party to whom such notice is directed and the time for such party to give any notice in response thereto shall run from the date the originating notice is received. The second or any responsive notice shall be deemed given when deposited in the United States mail or with the Western Union Telegraph Company, with postage or charges prepaid. Each party shall have the right to change its address at any time, and from time to time, by giving written notice thereof to all other parties.

31. OTHER CONDITIONS, IF ANY, ARE:

A. If any party hereto hereafter shall create any overriding Royalty, Production payment, or other burden against its working interest production and if any party or parties shall conduct non-consent operations pursuant to any provision of this agreement and, as a result, become entitled to receive the working interest production otherwise belonging to the nonparticipating party, the party or parties entitled to receive the working interest productic. of the nonparticipating party shall receive such production free and clear of burdens against such production which may have been created subsequent to this agreement. In this regard, any such interest which may have been created subsequent to this agreement shall ipso facto terminate and vest in the consenting parties.

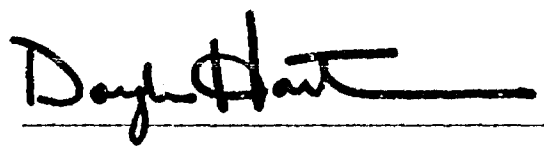
B. All related costs incurred in complying with both processing and other requirements of the Federal Energy Regulatory Commission and/or provisions of The Natural Gas Policy Act of 1978 shall be charged to the Joint Account. This charge shall be in addition to the regular overhead charge.

C. Computer costs related to normal joint account operations (clerical and field) shall be charged proportionately to the Joint Account. This charge shall be in addition to the regular overhead charge.

This agreement may be signed in counterpart, and shall be binding upon the parties and upon their heirs, successors, representatives and assigns.

OPERATOR

DOYLE HARTMAN



NON-OPERATORS

See signature page 13-A.

NON-OPERATORS

James A. Davidson

_____

Richard W. Stump

_____

Jack Fletcher

_____

Hugh Corrigan III

_____

P. Edward Corrigan

_____

Hugh Corrigan IV

_____

* Texaco, Inc.

By:

Attest:

_____ _____

* Applicable if Texaco chooses to pay their proportionate share.

EXHIBIT "A"

Attached to and made a part of the Operating Agreement dated October 15,1978 and covering SE/4 Section 30, T-21-S, R-36-E, Lea County, New Mexico between DOYLE HARTMAN as Operator and James A. Davidson, Richard W. Stump et al as Non-Operators.

I. a) Land Subject to Agreement

SE/4 Section 30
T-21-S, R-36-E

Lea County, New Mexico

b) Depth Limitations

From the surface to the base of the Penrose formation.

c) Drilling (Proration) Unit for Initial Test

SE/4 Section 30
T-21-S, R-36-E
Lea County, New Mexico (160 acres)

II. Percentages of Interests and Addresses of Parties

Operator:

Doyle Hartman
508 C & K Petroleum Building
Midland, Texas 79701
(915-684-4011)

*38.28125 %

Non-Operators:

See Page 14-A.

EXHIBIT "B"

There is no Exhibit "B".

Non-Operators:

James A. Davidson
P. O. Box 494
Midland, Texas 79702
(915-682-6482)

* 10.15625%

Richard W. Stump
2309 Gulf
Midland, Texas 79701
(915-684-8847)

* 1.56250%

Jack Fletcher
Route 1, Box 133-C
Midland, Texas 79701
(915-684-6123)

* 1.56250%

Hugh Corrigan III
P. O. Box 3388
Vero Beach, Florida 32960
(305-567-7141)

* 16.14583%

P. Edward Corrigan
P. O. Box 76
Midland, Texas 79702
(915-682-2312)

* 16.14583%

Hugh Corrigan IV
5944 Luther Lane
Suite 704
Dallas, Texas 75225
(214-739-2545)

* 16.14584%

*Percent of Hartman Group which comprise 50% of W. I. in proration unit.

50.00000%

** Texaco, Inc.
P. O. Box 3109
Midland, Texas 79702
(915-682-0541)

** Applicable only if Texaco, Inc. choses to pay their 50.00000% proportionate share.

Recommended by the Council of Petroleum Accountants Societies of North America

COPAS

EXHIBIT "C"

Attached to and made a part of the Operating Agreement dated October 15, 1979 and covering the SE/4 Section 30, T-21-S, R-36-E, Lea County, New Mexico between DOYLE HARTMAN as Operator and James A. Davidson, Richard W. Stump et al as Non-Operators.

ACCOUNTING PROCEDURE
JOINT OPERATIONS

I. GENERAL PROVISIONS

1. Definitions

"Joint Property" shall mean the real and personal property subject to the agreement to which this Accounting Procedure is attached.

"Joint Operations" shall mean all operations necessary or proper for the development, operation, protection and maintenance of the Joint Property.

"Joint Account" shall mean the account showing the charges paid and credits received in the conduct of the Joint Operations and which are to be shared by the Parties.

"Operator" shall mean the party designated to conduct the Joint Operations.

"Non-Operators" shall mean the parties to this agreement other than the Operator.

"Parties" shall mean Operator and Non-Operators.

"First Level Supervisors" shall mean those employees whose primary function in Joint Operations is the direct supervision of other employees and/or contract labor directly employed on the Joint Property in a field operating capacity.

"Technical Employees" shall mean those employees having special and specific engineering, geological or other professional skills, and whose primary function in Joint Operations is the handling of specific operating conditions and problems for the benefit of the Joint Property.

"Personal Expenses" shall mean travel and other reasonable reimbursable expenses of Operator's employees.

"Material" shall mean personal property, equipment or supplies acquired or held for use on the Joint Property.

"Controllable Material" shall mean Material which at the time is so classified in the Material Classification Manual as most recently recommended by the Council of Petroleum Accountants Societies of North America.

2. Statement and Billings

Operator shall bill Non-Operators on or before the last day of each month for their proportionate share of the Joint Account for the preceding month. Such bills will be accompanied by statements which identify the authority for expenditure, lease or facility, and all charges and credits, summarized by appropriate classifications of investment and expense except that items of Controllable Material and unusual charges and credits shall be separately identified and fully described in detail.

3. Advances and Payments by Non-Operators

Unless otherwise provided for in the agreement, the Operator may require the Non-Operators to advance their share of estimated cash outlay for the succeeding month's operation. Operator shall adjust each monthly billing to reflect advances received from the Non-Operators.

Each Non-Operator shall pay its proportion of all bills within fifteen (15) days after receipt. If payment is not made within such time, the unpaid balance shall bear interest monthly at the rate of twelve percent (12%) per annum or the maximum contract rate permitted by the applicable usury laws in the state in which the Joint Property is located, whichever is the lesser, plus attorney's fees, court costs, and other costs in connection with the collection of unpaid amounts.

4. Adjustments

Payment of any such bills shall not prejudice the right of any Non-Operator to protest or question the correctness thereof; provided, however, all bills and statements rendered to Non-Operators by Operator during any calendar year shall conclusively be presumed to be true and correct after twenty-four (24) months following the end of any such calendar year, unless within the said twenty-four (24) month period a Non-Operator takes written exception thereto and makes claim on Operator for adjustment. No adjustment favorable to Operator shall be made unless it is made within the same prescribed period. The provisions of this paragraph shall not prevent adjustments resulting from a physical inventory of Controllable Material as provided for in Section V.

5. Audits

A. Non-Operator, upon notice in writing to Operator and all other Non-Operators, shall have the right to audit Operator's accounts and records relating to the Joint Account for any calendar year within the twenty-four (24) month period following the end of such calendar year; provided, however, the making of an audit shall not extend the time for the taking of written exception to and the adjustments of accounts as provided for in Paragraph 4 of this Section I. Where there are two or more Non-Operators, the Non-Operators shall make every reasonable effort to conduct joint or simultaneous audits in a manner which will result in a minimum of inconvenience to the Operator. Operator shall bear no portion of the Non-Operators' audit cost incurred under this paragraph unless agreed to by the Operator.

6. Approval by Non-Operators

Where an approval or other agreement of the Parties or Non-Operators is expressly required under other sections of this Accounting Procedure and if the agreement to which this Accounting Procedure is attached contains no contrary provisions in regard thereto, Operator shall notify all Non-Operators of the Operator's proposal, and the agreement or approval of a majority in interest of the Non-Operators shall be controlling on all Non-Operators.

II. DIRECT CHARGES

Operator shall charge the Joint Account with the following items:

1. Rentals and Royalties

Lease rentals and royalties paid by Operator for the Joint Operations.

2. Labor

A. (1) Salaries and wages of Operator's field employees directly employed on the Joint Property in the conduct of Joint Operations.

(2) Salaries of First Level Supervisors in the field.

(3) Salaries and wages of Technical Employees directly employed on the Joint Property if such charges are excluded from the Overhead rates.

B. Operator's cost of holiday, vacation, sickness and disability benefits and other customary allowances paid to employees whose salaries and wages are chargeable to the Joint Account under Paragraph 2A of this Section II. Such costs under this Paragraph 2B may be charged on a "when and as paid basis" or by "percentage assessment" on the amount of salaries and wages chargeable to the Joint Account under Paragraph 2A of this Section II. If percentage assessment is used, the rate shall be based on the Operator's cost experience.

C. Expenditures or contributions made pursuant to assessments imposed by governmental authority which are applicable to Operator's costs chargeable to the Joint Account under Paragraphs 2A and 2B of this Section II.

D. Personal Expenses of those employees whose salaries and wages are chargeable to the Joint Account under Paragraph 2A of this Section II.

3. Employee Benefits

Operator's current costs of established plans for employees' group life insurance, hospitalization, pension, retirement, stock purchase, thrift, bonus, and other benefit plans of a like nature, applicable to Operator's labor cost chargeable to the Joint Account under Paragraphs 2A and 2B of this Section II shall be Operator's actual cost not to exceed twenty per cent (20%).

4. Material

Material purchased or furnished by Operator for use on the Joint Property as provided under Section IV. Only such Material shall be purchased for or transferred to the Joint Property as may be required for immediate use and is reasonably practical and consistent with efficient and economical operations. The accumulation of surplus stocks shall be avoided.

5. Transportation

Transportation of employees and Material necessary for the Joint Operations but subject to the following limitations:

A. If Material is moved to the Joint Property from the Operator's warehouse or other properties, no charge shall be made to the Joint Account for a distance greater than the distance from the nearest reliable supply store, recognized barge terminal, or railway receiving point where like material is normally available, unless agreed to by the Parties.

B. If surplus Material is moved to Operator's warehouse or other storage point, no charge shall be made to the Joint Account for a distance greater than the distance to the nearest reliable supply store, recognized barge terminal, or railway receiving point unless agreed to by the Parties. No charge shall be made to the Joint Account for moving Material to other properties belonging to Operator, unless agreed to by the Parties.

C. In the application of Subparagraphs A and B above, there shall be no equalization of actual gross trucking cost of $200 or less excluding accessorial charges.

6. Services

The cost of contract services, equipment and utilities provided by outside sources, except services excluded by Paragraph 9 of Section II and Paragraph 1. ii of Section III. The cost of professional consultant services and contract services of technical personnel directly engaged on the Joint Property if such charges are excluded from the Overhead rates. The cost of professional consultant services or contract services of technical personnel not directly engaged on the Joint Property shall not be charged to the Joint Account unless previously agreed to by the Parties.

7. Equipment and Facilities Furnished by Operator

A. Operator shall charge the Joint Account for use of Operator owned equipment and facilities at rates commensurate with costs of ownership and operation. Such rates shall include costs of maintenance, repairs, other operating expense, insurance, taxes, depreciation, and interest on investment not to exceed eight per cent (8%) per annum. Such rates shall not exceed average commercial rates currently prevailing in the immediate area of the Joint Property.

B. In lieu of charges in Paragraph 7A above, Operator may elect to use average commercial rates prevailing in the immediate area of the Joint Property less 20%. For automotive equipment, Operator may elect to use rates published by the Petroleum Motor Transport Association.

8. Damages and Losses to Joint Property

All costs or expenses necessary for the repair or replacement of Joint Property made necessary because of damages or losses incurred by fire, flood, storm, theft, accident, or other cause, except those resulting from Operator's gross negligence or willful misconduct. Operator shall furnish Non-Operator written notice of damages or losses incurred as soon as practicable after a report thereof has been received by Operator.

9. Legal Expense

Expense of handling, investigating and settling litigation or claims, discharging of liens, payment of judgments and amounts paid for settlement of claims incurred in or resulting from operations under the agreement or necessary to protect or recover the Joint Property, except that no charge for services of Operator's legal staff or fees or expense of outside attorneys shall be made unless previously agreed to by the Parties. All other legal expense is considered to be covered by the overhead provisions of Section III unless otherwise agreed to by the Parties, except as provided in Section I, Paragraph 3.

10. Taxes

All taxes of every kind and nature assessed or levied upon or in connection with the Joint Property, the operation thereof, or the production therefrom, and which taxes have been paid by the Operator for the benefit of the Parties.

11. Insurance

Net premiums paid for insurance required to be carried for the Joint Operations for the protection of the Parties. In the event Joint Operations are conducted in a state in which Operator may act as self-insurer for Workmen's Compensation and/or Employers Liability under the respective state's laws, Operator may, at its election, include the risk under its self-insurance program and in that event, Operator shall include a charge at Operator's cost not to exceed manual rates.

12. Other Expenditures

Any other expenditure not covered or dealt with in the foregoing provisions of this Section II, or in Section III, and which is incurred by the Operator in the necessary and proper conduct of the Joint Operations.

III. OVERHEAD

1. Overhead - Drilling and Producing Operations

i. As compensation for administrative, supervision, office services and warehousing costs, Operator shall charge drilling and producing operations on either:

(X) Fixed Rate Basis, Paragraph 1A, or

( ) Percentage Basis, Paragraph 1B

Unless otherwise agreed to by the Parties, such charge shall be in lieu of costs and expenses of all offices and salaries or wages plus applicable burdens and expenses of all personnel, except those directly chargeable under Paragraph 2A, Section II. The cost and expense of services from outside sources in connection with matters of taxation, traffic, accounting or matters before or involving governmental agencies shall be considered as included in the Overhead rates provided for in the above selected Paragraph of this Section III unless such cost and expense are agreed to by the Parties as a direct charge to the Joint Account.

ii. The salaries, wages and Personal Expenses of Technical Employees and/or the cost of professional consultant services and contract services of technical personnel directly employed on the Joint Property shall ( ) shall not (X) be covered by the Overhead rates.

A. Overhead - Fixed Rate Basis *

(1) Operator shall charge the Joint Account at the following rates per well per month:

Drilling Well Rate $ 2500/mo.

Producing Well Rate $ 250/mo.

(2) Application of Overhead - Fixed Rate Basis shall be as follows:

(a) Drilling Well Rate

[1] Charges for onshore drilling wells shall begin on the date the well is spudded and terminate on the date the drilling or completion rig is released, whichever is later, except that no charge shall be made during suspension of drilling operations for fifteen (15) or more consecutive days.

[2] Charges for offshore drilling wells shall begin on the date when drilling or completion equipment arrives on location and terminate on the date the drilling or completion equipment moves off location or rig is released, whichever occurs first, except that no charge shall be made during suspension of drilling operations for fifteen (15) or more consecutive days

[3] Charges for wells undergoing any type of workover or recompletion for a period of five (5) consecutive days or more shall be made at the drilling well rate. Such charges shall be applied for the period from date workover operations, with rig, commence through date of rig release, except that no charge shall be made during suspension of operations for fifteen (15) or more consecutive days.

(b) Producing Well Rates

[1] An active well either produced or injected into for any portion of the month shall be considered as a one-well charge for the entire month.

[2] Each active completion in a multi-completed well in which production is not commingled down hole shall be considered as a one-well charge providing each completion is considered a separate well by the governing regulatory authority.

[3] An inactive gas well shut in because of overproduction or failure of purchaser to take the production shall be considered as a one-well charge providing the gas well is directly connected to a permanent sales outlet.

[4] A one-well charge may be made for the month in which plugging and abandonment operations are completed on any well.

[5] All other inactive wells (including but not limited to inactive wells covered by unit allowable, lease allowable, transferred allowable, etc.) shall not qualify for an overhead charge.

(3) The well rates shall be adjusted as of the first day of April each year following the effective date of the agreement to which this Accounting Procedure is attached. The adjustment shall be computed by multiplying the rate currently in use by the percentage increase or decrease in the average weekly earnings of Crude Petroleum and Gas Production Workers for the last calendar year compared to the calendar year preceding as shown by the index of average weekly earnings of Crude Petroleum and Gas Fields Production Workers as published by the United States Department of Labor, Bureau of Labor Statistics, or the equivalent Canadian index as published by Statistics Canada, as applicable. The adjusted rates shall be the rates currently in use, plus or minus the computed adjustment.

* These rates subject to being increased by Operator upon furnishing Non-Operators proof of actual overhead costs necessitating such increase.

B. Overhead - Percentage Basis

(1) Operator shall charge the Joint Account at the following rates:

(a) Development

_____ Percent (__ %) of the cost of Development of the Joint Property exclusive of costs provided under Paragraph 9 of Section II and all salvage credits.

(b) Operating

_____ Percent (__ %) of the cost of Operating the Joint Property exclusive of costs provided under Paragraphs 1 and 9 of Section II, all salvage credits, the value of injected substances purchased for secondary recovery and all taxes and assessments which are levied, assessed and paid upon the mineral interest in and to the Joint Property.

(2) Application of Overhead - Percentage Basis shall be as follows:
For the purpose of determining charges on a percentage basis under Paragraph 1B of this Section III, development shall include all costs in connection with drilling, redrilling, deepening or any remedial operations on any or all wells involving the use of drilling crew and equipment; also, preliminary expenditures necessary in preparation for drilling and expenditures incurred in abandoning when the well is not completed as a producer, and original cost of construction or installation of fixed assets, the expansion of fixed assets and any other project clearly discernible as a fixed asset, except Major Construction as defined in Paragraph 2 of this Section III. All other costs shall be considered as Operating.

~~2. Overhead - Major Construction~~ If applicable, will be negotiated.

~~To compensate Operator for overhead costs incurred in the construction and installation of fixed assets, the expansion of fixed assets, and any other project clearly discernible as a fixed asset required for the development and operation of the Joint Property, Operator shall either negotiate a rate prior to the beginning of construction, or shall charge the Joint Account for Overhead based on the following rates for any Major Construction project in excess of $_____:~~

~~A. _____% of total costs if such costs are more than $_____ but less than $_____; plus~~

~~B. _____% of total costs in excess of $_____ but less than $1,000,000; plus~~

~~C. _____% of total costs in excess of $1,000,000.~~

~~Total cost shall mean the gross cost of any one project. For the purpose of this paragraph, the component parts of a single project shall not be treated separately and the cost of drilling and workover wells shall be excluded.~~

3. Amendment of Rates

The Overhead rates provided for in this Section III may be amended from time to time only by mutual agreement between the Parties hereto if, in practice, the rates are found to be insufficient or excessive.

IV. PRICING OF JOINT ACCOUNT MATERIAL PURCHASES, TRANSFERS AND DISPOSITIONS

Operator is responsible for Joint Account Material and shall make proper and timely charges and credits for all material movements affecting the Joint Property. Operator shall provide all Material for use on the Joint Property; however, at Operator's option, such Material may be supplied by the Non-Operator. Operator shall make timely disposition of idle and/or surplus Material, such disposal being made either through sale to Operator or Non-Operator, division in kind, or sale to outsiders. Operator may purchase, but shall be under no obligation to purchase, interest of Non-Operators in surplus condition A or B Material. The disposal of surplus Controllable Material not purchased by the Operator shall be agreed to by the Parties.

1. Purchases

Material purchased shall be charged at the price paid by Operator after deduction of all discounts received. In case of Material found to be defective or returned to vendor for any other reason, credit shall be passed to the Joint Account when adjustment has been received by the Operator.

2. Transfers and Dispositions

Material furnished to the Joint Property and Material transferred from the Joint Property or disposed of by the Operator, unless otherwise agreed to by the Parties, shall be priced on the following bases exclusive of cash discounts:

A. New Material (Condition A)

(1) Tubular goods, except line pipe, shall be priced at the current new price in effect on date of movement on a maximum carload or barge load weight basis, regardless of quantity transferred, equalized to the lowest published price f.o.b. railway receiving point or recognized barge terminal nearest the Joint Property where such Material is normally available.

(2) Line Pipe

(a) Movement of less than 30,000 pounds shall be priced at the current new price, in effect at date of movement, as listed by a reliable supply store nearest the Joint Property where such Material is normally available.

(b) Movement of 30,000 pounds or more shall be priced under provisions of tubular goods pricing in Paragraph 2A (1) of this Section IV.

(3) Other Material shall be priced at the current new price, in effect at date of movement, as listed by a reliable supply store or f.o.b. railway receiving point nearest the Joint Property where such Material is normally available.

B. Good Used Material (Condition B)

Material in sound and serviceable condition and suitable for reuse without reconditioning:

(1) Material moved to the Joint Property

(a) At seventy-five percent (75%) of current new price, as determined by Paragraph 2A of this Section IV.

(2) Material moved from the Joint Property

(a) At seventy-five percent (75%) of current new price, as determined by Paragraph 2A of this Section IV, if Material was originally charged to the Joint Account as new Material, or

COPIES

(b) at sixty-five percent (65%) of current new price, as determined by Paragraph 2A of this Section IV, if Material was originally charged to the Joint Account as *good* used Material at seventy-five percent (75%) of current new price.

The cost of reconditioning, if any, shall be absorbed by the transferring property.

C. Other Used Material (Condition C and D)

(1) *Condition C*

Material which is not in sound and serviceable condition and not suitable for its original function until after reconditioning shall be priced at fifty percent (50%) of current new price as determined by Paragraph 2A of this Section IV. The cost of reconditioning shall be charged to the receiving property, *provided Condition C value plus cost of reconditioning does not exceed Condition B value.*

(2) Condition D

All other Material, including junk, shall be priced at a value commensurate with its use or at prevailing prices. Material no longer suitable for its original purpose but usable for some other purpose, shall be priced on a basis comparable with that of items normally used for such other purpose. Operator may dispose of Condition D Material under procedures normally utilized by the Operator without prior approval of Non-Operators.

D. Obsolete Material

Material which is serviceable and usable for its original function but condition and, or value of such Material is not equivalent to that which would justify a price as provided above may be specially priced as agreed to by the Parties. Such price should result in the Joint Account being charged with the value of the service rendered by such Material.

E. Pricing Conditions

(1) Loading and unloading costs may be charged to the Joint Account at the rate of fifteen cents (15¢) per hundred weight on all tubular goods movements, in lieu of loading and unloading costs sustained, when actual hauling cost of such tubular goods are equalized under provisions of Paragraph 5 of Section II.

(2) Material involving erection costs shall be charged at applicable percentage of the current knocked-down price of new Material.

3. Premium Prices

Whenever Material is not readily obtainable at published or listed prices because of national emergencies, strikes or other unusual causes over which the Operator has no control, the Operator may charge the Joint Account for the required Material at the Operator's actual cost incurred in providing such Material, in making it suitable for use, and in moving it to the Joint Property; provided notice in writing is furnished to Non-Operators of the proposed charge prior to billing Non-Operators for such Material. Each Non-Operator shall have the right, by so electing and notifying Operator within ten days after receiving notice from Operator, to furnish in kind all or part of his share of such Material suitable for use and acceptable to Operator.

4. Warranty of Material Furnished by Operator

Operator does not warrant the Material furnished. In case of defective Material, credit shall not be passed to the Joint Account until adjustment has been received by Operator from the manufacturers or their agents.

V. INVENTORIES

The Operator shall maintain detailed records of Controllable Material.

1. Periodic Inventories, Notice and Representation

At reasonable intervals, Inventories shall be taken by Operator of the Joint Account Controllable Material. Written notice of intention to take inventory shall be given by Operator at least thirty (30) days before any inventory is to begin so that Non-Operators may be represented when any inventory is taken. Failure of Non-Operators to be represented at an inventory shall bind Non-Operators to accept the inventory taken by Operator.

2. Reconciliation and Adjustment of Inventories

Reconciliation of a physical inventory with the Joint Account shall be made, and a list of overages and shortages shall be furnished to the Non-Operators within six months following the taking of the inventory. Inventory adjustments shall be made by Operator with the Joint Account for overages and shortages, but Operator shall be held accountable only for shortages due to lack of reasonable diligence.

3. Special Inventories

Special Inventories may be taken whenever there is any sale or change of interest in the Joint Property. It shall be the duty of the party selling to notify all other Parties as quickly as possible after the transfer of interest takes place. In such cases, both the seller and the purchaser shall be governed by such inventory.

4. Expense of Conducting Periodic Inventories

The expense of conducting periodic Inventories shall not be charged to the Joint Account unless agreed to by the Parties.

EXHIBIT "D"

Attached to and made a part of the Operating Agreement dated October 15, 1979 and covering SE/4 Section 30, T-21-S, R-36-E, Lea County, New Mexico between DOYLE HARTMAN as Operator and James A. Davidson, Richard W. Stump et al as Non-Operators.

Operator, at all times while operations are conducted hereunder, shall carry, and require its contractors to carry insurance to indemnify, protect and hold the parties hereto harmless as follows;

1. Insurance which shall comply with the Workmen's Compensation, Employers Liability and Occupational Disease laws of the State in which operations hereunder are conducted;

2. Comprehensive general liability insurance with limits of not less than:

   A. Bodily Injury:

      $100,000 per person and $300,000 for each occurrence and,

   B. Property Damage:

      $100,000 for each occurrence and $300,000 in the aggregate.

3. Automobile liability insurance with limits of not less than:

   A. $100,000 per person and $300,000 per accident pertaining to bodily injury to, or death of persons; and,

   B. $100,000 per accident pertaining to loss of, or damage to, property.

Upon successful completion of first well, all premiums paid on such insurance shall be charged to the joint account. Except by mutual consent of the parties, no other insurance shall be maintained for the joint account, and all losses not covered by such insurance shall be charged to the joint account.

Operator shall not be liable to Non-Operator (s) for loss suffered on account of the insufficiency of insurance carried, or of the insuror with whom carried, nor shall Operator be liable to Non-Operator (s) for any loss accruing by reason of Operator's inability to provide or maintain the insurance above mentioned; provided, however, that if at any time during the life of this agreement Operator is unable to obtain or maintain such insurance, Operator shall promptly notify Non-Operator (s) in writing of such fact.

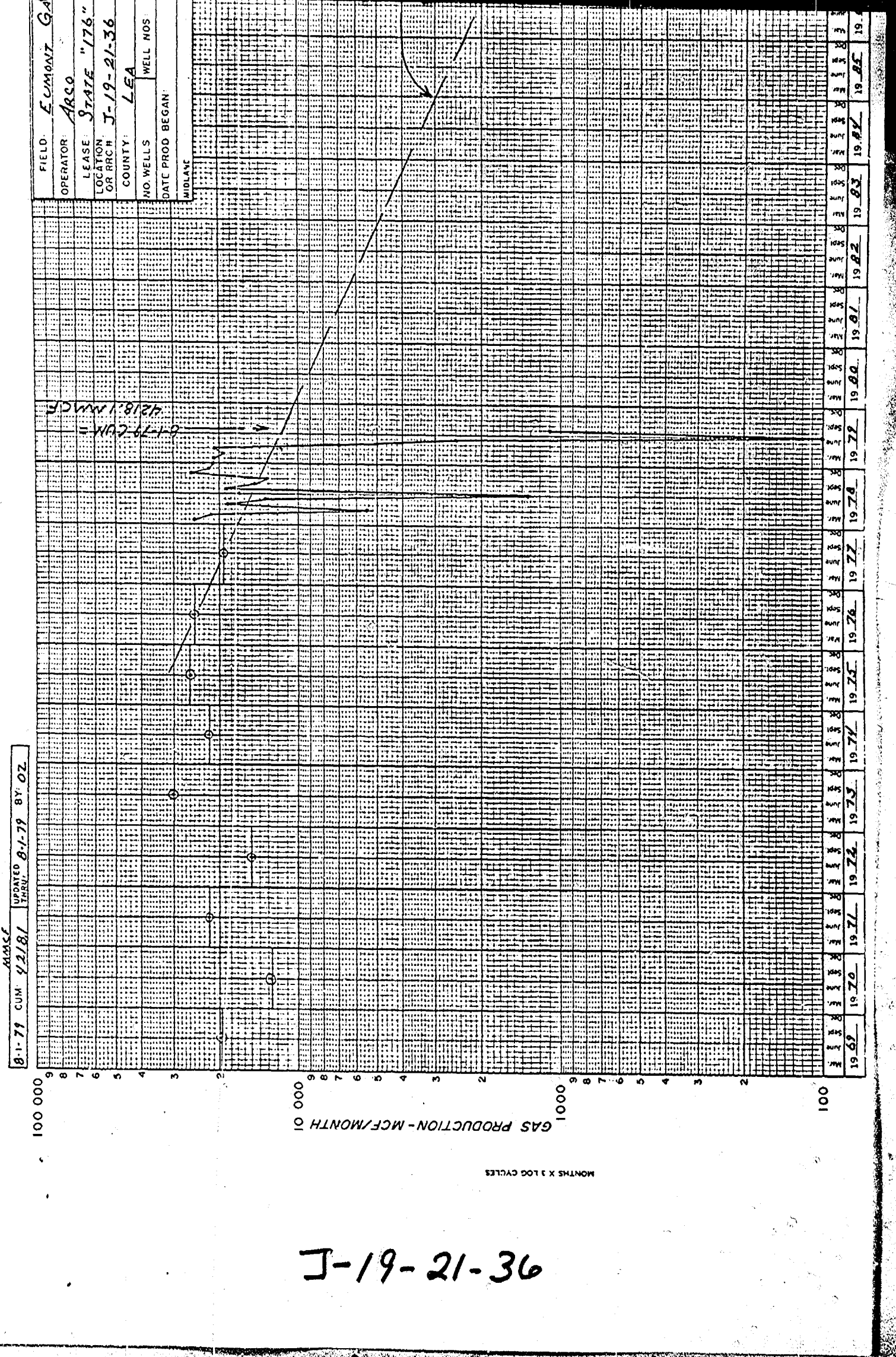
R-36-E

OIL CENTER

EUNICE

JALMAT YATES UNIT

Doyle Hartman (NMOCD Case# 6701
T-21-S, R-35-E, T-21-S, R-36-E
Key wells for which productions &
pressure histories are plotted.


FIELD: EUMONT GAS
OPERATOR: ARCO
LEASE: STATE "176"
LOCATION OR RRC #: J-19-21-36
COUNTY: LEA
NO. WELLS: WELL NOS
DATE PROD BEGAN:
MIDLAND
8-1-79 CUM: 42181 MMCF
UPDATED THRU: 8-1-79 8½ OZ
6-1-79 CUM = 4218.1 MMCF
GAS PRODUCTION - MCF/MONTH
MONTHS X 3 LOG CYCLES
100 000
10 000
1000
100
19 69 19 70 19 71 19 72 19 73 19 74 19 75 19 76 19 77 19 78 19 79 19 80 19 81 19 82 19 83 19 84 19 85

J-19-21-36

MMCF
79 CUM: 4218.1 | UPDATED THRU: 8-1-79 BY: OZ

FIELD:	EUMONT GAS POOL
OPERATOR:	ARCO
LEASE:	STATE "176" NO 3
LOCATION OR RRC #:	J-19-21-36
DIST:	☐ OIL ☐ GAS
COUNTY:	LEA
STATE:	N.M.
NO. WELLS:	
WELL NOS:	
DATE PROD BEGAN:	
ACRES:	
MIDLAND	

8-1-79 CUM = 4218.1 MMCF

9.12 %/YR

1 9 8 7 6 5 4 3 2 1 9 8 7 6 5 4 3 2 1

Dec | Mar. June Sept Dec | Mar. June Sept Dec | Mar. June Sept Dec | Mar. June Sept Dec | Mar. June Sept Dec | Mar. June Sept Dec | Mar. June Sept Dec | Mar. June Sept Dec | Mar. June Sept Dec | Mar. June Sept Dec | Mar. June Sept Dec | Mar. June Sept Dec | Mar. June Sept Dec | Mar. June Sept Dec | Mar. June Sept Dec | Mar. June Sept Dec | Mar. June Sept Dec | Mar. June Sept Dec | Mar. June Sept Dec | Mar. June Sept Dec

19 70 | 19 71 | 19 72 | 19 73 | 19 74 | 19 75 | 19 76 | 19 77 | 19 78 | 19 79 | 19 80 | 19 81 | 19 82 | 19 83 | 19 84 | 19 85 | 19 86 | 19 87 | 19 88

Eumont Gas Pool

OPERATOR ARCo.

F[illegible] State "176" WELL 03

S[illegible] J-19-21-36

COUNTY Lea STATE N.M.

POOL DATE POOL BEGAN

JOHN WELL (cum)

8-1-79 Cum.

P/Z vs. Cum.

Pressure or P/Z - (psia)

0
100
200
300
400
500
600
700

1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0 5.5 6.0 6.5 7.0

Cumulative Gas Production - BCF

GAS PRODUCTION HISTORY

OPERATOR: ARCO

WELL: STATE "176" No. 3

LOCATION: J-19-21-36

POOL: EUMONT GAS

INTERVAL: Eumont Gas Interval 3652-3825 (7R-Qn)

COMPLETION DATE: Eumont Gas Completion 12/29/55

REMARKS:

YEAR	NO. OF MO.	ANNUAL GAS PRODUCTION (MCF)	AVG GAS RATE (MCF/mo.)	CUM GAS PRODUCTION (MMCF)	ANNUAL SIP (psia)	P/z ~~ANNUAL FLUID PRODUCTION (BBL)~~
1979	7	81131	11,590	4218.1		
1978	12	201246	16,771	4136.9	307.2	325
1977	12	232969	19,414	3935.7	299.2	315
1976	12	299905	24,992	3702.7	336.2	360
1975	12	313040	26,086	3402.8	367.2	390
1974	12	263468	21,956	3089.8	373.5	400
1973	12	358992	29,916	2826.3	402.0	435
1972	12	179154	14,930	2467.3	368.9	391
1971	12	264058	22,005	2288.2	485.7	525
1970	12	153609	12,801	2024.1	533.9	590
1969	12	238240	19,853	1870.5	581.0	645

19 78 DETAIL SUMMARY

Jan	24998	July	18979
Feb	21340	August	14630
March	5466	September	13071
April	13925	October	25832
May	13358	November	22056
June	1320	December	21271

Y-T-D Production 81,131 MCF

DAYS/MONTHS (Y-T-D) 7 mo.

19 79 DETAIL SUMMARY

Jan	21161	July	10153
Feb	19266	August	
March	20991	September	
April	6966	October	
May	2563	November	
June	31	December	

Avg. Production 11,590 MCF/mo.

P-19-21-36

MMCF

8-1-79 CUM: 58.2 | UPDATED THRU: 8-1-79 BY: OZ

FIELD: EUMONT GAS PO
OPERATOR: CHEVRON
LEASE: MEREDITH Cum. No.
LOCATION OR RRC #: P-19-21-36
COUNTY: LEA S
NO. WELLS: 1 | WELL NOS: 2
DATE PROD BEGAN: 5-79 A
MIDLAND

GAS PRODUCTION - MCF/MONTH

MONTHS X 3 LOG CYCLES

First Production 5-79

100 000
10 000
1000
100

Mar. June Sept. Dec.

19 79 | 19 80 | 19 81 | 19 82 | 19 83 | 19 84 | 19 85 | 19 86 | 19 87 | 19 88 | 19 89 | 19 90 | 19 91 | 19 92 | 19 93 | 19 94 | 19 95 | 19 96

MMCF

CUM: 58.2 | UPDATED THRU: 8-1-79 BY: OZ

FIELD: EUMONT GAS POOL

OPERATOR: CHEVRON

LEASE: MEREDITH CUM. NO. 2

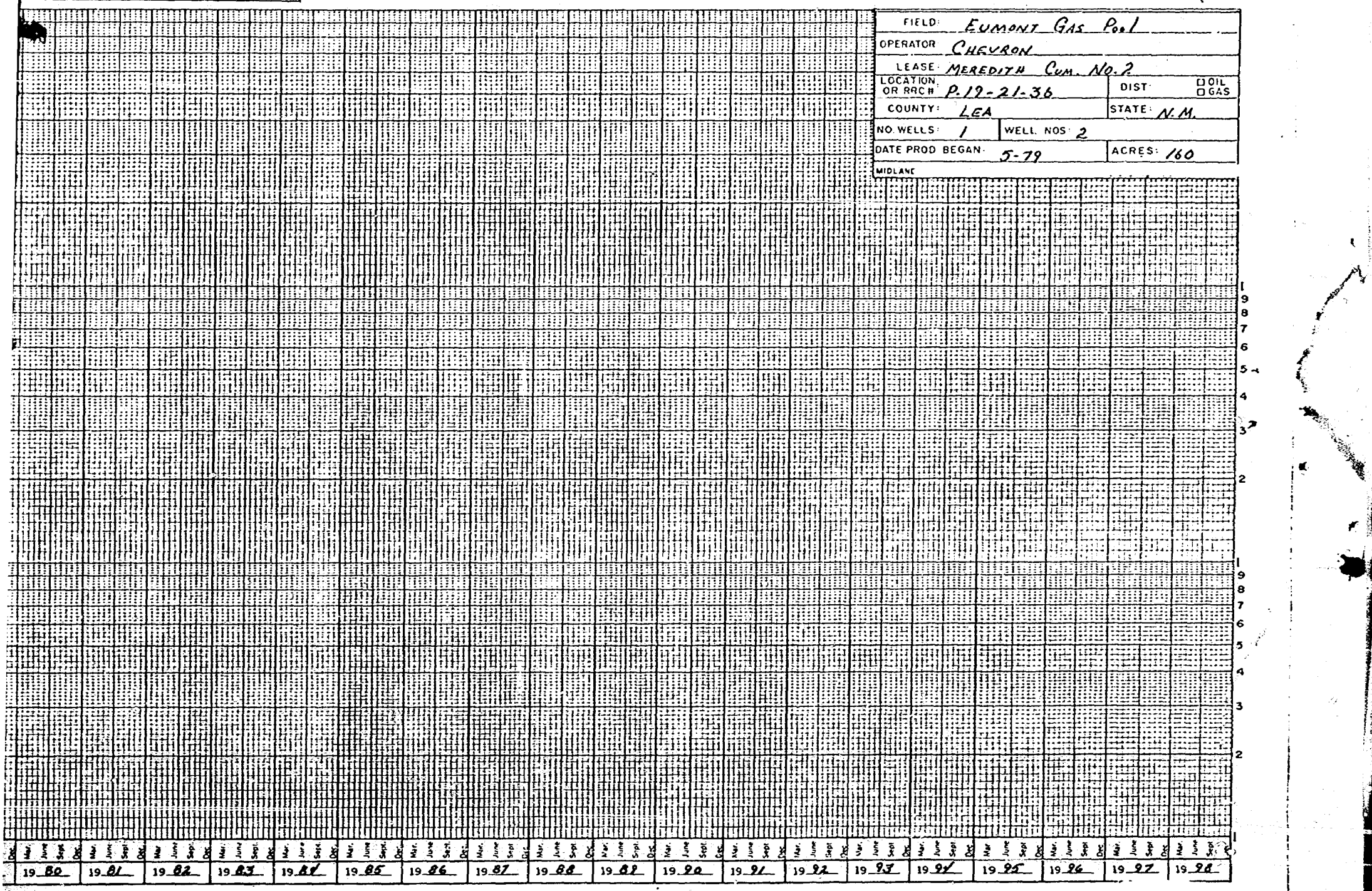
LOCATION OR RRC #: P-19-21-36 | DIST: ☐ OIL ☐ GAS

COUNTY: LEA | STATE: N.M.

NO. WELLS: 1 | WELL NOS: 2

DATE PROD BEGAN: 5-79 | ACRES: 160

MIDLAND



GAS PRODUCTION HISTORY

OPERATOR: CHEVRON

WELL: MEREDITH CUM No. 2

LOCATION: P-19-21-36

POOL: EUMONT GAS

INTERVAL: Eumont Gas Interval 3254-3740 (Yates-Seven Rivers)

COMPLETION DATE: Eumont Gas Completion 12/26/78.

REMARKS: *FIRST PRODUCTION 5-79

YEAR	NO. OF MO.	ANNUAL GAS PRODUCTION (MCF)	AVG GAS RATE (MCF/MO)	CUM GAS PRODUCTION (MMCF)	ANNUAL SIP (psia)	~~ANNUAL FLUID PRODUCTION (BBL)~~ A/Z
1979	3	58147	19382	58.2		

19____ DETAIL SUMMARY

Jan		July	
Feb		August	
March		September	
April		October	
May		November	
June		December	

Y-T-D Production 58147 MCF

DAYS/MONTHS (Y-T-D) 3/10

19 79 DETAIL SUMMARY

Jan		July	20799
Feb		August	
March		September	
April		October	
*May	17831	November	
June	19517	December	

Avg. Production 19382 mcf/mo.

C-29-21-36

8-1-79 CUM: 1499.4 MMCF | UPDATED THRU: 8-1-79 BY: OZ

FIELD: EUMONT GAS POOL
OPERATOR: GETTY
LEASE: STATE "C" NO 1
LOCATION OR RRC#: C-29-21-36 | DIST
COUNTY: LEA | STATE
NO WELLS: 1 | WELL NOS: 1
DATE PROD BEGAN: 5/70 | ACRES
MIDLAND

GAS PRODUCTION - MCF/MONTH

100 000
10 000
1000
100

COMPLETED AS EUMONT GAS PRODUCER 5-12-70

MONTHS X 3 LOG CYCLES

Mar. June Sept. Dec.

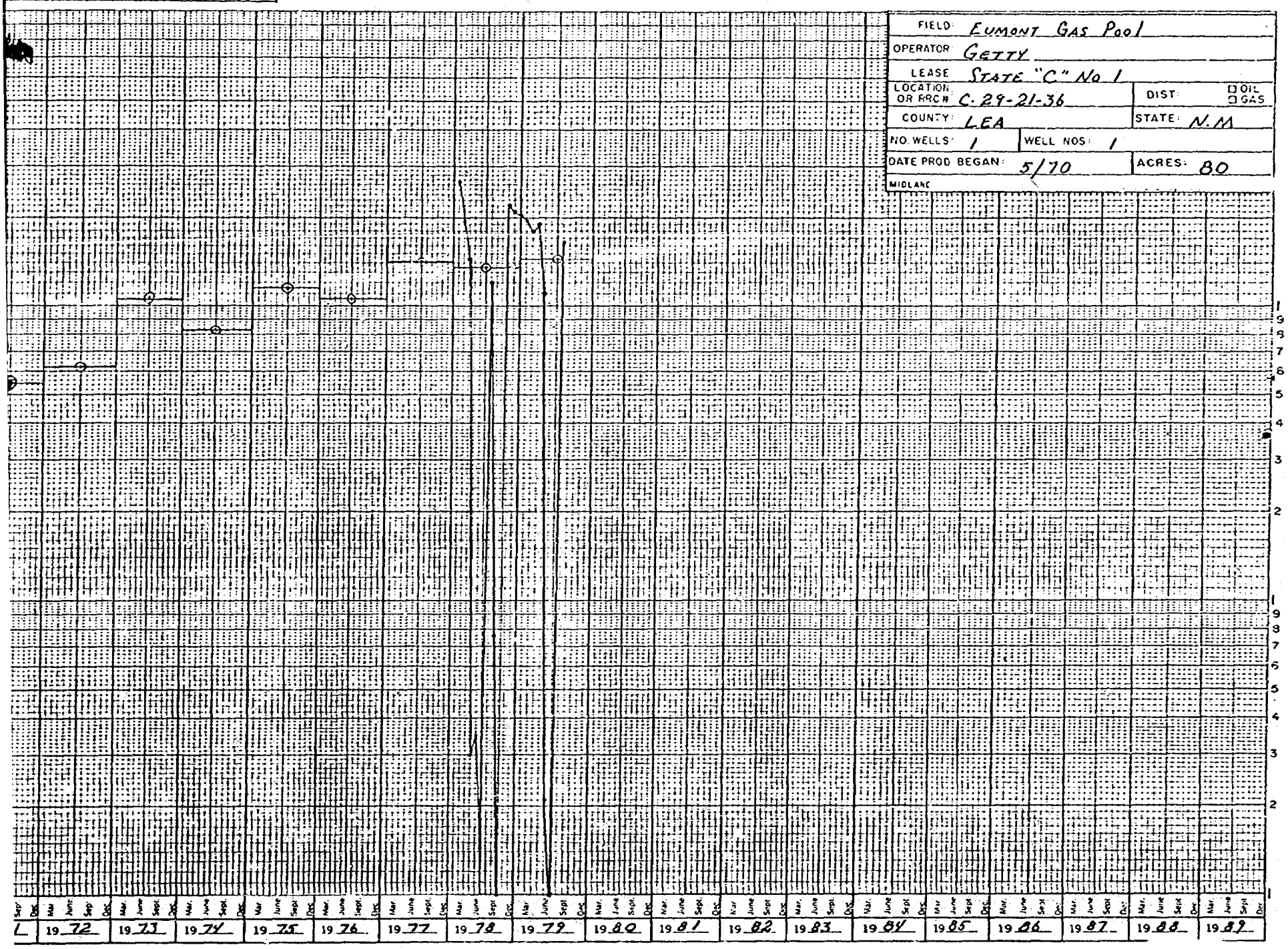
19 70 | 19 71 | 19 72 | 19 73 | 19 74 | 19 75 | 19 76 | 19 77 | 19 78 | 19 79 | 19 80 | 19 81 | 19 82 | 19 83 | 19 84 | 19 85 | 19 86 | 19 87 | 19 88

MMCF
1499.4

UPDATED THRU: 8-1-79 BY: OZ

FIELD:	EUMONT GAS POOL
OPERATOR:	GETTY
LEASE:	STATE "C" NO 1
LOCATION OR RRC #:	C-29-21-36
DIST:	☐ OIL ☐ GAS
COUNTY:	LEA
STATE:	N.M
NO. WELLS:	1
WELL NOS:	1
DATE PROD BEGAN:	5/70
ACRES:	80

MIDLAND


1
9
8
7
6
5
4
3
2
1
9
8
7
6
5
4
3
2
1
Sep. Dec. Mar. June Sept. Dec. Mar. June Sept. Dec. Mar. June Sept

FIELD Eumont Gas Pool
OPERATOR Getty
LEASE State "C" No 1 WELL NO. 1
LOCATION OR PROC # C-29-21-36 DIST
COUNTY Lea STATE N.M.
ACRES 80 DATE PROD BEGAN 5-70

First Prod. 5-70.

8-1-78 Cum = 1.499 MMCF

P/Z vs. Cum.

1971 1972 1973 1974 1975 1976 1977 1978

Pressure or P/Z - (psia)

900
800
700
600
500
400
300
200
100
0

0.2 0.4 0.6 0.8 1.0 1.2 1.4 1.6 1.8 2.0 2.2 2.4 2.6

Cumulative Gas Production - BCF

GAS PRODUCTION HISTORY

OPERATOR: GETTY

WELL: STATE "C" NO.1

LOCATION: C-29-21-36

POOL: EUMONT GAS

INTERVAL: Eumont Gas Interval 3743-3763 (Queen)

COMPLETION DATE: Gas completion date 5-12-70

REMARKS:

YEAR	NO. OF MO.	ANNUAL GAS PRODUCTION (MCF)	AVG GAS RATE (MCF/MO)	CUM GAS PRODUCTION (MMCF)	ANNUAL SIP (psia)	~~ANNUAL FLUID PRODUCTION (BBL)~~ P/Z
1979	6	86299	14383	1499.4		
1978	11	147710	13428	1413.1	401.2	430
1977	12	170188	14182	1265.4	450.2	490
1976	12	126178	10514	1095.2	460.2	500
1975	12	137958	11496	968.0	478.2	525
1974	12	99788	8315	831.0	467.9	510
1973	12	127223	10601	731.2	478.5	525
1972	12	74547	6212	604.0	520.8	570
1971	12	65931	5494	529.5	576.5	640
1970	8	52903	6612	463.5	603.7	675
1969	0	0	0	410.7	662.2	750
1968	0	0	0	410.7	NA	NA
1967	0	0	0	410.7	NA	NA
1966	0	0	0	410.7	717.2	830

19 78 DETAIL SUMMARY

Jan	26673	July	12094
Feb	19547	August	7556
March	14501	September	0
April	2962	October	21834
May	3401	November	21176
June	142	December	20724

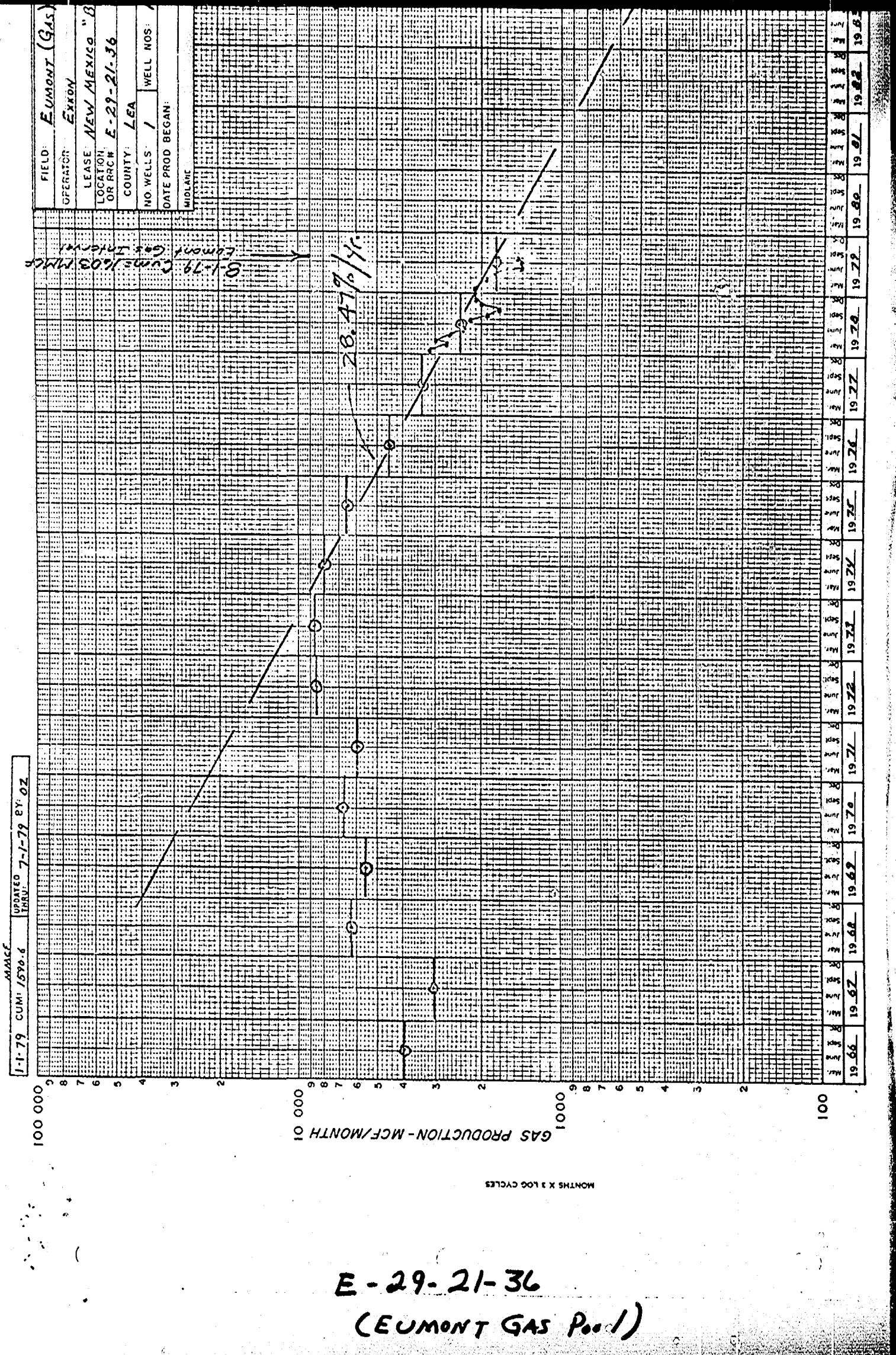
Y-T-D Production 86299 MCF

DAYS/MONTHS (Y-T-D) 6 MO

19 79 DETAIL SUMMARY

Jan	19825	July	16202
Feb	18161	August	
March	19039	September	
April	10964	October	
May	2108	November	
June	0	December	

Avg. Production 14383 mcf/mo.

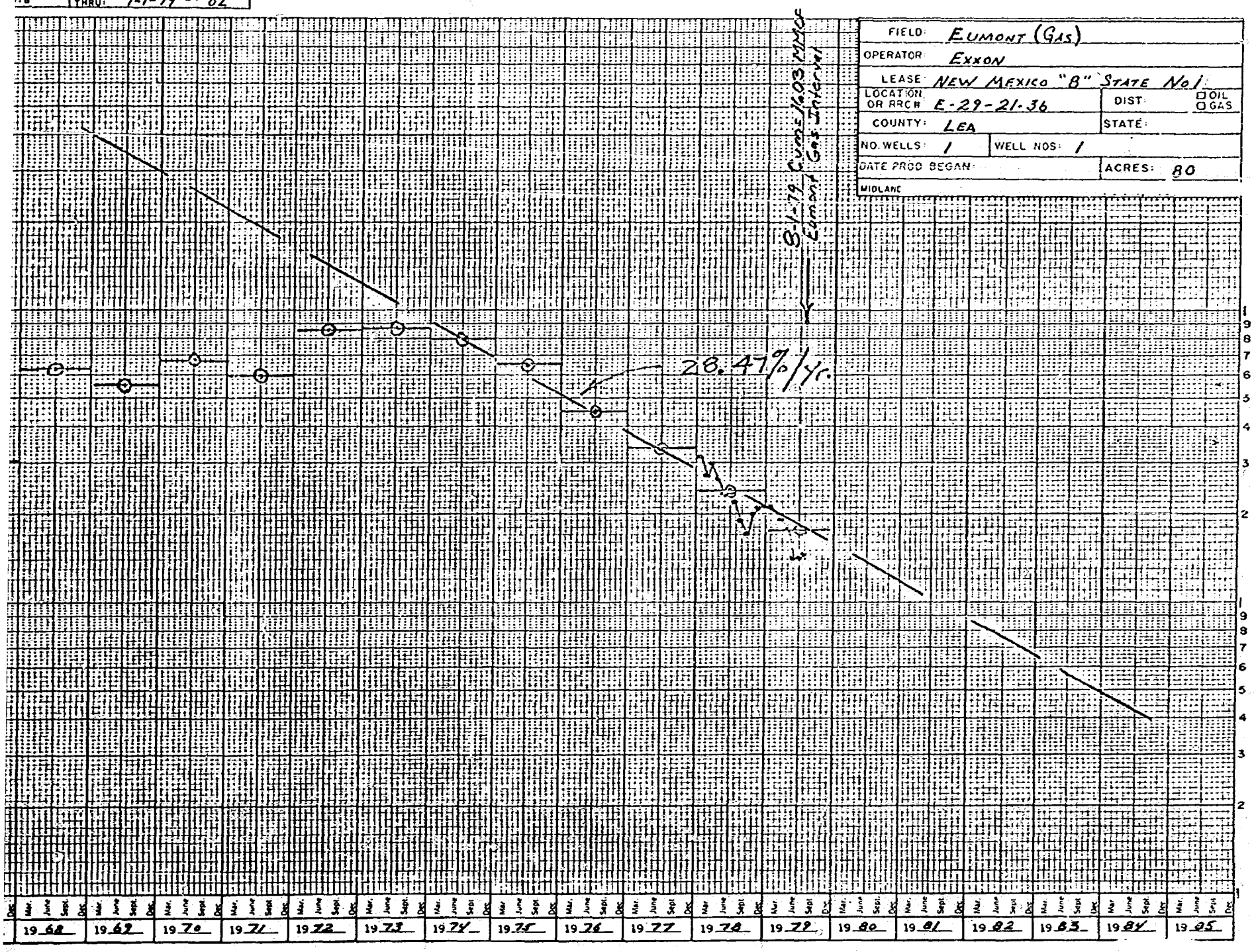


E-29-21-36

(EUMONT GAS Pool)

UPDATED THRU: 7-1-79 BY: OZ

FIELD:	EUMONT (GAS)
OPERATOR:	EXXON
LEASE:	NEW MEXICO "B" STATE No 1
LOCATION OR RRC #:	E-29-21-36
DIST:	☐ OIL ☐ GAS
COUNTY:	LEA
STATE:	
NO. WELLS:	1
WELL NOS:	1
DATE PROD BEGAN:	
ACRES:	80
MIDLAND	



FIELD: Eumont Gas Pool
OPERATOR: Exxon
LEASE: New Mexico "B" State WELL NO: 1
LOCATION / SURVEY: E-29-21-36 UNIT: FOOTAGE:
COUNTY: Lea STATE: N.M.
ACRES: 80 DATE PROD. BEGAN:

Pressure (P/Z - (PSIG)

800
700
600
500
400
300
200
100
0

1966
1967
1968
1969
1970
1971
1972
1973
1974
1975
1976
1977
1978

8-1-79 Cum = 1.603 MMCF

P/Z vs. Cum.

0.8 1.0 1.2 1.4 1.6 1.8 2.0 2.2 2.4 2.6 2.8 3.0 3.2

Cumulative Gas Production - BCF

GAS PRODUCTION HISTORY

OPERATOR: EXXON

WELL: NEW MEXICO "B" STATE No 1

LOCATION: E-29-21-36

POOL: EUMONT GAS

INTERVAL: Eumont Completion Interval (Oil & Gas) 3300-3840
(Yates - Seven Rivers - Queen)

COMPLETION DATE: Eumont Interval Completion Date - 1955

REMARKS: Well is a Eumont Gas - Eumont Oil dual. Location of packer between Eumont Gas and Eumont Oil Unavailable.

YE	NO. OF MO.	ANNUAL GAS PRODUCTION (MCF)	AVG GAS RATE (MCF/MO)	CUM GAS PRODUCTION (MMCF)	ANNUAL SIP (psia)	~~ANNUAL FLUID PRODUCTION (BBL)~~ P/
1979	7	11959	1708	1602.5		
1978	12	28140	2345	1590.6	352.2	375
1977	12	40401	3366	1562.5	373.2	400
1976	12	53127	4427	1522.1	405.2	435
1975	12	77920	6493	1468.9	442.2	480
1974	12	95042	7920	1391.0	453.2	490
1973	12	103982	8665	1295.9	532.2	580
1972	12	102967	8580	1192.0	529.2	580
1971	9	53240	5915	1089.0	531.2	580
1970	11	72563	6596	1035.8	493.2	535
1969	10	55233	5523	963.2	617.2	695
1968	11	68502	6227	908.0	613.2	690
1967	7	21318	3045	839.5	672.2	765
1966	10	39717	3971	818.2	695.2	795

19 78 DETAIL SUMMARY

Jan	3117	July	2182
Feb	2694	August	1890
March	2955	September	1706
April	2589	October	2062
May	2290	November	2124
June	2417	December	2112

Y-T-D Production 11,959

DAYS/MONTHS (Y-T-D) 7 Mo.

19 79 DETAIL SUMMARY

Jan	2132	July	1441
Feb	1900	August	
March	1918	September	
April	1765	October	
May	1401	November	
June	1402	December	

Avg. Production 1708 MCF/MO.

FIELD: EUMONT (OIL)
OPERATOR: EXXON
LEASE: NEW MEXICO "B"
LOCATION OR RRC #: E-29-21-36
COUNTY: LEA
NO. WELLS: 1 | WELL NOS: 1
DATE PROD BEGAN: (GAS) 1959
MIDLAND

7-1-79 CUM = 12,772 MC

Gas Production History

GAS PRODUCTION - MCF/MONTH

MONTHS X 1 LOG CYCLES

IMAGE
1-1-79 CUM: 5056.8
UPDATED THRU 7-1-79 BY: OZ

E-29-21-36
(EUMONT OIL Pool)

MMCF

UM: 4056.8 | UPDATED THRU: 7-1-79 BY: OZ

FIELD	EUMONT (OIL) POOL
OPERATOR	EXXON
LEASE	NEW MEXICO "B" STATE NO. 1
LOCATION OR RRC #	E-29-21-36
DIST	☐ OIL ☐ GAS
COUNTY	LEA
STATE	N.M
NO. WELLS	1
WELL NOS	1
DATE PROD BEGAN	(GAS) 1959
ACRES	40

MIDLAND

7-1-79 Cum = 4.21 MMCF

Gas Decline Rate = 12.72 % / Yr.

Gas Production History

1 9 8 7 6 5 4 3 2 1 9 8 7 6 5 4 3 2 1

Mar. June Sept. Dec.

19 67 | 19 68 | 19 69 | 19 70 | 19 71 | 19 72 | 19 73 | 19 74 | 19 75 | 19 76 | 19 77 | 19 78 | 19 79 | 19 80 | 19 81 | 19 82 | 19 83 | 19 84 | 19 85

GAS PRODUCTION HISTORY

OPERATOR: EXXON

WELL: NEW MEXICO "B" STATE No. 1

LOCATION: E-29-21-36

POOL: EUMONT OIL

INTERVAL: Overall Eumont Completion Interval (Oil+Gas) 3300-3840 (Yates - Seven Rivers - Queen)

COMPLETION DATE: Eumont Completion Date - 1955

REMARKS: GAS PRODUCTION BEGAN 1959

Well is a Eumont Gas - Eumont Oil dual. Location of packer between Eumont Gas and Eumont Oil is unavailable.

YEAR	NO. OF MO.	ANNUAL GAS PRODUCTION (MCF)	AVG GAS RATE (MCF/MO)	CUM GAS PRODUCTION (MMCF)	ANNUAL SIP (psia)	~~ANNUAL FLUID PRODUCTION (BBL)~~ P/Z
1979	6	67145	11190	4123.9	N.A.	N.A.
1978	12	166538	13882	4056.8		
1977	12	175577	14629	3890.2		
1976	11	132210	12019	3714.6		
1975	12	222133	18511	3582.4		
1974	12	246623	20511	3360.3		
1973	12	207211	17267	3113.7		
1972	12	225550	18795	2906.5		
1971	12	188067	15672	2680.9		
1970	12	135418	11284	2492.8		
1969	12	171117	14259	2357.4		
1968	12	181130	15094	2186.3		
1967	12	217460	18121	2005.2		
1966	12	256341	21361	1787.7		

19 78 DETAIL SUMMARY

Jan	14373	July	14503
Feb	13813	August	14104
March	14651	September	14475
April	14101	October	13930
May	14264	November	12443
June	14265	December	11666

Y-T-D Production 67145 MCF

DAYS/MONTHS (Y-T-D) 6 Mo.

19 79 DETAIL SUMMARY

Jan	10761	July	
Feb	10284	August	
March	11209	September	
April	11347	October	
May	11440	November	
June	12104	December	

Avg. Production 11190 MCF/Mo.

MMCF

1-1-79 CUM: 2754. UPDATED THRU: 8-1-79 BY: OZ

FIELD: EUMONT GAS Po
OPERATOR: ARCO
LEASE: STATE "J" COM.
LOCATION OR RRC #: H-29-21-36
COUNTY: LEA
NO. WELLS: 1 WELL NOS: 1
DATE PROD BEGAN:
MIDLAND

13.51%/YR

CUM=2754 MMCF 8-1-79

GAS PRODUCTION - MCF/MONTH

MONTHS X 3 LOG CYCLES

100 000
10 000
1000
100

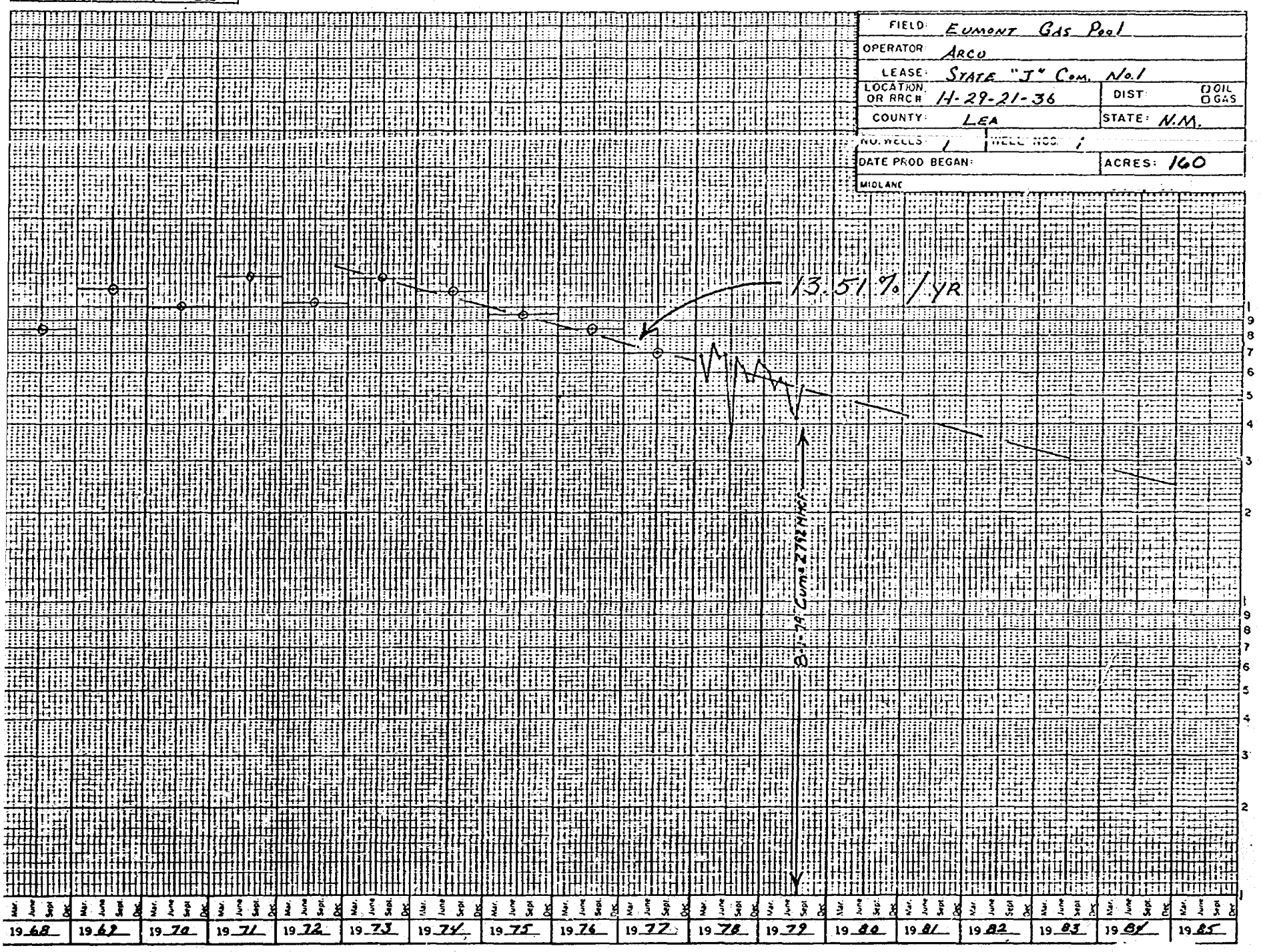
Mar. June Sept. Dec.

19 66 | 19 67 | 19 68 | 19 69 | 19 70 | 19 71 | 19 72 | 19 73 | 19 74 | 19 75 | 19 76 | 19 77 | 19 78 | 19 79 | 19 80 | 19 81 | 19 82 | 19 83

H-29-21-36

UPDATED THRU: 8-1-79 BY: OZ

FIELD:	EUMONT GAS Pool
OPERATOR:	ARCO
LEASE:	STATE "J" COM. No.1
LOCATION OR RRC #:	H-29-21-36
DIST:	☐ OIL ☐ GAS
COUNTY:	LEA
STATE:	N.M.
NO. WELLS:	1
WELL NOS:	1
DATE PROD BEGAN:	
ACRES:	160
MIDLAND	



FIELD EUMONT GAS Pool

OPERATOR AMOCO

LEASE STATE "J" Com 1

LOCATION UNIT REC H-29-21-36

COUNTY LEA STATE N.M.

ACRES 160 DATE PROD BEGAN

Pressure or P/Z - (psia)

1000
900
800
700
600
500
400
300
200
100
0

1956
1967
1968
1969
1970
1971
1972
1973
1974
1975
1976
1977
1978

8-1-79 Cum = 2792 MMCF

P/Z vs Cum

1.2 1.4 1.6 1.8 2.0 2.2 2.4 2.6 2.8 3.0 3.2 3.4 3.6

Cumulative Gas Production - BCF

GAS PRODUCTION HISTORY

OPERATOR: ARCO

WELL: STATE "J" COM. NO. 1

LOCATION: H-29-21-36

POOL: EUMONT GAS

INTERVAL: Eumont Gas Interval 3200-3495 (Yates-Seven Rivers)

COMPLETION DATE: Gas Completion Date 7-13-54

REMARKS:

YEAR	NO. OF MO.	ANNUAL GAS PRODUCTION (MCF)	AVG GAS RATE (MCF/MO)	CUM GAS PRODUCTION (MMCF)	ANNUAL SIP (psia)	~~ANNUAL FLUID PRODUCTION (BBL)~~ P/Z
1979	7	36696	5242	2791.7		
1978	12	74077	6173	2754.0	318.2	340
1977	12	83424	6952	2680.9	371.2	400
1976	12	101771	8480	2597.5	409.2	450
1975	12	112564	9380	2495.7	446.2	490
1974	12	135309	11275	2383.1	468.0	510
1973	12	150940	12578	2247.8	511.0	560
1972	12	122682	10223	2096.9	552.9	610
1971	12	154982	12915	1974.0	605.2	680
1970	12	119401	9950	1819.2	644.5	730
1969	12	137796	11483	1699.8	679.5	780
1968	12	100350	8362	1652.0	715.2	820
1967	12	80283	6690	1461.7	751.2	870
1966	12	73077	6089	1381.4	776.5	910

19 78 DETAIL SUMMARY

Jan	6864	July	6663
Feb	5725	August	6228
March	7439	September	5573
April	6724	October	5549
May	6873	November	6546
June	3592	December	6301

Y-T-D Production 36696 MCF

DAYS/MONTHS (Y-T-D) 7mo.

19 79 DETAIL SUMMARY

Jan	6044	July	5388
Feb	5326	August	
March	5689	September	
April	5538	October	
May	4549	November	
June	4166	December	

Avg. Production 5242 mcf/mo.

FIELD: EUMONT GAS

OPERATOR EXXON

LEASE EUMONT GAS COM. NCT-1

LOCATION OR RRC# I-29-21-36 | DIS

COUNTY: LEA | STAT

NO. WELLS: 1 | WELL NOS: 2

DATE PROD BEGAN: | ACRE

MIDLAND

8-1-79 CUM 6173.9 MMCF

1-1-79 CUM: 6318.3 MMCF | UPDATED THRU: 8-1-79 BY: OZ

GAS PRODUCTION - MCF/MONTH

MONTHS X 3 LOG CYCLES

100 000 | 10 000 | 1000 | 100

19 66 | 19 67 | 19 68 | 19 69 | 19 70 | 19 71 | 19 72 | 19 73 | 19 74 | 19 75 | 19 76 | 19 77 | 19 78 | 19 79 | 19 80 | 19 81 | 19 82 | 19 83 | 19

Mar. June Sept. Dec.

I-29-21-36

MCF
3318.3 | UPDATED THRU: 8-1-79 BY: OZ

FIELD: EUMONT GAS
OPERATOR: EXXON
LEASE: EUMONT GAS COM NO. 2
LOCATION OR RRC #: I-29-21-36 | DIST: ☐ OIL ☐ GAS
COUNTY: LEA | STATE: N.M.
NO. WELLS: 1 | WELL NOS: 2
DATE PROD BEGAN: | ACRES: 320
MIDLAND

14.22%/YR

8-1-79 CUM. 6473.9 MMCF.

1 9 8 7 6 5 4 3 2 1 9 8 7 6 5 4 3 2 1

Dec. Mar. June Sept. Dec. Mar. June Sept. Dec. Mar. June Sept.

FIELD Eumont Gas Pool

OPERATOR Exxon

LEASE Eumont Gas Com N02

LOCATION OR PROR. I-29-21-36

COUNTY Lea

STATE N.M.

ACRES 320

DATE PROD BEGAN

Pressure or P/z - (psia)

900
800
700
600
500
400
300
200
100
0

1966 1967 1968 1969 1970 1971 1972 1973 1974 1975 1976 1977

P/z vs Cum

8-1-78 (Current)

2.4 2.8 3.2 3.6 4.0 4.4 4.8 5.2 5.6 6.0 6.4 6.8 7.2

Cumulative Gas Production - BCF

GAS PRODUCTION HISTORY

OPERATOR: EXXON

WELL: EUMONT GAS COM. NO. 2

LOCATION: I-29-21-36

POOL: EUMONT GAS

INTERVAL: Eumont Gas Interval 3200 - 3775 (Yates-7R-Queen)

COMPLETION DATE: Gas Completion 5-1-52

REMARKS:

YEAR	NO. OF MO.	ANNUAL GAS PRODUCTION (MCF)	AVG GAS RATE (MCF/MO)	CUM GAS PRODUCTION (MMCF)	ANNUAL SIP (psia)	P/Z ~~ANNUAL FLUID PRODUCTION (BBL)~~
1979	7	155525	22217	6473.9		
1978	12	273412	22784	6318.3	NA	
1977	12	305993	25499	6044.9	368.2	400
1976	12	398554	33212	5738.9	393.2	420
1975	12	413977	34498	5340.4	413.2	450
1974	12	324930	27077	4926.4	460.2	505
1973	12	474661	39555	4601.5	466.2	510
1972	12	354564	29547	4126.8	549.2	610
1971	12	299539	24961	3762.2	555.2	610
1970	12	276869	23072	3462.7	593.2	660
1969	12	244463	20371	3185.8	643.2	735
1968	12	246809	20567	2941.4	683.2	780
1967	11	123577	11234	2694.6	700.2	800
1966	12	148780	12398	2570.0	723.2	830

19 78 DETAIL SUMMARY

Jan 30169	July 26140	Jan 21148	July 22971
Feb 17500	August 22889	Feb 24286	August
March 20089	September 10344	March 23878	September
April 23436	October 25384	April 19886	October
May 26096	November 21572	May 19794	November
June 26039	December 23754	June 23562	December

19 79 DETAIL SUMMARY

Y-T-D Production 155,525 mcf

DAYS/MONTHS (Y-T-D) 7mo.

Avg. Production 22217 mcf/mo

8-1-79 CUM: 2095 | UPDATED THRU: 8-1-79 BY: B.O.

FIELD: Lumont Gas P
OPERATOR: Conoco " "
LEASE: Lockhart A
LOCATION OR BRC#: F-30-21-36 | DIS
COUNTY: Lea | STAT
NO. WELLS | WELL NOS: 6
DATE PROD BEGAN | ACRE
MIDLAND

GAS PRODUCTION - MCF/MONTH

MONTHS X 3 LOG CYCLES

100 000
10 000
1000
100

8-1-79 Cum = 2095 MCF

13.89%

Mar June Sept Dec

1966 1967 1968 1969 1970 1971 1972 1973 1974 1975 1976 1977 1978 1979 1980 1981 1982 1983

F-30-21-36

CUM: 2095 | UPDATED THRU: 8-1-79 BY: B.O.

FIELD	Eumont Gas Pool
OPERATOR	Conoco " "
LEASE	Lockhart A
LOCATION OR RRC #	F-30-21-36
DIST	☐ OIL ☐ GAS
COUNTY	Lea
STATE	N.M.
NO. WELLS	
WELL NOS	6
DATE PROD BEGAN	
ACRES	160
MIDLAND	

8-1-79 Cum = 2095 MMCF

13.89%/Yr.

1967 1968 1969 1970 1971 1972 1973 1974 1975 1976 1977 1978 1979 1980 1981 1982 1983 1984 1985

FIELD Eumont Gas Pool
OPERATOR Conoco
LEASE Lockhart "A" WELL NO. 6
LOCATION OR ABSTR F-30-21-36 BLOCK SURVEY
COUNTY Lea STATE N.M.
ACRES 160 DATE PROD BEGAN

8-1-74 Cum = 2.095 MMcf

P/Z vs. Cum

Pressure or P/Z - (psig)

700
600
500
400
300
200
100
0

1966 1967 1968 1969 1970 1971 1972 1973 1974 1975 1976 1977 1978

1.2 1.4 1.6 1.8 2.0 2.2 2.4 2.6 2.8 3.0 3.2 3.4 3.6

Cumulative Gas Production - BCF

GAS PRODUCTION HISTORY

OPERATOR: Conoco

WELL: Lockhart "A" No 6

LOCATION: F-30-21-36

POOL: Eumont Gas

INTERVAL: Eumont Gas Comp. 3302-3432 (Yates)

COMPLETION DATE: Comp. date for Eumont Gas 12-7-53.

REMARKS:

YEAR	NO. OF MO.	ANNUAL GAS PRODUCTION (MCF)	AVG GAS RATE (MCF/mo.)	CUM GAS PRODUCTION (MMCF)	ANNUAL SIP (psia)	~~ANNUAL FLUID PRODUCTION (BBL)~~ P/Z
1979	7	35188	5027	2094.8		
1978	12	30248	2521	2059.6	344.2	370
1977	12	33102	2759	2029.4	352.2	378
1976	12	39120	3260	1996.3	343.2	365
1975	12	48060	4005	1957.2	340.2	361
1974	12	52009	4334	1909.1	412.2	444
1973	12	44896	3741	1857.1	380.2	410
1972	12	54575	4548	1812.2	387.2	415
1971	12	61782	5149	1757.6	394.2	425
1970	12	68133	5678	1695.9	391.2	420
1969	12	63880	5323	1627.7	408.2	440
1968	12	93929	7827	1563.8	418.2	450
1967	12	83497	6958	1469.9	410.2	442
1966	7	44801	3734	1386.4	418.2	450

19 78 DETAIL SUMMARY

Jan	2657	July	2548
Feb	2380	August	2543
March	2601	September	2285
April	2554	October	2681
May	2675	November	2311
June	2486	December	2527

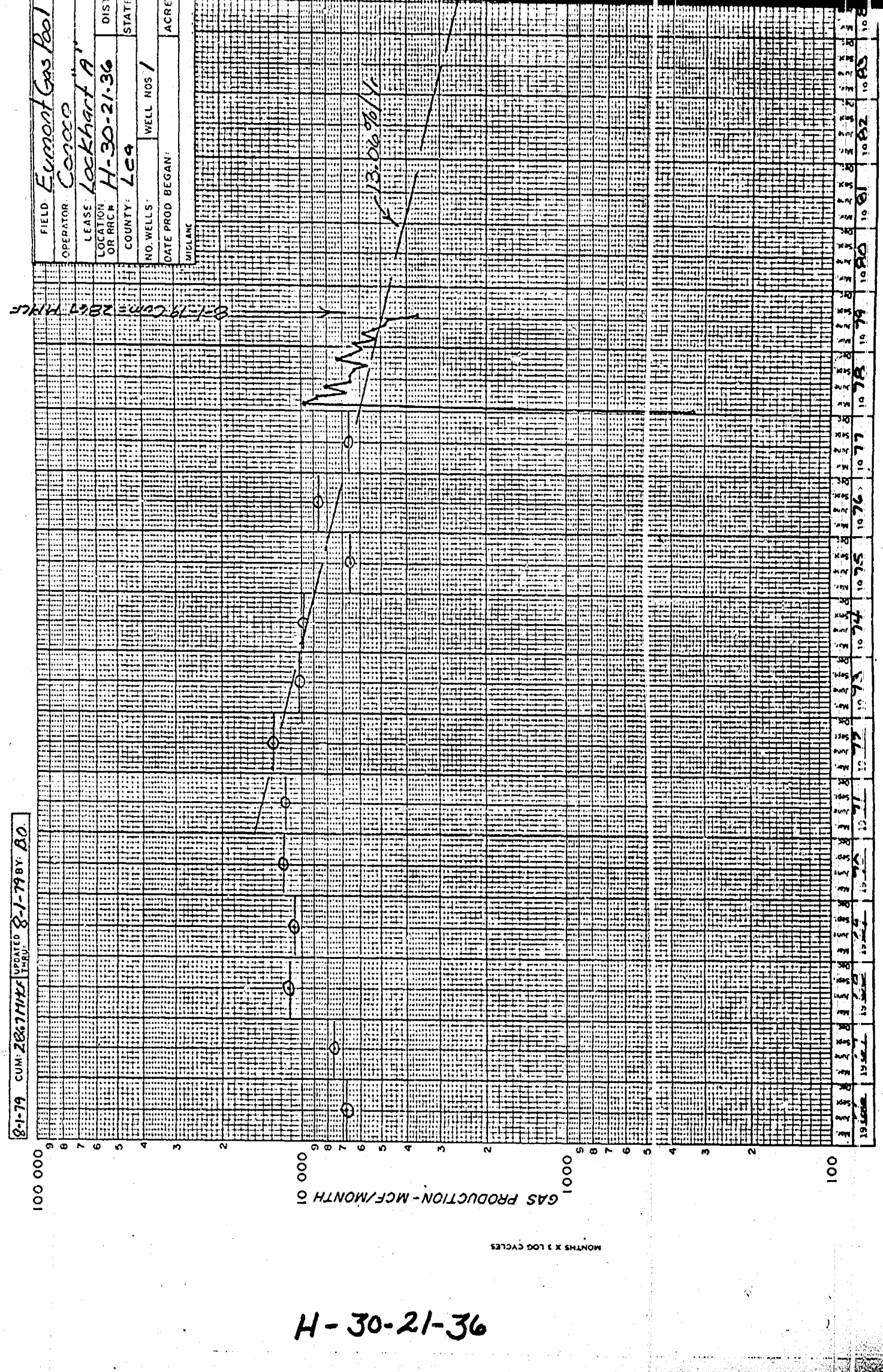
Y-T-D Production 35,188 MCF

DAYS/MONTHS (Y-T-D) 7 mo.

19 79 DETAIL SUMMARY

Jan	2637	July	8317
Feb	2335	August	
March	2519	September	
April	2758	October	
May	8416	November	
June	8207	December	

Avg. Production 5027 MCF/mo.


FIELD Eumont Gas Pool
OPERATOR Conoco
LEASE Lockhart "A"
LOCATION OR RRC # H-30-21-36
COUNTY: Lea
NO. WELLS: WELL NOS 1
DATE PROD BEGAN:
MIDLAND
8-1-79 CUM: 28,171 MCF UPDATED THRU: 8-1-79 BY: BO
8-1-79 CUM = 28,171 MCF
13,066 MCF
GAS PRODUCTION - MCF/MONTH
MONTHS X 3 LOG CYCLES
100 000
10 000
1000
100
1974
1975
1976
1977
1978
1979
1980
1981
1982
1983

H-30-21-36

M 2B67MIKE | UPDATED THRU: 8-1-79 BY: B.O.

FIELD	Eumont Gas Pool
OPERATOR	Conoco
LEASE	Lockhart "A"
LOCATION OR RRC #	H-30-21-36
DIST.	☐ OIL ☐ GAS
COUNTY:	Lea
STATE:	N.M.
NO. WELLS:	
WELL NOS:	1
DATE PROD BEGAN:	
ACRES:	160

MIDLAND

EUMONT 1552 MMCF 8/1/79

13.06%/Yr.

1967 1968 1969 1970 1971 1972 1973 1974 1975 1976 1977 1978 1979 1980 1981 1982 1983 1984 1985

FIELD Eumont Gas Pool

OPERATOR Conoco

LEASE Lockhart "A" WELL NO. 1

LOCATION W. PROP. # H-30-21-36 DIST. UNIT SEC.

COUNTY Lea STATE N.M.

ACRES 160 DATE PROD. BEGAN

8-1-79 Cum = 2827 MMcf

P/Z vs Cum.

Pressure or P/Z - (psig)

900
800
700
600
500
400
300
200
100
0

1956 1967 1968 1969 1970 1971 1972 1973 1974 1975 1976 1977 1978

1.4 1.6 1.8 2.0 2.2 2.4 2.6 2.8 3.0 3.2 3.4 3.6 3.8

Cumulative Gas Production - BCF

GAS PRODUCTION HISTORY

OPERATOR: Conoco

WELL: Lockhart "A" No. 1

LOCATION: H-30-21-36

POOL: Eumont Gas

INTERVAL: Eumont Gas Comp. 3306-3358 (Yates)

COMPLETION DATE: Completed to Eumont Gas 11/23/53

REMARKS: North offset to J.K. Rector No. 1

YEAR	NO. OF MO.	ANNUAL GAS PRODUCTION (MCF)	AVG GAS RATE (MCF/mo.)	CUM GAS PRODUCTION (MMCF)	ANNUAL SIP (psia)	P/Z ~~ANNUAL FLUID PRODUCTION (BBL)~~
1979	7	35709	5101	2866.8		
1978	12	78602	6550	2831.1	182.2	190
1977	12	79040	6587	2752.5	239.2	250
1976	12	103352	8613	2673.4	248.2	258
1975	12	78549	6545	2570.1	263.2	275
1974	12	118277	9856	2491.5	272.2	285
1973	12	121243	10104	2373.2	303.2	322
1972	12	154582	12882	2251.9	388.2	415
1971	11	127423	11584	2097.4	394.2	425
1970	12	140572	11714	1969.0	435.2	470
1969	10	104142	10414	1829.4	553.2	610
1968	10	132167	11014	1725.3	543.2	600
1967	10	75116	7512	1593.1	656.2	745
1966	6	41029	6838	1517.0	658.2	750

19 78 DETAIL SUMMARY

Jan	3552	July	6091
Feb	9667	August	6312
March	8720	September	5675
April	6837	October	7324
May	8138	November	6554
June	6509	December	5943

Y-T-D Production 35,709 MCF

DAYS/MONTHS (Y-T-D) 7 mo.

19 79 DETAIL SUMMARY

Jan	6215	July	3622
Feb	5196	August	
March	5805	September	
April	5320	October	
May	4847	November	
June	4697	December	

Avg. Production 5101 MCF/mo.

FIELD: Eumont Gas
OPERATOR: Texaco
LEASE: J.L. Factor A
LOCATION OR RRC #: J-30-21-36
COUNTY: Lea
NO. WELLS: WELL NOS.
DATE PROD. BEGAN: 1952
MIDLAND

Also Cum = 1061 MMCF
Lease Prod 2-65
Well Reclassified to Gas Prod 4-20-77.

8-1-65 CUM: 1051 MMCF UPDATED THRU: 3-1-65 BY: BO.

First Prod. 1952

GAS PRODUCTION - MCF/MONTH

100 000 | 10 000 | 1000 | 100

MONTHS X 3 LOG CYCLES

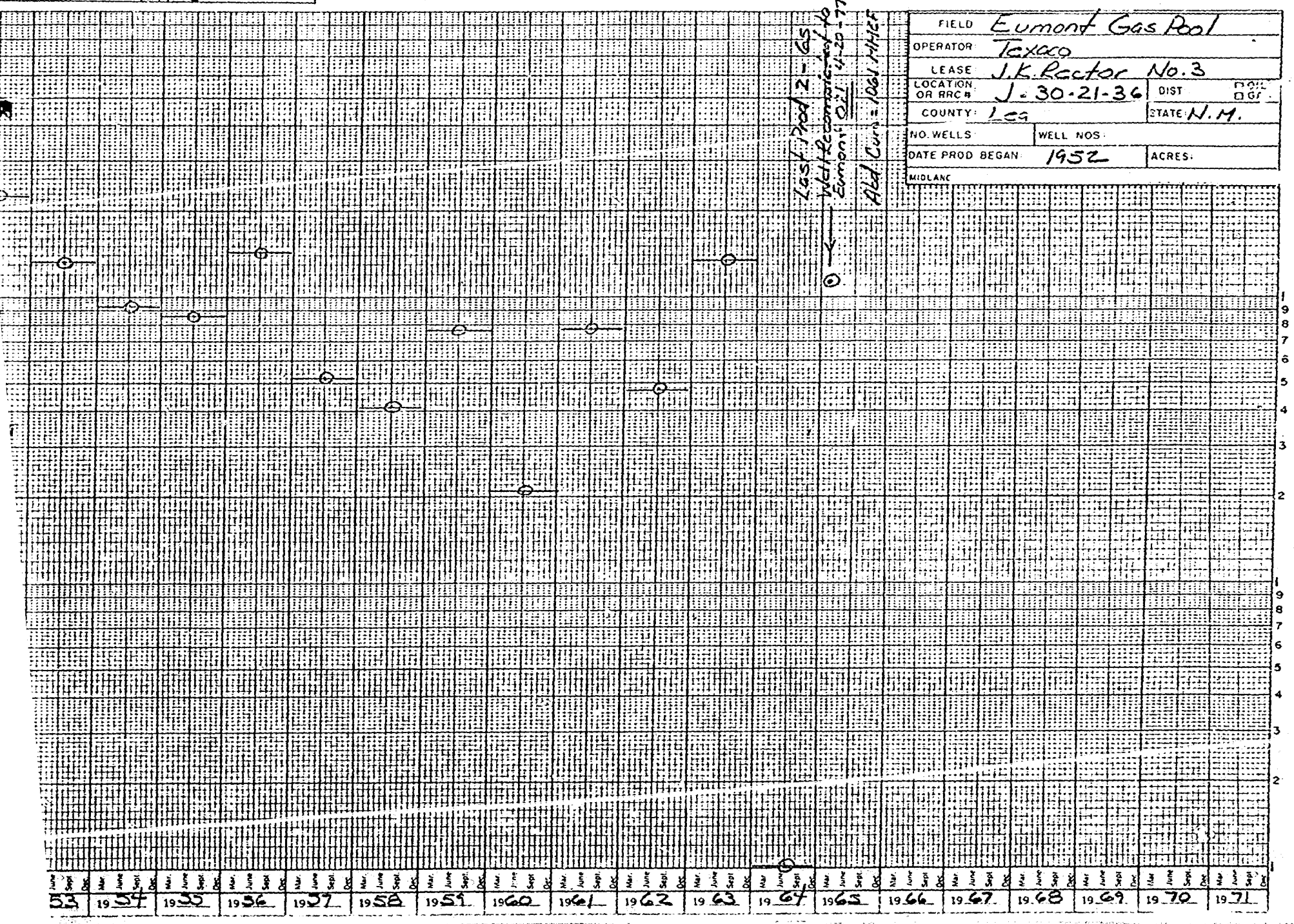
1952 1953 1954 1955 1956 1957 1958 1959 1960 1961 1962 1963 1964 1965 1966 1967 1968 1969

J-30-21-36

12-65 CUM: 1061 MMCF UPDATED THRU: 3-1-65 BY: B.O.

FIELD	Eumont Gas Pool
OPERATOR	Texaco
LEASE	J.K. Rector No. 3
LOCATION OR RRC #	J-30-21-36
DIST	☐ Oil ☐ Gas
COUNTY	Lea
STATE	N.M.
NO. WELLS	
WELL NOS.	
DATE PROD BEGAN	1952
ACRES	
MIDLAND	

Last Prod 2-65
Well Recompleted to Eumont Oil 4-20-77.
Ult. Cum = 1061 MMCF



FIELD Eumont Gas Pool
OPERATOR Texaco
LEASE J.K. Rector — WELL NO. 3
LOCATION OR PROR. J-30-21-36 — SEC. — TWP. — RGE.
COUNTY Lea — STATE N.M.
ACRES — DATE PROD. BEGAN 1952

P/Z vs. Cum.

1952 1953 1954 1955 1956 1957 1958 1960 1962 1959 1963

Last Eumont gas prod. 2-65.
Well recompleted to Eumont oil 4-20-71.
Abd. Cum = 1061 MMCF.

Pressure or P/Z - (psig)

900
800
700
600
500
400
300
200
100
0

0.2 0.4 0.6 0.8 1.0 1.2 1.4 1.6 1.8 2.0 2.2 2.4 2.6

Cumulative Gas Production - BCF

GAS PRODUCTION HISTORY

OPERATOR: TEXACO

WELL: RECTOR No 3

LOCATION: J-30-21-36

POOL: EUMONT GAS

INTERVAL: 3500-3690 (Seven Rivers)

COMPLETION DATE: 10-7-48 (First Prod - 1952)

REMARKS: * 4-20-77 recompleted 3272-3412 (Yates) as Eumont Oil well. NO Eumont gas production after 2-65.

YEAR	NO. OF MO.	ANNUAL GAS PRODUCTION (MCF)	AVG GAS RATE (MCF/mo)	CUM GAS PRODUCTION (MMCF)	ANNUAL SIP (psia)	P/Z ~~ANNUAL FLUID PRODUCTION (BBL)~~
1945*	1	11231	11,231	1061.415	DEAD	NA
1964	0	0	0	1050.184	LOGGED OFF	NA
1963	5	65922	13,184	1050.184	611.2	690
1962	7	32914	4702	984.262	713.2	820
1961	3	23113	7704	951.348	NA	NA
1960	4	8204	2071	928.235	740	850
1959	11	83828	7621	919.9	672	765
1958	8	32462	4058	836.1	764	885
1957	9	46552	5172	803.7	766	885
1956	8	113225	14,153	757.1	765	885
1955	12	103664	8639	643.9	749	865
1954	12	112614	9384	540.2	757	875
1953	12	158217	13,185	427.6	762	880
1952	12	269389	22,449	269.4	771	890

19 64 DETAIL SUMMARY

Jan	0	July	0
Feb	0	August	0
March	0	September	0
April	0	October	0
May	0	November	0
June	0	December	0

Y-T-D Production

DAYS/MONTHS (Y-T-D)

19 65 DETAIL SUMMARY

Jan	0	July	
*Feb	11231	August	
March		September	
April		October	
May		November	
June		December	

Avg. Production

FIELD: Eumont Gas Pool

OPERATOR: Conoco

LEASE: Lockhart "A" No.5

LOCATION OR RRC#: K-30-21-36

COUNTY: LEA

NO. WELLS: WELL NOS:

DATE PROD BEGAN:

MIDLAND

8-1-79 CUM: 1862.3 MCF

UPDATED THRU: 8-1-79 BY: DZ

8-1-79 CUM = 1862 MCF

9.71 MMCF

GAS PRODUCTION - MCF/MONTH

MONTHS X 3 LOG CYCLES

100 000 | 10 000 | 1000 | 100

19 66 | 19 67 | 19 68 | 19 69 | 19 70 | 19 71 | 19 72 | 19 73 | 19 74 | 19 75 | 19 76 | 19 77 | 19 78 | 19 79 | 19 80 | 19 81 | 19 82 | 19 83

K-30-21-36

CUM: 1862.3 | UPDATED THRU: 8-1-79 BY: OZ

FIELD: EUMONT GAS Pool
OPERATOR: CONOCO
LEASE: LOCKHART "A" NO 5
LOCATION OR RRC #: K-30-21-36 | DIST | ☐ OIL ☐ GAS
COUNTY: LEA | STATE: N. M.
NO. WELLS: | WELL NOS.:
DATE PROD BEGAN: | ACRES: 160
MIDLAND

CUM = 1862.3 MMCF 4-1-78

8-1-79

9.71%/yr.

1 9 8 7 6 5 4 3 2 1 9 8 7 6 5 4 3 2 1

Jan Jun Sep Dec

19 67 | 19 68 | 19 69 | 19 70 | 19 71 | 19 72 | 19 73 | 19 74 | 19 75 | 19 76 | 19 77 | 19 78 | 19 79 | 19 80 | 19 81 | 19 82 | 19 83 | 19 84 | 19 85

Eumont Gas Pool
Conoco
Lockhart "A" 5
K-30-21-36
Lea
N.M.
160

8-1-74 Cum = 2.981 BCF

P/Z vs Cum

Pressure or P/Z - (psia)

700
600
500
400
300
200
100
0

1.2 1.4 1.6 1.8 2.0 2.4 2.6 2.8 3.0 3.2 3.4 3.6 3.8

Cumulative Gas Production - BCF

GAS PRODUCTION HISTORY

OPERATOR: Conoco

WELL: Lockhart "A" No. 5

LOCATION: K-30-21-36

POOL: Eumont Gas

INTERVAL: Eumont Gas Interval 3267-3440 (Yates)

COMPLETION DATE: Comp. Date for Eumont Gas 4-11-51

REMARKS:

YEAR	NO. OF MO.	ANNUAL GAS PRODUCTION (MCF)	AVG GAS RATE (MCF/MO)	CUM GAS PRODUCTION (MMCF)	ANNUAL SIP (psia)	~~ANNUAL FLUID PRODUCTION (BBL)~~ P/Z
1979	7	11673	1667.6	1862.3		
1978	12	18716	1559.7	1850.6	348.2	370
1977	12	31804	2650.3	1831.9	214.2	220
1976	12	27575	2297.9	1800.1	293.2	310
1975	10	20894	2089.4	1772.5	312.2	330
1974	12	31604	2883.7	1751.6	317.2	335
1973	12	32387	2698.9	1716.0	361.2	390
1972	12	36255	3021.3	1684.6	388.2	415
1971	12	39225	3268.8	1648.4	379.2	405
1970	12	45081	3756.8	1609.1	406.2	440
1969	12	37777	3148.1	1564.0	408.2	442
1968	12	61777	5147.8	1526.3	426.2	460
1967	12	64679	5389.9	1464.5	406.2	440
1966	11	59626	5420.5	1391.6	470.2	510

19 78 DETAIL SUMMARY

Jan	1253	July	1720
Feb	1401	August	1736
March	1550	September	2051
April	1387	October	1556
May	1587	November	1480
June	1381	December	1614

Y-T-D Production 11673

DAYS/MONTHS (Y-T-D) 7Mo

19 79 DETAIL SUMMARY

Jan	1678	July	1840
Feb	1529	August	
March	1770	September	
April	1559	October	
May	1762	November	
June	1535	December	

Avg. Production 1667.6 MCF/Mo

FIELD: EUMONT GAS

OPERATOR: TEXACO

LEASE: J. R. REESE "A"

LOCATION OR RRC #: O-30-21-36

COUNTY: LEA

NO. WELLS: | WELL NOS:

DATE PROD BEGAN: 1951

MIDLAND

GAS PRODUCTION - MCF/MONTH

100 000 | 10 000 | 1000 | 100

MONTHS X 3 LOG CYCLES

4-1-63 CUM: 95% 0 MMCF | UPDATED THRU: 4-1-63 BY: OZ

First Production 1951

AVG PRODUCTION

Last Prod. 3-63
Cum 95% 0 MMCF
PA 4-12-63

19 51 | 19 52 | 19 53 | 19 54 | 19 55 | 19 56 | 19 57 | 19 58 | 19 59 | 19 60 | 19 61 | 19 62 | 19 63 | 19 64 | 19 65 | 19 66 | 19 67 | 19 68

Jan. Feb. Mar. April May June July Aug. Sept. Oct. Nov. Dec.

O-30-21-36

MMCF

M: 954.0 | UPDATED THRU: 4-1-63 BY: OZ

FIELD	EUMONT GAS POOL
OPERATOR	TEXACO
LEASE	J.K. RECTOR NO. 4
LOCATION OR RRC #	O-30-21-36
DIST	☐ OIL ☑ GAS
COUNTY	LEA
STATE	N.M.
NO. WELLS	
WELL NOS:	
DATE PROD BEGAN	1951
ACRES:	

MIDLAND

LAST PROD 3-63

CUM. 954.0 MMCF

P&A 3-23-63

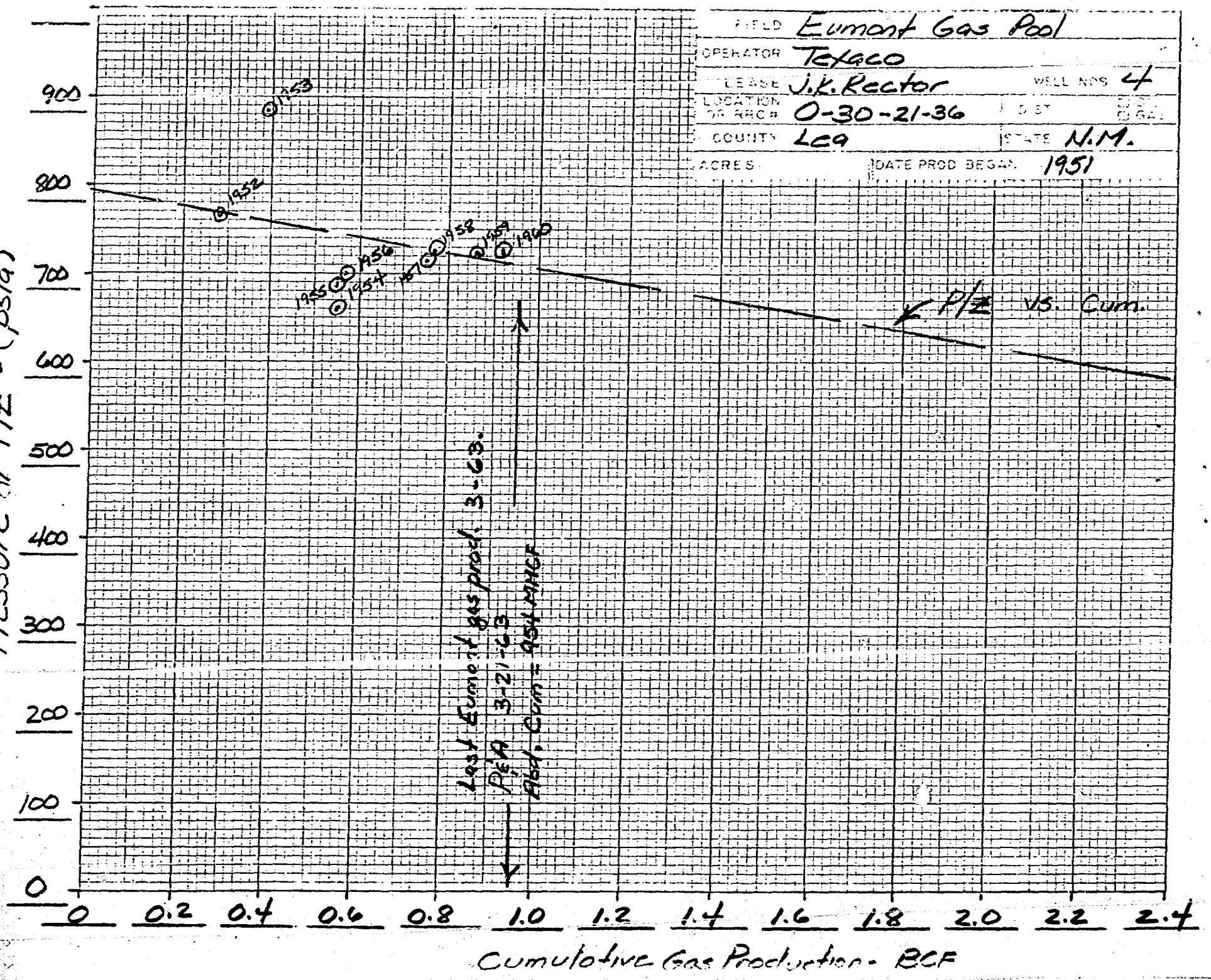
PROJECTION

1 2 3 4 5 6 7 8 9 1 2 3 4 5 6 7 8 9 1

Mar. June Sept. Dec.

19 52 | 19 53 | 19 54 | 19 55 | 19 56 | 19 57 | 19 58 | 19 59 | 19 60 | 19 61 | 19 62 | 19 63 | 19 64 | 19 65 | 19 66 | 19 67 | 19 68 | 19 69 | 19 70

FIELD Eumont Gas Pool
OPERATOR Texaco
LEASE J.K. Rector WELL NOS 4
LOCATION OR ABC # O-30-21-36 D S T D G A S
COUNTY Lea STATE N.M.
ACRES DATE PROD BEGAN 1951



GAS PRODUCTION HISTORY

OPERATOR: TEXACO

WELL: J.K. RECTOR No. 4

LOCATION: O-30-21-36

POOL: EUMONT GAS

INTERVAL: 3758-3785 & 3450-3565 (Seven Rivers)

COMPLETION DATE: April, 1951 (Perfs from 3758-3785)

REMARKS: Well P&A 3-21-63.
Last Prod. 3-63

YEAR	NO. OF MO.	ANNUAL GAS PRODUCTION (MCF)	AVG GAS RATE (MCF/MO)	CUM GAS PRODUCTION (MMCF)	ANNUAL SIP (psia)	~~ANNUAL FLUID PRODUCTION (BBL)~~ P/Z
1963	1	11327	11327	954.0	NA	
1962	1	542	542	942.7	DEAD	
1961	7	24876	3553	942.2	NA	
1960	6	55739	9290	917.3	640	725
1959	11	88495	8045	861.5	635	720
1958	7	23416	3345	773.1	637	725
1957	10	177619	17762	749.6	631	715
1956	4	21219	5305	572.0	618	700
1955	0	0	0	550.8	603	685
1954	9	159485	17720	550.8	591	660
1953	11	108890	9899	391.3	765	885
1952	11	224038	20367	282.4	670	765
1951	7	58381	8340	58.4	NA	

19 62 DETAIL SUMMARY

Jan	0	July	0
Feb	542	August	0
March	0	September	0
April	0	October	0
May	0	November	0
June	0	December	0

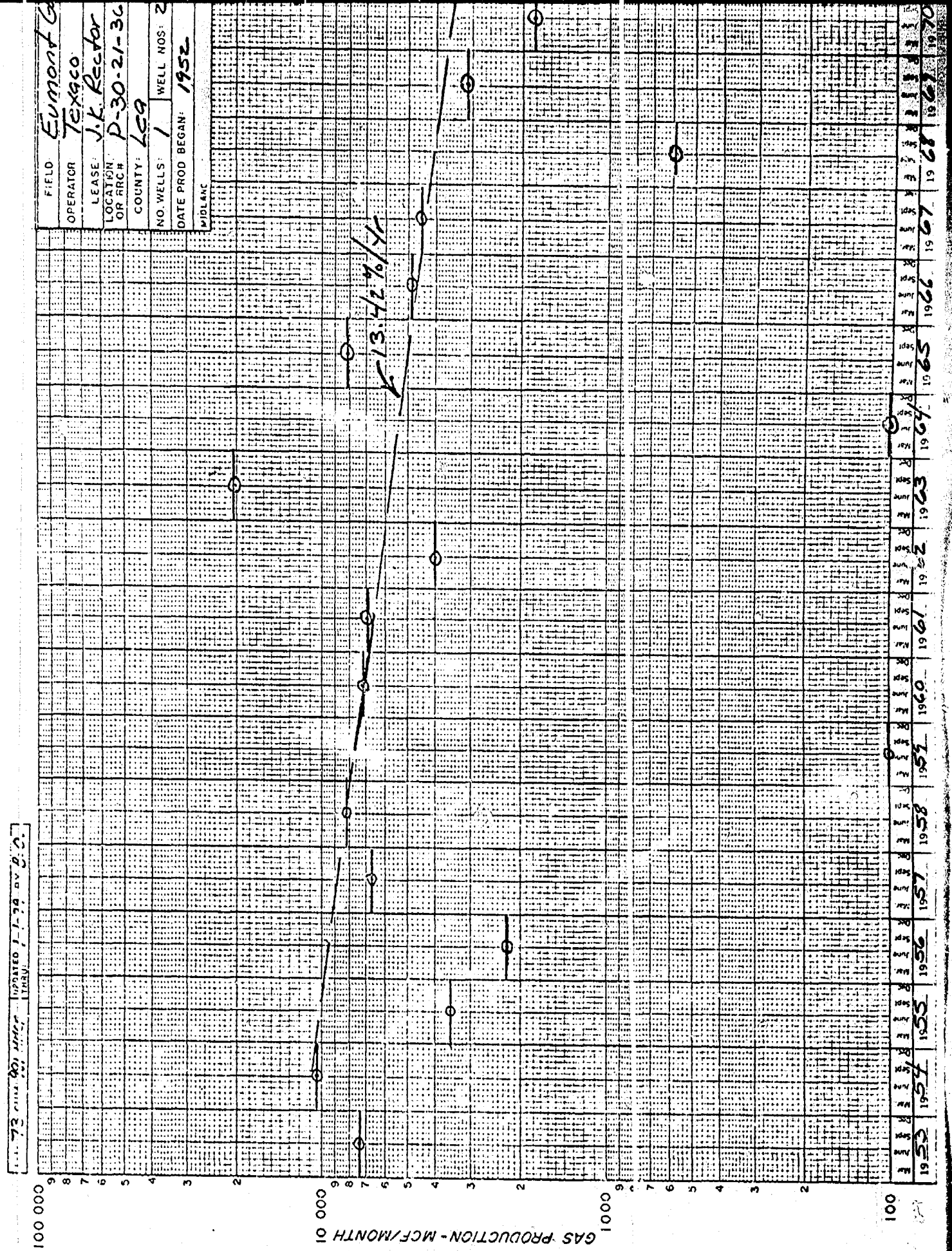
Y-T-D Production 11327 mcf

DAYS/MONTHS (Y-T-D) 1 mo

19 63 DETAIL SUMMARY

Jan	0	July	0
Feb	0	August	0
March	11327	September	0
April	0	October	0
May	0	November	0
June	0	December	0

Avg. Production 11327 mcf/mo


FIELD Eumont Gas
OPERATOR Texaco
LEASE J.K. Rector
LOCATION OR ARC # P-30-21-36
COUNTY Lea
NO. WELLS 1
WELL NOS: 2
DATE PROD BEGAN: 1952
MIDLAND
13,426 MCF
GAS PRODUCTION - MCF/MONTH
CYCLES X 3 LOG CYCLES
100 000
10 000
1000
100
1951
1952
1953
1954
1955
1956
1957
1958
1959
1960
1961
1962
1963
1964
1965
1966
1967
1968
1969
1970
1971
1972
1973

P-30-21-36

1-1-73 CUM: 981 MMCF | UPDATED THRU: 1-1-79 BY B.O.

FIELD:	Eumont Gas Pool
OPERATOR:	Texaco
LEASE:	J.K. Rector
LOCATION OR BRCH:	P-30-21-36
DIST:	☐ OIL ☐ GAS
COUNTY:	Lea
STATE:	N.M.
NO. WELLS:	1
WELL NOS:	2
DATE PROD BEGAN:	1952
ACRES:	

MIDLAND

13.42%/Yr

1953 1954 1955 1956 1957 1958 1959 1960 1961 1962 1963 1964 1965 1966 1967 1968 1969 1970 1971 1972

FIELD: Eumont Gas Pool
OPERATOR: Texaco
LEASE: J.K. Rector — WELL NO.: 2
LOCATION OR ABC#: P-30-21-36 — DF — OIL / GAS
COUNTY: Lea — STATE: N.M.
ACRES — DATE PROD. BEGAN: 1952

Last Eumont Gas Prod. 2-72. Well recompleted to Eumont Oil 3-12. Abd. Cum. = 981 MMCF

P/z vs. Cum.

Abd. Cum. = 921 MMCF

Pressure (psig) - P/z

800
700
600
500
400
300
200
100
0

0 0.2 0.4 0.6 0.8 1.0 1.2 1.4 1.6 1.8 2.0 2.2 2.4

Cumulative Gas Production - BCF

GAS PRODUCTION HISTORY

OPERATOR: TEXACO

WELL: J. K. RECTOR NO. 2

LOCATION: P-30-21-36

POOL: EUMONT GAS

INTERVAL: 3500-3673 (Seven Rivers)

COMPLETION DATE: Eumont Gas completion 5/13/48 (First prod 1952).

REMARKS: * 3-72 RECOMPLETED TO EUMONT YATES SEVEN RIVERS OIL. Last production 2-72.

YEAR	NO. OF MO.	ANNUAL GAS PRODUCTION (MCF)	AVG GAS RATE (MCF/mo)	CUM GAS PRODUCTION (MMCF)	ANNUAL SIP (psia)	P/Z ~~ANNUAL FLUID PRODUCTION (BBL)~~
1972*	2	10000	5000	980.5	NA	
1971	12	52664	4389	970.5	382.2	410
1970	12	21728	1811	917.9	233.2	242
1969	12	38241	3187	896.1	407.2	440
1968	12	7063	589	857.9	373.2	400
1967	11	49653	4513	850.8	574.2	640
1966	12	57991	4833	801.2	583.2	650
1965	9	73415	8157	743.2	583.2	650
1964	0	0	0	669.8	454.2	490
1963	6	128686	21114	669.8	572.2	635
1962	2	7976	3988	541.1	639.2	725
1961	4	27412	6853	533.1	NA	NA
1960	4	28727	7182	505.2	643	730
1959	0	0	0	476.5	571	630

19 71 DETAIL SUMMARY

Jan	2706	July	5745
Feb	6138	August	9943
March	3147	September	1542
April	708	October	5701
May	987	November	5606
June	3974	December	6473

Y-T-D Production

DAYS/MONTHS (Y-T-D)

19 72 DETAIL SUMMARY

Jan	7957	July	
Feb	2043	August	
March		September	
April		October	
May		November	
June		December	

Avg. Production

GAS PRODUCTION HISTORY

OPERATOR: TEXACO (Pg. 2)

WELL: J. K. RECTOR No. 2

LOCATION: P-30-21-36

POOL: EUMONT GAS

INTERVAL:

COMPLETION DATE:

REMARKS:

YEAR	NO. OF MO.	ANNUAL GAS PRODUCTION (MCF)	AVG GAS RATE ( )	CUM GAS PRODUCTION (MMCF)	ANNUAL SIP (psia)	ANNUAL FLUID PRODUCTION (BBL)
1958	4	32806	8202	476.5	538	590
1957	11	72991	6636	443.7	527	575
1956	6	13438	2240	370.7	625	705
1955	2	7100	3550	357.2	605	685
1954	9	92522	10280	350.1	580	645
1953	11	80883	7353	257.6	675	770
1952	12	176722	14727	176.7	668	760

19____ DETAIL SUMMARY

Jan	July
Feb	August
March	September
April	October
May	November
June	December

Y-T-D Production

DAYS/MONTHS (Y-T-D)

19____ DETAIL SUMMARY

Jan	July
Feb	August
March	September
April	October
May	November
June	December

Avg. Production

FIELD: Lumont Gas Pool

OPERATOR: Lyle Oil Co.

LEASE: Rector

LOCATION OR ARC #: G-31-21-36 | DIST:

COUNTY: Lea | STATE: N.M.

NO. WELLS: 1 | WELL NOS: 1

DATE PROD BEGAN: 7-53 | ACRES:

MIDLAND

2-1-64 CUM: 661 MMCF | UPDATED THRU: 2-1-64 BY: BO.

GAS PRODUCTION - MCF/MONTH

MONTHS X 3 LOG CYCLES

100 000 | 10 000 | 1000 | 100

1953 1954 1955 1956 1957 1958 1959 1960 1961 1962 1963 1964 1965 1966 1967 1968 1969 1970 1971

Mar. June Sept. Dec.

First Production 7-53

Last Year of Significant Production

Last Production 1-64

2-1-64 Cum = 661 MMCF

Plugging Approved 1967

G-31-21-36

2-1-64 CUM: 661 MMCF | UPDATED THRU: 2-1-64 | BY: BO.

FIELD	Eumont Gas Pool
OPERATOR	Late Oil Co.
LEASE	Rector
LOCATION OR BLK &	G-31-21-36
DIST	☐ OIL ☐ GAS
COUNTY	Lea
STATE	N.M.
NO. WELLS	
WELL NOS.	1
DATE PROD. BEGAN	7-53
ACRES	

MIDLAND

First Production 7-53

Last Year of Significant Production

Last Production 1-64

2-1-64 Cum = 661 MMCF

Plugged Approved 1964

1 9 8 7 6 5 4 3 2 1 9 8 7 6 5 4 3 2 1

53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72

FIELD: Eumont Gas Pool
OPERATOR: Lake Oil Co.
LEASE: Reactor — WELL NOS.
LOCATION OR BLOCK: G-31-21-36 — SURVEY — PART OF
COUNTY: Lea — STATE: N.M.
ACRES — DATE PROD. BEGAN: 7-53

First Prod 7-53

1-1-58 Cum = 6.55 MMCF
1957 Last Year of Significant Prod.
Last Prod 7-64 Cum = 661 MMCF
2-1-64
(Plugging Approved 1967)

P/Z vs Cum.

PRESSURE - (PSIA) P/Z

900
800
700
600
500
400
300
200
100
0

0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1.0 1.1 1.2

Cumulative Gas Production - BCF

GAS PRODUCTION HISTORY

OPERATOR: LATE OIL Co.

WELL: J. K. RECTOR No. 1

LOCATION: G-31-21-36

POOL: EUMONT GAS

INTERVAL: Eumont Gas Interval 3190-3731 (Yates-7R)

COMPLETION DATE: Completed 6-10-53 (First prod 7-53)

REMARKS: * JAN. 1964 LAST PRODUCTION DATE (Plugging Approved 1967)

1953-1955 PRODUCTION IN JALMAT GAS

YEAR	NO. OF MO.	ANNUAL GAS PRODUCTION (MCF)	AVG GAS RATE (MCF/MO)	CUM GAS PRODUCTION (MMCF)	ANNUAL SIP (psia)	~~ANNUAL FLUID PRODUCTION (BBL)~~ p/z
1964	1	701	701	661.2	NA	NA
1963	4	1272	318	660.5	630.2	710
1962	0	0	0	659.2	630.2	710
1961	1	90	90	659.2	NA	NA
1960	0	0	0	659.1	615	693
1959	1	1583	1583	659.1	606	685
1958	4	2868	717	657.5	611	691
1957	12	159392	13282	654.5	606	685
1956	12	246482	20540	495.3	594	665
1955	2	2658	1329	248.8	580	650
1954	10	212807	21280	246.1	NA	NA
1953	6	33322	5553	33.3	599	673

19 63 DETAIL SUMMARY

Jan	0	July	0
Feb	0	August	0
March	0	September	44
April	0	October	0
May	0	November	217
June	316	December	695

Y-T-D Production 701 MCF

DAYS/MONTHS (Y-T-D) 1 Mo.

19 64 DETAIL SUMMARY

*Jan	701	July	
Feb		August	
March		September	
April		October	
May		November	
June		December	

Avg. Production 701 MCF/Mo.

MMCF

1-1-79 CUM: 2622.5 | UPDATED THRU: 8-79 | BY: OZ

FIELD: JALMAT GAS POOL
OPERATOR: CONOCO
LEASE: LOCKHART B-31 NO.
LOCATION OR RRC #: P.31-21-36 | DIS
COUNTY: LEA | STAT
NO. WELLS: 1 | WELL NOS: 4
DATE PROD BEGAN: | ACR
MIDLAND

GAS PRODUCTION - MCF/MONTH

MONTHS X 3 LOG CYCLES

100 000
10 000
1000
100

8.39%/yr

Mar. June Sept. Dec.

19 66 | 19 67 | 19 68 | 19 69 | 19 70 | 19 71 | 19 72 | 19 73 | 19 74 | 19 75 | 19 76 | 19 77 | 19 78 | 19 79 | 19 80 | 19 81 | 19 82 | 19 83 | 19

P-31-21-36

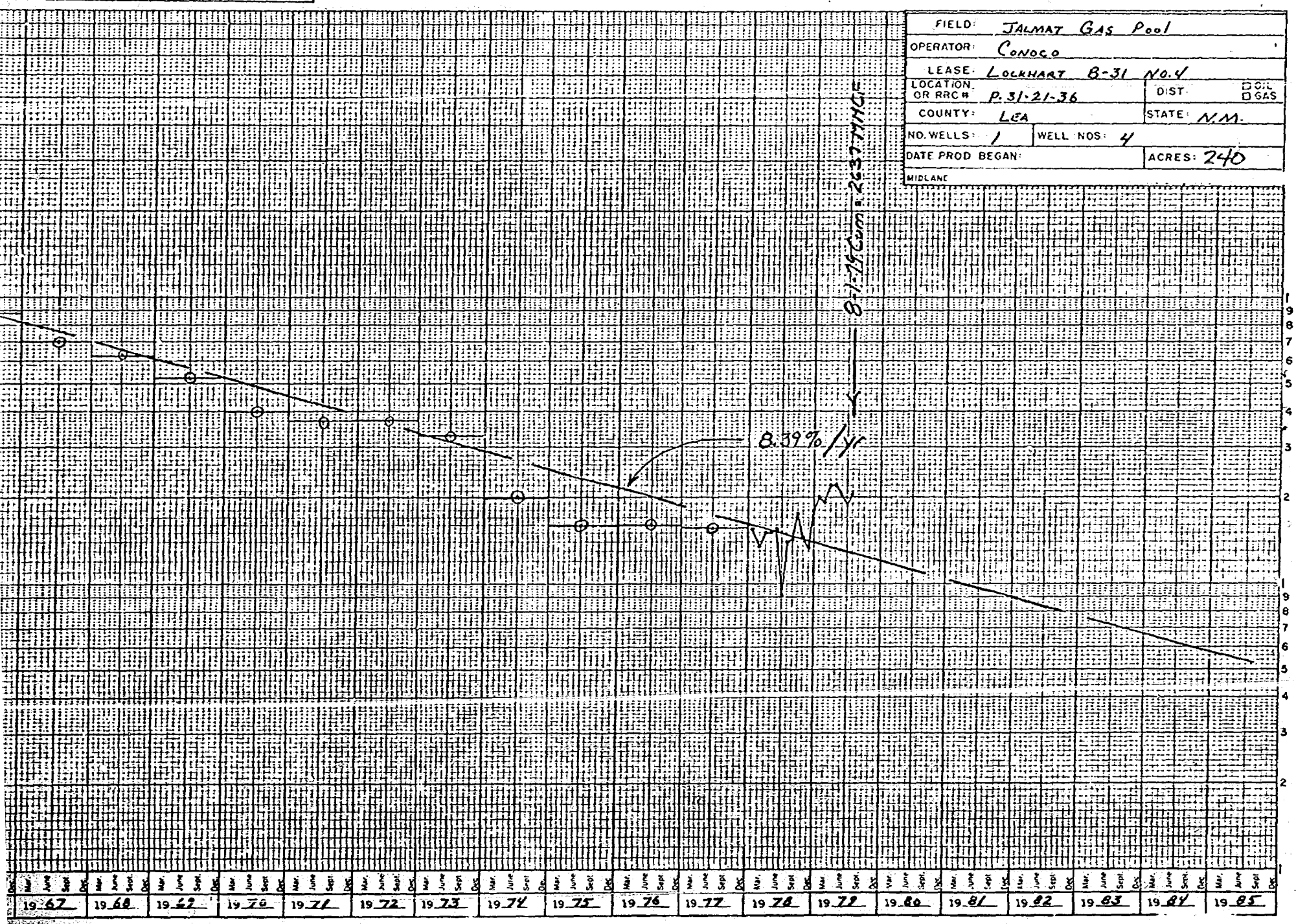
79 CUM: 2622.5 MMCF | UPDATED THRU: 8-79 | BY: OL

FIELD:	JALMAT GAS Pool
OPERATOR:	CONOCO
LEASE:	LOCKHART B-31 NO.4
LOCATION OR RRC #	P.31-21-36
DIST:	☐ OIL ☐ GAS
COUNTY:	LEA
STATE:	N.M.
NO. WELLS:	1
WELL NOS:	4
DATE PROD BEGAN:	
ACRES:	240

MIDLAND

8-1-79 Cum = 2637 MMCF

8.39%/yr



FIELD Jalmat Gas Pool

OPERATOR Conoco

LEASE Lockhart B-31 NO.4 WELL NO. 4

LOCATION OR BLOCK P-31-21-36 UNIT

COUNTY LEA STATE N. M.

ACRES 240 DATE PROD. BEGAN

Pressure or P/Z - (psia)

900
800
700
600
500
400
300
200
100
0

8-1-79 Cum = 2.637 MMCF

1964 1967 1968 1969 1970 1971 1972 1973 1974 1975 1976 1977 1978

P/Z VS. Cum.

1.8 2.0 2.2 2.4 2.6 2.8 3.0 3.2 3.4 3.6 3.8 4.0 4.2

Cumulative Gas Production - BCF

GAS PRODUCTION HISTORY

OPERATOR: Conoco

WELL: Lockhart B-31 No. 4

LOCATION: P-31-21-36

POOL: Jalmat Gas

INTERVAL:

COMPLETION DATE: Gas Completion Date 7/17/53.

REMARKS:

YEAR	NO. OF MO.	ANNUAL GAS PRODUCTION (MCF)	AVG GAS RATE (MCF/MO)	CUM GAS PRODUCTION (MMCF)	ANNUAL SIP (psia)	P/Z ~~ANNUAL FLUID PRODUCTION (BBL)~~
				2636.8		
1979	7	14301	2043	2622.5	105.2	110
1978	12	17524	1460	2605.2	103.2	110
1977	12	18726	1560	2586.3	113.2	120
1976	12	19406	1617	2566.9	123.2	130
1975	11	17609	1600	2549.3	152.2	160
1974	12	24089	2007	2525.2	181.2	190
1973	12	39412	3284	2485.8	189.2	195
1972	12	43818	3651	2442.0	197.2	200
1971	12	43971	3664	2398.0	199.2	205
1970	12	48428	4035	2349.6	194.2	195
1969	12	62043	5170	2287.5	198.2	200
1968	12	75862	6321	2211.7	329.2	350
1967	12	83424	6952	2128.1	331.2	350
1966	12	104319	8693.			

19 78 DETAIL SUMMARY

Jan	1546	July	1393
Feb	1344	August	1422
March	1523	September	1762
April	1502	October	1432
May	1534	November	1357
June	910	December	1799

Y-T-D Production 14301 mcf

DAYS/MONTHS (Y-T-D) 7 mo.

19 79 DETAIL SUMMARY

Jan	1982	July	2041
Feb	1933	August	
March	2212	September	
April	2220	October	
May	2045	November	
June	1868	December	

Avg. Production 2043 mcf/mo.

RADTKE, AYCOCK, & ASSOCIATES, INC.
Petroleum Engineering Consultants
310 WALL TOWERS WEST
MIDLAND, TEXAS 79701
TELEPHONE 915/684-8044

October 15, 1979

BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION
Hartman EXHIBIT NO. 6
CASE NO. 6701

Mr. Doyle Hartman
508 C&K Petroleum Building
Midland, Texas 79701

Dear Mr. Hartman:

Subject: Doyle Hartman J. K. Rector 1
2310' FSL & 330' FEL, Section 30,
Township 21 South, Range 36 East
Eumont (Gas) Pool
Lea County, New Mexico

As you requested, we have made a study of nine currently or formerly active Eumont Pool gas wells that are located in the geographic vicinity of your captioned well. The purposes of this study were as follows:

1. To determine whether or not your captioned well could reasonably be expected to drain the anticipated 160-acre proration unit to it.

2. To provide the basis for an infill findings application under the Natural Gas Policy Act.

3. To determine whether or not waste will be prevented and correlative rights protected by the assignment of a 160-acre proration unit to your captioned well.

The engineering data accumulated during this study are detailed on the attached table, "Summary of Individual Well Information for Doyle Hartman for Wells in the Vicinity of the Doyle Hartmen J. K. Rector 1". Please refer to this table and peruse the seven values of "Estimated Effective Drainage Area, Acres". These data can be statistically summarized as follows:

Basis For Statistical Comparison	Est. Effect. Drainage Area, Acres
Mean	370
Median	205
Minimum	66
Maximum	1180
Standard Deviation	363

These data indicate that it is quite reasonable to anticipate that your J. K. Rector 1 will probably adequately drain 160 acres. There is no question that all of the proposed 160-acre proration unit can reasonably be expected to be gas productive from the Eumont (Gas) Pool reservoirs (Yates, Seven Rivers and Queen formations).

Infill findings require the submittal of a substantial volume of technical information, all of which will be satisfied by this letter with its associated table and the exhibits to be presented in the October 17, 1979, hearing. The information requirements for an infill findings submittal are detailed in Order No. R-6013, State of New Mexico Department of Energy and Minerals Division of Conservation. One of these requirements is an estimate of the increased gas recovery anticipated from the drilling of the application well. Because the periods during which the individual well pressures are defined vary, and the fact that the annually reported shut-in wellhead pressures required for estimation of original gas-in-place and/or well logs necessary for an estimate of net effective pore volume per acre are not available for two Eumont (Gas) Pool wells located near your captioned well, only approximations of increased gas recovery can be made. Relying upon the method of analogy, the estimate of ultimate gas recovery for the nine sample wells can be statistically summarized as follows:

Basis For Statistical Comparison	Estimated Increased Gas Recovery, MMCF
Mean	2291
Median	2114
Minimum	661
Maximum	5475
Sandard Deviation	1558

Alternately, apparently water related production maintenance problems have resulted in lower than usually expected gas recovery factors:

Well	Gas Recovery Factor: % of Original Gas-in-Place
Texaco Inc. J. K. Rector 3	6.6
Texaco Inc. J. K. Rector 2	30.5
Texaco Inc. J. K. Rector 4	7.8
Conoco, Inc. Lockhart "A" 6	44.2
Late Oil Co. Rector 1	1.7

If the gas recovery factor expected is approximated by the median of the factors for the Conoco, Inc. Lockhart "A" 30, 1; the Conoco, Inc. Lockhart "A", 5; and the Getty Oil Co. St. "C" 1 of 72.7 percent, the total potential increased gas recovery is 48,875 MMCF.

Since all of the five wells from whose performance this gas volume was derived are located from 1200 feet to 4550 feet from and both east and west of your well, it is reasonable to expect that a substantial portion of this gas should be recovered by your J. K. Rector 1.

In regard to waste prevention and protection of correlative rights, waste should be prevented by the recovery of a substantial quantity of gas possibly otherwise unrecoverable. Correlative rights should be protected, as whatever volume of gas is ultimately produced by your J. K. Rector 1 would not otherwise be atttibutable to the royalty and working interest owners of the SE/4, Section 30, Township 21 South, Range 36 East, but would either be drained away to be produced by other Eumont Pool gas wells or be left unrecoverable in the Eumont reservoirs.

We believe that the information provided you in this connection, in conjunction with the exhibits to be presented in the October 17, 1979, Conservation Division hearing, will satisfy your requirements.

Very truly yours,

Wm. P. Aycock, P.E.

WPA/bw

Attachment

BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION
Hanbman EXHIBIT NO. 5
CASE NO. 6701

OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO.
RECEIVED
OCT 21 1947

Form C-103

ORIGINAL

OIL CONSERVATION COMMISSION

Santa Fe, New Mexico

MISCELLANEOUS REPORTS ON WELLS

RECEIVED
OCT 23 1947
HOBBS OFFICE

Submit this report in triplicate to the Oil Conservation Commission or its proper agent within ten days after the work specified is completed. It should be signed and sworn to before a notary public for reports on beginning drilling operations, results of shooting well, results of test of casing shut off, result of plugging of well, and other important operations, even though the work was witnessed by an agent of the Commission. Reports on minor operations need not be signed and sworn to before a notary public. See additional instructions in the Rules and Regulations of the Commission.

Indicate nature of report by checking below.

REPORT ON BEGINNING DRILLING OPERATIONS		REPORT ON REPAIRING WELL	
REPORT ON RESULT OF SHOOTING OR CHEMICAL TREATMENT OF WELL		REPORT ON PULLING OR OTHERWISE ALTERING CASING	
REPORT ON RESULT OF TEST OF CASING SHUT-OFF		REPORT ON DEEPENING WELL	
REPORT ON RESULT OF PLUGGING OF WELL	X		

October 17, 1947 (Date) Midland, Texas (Place)

OIL CONSERVATION COMMISSION,
SANTA FE, NEW MEXICO.
Gentlemen:

Following is a report on the work done and the results obtained under the heading noted above at the

The Texas Company (Company or Operator) J. K. Rector Lease (Lease) Well No. 1 in the NE ¼ SE ¼ of Sec. 30, T. 21-S, R. 36-E, N. M. P. M., Eunice Field, Lea County.

The dates of this work were as follows: Comp. SP&A 12 Noon 10-6-47

Notice of intention to do the work was (~~was not~~) submitted on Form C-102 on August 15 19 47 and approval of the proposed plan was (~~was not~~) obtained. (Cross out incorrect words.)

DETAILED ACCOUNT OF WORK DONE AND RESULTS OBTAINED

13" casing cemented at 404 with 100 Sacks

9-5/8" casing cemented at 3243' with 500 sacks of cement

7" casing cemented at 3902' with 100 sacks cement.

This well was Salvaged, plugged and abandoned as follows:

(See reverse side)

Witnessed by _____ (Name) _____ (Company) _____ (Title)

Subscribed and sworn before me this 17th day of October, 19 47

Mary E. Carlson
Notary Public

My commission expires June 1, 1949

I hereby swear or affirm that the information given above is true and correct.

Name O. J. Gallimore

Position Dist. Supt.

Representing The Texas Company (Company or Operator)

Address Box 1270, Midland, Texas

Remarks: APPROVED

I-30-21-36

Name

Spotted cement plug of 20 sacks from 3335-3235 (in the 7" Casing)
Parted and pulled 7" casing at 2800'
Parted and pulled 9-5/8" casing at 700' and spotted cement plug of 30 sacks from 725'-675'. (in the top of the parted 9-5/8" casing)
Spotted cement plug of 30 sacks from 390-368' (In the bottom of the 13" casing. The required 4" pipe marker was cemented in the top of the hole with 20 sacks leaving all 13" casing cemented in the hole. Completed work 12 Noon 10-6-47. Hole was filled with heavy mud between plugs and all mud and cement plugs were spotted by pumping in through tubing. Location has been cleaned up and is now ready for inspection.

23

Approved	
...tion	

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-103
Supersedes Old
C-102 and C-103
Effective 1-1-65

5a. Indicate Type of Lease
State ☐ Fee ☒

5. State Oil & Gas Lease No.
–

SUNDRY NOTICES AND REPORTS ON WELLS

(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT —" (FORM C-101) FOR SUCH PROPOSALS.)

7. Unit Agreement Name
–

GAS WELL ☒ OTHER-

...tor
ACO Inc.

8. Farm or Lease Name
J.K. Rector

...erator
. Box 728, Hobbs, New Mexico

9. Well No.
3

...cation
A J , 2310 FEET FROM THE South LINE AND 1650 FEET FROM

10. Field and Pool, or Wildcat
Eumont Yates Seven Rivers Queen

East LINE, SECTION 30 TOWNSHIP 21-S RANGE 36-E NMPM.

15. Elevation (Show whether DF, RT, GR, etc.)
3625' (DF)

12. County
Lea

Check Appropriate Box To Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
...IAL WORK ☐	PLUG AND ABANDON ☐	REMEDIAL WORK ☐	ALTERING CASING ☐
...ANDON ☐		COMMENCE DRILLING OPNS. ☐	PLUG AND ABANDONMENT ☐
CASING ☐	CHANGE PLANS ☐	CASING TEST AND CEMENT JOB ☐	
☐		OTHER Sqz perfs 3500'-3680' & reperforate ☐	

...posed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed RULE 1103.

Rigged up. Install BOP. Pull tubing & pkr.
Clean out to 3500'.
Set cement retainer @ 3464'. Squeeze 7" OD csg perforations 3500'-3680' w/100 sx Class C cement. Job compl. 2:15 p.m. 3-7-77.
Perforate 7" OD csg w/1 JSPF @ 3272,78,83,90,95,3303,10,20,26,37,45, 52,61,66,72, & 3412'.
Set pkr @ 3133'. Acidize 7" OD casing perforations 3272'-3412' w/2500 gal. 15% HCl acid containing FE sequestant additive & 600# rock salt in 4 equal stages. Flush w/13 bbls KCl water.
Install pumping equipment. Complete as oil well in Eumont Yates Seven Rivers Queen.

...fy that the information above is true and complete to the best of my knowledge and belief.

SIGNED [signature] TITLE Asst. Dist. Supt. DATE 4-28-77

APPROVED BY [signature] TITLE SUPERVISOR DISTRICT II DATE MAY 4 1977

J-30-21-36

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.

TEXACO Inc.		Lease J. K. Rector		Well No. 3
r	Section 30	Township 21 South	Range 36 East	County Lea

Actage Location of Well:
feet from the South line and 1650 feet from the East line Sec. 30

vel Elev:	Producing Formation Penrose	Pool Eumont Oil	Dedicated Acreage: Acres

utline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.

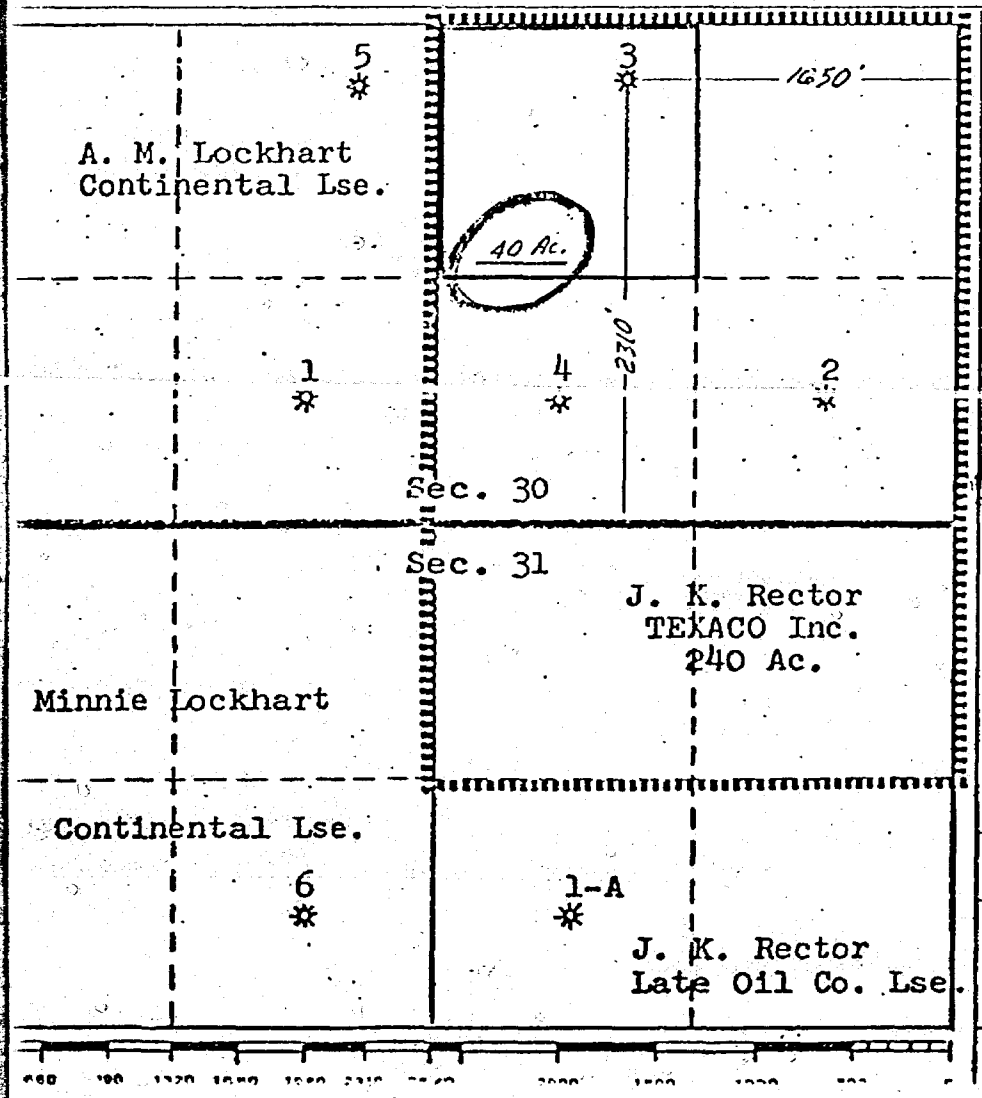
more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working terest and royalty).

more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolited by communitization, unitization, force-pooling. etc?

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

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

allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, ced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commis-n.



CERTIFICATION

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

Name
B. L. Eiland

Position
Division Surveyor

Company
Texaco Inc.

Date
4-29-77

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
1-11-37

Registered Professional Engineer and/or Land Surveyor

B. L. Eiland

Certificate No.
1386

NEW MEXICO OIL CONSERVATION COMMISSION

FORM C-103
(Rev 3-55)

MISCELLANEOUS REPORTS ON WELLS

(Submit to appropriate District Office as per Commission Rule 1106)

Company	Address
TEXACO INC.	P. O. Box 728 Hobbs, New Mexico

Lease	Well No.	Unit Letter	Section	Township	Range
J. K. Rector	4	O	30	21-S	36-E

Date Work Performed	Pool	County
3-21-63	Eumont Gas	Lea

THIS IS A REPORT OF: *(Check appropriate block)*

- [ ] Beginning Drilling Operations
- [ ] Casing Test and Cement Job
- [ ] Other *(Explain)*:
- [ ] Plugging
- [ ] Remedial Work

Detailed account of work done, nature and quantity of materials used, and results obtained.

We have plugged subject well as follows:

Mudded up hole and circulated.
Pulled 480 ft. of 7" casing. Spotted 38 sack plug over perforations from 3400 ft. to 3570 ft. Moved up hole and spotted 120 sack plug from 1520 ft. to 1400 ft. Spotted 60 sack plug from 950 ft. to 1050 ft. Spotted 25 sack cement plug from 0 ft. to 50 ft. and set 4 ft. steel marker above ground level.

Witnessed by	Position	Company
C. F. Jackson	Prod. Foreman	TEXACO INC.

FILL IN BELOW FOR REMEDIAL WORK REPORTS *ONLY*

ORIGINAL WELL DATA

DF Elev.	TD	PBTD	Producing Interval	Completion Date

Tbng. Diameter	Tubing Depth	Oil String Diameter	Oil String Depth

Perforated Interval(s)

Open Hole Interval	Producing Formation(s)

RESULTS OF WORKOVER

	Date of Test	Oil Production BPD	Gas Production MCFPD	Water Production BPD	GOR Cubic feet/Bbl	Gas Well Potential MCFPD

OIL CONSERVATION COMMISSION

I hereby certify that the information given above is true and complete to the best of my knowledge.

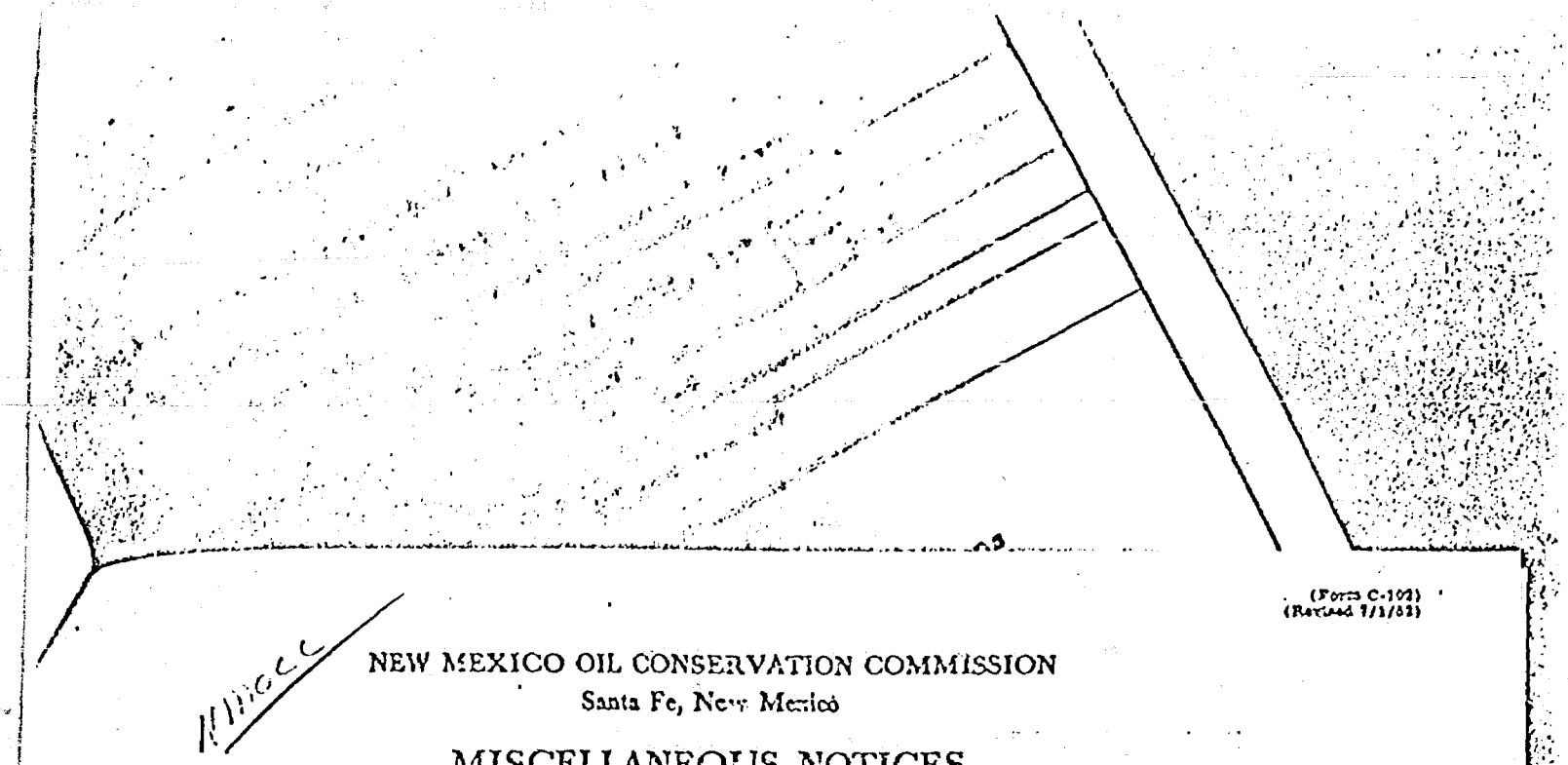
1964 JAN 11 PM 1:43

Name

Position
Assistant District Superintendent

Company

O-30-21-36



(Form C-102)
(Revised 7/1/52)

NMOCC

NEW MEXICO OIL CONSERVATION COMMISSION

Santa Fe, New Mexico

MISCELLANEOUS NOTICES

...mit this notice in TRIPLICATE to the District Office, Oil Conservation Commission, before the work specified is to begin. A copy will be ...rned to the sender on which will be given the approval, with any modifications considered advisable, or the rejection by the Commission ...cent. of the plan submitted. The plan as approved should be followed, and work should not begin until approval is obtained. See addi... instructions in the Rules and Regulations of the Commission.

Indicate Nature of Notice by Checking Below

...ICE OF INTENTION CHANGE PLANS		NOTICE OF INTENTION TO TEMPORARILY ABANDON WELL		NOTICE OF INTENTION TO DRILL DEEPER	
...ICE OF INTENTION PLUG WELL	X	NOTICE OF INTENTION TO PLUG BACK		NOTICE OF INTENTION TO SET LINER	
...ICE OF INTENTION SQUEEZE		NOTICE OF INTENTION TO ACIDIZE		NOTICE OF INTENTION TO SHOOT (NITRO)	
...ICE OF INTENTION GUN PERFORATE		NOTICE OF INTENTION (OTHER)		NOTICE OF INTENTION (OTHER)	

...L CONSERVATION COMMISSION
...NTA FE, NEW MEXICO

Hobbs, New Mexico, February 21, 1963
(Place) (Date)

1963 FEB 25 AM 8:40 OIL CONSERVATION COMM

...ntlemen:

Following is a Notice of Intention to do certain work as described below at the

...TEXACO Inc. J. K. Rector Well No. 4 in O
(Company or Operator) Lease (Unit)

...SW ¼ SE ¼ of Sec. 30, T. 21-S, R. 36-E, NMPM., Eumont Gas Pool
(40-acre Subdivision)

...Lea County.

FULL DETAILS OF PROPOSED PLAN OF WORK
(FOLLOW INSTRUCTIONS IN THE RULES AND REGULATIONS)

We propose to plug subject well as follows:

1. Mud up hole and circulate.
2. Pull all recoverable 7" casing and run tubing and spot cement plug.
3. Spot 38 sx plug over perfs from 3400' to 3570', move up hole and spot 120 sx plug from 1520' to 1400' (approximately 60 sx in top unrecoverable 7-inch and 60 sx in 9-5/8" casing)
4. Spot 25 sx plug at surface and set steel 4' marker above ground level.

...pproved ..., 19...
...xcept as follows:

...pproved
...IL CONSERVATION COMMISSION
By
Title

TEXACO Inc.
Company or Operator
By
Position Assistant District Superintendent
Send Communications regarding well to:
Name J. G. Blevins, Jr.
Address P. O. Box 728, Hobbs, New Mexico

NEW MEXICO OIL CONSERVATION COMMISSION

AM OFFICE OCC

APR 25 AM 8:34

P. O. BOX 2045

HOBBS, NEW MEXICO

DATE April 23, 1963

co, Inc.

728

s, New Mexico

RE: Plugging Reports

men:

C-102, Notice of Intention to Plug, your J. K. Rector #4-O 30-21-36
Lease Well No. Unit S-T-R

pproved on 2/26/68. Your final plugging report, which has been filed

rm C-103, cannot be approved until a commission representative has made an

ction of the location to see:

(1) all pits have been filled and levelled;

(2) a steel marker, 4" in diameter and approximately 4' above mean ground level, must be set in concrete, this marker must have the quarter-quarter section or unit designation, section, township, range numbers, which shall be permanently stenciled or welded on the marker;

(3) the location shall be cleared & cleaned of all junk;

(4) the dead man wires must be cut.

above are the minimum requirements.

ase notify us by filling in the blank form below when this work has been done

that our representative will not have to make more than one trip to the location.

OIL CONSERVATION COMMISSION

By _____
Oil & Gas Inspector

-I. R. Trujillo
OCC, Santa Fe

ill in below and return:

_____ is ready for your inspection and approval.
ase Well No. Unit S-T-R

_____
Operator

_____
Name and title

El Paso Natural Gas Company

El Paso, Texas 79999

ADDRESS REPLY TO
POST OFFICE BOX 1284
JAL, NEW MEXICO 88252

May 1, 1972

RECEIVED
MAY 5 - 1972
OIL CONSERVATION COMM.
Santa Fe

Oil Conservation Commission
State of New Mexico
P. O. Box 1980
Hobbs, New Mexico 88240

Gentlemen:

This is to advise that on March 1, 1972 the Texaco, Inc., J.R. Rector #2, Eumont gas well located in Unit P, of Section 30, Township 21, Range 36, Lea County, New Mexico was disconnected from El Paso Natural Gas Company's gathering system.

This disconnection was due to the subject well being reclassified from gas to oil.

Yours truly,

PERMIAN DIVISION DISPATCHING DEPARTMENT

Travis Elliott by B.H. Mazi Jr

Travis R. Elliott
Gas Production Status Analyst

TRE:bl

cc: Mr. Elvis Utz, O.C.C., Santa Fe, New Mexico
Gas Purchases
Sam Smith
H.P. Logan
T.J. Crutchfield
R.H. Barnett
H.O. Whitt
Earl Smith
A.L. Fuller
R.L. Tabb
Measurement Dept. M/O
Operator
M. E. McEuen
B.D. Ballard
Proration Dept.
File

5-8-72 - dh

El Paso Natural Gas Company

El Paso, Texas 79999

May 1, 1972

ADDRESS REPLY TO
POST OFFICE BOX 1384
JAL, NEW MEXICO 88252

RECEIVED
MAY 5 - 1972
OIL CONSERVATION COMM.
Santa Fe

Oil Conservation Commission
State of New Mexico
P. O. Box 1980
Hobbs, New Mexico 88240

Gentlemen:

This is to advise that on March 1, 1972 the Texaco, Inc., J.R. Rector #2, Lumont gas well located in Unit P, of Section 30, Township 21, Range 36, Lea County, New Mexico was disconnected from El Paso Natural Gas Company's gathering system.

This disconnection was due to the subject well being reclassified from gas to oil.

Yours truly,

PERMIAN DIVISION DISPATCHING DEPARTMENT

Travis Elliott by B. Hilton Jr.

Travis R. Elliott
Gas Production Status Analyst

TRE:bl

cc: Mr. Elvis Utz, O.C.C., Santa Fe, New Mexico
Gas Purchases
Sam Smith
H.P. Logan
T.J. Crutchfield
R.H. Barnett
H.O. Whitt
Earl Smith
A.L. Fuller
R.L. Tabb
Measurement Dept. M/O
Operator
M. E. McEuen
B.D. Ballard
Proration Dept.
File

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LAND OFFICE			
TRANSPORTER	OIL		
	GAS		
OPERATOR			
PRORATION OFFICE			

NEW MEXICO OIL CONSERVATION COMMISSION
REQUEST FOR ALLOWABLE
AND
AUTHORIZATION TO TRANSPORT OIL AND NATURAL GAS

Form C-104
Supersedes Old C-104 and C-110
Effective 1-1-65

RECEIVED
MAR 10 1972
OIL CONSERVATION COMM.

Operator
TEXACO Inc.

Address
P. O. Box 728, Hobbs, New Mexico 88240

Reason(s) for filing (Check proper box)

New Well [ ]
Recompletion [X]
Change in Ownership [ ]

Change in Transporter of:
Oil [X]
Casinghead Gas [X]
Dry Gas [ ]
Condensate [ ]

Other (Please explain)
Reclassified from gas to oil well 3-1-72.

If change of ownership give name and address of previous owner _____

DESCRIPTION OF WELL AND LEASE

Lease Name	Well No.	Pool Name, Including Formation	Kind of Lease	Lease No.
J. K. Rector	2	Eumont Yates Seven Rivers Que	State, Federal or Fee Fee	-

Location
Unit Letter P ; 660 Feet From The South Line and 660 Feet From The East

Line of Section 30 Township 21-S Range 36-E , NMPM, Lea County

DESIGNATION OF TRANSPORTER OF OIL AND NATURAL GAS

Name of Authorized Transporter of Oil [X] or Condensate [ ]
Texas-New Mexico Pipe Line Co.
Address (Give address to which approved copy of this form is to be sent)
Box 1510, Midland, Texas 79701

Name of Authorized Transporter of Casinghead Gas [X] or Dry Gas [ ]
Phillips Petroleum Co.
Address (Give address to which approved copy of this form is to be sent)
Box 6666, Odessa, Texas 79760

If well produces oil or liquids, give location of tanks.	Unit	Sec.	Twp.	Rge.	Is gas actually connected?	When
	A	31	21-S	36-E	Yes	3-1-72

If this production is commingled with that from any other lease or pool, give commingling order number: _____

COMPLETION DATA

Designate Type of Completion – (X)	Oil Well	Gas Well	New Well	Workover	Deepen	Plug Back	Same Res'v.	Diff. Res'v.

Date Spudded	Date Compl. Ready to Prod.	Total Depth	P.B.T.D.
Elevations (DF, RKB, RT, GR, etc.)	**Name of Producing Formation**	**Top Oil/Gas Pay**	**Tubing Depth**
Perforations			**Depth Casing Shoe**

TUBING, CASING, AND CEMENTING RECORD

HOLE SIZE	CASING & TUBING SIZE	DEPTH SET	SACKS CEMENT

TEST DATA AND REQUEST FOR ALLOWABLE

(Test must be after recovery of total volume of load oil and must be equal to or exceed top allowable for this depth or be for full 24 hours)

OIL WELL

Date First New Oil Run To Tanks	Date of Test	Producing Method (Flow, pump, gas lift, etc.)	
Length of Test	**Tubing Pressure**	**Casing Pressure**	**Choke Size**
Actual Prod. During Test	**Oil - Bbls.**	**Water - Bbls.**	**Gas - MCF**

GAS WELL

Actual Prod. Test - MCF/D	Length of Test	Bbls. Condensate/MMCF	Gravity of Condensate
Testing Method (pitot, back pr.)	**Tubing Pressure (Shut-in)**	**Casing Pressure (Shut-in)**	**Choke Size**

CERTIFICATE OF COMPLIANCE

I hereby certify that the rules and regulations of the Oil Conservation Commission have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

(Signature)
Assistant District Superintendent
(Title)
March 2, 1972
(Date)

OIL CONSERVATION COMMISSION

APPROVED MAR 6 1972, 19

BY _____

TITLE SUPERVISOR DISTRICT I

This form is to be filed in compliance with RULE 1104.

If this is a request for allowable for a newly drilled or deepened well, this form must be accompanied by a tabulation of the deviation tests taken on the well in accordance with RULE 111.

All sections of this form must be filled out completely for allowable on new and recompleted wells.

Fill out only Sections I, II, III, and VI for changes of owner, well name or number, or transporter, or other such change of condition.

OWWO

COUNTY LEA FIELD Eumont STATE NM MN 04845

OPR TEXACO INC. MAP

2 Rector, J. K.

Sec 30, T-21-S, R-36-E CO-ORD

660' FSL, 660' FEL of Sec

Re-Cmp 3-2-72	FORMATION	CLASS DATUM	FORMATION	EL DATUM
CSG & SX - TUBING				
13" at 95' w/85 sx				
9 5/8" at 1678' w/1000 sx				
7" at 3873' w/250 sx				
LOGS EL GR RA IND HC A				
	TD 3941'; PBD 3442'			

(Yates) Perfs 3290-3407' NO NEW POTENTIAL

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CONT. PROP DEPTH 3442' TYPE W

DATE

F.R.C. 3-18-72; Opr's Elev. 3603' GL
PD 3442' WO (Yates)
(Orig. Texas Company, The, comp 12-5-34 from OH 3873-3941', OTD 3941'; WO & Re-Cmp 5-18-48 as gas well thru Perfs 3500-3673', OTD 3941', OPB 3792')

3-14-72 TD 3991'; PBD 3442'; COMPLETE
PB to 3442'
Perf @ 3290', 3300', 3308', 3313', 3328', 3342', 3353', 3359', 3364', 3372', 3377', 3383', 3387', 3402', 3407' w/1 SPI
Acid (3290-3407') 1000 gals (15% NEA)
Frac (3290-3407') 15,000 gals jelled brine + 15,000# sd

3-18-72 COMPLETION REPORTED

WELL HISTORY

BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION
Hartman EXHIBIT NO. 4
CASE NO. 6701

DOYLE HARTMAN
J. K. Rector #1
(I) Section 30, T-21-S, R-36-E
Lea County, New Mexico
Page 2

09-17-79 Waiting on well service unit.

09-18-79 Rigged up well service unit and installed tubing head and BOP. Rigged up Apache Services and logged well with GRN-CCL log. Found plug back TD at 4081' Perforated well with a total of 17 shots with select fire casing gun with 1 shot each at: 3296, 3302, 3307, 3325, 3329, 3592, 3595, 3604, 3641, 3669, 3673, 3689, 3693, 3745, 3748, 3777, 3781. Went into hole with 118 joints of tubing (average joint length= 32.08') equipped with seating nipple and 16' mud anchor and landed tubing at 3809' RKB. Circulated hole with 2% KCl water and then spotted 600 gallons 15% MCA acid across perforations. Pulled tubing to 3105' RKB. Shut down for night.

09-19-79 After overnight shut-in, well was on the vacuum. Rigged up Halliburton and acidized well with an additional 4400 gallons 15% MCA acid (total acid= 5,000 gallons) at an average rate of 4.24 BPM and average pressureof 1740 psi. Max pressure= 3200 psi. Min pressure= 0 psi. ISIP= 550 psi. 5-Min SIP= 300 psi. 10-min SIP= 0 psi. Had good ball action through out treatment. Lowered tubing to 3809 RKB. Installed lubricator and started swabbing well to pit. Swabbed well to pit for 7 hours. After casing pressure increased to 300 psi, blew well down, pulled tubing to 3600 RKB, removed BOP, buttoned up wellhead and increased flowing wellhead assembly. Shut down for night. Overnight SICP= 343 psi.

09-20-79 Swabbed well to pit for 10 hours. CP prior to swabbing well was 343 psi. Throughout swab period, recovered load water, sulfer water, and a trace of oil with a good show of gas. Upon shutting down for night, rigged up John West bottom-hole pressure unit and went into hole with bottom hole pressure bomb. At 7:15 PM CDT, SITP= 65 psi. SICP=260 psi. FL= 102 joints from surface. After overnight shut-in, SICP= 320 psi. Now prepared to isolate four bottom perforations from 3745-3781 and swab test the remaining 13 perforations above 3745.

09-21-79 Isolated four perforations below 3693'. Swab tested the thirteen perforations above and noticed no change in swabbing fluid rate and swabbing fluid level. Now prepared to run packer and bridge plug and swab test individual zones.

09-24-79 Ran packer and retrievable bridge plug. Isolated interval from 3635-3645 and swabbed dry. Moved packer and retrievable plug to interval from 3585 -3620. Swabbed sulfer water with a consistent fluid level of 3300 feet from surface. Moved packer and bridge plug and tested interval from 3285-3340. Swabbed dry with good show of gas. Moved packer and plug to interval from 3565-3700. Swabbed dry with show of gas. Again moved packer and bridge plug back to 3585-3640 and shut down for weekend. SICP= 430 psi.

09-25-79 Lowered packer and bridge plug and straddled interval from 3635-3645. Broke down perforation at 3641 with 250 gallons of 15% MCA acid at a maximum pressure of 2100 psi. ISIP= 0 psi. Lowered packer and bridge plug and swabbed test interval from 3745-3779. Swabbed dry with show of gas. Shut down for night. Now ready to pull tubing, set CIBP at 3650, and retainer at approximately 3570 and then squeeze cement perforations from 3591-3641.

09-26-79 Pulled packer and bridge plug. Went into hole with CIBP and set at 3657. Ran cement retainer and set at 3544'. Squeeze cemented interval from 3544-3657 with 150 sx of API Class C cement containing 0.4% CFR-2 and 3 lb/sx salt. Maximum Squeeze pressure= 2000 psi. Pulled out of retainer and pulled tubing. Went back into hole with 10 stands of tubing. Buttoned up well and shut down for night.

09-28-79 Went into hole with bit and drill collars. Now prepared to rig up Pool Foam Reverse unit and drill out cement and test squeezed perforations.

09-29-79 Rigged up foam reverse unit. Drilled up retainer and then drilled out cement to top of CIBP at 3657. Pulled drill string. Went into hole with packer and tested squeezed perforations from 3591-3641 to 2000 psi. Pressure held okay. Shut down for night.

DOYLE HARTMAN
J. K. Rector No. 1
2310 FSL and 330 FEL (I)
Section 30, T-21-S, R-36-E
Lea County, New Mexico
3630 G. L.
Drilling Contractor: Kenai Drilling Company of Texas
Penrose test of Eumont (Oil) Field
Proposed Depth: 4100'

9-05-79 Spudded well at 8:30 PM CDT 9-04-79. Drilled 12 1/4" hole to a total depth of 421 feet. Ran 12 joints of 8 5/8 OD, 8 RD, Grade B, ST&C casing and landed at 421 RKB. Cemented casing with 150 sacks of API Class C cement containing 4% gel and 1/4 lb/sx Floseal followed by 150 sacks of API Class C cement containing 2% $CaCl_2$ and 1/4 lb/sx Floseal. Plug down at 8 AM CDT 9-05-79. Circulated 50 sacks of excess cement to pit.

9-06-79 Drilled with brine water in Dewey Lake Red Beds to a total depth of 690'. Progress previous 24 hours was 269'. Daily time breakdown: 4 hours drilling, 18 hours WOC, 1/2 hour cementing, 1/2 hour running casing, 1/2 hour testing BOP.

9-07-79 Drilling with brine water in Salado Salt Section at a total depth of 1895'. Progress previous 24 hours was 1205'. Deviation survey was 1/2° at 916 and 3/4° at 1411. Daily time breakdown: 23 1/4 hours drilling, 3/4 hour survey.

9-08-79 Drilling with brine water in Salado Salt Section at a total depth of 2885'. Progress previous 24 hours was 990 feet. Deviation surveys were: 3/4° at 2044 and 3/4° at 2515. Daily time breakdown: 20 1/4 hours drilling, 3/4 hours TOTCO, 3 hours trip.

9-09-79 Drilling well in Yates formation at a total depth of 3335'. Progress previous 24 hours was 450 feet. Mud properties are: MW= 10.0, Vis= 34, WL= 8.4. Deviation survey was 1° at 3020. Daily time breakdown: 23 hours drilling, 1/4 hour TOTCO, 3/4 hours rig repair.

9-10-79 Drilling in Seven Rivers formation at a total depth of 3550'. Progress previous 24 hours was 215 feet. Mud properties are: MW= 10.1, Vis= 31, WL= 9.8. Deviation surveys were: 1° at 3524. Daily time breakdown: 23 1/2 hours drilling, 1/2 hour TOTCO.

9-11-79 Drilling in Seven Rivers formation at a total depth of 3765'. Progress previous 24 hours was 215'. Mud properties are: MW= 10.1, Vis= 35, WL= 6.1. Daily time breakdown: 23 3/4 hours drilling, 1/4 hour rig service.

9-12-79 Drilling in Penrose formation at a total depth of 4045'. Progress previous 24 hours was 280'. Mud properties are: MW= 10.1, Vis= 35, WL= 4.2. Deviation survey: 1 1/4° at 3965'. Daily time breakdown: 23 1/2 hours drilling, 1/2 hour TOTCO.
NOTE: Projected logging point: 4100'. Anticipated logging time: 6 PM 9-12-79 .

9-13-79 Drilled well to a total depth of 4100'. Circulated hole two hours and pulled drill string. Rigged up Welex and logged well with GRN-CDL log and Forxo-Guard log. Found the following log tops:

Rustler	1460	(+2180)
Salado Salt	1570	(+2071)
Tansil	3070	(+ 571)
Yates	3205	(+ 436)
Seven Rivers	3420	(+ 221)
CUQ	3776	(- 135)
Queen	3840	(- 199)
Penrose (Gb ?)	3960	(- 319)

Went into hole with drill string and circulated hole 1 1/2 hours. Pulled and laid down drill string. Presently running 5 1/2 OD, 17 lb/ft, J-55, ST&C casing.

9-14-79 Finished running casing. Ran a total of 112 joints (4102') 5 1/2 OD, 17 lb/ft, J-55, ST&C casing and landed at 4100 RKB with float collar at 4085 RKB. Cemented casing with 400 sx of API Class C cement containing 3% Halliburton Econolite , 1/4 lb/sx Floseal and 5 lb/sx Gilsonite followed by 300 sx of a 50/50 blend of API Class C cement and Pozmix A containing 18% salt, 1/4 lb/sx Floseal and 5 lb/sx Gilsonite. Plug down at 10:00 AM CDT 9-13-79. Circulated 150 sx excess cement to pit. pressure tested casing to 1500 psi. Pressure held okay.

09-30-79 Pulled packer. Ran bit and drill collars. Drilled up CIBP and found more cement at 3668. Drilled hard cement from 3668-3781. Finished cleaning well out to PBTD of 4081'. Pulled drill string. Rigged up Apache Services and perforated 11 additional holes with 1 shot each at: 3309, 3333, 3688, 3691, 3694, 3745, 3748, 3752, 3777, 3781, 3784. Went into hole with tubing and spotted 125 gallons 15% MCA acid across perforations from 3688-3784. Pulled tubing to 3500'. Shut down for night.

10-01-79 Shut down for Sunday.

10-02-79 Pulled tubing. Ran tubing equipped with a retrievable packer and bridge plug and set packer at 3681 and RBP at 3802. Acidized interval from 3689-3784 with 2000 gallons of 15% NE acid at an average rate of 1 1/2 BPM and average pressure of 350 psi. Max. pressure= 350 psi. ISIP= 200 psi. 1-min. SIP=0 psi. Installed lubricator and swabbed well to pit for three hours. Moved packer to 3258 and retrievable bridge plug to 3354. Acidized interval from 3296-3332 with 2000 gallons of 15% NE acid at an average rate of 2.4 BPM and average pressure of 1225 psi. Balled well out. Max. pressure= 2400 psi. ISIP= 600 psi. 2-min. SIP= 0 psi. Installed lubricator and swabbed zone to pit for 3 hours. Shut down for night.

10-03-79 Pulled packer and bridge plug. Went into hole with 124 joints of tubing equipped with a seating nipple and mud anchor and landed bottom of tubing at 4003 RKB. Installed lubricator and swabbed well to pit for 5 hours. Pulled tubing to 3747 RKB. Resumed swabbing well to pit for an additional 3 hours before shutting down for night. At the end of 8 hour swab period, CP= 185 psi and swabbing fluid level= 350 feet above seating nipple.

10-04-79 Overnight SITP= 40 psi and SICP= 250 psi. Installed lubricator, made two swab runs, and well kicked off flowing. After well stabilized, potentialed well at the rate of 71 MCFPD on a 16/64 choke with a FTP= 35 psi and FCP= 170 psi. Now preparing to install production facilities prior to hooking well to sales line and placing well on production.

NOTE: Before well can be placed on production, a non-standard Eumont Gas proration unit and corresponding gas allowable must be approved by the NMOCD.

Last report.

10-05-79 Blew well down. Lowered bottom of tubing to 4002 RKB (124 joints) with seating nipple at 3985 RKB. Ran 1 1/4-inch insert pump on a 3/4-inch rod string. Installed a Lufkin C-114D pumping unit with pitman arms in 44-inch hole. Now prepared to hook up electricity and perform additional clean-up work.

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LAND OFFICE		
OPERATOR		

Form C-105
Revised 1-1-65

NEW MEXICO OIL CONSERVATION COMMISSION
WELL COMPLETION OR RECOMPLETION REPORT AND LOG

RECEIVED OCT 1 1 1979

5a. Indicate Type of Lease: State [ ] Fee [X]
5. State Oil & Gas Lease No.

1a. TYPE OF WELL
b. TYPE OF COMPLETION
OIL WELL [ ] GAS WELL [X] DRY [ ] OTHER
NEW WELL [X] WORK OVER [ ] DEEPEN [ ] PLUG BACK [ ] DIFF. RESVR. [ ] OTHER

7. Unit Agreement Name

8. Farm or Lease Name: J. K. Rector

2. Name of Operator: Doyle Hartman

9. Well No.: 1

3. Address of Operator: 508 C & K Petroleum Building, Midland, Texas 79701

10. Field and Pool, or Wildcat: Eumont Gas Pool

4. Location of Well
UNIT LETTER I LOCATED 2310 FEET FROM THE South LINE AND 330 FEET FROM

THE East LINE OF SEC. 30 TWP. 21-S RGE. 36-E NMPM

12. County: Lea

15. Date Spudded	16. Date T.D. Reached	17. Date Compl. (Ready to Prod.)	18. Elevations (DF, RKB, RT, GR, etc.)	19. Elev. Cashinghead
9-04-79	9-12-79	10-04-79	3630 G. L.	3630

20. Total Depth	21. Plug Back T.D.	22. If Multiple Compl., How Many	23. Intervals Drilled By	Rotary Tools	Cable Tools
4100'	4081	- - -	→	0-4100	- - -

24. Producing Interval(s), of this completion — Top, Bottom, Name
3296-3784 (Yates-Seven Rivers) w/28

25. Was Directional Survey Made: No

26. Type Electric and Other Logs Run
GRN-CCL, GRN-CDL, Forxo-Guard

27. Was Well Cored: No

28. CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT LB./FT.	DEPTH SET	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
8 5/8	28#	421	12 1/4	300 sx	None
5 1/2	17#	4100	7 7/8	700 sx	None

29. LINER RECORD

SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN

30. TUBING RECORD

SIZE	DEPTH SET	PACKER SET
2 3/8	4002	None

31. Perforation Record (Interval, size and number)
One shot each at: 3296, 3302, 3307, 3309, 3325, 3329, 3333, 3592, 3595, 3604, 3641, 3669, 3673, 3688, 3689, 3691, 3693, 3694, 3752, 3784. Two shots each at: 3745, 3748, 3777, 3781.

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL	AMOUNT AND KIND MATERIAL USED
3296-3781	A/5250 15% MCA
3544-3657	Sqz/150 API Class C
3296-3784	A/4000 15% NE

33. PRODUCTION

Date First Production	Production Method (Flowing, gas lift, pumping — Size and type pump)	Well Status (Prod. or Shut-in)
10-03-79	Flowing	Shut-in

Date of Test	Hours Tested	Choke Size	Prod'n. For Test Period →	Oil — Bbl.	Gas — MCF	Water — Bbl.	Gas — Oil Ratio
10-04-79	24	16/64			71	mist	- - -

Flow Tubing Press.	Casing Pressure	Calculated 24-Hour Rate →	Oil — Bbl.	Gas — MCF	Water — Bbl.	Oil Gravity — API (Corr.)
35	170		- - -	71	mist	---

34. Disposition of Gas (Sold, used for fuel, vented, etc.)
Vented

Test Witnessed By: James Gray

35. List of Attachments

36. I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief.

SIGNED Michelle Hembree TITLE Asst. Office Manager DATE 10-05-79

This form is to be filed with the appropriate District Office of the Commission not later than 20 days after the completion of any newly-drilled or deepened well. It shall be accompanied by one copy of all electrical and radioactivity logs run on the well and a summary of all special tests conducted, including drill stem tests. All depths reported shall be measured depths. In the case of directionally drilled wells, true vertical depths shall also be reported. For multiple completions, Items 30 through 34 shall be reported for each zone. The form is to be filed in quintuplicate except on state land, where six copies are required. See Rule 1105.

INDICATE FORMATION TOPS IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE

Southeastern New Mexico				Northwestern New Mexico			
T. Anhy	1460	T. Canyon		T. Ojo Alamo		T. Penn. "B"	
T. Salt	1570	T. Strawn		T. Kirtland-Fruitland		T. Penn. "C"	
B. Salt	3070	T. Atoka		T. Pictured Cliffs		T. Penn. "D"	
T. Yates	3205	T. Miss		T. Cliff House		T. Leadville	
T. 7 Rivers	3420	T. Devonian		T. Menefee		T. Madison	
T. Queen	3840	T. Silurian		T. Point Lookout		T. Elbert	
T. Grayburg	3960	T. Montoya		T. Mancos		T. McCracken	
T. San Andres		T. Simpson		T. Gallup		T. Ignacio Qtzte	
T. Glorieta		T. McKee		Base Greenhorn		T. Granite	
T. Paddock		T. Ellenburger		T. Dakota		T.	
T. Blinebry		T. Gr. Wash		T. Morrison		T.	
T. Tubb		T. Granite		T. Todilto		T.	
T. Drinkard		T. Delaware Sand		T. Entrada		T	
T. Abo		T. Bone Springs		T. Wingate		T.	
T. Wolfcamp		T.		T. Chinle		T.	
T. Penn.		T.		T. Permian		T.	
T Cisco (Bough C)		T.		T. Penn. "A"		T.	

OIL OR GAS SANDS OR ZONES

No. 1, from 3241 to 3912 — No. 4, from ..... to .....

No. 2, from ..... to ..... — No. 5, from ..... to .....

No. 3, from ..... to ..... — No. 6, from ..... to .....

IMPORTANT WATER SANDS

Include data on rate of water inflow and elevation to which water rose in hole.

No. 1, from ..... to ..... feet. .....

No. 2, from ..... to ..... feet. .....

No. 3, from ..... to ..... feet. .....

No. 4, from ..... to ..... feet. .....

FORMATION RECORD (Attach additional sheets if necessary)

From	To	Thickness in Feet	Formation	From	To	Thickness in Feet	Formation
1460	1570	110	Rustler				
1570	3070	1500	Salado Salt				
3070	3205	135	Tansil				
3205	3420	215	Yates				
3420	3840	420	Seven Rivers				
3840	3960	120	Queen				
3960	4100	140	Grayburg*				
			*Grayburg pick is same pick that is used by all Eunice-Monument wells in this geographical area				

This form is to be filed with the appropriate District Office of the Commission not later than 20 days after the completion of any newly-drilled or deepened well. It shall be accompanied by one copy of all electrical and radioactivity logs run on the well and a summary of all special tests conducted, including drill stem tests. All depths reported shall be measured depths. In the case of directionally drilled wells, true vertical depths shall also be reported. For multiple completions, Items 30 through 34 shall be reported for each zone. This form is to be filed in quintuplicate except on state land, where six copies are required. See Rule 1105.

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T. 7 Rivers	3420	T. Devonian		T. Menefee		T. Madison	
T. Queen	3840	T. Silurian		T. Point Lookout		T. Elbert	
T. Grayburg	3960	T. Montoya		T. Mancos		T. McCracken	
T. San Andres		T. Simpson		T. Gallup		T. Ignacio Qtzte	
T. Glorieta		T. McKee		Base Greenhorn		T. Granite	
T. Paddock		T. Ellenburger		T. Dakota		T.	
T. Blinebry		T. Gr. Wash		T. Morrison		T.	
T. Tubb		T. Granite		T. Todilto		T.	
T. Drinkard		T. Delaware Sand		T. Entrada		T	
T. Abo		T. Bone Springs		T. Wingate		T.	
T. Wolfcamp		T.		T. Chinle		T.	
T. Penn.		T.		T. Permian		T.	
T Cisco (Bough C)		T.		T. Penn. "A"		T.	

OIL OR GAS SANDS OR ZONES

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No. 2, from ..... to ..... No. 5, from ..... to .....

No. 3, from ..... to ..... No. 6, from ..... to .....

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Include data on rate of water inflow and elevation to which water rose in hole.

No. 1, from ..... to ..... feet. .....

No. 2, from ..... to ..... feet. .....

No. 3, from ..... to ..... feet. .....

No. 4, from ..... to ..... feet. .....

FORMATION RECORD (Attach additional sheets if necessary)

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3205	3420	215	Yates				
3420	3840	420	Seven Rivers				
3840	3960	120	Queen				
3960	4100	140	Grayburg*				
			*Grayburg pick is same pick that is used by all Eunice-Monument wells in this geographical area				

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SUMMARY OF CORRESPONDENCE

1. Sublease Letter Agreement dated June 25, 1979 from Texaco, Inc. to P. Edward Corrigan.

2. Letter dated July 9, 1979 from P. Edward Corrigan to Texaco, Inc. returning executed Sublease Letter Agreement and requesting amendments.

3. Letter dated July 24, 1979 from Texaco, Inc. to P. Edward Corrigan approving amendments.

4. Cover letter dated July 27, 1979 from Texaco, Inc. to P. Edward Corrigan submitting proposed Amendment for execution.

5. Amendment to Agreement dated July 26, 1979.

6. Letter dated September 14, 1979 from P. Edward Corrigan to Texaco, Inc. returning executed Amendment to Agreement.

7. Assignment of Agreement from P. Edward Corrigan to Doyle Hartman effective June 26, 1979.

8. Letter dated September 25, 1979 from P. Edward Corrigan to Texaco, Inc. requesting an additional 80-acres be added to the farmout.

9. Letter dated September 25, 1979 from James A. Davidson to Mr. Bill Carr requesting a hearing before the NMOCD.

10. Letter dated October 1, 1979 from P. Edward Corrigan to Texaco renewing request for an additional 80-acres.

11. Letter dated October 5, 1979 from P. Edward Corrigan to Texaco requesting again the additional 80-acres be added to the farmout.

12. Letter dated October 11, 1979 from P. Edward Corrigan to Texaco explaining the urgency of the need to have Texaco's reply to the farmout request.

BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION
Hartman EXHIBIT NO. 3
CASE NO. 6701

PRODUCING DEPARTMENT
CENTRAL UNITED STATES
MIDLAND DIVISION

TEXACO
PETROLEUM PRODUCTS

TEXACO INC.
P. O. BOX 3109
MIDLAND, TEXAS 79702

June 25, 1979

41549 - J. K. Rector Lease
Lea County, New Mexico

Mr. P. Edward Corrigan
P. O. Box 76
Midland, Texas 79702

Dear Sir:

Texaco Inc., hereinafter referred to as "Texaco", is the owner of a certain Oil and Gas Lease from J. K. Rector, as Lessor, and F. E. Vosburg, as Lessee, dated September 25, 1926, which was assigned to the Texas Producing Company, now Texaco Inc., on October 18, 1926, which lease is referred to herein for all purposes and hereinafter referred to as "said lease," covering, among other lands, the following described land in Lea County, New Mexico, hereinafter referred to as "said land":

> The Northeast Quarter of the Southeast Quarter (NE/4 SE/4) and the Southwest Quarter of the Southeast Quarter (SW/4 SE/4) of Section 30, T-21-S, R-36-E, NMPM.

P. Edward Corrigan, hereinafter referred to as "Corrigan," desires to conduct operations for the exploration and development of oil and gas, as to the Eumont Field pays, being comprised of the Yates, Seven Rivers, and Queen formations, hereinafter referred to as "Eumont Field pays," in the area and vicinity of and including said land under the terms of said lease, and Texaco desires that said land and lease be further explored and developed. Pursuant thereto and in consideration of One Dollar ($1.00), in hand paid, and of the agreements herein contained, and subject to all of the terms and provisions hereof, Texaco Inc. hereby subleases unto Corrigan all of its right, title and interest in and to the oil and gas only under said lease insofar as it covers said land, subject to the following terms and conditions:

1. Corrigan will perform the covenants hereunder and agrees to fully defend, protect, indemnify and hold harmless Texaco, its

employes and agents, from and against each and every claim, demand, or cause of action, and any liability, cost, expense, damage, or loss in connection therewith, brought against Texaco, its employes and agents, by any third party arising from Corrigan's operations.

2. Corrigan, with reasonable diligence, prudence and in a workmanlike manner, shall commence, within ninety (90) days from the date hereof, the actual drilling of a well for oil or gas at a legal location in the Northeast Quarter of the Southeast Quarter (NE/4 SE/4) of Section 30, such well to be hereinafter referred to as "said well." Corrigan will prosecute, with no cessation of over thirty (30) consecutive days, the drilling to a depth sufficient to penetrate and adequately test one of the Eumont Field pays, expected at approximately 3,800 feet below the surface of the earth. Corrigan shall test such pay and perform all other work necessary to complete said well as a well capable of producing oil or gas in paying quantities in the Eumont Field pays. Corrigan shall complete said well within thirty (30) days from the date of cessation of actual drilling of said well. In the event said well cannot be completed as a well capable of producing oil or gas in paying quantities in the Eumont Field pays, it is understood that Corrigan does not have the option to test and complete in other zones for purposes of this agreement.

3. In the event Corrigan fails to commence timely, fails to drill continuously or fails to complete timely said well as provided above, then all of its rights under this agreement shall, upon and at the time of such failure, ipso facto, terminate and be at an end, and any and all rights, title and interest acquired by or conveyed to Corrigan hereunder shall revert to Texaco.

4. In the event of a dry hole, which earns no acreage, or oil production, which earns less than the total amount of acreage, you shall further develop said land by drilling additional wells thereon. Each such well is to be drilled continuously, tested and completed in a like manner as the well drilled under Provision 2 above. There shall not be more than ninety (90) days between the completion of each such additional well and commencement of actual drilling of the next such additional well, and the actual drilling of the first such additional well shall be commenced within ninety (90) days after the completion of the first well to be drilled under Provision 2 above. In the event you fail either timely to commence actual drilling or timely to complete the drilling of

such additional wells as herein provided, then all your rights under this agreement shall, upon and at the time of any such failure, ipso facto, terminate and be at an end, and any and all right, title and interest acquired by or conveyed to you hereunder shall revert to Texaco Inc., except, however, as to each governmental proration unit of said land upon which you have completed, in compliance with all the terms and provisions of this agreement, a well capable of producing oil or gas in paying quantities.

5. In the event you are successful in completing a well or wells capable of producing oil or gas in paying quantities in compliance with all of the terms and conditions hereof, then Texaco Inc. shall execute and deliver to you an assignment of its right, title and interest in and to all of the oil and gas held under said lease in and to each governmental proration unit of said land upon which you finally complete a well capable of producing oil or gas in paying quantities; however, such assignment shall be limited to Texaco's leasehold rights within the Eumont Field pays only. Such assignment shall be dated and effective as of the date hereof and the terms and conditions thereof shall be applicable to your operations hereunder and shall be of the same form as attached hereto as Exhibit "A", which is referred to for all purposes herein.

6. In the event Corrigan earns the subject Texaco acreage, it is understood that at the time the well or wells drilled on the proration unit or units under the terms of this agreement become incapable of producing oil or gas in paying quantities, thus being noncommercial, or rework operations are not commenced within the proper period, or if rework operations fail and production in paying quantities is not restored, Corrigan will then reassign the subject acreage within each nonproducing proration unit to Texaco by recordable instrument.

7. You will allow Texaco Inc. and its representatives full access to each well, including access to the records thereof and to the derrick floor, and Texaco Inc. shall be furnished with samples or copies of all cores, cuttings, logs, drilling data, testing and completing data, and all other information obtained. You agree to furnish the specific information to Texaco Inc. as set out in Exhibit "B", attached hereto and made a part hereof.

8. It is understood that this agreement is subject to a Gas Purchase Contract dated October 1, 1951, as amended October 26, 1959; an Exchange Agreement dated August 7, 1952; and a Casinghead Gas Contract dated November 1, 1955, as amended January 1, 1969.

9. It is understood that governmental proration units for gas production are anticipated to be 160 acres and Corrigan will only earn 80 acres for a successful gas producer. In the event of such 160 acre governmental proration units for gas production, pooling is anticipated.

10. It is understood and agreed that you will execute and return this agreement to us within thirty (30) days from the date hereof; upon your failure to do so, Texaco Inc. at its sole option may declare same null, void and of no further effect.

11. A. This agreement is personal to you and cannot be assigned by you unless the written consent of Texaco is first obtained.

B. This agreement shall be effective as of the date shown above even though actually signed at a later date. Please indicate your agreement to and acceptance of this sublease agreement by executing duplicate copies of this letter and returning one executed copy to us.

Approved as to:
Contract oelts
Terms JME
Form RPT

Yours very truly,

TEXACO INC.

By E D McCreary
Attorney-in-Fact

CSH-BW

Accepted and agreed to this 9th day of July, 1979.
P. EDWARD CORRIGAN

By P Edward Corrigan

STATE OF TEXAS)
)
COUNTY OF MIDLAND)

The foregoing instrument was acknowledged before me this 2nd day of July, 1979, by [illegible], Attorney-in-Fact for TEXACO INC., a Delaware corporation, on behalf of said corporation.

Martha Fincher Martha Fincher
Notary Public in and for
Midland County, Texas

My Commission Expires:
Sept. 30, 1980

STATE OF Texas)
)
COUNTY OF Midland)

The foregoing instrument was acknowledged before me this 9th day of July, 1979, by P. EDWARD CORRIGAN.

Leigh M Cerboskas
Notary Public in and for
Midland County, Texas

My Commission Expires:
LEIGH M. CERBOSKAS
MY COMMISSION EXPIRES
[illegible]

NOTARY PUBLIC
COUNTY OF MIDLAND, TEXAS

LEIGH M. CERBOSKAS
MY COMMISSION EXPIRES
JULY 31, 1980

EXHIBIT "A"

(Attached to and made a part of Letter Agreement between TEXACO INC. and P. EDWARD CORRIGAN dated June 25, 1979)

ASSIGNMENT

STATE OF NEW MEXICO)
) KNOW ALL MEN BY THESE PRESENTS:
COUNTY OF LEA)

WHEREAS, Texaco Inc., a corporation of Delaware, is the present owner and holder of certain oil and gas rights covering the following described lands in Lea County, New Mexico, to wit:

(Describe applicable portion of said lands) as to and only as to oil and gas rights within the Eumont Field pays,

held under the terms of that certain Oil and Gas Lease dated September 25, 1926, between J. K. Rector, as Lessor, and F. E. Vosburg, as Lessee, which was assigned to the Texas Producing Company, now Texaco Inc., on October 18, 1926, hereinafter referred to as "said lease," covering, among other lands, the above described said land; and,

WHEREAS, the said Texaco Inc. entered into an agreement with P. Edward Corrigan covering the leasehold rights in the oil and gas in said land; and,

WHEREAS, P. Edward Corrigan has earned an assignment of the oil and gas leasehold rights in said lease as to said land as to and only as to the above described depths;

NOW THEREFORE, Texaco Inc., as Assignor, for and in consideration of One Dollar ($1.00) cash in hand paid and of the premises, does hereby grant, convey, assign and set over all of its oil and gas leasehold right, title and interest in and to the above described land as to the above described depths (the above described land and depths being hereinafter referred to as "said land") unto P. Edward Corrigan, as Assignee, subject to all of the terms and provisions hereof as follows:

1. OVERRIDING ROYALTIES

A. In addition to the royalties and any and all other payments payable to the Lessors under the terms and provisions of said lease, and in addition to any overriding royalties and any and all other payments payable under the terms and provisions of

any and all other agreements or contracts affecting said lease, Assignee agrees to pay Assignor, free of all costs to Assignor, the following overriding royalties on the oil or gas produced from said land under the terms of said lease which are hereby reserved and retained by Assignor.

(1) One-eighth (1/8) of all oil produced and saved from said land, to be delivered at Assignor's option, to be exercised and changed by Assignor at any time and from time to time as Assignor may desire, either (a) to Assignor at the wells, or (b) to its credit in the pipeline to which the wells may be connected or with the transporter receiving Assignee's oil but for not less than the same price received by Assignee for its oil, and for not less than the market value at the wells for production of like kind and quality.

(2) One-eighth (1/8) of all gas produced from and sold or used off said land to be delivered to Assignor at its option, to be exercised and changed by Assignor at any time and from time to time as Assignor may desire, either (a) to Assignor, or to its purchaser at the wells, or (b) a sum equal to the market value at the wells of such overriding royalty gas produced from and sold or used off said land, or in the manufacture of gasoline or the extraction of sulfur or any other product.

B. It is understood and agreed that any contract or agreement made or entered into by Assignee concerning production or its disposition or sale shall at all times be subject to Assignor's right and option to take in kind or separately market its share of production at any time as such share may exist from time to time as set out above.

2. WELL TAKE OVER

A. In any of the following events, Assignor shall have the option to take over any well, such option to be exercised by mailing or otherwise giving notice to Assignee of its intention to take over. Such mailing or giving of notice will constructively constitute the "take over."

(1) In the event Assignee fails in any attempt to obtain production of oil or gas in paying quantities from any well, and intends to abandon such well, it shall promptly notify Assignor of such intention to abandon any such well, and Assignor shall have the option, for a period of forty-eight (48) hours from receipt of such notice within which to take over such well.

(2) In the event production from any well should cease from any cause, or should decline to such an extent that such production is no longer in paying quantities, and Assignee fails within thirty (30) days thereafter to restore production in paying quantities or commence operations to obtain or restore production in paying quantities, or ceases to prosecute such operations to obtain or restore production for thirty (30) consecutive days, then Assignor shall have the option at any time thereafter to take over such well.

(3) In the event Assignee intends to abandon any producing well, it shall notify Assignor and Assignor shall have the option for a period of thirty (30) days from receipt of such notice within which to take over such well.

(4) In the event Assignee has completed a well capable of producing gas in paying quantities, but such well has not been produced because of lack of market or any other reason, then Assignor shall have the option to take over any such well at any time after the expiration of four (4) years from date such well was shut in.

B. In any of said events, upon Assignor's exercise of said option, all of Assignee's right, title and interest in the governmental proration unit of said land for such well shall terminate and revert to Assignor. Any such well and all subsequent production therefrom shall be owned solely by Assignor and it shall have the sole right to operate and maintain said well and use, sell or otherwise dispose of all such production as it may desire, without any limitation whatsoever. Assignor shall have the option to purchase from Assignee any items of equipment, fixtures and machinery in, on or around said well as Assignor may desire, paying therefor the reasonable salvage value thereof, such value being the reasonable value of the right to remove such items from said land less the cost of removal thereof.

C. Notwithstanding the automatic reverting and revesting of title into Assignor, upon the happening of the events as herein provided, Assignee shall promptly make, execute and deliver to Assignor any instrument or instruments reassigning and reconveying the record title to Assignor, as and when requested. Assignee hereby agrees and all persons are hereby given notice that, should said land at any time be reassigned or reconveyed in accordance herewith, it shall be free and clear of any overriding royalty, payment out of production, net profit obligation or carried interest, or any obligation to which it may have been subjected by Assignee. Any such obligations shall cease and terminate and be of no further force and effect as to such part of said land reassigned or reconveyed, notwithstanding that Assignor may have expressly or impliedly consented to the assignment or the instrument in which such obligation was reserved or created. In the event Assignor exercises its option to take over a well as provided above and such well is the last or only producing well on said land, then the reassignment shall cover all of said land then held hereunder.

3. PLUGGING WELLS

Assignee shall plug any well not taken over by Assignor and either not capable or no longer capable of producing oil or gas in paying quantities and shall restore said land around any such well to the satisfaction of Assignor. In the event Assignee fails to plug any such well or fails to restore such surface around any such well to the satisfaction of Assignor, then Assignor, at its option, may plug any such well and restore such surface around any such well to its satisfaction and Assignee shall reimburse it for any and all sums of money expended in connection

therewith. Assignee shall comply with all statutory requirements and governmental rules and regulations in effect at the time of plugging any well not taken over and agrees to defend, indemnify and hold Assignor harmless against any expense, claim or cause of action brought by any third party, including any governmental agency, arising from its failure to plug or properly plug any such well.

4. DEVELOPMENT

Assignee shall drill all additional wells, to the depths assigned hereunder, necessary to develop said land and necessary to protect said land from drainage, as would a reasonably prudent operator; however, without limitation of the foregoing, Assignee shall drill all development and protection, or offset wells, which may be required under the terms and provisions of said lease as to said land to the depths assigned.

5. SHUT-IN GAS PAYMENTS

Assignor shall not be obligated to pay any shut-in gas royalty payment under said lease, but if it should make any such payment, Assignee shall, within thirty (30) days after receipt of written notice from Assignor, reimburse it for any shut-in gas royalty payment attributable to said land and paid by Assignor under said lease. If Assignee fails timely to reimburse Assignor, then all of its rights under this agreement shall upon and at the time of such failure, ipso facto, terminate and be at an end as to all of said land, and all right, title and interest acquired by or conveyed hereunder as to all of said land shall revert to Assignor.

6. RIGHTS RESERVED

Assignor does expressly reserve all oil and gas rights above and below the depths herein assigned and all mineral rights at any depths and all rights of ingress, egress, use, occupancy, and any and all other surface rights granted by said lease necessary or convenient to exercise and enjoy all oil, gas and mineral rights reserved to Assignor.

7. INDEMNITY

Assignee agrees to fully defend, protect and indemnify, and hold harmless Assignor, its employes and agents, from and against each and every claim, demand, or cause of action, and any liability, cost, expense, damage, or loss that may be asserted against Assignor or Assignee by any third party arising from or on account of any operations conducted by Assignee or for the benefit of Assignee under this assignment or which might arise out of any breach or violation of any of the terms and provisions of said lease.

8. TITLE

This assignment is made subject to all the terms and provisions of said lease and any amendments, extensions or renewals thereof. This assignment is made without warranty of title express or implied; provided however, if said lease covers less interest than the entire fee simple estate in the oil and gas in said land, or if Assignor owns less than the full leasehold estate in said lease, then the interest reserved under the terms of this agreement shall be reduced proportionately.

9. RIGHT TO PURCHASE PRODUCTION

A. Assignor reserves and is hereby given the right at any time and from time to time for twenty-one (21) years from the date hereof to purchase as produced all oil and other liquid hydrocarbons produced and saved from said land. Assignor's election to purchase said oil or other liquid hydrocarbons shall be given to Assignee in writing at least thirty (30) days prior to the time purchases shall begin, and notice of discontinuance of purchase shall be given in a like manner. The option given hereby shall apply separately as to oil and as to other liquid hydrocarbons, and Assignor may purchase the oil or any liquid hydrocarbon, or any one or more of them, without purchasing the remaining products. The price paid shall be the current market price at the wells for such production of like kind and quality.

B. Assignor reserves and is hereby given the optional preferential right at any time and from time to time for twenty-one (21) years from the date hereof to enter into a contract to purchase or designate a purchaser for all gas produced from said land, such right to be exercised as follows. If Assignee elects to sell gas production and shall receive a bona-fide offer acceptable to it to purchase such gas production, it shall promptly furnish Assignor written notice thereof, and Assignor shall have ninety (90) days after receipt of such notice to elect either to enter into a contract to purchase such gas on the same terms and conditions of such offer, or to designate a third party purchaser of such gas on either the same terms and conditions or (in its sole judgment) on more favorable terms and conditions to Assignee, and if any such third party purchaser is designated, such designation shall be binding on Assignee. If Assignor fails to notify Assignee within said ninety (90) day period of its election to exercise such right, then it shall have no right to exercise said preferential right during the contract term. If Assignor does not exercise such optional preferential right and for any reason Assignee shall not thereafter accept said offer, or if Assignee accepts said offer and the resulting contract expires or is terminated or renegotiated within the period of this reservation, then the foregoing reservation of said optional preferential right shall continue in full force and effect and said optional preferential right shall apply with respect to any new offer or renegotiated offer to purchase gas from said land within said twenty-one (21) year period.

10. NOTICES

Unless otherwise stated herein, notices will be given in writing and may be given manually or by mail. Notice by mail shall be deemed complete upon deposit of the written notice in a postpaid properly addressed envelope in any official depository under the care and custody of the United States Postal Service. All notices mailed to Assignor shall be addressed to it at P. O. Box 3109, Midland, Texas 79702, and all notices to Assignee shall be addressed as follows: P. Edward Corrigan, P. O. Box 76, Midland, Texas 79702.

11. INFORMATION

Assignee shall be obligated to furnish Assignor a statement on or before the 15th of each month showing all wells drilled or being drilled pursuant to the terms hereof, the status of all such wells, and current production information for all producing wells, including but not limited to volumes, values and purchasers. Assignee will allow Assignor and its representatives full access to each well at all times, including access to the records thereof and to the derrick floor, and Assignor shall be furnished with samples or copies of all cores, cuttings, logs, drilling data, testing and completing data, and all other information obtained.

12. ASSIGNMENTS

Assignee agrees not to assign, either in whole or in part, its interest in said land, or in the oil or gas to be produced therefrom, without the written consent of Assignor, the restriction to be effective for fifteen (15) years from the date hereof. Any assignment shall contain a limitation requiring that the written consent of Assignor must be obtained prior to any further assignment. No such assignment or assignments, although made with the written consent of Assignor, shall subject said land or any portion thereof, to any overriding royalty, payments out of production, net profit obligation, carried interest or any other obligation in addition to those created under the terms hereof.

13. REASSIGNMENT

It is understood that at the time the well or wells drilled on the proration unit or units under the terms of this agreement become incapable of producing oil or gas in paying quantities, thus being noncommercial, or rework operations are not commenced within the proper period, or if rework operations fail and production in paying quantities is not restored, Corrigan will then reassign the subject acreage within each non-producing proration unit to Texaco by recordable instrument.

14. EFFECT

This agreement shall be binding upon the parties hereto, their devisees, heirs, legal representatives, executors, administrators, successors and assigns, and shall apply to any

extensions, modifications or renewals of said lease, or any new lease or leases entered into by Assignee or for the benefit of Assignee within a period of one (1) year from the expiration of said lease.

IN WITNESS WHEREOF, this instrument is executed in duplicate originals as of the date first above written.

APPROVED AS TO:
Contract _____
Terms _____
Form _____

TEXACO INC.

By _____
Attorney-in-Fact

P. EDWARD CORRIGAN

By _____
P. Edward Corrigan

STATE OF TEXAS)
)
COUNTY OF MIDLAND)

The foregoing instrument was acknowledged before me this _____ day of _____, 1979, by _____, Attorney-in-Fact for TEXACO INC., a Delaware corporation, on behalf of said corporation.

_____
Notary Public in and for
Midland County, Texas

My Commission Expires:

_____

STATE OF _____)
)
COUNTY OF _____)

The foregoing instrument was acknowledged before me this _____ day of _____, 1979, by P. EDWARD CORRIGAN.

_____
Notary Public in and for
_____ County, _____

My Commission Expires:

_____

EXHIBIT "B"

(Attached to and made a part of Letter Agreement dated June 18, 1979, by and between TEXACO INC. and P. EDWARD CORRIGAN)

During the drilling and completion of any well, you agree to furnish information and reports to Texaco's District Superintendent named, at the address shown, as indicated below:

Mr. J. V. Gannon
TEXACO INC.
P. O. Box 728
Hobbs, New Mexico 88240

1. Daily drilling reports.
2. Copy of the well record.
3. Copy of the potential test.
4. Copy of the P&A record (if applicable).
5. Copies of any core analysis.
6. Copies of any electrical logs and surveys.
7. One copy of all forms filed with the State Regulatory Bodies.

You also agree to furnish the following reports and information during the drilling and completion of any well to our Geological representative at the address shown:

Mr. D. M. Tappmeyer
TEXACO INC.
P. O. Box 3109
Midland, Texas 79702

1. Daily report by telephone or mail of well status and significant developments from spudding date until well is completed and potentialed.
2. Notice by telephone of all proposed coring, drillstem testing and logging in sufficient time for Texaco to have a representative present.
3. One field print or preliminary print and two final prints of all logs, core analysis, electrical and other surveys run, including digital tapes (if so recorded), preferably on tape format: 9 track, 1600 BPI (Digital tapes to be furnished to Texaco Inc., 1111 Rusk Avenue, Houston, Texas 77002, Attn. J. C. Reich, and the Geological representative above advised of the furnishing thereof).
4. A daily copy of any mud log if a mud logging unit is used. Two final prints of log when well is completed.
5. Samples of any and all cores, along with a copy of each analysis of such core.
6. Complete details of all drillstem tests taken, together with copy of charts in bottom hole bomb.
7. If requested, one set of drilling samples or cuttings.
8. Completion and/or plugging report.

All other notices or information required under this agreement should be given to:

TEXACO INC.
P. O. Box 3109
Midland, Texas 79702

P. Edward Corrigan
Post Office Box 76
Midland, Texas 79702
July 9, 1979

Texaco Inc.
P. O. Box 3109
Midland, Texas 79702

Re: 41549 - R. K. Rector Lease
Lea County, New Mexico

Attention: Mr. O. D. Tatsch
Senior Contracts Analyst

Gentlemen:

Please find enclosed one executed copy of Sublease Letter Agreement dated June 25, 1979, covering NE/4 SE/4 and SW/4 SE/4 of Section 30, T-21-S, R-36-E.

I would appreciate very much your considering the following amendments:

1. The fourth sentence in Paragraph 2 on Page 2 shall hereinafter read as follows:

   "Corrigan shall complete said well within thirty (30) days from the date of cessation of actual drilling of said well; subject to additional time to complete the same (1) in the event it is necessary to delay fracing due to a delay in obtaining a sales line; and/or (2) unforeseen completion problems that are encountered while continuous completion operations are being performed."

2. Paragraph 11 (A) (and Paragraph 12 of Exhibit "A" thereto) shall be amended to the extent that I be allowed to assign an interest to the party that I select as the actual operator.

   The reason for this request is, of course, that I am not bonded in New Mexico and am not set up to actually operate as such. My past practice in this situation has been to also sell an interest in the deal to the operator that I select.

In the meantime, I have appreciated your co-operation and I anticipate that the well will be spudded on about August 10, 1979.

Very truly yours,

P. Edward Corrigan

P. Edward Corrigan

Mr. Jack Maddison
Land Department

Dear Jack:

With regard to attached Sublease Letter Agreement, please furnish me copies of the various gas contracts set out in Paragraph 8.

Thanks,

Eddie

Eddie Corrigan

TEXACO

PETROLEUM PRODUCTS

PRODUCING DEPARTMENT
CENTRAL UNITED STATES
MIDLAND DIVISION

TEXACO Inc.
P. O. BOX 3109
MIDLAND, TEXAS 79702

July 24, 1979

41549 - J. K. Rector Lease
Lea County, New Mexico

Mr. P. Edward Corrigan
P. O. Box 76
Midland, Texas 79702

Dear Mr. Corrigan:

Thank you for sending our executed copy of the Sublease Letter Agreement dated June 25, 1979. In your letter of July 9, 1979, you requested two amendments to this letter agreement. After reviewing your requests, we see no problem with them but prefer to handle them routinely without making amendments to the letter agreement.

As far as a time extension, after you have ceased drilling and have determined that you will need more than thirty days to complete your well, please let us know as far in advance as possible, and upon your written request we will grant you one thirty day extension period by executed letter form. This would, of course, be in addition to the thirty day time limit specified in the agreement. Additional thirty day extension periods may be granted if necessary in order for you to have the time required to complete the well.

In regard to your desire to assign part of your interest under this letter agreement, please be advised that this is acceptable to us. For your convenience, we have enclosed an Assignment of Agreement Form which you may wish to use. Texaco must approve any assignment before it is recorded. Therefore, this needs to be returned to us in order for us to put our approval stamp on it.

We will be forwarding copies of the various gas contracts listed in Paragraph 8 of the letter agreement as soon as possible. If you have any additional questions, do not hesitate to contact us.

Yours very truly,

CONTRACTS GROUP

By O. D. Tatsch
O. D. Tatsch
Sr. Contracts Analyst

CSH-BW
Enclosure

RECEIVED JUL 3 1 1979

TEXACO

PETROLEUM PRODUCTS

PRODUCING DEPARTMENT
CENTRAL UNITED STATES
MIDLAND DIVISION

TEXACO Inc.
P. O. BOX 3109
MIDLAND, TEXAS 79702

July 27, 1979

41549 - J. K. Rector Lease
Lea County, New Mexico

Mr. P. Edward Corrigan
P. O. Box 76
Midland, Texas 79702

Dear Mr. Corrigan:

Enclosed are duplicate copies of an amendment which corrects Article 8 of the Sublease Letter Agreement dated June 25, 1979, and accurately lists the gas contracts which cover the acreage subject to that agreement. Please execute both copies, retaining one for your records and returning the other copy to us.

Copies of all the gas contracts set out in Article 8 are enclosed herein per your request. If you need additional information or have any questions, do not hesitate to contact us.

Yours very truly,

CONTRACTS GROUP

BY O. D. Tatsch
O. D. Tatsch
Sr. Contracts Analyst

CSH-BW
Enclosures

AMENDMENT TO AGREEMENT

STATE OF NEW MEXICO)
) KNOW ALL MEN BY THESE PRESENTS:
COUNTY OF LEA)

THAT reference is made to that certain Letter Agreement dated June 25, 1979, by and between TEXACO INC. and P. EDWARD CORRIGAN, wherein Texaco Inc. subleased unto P. Edward Corrigan all of its right, title, and interest, only in and to the oil and gas operating rights as therein defined and only for the depth limit as therein defined, in and under that Oil and Gas Lease, referred to in said Letter Agreement as "said lease," in and to the following described land, referred to in said Letter Agreement as "said land," in Lea County, New Mexico, to wit:

> The Northeast Quarter of the Southeast Quarter (NE/4 SE/4) and the Southwest Quarter of the Southeast Quarter (SW/4 SE/4) of Section 30, T-21-S, R-36-E, NMPM;

NOW THEREFORE, for and in consideration of the mutual covenants in said Letter Agreement, Texaco Inc. and P. Edward Corrigan hereby agree that said Letter Agreement shall be amended to reflect the following changes in terms and conditions:

> Article 8 shall be deleted in its entirety and amended by substituting the following provision to read as follows:
>
> "It is understood that this agreement is subject to a Casinghead Gas Contract dated October 29, 1948; a Gas Purchase Contract dated October 1, 1951, as amended January 15, 1953, and October 26, 1959, and September 30, 1963; and an Exchange Agreement dated August 7, 1952."

EXCEPT as hereinabove amended, all terms, provisions and agreements contained in the referenced Letter Agreement shall remain in full force and effect as originally written and agreed to.

IN WITNESS WHEREOF, this instrument is executed in duplicate to be effective the 26th day of July, 1979.

Approved as to:
Contract ORT
Terms DHC
Form OK

TEXACO INC.

By _____
D. P. McGOOKEY
Attorney-in-Fact

P. EDWARD CORRIGAN

By P. Edward Corrigan

STATE OF TEXAS)
)
COUNTY OF MIDLAND)

The foregoing instrument was acknowledged before me this 24th day of October, 1979, by [illegible], Attorney-in-Fact for TEXACO INC., a Delaware corporation, on behalf of said corporation.

Carolyn Cason
Notary Public in and for Carolyn Cason
Midland County, Texas

My Commission Expires:

December 26, 1981

STATE OF Texas)
)
COUNTY OF Midland)

The foregoing instrument was acknowledged before me this 25th day of September, 1979, by P. EDWARD CORRIGAN.

Michelle Vessels
Notary Public in and for
Midland County, Texas

My Commission Expires:
MICHELLE VESSELS
MY COMMISSION EXPIRES
AUGUST 22, 1980

P. O. Box 76
Midland, Texas 79702
September 14, 1979

Texaco, Inc.
P. O. Box 3109
Midland, Texas 79701

Re: 41549 - J.K. Rector Lease
Lea County, New Mexico

Dear Sirs:

Enclosed please find the amendment to agreement concerning Article 8 of our Letter Agreement dated June 25, 1979.

I apologize for the delay in execution; however, I have been absent and hope this delay hasn't hindered yourselves in any manner.

Yours truly,

P. Edward Corrigan

P. Edward Corrigan

PEC:gs

Enclosure

ASSIGNMENT OF AGREEMENT

STATE OF NEW MEXICO)
) KNOW ALL MEN BY THESE PRESENTS:
COUNTY OF LEA)

THAT reference is made to that certain Letter Agreement dated June 25, 1979, by and between TEXACO INC. and P. EDWARD CORRIGAN, wherein Texaco Inc. subleased unto P. Edward Corrigan all of Texaco Inc.'s operating rights in and to the oil and gas interests as therein defined and only down to a depth limit as therein defined, in and under the oil and gas lease, referred to in said Letter Agreement as "said lease," in and to the following described land, referred to in said Letter Agreement as "said land," in Lea County, New Mexico, to wit:

The Northeast Quarter of the Southeast Quarter (NE/4 SE/4) and the Southwest Quarter of the Southeast Quarter (SW/4 SE/4) of Section 30, T-21-S, R-36-E, and

WHEREAS, it is the desire of P. Edward Corrigan to assign a portion of his operating rights in said Letter Agreement to Doyle Hartman, which by its acceptance of this Assignment agrees to perform with P. Edward Corrigan under all the terms and conditions of said Letter Agreement.

NOW THEREFORE, for and in consideration of the sum of Ten Dollars ($10.00), or more, cash in hand paid by Doyle Hartman, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, P. Edward Corrigan does hereby transfer, assign and convey unto Doyle Hartman, its successors and assigns, a portion, being 51.5625 percent, of P. Edward Corrigan's operating rights.

IN WITNESS WHEREOF this Assignment is executed this 25th day of September, 1979, but to be effective as of June 26, 1979.

P. EDWARD CORRIGAN

By P Edward Corrigan

STATE OF Texas)
)
COUNTY OF Midland)

The foregoing instrument was acknowledged before me this 25th day of September, 1979, by P. EDWARD CORRIGAN.

Michelle Vessels
Notary Public in and for
Midland County, Texas

My Commission Expires:
MICHELLE VESSELS
NOTARY PUBLIC
MY COMMISSION EXPIRES
AUGUST 23, 1980

P. Edward Corrigan
Post Office Box 76
Midland, Texas 79702
September 25, 1979

Texaco, Inc.
P. O. Box 3109
Midland, Texas 79702

Attention: Mr. E. H. Watkins

Re: Farmout Agreement
Lea County, New Mexico
(Texaco # 41549--J. K. Rector)

Gentlemen:

Reference is made to the Farmout Agreement dated June 25, 1979, as amended, covering NE/4 SE/4 and SW/4 SE/4 Section 30, T-21-S, R-36-E.

The Hartman and Corrigan No. 1 J. K. Rector well (2,310 FSL and 330 FEL) has been drilled to a total depth of 4,100'. We are in the process of completing the well over the interval from 3,296'-3,781' (Yates-Seven Rivers).

It appears, based on present information, that the well has a chance of being completed as a gas well. But, as you know from the Daily Drilling Reports, we have encountered a potentially serious produced water problem over the Seven Rivers interval (3,590'-3,641'). The degree of the produced water is not now known and will not be finally evidenced until the well is fraced. However, in order to minimize water damage, a frac job cannot be performed until a 160-acre non-standard proration unit is approved and the corresponding allowable assigned, and a pipeline is made available by El Paso Natural Gas Company.

Needless to say, this potential water problem could increase if the J. K. Rector No. 1 is required to be shut in for any unnecessary length of time.

You will recall that under Paragraph 9 of the above noted agreement, Texaco anticipated 160-acre spacing for a gas well (with us to earn only the farmed out 80-acres, being 50% of the spacing unit).

Therefore, I respectfully request that Texaco add the following acreage

to the above noted farmout to fill out a 160-acre unit on the following basis:

T-21-S, R-36-E

Section 30: NW/4 SE/4 and SE/4 SE/4

1. Texaco to farmout these additional tracts under the same terms as covered by the above noted Farmout Agreement of June 29, 1979, as amended; or,

2. Texaco to participate in the well as a 50% working interest owner under an Operating Agreement naming Doyle Hartman as operator.

Enclosed is an AFE for your use in considering this matter.

In the meantime, we have filed with the New Mexico Oil Conservation Division for a hearing to establish a 160-acre non-standard proration unit consisting of the SE/4 of Section 30 and a non-standard Eumont gas location situated at 2310' FSL and 330' FEL.

Your promptness in this matter would be greatly appreciated.

Yours truly,

P. Edward Corrigan

P. Edward Corrigan

PEC/mh

Enclosure as above

8. It is understood that this agreement is subject to a Gas Purchase Contract dated October 1, 1951, as amended October 26, 1959; an Exchange Agreement dated August 7, 1952; and a Casinghead Gas Contract dated November 1, 1955, as amended January 1, 1969.

9. It is understood that governmental proration units for gas production are anticipated to be 160 acres and Corrigan will only earn 80 acres for a successful gas producer. In the event of such 160 acre governmental proration units for gas production, pooling is anticipated.

10. It is understood and agreed that you will execute and return this agreement to us within thirty (30) days from the date hereof; upon your failure to do so, Texaco Inc. at its sole option may declare same null, void and of no further effect.

11. A. This agreement is personal to you and cannot be assigned by you unless the written consent of Texaco is first obtained.

B. This agreement shall be effective as of the date shown above even though actually signed at a later date. Please indicate your agreement to and acceptance of this sublease agreement by executing duplicate copies of this letter and returning one executed copy to us.

Approved as to:
Contract A.C.B.
Terms OHO
Form RPT

Yours very truly,

TEXACO INC.

By _____
Attorney-in-Fact

CSH-BW

Accepted and agreed to this 9th day of July, 1979.
P. EDWARD CORRIGAN

By P. Edward Corrigan

Authority for Expenditure

DETAIL WELL ESTIMATE

LEASE NO. _____

LEASE NAME J. K. Rector WELL NO. 1 APPR. NO. _____

COUNTY Lea STATE New Mexico FIELD Eumont (Gas) W. I. 100%

LOCATION: 2310 FSL & 330 FEL Section 30, T-21-S, R-36-E

DRILLING INTANGIBLES:

		PRODUCER	DRY HOLE
1.	Drilling Cost 4100 Feet @ 13.00 Per Foot	53,300	
2.	Day Work 2 days @ 3200/day		
3.	Coring Service _____ Well Surveys 6000	6,400	
4.	Testing	6,000	
5.	Fuel _____ Water 700		
6.	Mud 5500 Mud Logging	7,000	
7.	Cementing Service _____ Cement _____ Floats _____	5,500	
8.	Company Labor _____ Contract Labor 1000	11,000	
9.	Digging Pits _____ Filling Pits	1,000	
10.	Roads & Bridges _____ Dredging & Grading	700	
11.	Acidizing 8,000 Fracturing 35,000 Perforating 3,000	6,500	
12.	Plugging	46,000	
13.	Trucking Cost	---	
14.	Development Superintendence 30 days @ $ 250 /day	1,000	
15.	Rental Equipment	7,500	
16.	Swabbing and Testing 15 days @ 800/day	3,000	
17.	Other Costs Abstract & Title	12,000	
	Pit lining	2,500	
	Other	1,200	
		7,300	
	Total Intangibles	177,900	

WELL EQUIPMENT:

18.	Casing	450 Ft. of 8 5/8 @ 7.00 Per Ft.				
		4125 Ft. of 5 1/2 @ 4.50 Per Ft.				
		Ft. of @ Per Ft.				
19.	Tubing	3950 Ft. of 2 3/8 @ 2.30 Per Ft.			21,700	
20.	Casing Head				9,100	
21.	Xmas Tree or Pumping Connections				1,100	
22.	Pumping Unit				3,000	
23.	Engine Motor, controller, electrical				15,000	
24.	Sucker Rods				10,000	
25.	Pump				6,000	
26.	Tank Battery				1,300	
27.	Separator or Dehydration Equip.					
28.	Metering Equipment				12,000	
29.	Flow Lines					
30.	Other				2,000	
		Total Tangibles			81,200	
		TOTAL COST OF WELL			259,100	

REMARKS: Due to the water problem already encountered in the subject well, the above well estimate also includes rod pump equipment and separation facilities in addition to the normal drilling and completion expenditures.

Originated by Doyle Hartman Title Operator Date 9-25-79

Approved _____ Title _____ Date _____

JAMES A. DAVIDSON
Oil & Gas Properties
P. O. BOX 494
MIDLAND, TEXAS 79702

(915) 682-6482 – OFFICE
694-5472 – RESIDENCE

September 25, 1979

Campbell and Black
P. O. Box 2208
Santa Fe, New Mexico 87501

Attention: Mr. Bill Carr

Re: Compulsary Pooling,
Non-Standard Eumont
Gas Proration Unit,
and Non-Standard Location
SE/4 Section 30, T-21-S, R-36-E
Lea County, New Mexico

Dear Bill:

Please find enclosed a copy of Texaco's farmout agreement to Mr. P. Edward Corrigan and his letter of this date to Texaco.

Doyle Hartman is the operator and part owner under this agreement.

Please review this situation and, if in accordance with the Oil Conservation Division rules, docket this for a hearing in Doyle Hartman's name as follows:

1. Force pool Texaco as to the additional two 40's set out in the above noted letter.

2. Approval for non-standard proration unit and non-standard location.

3. Prior to spudding the Doyle Hartman No. 1 J. K. Rector well, the SE/4 Section 30 was both non-producing and non-dedicated as to the Eumont Gas Pool. It has been in this status for approximately five years.

   We also need to take any additional steps not outlined above that may be necessary to qualify the well as a Section 103 well under the Natural Gas Policy Act of 1978.

4. If we work out a mutually agreeable deal with Texaco prior to the hearing, we will drop the force pooling aspect of this case.

Thank you.

Very truly yours,

James A. Davidson

James A. Davidson

JAD/mh

Enclosures as above

cc: Mr. W. P. Aycock
310 Wall Towers West
Midland, Texas 79701

P. Edward Corrigan
Post Office Box 76
Midland, Texas 79702
October 1, 1979

Texaco, Inc.
P. O. Box 3109
Midland, Texas 79702

Attention: Mr. E. H. Watkins

Re: Non-Standard Proration Unit
and Non-Standard Location,
J. K. Rector No. 1
SE/4 Section 30, T-21-S, R-36-E
Lea County, New Mexico

Gentlemen:

Since our last letter of September 25, 1979, we have encountered further complications in completing our J. K. Rector No. 1; the difficulty being in the squeezing off of produced water over the interval from 3592'-3641'.

Although the additional completion problems were not anticipated at the time of our last correspondence, they do emphasize the necessity for establishing a 160-acre non-standard Eumont Gas proration unit as soon as possible.

We therefore request and would appreciate a reply to our letter to Texaco of September 25, 1979 within the next few days in order that we may follow through on a mutually agreeable basis with the previously mentioned New Mexico Oil Conservation Division hearing for a non-standard proration unit and non-standard location for our J. K. Rector No. 1.

Very truly yours,

P. Edward Corrigan

P. Edward Corrigan

PEC/mh

bcc: Mr. Bill Aycock
310 Wall Towers West
Midland, Texas 79701

Campbell and Black, P.A.
P. O. Box 2208
Santa Fe, New Mexico 87501

Attention: Mr. Bill Carr

P. Edward Corrigan
Post Office Box 76
Midland, Texas 79702
October 5, 1979

Texaco, Inc.
P. O. Box 3109
Midland, Texas 79702

Attention: Mr. E. H. Watkins

Re: Non-Standard Proration Unit
and Non-Standard Location
J. K. Rector No. 1
SE/4 Section 30, T-21-S, R-36-E
Lea County, New Mexico

Gentlemen:

Reference is made to our letters to you of September 25, and October 1, 1979, concerning the produced water problems encountered in our recently drilled J. K. Rector No. 1 well. This well was drilled under a Farmout Agreement from Texaco dated June 25, 1979, as amended.

This produced water problem has become urgent to the extent that I need to receive an allowable from the New Mexico Oil Conservation Division as soon as possible in order to commence producing the well. This matter has been docketed for a hearing on October 17, 1979. In my above noted September 25th letter, I set out the reasons for a 160-acre unit. The application for the NMOCD hearing included a non-standard proration unit and non-standard location for the proposed 160-acre Eumont gas unit. It was also necessary to advertise the hearing for compulsary pooling since at that date it had not been possible to work out the mechanics of cooperative agreement to pool the 160-acre unit.

I therefore again request that Texaco consider my above noted letter of September 25, 1979, and reply to the same. Also attached is a copy of forms C-105 (Well Completion Report) and C-104 (Request for Allowable).

Your answer has become increasingly important due both to the produced water problem noted above and the pending N.M.O.C.D. hearing.

Thank you and please let me hear from you as soon as possible.

Very truly yours,

P. Edward Corrigan

P. Edward Corrigan

Enclosures as above
PEC/mh

DISTRIBUTION		
SANTA FE		
FILE		
U.S.G.S.		
LAND OFFICE		
TRANSPORTER	OIL	
	GAS	
OPERATOR		
PRORATION OFFICE		

NEW MEXICO OIL CONSERVATION COMMISSION

REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT OIL AND NATURAL GAS

Form C-104
Supersedes Old C-104 and C-11
Effective 1-1-65

Operator: Doyle Hartman

Address: 508 C & K Petroleum Building, Midland, Texas 79701

Reason(s) for filing (Check proper box)

New Well	[X]	Change in Transporter of:			
Recompletion	[ ]	Oil	[ ]	Dry Gas	[ ]
Change in Ownership	[ ]	Casinghead Gas	[ ]	Condensate	[ ]

Other (Please explain)

If change of ownership give name and address of previous owner _____

DESCRIPTION OF WELL AND LEASE

Lease Name	Well No.	Pool Name, Including Formation	Kind of Lease	Lease No.
J. K. Rector	1	Eumont-Yates-Seven Rivers	State, Federal or Fee Fee	

Location

Unit Letter I ; 2310 Feet From The South Line and 330 Feet From The East

Line of Section 30 Township 21S Range 36E , NMPM, Lea County

DESIGNATION OF TRANSPORTER OF OIL AND NATURAL GAS

Name of Authorized Transporter of Oil [ ] or Condensate [ ] — Address (Give address to which approved copy of this form is to be sent)

Name of Authorized Transporter of Casinghead Gas [ ] or Dry Gas [X] — Address (Give address to which approved copy of this form is to be sent)

El Paso Natural Gas Company — P. O. Box 1384 Jal, New Mexico 88252

If well produces oil or liquids, give location of tanks.	Unit	Sec.	Twp.	Rge.	Is gas actually connected?	When
					No	10-21-79

If this production is commingled with that from any other lease or pool, give commingling order number: _____

COMPLETION DATA

Designate Type of Completion – (X)	Oil Well	Gas Well	New Well	Workover	Deepen	Plug Back	Same Res'v.	Diff. Res'v.
		X	X					

Date Spudded	Date Compl. Ready to Prod.	Total Depth	P.B.T.D.
9-04-79	10-04-79	4100	4081
Elevations (DF, RKB, RT, GR, etc.)	**Name of Producing Formation**	**Top Oil/Gas Pay**	**Tubing Depth**
3630 GL	Yates-Seven Rivers	3296	4002 RKB
Perforations			**Depth Casing Shoe**
3296-3784 w/28 (Yates-Seven Rivers)			4100

TUBING, CASING, AND CEMENTING RECORD

HOLE SIZE	CASING & TUBING SIZE	DEPTH SET	SACKS CEMENT
8 5/8	28	421	300 SX
5 1/2	17	4100	700 SX

TEST DATA AND REQUEST FOR ALLOWABLE

(Test must be after recovery of total volume of load oil and must be equal to or exceed top allowable for this depth or be for full 24 hours)

OIL WELL

Date First New Oil Run To Tanks	Date of Test	Producing Method (Flow, pump, gas lift, etc.)	
Length of Test	**Tubing Pressure**	**Casing Pressure**	**Choke Size**
Actual Prod. During Test	**Oil - Bbls.**	**Water - Bbls.**	**Gas - MCF**

GAS WELL

Actual Prod. Test - MCF/D	Length of Test	Bbls. Condensate/MMCF	Gravity of Condensate
71	24 hours	---	---
Testing Method (pitot, back pr.)	**Tubing Pressure (Shut-in)**	**Casing Pressure (Shut-in)**	**Choke Size**
	SITP= 40 FTP= 35	SICP= 251 FCP= 170	16/64

CERTIFICATE OF COMPLIANCE

I hereby certify that the rules and regulations of the Oil Conservation Commission have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

Michelle Hembree
(Signature)

Michelle Hembree Asst. Office Manager
(Title)

10-05-79
(Date)

OIL CONSERVATION COMMISSION

APPROVED _____, 19 _____

BY _____

TITLE _____

This form is to be filed in compliance with RULE 1104.

If this is a request for allowable for a newly drilled or deepened well, this form must be accompanied by a tabulation of the deviation tests taken on the well in accordance with RULE 111.

All sections of this form must be filled out completely for allowable on new and recompleted wells.

Fill out only Sections I, II, III, and VI for changes of owner, well name or number, or transporter, or other such change of condition.

NO. OF COPIES RECEIVED		
DISTRIBUTION		
SANTA FE		
FILE		
U.S.G.S.		
LAND OFFICE		
OPERATOR		

Form C-105
Revised 1-1-65

NEW MEXICO OIL CONSERVATION COMMISSION
WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5a. Indicate Type of Lease: State [ ] Fee [X]

5. State Oil & Gas Lease No.

1a. TYPE OF WELL: OIL WELL [ ] GAS WELL [X] DRY [ ] OTHER

b. TYPE OF COMPLETION: NEW WELL [X] WORK OVER [ ] DEEPEN [ ] PLUG BACK [ ] DIFF. RESVR. [ ] OTHER

7. Unit Agreement Name

8. Farm or Lease Name: J. K. Rector

2. Name of Operator: Doyle Hartman

9. Well No.: 1

3. Address of Operator: 508 C & K Petroleum Building, Midland, Texas 79701

10. Field and Pool, or Wildcat: Eumont Gas Pool

4. Location of Well: UNIT LETTER I LOCATED 2310 FEET FROM THE South LINE AND 330 FEET FROM THE East LINE OF SEC. 30 TWP. 21-S RGE. 36-E NMPM

12. County: Lea

15. Date Spudded	16. Date T.D. Reached	17. Date Compl. (Ready to Prod.)	18. Elevations (DF, RKB, RT, GR, etc.)	19. Elev. Cashinghead
9-04-79	9-12-79	10-04-79	3630 G. L.	3630

20. Total Depth	21. Plug Back T.D.	22. If Multiple Compl., How Many	23. Intervals Drilled By	Rotary Tools	Cable Tools
4100'	4081	- - -	→	0-4100	- - -

24. Producing Interval(s), of this completion — Top, Bottom, Name: 3296-3784 (Yates-Seven Rivers) w/28

25. Was Directional Survey Made: No

26. Type Electric and Other Logs Run: GRN-CCL, GRN-CDL, Forxo-Guard

27. Was Well Cored: No

28. CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT LB./FT.	DEPTH SET	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
8 5/8	28#	421	12 1/4	300 sx	None
5 1/2	17#	4100	7 7/8	700 sx	None

29. LINER RECORD

SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN

30. TUBING RECORD

SIZE	DEPTH SET	PACKER SET
2 3/8	4002	None

31. Perforation Record (Interval, size and number)

One shot each at: 3296, 3302, 3307, 3309, 3325, 3329, 3333, 3592, 3595, 3604, 3641, 3669, 3673, 3688, 3689, 3691, 3693, 3694, 3752, 3784. Two shots each at: 3745, 3748, 3777, 3781.

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL	AMOUNT AND KIND MATERIAL USED
3296-3781	A/5250 15% MCA
3544-3657	Sqz/150 API Class C
3296-3784	A/4000 15% NE

33. PRODUCTION

Date First Production	Production Method (Flowing, gas lift, pumping – Size and type pump)	Well Status (Prod. or Shut-in)
10-03-79	Flowing	Shut-in

Date of Test	Hours Tested	Choke Size	Prod'n. For Test Period →	Oil – Bbl.	Gas – MCF	Water – Bbl.	Gas – Oil Ratio
10-04-79	24	16/64			71	mist	- - -

Flow Tubing Press.	Casing Pressure	Calculated 24-Hour Rate →	Oil – Bbl.	Gas – MCF	Water – Bbl.	Oil Gravity – API (Corr.)
35	170		- - -	71	mist	---

34. Disposition of Gas (Sold, used for fuel, vented, etc.): Vented

Test Witnessed By: James Gray

35. List of Attachments

36. I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief.

SIGNED Michelle Hemlusse TITLE Asst. Office Manager DATE 10-05-79

This form is to be filed with the appropriate District Office of the Commission not later than 20 days after the completion of any newly drilled or deepened well. It shall be accompanied by one copy of all electric and radioactivity logs run on the well and a summary of all special tests conducted, including drill stem tests. All depths reported shall be measured depths. In the case of directionally drilled wells, true vertical depths shall also be reported. For multiple completions, Items 30 through 34 shall be reported for each zone. The form is to be filed in quintuplicate except on state land, where six copies are required. See Rule 1105.

INDICATE FORMATION TOPS IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE

Southeastern New Mexico				Northwestern New Mexico			
T. Anhy 1460	T. Canyon	T. Ojo Alamo	T. Penn. "B"				
T. Salt 1570	T. Strawn	T. Kirtland-Fruitland	T. Penn. "C"				
B. Salt 3070	T. Atoka	T. Pictured Cliffs	T. Penn. "D"				
T. Yates 3205	T. Miss	T. Cliff House	T. Leadville				
T. 7 Rivers 3420	T. Devonian	T. Menefee	T. Madison				
T. Queen 3840	T. Silurian	T. Point Lookout	T. Elbert				
T. Grayburg 3960	T. Montoya	T. Mancos	T. McCracken				
T. San Andres	T. Simpson	T. Gallup	T. Ignacio Qtzte				
T. Glorieta	T. McKee	Base Greenhorn	T. Granite				
T. Paddock	T. Ellenburger	T. Dakota	T.				
T. Blinebry	T. Gr. Wash	T. Morrison	T.				
T. Tubb	T. Granite	T. Todilto	T.				
T. Drinkard	T. Delaware Sand	T. Entrada	T.				
T. Abo	T. Bone Springs	T. Wingate	T.				
T. Wolfcamp	T.	T. Chinle	T.				
T. Penn.	T.	T. Permian	T.				
T. Cisco (Bough C)	T.	T. Penn. "A"	T.				

OIL OR GAS SANDS OR ZONES

No. 1, from 3241 to 3912 No. 4, from ..... to .....

No. 2, from ..... to ..... No. 5, from ..... to .....

No. 3, from ..... to ..... No. 6, from ..... to .....

IMPORTANT WATER SANDS

Include data on rate of water inflow and elevation to which water rose in hole.

No. 1, from ..... to ..... feet. .....

No. 2, from ..... to ..... feet. .....

No. 3, from ..... to ..... feet. .....

No. 4, from ..... to ..... feet. .....

FORMATION RECORD (Attach additional sheets if necessary)

From	To	Thickness in Feet	Formation	From	To	Thickness in Feet	Formation
1460	1570	110	Rustler				
1570	3070	1500	Salado Salt				
3070	3205	135	Tansil				
3205	3420	215	Yates				
3420	3840	420	Seven Rivers				
3840	3960	120	Queen				
3960	4100	140	Grayburg*				
			*Grayburg pick is same pick that is used by all Eunice-Monument wells in this geographical area				

P. Edward Corrigan
Post Office Box 76
Midland, Texas 79702
October 11, 1979

Texaco, Inc.
P. O. Box 3109
Midland, Texas 79702

Attention: Mr. Randall L. Capps
Land Department

Re: Non-Standard Proration Unit
and Non-Standard Location
J. K. Rector No. 1
SE/4 Section 30, T-21-S, R-36-E
Lea County, New Mexico

Gentlemen:

Reference is made to my conversations with Mr. Jack Maddison and my various letters all pertaining to the above noted well. Today I called your office to arrange an appointment and was advised that Mr. Maddison was no longer an employee of Texaco.

As stated in my letter to Texaco of October 5th, the New Mexico Oil Conservation Division hearing relative to this entire matter is set for Wednesday, October 17, 1979, at Santa Fe, New Mexico.

It has become somewhat urgent that I hear from you inasmuch as the hearing for the non-standard unit and non-standard location includes an Application for Compulsary Pooling for the reasons set out in my above noted October 5th letter. I have become very concerned about not hearing from you since I was under the impression that Mr. Maddison was making every effort to resolve this matter on a mutually agreeable basis prior to the above noted NMOCD hearing. Since I am no longer in contact with Mr. Maddison, I would greatly appreciate Mr. Capps familiarizing himself with the situation to the end that we resolve this as soon as possible.

It should be noted that even if we proceed with the hearing as planned, there will still be ample time afterwards in which to try to mutually resolve this matter.

I will try to call next week and discuss this with you.

Very truly yours,

P. Edward Corrigan

P. Edward Corrigan

PEC/mh

TEXACO #3 RECTOR

3216 (+410) Yates

er

2-3412

3300

Perf 3326-3435
3520-3700

3400

3406 (+220) Seven Rivers

Tension Curve

3500

16

SIZE - INCHES

100 API

API UNITS
0 API/CD

3555

3580

GAMMA RAY
CALIPER

DEPTH

30% 20% 10% 0

LIMESTONE
COMPENSATED NEUTRON POROSITY

3520

POROSITY %

FORM 9-2252-A

TEXACO, INC.
J. K. RECTOR NO. 3
EUMONT QUEEN (GAS)
LEA
NEW MEXICO

3680

3700

Drillers T.D. 3460'
Log F.R. 3470'
Log T.D. 3472'
Elevations:
K.B. 3626' D.F. 3625' G.L. 3616'

BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION
TEXACO EXHIBIT NO. 1
CASE NO. 6701

EXHIBIT NO. 1

GAMMA RAY
CALIPER

DEPTH

POROSITY %

0 API/CD
API UNITS
100 API

SIZE - INCHES
16

5"=100
LR
2000'

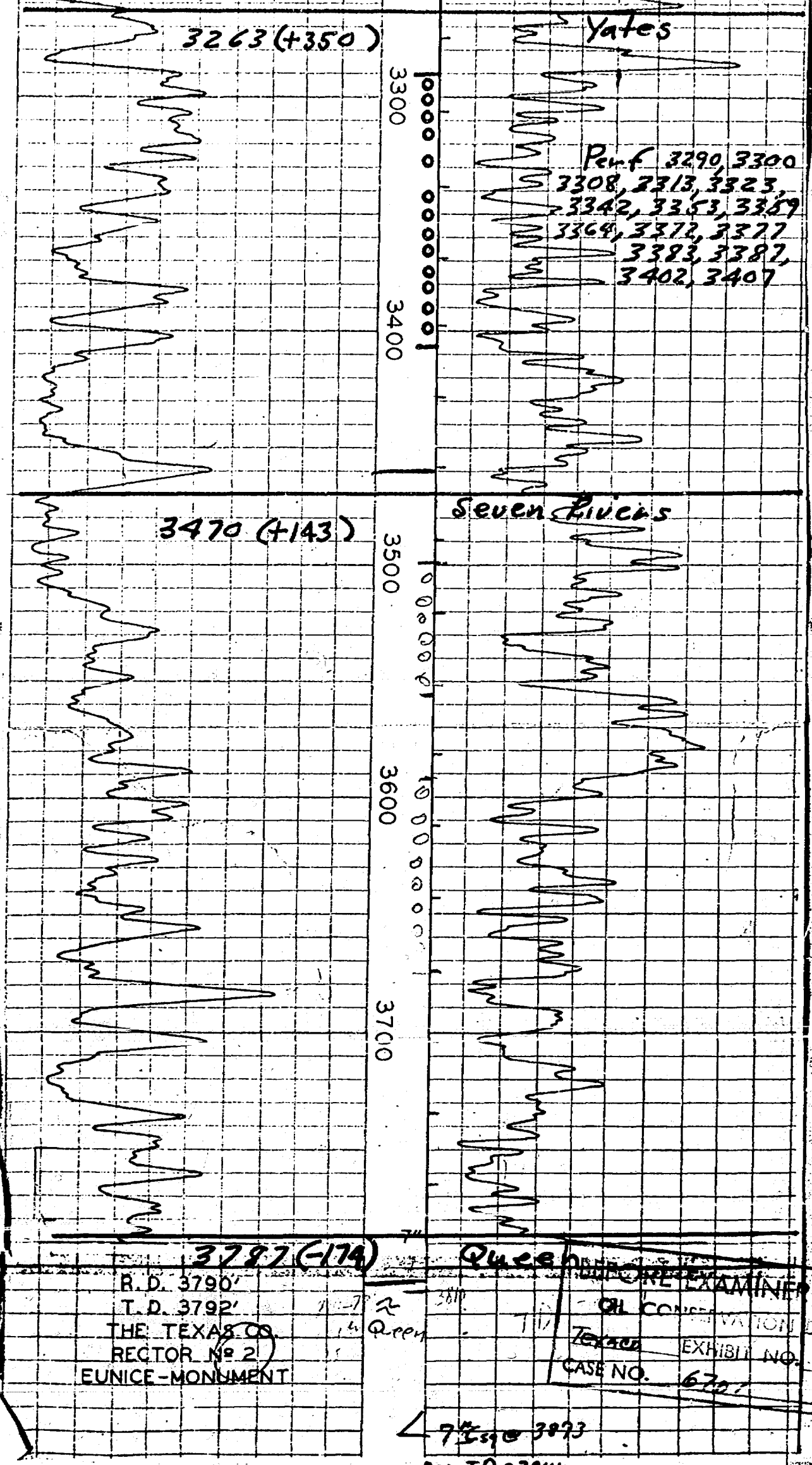
7"@3810

Orig TD = 3950

COMPENSATED NEUTRON POROSITY
LIMESTONE

30% 20% 10% 0

TEXACO #2 RECTOR



BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION
Texaco EXHIBIT NO. 2
CASE NO. 6202

EXHIBIT NO. 2

HARTMAN #1 REACTOR

Yates 3275 (+366)

Perf 3292 - 3329

3300

3400

3500

3600

3700

3800

3900

3201 - 3535

Seven Rivers 3470 (+171)

Perf 3592 - 3641

3688 - 3784

Perf 3669 - 3784

Queen 3789 (-148)

BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION
EXHIBIT NO. 3
CASE NO 6701
Exhibit No. 3

TEXACO INC.
J. K. RECTOR LEASE

EUMONT YATES SEVEN RIVERS QUEEN FIELD
LEA COUNTY, NEW MEXICO

Month	Year	Well 2P Oil BPM	Well 2P Gas MCF/M	Well 3J Oil BPM	Well 3J Gas MCF/M	Well 5A Oil BPM	Well 5A Gas MCF/M
Jan.	1976	54	2,809			83	552
Feb.	1976	32	2,495			54	537
March	1976	51	3,007			86	647
April	1976	82	3,011			174	628
May	1976	74	2,953			124	615
June	1976	87	1,654			87	553
July	1976	97	3,149			98	657
Aug.	1976	88	3,028			88	728
Sept.	1976	62	2,705			62	645
Oct.	1976	54	2,490			108	1,186
Nov.	1976	51	1,889			103	900
Dec.	1976	51	3,381			102	1,135
1976 Total		783	32,571			1,129	8,783
Jan.	1977	70	2,593			139	1,227
Feb.	1977	71	2,548			119	1,018
March	1977	69	2,581			70	1,031
April	1977	52	2,235	8	38	155	1,586
May	1977	51	2,809	26	155	77	1,011
June	1977	15	2,055	89	1,336	16	520
July	1977	22	919	130	2,896	221	701
Aug.	1977	30	804	12	166	151	3,239
Sept.	1977	20	867	100	2,313	120	694
Oct.	1977	105	2,409	26	318	53	973
Nov.	1977	78	1,998	19	260	39	799
Dec.	1977	54	1,898	27	506	54	222
1977 Total		637	23,716	437	7,988	914	13,021

EXHIBIT NO. 4

BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION
EXHIBIT NO. 5
CASE NO. 6701

July 7, 1978

41549 - J. K. RECTOR LEASE
LEA COUNTY, NEW MEXICO

Mr. R. W. Gallini
Heidel, Samberson, Gallini & Williams
P. O. Drawer 1599
Lovington, New Mexico 88260

Dear Mr. Gallini:

Texaco does not agree with the counteroffer as contained in your letter of June 15, 1978. Our letter of June 9, 1978, offered you a sublease of the Eumont dry gas rights in the NE/4 SE/4 of Section 30. We are of the opinion that under the circumstances this is a fair and reasonable offer.

Our review of the New Mexico Oil Conservation Commission's proration schedule for the Eumont Gas Pool indicates that the nominal spacing for this pool is 640 acres. There are wells, however, which have as little as 40 acres attributed. We can find no instance in the proration shhedule where a well is restricted in its allowable because of acreage. Your statement that this same acreage can be dedicated to both the Eumont Oil Pool and the Eumont Gas Pool with the restriction that the same geologic zone cannot be dedicated to both pools is correct. The sole criteria for placing a well in the Eumont Oil Pool or the Eumont Gas Pool is the gas-oil ratio. Since Texaco's Wells are producing at less than the maximum gas-oil ratio for the oil pool they are therefore placed in the oil pool for proration purposes. We wish to point out that the same geologic interval is open in both of Texaco's wells in the SE/4 of Section 30 as in the offset wells which you allege are draining this lease.

If you agree with the compromise offer to sublease forty acres at the terms outlined in our letter of June 9, 1978, please let us know so that we may further consider and reach a final decision.

Very truly yours,

D. T. McCREARY (TEXACO Midland)
Division Manager

By _____
G. F. CLARKE

WHM/NZ
cc: Mr. P. Edward Corrigan
BCC: FILE WB RF

EXHIBIT NO. _____

TEXACO #3 RECTOR

3216 (+410) Yates

Perf 3326-3435
3520-3700

3406 (+220) Seven Rivers

Tension Curve

3300

3400

3500

3555

3580

3680

3700

16

SIZE - INCHES

100 API

API UNITS
API/CD

30% 20% 10% 0

LIMESTONE
COMPENSATED NEUTRON POROSITY

3520

GAMMA RAY
CALIPER

DEPTH

POROSITY %

TEXACO, INC.
J. K. RECTOR NO. 3
EUMONT QUEEN (GAS)
LEA
NEW MEXICO

Drillers T.D. 3460'
Log F.R. 3470'
Log T.D. 3472'
Elevations:
K.B. 3626' D.F. 3625' G.L. 3616'

BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION
TEXACO EXHIBIT NO. 1
CASE NO. 6701

EXHIBIT NO.

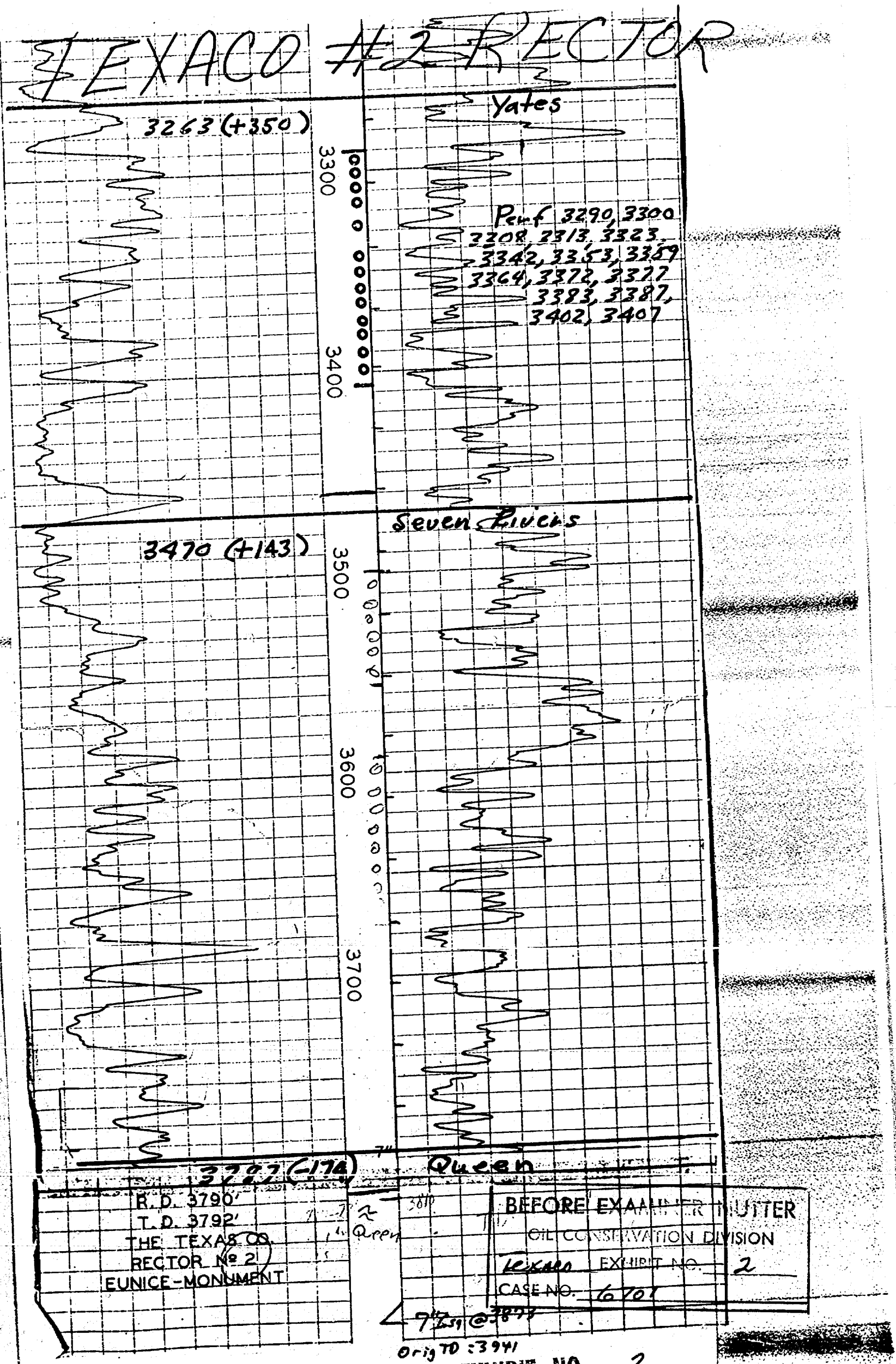
7"@3810

Orig TD = 3950

5"=100
LR
2000'

FORM 922258

TEXACO #2 RECTOR



BEFORE EXAMINER HUTTER
OIL CONSERVATION DIVISION
Texaco EXHIBIT NO. 2
CASE NO. 6707

EXHIBIT NO. 2

HARTMAN -H- REC FOR

Yates 3275 (+366)

Perf 3296 - 3329

3309 - 3333

Seven Rivers 3470 (+171)

Perf 3592 - 3641

3688 - 3784

Perf 3669 - 3784

Queen 3789 (-148)

3300 3400 3500 3600 3700 3800 3900

BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION
EXHIBIT NO. 3
CASE NO. 6701

EXHIBIT NO. 3

TEXACO INC.
J. K. RECTOR LEASE

EUMONT YATES SEVEN RIVERS QUEEN FIELD
LEA COUNTY, NEW MEXICO

Month	Year	Well 2P Oil BPM	Well 2P Gas MCF/M	Well 2P GOR	Well 3J Oil BPM	Well 3J Gas MCF/M	Well 3J GOR	Well 5A Oil BPM	Well 5A Gas MCF/M	Well 5A GOR
Jan.	1978	60	2,346	39,100	3	626	208,667	59	270	4,576
Feb.	1978	57	2,179	38,228	1	20	20,000	115	514	4,470
March	1978	67	2,590	38,657	1	21	21,000	121	549	4,537
April	1978	64	2,471	38,609	2	41	20,500	127	577	4,543
May	1978	67	2,588	38,627	4	80	20,000	134	609	4,545
June	1978	74	1,865	25,203	1	13	13,000	1	2	2,000
July	1978	62	2,774	44,742	1	24	24,000	-	-	
Aug.	1978	39	1,662	42,615	8	184	23,000	-	-	
Sept.	1978	68	1,704	25,059	23	312	13,565	-	-	
Oct.	1978	70	1,689	24,129	24	313	13,042	-	-	
Nov.	1978	63	1,905	30,238	23	348	15,130	-	-	
Dec.	1978	45	1,766	39,244	46	976	21,217	-	-	
1978 Total		736	25,539		164	2,958		557	2,521	
Jan.	1979	54	1,992	36,889	26	528	20,308	-	-	
Feb.	1979	56	1,957	34,946	31	576	18,581	-	-	
March	1979	61	1,472	24,131	30	398	13,267	-	-	
April	1979	51	1,137	22,294	25	301	12,040	-	-	
May	1979	50	1,636	32,720	24	425	17,708	-	-	
June	1979	44	1,213	27,568	44	655	14,886	-	-	
July	1979	41	1,063	25,927	42	827	19,690	-	-	
Aug.	1979	40	1,274	31,850	40	969	24,225	-	-	
1979 Year to Date		397	11,744		262	4,679				

BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION
TEXACO EXHIBIT NO. 4
CASE NO. 6701

EXHIBIT NO. 4

BEFORE EXAMINER HUTTER
OIL CONSERVATION COMMISSION
Texaco EXHIBIT NO. 5
CASE NO. 6701

July 7, 1978

41549 - J. K. RECTOR LEASE
LEA COUNTY, NEW MEXICO

Mr. R. W. Gallini
Heidel, Samberson, Gallini & Williams
P. O. Drawer 1599
Lovington, New Mexico 88260

Dear Mr. Gallini:

Texaco does not agree with the counteroffer as contained in your letter of June 15, 1978. Our letter of June 9, 1978, offered you a sublease of the Eumont dry gas rights in the NE/4 SE/4 of Section 30. We are of the opinion that under the circumstances this is a fair and reasonable offer.

Our review of the New Mexico Oil Conservation Commission's proration schedule for the Eumont Gas Pool indicates that the nominal spacing for this pool is 640 acres. There are wells, however, which have as little as 40 acres attributed. We can find no instance in the proration schedule where a well is restricted in its allowable because of acreage. Your statement that this same acreage can be dedicated to both the Eumont Oil Pool and the Eumont Gas Pool with the restriction that the same geologic zone cannot be dedicated to both pools is correct. The sole criteria for placing a well in the Eumont Oil Pool or the Eumont Gas Pool is the gas-oil ratio. Since Texaco's Wells are producing at less than the maximum gas-oil ratio for the oil pool they are therefore placed in the oil pool for proration purposes. We wish to point out that the same geologic interval is open in both of Texaco's wells in the SE/4 of Section 30 as in the offset wells which you allege are draining this lease.

If you agree with the compromise offer to sublease forty acres at the terms outlined in our letter of June 9, 1978, please let us know so that we may further consider and reach a final decision.

Very truly yours,

D. T. McCREARY
Division Manager for Texaco, Midland

By _____
G. F. CLARKE

WHM/NZ
cc: Mr. P. Edward Corrigan
BCC: FILE WB RF

EXHIBIT NO. _____

BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION
Texaco EXHIBIT NO. 6
CASE NO. 6701

June 9, 1978

41549 - J. K. Rector Lease
Lea County, New Mexico

Mr. R. W. Gallini
Heidel, Samberson, Gallini & Williams
P. O. Drawer 1599
Lovington, New Mexico 88260

Dear Mr. Gallini:

Solely as an offer of compromise and without any waiver of our position and subject to final Texaco approval with reference to your letter of June 2, 1978 please be advised that we will consider a sublease to the Corrigan Family covering the Eumont dry gas rights in NE/4 of the SE/4 Section 30, T-21-S, R-36E, Lea County, New Mexico, the terms to include the following:

1. Within 60 days from date of contract, a Eumont test is to commenced at a location in the NE/4 SE/4 of Section 30, but located at least 1,320' away from two Texaco producing wells in the SE/4 Section 30.

2. A gas well will earn only the Eumont dry gas rights in the 40 acre tract. "Gas well" is to be defined as it is in Rule 26(A) of the attached Eumont Gas Pool Field Rules. An oil well or dry hole will earn no acreage, and Texaco will have the option to purchase the well at salvage value or require the operator to plug and abandon.

3. Any well drilled and completed is subject to the approval of the Oil Conservation Commission and in accordance with the field proration rules. For your information we are informed by the New Mexico OCC that the same acreage cannot be dedicated to both the Eumont oil field and the Eumont Gas field.

4. Texaco is to reserve a 1/8 overriding royalty interest.

EXHIBIT NO. _____

Mr. R. W. Gallini

We will look forward to hearing from you. As noted, a copy of this letter is being sent to Mr. Corrigan.

Yours very truly,

E. H. Watkins
Division Land Representative

By Webb H. McDaniel

WHM/NZ

cc: Mr. P. Edward Corrigan
P. O. Box 76
Midland, Texas 79702

bcc: JACr

File
RF
WB

EUMONT GAS POOL
Lea County, New Mexico

der No. R-1670, Adopting Special Rules and Regulations, in ddition to the General Rules and Regulations for Southeastern lew Mexico, for the Eumont Gas Pool, Lea County, New Mexico, May 20, 1960.

(Order No. R-1670 Supersedes Order No. R-264, Creating the Eumont Gas Pool, Lea County, New Mexico, February 17, 1953, as Amended by Order No. R-264-A, November 10, 1953; Order No. R-356, Adopting Rules for Gas Wells in Lea, Eddy, Chaves, and Roosevelt Counties, New Mexico, August 28, 1953; Order No. R-370, September 28, 1953; Order No. R-371, September 28, 1953; Order No. R-370-A, November 10, 1953; Order No. R-371-A, November 10, 1953; Order No. R-370-B, December 7, 1953; Order No. R-371-B, ...; Order No. R-520, August 12, 1954; Order No. R-520-A, August 31, 1954; Order No. R-663, July 7, 1955; Order No. R-767, March 14, 1956; Order No. R-767-A, April 16, 1956; and Order No. R-967, April 23, 1957.)

(The Eumont Gas Pool was created February 17, 1953, and proration was instituted January 1, 1954. The Eumont Gas Pool now includes portions of the acreage once included in the Jalco and Langmat Pools (now Jalmat) and all of the acreage formerly in the Arrow and Hardy Pools.)

A. WELL LOCATION AND ACREAGE REQUIREMENTS

RULE 5(A). A standard gas proration unit in the Eumont Gas Pool shall be 640 acres.

RULE 5(B). Any well drilled to and producing from the Eumont Gas Pool, as defined herein, prior to August 12, 1954 at a location conforming with the spacing requirements effective at the time said well was drilled, shall be granted a tolerance not exceeding 330 feet with respect to the required distance from the boundary lines.

C. ALLOCATION AND GRANTING OF ALLOWABLES

RULE 8(A). The pool allowable remaining each month after deducting the total allowable assigned to marginal wells shall be allocated among the non-marginal wells entitled to an allowable in the proportion that each well's acreage factor bears to the total of the acreage factors for all non-marginal wells in the pool.

RULE 8(B). Allowables to newly completed gas wells shall commence on the date of connection to a gas transportation facility, as determined from an affidavit furnished to the Commission (Box 2045, Hobbs, New Mexico) by the purchaser, or the date of filing of Form C-104, Form C-110, and a plat (Form C-128), whichever date is the later.

G. GENERAL

RULE 22. No gas, either dry gas or casinghead gas, shall be flared or vented from any well at any time after ninety (90) days from the date such well is completed. Any operator who desires to obtain an exception to the provisions of Rule 22 of Section I of this order shall submit to the Secretary-Director of the Commission an application for such exception with a sworn statement setting forth the facts and circumstances justifying such exception. The Secretary-Director is hereby authorized to grant such an exception whenever the granting of the exception is reasonably necessary to protect correlative rights, prevent waste, or prevent undue hardship on the applicant under all the acts and circumstances as set forth in the statement. The Secretary-Director shall either (a) grant the exception within 15 days after receipt of the application and statement or (b) thereafter set the application for hearing by the Commission at a regular monthly hearing; provided, however, that no such applicant shall incur any penalty by reason of a delay in setting the application for hearing. Notice of hearing of the application shall be published in the manner provided by law and the Rules of the Commission. If the exception is granted by the Secretary-Director, a list of such exceptions shall be distributed in the Commission's regular mailing list.

The flaring or venting of gas from any well in violation of any provision of this rule will result in suspension of any further allowable until further order of the Commission.

RULE 22(A). Within 15 days after any oil or gas well within the boundaries of the Eumont Gas Pool is connected to a gas transportation facility, the operator shall file Form C-110 designating the disposition of gas from the well.

RULE 22(B). No extraction plant processing any gas from the Eumont Gas Pool shall flare or vent such gas unless such flaring or venting is made necessary by mechanical difficulties or unless the gas flared or vented is of no commercial value.

H. MISCELLANEOUS SPECIAL POOL RULES

RULE 25. The vertical limits of the Eumont Gas Pool shall extend from the top of the Yates formation to the base of the Queen formation, thereby including all of the Yates, Seven Rivers and Queen formations.

RULE 26(A). A gas well shall mean a well producing with a gas-oil ratio in excess of 100,000 cubic feet of gas per barrel of oil.

RULE 26(B). A well producing from the Eumont Gas Pool and not classified as a gas well, as defined in Section (A) of this rule, shall be classified as an oil well.

RULE 26(C). Oil wells producing from the Eumont Gas Pool shall be allowed to produce a volume of gas each day not exceeding the daily normal unit oil allowable multiplied by 10,000; provided, however, that such well shall not be allowed to produce oil in excess of the normal unit allowable as ordered by the Commission under the provisions of Statewide Rule 505.

TEXACO #3 RECTOR

3216 (+410) Yates

2-3412

3300

Perf 3326-3435
3520-3700

3400

Seven Rivers

3406 (+220)

Tension Curve

16 SIZE - INCHES 100 API	3500	30% 20% 10% 0 LIMESTONE COMPENSATED NEUTRON POROSITY
API UNITS 0 API/CD	3520 3555 3580	
AMA RAY CALIPER	DEPTH	POROSITY %

TEXACO, INC.
J. K. RECTOR NO. 3
EUMONT QUEEN (GAS)
LEA
NEW MEXICO

3680
3700

Drillers T.D.	3460'		
Log T.D.	3472'		
Elevations:			
K.B. 3626'	D.F. 3625'	G.L. 3616'	

AMA RAY CALIPER	DEPTH	POROSITY %
0 API/CD API UNITS 100 API		7" @ 3810
SIZE - INCHES 16	5"=100 LR 2000'	Orig TD = 3950 COMPENSATED NEUTRON POROSITY LIMESTONE 30% 20% 10% 0

EXAMINER NUTTER
OIL CONSERVATION DIVISION
TEXACO EXHIBIT NO. 1
CASE NO. 6701

EXHIBIT NO. 1

FORM 1-8222-A

TEXACO #2 RECTOR

3263 (+350)

Yates

3300

Perf 3290, 3300
3308, 3313, 3323,
3342, 3353, 3359
3364, 3372, 3377
3383, 3387,
3402, 3407

3400

3470 (+143)

Seven Rivers

3500

3600

3700

3787 (-174)

Queen

R. D. 3790'
T. D. 3792'
THE TEXAS CO.
RECTOR No 2
EUNICE-MONUMENT

≈ Queen

7" @ 3811

7⅞" @ 3941

Orig TD = 3941

BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION
TEXACO EXHIBIT NO. 2
CASE NO. 6201

EXHIBIT NO. 2

HARTMAN #1 REACTOR

Yates 3275 [redacted]
(+366)

Perf 3296-3329

3309-3333

3300

3400

Seven Rivers
3470 (+171)

3500

3600

Perf 3592-3641

3700

3688-3784

Perf 3669-3784

Queen
3789 (-148)

3800

3900

BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION
EXHIBIT NO. 3
CASE NO. 6701

EXHIBIT NO. 3

TEXACO INC.
J. K. RECTOR LEASE

EUMONT YATES SEVEN RIVERS QUEEN FIELD
LEA COUNTY, NEW MEXICO

Month	Year	Well 2P Oil BPM	Well 2P Gas MCF/M	Well 2P GOR	Well 3J Oil BPM	Well 3J Gas MCF/M	Well 3J GOR	Well 5A Oil BPM	Well 5A Gas MCF/M	Well 5A GOR
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Feb.	1978	57	2,179	38,228	1	20	20,000	115	514	4,470
March	1978	67	2,590	38,657	1	21	21,000	121	549	4,537
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June	1978	74	1,865	25,203	1	13	13,000	1	2	2,000
July	1978	62	2,774	44,742	1	24	24,000	-	-	
Aug.	1978	39	1,662	42,615	8	184	23,000	-	-	
Sept.	1978	68	1,704	25,059	23	312	13,565	-	-	
Oct.	1978	70	1,689	24,129	24	313	13,042	-	-	
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Feb.	1979	56	1,957	34,946	31	576	18,581	-	-	
March	1979	61	1,472	24,131	30	398	13,267	-	-	
April	1979	51	1,137	22,294	25	301	12,040	-	-	
May	1979	50	1,636	32,720	24	425	17,708	-	-	
June	1979	44	1,213	27,568	44	655	14,886	-	-	
July	1979	41	1,063	25,927	42	827	19,690	-	-	
Aug.	1979	40	1,274	31,850	40	969	24,225	-	-	
1979 Year to Date		397	11,744		262	4,679				

BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION
TEXACO EXHIBIT NO. 4
CASE NO. 6701

EXHIBIT NO. 4

Docket No. 40-79

Dockets Nos. 41-79 and 42-79 are tentatively set for October 31 and November 14, 1979. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: EXAMINER HEARING - WEDNESDAY - OCTOBER 17, 1979

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

The following cases will be heard before Daniel S. Nutter, Examiner, or Richard L. Stamets, Alternate Examiner:

ALLOWABLE: (1) Consideration of the allowable production of gas for November, 1979, from fifteen prorated pools in Lea, Eddy, and Chaves Counties, New Mexico.

(2) Consideration of the allowable production of gas for November, 1979, from four prorated pools in San Juan, Rio Arriba, and Sandoval Counties, New Mexico.

CASE 6693: Application of Yates Petroleum Corporation for an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of a Pennsylvanian test well to be located 1130 feet from the South line and 1300 feet from the East line of Section 30, Township 17 South, Range 26 East, the S/2 of said Section 30 to be dedicated to the well.

CASE 6694: Application of Yates Petroleum Corporation for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Wolfcamp-Pennsylvanian formations underlying the S/2 of Section 35, Township 18 South, Range 25 East, to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 6695: Application of Millard Deck Oil Company for a non-standard gas proration unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of an 80-acre non-standard gas proration unit comprising the NE/4 NW/4 and NW/4 NE/4 of Section 36, Township 24 South, Range 36 East, Jalmat Gas Pool, to be dedicated to a well to be drilled at a standard location thereon.

CASE 6696: Application of R. Q. Silverthorne for an unorthodox oil well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of a Yates test well to be drilled 1310 feet from the South and West lines of Section 30, Township 18 South, Range 31 East, Shugart Pool.

CASE 6697: Application of Conoco Inc. for an unorthodox location and dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion of its Wells B-1 Well No. 5 at an unorthodox Devonian location 1650 feet from the North line and 660 feet from the East line of Section 1, Township 25 South, Range 36 East, to produce gas from the Devonian and Ellenburger formations, Custer Field, thru parallel strings of tubing, the E/2 of said Section 1 to be dedicated to the well.

CASE 6671: (Continued from October 2, 1979, Examiner Hearing)

Application of Chapman and Schneider for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water in the Seven Rivers Reef formation in the open-hole interval from 3422 feet to 3504 feet in its I. B. Ogg "A" Well No. 3 located in Unit E of Section 35, Township 24 South, Range 36 East, Jalmat Pool.

CASE 6698: Application of Stevens Oil Company for compulsory pooling, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the San Andres formation underlying the NE/4 SW/4 of Section 30, Township 8 South, Range 29 East, to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 6699: Application of Robert C. Anderson for two unorthodox gas well locations, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of his Ute Mountain Ute Well No. 1 located in the center of Unit L, and Well No. 3, located 2310 feet from the North and West lines, both in Section 14, Township 31 North, Range 16 West, the SW/4 of said Section 14 to be dedicated to Well No. 1 and the NW/4 to be dedicated to Well No. 3.

CASE 6680: (Continued from October 2, 1979, Examiner Hearing)

Application of Robert C. Anderson for surface commingling, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for the surface commingling of all production from his Ute Mountain Ute Lease, Wells Nos. 1, 3 and 4, located in Section 14, Township 31 North, Range 16 West.

CASE 6631: (Continued from August 22, 1979, Examiner Hearing)

Application of Reserve Oil, Inc. for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Jalmat gas and Langlie Mattix oil production in the wellbore of its Cooper Jal Unit Well No. 149-306 located in Unit J of Section 18, Township 24 South, Range 37 East.

CASE 6700: Application of Doyle Hartman for an unorthodox well location, a non-standard proration unit, approval of infill drilling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of a 120-acre non-standard proration unit comprising the NW/4 NW/4 and S/2 NW/4 of Section 29, Township 25 South, Range 37 East, Jalmat Gas Pool, to be dedicated to a well to be drilled at an unorthodox location 2310 feet from the North line and 330 feet from the West line of said Section 29; applicant further seeks a waiver of existing well spacing requirements and a finding that the drilling of said well is necessary to effectively and efficiently drain that portion of the existing proration unit which cannot be so drained by the existing well.

CASE 6701: Application of Doyle Hartman for compulsory pooling, non-standard gas proration unit, unorthodox well location, and approval of infill drilling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Seven Rivers-Queen formations underlying the SE/4 of Section 30, Township 21 South, Range 36 East, Eumont Gas Pool, to form a 160-acre non-standard gas proration unit to be dedicated to his J. K. Rector Well No. 1 at an unorthodox location 2310 feet from the South line and 330 feet from the East line of said Section 30. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well. Applicant further seeks a waiver of existing well spacing requirements and a finding that the drilling of said well is necessary to effectively and efficiently drain that portion of the existing proration unit which cannot be so drained by the existing well.

CASE 6676: (Continued from October 2, 1979, Examiner Hearing)

Application of Doyle Hartman for an unorthodox well location and a non-standard proration unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of an 80-acre non-standard gas proration unit comprising the SW/4 NE/4 and SE/4 NW/4 of Section 36, Township 24 South, Range 36 East, Jalmat Gas Pool, to be dedicated to a well to be drilled at an unorthodox location 2310 feet from the North line and 1650 feet from the East line of said Section 36.

CASE 6664: (Continued from September 19, 1979, Examiner Hearing)

Application of Doyle Hartman for an unorthodox well location, two non-standard proration units and approval of infill drilling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of a 40-acre non-standard proration unit comprising the NW/4 SW/4 of Section 27, Township 25 South, Range 37 East, Jalmat Pool, to be dedicated to El Paso Natural Gas Company's Harrison Well No. 1, and also a 120-acre unit comprising the E/2 SW/4 and SW/4 SW/4 of said Section 27 to be dedicated to a well to be drilled at an unorthodox location 330 feet from the South and West lines of the section; applicant further seeks a waiver of existing well spacing requirements and a finding that the drilling of said well is necessary to effectively and efficiently drain that portion of an existing proration unit which cannot be so drained by the existing well.

CASE 6662: (Continued from September 19, 1979, Examiner Hearing)

Application of Supron Energy Corporation for a dual completion and downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion of its Jicarilla "A" Well No. 22Y located in Unit K of Section 24, Township 26 North, Range 4 West, to produce gas from the Blanco Mesaverde Pool through tubing and to commingle and produce the Wildhorse Gallup and Basin-Dakota zones through a parallel tubing string.

CASE 6702: Application of El Paso Natural Gas Company for downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of South Blanco-Pictured Cliffs and Blanco Mesaverde production in the wellbore of its San Juan 27-5 Unit Well No. 67 located in Unit B of Section 31, Township 27 North, Range 5 West.

Docket No. 40-79

CASE 6487: (Continued from July 25, 1979, Examiner Hearing)

Application of El Paso Natural Gas Company for approval of infill drilling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks a waiver of existing well-spacing requirements and a finding that the drilling of its Shell E State Com Well No. 2 located in Unit N of Section 6, Township 21 South, Range 36 East, Eumont Gas Pool, Lea County, New Mexico, is necessary to effectively and efficiently drain that portion of the proration unit which cannot be so drained by the existing well.

CASE 6679: (Continued from October 2, 1979, Examiner Hearing)

Application of El Paso Natural Gas Company for a gas storage unit agreement, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval of the Washington Ranch Morrow Unit Area comprising the Morrow formation and the first 100 feet immediately above and below said formation underlying all or parts of Sections 21 thru 23, 26 thru 29, and 32 thru 36, Township 25 South, Range 24 East; Sections 1 thru 5 and 9 thru 14, Township 26 South, Range 24 East; and Sections 6, 7, and 18, Township 26 South, Range 25 East, Washington Ranch-Morrow Gas Pool, Eddy County, New Mexico. Said unit area would be for the purpose of conducting a gas storage project and would comprise 12,158 acres, more or less, of State, federal and fee lands.

CASE 6703: Application of El Paso Natural Gas Company for underground gas storage, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a gas storage project in the Morrow formation underlying its Washington Ranch Morrow Unit Area in Townships 25 and 26 South, Ranges 24 and 25 East, Washington Ranch-Morrow Gas Pool. Applicant further seeks the promulgation of rules governing the drilling and completion of wells going thru the Morrow formation and the first 100 feet immediately above and below said formation underlying the unit area into deeper formations, and the establishment of an administrative procedure for the consideration of exceptions to the Division's well spacing and casing and tubing requirements for its injection and withdrawal wells.

CASE 6704: Application of ARCO Oil and Gas Company for the amendment of Order No. R-6044, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of Division Order No. R-6044 which authorized the drilling of a horizontal drainhole in the Empire-Abo Pool. Applicant proposes to amend the target area prescribed by said order for the drainhole.

CASE 6705: In the matter of the hearing called by the Oil Conservation Division on its own motion for an order creating and extending certain pools in Chaves, Eddy, Lea, and Roosevelt Counties, New Mexico:

(a) CREATE a new pool in Eddy County, New Mexico, classified as a gas pool for Morrow production and designated as the Southwest Indian Flats-Morrow Gas Pool. The discovery well is Perry R. Bass Big Eddy Unit Well No. 68 located in Unit K of Section 10, Township 22 South, Range 28 East, NMPM. Said pool would comprise:

TOWNSHIP 22 SOUTH, RANGE 28 EAST, NMPM
Section 10: W/2

(b) CREATE a new pool in Lea County, New Mexico, classified as a gas pool for Atoka-Morrow production and designated as the South Kemnitz Atoka-Morrow Gas Pool. The discovery well is Tenneco Oil Company Kemnitz Deep Well No. 1 located in Unit G of Section 29, Township 16 South, Range 34 East, NMPM. Said pool would comprise:

TOWNSHIP 16 SOUTH, RANGE 34 EAST, NMPM
Section 29: E/2

(c) EXTEND the Anderson Ranch-Morrow Gas Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 16 SOUTH, RANGE 32 EAST, NMPM
Section 3: S/2

(d) EXTEND the Angell Ranch-Morrow Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 19 SOUTH, RANGE 28 EAST, NMPM
Section 30: S/2

(e) EXTEND the Antelope Ridge-Atoka Gas Pool in Lea County, New Mexico, to include therein:

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

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

TOWNSHIP 18 SOUTH, RANGE 27 EAST, NMPM
Section 22: S/2
Section 23: S/2
Section 28: E/2

(g) EXTEND the Box Canyon-Permo Pennsylvanian Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 21 SOUTH, RANGE 22 EAST, NMPM
Section 7: S/2
Section 18: N/2

(h) EXTEND the Bluitt-San Andres Associated Pool in Roosevelt County, New Mexico, to include therein:

TOWNSHIP 6 SOUTH, RANGE 37 EAST, NMPM
Section 22: NE/4

(i) EXTEND the Boyd-Morrow Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 19 SOUTH, RANGE 24 EAST, NMPM
Section 12: W/2

(j) EXTEND the South Brunson-Abo Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 22 SOUTH, RANGE 38 EAST, NMPM
Section 30: NE/4

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

TOWNSHIP 8 SOUTH, RANGE 30 EAST, NMPM
Section 4: NW/4

(l) EXTEND the North Cemetery-Wolfcamp Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 20 SOUTH, RANGE 25 EAST, NMPM
Section 18: All

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

TOWNSHIP 8 SOUTH, RANGE 32 EAST, NMPM
Section 3: NW/4

(n) EXTEND the South Culebra Bluff-Atoka Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 23 SOUTH, RANGE 28 EAST, NMPM
Section 34: E/2

(o) EXTEND the Diamond Mound-Atoka Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 16 SOUTH, RANGE 27 EAST, NMPM
Section 11: All

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

TOWNSHIP 21 SOUTH, RANGE 37 EAST, NMPM
Section 18: SW/4

(q) EXTEND the Eagle Creek-Permo Pennsylvanian Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 17 SOUTH, RANGE 25 EAST, NMPM
Section 36: N/2

(r) EXTEND the South Empire-Morrow Gas Pool in Eddy County, New Mexico, to include therein:

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

(s) EXTEND the South Eunice-San Andres Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 22 SOUTH, RANGE 37 EAST, NMPM
Section 12: SW/4

(t) EXTEND the East Grama Ridge-Morrow Gas Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 21 SOUTH, RANGE 34 EAST, NMPM
Section 35: N/2
Section 36: N/2

TOWNSHIP 22 SOUTH, RANGE 34 EAST, NMPM
Section 2: SW/4

(u) EXTEND the Imperial Tubb-Drinkard Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 23 SOUTH, RANGE 37 EAST, NMPM
Section 22: SW/4

(v) EXTEND the West Indian Basin-Morrow Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 21 SOUTH, RANGE 22 EAST, NMPM
Section 14: W/2

(w) EXTEND the Kemnitz-Cisco Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 16 SOUTH, RANGE 34 EAST, NMPM
Section 8: SE/4
Section 9: SW/4

(x) EXTEND the Langlie-Ellenburger Gas Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 22 SOUTH, RANGE 36 EAST, NMPM
Section 20: E/2

(y) EXTEND the Langlie Mattix Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 25 SOUTH, RANGE 37 EAST, NMPM
Section 32: SW/4

(z) EXTEND the North Loving-Morrow Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 23 SOUTH, RANGE 28 EAST, NMPM
Section 8: S/2
Section 16: E/2

(aa) EXTEND the Penasco Draw-Atoka Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 18 SOUTH, RANGE 25 EAST, NMPM
Section 21: W/2

(bb) EXTEND the Penasco Draw-Morrow Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 18 SOUTH, RANGE 24 EAST, NMPM
Section 25: S/2
Section 36: All

(cc) EXTEND the Penasco Draw San Andres-Yeso Associated Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 18 SOUTH, RANGE 25 EAST, NMPM
Section 31: SE/4

(dd) EXTEND the South Peterson-Fusselman Pool in Roosevelt County, New Mexico, to include therein:

TOWNSHIP 5 SOUTH, RANGE 33 EAST, NMPM
Section 30: SE/4

(ee) EXTEND the South Peterson-Pennsylvanian Pool in Roosevelt County, New Mexico, to include therein:

TOWNSHIP 5 SOUTH, RANGE 33 EAST, NMPM
Section 31: N/2 SE/4 and S/2 NE/4

(ff) EXTEND the Red Lake-Pennsylvanian Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 17 SOUTH, RANGE 27 EAST, NMPM
Section 31: W/2

(gg) EXTEND the Shugart-Pennsylvanian Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 18 SOUTH, RANGE 31 EAST, NMPM
Section 27: W/2
Section 33: E/2
Section 34: W/2 and SE/4
Section 35: All

(hh) EXTEND the North Teague-Devonian Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 23 SOUTH, RANGE 37 EAST, NMPM
Section 21: NE/4

(ii) EXTEND the Tomahawk-San Andres Pool in Roosevelt County, New Mexico, to include therein:

TOWNSHIP 7 SOUTH, RANGE 32 EAST, NMPM
Section 31: SW/4

(jj) EXTEND the Travis-Upper Pennsylvanian Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 18 SOUTH, RANGE 28 EAST, NMPM
Section 13: N/2 S/2

CAMPBELL AND BLACK, P.A.
LAWYERS

JACK M. CAMPBELL
BRUCE D. BLACK
MICHAEL B. CAMPBELL
WILLIAM F. CARR
PAUL R. CALDWELL

POST OFFICE BOX 2208
JEFFERSON PLACE
SANTA FE, NEW MEXICO 87501
TELEPHONE (505) 988-4421

October 4, 1979

Mr. Joe D. Ramey
Division Director
Oil Conservation Division
New Mexico Department of Energy & Minerals
Post Office Box 2088
Santa Fe, New Mexico 87501

Re: Application of Doyle Hartman for Compulsory Pooling, Unorthodox Well Location and Non-Standard Proration Unit, Lea County, New Mexico

Dear Mr. Ramey:

Enclosed in triplicate is the application of Doyle Hartman in the above-referenced matter.

The applicant requests that this matter be included on the docket for the examiner hearing scheduled to be held on October 17, 1979.

Very truly yours,

William F. Carr

WFC:lr

Enclosures

cc: Mr. Doyle Hartman
Mr. James A. Davidson

RECEIVED
OCT 6 1978
OIL CONSERVATION DIVISION
SANTA FE

BEFORE THE

OIL CONSERVATION DIVISION

NEW MEXICO DEPARTMENT OF ENERGY AND MINERALS

IN THE MATTER OF THE APPLICATION
OF DOYLE HARTMAN FOR
COMPULSORY POOLING,
UNORTHODOX WELL LOCATION AND
NON-STANDARD PRORATION UNIT,
LEA COUNTY, NEW MEXICO.

CASE 6701

APPLICATION

Comes now, DOYLE HARTMAN, by and through his undersigned attorneys and, as provided by Section 70-2-17, New Mexico Statutes Annotated, 1978 Compilation, hereby makes application for an order pooling all of the mineral interests in the Pennsylvanian formation in and under the SE/4 of Section 30, Township 21 South, Range 36 East, N.M.P.M., Lea County, New Mexico. Applicant further seeks approval of an unorthodox gas well location and creation of a non-standard proration unit and in support thereof would show the Commission:

1. Applicant is the owner of 50.0% of the working interest in the Eumont Gas Pool in and under the SE/4 of Section 30, Township 21 South, Range 36 East, N.M.P.M., Lea County, New Mexico, and applicant has a right to drill thereon.

2. Applicant proposes to dedicate the above-referenced unit to the Doyle Hartman No. 1 J.K. Rector Well located in the SW/4 of said Section 30.

3. Applicant has sought and obtained either voluntary agreement for pooling or farmout from all other working

interests in the SW/4 of said Section 30 except for Texaco, Inc., owners of a 50.0% working interest.

4. Said pooling of interest and well completion will avoid the drilling of unnecessary wells, will prevent waste and will protect correlative rights.

5. In order to permit the applicant to obtain its just and fair share of the oil and gas underlying the subject lands, the mineral interests should be pooled and applicant should be designated the operator of the No. 1 J. K. Rector Well.

6. Applicant seeks the establishment of a 160-acre non-standard proration unit in the Jalmat formation comprising all of the SE/4 of said Section 30.

7. Applicant further seeks an exception to the well location requirements of Oil Conservation Division Rule 104 C II (a) for the above referenced unorthodox location for the No. 1 J. K. Rector Well.

WHEREFORE, Applicant prays that this application be set for hearing before the Division's duly appointed examiner, and that after notice and hearing as required by law, the Division enter its order approving the unorthodox well location, the non-standard proration unit and pooling the lands, together with provisions designating the Applicant as operator of the well, providing for Applicant to recover its costs of drilling, equipping and completing the well, its costs of supervision while drilling, and after completion, including overhead charges

and a risk factor for the risk assumed by the Applicant in drilling, completing and equipping the well, and making such other and further provisions as may be proper in the premises.

Respectfully submitted,

CAMPBELL AND BLACK, P.A.

By _____
William F. Carr
Post Office Box 2208
Santa Fe, New Mexico 87501
Attorneys for Applicant

RECEIVED
OCT
OIL CONSERVATION DIVISION
SANTA FE

BEFORE THE

OIL CONSERVATION DIVISION

NEW MEXICO DEPARTMENT OF ENERGY AND MINERALS

IN THE MATTER OF THE APPLICATION
OF DOYLE HARTMAN FOR
COMPULSORY POOLING,
UNORTHODOX WELL LOCATION AND
NON-STANDARD PRORATION UNIT,
LEA COUNTY, NEW MEXICO.

CASE 6701

APPLICATION

Comes now, DOYLE HARTMAN, by and through his undersigned attorneys and, as provided by Section 70-2-17, New Mexico Statutes Annotated, 1978 Compilation, hereby makes application for an order pooling all of the mineral interests in the Pennsylvanian formation in and under the SE/4 of Section 30, Township 21 South, Range 36 East, N.M.P.M., Lea County, New Mexico. Applicant further seeks approval of an unorthodox gas well location and creation of a non-standard proration unit and in support thereof would show the Commission:

1. Applicant is the owner of 50.0% of the working interest in the Eumont Gas Pool in and under the SE/4 of Section 30, Township 21 South, Range 36 East, N.M.P.M., Lea County, New Mexico, and applicant has a right to drill thereon.

2. Applicant proposes to dedicate the above-referenced unit to the Doyle Hartman No. 1 J.K. Rector Well located in the ~~SW/4~~ SE/4 of said Section 30.

3. Applicant has sought and obtained either voluntary agreement for pooling or farmout from all other working

interests in the ~~SW/4~~ SE/4 of said Section 30 except for Texaco, Inc., owners of a 50.0% working interest.

4. Said pooling of interest and well completion will avoid the drilling of unnecessary wells, will prevent waste and will protect correlative rights.

5. In order to permit the applicant to obtain its just and fair share of the oil and gas underlying the subject lands, the mineral interests should be pooled and applicant should be designated the operator of the No. 1 J. K. Rector Well.

6. Applicant seeks the establishment of a 160-acre non-standard proration unit in the ~~Jalmat~~ Eumont formation comprising all of the SE/4 of said Section 30.

7. Applicant further seeks an exception to the well location requirements of Oil Conservation Division Rule 104 C II (a) for the above referenced unorthodox location for the No. 1 J. K. Rector Well.

WHEREFORE, Applicant prays that this application be set for hearing before the Division's duly appointed examiner, and that after notice and hearing as required by law, the Division enter its order approving the unorthodox well location, the non-standard proration unit and pooling the lands, together with provisions designating the Applicant as operator of the well, providing for Applicant to recover its costs of drilling, equipping and completing the well, its costs of supervision while drilling, and after completion, including overhead charges

and a risk factor for the risk assumed by the Applicant in drilling, completing and equipping the well, and making such other and further provisions as may be proper in the premises.

Respectfully submitted,

CAMPBELL AND BLACK, P.A.

By s/ William F. Carr

William F. Carr
Post Office Box 2208
Santa Fe, New Mexico 87501
Attorneys for Applicant

RECEIVED
OCT 0 1979
OIL CONSERVATION DIVISION
SANTA FE

BEFORE THE

OIL CONSERVATION DIVISION

NEW MEXICO DEPARTMENT OF ENERGY AND MINERALS

IN THE MATTER OF THE APPLICATION
OF DOYLE HARTMAN FOR
COMPULSORY POOLING,
UNORTHODOX WELL LOCATION AND
NON-STANDARD PRORATION UNIT,
LEA COUNTY, NEW MEXICO.

CASE 6701

APPLICATION

Comes now, DOYLE HARTMAN, by and through his undersigned attorneys and, as provided by Section 70-2-17, New Mexico Statutes Annotated, 1978 Compilation, hereby makes application for an order pooling all of the mineral interests in the Pennsylvanian formation in and under the SE/4 of Section 30, Township 21 South, Range 36 East, N.M.P.M., Lea County, New Mexico. Applicant further seeks approval of an unorthodox gas well location and creation of a non-standard proration unit and in support thereof would show the Commission:

1. Applicant is the owner of 50.0% of the working interest in the Eumont Gas Pool in and under the SE/4 of Section 30, Township 21 South, Range 36 East, N.M.P.M., Lea County, New Mexico, and applicant has a right to drill thereon.

2. Applicant proposes to dedicate the above-referenced unit to the Doyle Hartman No. 1 J.K. Rector Well located in the SW/4 of said Section 30.

3. Applicant has sought and obtained either voluntary agreement for pooling or farmout from all other working

interests in the SW/4 of said Section 30 except for Texaco, Inc., owners of a 50.0% working interest.

4. Said pooling of interest and well completion will avoid the drilling of unnecessary wells, will prevent waste and will protect correlative rights.

5. In order to permit the applicant to obtain its just and fair share of the oil and gas underlying the subject lands, the mineral interests should be pooled and applicant should be designated the operator of the No. 1 J. K. Rector Well.

6. Applicant seeks the establishment of a 160-acre non-standard proration unit in the Jalmat formation comprising all of the SE/4 of said Section 30.

7. Applicant further seeks an exception to the well location requirements of Oil Conservation Division Rule 104 C II (a) for the above referenced unorthodox location for the No. 1 J. K. Rector Well.

WHEREFORE, Applicant prays that this application be set for hearing before the Division's duly appointed examiner, and that after notice and hearing as required by law, the Division enter its order approving the unorthodox well location, the non-standard proration unit and pooling the lands, together with provisions designating the Applicant as operator of the well, providing for Applicant to recover its costs of drilling, equipping and completing the well, its costs of supervision while drilling, and after completion, including overhead charges

and a risk factor for the risk assumed by the Applicant in drilling, completing and equipping the well, and making such other and further provisions as may be proper in the premises.

Respectfully submitted,

CAMPBELL AND BLACK, P.A.

By s/ William F. Carr

William F. Carr
Post Office Box 2208
Santa Fe, New Mexico 87501
Attorneys for Applicant

BEFORE THE

OIL CONSERVATION DIVISION

NEW MEXICO DEPARTMENT OF ENERGY AND MINERALS

IN THE MATTER OF THE APPLICATION
OF DOYLE HARTMAN FOR
COMPULSORY POOLING,
UNORTHODOX WELL LOCATION AND
NON-STANDARD PRORATION UNIT,
LEA COUNTY, NEW MEXICO.

CASE 6071

APPLICATION

Comes now, DOYLE HARTMAN, by and through his undersigned attorneys and, as provided by Section 70-2-17, New Mexico Statutes Annotated, 1978 Compilation, hereby makes application for an order pooling all of the mineral interests in the Pennsylvanian formation in and under the SE/4 of Section 30, Township 21 South, Range 36 East, N.M.P.M., Lea County, New Mexico. Applicant further seeks approval of an unorthodox gas well location and creation of a non-standard proration unit and in support thereof would show the Commission:

1. Applicant is the owner of 50.0% of the working interest in the Eumont Gas Pool in and under the SE/4 of Section 30, Township 21 South, Range 36 East, N.M.P.M., Lea County, New Mexico, and applicant has a right to drill thereon.

2. Applicant proposes to dedicate the above-referenced unit to the Doyle Hartman No. 1 J. K. Rector Well located in the SE/4 of said Section 30.

3. Applicant has sought and obtained either voluntary agreement for pooling or farmout from all other working

interests in the SE/4 of said Section 30 except for Texaco, Inc., owners of a 50.0% working interest.

4. Said pooling of interest and well completion will avoid the drilling of unnecessary wells, will prevent waste and will protect correlative rights.

5. In order to permit the applicant to obtain its just and fair share of the oil and gas underlying the subject lands, the mineral interests should be pooled and applicant should be designated the operator of the No. 1 J. K. Rector Well.

6. Applicant seeks the establishment of a 160-acre non-standard proration unit in the Eumont Gas Pool comprising all of the SE/4 of said Section 30.

7. Applicant further seeks an exception to the well location requirements of Oil Conservation Division Rule 104 C II (a) for the above-referenced unorthodox location for the No. 1 J. K. Rector Well.

WHEREFORE, Applicant prays that this application be set for hearing before the Division's duly appointed examiner, and that after notice and hearing as required by law, the Division enter its order approving the unorthodox well location, the non-standard proration unit and pooling the lands, together with provisions designating the Applicant as operator of the well, providing for Applicant to recover its costs of drilling, equipping and completing the well, its costs of supervision while drilling, and after completion, including overhead charges

and a risk factor for the risk assumed by the Applicant in drilling, completing and equipping the well, and making such other and further provisions as may be proper in the premises.

Respectfully submitted,

CAMPBELL AND BLACK, P.A.

By s/ William F. Carr

William F. Carr
Post Office Box 2208
Santa Fe, New Mexico 87501
Attorneys for Applicant

CAMPBELL AND BLACK, P.A.
LAWYERS

JACK M. CAMPBELL
BRUCE D. BLACK
MICHAEL B. CAMPBELL
WILLIAM F. CARR
PAUL R. CALDWELL

POST OFFICE BOX 2208
JEFFERSON PLACE
SANTA FE, NEW MEXICO 87501
TELEPHONE (505) 988 4421

October 4, 1979

Mr. Joe D. Ramey
Division Director
Oil Conservation Division
New Mexico Department of Energy & Minerals
Post Office Box 2088
Santa Fe, New Mexico 87501

Re: Application of Doyle Hartman for Unorthodox Well Location, Non-Standard Proration Unit and Infill Findings, Lea County, New Mexico

Dear Mr. Ramey:

Enclosed in triplicate is the application of Doyle Hartman in the above-referenced matter.

The applicant requests that this matter be included on the docket for the examiner hearing scheduled to be held on October 17, 1979.

Very truly yours,

William F. Carr

WFC:lr

Enclosures

cc: Mr. Doyle Hartman
Mr. James A. Davidson

CASE 6680: (Continued from October 2, 1979, Examiner Hearing)

Application of Robert C. Anderson for surface commingling, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for the surface commingling of all production from his Ute Mountain Ute Lease, Wells Nos. 1, 3 and 4, located in Section 14, Township 31 North, Range 16 West.

CASE 6631: (Continued from August 22, 1979, Examiner Hearing)

Application of Reserve Oil, Inc. for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Jalmat gas and Langlie Mattix oil production in the wellbore of its Cooper Jal Unit Well No. 149-306 located in Unit J of Section 18, Township 24 South, Range 37 East.

CASE 6700: Application of Doyle Hartman for an unorthodox well location, a non-standard proration unit, and approval of infill drilling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of a 120-acre non-standard proration unit comprising the NW/4 NW/4 and S/2 NW/4 of Section 29, Township 25 South, Range 37 East, Jalmat Gas Pool, to be dedicated to a well to be drilled at an unorthodox location 2310 feet from the North line and 330 feet from the West line of said Section 29; applicant further seeks a waiver of existing well spacing requirements and a finding that the drilling of said well is necessary to effectively and efficiently drain that portion of the existing proration unit which cannot be so drained by the existing well.

BBES Bates

CASE 6701: Application of Doyle Hartman for compulsory pooling, non-standard gas proration unit, unorthodox well location, and approval of infill drilling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Seven Rivers-Queen formations underlying the SE/4 of Section 30, Township 21 South, Range 36 East, Eumont Gas Pool, to form a 160-acre non-standard gas proration unit to be dedicated to his J. K. Rector Well No. 1 at an unorthodox location 2310 feet from the South line and 330 feet from the East line of said Section 30. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well. Applicant further seeks a waiver of existing well spacing requirements and a finding that the drilling of said well is necessary to effectively and efficiently drain that portion of the existing proration unit which cannot be so drained by the existing well.

Rector

CASE 6676: (Continued from October 2, 1979, Examiner Hearing)

Application of Doyle Hartman for an unorthodox well location and a non-standard proration unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of an 80-acre non-standard gas proration unit comprising the SW/4 NE/4 and SE/4 NW/4 of Section 36, Township 24 South, Range 36 East, Jalmat Gas Pool, to be dedicated to a well to be drilled at an unorthodox location 2310 feet from the North line and 1650 feet from the East line of said Section 36.

Cuber to be continued

CASE 6664: (Continued from September 19, 1979, Examiner Hearing)

Application of Doyle Hartman for an unorthodox well location, two non-standard proration units and approval of infill drilling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of a 40-acre non-standard proration unit comprising the NW/4 SW/4 of Section 27, Township 25 South, Range 37 East, Jalmat Pool, to be dedicated to El Paso Natural Gas Company's Harrison Well No. 1, and also a 120-acre unit comprising the E/2 SW/4 and SW/4 SW/4 of said Section 27 to be dedicated to a well to be drilled at an unorthodox location 330 feet from the South and West lines of the section; applicant further seeks a waiver of existing well spacing requirements and a finding that the drilling of said well is necessary to effectively and efficiently drain that portion of an existing proration unit which cannot be so drained by the existing well.

Sam Fe

CASE 6662: (Continued from September 19, 1979, Examiner Hearing)

Application of Supron Energy Corporation for a dual completion and downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion of its Jicarilla "A" Well No. 22Y located in Unit K of Section 24, Township 26 North, Range 4 West, to produce gas from the Blanco Mesaverde Pool through tubing and to commingle and produce the Wildhorse Gallup and Basin-Dakota zones through a parallel tubing string.

CASE 6702: Application of El Paso Natural Gas Company for downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of South Blanco Pictured Cliffs and Blanco Mesaverde production in the wellbore of its San Juan 27-5 Unit Well No. 67 located in Unit B of Section 31, Township 27 North, Range 5 West.

Called in by Bill Carr
9/27/79

Doyle Hartman
Compulsory Pooling, NSP Unit,
Unorthodox Well Location,
Approval of Infill Drilling
J. K. Rector #1
2310/S & 330/E
30-21S-36E
Seven Rivers-Queen
Eumont Gas Pool
160-acre NSP
SE/4 of Sec. 30

ROUGH

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
DIVISION FOR THE PURPOSE OF
CONSIDERING:

CASE NO. 6701
Order No. R-6202

APPLICATION OF DOYLE HARTMAN FOR
COMPULSORY POOLING, NON-STANDARD
GAS PRORATION UNIT, UNORTHODOX WELL
LOCATION, AND APPROVAL OF INFILL
DRILLING, LEA COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on October 17, 1979, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this _____ day of ~~December~~ Jan, 1980, ~~1979~~, the Division Director, 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 Division has jurisdiction of this cause and the subject matter thereof.

(2) That the applicant, Doyle Hartman, seeks an order pooling all mineral interests in the Seven Rivers-Queen formation of the Eumont Gas Pool underlying the SE/4 of Section 30, Township 21 South, Range 36 East, NMPM, Lea County, New Mexico, to be dedicated to his J. K. Rector Well No. 1 at an unorthodox location 2310 feet from the South line and 330 feet from the East line of said Section 30.

(3) That applicant further seeks a finding that the drilling of said well is necessary to effectively and efficiently drain that portion of the existing proration unit which cannot be so drained by the existing well.

(4) That the applicant is the operator of the NE/4 SE/4 and the SW/4 SE/4 of said Section 30 under the provisions of a farmout agreement with Texaco Inc., which retained ownership of the NW/4 SE/4 and SE/4 SE/4 of said Section 30.

(5) That Texaco Inc. currently has two wells in the SE/4 of Section 30 which are classified as oil wells in the Eumont Pool, said wells being Texaco's J. K. Rector Well No. 2 located in the SE/4 SE/4 and its J. K. Rector Well No. 3 located in the NW/4 SE/4.

(6) That the aforesaid Texaco Wells are completed in and producing from the Yates formation, ~~which is the~~ in which formation ~~in which~~ applicant's J. K. Rector Well No. 1 is also completed.

(7) That to pool the SE/4 of Section 30 to form a 160-acre unit to be dedicated to applicant's J. K. Rector Well No. 1 would result in the dedication of 160 acres to applicant's well and the simultaneous dedication of the two 40-acre tracts upon which the two Texaco wells are located, all three wells producing from the Yates formation of the Eumont Pool.

(8) That such simultaneous dedication would result in said lands receiving a double allowable, and would not protect correlative rights.

(9) That the application for compulsory pooling should be denied.

(10) That the applicant is entitled to and should receive the opportunity to produce his just and equitable share of the gas in the Eumont Gas Pool underlying the NE/4 SE/4 of the aforesaid Section 30, and such opportunity can best be afforded him by the approval of a non-standard 40-acre gas proration unit for said pool comprising said lands.

(11) That approval of said 40-acre non-standard gas proration unit will not cause waste nor impair correlative rights.

(12) That inasmuch as the 40-acre non-standard proration unit upon which applicant's J. K. Rector Well No. 1 is located is not an existing proration unit nor a portion of an existing proration unit, there being only one other well located thereon, an old well which was plugged and abandoned in 1947, there is no necessity for the requested findings ~~in this case~~ that applicant's J. K. Rector Well No. 1 is an infill well necessary to effectively and efficiently drain the existing proration unit, and that portion of this case should be dismissed.

IT IS THEREFORE ORDERED:

(1) That the application of Doyle Hartman for an order pooling all mineral interests in the Seven Rivers-Queen formation of the Eumont Gas Pool underlying the SE/4 of Section 30, Township 21 South, Range 36 East, NMPM, Lea County, New Mexico, is hereby denied.

(2) That a 40-acre non-standard gas proration unit comprising the NE/4 SE/4 of said Section 30 is hereby approved for the Eumont Gas Pool, to be dedicated to applicant's J. K. Rector Well No. 1 at an unorthodox location 2310 feet from the South line and 330 feet from the East line of said Section 30.

(3) That the application for infill findings relative to the aforesaid J. K. Rector Well No. 1 is hereby dismissed.

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

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